

**ARMY
MARINE CORPS**

**TM 11-7025-297-10
TM 10690A-10**

OPERATOR'S MANUAL

**ADVANCED FIELD ARTILLERY TACTICAL
DATA SYSTEM (AFATDS)**

**OPERATIONAL SYSTEM
SOFTWARE VERSION 6.3.1**



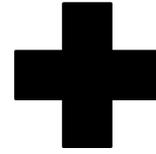
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**DEPARTMENT OF THE ARMY AND HEADQUARTERS, MARINE CORPS
1 November 2002**

WARNING



5

SAFETY STEPS TO FOLLOW IF SOMEONE IS THE VICTIM OF ELECTRICAL SHOCK

1

DO NOT TRY TO PULL OR GRAB THE INDIVIDUAL

2

IF POSSIBLE, TURN OFF THE ELECTRICAL POWER

3

IF YOU CANNOT TURN OFF THE ELECTRICAL POWER, PULL, PUSH, OR LIFT THE PERSON TO SAFETY USING A WOODEN POLE OR A ROPE OR SOME OTHER INSULATING MATERIAL

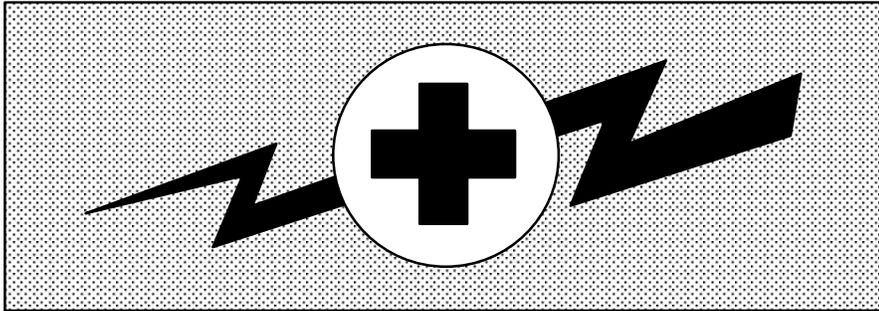
4

SEND FOR HELP AS SOON AS POSSIBLE

5

AFTER THE INJURED PERSON IS FREE OF CONTACT WITH THE SOURCE OF ELECTRICAL SHOCK, MOVE THE PERSON A SHORT DISTANCE AWAY AND IMMEDIATELY START ARTIFICIAL RESUSCITATION

WARNING



HIGH VOLTAGE

is used in the operation of this equipment

DEATH ON CONTACT

may result if personnel fail to observe safety precautions

Never work on electronic equipment unless there is another person nearby who is familiar with the operation and hazards of the equipment and who is competent in administering first aid. When the technician is aided by operators, he must warn them about dangerous areas.

Whenever possible, the power supply to the equipment must be shut off before beginning work on the equipment. Take particular care to ground every capacitor likely to hold a dangerous potential. When working inside the equipment, after the power has been turned off, always ground every part before touching it.

Be careful not to contact high-voltage connections or 120 volt ac input connections when installing or operating this equipment.

Whenever the nature of the operation permits, keep one hand away from the equipment to reduce the hazard of current flowing through the body.

WARNING: DO NOT BE MISLED BY THE TERM "LOW VOLTAGE". POTENTIALS AS LOW AS 50 VOLTS MAY CAUSE DEATH UNDER ADVERSE CONDITIONS.

For Artificial Respiration, refer to FM 21-11.

TECHNICAL MANUAL
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Washington, DC, 1 November 2002

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ADVANCED FIELD ARTILLERY
TACTICAL DATA SYSTEM (AFATDS)

OPERATIONAL SYSTEM SOFTWARE VERSION 6.3.1

REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-LC-LEO-D-CS-CFO, Fort Monmouth, New Jersey 07703-5000. The FAX number is 732-532-1413, DSN 992-1413. You may also e-mail your recommendations to AMSEL-LC-LEO-PUBS-CHG@cecom3.monmouth.army.mil. A reply will be furnished to you.

ARMY TM 11-7025-297-10
MARINE CORPS TM 10690A-10

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How To Use This Manual

Maximum coverage of the AFATDS features is provided by creating new data in each procedure. Each window entry and selection available is described. Data editing is accomplished by performing selected steps within a procedure. The user must determine which steps are required during an edit. Using the manual index, window descriptions, and navigation diagrams, the user determines the procedure and window that contains the required fields and functions. The window is then opened and editing performed. Notes embedded in a procedure refer the operator to the applicable steps when editing. Notes that pertain to a step precede the applicable step. Therefore the operator must read any note that precedes a referenced step.

References to another procedure will be in the same format as contained in the alphabetical index. For example, if a reference to a paragraph (e.g., see paragraph on Unit Configuration) appears, the user would find Unit Configuration as an index entry.

Typographical conventions used in this manual are:

- **Boldfaced** type represents actual legends as they appear on the display (e.g., window titles, menus, entry fields, etc.).
- **<Key>** represents a key on the keyboard. The word or character within angle brackets is the actual legend as printed on the key.
- The backslash (\) is used as a separator of menu selections. This is used when a menu has cascading or submenus. For example, the System menu contains a Configuration selection that opens a menu containing a Unit selection. The menu path used to select Unit in this example is shown in text as **System\Configuration\Unit**.
- Key words are underlined in procedural steps. This aids the experienced user in that the entire step does not have to be read in order to perform the function of the step.

CHAPTER 1 GENERAL

SECTION 1 GENERAL INFORMATION

1-1 SCOPE.

- Type of Manual: Operator's.
- Model Number and Equipment Name: Advanced Field Artillery Tactical Data System (AFATDS) version 6.3.1 software.
- Purpose of Equipment: The purpose of the AFATDS application is to provide a platform for the management and planning of the Fire Support/Field Artillery aspects of the battlefield.
- Location of Equipment: The AFATDS application will normally be located at the Operational Facilities at each Fire Support and Field Artillery echelon.

1-1.1 Consolidated Index of Publications and Blank Forms.

1-1.1.1 Army.

Refer to the latest issue of DA Pam 25-30 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

1-1.1.2 Marine Corps.

Refer to the latest issue of SL-1-2 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

1-1.2 Maintenance Forms, PMCS, MAC, COEIL/BII AAL, and E/DSML.

1-1.2.1 Army.

For maintenance forms, PMCS, and MAC, COEIL/BII, AAL, and E/DSML appendices, refer to the appropriate hardware maintenance manual for your equipment.

1-1.2.2 Marine Corps.

Marine Corps maintains forms and procedures as prescribed by TM-4700-15/1.

1-1.3 Destruction of Army Material to Prevent Enemy Use.

Destruction of electronics material to prevent enemy use shall be in accordance with TM 750-244-2.

1-1.4 Handling of Classified Drives and Removable Media.

The handling of classified drives and removable media is to be in accordance with established unit SOI's.

1-1.5 Reporting Equipment Improvement Recommendations (EIR).

1-1.5.1 Army.

If your AFATDS needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the use or performance. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications-Electronic Command and Fort Monmouth, ATTN: AMSEL-LC-LEO-D-CS-CFO, Fort Monmouth, New Jersey 07703-5000. We'll send you a reply.

1-1.5.2 Marine Corps.

A Quality Deficiency Report (QDR) shall be reported on SF 368 (Product Quality Deficiency Report) in accordance with MCO P4855.10 (Product Quality Deficiency Report Manual). Submit to Commander, Marine Corps Logistics Base (Code 856), Albany, Georgia 31704-5000.

1-1.1 List of Abbreviations/Acronyms.

List of Abbreviations/Acronyms

Abbreviation \ Acronym	Definition
A2C2	Army Airspace/Airborne Command and Control
AAS	AFATDS Application Server
Abat	ATACMS Brilliant Anti-tank
ABCA	American, British, Canadian, Australian
ACA	Airspace Coordination Area
ACCS	Army Command and Control System
ACO	Airspace Control Order
AD	Air Drop
ADA	Air Defense Artillery
ADLER	Artillery Data Entry Storage Computer Network
ADZ	Air Defense Zone
AFATDS	Advanced Field Artillery Tactical Data System
AFCS	Artillery Fire Control System
AHA	Ammunition Holding Area
AI	Air Interdiction
AMC	At My Command
AMT	Attack Methods Table
ANBS	Alpha Numeric Blank Special
AOC	Air Operations Center

List of Abbreviations/Acronyms - CONT

Abbreviation \ Acronym	Definition
APAM	Anti-Personnel/Anti-Materiel
APICM	Anti-Personnel Improved Conventional Munitions
APM	Account and Profile Manager
AS	Assault Support
ASAS	All Source Analysis System
ASL	Air Support List
ASR	Air Support Request
ATACMS	Army Tactical Missile System
ATCCS	Army Tactical Command and Control System
ATF	Amphibious Task Force
ATHS	Airborne Target Handover System
ATLAS	Automatisation des Tirs et des Liaisons De l'Artillerie Sol-Sol
ATO	Air Tasking Order
ATOCNF	Air Tasking Order Confirmation
Az	Azimuth
BATES	Battlefield Artillery Target Engagement System
BCS	Battery Computer System
BDA	Battlefield Damage Assessment
BE	Basic Encyclopedia
CAS	Close Air Support
CCU	Common Control Unit
CF	Check Fire
CFF	Call For Fire
CFL	Coordinated Fire Line
CMP	Common Message Processor
COA	Course of Action
COE	Common Operating Environment
COF	Clearance of Fire
CONOPS	Continuity of Operations
CP	Check Point
CP	Command Post
CSR	Critical Supply Rate
CSSCS	Combat Service Support Control System
DB	Database
DCE	Distributed Computing Environment
DCT	Digital Communications Terminal
DII	Defense Information Infrastructure
DMD	Digital Message Device
DNE	Do Not Engage
DNL	Do Not Load
DNVT	Digital Non-secure Voice Terminal
DODAAC	Department Of Defense Activity Address Code
DODAC	Department of Defense Ammunition Code
DODIC	DOD Identification Code

List of Abbreviations/Acronyms - CONT

Abbreviation \ Acronym	Definition
DPICM	Dual Purpose Improved Conventional Munitions
DSA	Dead Space Area
DSVT	Digital Subscriber Voice Terminal
DZ	Drop Zone
ECM	Electronic Counter-Countermeasures
ECOF	Effects Cutoff Factor
EDC	Error Detection and Correction
EFOGM	Enhanced Fiber Optic Guided - Missile
EOM	End of Mission
EPLRS	Enhanced Position Location Reporting System
EPM	External Power Module
EW	Electronic Warfare
FAAD	Forward Area Air Defense
FAADC2I	FAAD Command, Control, and Intelligence
FASCAM	Family of Artillery Scatterable Mines/Family of Scatterable Mines
FBCB2	Force XXI Battle Command Battalion/Brigade and Below
FCS	Fire Control System
FDC	Fire Direction Center
FDS	Fire Direction System
FFA	Free Fire Area
FFE	Fire For Effect
FFZ	Free Fire Zone
FLOT	Forward Line of Own Troops
FMF	Fleet Marine Force
FMFM	Fleet Marine Force Manual
FO	Fire Order
FO	Forward Observer
FPF	Final Protective Fire
FR	Fire Request
FS	Fire Support
FSC	Fire Support Coordinator
FSCC	Fire Support Coordination Center
FSCL	Fire Support Coordination Line
FSCM	Fire Support Coordination Measure
FSCOA	Fire Support Course Of Action
FSW	Fire Support Workstation
FWN	Flown
Fz	Fuze
Ge	Geometry
GSR	General Support Reinforcing
Gu	Guidance
HHQ	Higher Headquarters
HPT	High Payoff Target
HVT	High Value Target

List of Abbreviations/Acronyms - CONT

Abbreviation \ Acronym	Definition
I/EW	Intelligence/Electronic Warfare
IEW	Intelligence and Electronic Warfare
IEW	Intelligence Electronic Warfare
IFM	Initiate Fire Mission
IFSAS	Initial Fire Support Automated System
Illum	Illumination
IOS	Intelligent Operational Server
IP	Intervention Point
JMCIS	Joint Maritime Command Information System
kph	Kilometers per hour
LMM	Loadable Munition Module
LOC	Location
mb	millibar
MBC	Mortar Ballistic Computer
MCOA	Maneuver Course Of Action
MCS	Maneuver Control System
MDS	Meteorological Data System
MEDEVAC	Medical Evacuation
MEF	Marine Expeditionary Force
MET	Meteorological/Meteorology
MFR	Mission Fired Report
MGRS	Military Grid Reference System
MIDB	Modernized Integrated Database
MILID	Military Identification
MLRS	Multiple Launch Rocket System
MOC	Method Of Control
MOE	Measure of Effectiveness
MOI	Move Order Instruction
MOPP	Mission Oriented Protective Posture
MSE	Mobile Subscriber Equipment
MSMB	Multi Story Masonry Building
Msns	Missions
MTO	Message to Observer
MTS	Marine Tactical System
MVR	Maneuver
MVV	Muzzle Velocity Variations
NAK	Negative Acknowledge/Non-Acknowledge
NET	No Earlier Than/Not Earlier Than
NFA	No Fire Area
NLT	Not Later Than
NSFS	Naval Surface Fire System
NSN	National Stock Number
Obs	Observer
OPCON	Operational Control
OPFAC	Operational Facility

List of Abbreviations/Acronyms - CONT

Abbreviation \ Acronym	Definition
OPLAN	Operation Plan
Opnl	Operation Plan
OPORD	Operations Order
PAH	Platoon Area Hazard
PLA	Plain Language Address
POF	Priority Of Fires
PTM	Plain Text Message
RDO	Radar Deployment Order
Rds	Rounds
RECCE	Reconnaissance
Recce	Reconnaissance
Req	Required
REQST	Request
RFA	Restricted Fire Area/Restrictive Fire Area
RFL	Restricted Fire Line/Restrictive Fire Line
Rnds	Rounds
SADARM	Sense and Destroy Armor
SASUM	Supporting Arms Summary
SCP	Survey Control Point
SEAD	Suppression of Enemy Air Defense
SINCGARS	Single Channel Ground and Airborne Radio System
SIR	Sistema Informatico di Reggimento di artiglieria
SPLL	Self Propelled Launcher Loader
SSU	System Support Unit
ST	Suspect Target
TAH	Target Area Hazard
TAI	Targeted Area of Interest
TBMCS	Theater Battle Management Core System
TDA	Target Damage Assessment
TDS	Training Device System
TFD	Technical Fire Direction
TGW	Terminal Guided Warhead
TI	Target Indicator
TLE	Target Location Error
TMM	Target Management Matrix
TOF	Time Of Flight
TOT	Time On Target
TSS	Target Selection Standards
UIC	Unit Identification Code
UTM	Universal Transverse Mercator
Vlys	Volleys
VMF	Variable Message Format
ZOR	Zone of Responsibility

1-1.2 Glossary.

Glossary

Term	Definition
ACA	Airspace Coordination Area. A three dimensional box through which fires must be coordinated to provide friendly aircraft with a measure of safety from friendly surface fires.
ATI	Artillery Target Intelligence. General name used in this system to refer to supporting arms target intelligence.
BCS	Battery Computer System. The AN/GYK-37V communications and battery fire direction system.
CFL	Coordinated Fire Line. A line beyond which conventional surface fire support means may fire at any time within the zone of the establishing HQ without additional coordination.
CHECKFIRE	A command to cause an immediate temporary halt in firing.
D-day	First day of operations.
Data set	A portion of the database that is specific to an item, category, or topic.
DSA	Dead Space Area. An area prohibiting the fire effects of a specific unit or units without coordination. The particular restrictions are given upon establishment of the area.
Easting	Military standard UTM grid reference to the east coordinate value.
FASCAM	Field Artillery Scatterable Mine. General name for artillery-delivered mines, includes ADAM and RAMMS.
FDC	Fire Direction Center. That element of a command post responsible for the operations, intelligence, and communications in support of the delivery of indirect surface fires.
FFA	Free Fire Area. A designated area into which any weapon system may fire without additional coordination.
FFE	Fire For Effect. The action of firing to effect the desired result on a hostile force.
Firefinder	Anti-mortar (AN/TPQ-36) and anti-artillery (AN/TPQ-37) radar sets.

Glossary - CONT

Term	Definition
FLOT	Forward Line Own Troops. The forward-most position of friendly forces.
FO	Forward Observer. An observer with maneuver troops trained to call for and adjust supporting fire and pass battlefield information.
FPF	Final Protective Fire. Tactical mission type indicating an immediately available pre-planned barrier of direct and indirect fires designed to provide close protection to friendly positions and installations by impeding enemy movement into defensive areas.
Freetext	Message format name for a short unformatted digital message; see PTM.
FSCL	Fire Support Coordination Line. A line established to provide coordination of all fires. Supporting elements may attack targets forward of the FSCL without prior coordination provided the attack will not produce adverse surface effects on or to the rear of the line.
FSE	Fire Support Element. A facility established at each echelon from battalion/squadron to corps level staffed and equipped by representatives from each fire support asset responsive to that echelon.
FU	Fire Unit. An indirect fire delivery unit: normally a field artillery cannon/missile battery (or platoon) or a mortar section.
GS	General Support. A tactical mission assignment providing a primary task responsibility to provide fires as directed by the commander of the attached/organic force.
GSR	General Support/Reinforcing. A tactical mission directed by the commander of the attached/organic force with a secondary responsibility to reinforce another (normally DS) unit.
GZ	Grid Zone. The particular grid designation given in the Military Standard Grid Reference System. Each grid zone defines a particular area 6° in longitude from 84° north to 80° south latitude. Grids are numbered from 1 for the first grid with western most boundary at 180° longitude through 60. Grid zones in the southern hemisphere are given negative numbers.
HE	High Explosive. The standard indirect fire munition type which causes damage due to concussion from the burst of the round.
High Value Target List	Used to establish the timing, value, and effects used for the different target categories.

Glossary - CONT

Term	Definition
ICM	Improved Conventional Munitions. General term referring to both Anti-Personnel ICM (APICM) and Dual-Purpose ICM (DPICM). ICM consists of many bomblets which cover a larger area than standard high explosives with equivalent or greater effects. The APICM round is most effective against personnel, the DPICM is most effective against light materiel. Due to their bomblet construction, neither type is particularly effective in wooded areas.
ILLUM	ILLUMination. In the context of this document ILLUM refers to a brightly burning indirect fire munition suspended to illuminate the battlefield.
Keytime	Also known as preamble, keytime is a period of fixed communications activity designed to ensure that the communications devices used are active and stable before beginning actual data transfer.
KNPT	KNown PoinT. Within this document a KNPT is a grid location referred to by a two-digit number. It may be used for several purposes including target location and survey.
MET	METEorological. TACFIRE processing group/category which performs meteorological data storage, communications, and processing.
MTO	Message To Observer. A fire support message passed from a fire direction center to a fire mission requester (normally a forward observer).
NFA	No Fire Area. A designated area into which no fires or effects from fire are allowed.
NORTHING	Military standard UTM grid reference to the north coordinate value.
NSFS	Naval Surface Fire System. Indirect fires delivered by naval vessels.
PAH	Platoon Area Hazard - An area geometry, including a maximum altitude, associated with a platoon firing missiles/rockets. This geometry is intended to warn aircraft of missile/rocket launch activity.
PLT	PLaToon. A relatively small military force. In field artillery terms, a three or four-gun organization. In infantry terms, roughly 100 troops.
Prioritization	The process of listing in order or priority. It is used primarily as mission prioritization in this document; the process of ordering fire missions in accordance with their tactical priority.

Glossary - CONT

Term	Definition
PTM	Plain Text Message. A common term (along with FREETEXT) referring to an unformatted textual communication.
R	Reinforcing. A tactical mission assignment indicating a primary task responsibility to augment the fires of another unit.
RFA	Restricted Fire Area. An area prohibiting the fire effects of specific FS Systems, weapon calibers, munitions, and/or fuzes without coordination. The particular restrictions are given upon establishment of the area.
RFL	Restricted Fire Line. A line established between converging friendly forces to prohibit the fires or effect of fires across the line without further coordination.
Route	A series of route segments joined together to form and identify a specific roadway.
Route Segment	A map geometry that displays the location of roadways.
sysadmin	User name for COE System Administrator.
secman	User name for COE Security Manager.
TAH	Target Area Hazard - An area geometry, including a maximum altitude, associated with a target receiving missile/rocket fire. This geometry is intended to warn aircraft of missile/rocket activity at the target.
Target Management Matrix	Guidance used to establish the timing, value, and effects used for the different target types.
Target Selection Standards	Guidance used to determine if a target exceeds the maximums established for Target Location Error (TLE) and report age.
TBA	Target Buildup Area. An area prohibiting the FS engagement of a specific target type within the area until the number of targets reach a specified threshold established for that target type. The particular restrictions are given upon establishment of the area.

Glossary - CONT

Term	Definition
TLE	Target Location Error. The term referring to the probable error in the reported grid location of a target. The TLE is the effect of many factors and does not normally refer to the particular capability of an individual, but rather to the capabilities of a target acquisition agency as a class.
UTM	Universal Transverse Mercator. The global mapping system used by the US Military between 84° north and 80° south latitudes dividing the earth into sixty grid zones. See also GZ (Grid Zone).
WP	White Phosphorous. Indirect fire munition causing a burning and smoking effect.

1-1.6 Equipment Characteristics, Capabilities, and Features.

The AFATDS application provides quick access to information in the database for viewing and/or editing. Features available to the user in the current battlefield situation include:

- Configuration of equipment and assignment of duties within the operational facility (OPFAC)
- Management and control of the database files
- Configuration of communications
- Monitoring of system performance
- Management of alerts and message traffic
- Establishment of guidances for the utilization of assets
- Mission management for all fire support assets
- A map display containing friendly and enemy units, targets, geometries, and range fans
- Extraction of data via menu selections or map symbols
- Movement control

In the planning environment, the above features are available plus the ability to compare planned courses of action (COA's). Up to three (3) COA's may be compared for each phase of a plan to determine which best serves the battlefield situation.

1-1.7 Location and Description of Major Components.

Refer to the hardware manual for your particular configuration for the location and description of the components that utilize the AFATDS application.

1-1.8 Differences Between Models.

This manual describes only the differences in the screen displays for different hardware models. Refer to the hardware manual for differences in the component models that utilize the AFATDS application.

1-2 **HARDWARE SETUP**

1-2.1 UCU Cabling.

The cabling for a UCU FS Workstation (Figure 1.1) includes both the power distribution and data distribution cables. External AC and/or DC power is supplied to the Uninterruptible Power Supply (UPS) which then supplies AC power to the workstation components. AC power is supplied by the UPS to the monitor, printer, UCU, and External Power Module(s) (EPM). The EPM converts the AC power to +28 Vdc and supplies this to the Tactical Communications Interface Modem(s) (TCIM).

The printer is connected to the parallel port of the UCU. The TCIM's are connected to the UCU Fast/Wide SCSI port in series (daisy-chained) using SCSI (Small Computer System Interface) cables. The output connector (J4) of the last TCIM must be terminated.

NOTE

Printer may be connected to the UCU Parallel Port or to the External or Internal LAN.
When not in use, all LAN BNC connectors must have a LAN terminator installed.

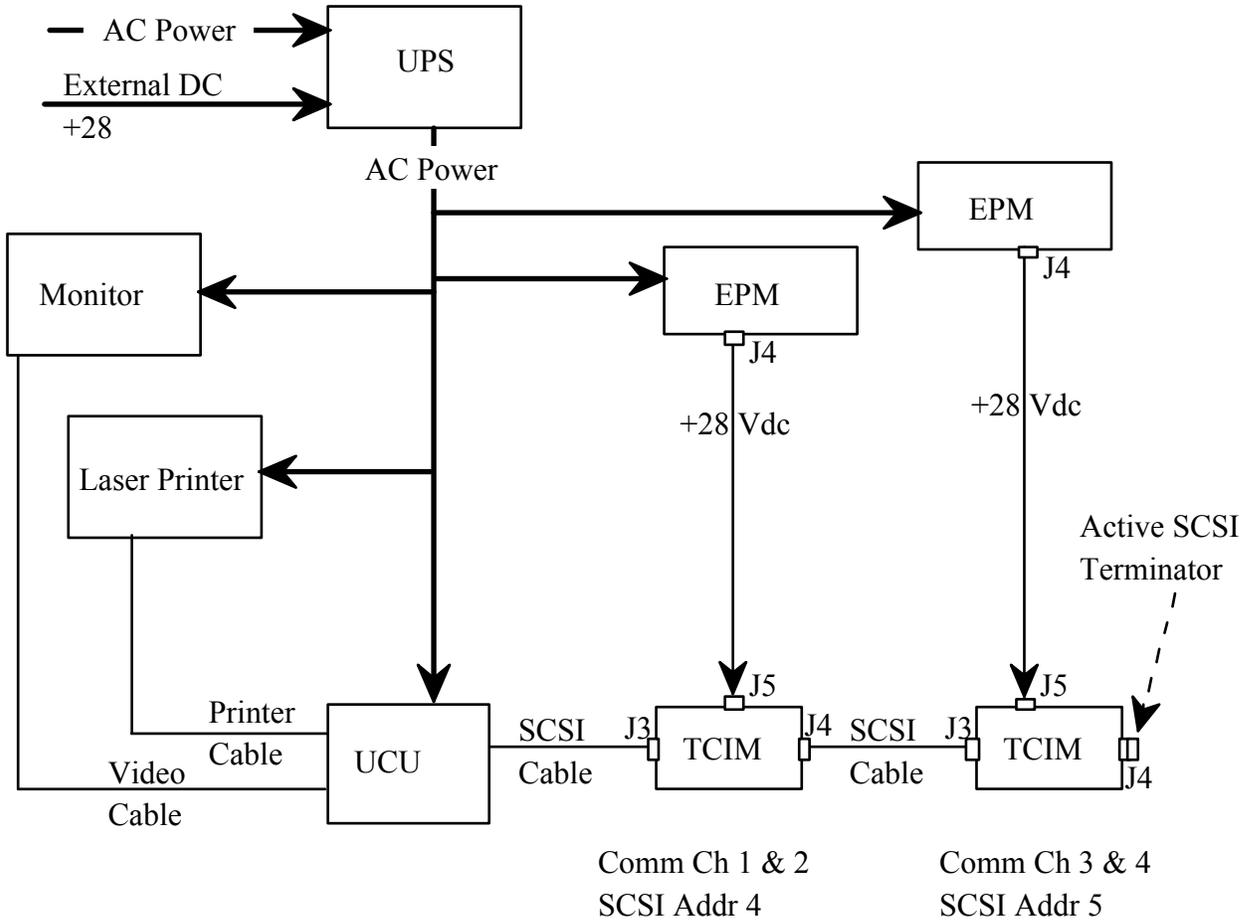


Figure 1.1 UCU Cabling

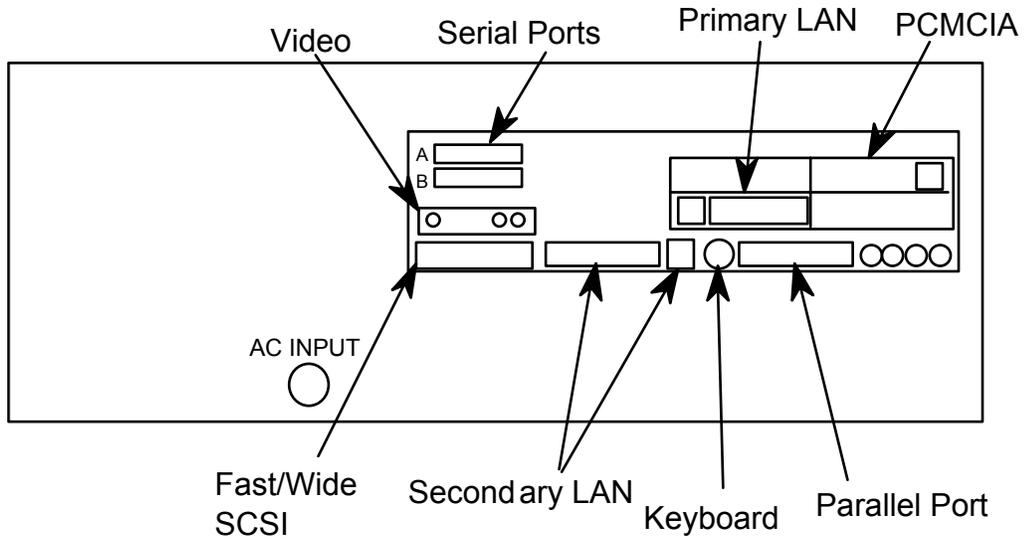


Figure 1.2 UCU Rear View

1-2.2 CCU 2 Cabling.

The cabling for a CCU FS Workstation (Figure 1.3) includes both the power distribution and data distribution cables. External AC and/or DC power is supplied to the Uninterruptible Power Supply (UPS) which then supplies AC power to the workstation components. AC power is supplied by the UPS to the CCU and printer. The printer is connected to the parallel port of the CCU.

NOTE

Printer may be connected to the CCU Parallel Port or to the External or Internal LAN.

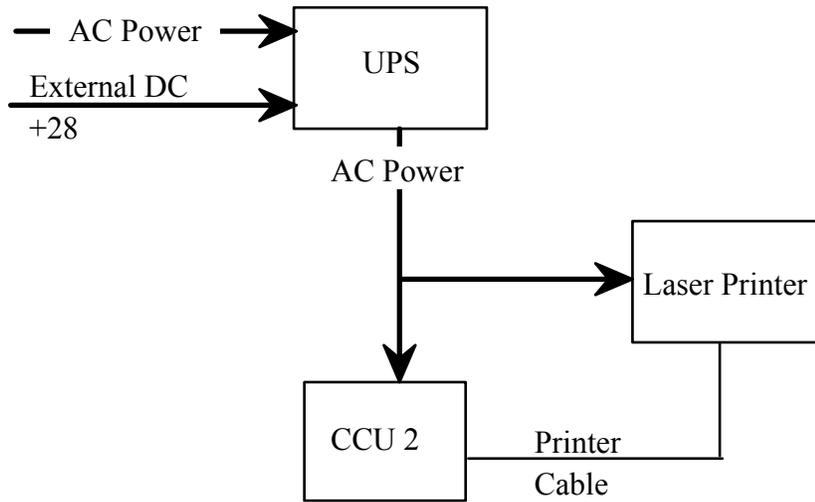


Figure 1.3 CCU-2 Cabling

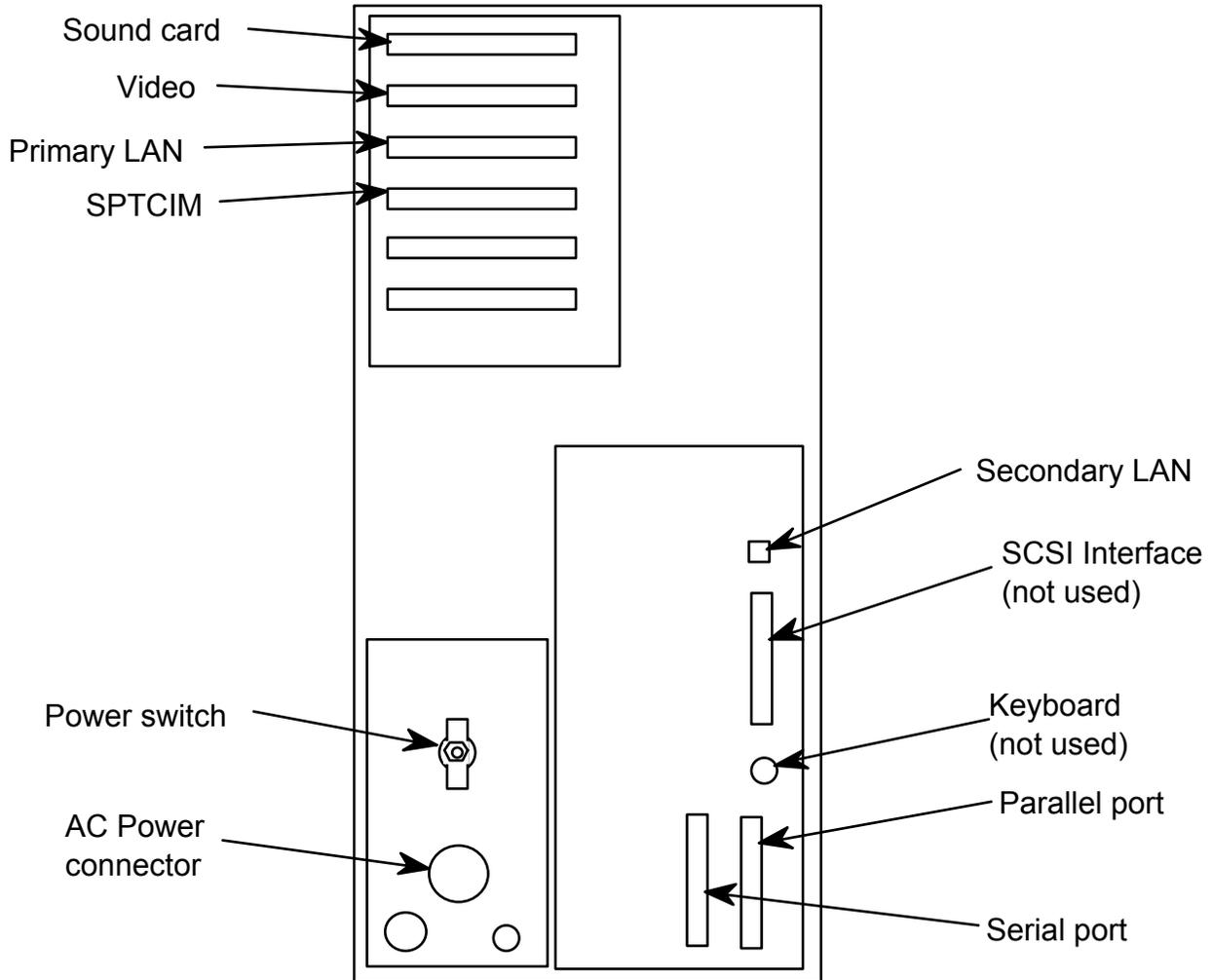


Figure 1.4 CCU Side View

1-3 SCSI ID SETTINGS.

SCSI ID settings must be made to match the SCSI address of a device bay to the SCSI ID of the device in that bay. Illustrations show the locations for the SCSI switches for the UCU (Figure 1.6) and CCU 2 (Figure 1.5). Each switch has a set button at the top and bottom to increment the setting either up or down, respectively. An empty bay is set to zero (0), even if the bay is used without a HDD.

SCSI Device	Address
TCIM 1	4
TCIM 2	5
Removable harddrive	3
2 nd Removable harddrive	0
CD-ROM	6
Optical/Jaz/Flash drive	2

SCSI addresses for TCIM's are set using a push-button switch on the side of the TCIM.

For example, if a CCU 2 has a removable harddrive in bay 1, bay 2 is empty, a CD-ROM in bay 3, and a Jaz drive in bay 4, the switches would be set (top to bottom) to 3, 0, 6, 2.

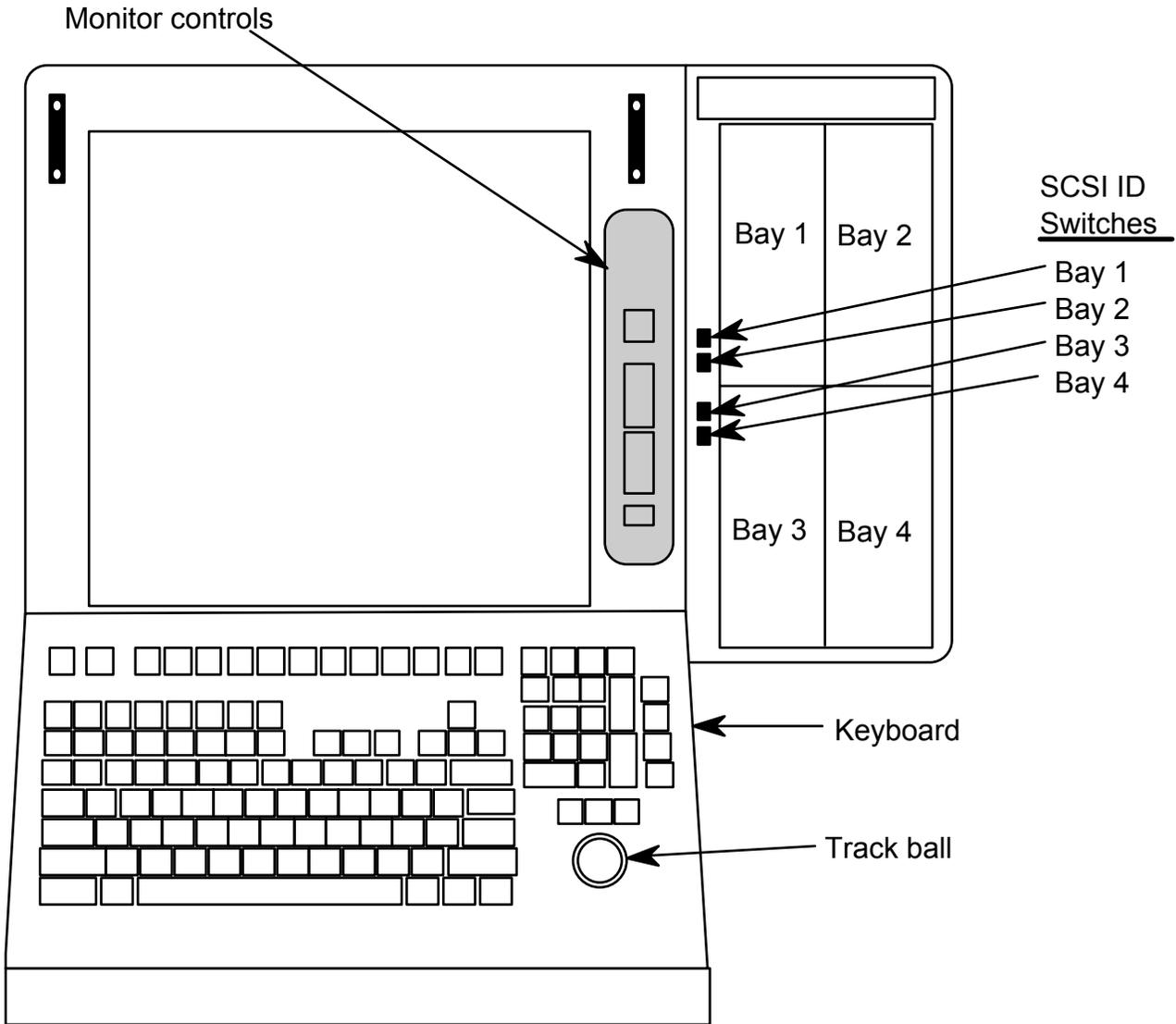


Figure 1.5 CCU-2 Front View

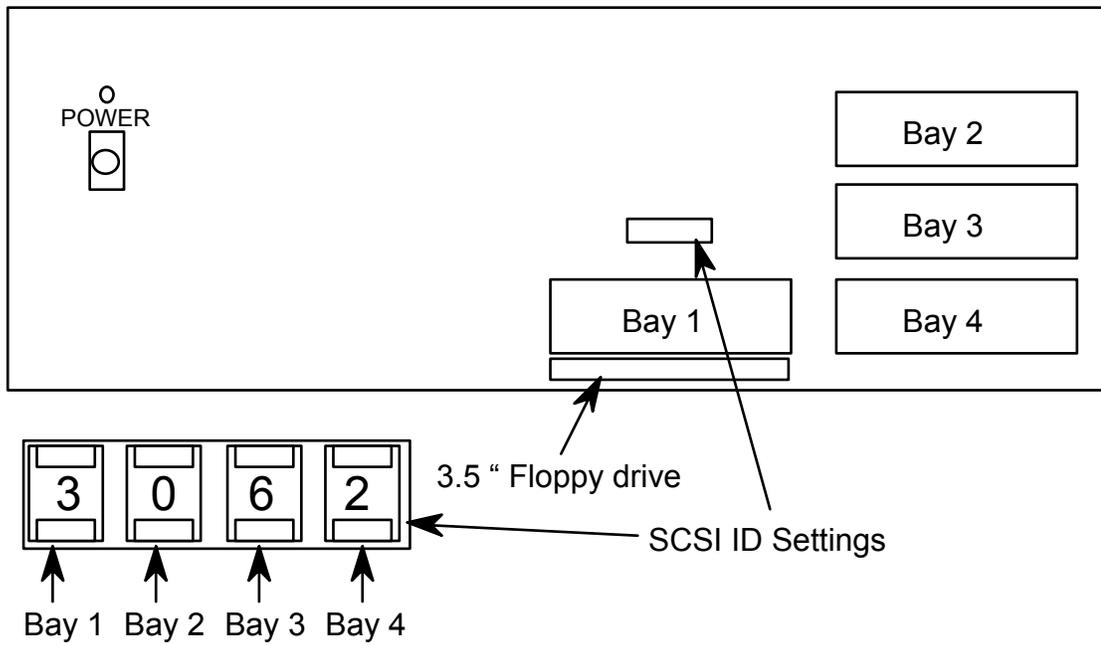


Figure 1.6 UCU Front View

SECTION 2 OPERATOR'S CONTROLS AND INDICATORS

1-4 SCOPE.

The purpose of this chapter is to describe to the user the general controls and functions of AFATDS. The controls descriptions include the monitor, trackball, and keyboard. Databases are defined to inform the user of the structure, control, and management of AFATDS data.

An overview of menus and windows describes the common functions and procedures used to access and manage data. This overview includes a description of the different menu types, cursors, windows, and common window selections and entries.

1-5 UCU/CCU-2 CONTROLS AND INDICATORS.

1-5.1 Monitor Controls.

The monitor controls on the UCU are located behind a panel door below the screen bezel on the front of the monitor. The major controls for power, contrast, and brightness are on the right side of this area. The **Power** control is a push button control that toggles the power on and off. A LED indicator indicates Green when power is on and the screen is active. This LED indicates Yellow when the power is on and in the power save mode. Brightness (a circle with rays extending from perimeter) and contrast (circle that is half filled with black) controls each have + and - buttons to change their respective intensity.

Monitor controls for the CCU 2 (Figure 1.1, page1-13) are located on the monitor bezel to the right of the screen. The brightness (a circle with rays extending from perimeter) and contrast (circle that is half filled with black) controls each have up and down icons to change their respective intensity. Refer to the monitor manual for other controls.

1-5.2 Monitor Resolution.

The monitor display surface consists of a matrix (rows and columns) of small colored cells called pixels. The colors of individual pixels are changed to create display graphics in a manner similar to changing colors of floor tiles to create a pattern. The pixel size determines the amount of detail (sharpness) of the display; the smaller the pixel the greater the degree of detail. The resolution of a monitor is the number of pixels per inch. The resolution of the UCU monitor is 90 pixels per inch. Resolution of the CCU-2 monitor is 128 pixels per inch.

The impact of resolution, other than the sharpness of the display, is the display and selection of coordinate data. As the cursor moves across the map it does so from pixel-to-pixel. Each pixel that the cursor moves equals approximately 280 meters (UCU) on the map if the map scale is set to 1 : 1,000,000 meters. Setting the cursor to a specific coordinate could thereby result in an error of up to ± 140 meters.

Graphics displayed at a scale different than they were created at are displayed at the pixel nearest to the coordinate location. A slight difference may be noticed in the relative position on the display. This difference has no effect on the coordinates as entered in the database.

Reducing the map scale to 1 : 5000 meters on the UCU results in a pixel-to-pixel movement of approximately 1.5 meter. This gives the user much more accuracy in cursor placement. The following table shows the pixel-to-pixel distance for the different map scales.

Relative Scale	Pixel Distance by Scale	
	Pixel-to-pixel distance (meters) UCU	Pixel-to-pixel distance (meters) CCU-2
1:5000	1.5	1
1:6250	2	1.5
1:10,000	3	2
1:12,500	3.5	2.5
1:20,000	5.5	4
1:25,000	7	5
1:31,250	9	6.5
1:40,000	11	7.7
1:50,000	14	10
1:62,500	18	13
1:80,000	22	15.5
1:100,000	28	20
1:125,000	35	24.5
1:200,000	56	40
1:250,000	70	49
1:400,000	112	80
1:500,000	140	98
1:800,000	223	157
1:1,000,000	280	196
1:2,500,000	700	492
1:5,000,000	1400	984
1:10,000,000	2800	1968

1-5.3 Trackball Controls.

The Trackball controls consist of the trackball and three (3) buttons. The trackball is used to control the position of the screen cursor on the monitor display. Trackball rotation causes the screen cursor to move in the direction of the rotation. System software monitors the position of the cursor on the screen. This allows the system to determine the focus (map, symbol, window menu, etc.) for actions initiated by the user. Trackball buttons and/or keystrokes activate functions or select items designated by the cursor. For example, placing the cursor on a window menu and clicking the left trackball button opens the menu display.

The standard trackball has three buttons. Buttons are identified as Left, Center, and Right.

Clicking on an object means to place the cursor on that object and press and release the trackball button. Double clicking means to press and release the button twice rapidly. Depressing a button means to press and hold the trackball button. Clicking with a particular button is sometimes referred to in this manual as left-click, center-click, or right-click.

The left trackball button is used to select items from the map display, menus, or active windows. Selecting is the process of placing the cursor on the item (button, menu, symbol, list item, etc.) to be selected and clicking the left trackball button. The left button is also used to position (drag) windows on the display.

The center trackball button is used to move items. Maps, geometries, and unit symbols may be repositioned on the display. The movement method is referred to as dragging. Dragging is accomplished by placing the cursor on the item and depressing the center trackball button. The trackball is then rotated to move the item to the new position and the trackball button released.

Windows are moved by placing the screen cursor on the title bar and depressing the left button. Unit symbols and geometries must be selected using the left button prior to moving. A geometry can be moved only if the edit window displaying its coordinates is open. Multiple symbols may be selected (refer to Multiple Map Selections paragraph). Placing the screen cursor on a selected symbol, depressing the center button, and rotating the trackball moves all selected symbols. Geometries that are included in a multiple selection will move with the other symbols only if the coordinates window is open. The map is moved by placing the cursor on the map PAN window, depressing the left button, and rotating the trackball.

The center button is also used along with the <Ctrl> key, to enter map coordinates into location fields. Refer to the Location Entries paragraph for a description of this procedure.

The right trackball button activates the pop-up menu for a selected map symbol and windows in some cases. With a single map symbol selected, the right trackball button is depressed to display the pop-up menu for that symbol. Cursor position is not important when activating this button. The right button is also used, with the <Ctrl> key, to select map coordinates used for location field entries. Refer to the Location Entries paragraph for a description of this procedure.

Selections from the keyboard may be used to duplicate trackball functions. A keyboard equivalent exists for each trackball function. Also the functions of trackball buttons are modified for particular usage by keyboard selections (refer to Keyboard Controls paragraph).

1-5.4 Keyboard Controls.

The keyboard consist of a standard QWERTY keypad, a numeric keypad, and function keys. Keystrokes are shown in this manual by the key legend inside less than - greater than symbols (<key>). Keystrokes and/or trackball buttons that are to be accomplished at the same time are indicated with a plus sign (+) separator. For example, <Shift>+<Alt> requires that the keys are to be pressed at the same time. Also, <Shift>+left trackball button requires pressing the shift key while the left trackball button is clicked. The <Shift> key is released following the trackball click.

In addition to the entry of text, the keyboard is also used to duplicate and/or modify functions of the trackball. For example, the arrow keys duplicate the function of the trackball to scroll the map when the map is the active window.

Keyboard selections are also used to modify actions of the trackball buttons and/or other keys. The keys used as modifiers are the diamond key, <Alt>, <Ctrl>, and <Shift>. For example, the <Ctrl> key can be used with the left trackball button to select multiple items from a map display. The normal procedure is to press and hold the modifier key(s) and then press the appropriate key or trackball button.

Trackball/Keystroke Equivalents

Function	Trackball control	Keyboard control
Activate window button	Left click	<space>
Activate menu selection	Left click	<Enter> / <space>
Change active window/menu	Left click on window	<Alt>+<Tab> <Alt>+<Shift>+<Tab> (toggle between current and last active)
Close pull-down menu	Left click (off menu)	<Esc>
Display PAN window (toggle)		<F6>
Display Re-center cursor (toggle)	Left click (on icon)	<F4>
Display Zoom-area cursor (toggle)	Left click (on icon)	<F1>
Drag PAN window	Left click + rotate (on PAN window)	Arrow keys (small increment) or <Shift> + <Ctrl> + Arrow keys (large increment)
Move in pull-down menu	Left depress (browse method)	Arrow keys
Select route segment (move function)	<Shift> + <Alt> + <Left click>	<Shift> + <Alt> + <S>
Toggle between window fields and window menus.	Left click	<F10>

1-6 AFATDS SCREEN.

The AFATDS screen Figure 1.7, page 1-22, consists of four major components. The Status bar is located at the top of the screen and is used to display alert counters, workstation information and times. The **Main Menu Bar** is located below the Status bar and displays general usage menu selections. The center portion of the screen (displaying the map window) is used to display the maps and other windows accessed by the operator. These three components are displayed only after AFATDS has been started.

The Task bar is displayed after DII COE login and is available to all users including sysadmin, secman, and operators. Functions available from the Task bar are dependent on the type of login.

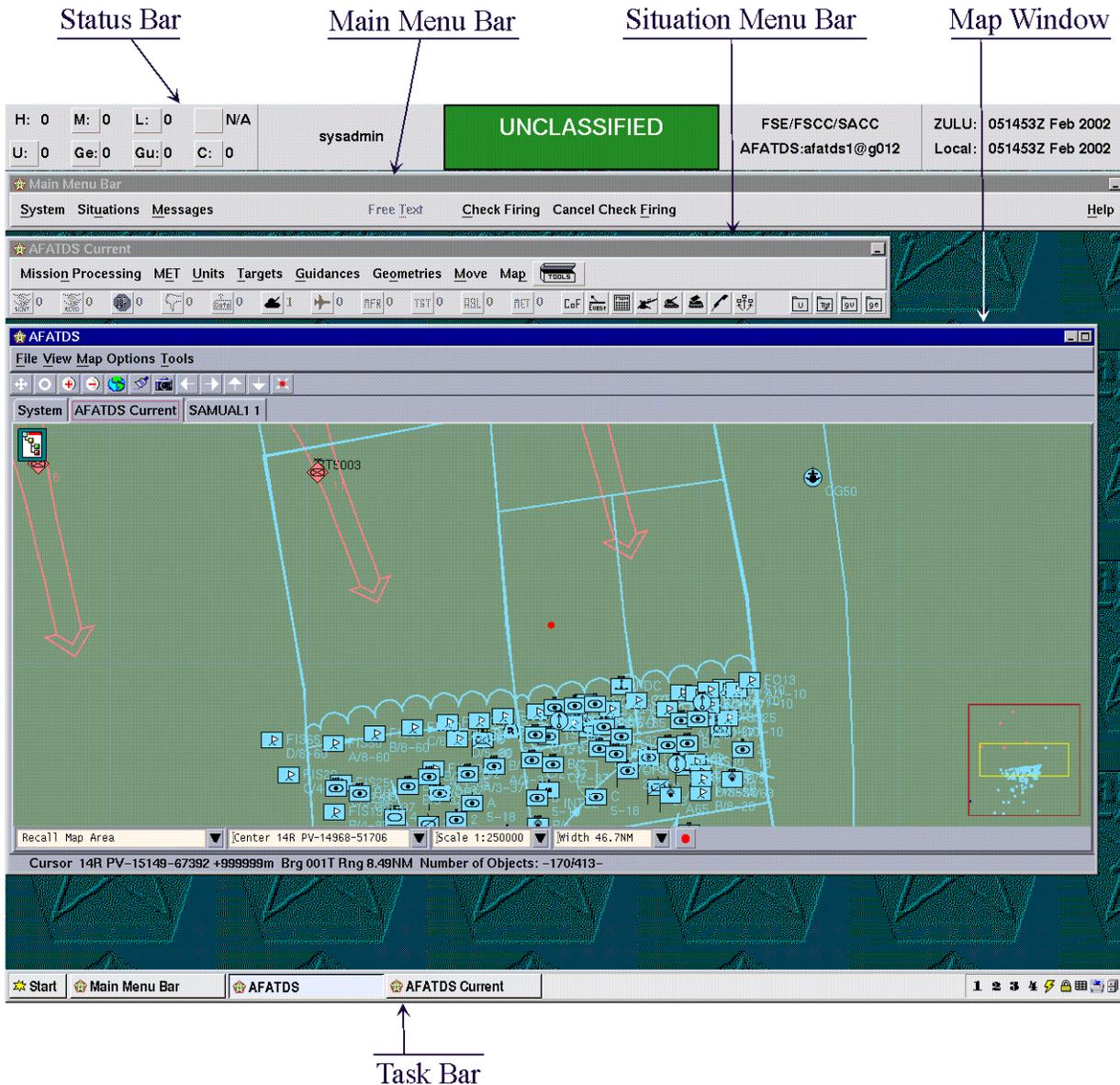


Figure 1.7 AFATDS Screen

1-6.1 Status Bar.

The Status bar appears across the top of the screen. This bar displays information about the OPFAC and workstation. The first set of displays contain the number of alerts in each of the alert lists. The fields indicate the number of high (H:), medium (M:), low (L:), unit status (U:), geometry (Ge:), guidance (Gu:), and communications (C:) alerts. The high (H:) level alerts are displayed automatically when received. The counts increase with each received alert and decrease with each alert deleted from the lists. When an alert is present in any of the lists, the **Messages** selection in the main menu will be displayed in reverse video (light letters on a dark background). The M: and number of medium alerts will also be displayed in reverse video if the display of these alerts is suspended. The communication alert indicator will display N/A prior to activation or if the workstation does not have the communication administrator assignment.

The **(M:)**, **(L:)**, **(U:)**, **(Ge:)**, **(Gu:)**, and **(C:)** are displayed on buttons. Pressing one of these buttons opens the appropriate alert or alert list. The mailbox icon displays the number of unread CMP messages that have been received.



Figure 1.8 Status Bar

The second display is the workstation name. If a name is not assigned, the LAN card ID is displayed.

The third display is the workstation security classification. The background of this field will be Green for UNCLASSIFIED, Blue for any CONFIDENTIAL Classification Level, Red for any SECRET Classification Level, and Orange for SCI or TOP SECRET. AFATDS will not run at CONFIDENTIAL, SCI, or TOP SECRET. Upon installation of classified data, the workstation's classification must be changed to the desired level of classification. Once a workstation has been elevated to Secret level, it cannot be changed to UNCLASSIFIED unit it has been purged of all Secret data.

The fourth display indicates the role of the OPFAC. This field will be blank until the unit configuration is activated. Also displayed is the system that is activated (e.g., AFATDS) and the E-mail address. The E-mail address is the operator name (e.g., afatds1) @ host station (e.g., g012).

The fifth display is the system clock. The time is displayed in the standard DTG format. This field can be set to display the time for any time zone as well as the default time zone **Z** (zulu). This is done via the **System\Administration\Set Times** selection.

1-6.2 Main Menu Bar.

The Main Menu is a pull-down menu and is positioned across the top of the screen below the Status bar. This menu contains selections basic to the operation of the system. For example, editing the OPFAC's communications configuration is common to all situations and is accessed via the Main Menu. Selections for **System**, **Situations**, **Messages**, **Free Text**, **Check Firing**, **Cancel Check Firing**, and **Help** are always present in the Main Menu. **Free Text** is enabled only after a communications configuration is enabled.

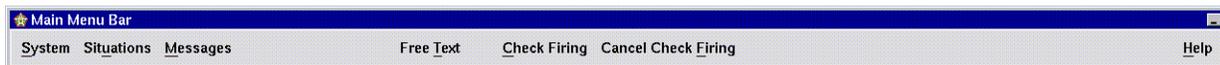


Figure 1.9 Main Menu Bar

1-6.3 Situation Menu Bar.

When viewing one of the situation maps (i.e., current or planning), selections will be available on the map menu that pertain to the situation being viewed. For example, editing of a unit for Plan SAMUEL 1 phase 1 is done via the menu bar on the map window for that plan/phase. These menu bars contain a Tool-Box icon that toggles the display of the Tool Bar icon selections.

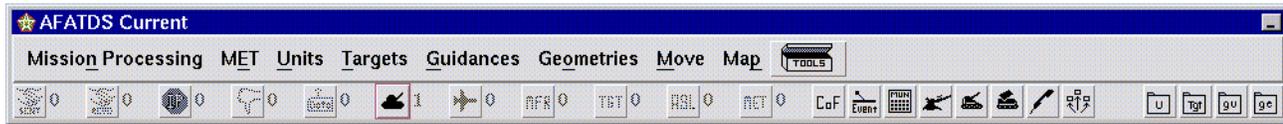


Figure 1.10 Current Situation Menu Bar

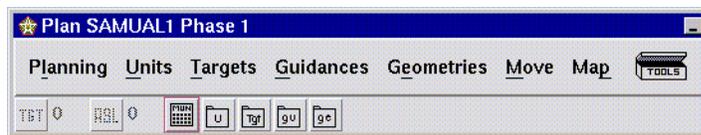


Figure 1.11 Planning Situation Menu Bar

1-6.4 Task Bar.

The Task bar is located at the bottom of the AFATDS screen. This bar has two major functions during AFATDS operations. The first is the **Start** button. This button accesses menu selections for COE and operating system functions including **Start\AFATDS**. The available functions are dependent on the type of login (e.g., sysadmin, secman, afatds1, etc.).

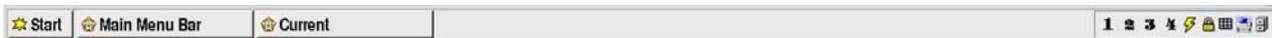


Figure 1.12 Task Bar

The second major function is the display of icon buttons. For the Main Menu Bar and each window that is opened that contains minimize (iconize) capability, an icon button will be displayed. Left-clicking a Task Bar button will restore, activate, and/or bring the corresponding window to the front of the display. Right-clicking the button will display, at the button, the window manager menu for the window.

The numbers, **1** to **4**, are used to select different sessions that can be displayed for use by the operator. If AFATDS is being run on the default session (**1**), a different session can be selected and used to perform other functions without the display of the normal AFATDS windows. For example, another session can be selected to view windows for Database Utilities, system logs, or manuals. Double-clicking the number selects the session.

1-6.5 Window Management.

All windows in the AFATDS system, except the Status Bar and Task Bar contain a window management menu at the left side of the title bar. This menu can be accessed by placing the cursor on the AFATDS logo at the left side of the title bar and depressing the left trackball button. Key combinations diamond key + <space> and <Shift> + <Esc> also open this menu. This menu contains selections of **Restore**, **Move**, **Size**, **Minimize**, **Maximize**, **Lower**, and **Close**. Each selection contains a mnemonics character assignment. The selections available depend on the window.



The **Minimize**, **Maximize**, and **Restore** selections allow the user to enlarge (**Maximize**) the window to full screen, reduce (**Minimize**) the window to an icon, or **Restore** the window to default size.

The **Move** selection causes the cursor to change to a cross symbol and become positioned at the center of the window. Moving the cursor causes an outline of the window frame to move from the window in the direction of cursor movement. Selecting the left trackball button will reposition the window inside the frame and centered on the cursor. The window may also be moved by placing the cursor on the title bar and depressing the left trackball button while rotating the trackball in the direction of desired movement.

The **Lower** selection changes the focus of the display. Windows in the same focus as the window from which the menu selection is made from will be placed behind any other windows from another focus.

Some windows can be resized horizontally and vertically. Selecting **Size** from the window manager, causes the cursor to change to a cross with an arrow at the end of each line. As the cursor is positioned at the window border it changes to a single line with an arrowhead pointing out from the window. In this state, the cursor captures the edge of the window and an outline frame moves with the cursor. Positioning the cursor and selecting the left trackball button causes the window to be resized to the frame. This is true at all sides of the window as well as the corners.

Windows are also resized by positioning the cursor at a side or corner causing the cursor to change to an arrow. The left trackball button is then depressed and the trackball rotated to establish the resize frame. Releasing the trackball button causes the window to be resized to the frame.

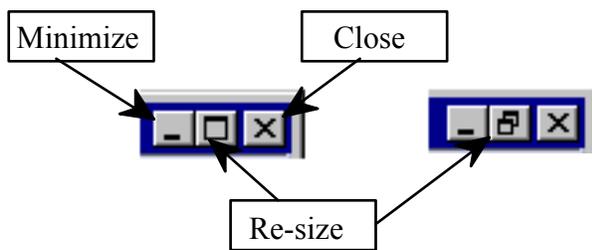


Figure 1.13 Window Control Icons

The map and **Icon** windows contain minimize and re-size buttons at the top right corner. Selecting the minimize button reduces the window to an icon. The re-size button is enabled only after the window has been re-sized by one of the previously described methods. Once a window has been re-sized, the re-size button toggles the window between the modified window size and the default size.

1-7 DATABASE AND DATASETS.

A database is a collection of information (data) which can be managed by the user or external OPFAC's within AFATDS. Data that relates to a specific item, category, or topic is referred to as a set of data or dataset. For example, data on a weapon (caliber, location, firing rate, etc.) would be found in the database as a dataset for that weapon. Datasets may include and/or maintain relationships to other datasets. For example, a firing unit's dataset would include the dataset on its weapons.

The database is accessed via the window functions of AFATDS. The user accesses these windows to view, edit, create, and/or delete data.

Windows contain a relationship that determines when data is entered (saved) into the database. This relationship is referred to as a parent/child relationship. A child window is opened from a parent window and is used to enter data that supports, details, or supplements the parent window data. A child window may also be a parent for another window. Closing a child window causes the parent window to become the active window. Data is normally saved to a database when a top level parent window containing the data is closed using the **OK** button. Closing the parent window will cause the child window to close also.

NOTE

Data is also saved if included in any send function. For example, if a new geometry is created, the geometry is saved to the database when the Geometry Information window is closed via OK. If the user sends the geometry prior to closing the window, the data is saved to the database upon completion of the send function.

Access to datasets is controlled through the use of assignments and privileges. Each of these is described in the following paragraphs.

1-7.1 Assignments.

Assignments are specific functions that are assigned to a workstation. A function that is to be performed only at one (1) workstation at a time is an assignment. Most menu selections are available at all workstations. Menu selections that access a function associated with an assignment are available only at the assigned workstation. The following table shows the assignments and the selections that are restricted to them.

Selections Restricted to Assignments

Assignment	Selection
System Administrator	System\Administration\Set Times System\Administration\Master Unit List System\Administration\Clients/Users System\Administration\Backup Database System\Administration\Restore Database System\Administration\LMM

Selections Restricted to Assignments - CONT

Assignment	Selection
System Administrator - Cont	System\Emergency Purge System\Mission Critical List
Comm Administrator	System\System Tools\Event Log - Options\Display Filter... System\Configuration\Communications\Current System\Configuration\Communications\Planned... System\Configuration\Communications\Air Support...
Message Monitor	Messages\Received Messages Messages\Message Log Messages\Deferred Message Log Messages\Configure Printing Setup Messages\Configure Receiving Setup
Mission Monitor	Mission Processing\Attack Option Ranking Mission Processing\Intervention Points Mission Processing\Attack Analysis Level

1-7.2 Privileges.

A privilege is an access that is given to a user for a dataset that has restricted access. Privileges are tied to an assignment in that the workstation must have the assignment. Any user making the selection that has not been granted privilege for the dataset will be denied access. Privileges are assigned to a user group via the **System\Administration\User Groups** selection. Users are then assigned to a group via the **System\Administration\Users** selection. The following table shows the privileges and the selections that are restricted to them.

Selections Restricted to Privileges

Privilege	Selection
Mission processing	Mission Processing\Attack Option Ranking Mission Processing\Intervention Points Mission Processing\Attack Analysis Level
User account access	System\Administration\Users System\Administration\User Groups
Display security event/violation	System\System Tools\Event Log - Options>Delete...
Master Unit List access	System\Administration\Master Unit List

Selections Restricted to Privileges- CONT

Assignment	Selection
Communications	System\Configuration\Communications\Current System\Configuration\Communications\Planned... System\Configuration\Communications\Air Support...
Plan maintenance	Situations\New Plan Situations\Received Plan Current - Preview Delete (All navigation) New Plan... (All navigation) New Phase... (All navigation)
Implement plan	Situations\Implement Plan

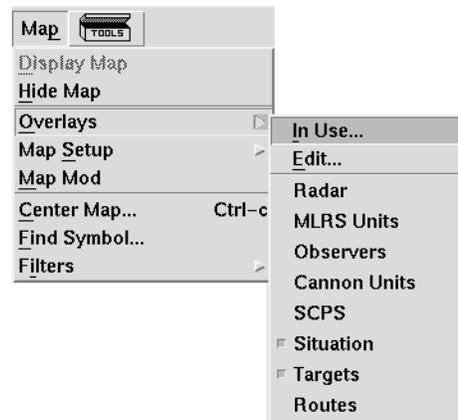
1-8 MENUS AND WINDOWS OVERVIEW.

1-8.1 Pull-down and Pop-up Menus.

Pull-down and pop-up menus contain lists of functions and selections that are available to the user. These menus are associated with items within AFATDS such as: main menu, map windows, map symbols, and window fields.

1-8.1.1 Pull-down Menus.

Pull-down menus are those menus that are associated with a visible category displayed in a menu bar or on a window. Pull-down menus are activated using four (4) different methods. The first method is to place the cursor on a category from the menu and click the left trackball button. This causes a box to be displayed around the selected category. The selected category then displays the menu. Placing the cursor on a menu selection and clicking the left trackball button initiates the selection.



The second (browse) method is to depress and hold the left trackball button. Each menu entry will be boxed as the cursor is positioned at that entry. Releasing the trackball button with a boxed entry selects that entry. In the example shown, **Map** from the Planning Menu and **Overlays** from the pull-down menu is being selected.

NOTE

The mnemonic method of menu selections can be used for the Main Menu and the current or planning map window menus. This method requires that the Main Menu or the window containing the menu be the active element of the focus. For example, if the focus is the current map, the map window must be active. The mnemonic selection will not function if a child window is the active window.

The third method is the use of mnemonic characters. A mnemonic character is a single character that is associated with a menu selection. The mnemonic appears on a menu selection as an underlined character. On the menu bars (main, current, and planning), holding down the **<Alt>** key and typing the underlined character displays the menu. The map window must be the active window prior to activating the map window menu via mnemonics. After the menu opens, typing the single character (without **<Alt>**) opens and/or initiates the menu selection.

A fourth method uses the **<F10>**, arrow, and **<space>** keys. This method can be used for any window that contains a pull-down menu and the Main Menu, depending on the focus. The menuing function is activated by selecting **<F10>**. This places the cursor (box) on the left most category of the menu. The left and right arrow keys are used to move the cursor from category-to-category in the menu. The menu for a category is displayed by selecting the **<space>** or the down arrow key. The menu is scrolled by the up and down arrow keys to select the desired item. The selection is initiated by the **<space>** key.

Some menu selections have a cascading or sub menu. An arrow to the right of the selection indicates a sub menu. Selecting an item that has a sub menu displays the sub menu. **Map\Grid>Show Lines** describes a menu location. This example locates **Show Lines** as a sub menu selection of the **Grid** selection from the **Map** menu.

Menus that involve a selection from a list of candidates indicate which selection(s) are currently active by displaying the check box for that selection depressed. For example, the **Map\Overlays** menu selection cascades to a menu that lists the currently available overlays. Each listed overlay has an associated check box to the left of the overlay name. These check boxes are used to toggle the display of overlays on and off for the map being viewed. The overlay will be displayed if the check box is selected.

Some menu selections also contain accelerator keys used to directly access their functions. The **Center Map...**, **Initiate Fire Mission**, and **Emergency Purge** menu selections shown here are followed by key-stroke combinations (**CTRL-c**, **CTRL-i**, and **CTRL-b** respectively). These symbols indicate the key strokes that are used as a shortcut to activate these menu selections. Typing **<Ctrl>+<x>** at the keyboard turns on the display of the grid lines in the same manner as the **Map\Grid>Show Lines** menu selection. The screen focus must be on the appropriate parent window/screen for the menu selection. For example, the map menu accelerator keys will not function if the focus is not on the Map window/screen. The following table lists the accelerator keys available.

NOTE

Accelerator entries must be in lower case (small) letters. Ensure that the cap lock function is turned off.

Accelerator Keys	
Menu selection	<Ctrl> + key
Messages\New...	n
Exit Current/Plan	e
Map\Center Map...	c
Mission Processing\Initiate Fire Mission	i
System\Emergency Purge	b
System\Quick Print Window	p
System\Exit	d
Targets\Target Lists\Active	t
Units\Edit This Unit	u

Some menu selections are followed by an ellipsis (...) such as the **Map\Center Map...** selection. This indicates that another action will be required prior to completion of the function. In this case, the user must enter the centering coordinates on the **Center on Grid** window which opens with the **Map\Center Map...** selection. The ellipsis is also a good indicator as to whether or not an action will require a confirmation.

1-8.1.2 Pop-up and Option Menus.

Pop-up menus are those menus that appear as a result of an action performed on a map symbol or a button within a window. Buttons that contain pop-up menus are also referred to as option menus and are identified by a small rectangle or triangle on the right side of the button. Selecting this button displays the associated menu.



Figure 1.14 Pop-up and Option Menu

Map symbol pop-up menus are accessed by first selecting the symbol and then activating the menu by holding the right trackball button down. Selections are then made from the menu and the trackball button released.

1-8.2 Cursors.

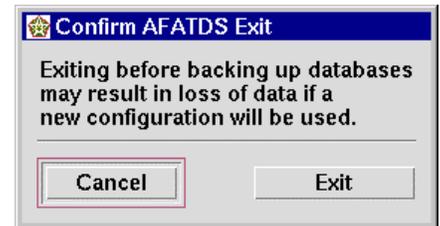
The cursors are used to designate items and positions on the monitor screen or windows. The cursors are of two (2) types. The first type is the screen cursor. This is the cursor that appears on the screen as an arrow and moves as the trackball is rotated. The screen cursor will change to a hour glass when positioned on a window that has a function in process (e.g., enabling a Communication configuration or deleting event log entries, etc.). Other functions can be performed while this process is running.

The second type of cursor is the window cursor. The position of this cursor is indicated by a box or dark border drawn around the item at the cursor location. This box appears around buttons, window menus, direct-entry fields, and list items. The box cursor may appear as a solid or dashed line in list items. Selecting an item on a window with the screen cursor moves the window cursor to the selected item and activates the selection. The window cursor can also be moved within the window via the <Tab> and arrow keys. Moving the cursor using the <Tab> and arrow keys places the cursor only; the <space> key must be pressed to activate the selection.

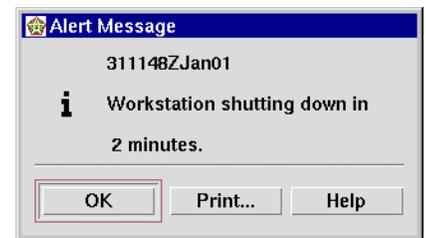
1-8.3 Windows.

Windows are the visual interface between the user and the maps and database of the AFATDS system. Windows are rectangular boxes that appear on the screen as a result of actions performed by the user or a system function. These actions include menu selections and selections made from currently open windows. Windows are of three basic types; dialog, alert, and standard.

The first type is a dialog window. A dialog window normally offers the user the option of making a single entry or confirming a pending action. The **Confirm Shutdown** window shown appears after the user has selected to shutdown AFATDS. The only selections are to **Cancel** or confirm the shutdown. Selecting **Exit** confirms the action.



The second window type is an alert window. This window is opened by the system to notify the user of a condition that exists within the system. The types of alerts are warnings, errors, and information. The alert window shown is an information alert. Information alerts will have an **i** displayed to the left of the information text. This **i** is replaced with a **⊗** symbol for error alerts and an exclamation point (!) for warning alerts. They are also divided into priorities of high, medium, and low. Alert windows are described in the **Messages** paragraphs.



The third and most used (standard) window type displays numerous fields of information. These windows allow the user to display, enter, and/or modify data in a dataset. The user may have multiple windows of this type open at any given time. With multiple windows open, only one (1) window may be active at any given time. A blue border and title bar indicates the active window. Selecting any visible portion of an inactive window (gray border and title bar) activates the window. Parent window function are inactive when child windows are displayed.

The standard window type contains data lists, direct-entry fields, pop-up menus, pull-down menus, and function buttons all of which are described in this chapter. Some windows contain multiple pages.

Next Page and **Previous Page** selections are provided on some of these windows. These selections open a window(s) containing the additional page(s).

Windows that support multiple functions, such as the **Select Unit** window, will have selections grayed-out if the selection is not appropriate to the function being performed. For example, the **Delete** button would be grayed-out on the **Select Unit** window if the window is opened to select a unit when creating a move requirement.

In this manual, the term Enabled is used for available or selectable functions and fields. Disabled is used to describe items that are grayed-out (not available).

1-8.3.1 Create, Edit, Select, and View Modes.

Functions and capabilities available for some windows and fields are dependent upon the method used to access the window. Create, edit, select, and view are the terms used to describe modes that result from the access method.

The create mode describes the procedures used following a selection that initiates the creation of a new dataset in the database (e.g. geometry, unit, plan, etc.).

The edit mode allows the user to change information in the database. In this case the information changes, but the item being edited retains its' identity. For example, editing a unit may change the location of the unit but does not change the unit ID.

In the select mode a window, normally a list type window, allows a user to select an item to be used as an entry on another window or as an input for another function. In this mode, other functions of the window (e.g., New, Copy, or Edit) are disabled.

In the view mode, the information is view only. No changes or entries to the database are allowed through a view only window.

1-8.3.2 Window Selections Navigation.

Window field and button selections can be accomplished in various manners. One method is the direct selection using the trackball to position the cursor on an item. With the cursor positioned, the left trackball button is clicked to activate the field or button.

The **<Tab>** and arrow keys may also be used to navigate between fields and buttons on an active window. Pressing **<Tab>** moves the cursor between groups in a left-to-right, top-to-bottom manner. Only those fields and buttons that are enabled will be included in the tabbing sequence (e.g., the **Weapon Model**: field will be enabled and included in the tabbing sequence when creating a new weapon but not when editing an established unit. Depressing the **<Shift>** key when tabbing between groups will reverse the cursor direction. The cursor is tabbed to the first item in each group. The arrow keys are then used to position the cursor on an item within a group.

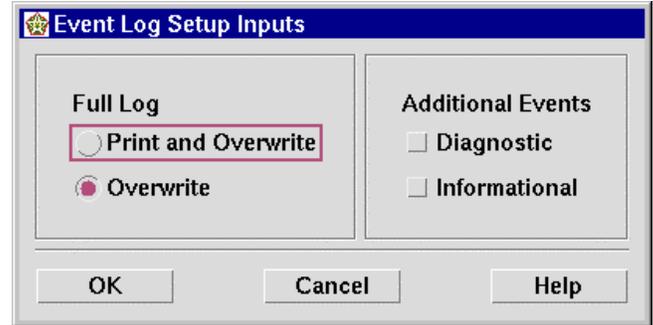
Groups are not always identified by window marking such as lines or boxes. Generally a vertical stack of direct-entry fields, a series of radio buttons or check boxes, and function buttons are grouped respectively. Each pop-up menu, transfer arrow, scroll bar, value bar, and selection list are treated as a separate group.

In the sample window, the heavy lines indicate the grouping of entries. The numbers in each group indicate the forward tabbing sequence. Where more than one entry or selection is contained in a group, the cursor moves to the top or left item within the group.

The <F10> key is used to toggle the cursor between the window menu and the current position in a window field. For example, if the cursor is at the **Weapon Model:** button, pressing <F10> causes the cursor to move to the left-most window menu selection. The arrow keys are used to select the appropriate menu and <space> pressed to open the menu. The arrow keys are then used to select a menu item. The <space> is pressed to activate the item. With a menu open, pressing <Esc> closes the menu. Pressing <F10> closes the menu and toggles the cursor back to the previous window field.

1-8.3.3 Radio Button/Check Box Selections.

Radio buttons are so named because of the actions of the buttons on a car radio. When one button is selected (depressed), all other buttons are not selected. Radio buttons used in AFATDS windows are displayed as circles. Buttons are displayed as depressed when selected. Radio buttons are used when one (1) selection is to be made from a set of candidates (e.g., **Full Log**).



The check box is a square that is displayed as depressed when selected. These are used when a selection is a Yes/No or On/Off decision, (e.g., **Additional Events**). Check boxes allow multiple selections within a category.

1-8.3.4 Direct Entries.

The direct-entry field is displayed as a depressed area next to the field title. Entries are made in direct-entry fields, such as the **Workstation Name** field on the **Unit Configuration** window, by keying in text at the keyboard. A typing cursor appears at the first character position within a field when the field is selected. The cursor is displayed as a flashing vertical bar. Text appears on the display as entry is made. Selecting another field or window completes the entry for a field.



CAUTION

When entering text, use of the diamond key or <Ctrl> keys as accelerator keys or keyboard equivalents must be avoided. This action could result in data that is not visible to the user being entered in the database, and lead to database corruption.

Direct-entry fields may have existing text at the time the field is selected. In this case, the user may replace or delete any or all text. Replacing text is the deletion of selected text by entering new text in its place. All selected text is displayed in inverse video. Inverse video is the changing of the display from dark characters on a light background to light characters on a dark background.

The user first selects the text to be replaced or deleted. To select all existing text for deletion, the user triple clicks on the entry field. To select a word or continuous string of characters (no spaces), double click on the word or string. To select a larger portion of existing text, place the system cursor next to the starting point of the text to be selected. Click the left Trackball button to insert the typing cursor. Depress and hold the left trackball button while dragging the typing cursor across the text to be selected. Selected text will then be displayed in inverse video. All selected text is then deleted by pressing the <Back space> key or typing the first character of new text.

Text may be inserted into existing text by placing the typing cursor at the appropriate point and keying in new text. Text to the right of the typing cursor will shift right one character position with each inserted character.

1-8.3.4.1 Required Entries.

Some direct-entry fields are required entries. These fields are displayed with a white background. A required entry does not necessarily require a user action. For example, a direct-entry field that is required may have a default entry displayed. This requires no user action if the default value is appropriate. Fields that are displayed in the normal window color are optional entries. The optional entries may or may not be entered depending on availability of the information.

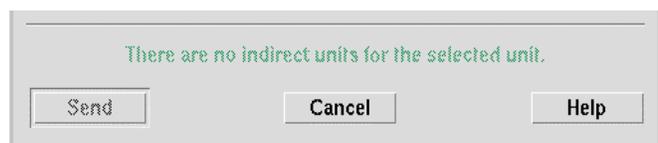
1-8.3.4.2 Legal Entries.

Procedural steps and window descriptions include the legal entries for direct-entry fields. Legal entries can be expressed as a number and type of characters, a range (e.g., 1 to 99 or A to Z), and/or a format (e.g., DTG). In many cases, the legal entry will be of little concern to the user as the entry will reflect established information (e.g., a lot number, actual quantities of weapons and munitions, etc.). Entries that do not have established information such as names of datasets (geometries, overlays, fire plans, etc.), size and attitude of area targets, and timing of events must be entered taking the legal entries into consideration. Codes used to indicate character format (e.g., AANNNN) are as follows:

A	Alphabetic characters
N	Numeric characters
B	Blank characters
S	Special characters
X	Equivalent to ANBS
E	Extended Special Characters (used for Freetext)
L	Lowercase
Numeric range	Range of numeric entries
Number	Number of digits

1-8.3.5 Message Field.

Each window that allows the user to make entries or selections contains a message field. This field is not visible unless a message is being displayed. The field is located just above the bottom buttons on each window. The message is displayed in green and alerts the user to conditions of illegal entries, missing required entries, etc.



1-8.4 Item Selection.

Selection of items from lists, menus, and maps require different methods depending on the type of the item and the selection requirement. Selection requirements may be for a single or multiple selections. A category may have a different behavior depending on the function being performed. For example, the **Select Unit** window contains a list of units available for user selection. If this window is accessed from a window field that requires a single unit entry, the list will be a single-selection list. Only one (1) selection will be allowed. If the **Select Unit** window is accessed from a window that allows multiple unit entries, the list will be a multiple-selection list.

1-8.4.1 Single Selection Lists.

Lists that are single-selection, as well as menus, allow only one (1) item to be selected. Selection of a second or subsequent item deselects any previous selections.

1-8.4.2 Multiple List Selections.

Multiple list selections are made as individual selections. Individual items remain selected as other selections are made. A selected item is de-selected by clicking the item a second time using the left trackball button.

1-8.4.3 Multiple Map Selections.

Multiple map symbol selections may be made as individual selections and/or as an area selection. Individual selections are accomplished by placing the cursor on the symbol to be selected and clicking the left trackball button. The second and subsequent selections are accomplished by a toggle method. The toggle method changes the state (selected, de-selected) of the symbol at the cursor. In the toggle method, the use of the **<Shift>** key modifies the function of the trackball select process. Depressing the **<Shift>** key when selecting a second and subsequent symbol changes the state of the symbol without de-selecting previously selected symbols. The toggle method is also used to de-select a map symbol without changing the state of other selected symbols.

The initial area selection may be accomplished by positioning the cursor at a corner of the area and depress the left trackball button. The user then drags the cursor, with the trackball button depressed, forming a rectangle dimensioned by the horizontal and vertical displacement from the start point.

Adding items and/or area selections is accomplished using the toggle method. Individual items are added or removed as previously described. Additional areas are toggled by dragging across the area with the **<Shift>** key depressed.

1-8.5 Common Window Functions.

The following menus are common to multiple windows. These functions are similar regardless of the window type. Selections will be grayed-out if they are not currently enabled. This will occur, for example, if the window does not contain sufficient information to implement the function.

1-8.5.1 Add.

The **Add...** function is used to add an item to a list of like items. For example, the **Map Setup** window contains a list of **Overlays** used for the setup. Selecting **Add...** opens the **Select Overlay** window that lists the established overlays. Selecting an overlay and **OK** adds the overlay to the listing on the **Map Setup** window. The **Add...** function is disabled when the listing contains the maximum number of entries.

1-8.5.2 Apply.

Some windows contain an apply function that allows the user to implement the function of a window without closing the window. To accomplish this the user clicks the **Apply** button after selections, such as zoom and scale factors, have been made. An exception to this behavior is the **Apply** function on edit geometry windows. This **Apply** is used to add coordinate locations to a geometry under construction and does not save data to the database.

1-8.5.3 Cancel.

The **Cancel** function closes a window without saving any modifications made to the displayed data since the last **Apply** or **Save** function.

NOTE

Cancel should be used, when available, to close a window if no changes were made to the window data. This action maintains the original time stamp on the dataset. This is important in cases where an update is received from another unit. If the received data has a time stamp earlier than the local dataset, the dataset will not be updated with the received data. Therefore the time stamp on a database should not be updated unless an actual change was made.

1-8.5.4 Copy.

This function allows the user to create a new item by copying a portion of the database relating to a specific item (e.g., a unit's information). This selection is normally contained on a window listing the existing items. Selecting an item and **Copy** opens a window displaying the copied data with a blank name field. The user then enters a name for the new item and makes changes to the data as required. For example, selecting a configuration from the **Select Comm Configuration** window and **Copy** opens a window displaying an unnamed configuration containing the data of the selected configuration.

1-8.5.5 Delete.

The **Delete** function is used to remove data from the database. Almost any data that can be entered by the user can be deleted (e.g., geometries, units, targets, configurations, etc.). Data that is deleted cannot be recovered. Therefore the **Delete** selection is normally followed by an ellipsis (...) which indicates that another action, normally a confirmation, is required prior to the actual deletion.

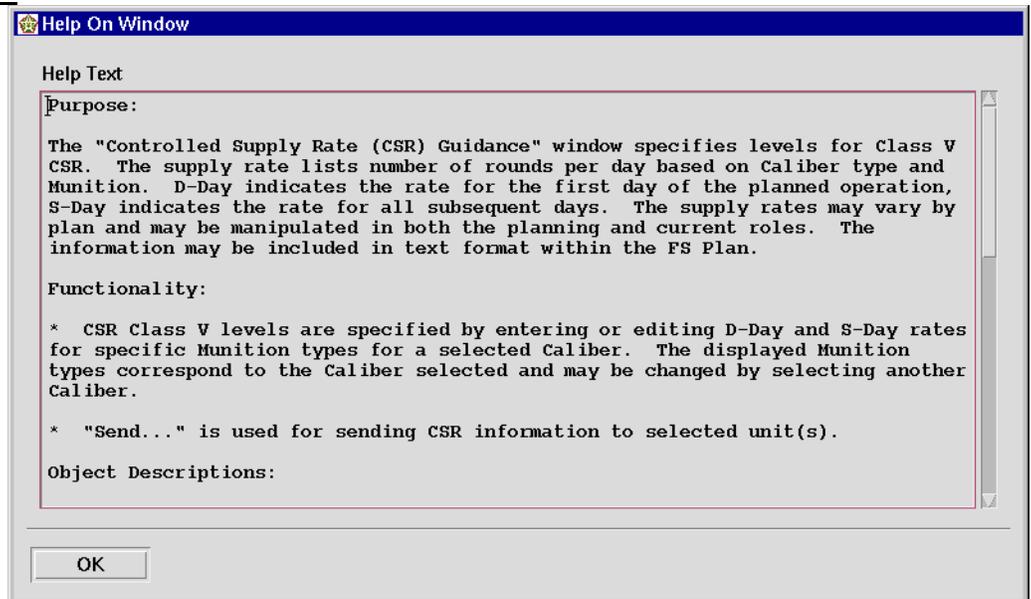
1-8.5.6 Help.

The **Help** menu contains selections that offer the user information about the AFATDS system. Help is available from the main menu for the following selections.

- On Window
- On Keys
- Help Index
- On Help
- On AFATDS
- On Version
- On Copyright

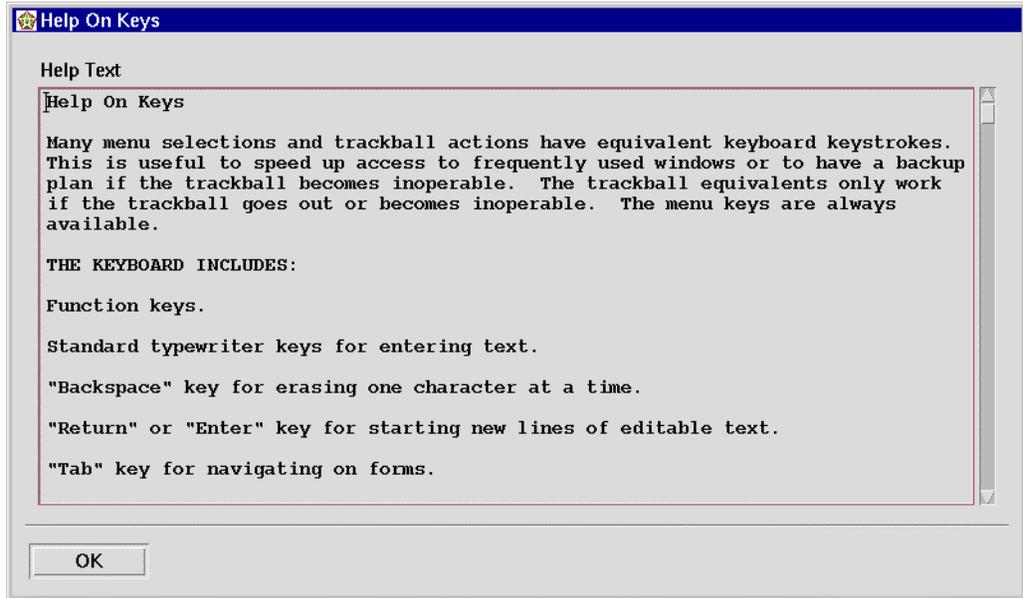
1-8.5.7 Help On Window.

This selection opens a window that contains a detailed description of the window that was active when the menu selection was made. This window is also accessed via the **Help** button on the active window. Help window data describes the functionality and use of the window for which **Help** was initiated.



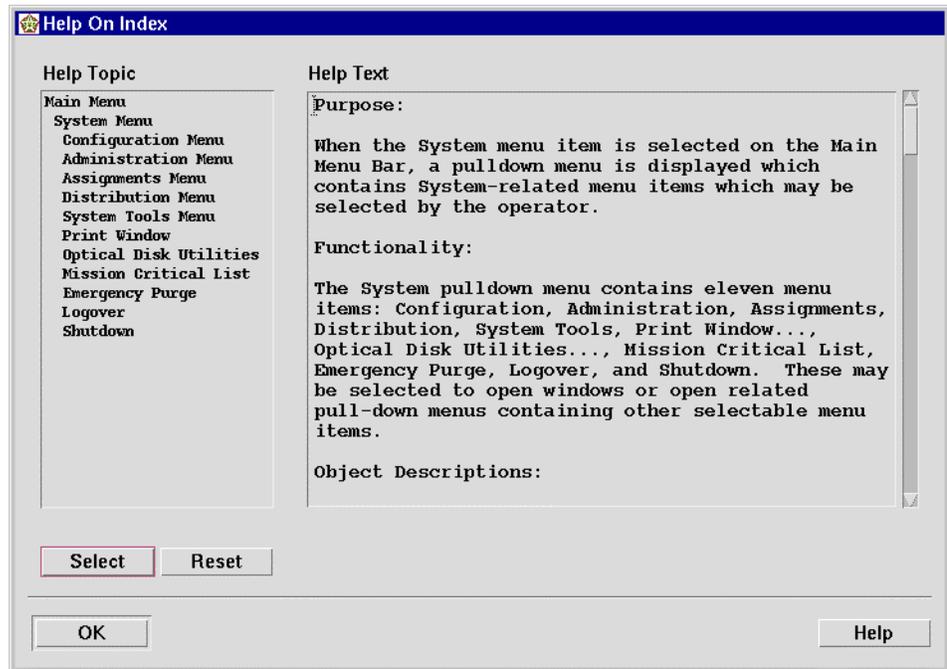
1-8.5.8 Help On Keys.

This selection opens a window that describes the use of special keys. Use of accelerator, function keys, and keyboard navigation is covered.



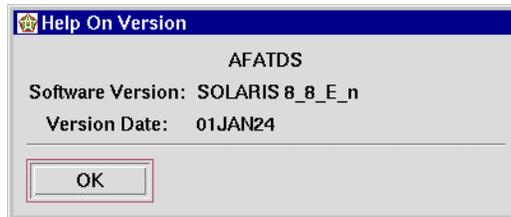
1-8.5.9 Help Index.

The Help Index is a hierarchically structured set of Help topics. Selecting a topic from the **Help Topic** and the **Select** button will present text that describes the selected topic and a list of related sub-topics (as applicable).



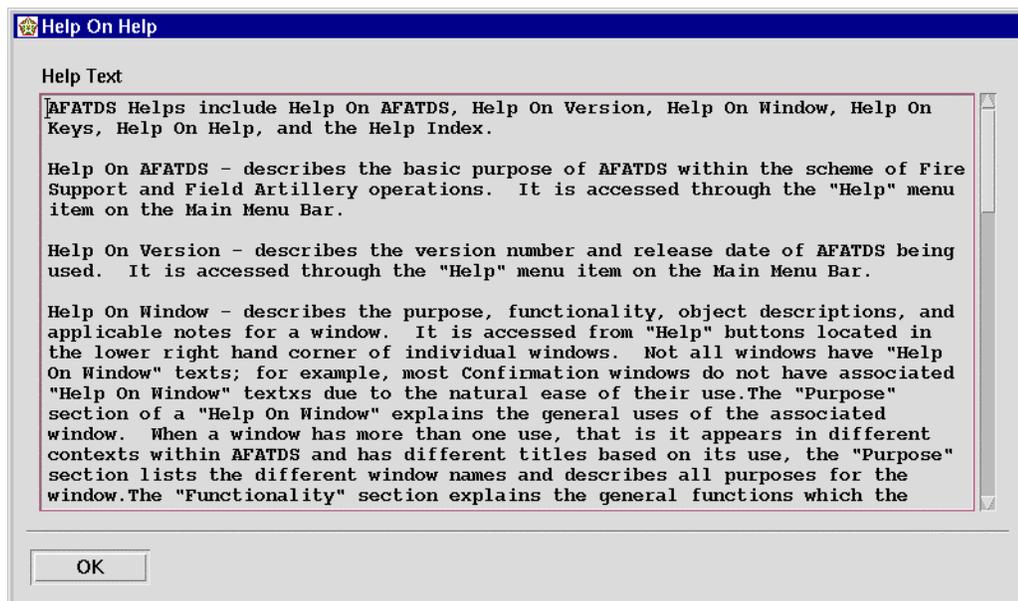
1-8.5.10 Help On Version.

This selection opens a window that displays the AFATDS version number and date.



1-8.5.11 Help On Help.

This selection opens a window that displays instructions on how to use the Help function.



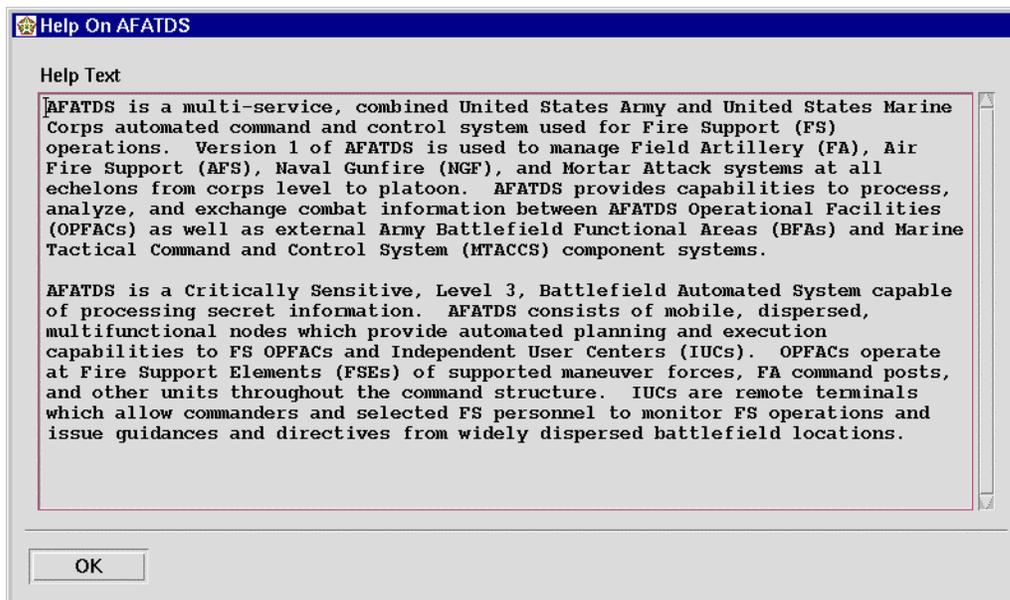
1-8.5.12 Help On Copyright.

This opens a window that displays the copyrights for the various software bundles used in AFATDS.



1-8.5.13 Help On AFATDS.

This selection opens a window that displays information about the AFATDS purpose.

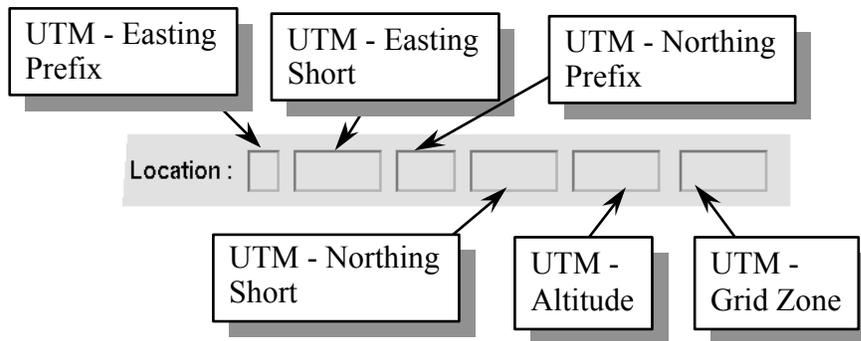


1-8.5.14 Location Entries.

The AFATDS windows use three formats for location fields. These formats are the UTM, GEO (Lat/Long), and MGRS. The system default format is set using the **System\Display Preferences** selection. Change the display of the individual formats by depressing the **<Shift>** key and clicking the right trackball button while holding the cursor on one of the fields. Entering the data into one of the formats automatically updates the information for the same location in the other formats. Values may be entered in these fields via the keyboard or by copying the coordinates from a map. The coordinates are copied from the map by first placing the cursor on the map at the required coordinates. The **<Ctrl>** key is then depressed and the right trackball button clicked. This stores the coordinates in system memory. The user then places the cursor on any coordinate field within the window, depresses the **<Ctrl>** key and clicks the center trackball button. The coordinates are then automatically entered in the location field.

1-8.5.14.1 UTM Format.

This format contains six (6) direct-entry fields as shown. If the location is within the entered Map Mod, the only required entries are Easting Short and Northing Short.

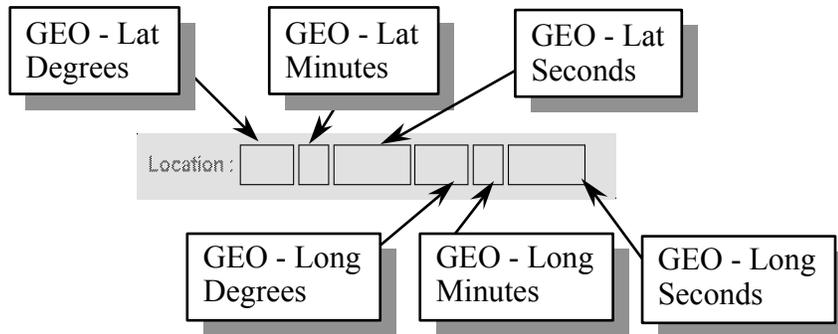


The legal entries for each field are:

- | | |
|-----------------------|---|
| UTM - Easting Prefix | 1 alpha character (0 to 9) |
| UTM - Easting Short | 5 alpha characters (00000 to 99999) |
| UTM - Northing Prefix | 3 alpha characters (000 to 099) |
| UTM - Northing Short | 5 alpha characters (00000 to 99999) |
| UTM - Altitude | 5 alpha characters (-9999 to 99999) |
| UTM - Grid Zone | 3 alpha characters (-60 to 60, excluding 0) |

1-8.5.14.2 GEO (Lat/Long) Format.

This format contains six (6) direct-entry fields as shown.



The legal entries for each field are:

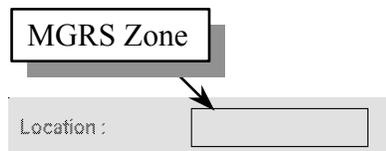
GEO - Lat Degrees	+ or -, 2 alpha character (0 to 90)
GEO - Lat Minutes	2 alpha characters (0 to 60)
GEO - Lat Seconds	4 alpha characters (00.00 to 60.00)
GEO - Long Degrees	+ or -, 3 alpha characters (0 to 180)
GEO - Long Minutes	2 alpha characters (0 to 60)
GEO - Long Seconds	4 alpha characters (00.00 to 60.00)

1-8.5.14.3 MGRS Format.

This format contains one 15-digit direct-entry field as shown. The data is in Military Grid Reference System format.

NOTE

Afgooye, South American 1969, Kertau 1948, South Asia, Old Egyption 1907, and Wake Eniwetok datums are not supported in MGRS format.

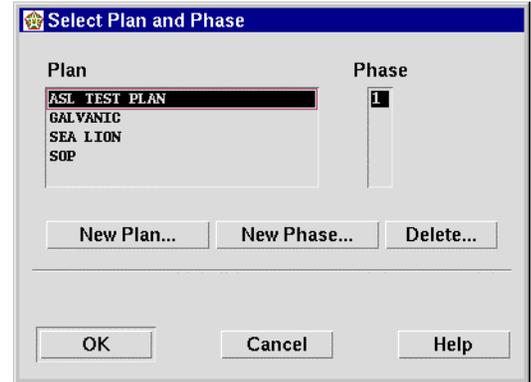


1-8.5.15 New.

The **New** function is used to create an item (for example, a target list). This button is normally contained on a window listing the existing items of the type to be created. The user adds an item by selecting the **New** button. A window will open for user entry of the item name or ID and information.

1-8.5.16 OK.

The **OK** button is used to close windows that are no longer required by the user. The **OK** button also performs other functions associated with the closing of the window. Because the functions vary with different windows, the normal functions are described here and each window description will contain a specific description of the **OK** button function.



In some cases, the **OK** button is used to initiate a function of a previous selection. For example, if the user selects **Situations\Open Plan...**, the **Select Plan and Phase** window opens. The function of the **OK** button is now, and remains to be, to open a selected plan/phase. If the user selects **OK** or one of the other functions (**New Plan...**, **New Phase...**, or **Delete...**), completes that function, and closes the appropriate windows, the **Select Plan and Phase** window again becomes the active window. If the user attempts to close the window via **OK**, the selected plan/phase will be opened. The window must be closed using the **Cancel** button if no functions of the window are to be initiated.

Window functions also determine the function of the **OK** button. Particularly in mission processing, windows such as **Initiate Fire Mission**, **Intervention**, **MTO**, and **MFR** have specific functions that are initiated by selecting **OK**. For example, selecting **OK** on a **MTO** or **MFR** window closes the window and initiates the transmission of window data.

In cases where the window is designed to enter data into the system, selecting **OK** saves changes to the window to the database before closing. These windows will normally contain a **Cancel** button to allow the user to close the window without saving changes.

NOTE

Cancel should be used, when available, to close a window if no changes were made to window data. This action maintains the original time stamp on the dataset. This is important in cases where an update is received from another unit. If the received data has a time stamp earlier than the local dataset, the dataset will not be updated. Therefore the time stamp on a database should not be updated unless an actual change was made.

1-8.5.17 Print.

The **Print** selections open the **Print Settings** window. This window displays the printer selection and settings that are in effect. All fields, except **Job Name:**, require entries and have a default assigned. The user may change the default print selections prior to sending the print job to the printer.

The **Printer** and **Workstation** fields are used to select the printer that receives the print job. These fields default to the default printer selected for the workstation. All available printers are listed.

Job Priority: selections are **High**, **Medium**, and **Low**. Jobs at a printer are printed in the order of priority. All **High** priority jobs are printed before any **Medium** or **Low** priority jobs are started. **Medium** priority jobs are printed before **Low** priority jobs. The default priority is **Low**.

The **Job Name:** field allows the user to enter a name to identify the printout. This field is not a required entry.

The **Print Mode:** selection allows the user to specify the print quality of the hard copy. The selections are **HIGH SPEED**, **STANDARD**, and **LETTER QUALITY**. **HIGH SPEED** prints the fastest and produces the lowest quality printout. **LETTER QUALITY** has the best printout quality and prints the slowest. The default is **STANDARD**.

The **Char (characters) Per Inch:** selection allows the user to specify the number of characters in an inch of printed text. Selections are **10**, **12**, and **17**. The default is **10 Char Per Inch**.

The user also selects the **Lines Per Inch:** for the printout from this window. The selections are **6** and **8** lines with **6** being the default. A **Notify on Completion** check box enables a function that notifies the user via an alert window when the print job has been completed.

1-8.5.18 Refresh.

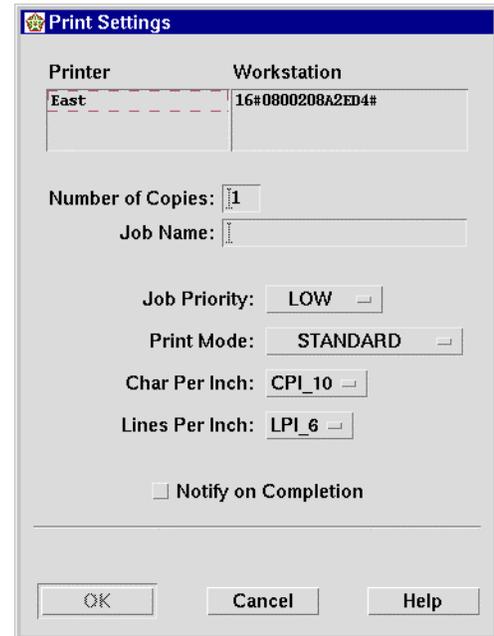
The **Refresh** button updates the current window and the data that is contained within that window. This allows the user to view events or data that was created after the window was opened.

1-8.5.19 Remove.

The **Remove** function is used to remove data from a dataset without removing it from the database. This selection is normally contained on a window listing the existing items (such as a list of units). The user removes the selected item by first selecting the item and then **Remove**. A confirmation of the removal is not required since the data is not removed from the database.

1-8.5.20 Save.

The **Save** function allows the user to save changes made at any time during an edit session to the dataset. If a window is closed using the **Cancel** button, the database will reflect the last saved data.



1-8.5.21 Scroll Bars.

Scroll bars appear in some windows next to lists that exceed the display area available. The scrolling bars are a boxed area that has an arrow symbol pointing outward at each end. The scroll bars are located to the right of the display area (vertical scrolling) and the bottom of the area (horizontal scrolling).

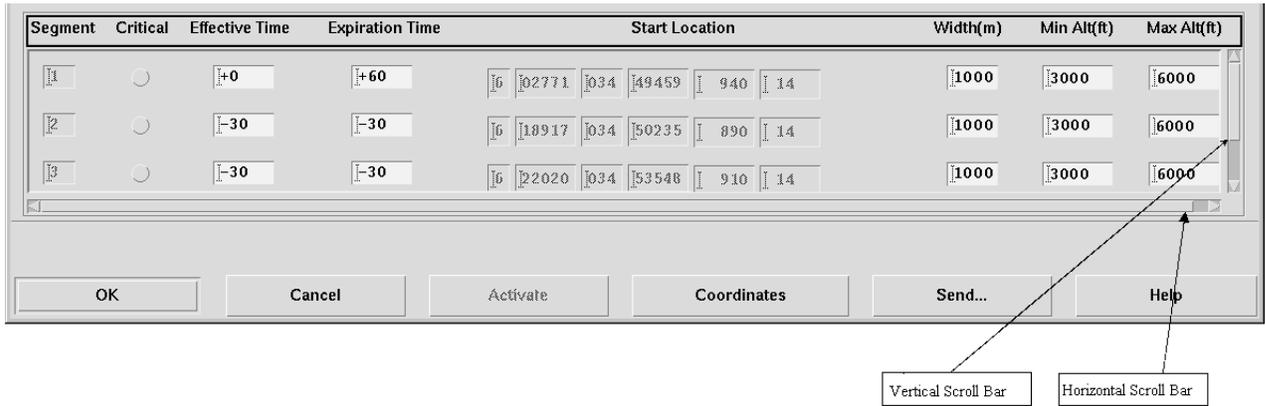


Figure 1.15 Scroll Bars

The scrolling area contains a bar that represents the relative area and size of the list that is being viewed. That is, when the bar fills one-half of the area, approximately one-half of the available list is being displayed. With the bar at the extreme top of the vertical scrolling area, the top portion of the list is displayed. If the bar is positioned to the center of the scrolling area, the center portion of the list is viewed.

The bar may be positioned using four (4) different methods. First by clicking the left trackball button on one of the arrows which will cause the bar to move toward that arrow in small increments (one display line).

The second method is to click the left trackball button in the shaded area of the scrolling area above or below the bar which will cause the bar to move toward the cursor in larger increments (one display area).

The third method is to click the center trackball button with the cursor in the shaded area above or below the bar. This method moves the scroll bar to a position centered on the cursor location.

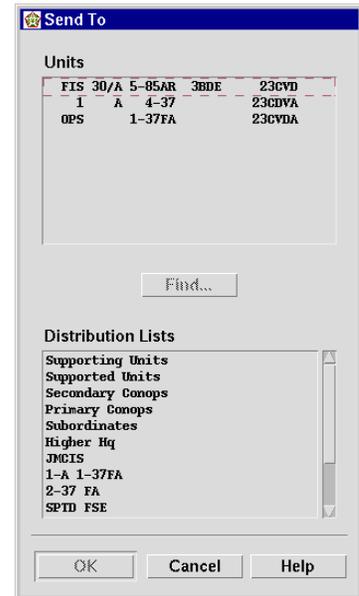
The fourth method is to click on the bar and drag it to the desired position within the scroll area.

1-8.5.22 Send.

The **Send** function exists in two (2) forms. The forms are **Send...** (with ellipsis) and **Send** (without ellipsis).

The **Send...** function appears on many windows within the AFATDS System. The **Send...** function opens either the **Send To** or **Select Unit** window. The window opened is dependent upon the window that **Send...** is selected from. The **Select Unit** window allows the user to select a unit or multiple units from a list. The selected unit(s) becomes the destination for message traffic initiated when the window is closed via the **OK** button.

The **Send To** window allows the user to select **Units** and/or **Distribution Lists** to receive the applicable data. The **Units** and **Distribution Lists** are multiple selection lists that allow the user to make any number of selections from either or both lists. Selecting **OK** closes this window and initiates the transmission of data to the selected destinations.



The **Send** (without ellipsis) function causes the data to be sent to a predetermined destination(s). The destinations for automatic distribution are established via the **System\Distribution\Criteria** selection. The **Send** function is also capable of sending to the appropriate unit(s) as displayed or selected on the window containing the **Send** button.

1-8.5.23 Sort.

The **Sort** function is used to display window information in an order determined by the user. Menu selections are normally based on the displayed column headings (e.g., Name, DTG, Target Number, etc.). The displayed information will be sorted in ascending alpha and/or numeric order.

1-8.5.24 Unit ID Selections.

The normal method of selecting an entry for a field that is to contain a unit ID is to open a window listing all available units. A separate window is used due to the large number of units normally contained in the database. The pop-up menu associated with the ID field contains two (2) or three (3) selections. A field that is blank at the time of selection contains two (2) selections. The first selection is a blank line. This selection leaves the field empty (without an entry). The second selection is **Select....** **Select...** opens a window, normally **Select Unit**, that allows the user to select the unit or units to be entered. If a unit ID field contains an ID as a result of a previous or default entry, this ID will appear as the top selection on the pop-up menu.

1-9 ALERTS.

1-9.1 Alert Windows Navigation.

The Status Bar **M**: selection opens the **Medium Level Alert List** window. This window displays a listing of the received medium alert messages, the time they were received, a description of the alert, and if any action is required as a result of the alert. Selecting an alert from the list and then selecting the **View** button opens an alert window which displays the selected alert. Selecting the **Print...** button opens the **Print Settings** window for selecting print options. When a medium level alert is received and medium level alerts are not suspended, the **Medium Level Alert** window and the **Medium Level Alert List** window are displayed simultaneously.

The Status Bar **L**: selection opens the **Low Level Alert List** window which displays a list of received low level alerts. The time received, a description of the alert, and any action required are shown for each alert in the list. Selecting an alert from the list and then selecting the **View** button opens an alert window for displaying the selected alert. Selecting the **Print...** button opens the **Print Settings** window for selecting print options.

The alert lists for the Status Bar selections for **Unit Status**, **Geometry**, **Guidances**, and **Communications** function in the same manner as the **Low Level Alert List**. The difference is that these lists contain a specific category of alerts.

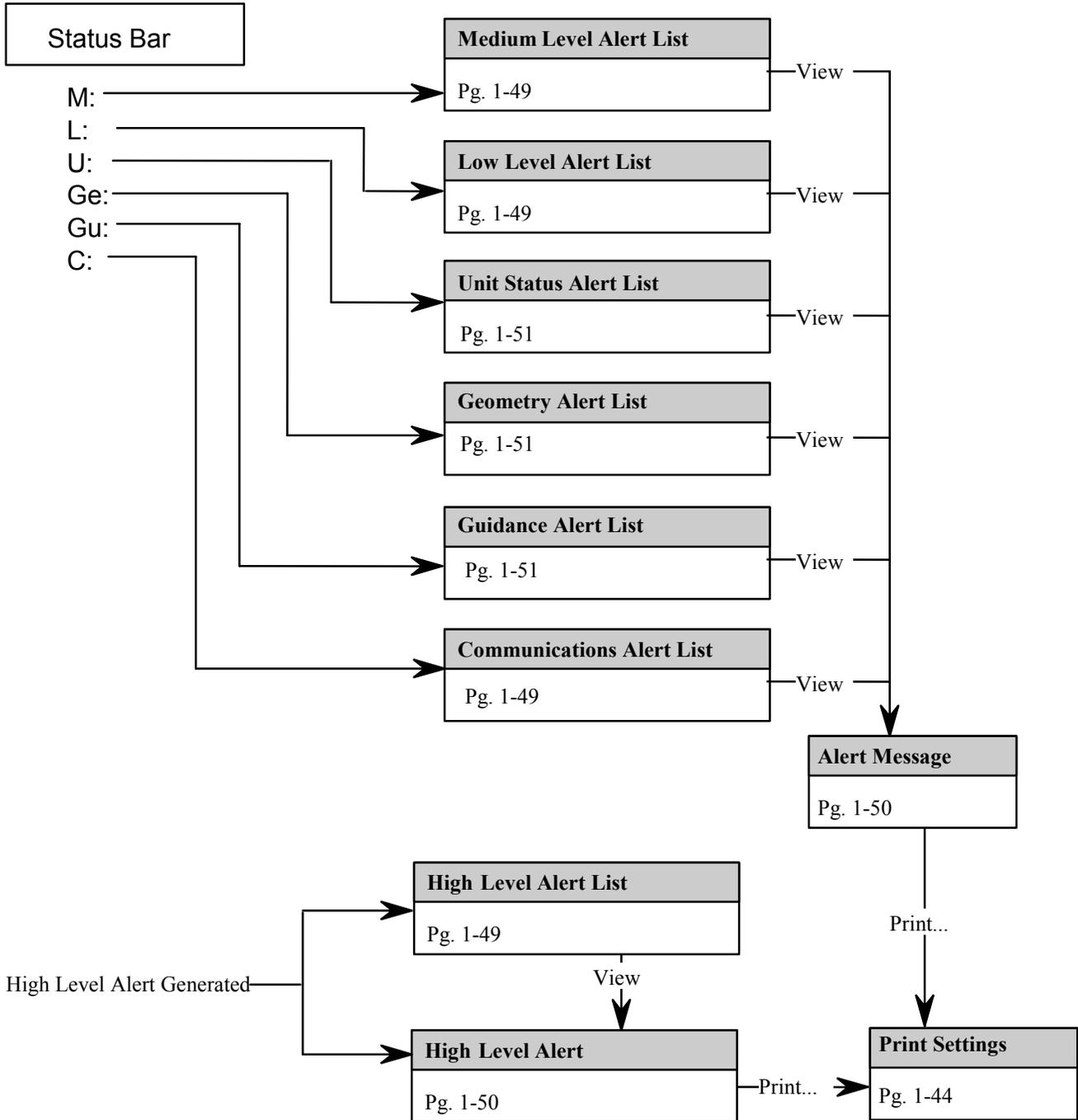
High level alerts and the **High Level Alert List** are displayed automatically when a high level alert is generated. After the alert window is actioned, functions of the map windows can be performed.

NOTE

Functions of the Main Menu Bar cannot be performed until the alert notification is deleted and the **High Level Alert List** window is closed.

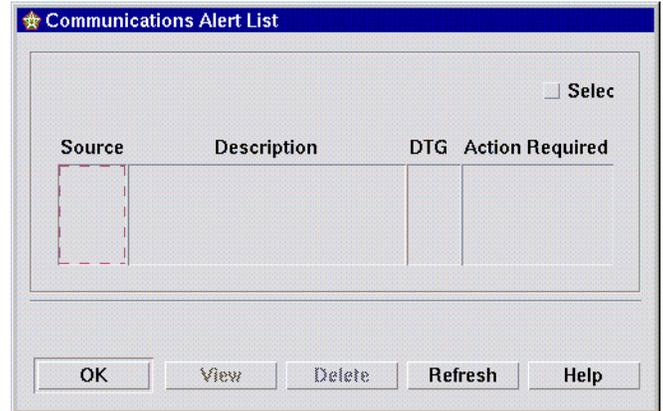
Low level, unit status, geometry, guidance, and communications alerts are not displayed, but are logged in a window with a title corresponding to the menu selection. The operator must open the appropriate list, select a notification, and select **View** to view the actual alert.

The number of each type alert logged is displayed on the status bar.



1-9.2 Communications Alert List Window.

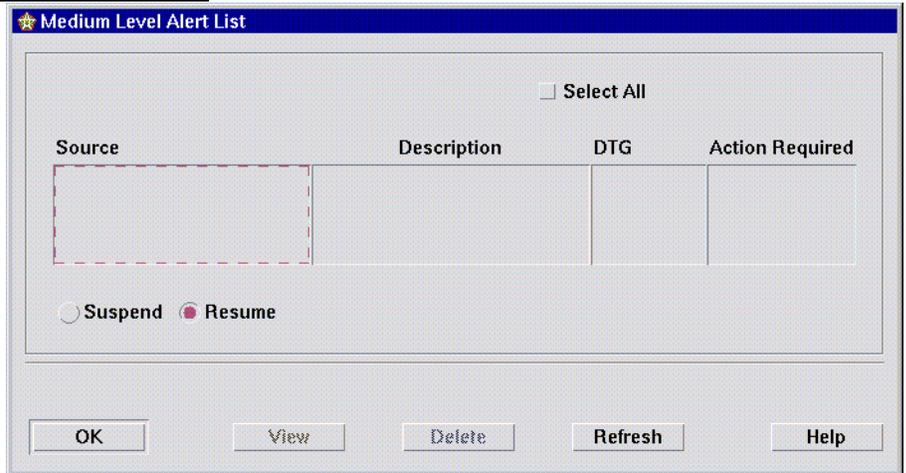
The **Communications Alert List** window is opened via the **C:** button on the status bar. This window allows the user to monitor and maintain a list of communication alert summaries. The selection list provides an **Alert Description**, **Message Status**, and **Time** the alert was posted. With an alert selected, the user may **View** and/or **Delete** the alert. **Refresh** updates the list to include any alerts that have been detected since the **Communications Alert List** window was opened.



Depending on the alert selected, **View** opens either **Review Without Sequence Number** or **Review With Sequence Number** window for processing the alert. An alert message is processed by either approving or rejecting the alert. The status line at the bottom of the screen indicate the number of communications alerts that are pending when the communications duty is assigned to a workstation. When there are zero communications alerts pending and a new communications alert is posted, a medium level alert will be posted to draw the users attention to the communications alert list. Additional medium level alerts are not posted for each communications alert so long as at least one communications alert has already been posted at the time that the alert event occurs. The user that is performing the communications duty should pay special attention to communications alerts attempting to maintain zero communication alert when possible.

1-9.3 Low\Medium\High Level Alert List Windows.

The **Low Level Alert List** and **Medium Level Alert List** windows are functionally the same, only the title and the contents of the list vary between the two alert list windows. The user can view individual alerts, delete alerts, and refresh the alert list from the **Alert List** window. The **High Level Alert List** window is not accessible, but is displayed along with the **High Level Alert** window each time a high level alert is generated.



The **Low Level Alert List** and **Medium Level Alert List** windows are accessible from the **L:** and **M:** selections on the Status Bar. These lists also have a **Select All** check box. Selecting this check box selects all messages in the list to allow deleting of all messages.

The **Source** list displays the message source such as Tactical Support or System Support. The **Description** list provides a brief description of each alert. The **DTG** list displays the time that each message was generated. The **Action Required** list shows if any user action is required for each alert in the list.

Selecting an alert from the list and then selecting the **View** button opens up the appropriate **Alert** dialog window which displays the text of the alert. Selecting an alert(s) from the list and then selecting the **Delete** button removes the selected alert(s) from the list.

CAUTION

Selecting all alert messages via the **Select All** button allows all alerts in the list to be deleted without being viewed. This could result in the loss of important information.

The **Select All** button selects all entries in the alert list for the purpose of deletion. The selection includes alerts that are not currently being displayed on the window. The **Select All** button is on all alert lists except the high-level and guidances alert lists.

Selecting the **Refresh** button refreshes the alert list updating it for changed or newly received alerts.

1-9.4 High Level Alert, Medium Level Alert, and Low Level Alert Windows.

The **High Level Alert**, **Medium Level Alert**, and **Low Level Alert** windows (Figure 1.16) share the same functionality, only the title changes among the three dialog windows. The **Medium Level Alert** and **Low Level Alert** windows are accessed by using the **View** button in the corresponding **Medium Level Alert List** and **Low Level Alert List** windows. The **High Level Alert** window is always displayed immediately upon generation and usually requires an immediate user action.

Display of Medium Level alerts can be suspended (not displayed when received) by selecting the **Suspend** radio button on the **Medium Level Alert** window. The **Medium Level Alert** window is immediately displayed upon generation only when the selection is set to **Resume** and the list contains no entries prior to the alert.



Figure 1.16 Alert Message Window

When Medium Level Alerts are Suspended, the medium level alerts are saved and are subsequently displayed in LIFO (Last in first out) sequence when the selection is set to **Resume**. **Low Level Alert** window messages are never displayed immediately upon generation, low level alerts are only displayed by using the **View** button on the corresponding **Low Level Alert List** window.

Selecting the **Print...** button on the **High Alert**, **Medium Alert**, or **Low Alert** windows opens the **Print Settings** window for setting print parameters.

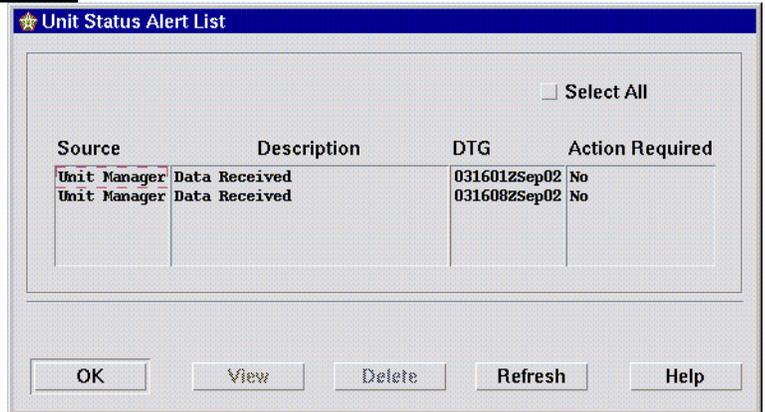
Each of the **High Level Alert**, **Medium Level Alert**, and **Low Level Alert** windows use common symbols to indicate the type of alert. Only one symbol is used per alert. The symbols and meanings of the symbols are shown in Figure 1.16:

1-9.5 Units, Geometry, Guidance, and Communications Alert Lists.

The **U**: (units), **Ge**: (geometries), **Gu**: (guidances), and **C**: (communications) icons on the Status Bar open list windows for their respective categories when the number of alerts exceeds one (1). If only one (1) alert is present in a category, the alert window is opened directly from the icon. The list window is the same for all categories except for the window title.

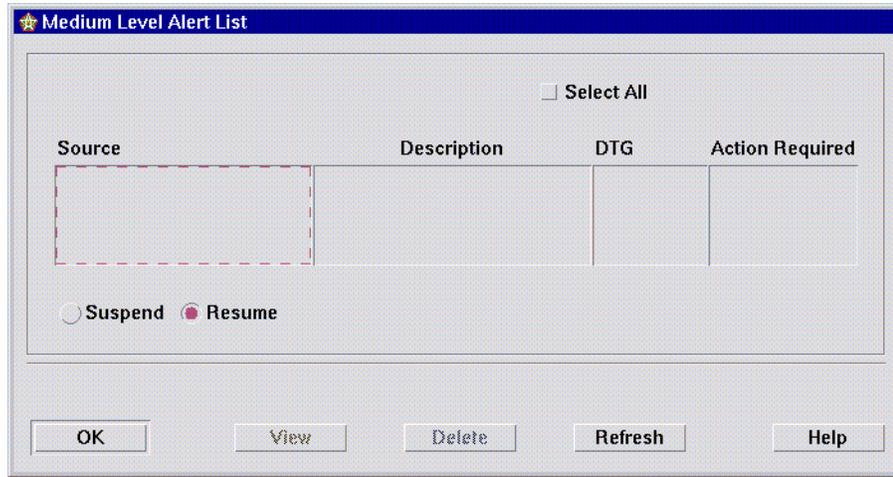
1-9.6 Suspend\Resume Medium Alerts Procedure.

The **Suspend** and **Resume** radio buttons are contained on the **Medium Level Alert List** window. Selecting **Suspend** disables the immediate display of received Medium Alerts. Any Medium Alerts received during the suspended period are stored until **Resume** is selected. When **Resume** is selected, all stored alerts are displayed in LIFO order received (last in first out). The following procedure details the steps necessary to suspend or resume medium alerts.



Suspend\Resume Medium Alerts Procedure

Step	Action	Response
1.	<u>Select M:</u> on the Status Bar.	Medium Level Alert List window opens



2.	<p><u>Select Resume</u> to display suspended medium level alerts and to allow immediate display of received medium alerts.</p> <p style="text-align: center;">or</p> <p><u>Select Suspend</u> to suspend the display of medium level alerts</p>	<p>Suspended medium level alerts are displayed in LIFO sequence and display of medium level alerts is resumed.</p> <p>Display of Medium Level Alerts is suspended.</p>
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1-9.7 Low\Medium\High Level Alert Lists Procedure.

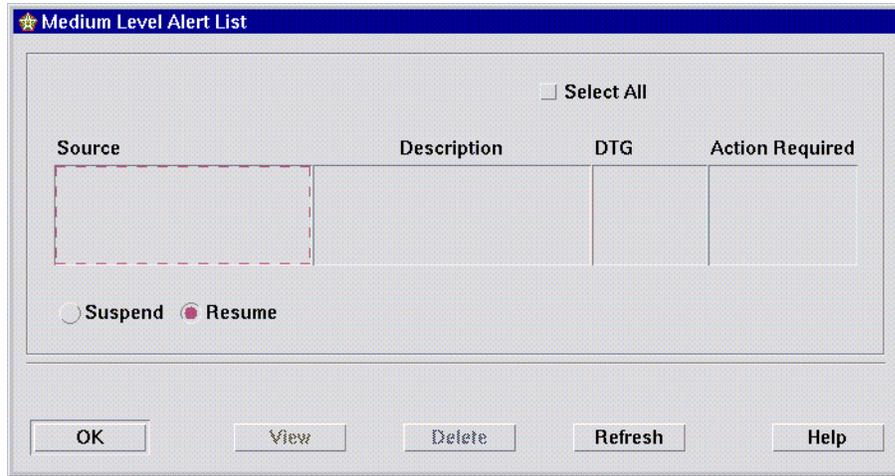
The **L:** selection opens a window listing the Low Level Alerts by **Source, Description, DTG,** and **Action Required.** The **M:** selection opens an identical window except that the title is **Medium Level Alert List** and all of the alerts listed are medium level alerts.

NOTE

The **High Level Alert List** is not accessible from the Status Bar. The **High Level Alert List** is displayed automatically whenever a high level alert is generated. The following procedure is applicable to **Low, Medium, and High Level Alert List** windows. When managing a **High Level Alert List**, skip step two since it is not a menu selectable item.

Low\Medium\High Level Alert List Procedure

Step	Action	Response
1.	Select L: or M: from Status Bar.	Low or Medium Level Alert List window opens.



NOTE

Select **Refresh** at any time to update window contents. Select **Suspend** or **Resume** to control the display of Medium Level Alerts. Select **OK** at any time to close **Low or Medium Level Alert List** window.

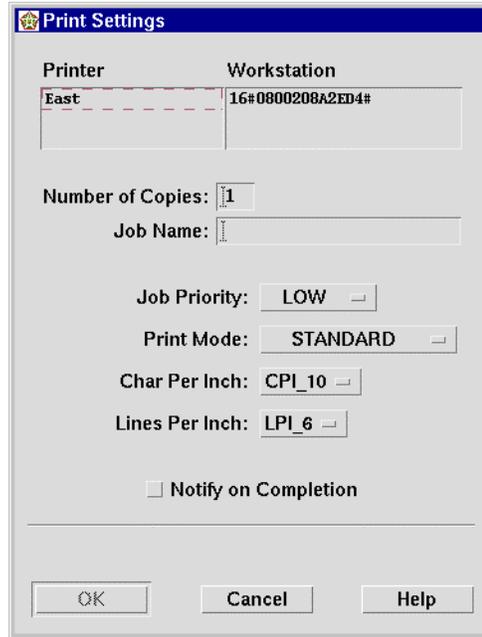
To perform following functions, proceed to indicated steps:

- View** alert step 2
- Delete** alert step 6

2.	Select <u>alert</u> to be viewed.	
3.	Select View .	Low\Medium\High Level Alert window opens and displays selected alert.
4.	Select Print... to print alert. or Select OK to close alert window.	Print Settings window opens. Ensure print settings are appropriate and select OK . Low\Medium\High Level Alert window closes.

Low\Medium\High Level Alert List Procedure - CONT

Step	Action	Response
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5.	Refer to note prior to step 2 to perform other alert functions.	
6.	<u>Select alerts</u> to be deleted.	
7.	<u>Select Delete</u> .	Selected alert(s) is removed from Low\Medium\High Level Alert List window.
8.	Refer to note prior to step 2 to perform other alert functions.	

SECTION 3 WORKSTATION LOGIN/LOGOUT

1-10 SCOPE.

This section describes the procedures for a user to initialize and login to AFATDS. This procedure is the same for the master and slave workstations up to the point that the **AFATDS Initializing** screen is displayed. In a multi-station OPFAC, the first station to be powered-up will be the master station. The master station will display the **Unit Configuration** window after initialization. The slave stations will continue to display the initializing screen until the master station has completed configuration and activated AFATDS.

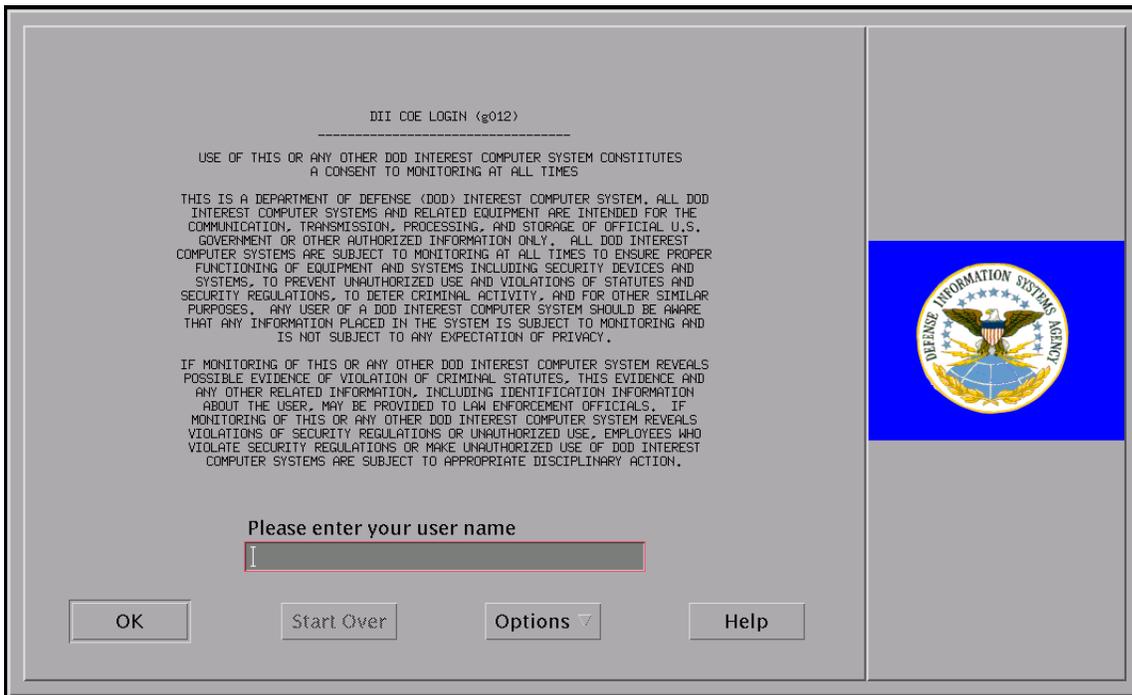
1-11 SYSTEM LOGIN.

The AFATDS system runs on a Solaris operating system platform. The Solaris operating system and AFATDS software must be installed on the hard drive prior to activating the UCU or CCU-2. If they are not installed, refer to TM 11-7025-297-10-2 chapter 6 for installation procedures. With the operating system and AFATDS software loaded, the operating system will initialize following power-up of the UCU or CCU-2. Following initialization, a login window is displayed. This window contains fields for entry of user name and password. Pressing **<Enter>** following these entries starts validation of the user name and password. Access to AFATDS is granted if user name and password are validated.

The following procedure is used to initialize and login to the AFATDS system from a power-off condition.

AFATDS Login Procedure

Step	Action	Response
1.	Set POWER switch on UCU or CCU-2 to ON.	<p>POWER indicator lights on UCU/CCU-2 and operating system testing is performed.</p> <p>DII COE Login screen is displayed at the completion of testing.</p>



- | | | |
|----|---|--|
| 2. | <u>Enter User Name:</u> (1-32 alphanumeric characters). | Typed characters are displayed in entry field. |
| 3. | <u>Select OK or press <Enter>.</u> | Password window opens. |

AFATDS Login Procedure - CONT

Step	Action	Response
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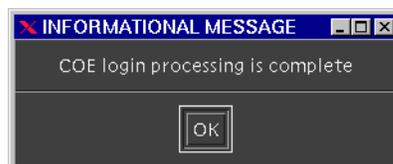


4. Enter **Password**: (6-15 alphanumeric characters).

Password characters are not displayed on the screen.

5. Select **OK** or press **<Enter>**.

Password screen is removed and the operating system initializes. An **Informational Message** will inform the operator when COE processing is complete. Task Bar is displayed.



AFATDS Login Procedure - CONT

Step	Action	Response
6.	<u>Select OK.</u>	

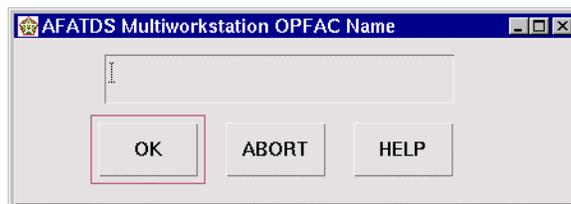
NOTE

If this the first login since software installation for the operator, by user name, refer to TM 11-7025-297-10-1 chapter 6 to insure the proper COE profile has been assigned.

7.	<u>Select Start Start AFATDS and the appropriate service.</u>	Informational Message appears.
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8.	<u>Select OK.</u>	Informational Message closes. AFATDS Multiworkstation OPFAC Name window opens after approximately 1 minute.
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AFATDS Login Procedure - CONT

Step	Action	Response
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NOTE

In order to form a multiworkstation OPFAC, all stations must have the identical name entered on this window. For single-station OPFAC's, a name is not required. Selecting **ABORT** stops the login process.

9. Enter OPFAC name for multi-workstation operation (optional, 1 to 8 alphanumeric characters, first character must be alpha).

10. Select OK.

AFATDS Multiworkstation OPFAC Name window closes. AFATDS initializing starts and the **AFATDS Initializing** window is displayed.



11. Perform unit configuration at master station (refer to System Administrator functions).

After master station activation, AFATDS screen is displayed at all stations.

1-12 **SYSTEM LOG-OFF.**

System log-off is normally performed to allow another user to login or to shutdown the workstation. The System Administrator (SA) must shutdown AFATDS before log-off can be performed. After AFATDS is shutdown and the operator has logged-off, the **DII COE Login** window is displayed. At this point, another user can login.

System Logout Procedures

Step	Action	Response
1.	<u>Select Start\Log-Off</u> from Task Bar after AFATDS shutdown.	QuitVerify window opens.
		
2.	<u>Select Log Off</u> .	QuitVerify window closes. The DII COE Login window opens.
3.	<u>Perform Login Procedures</u> for a new user	

SECTION 4 SYSTEM ADMINISTRATOR FUNCTIONS

1-13 SCOPE.

This section describes the duties and functions that are assigned to the AFATDS System Administrator (SA). This section is applicable to operational roles only. Refer to TM 11-7025-297-10-2 chapter 6, to perform Maintenance Utilities and COE functions assigned to the SA.

1-14 GENERAL.

The user designated as the SA has responsibility for the OPFAC configuration and has exclusive access to system level maintenance functions and privileges. Some privileges are reserved for the administrator only. Reserved privileges consist of:

- Unit configuration of the OPFAC
- Entry of user privileges
- Backup and restore databases
- Management of alerts relating to software and hardware failures
- Management of Event Log
- Control of specified printer services
- Management of Master Unit List
- Emergency purge

CAUTION

The SA login should be performed at a workstation that was included in the previous OPFAC configuration of the unit in order to ensure the availability of the proper database. Login from a workstation that is new to the configuration could result in the destruction of the database.

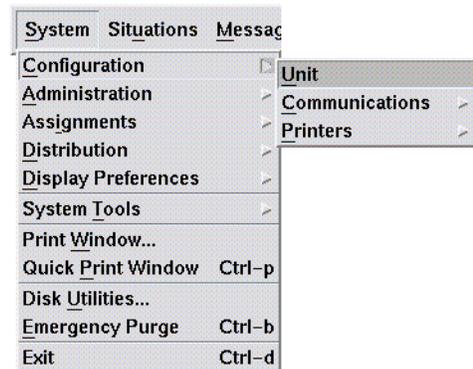
Due to the importance of having an SA, the first workstation within the OPFAC to login will initially be assigned administrator duties and privileges. Management of the communication configuration defaults to the SA but may be assigned to another user.

1-15 SYSTEM CONFIGURATION.

The **System\Configuration** selections allow the System Administrator to configure and manage the components of the OPFAC. The configuration of an OPFAC includes the assignment of workstation names, configuration and identification of printers, and initialization of communications.

The SA controls user privileges associated with each user account. A users privileges are the functions to which the user has been granted access. For example, a user assigned to manage communications configurations would require access to the communications dataset and would be assigned the associated privilege.

The SA also manages the availability and use of hardware devices such as printers and communications and archive devices.



1-15.1 Unit Configuration and Activation.

Upon successful logon, the System Administrator must activate the unit configuration. The activation process starts the AFATDS software and distributes the databases. Primary databases are started on the workstation that is logged into first. When more than one workstation is present at an OPFAC, the system will also start shadow databases which will be maintained as a warm copy of the primary databases and utilized in the event of a primary database failure to allow continued OPFAC operation. Shadow databases are automatically assigned to workstations by the system. The **Unit Configuration** window opens following the starting of the AFATDS application. The **System\Configuration\Unit** selection also opens the **Unit Configuration** window.

The databases contain the configuration of the previous activation of the unit. This data includes the unit ID, unit role, and workstation names. If the OPFAC physical setup is the same as the previous activation, the SA may choose to simply activate the OPFAC using the previous data. If the physical setup is different (e.g., more or fewer workstations), the SA should verify unit configuration prior to activation. If the number of workstations will change between OPFAC startups it is important to create a database backup on an OD or Jaz prior to shutting down. By restoring the database set prior to activation the user can ensure that a complete and current set of databases is present at activation even if the workstations that previous contained the databases are no longer present at the OPFAC.

Unit Configuration entries establish the identities, configuration, and role of the OPFAC. The **Unit Configuration** window displays the unit ID and role from the previous activation as well as configuration information detected by system software. As other workstations within the OPFAC are powered up, the information for these workstations is detected and displayed. Updates reflect any changes to the configuration due to changes in status of workstations and peripherals. The displayed data may be updated manually by selecting **Options\Refresh**.

Configurations may be edited, prior to activation, using functions of the **Unit Configuration** window. Editing comprises a **Unit Role:** selection, specifying default assignments to workstations, selection of removable workstations, and entering or changing a workstation name. Workstation name is the only editing allowed after system activation. Any other editing of an active configuration requires a system shutdown and restart to change OPFAC configuration attributes.

1-15.1.1 Unit Configuration Window Navigation.

Navigation to the **Unit Configuration** window is initially accomplished from the **Logon** window. The **Unit Configuration** window is opened as a result of a successful logon of the System Administrator (by default, the first workstation logon). The **System\Configuration\Unit** menu selection also opens the **Unit Configuration** window.

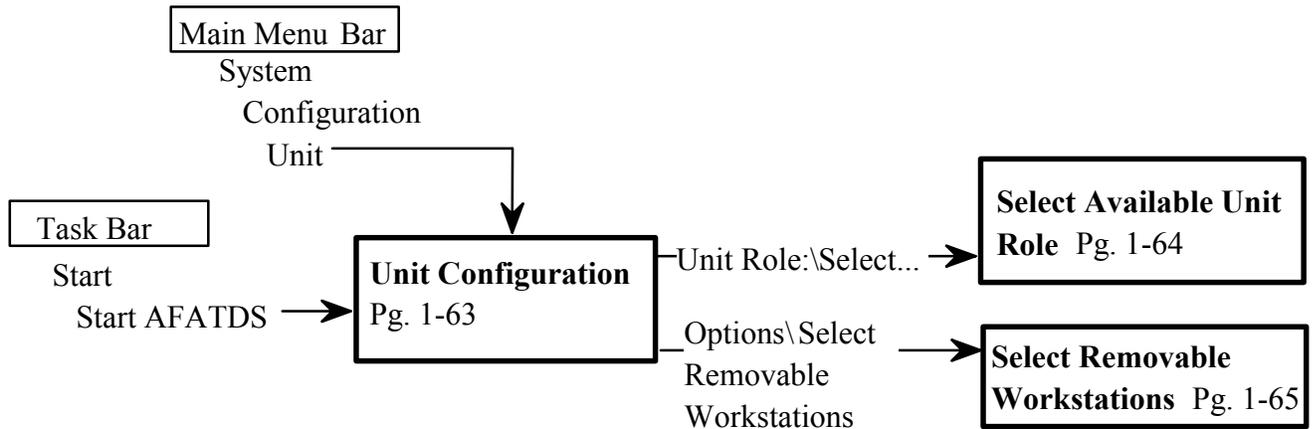


Figure 1.17 Unit Configuration Navigation

1-15.1.2 Unit Configuration Window.

The **Unit Configuration** window (Figure 1.18) displays the detected configuration (workstations, drives, and communications devices) of the OPFAC. The **Unit ID:** and **Unit Role:** fields contain data from the previous active configuration. These fields are editable and required.

CAUTION

Changing the **Unit ID:** causes the current database to be replaced with the default database. To save data from the current situation prior to changing the **Unit ID:**, it must be copied to the default database. Refer to the Database Utilities function for the copy procedure.

The **Unit ID:** field allows the user to open the **Select List** window via the **Select...** choice. A list is selected from which to select a unit. A different **Unit ID:** may then be selected from the list. Selecting a new **Unit ID:** causes the current database to be replaced with the default database. In the event that a user wants to retain the current data when directly selecting a new **Unit ID:**, data must be copied to the default database while still activated with the old **Unit ID:**.

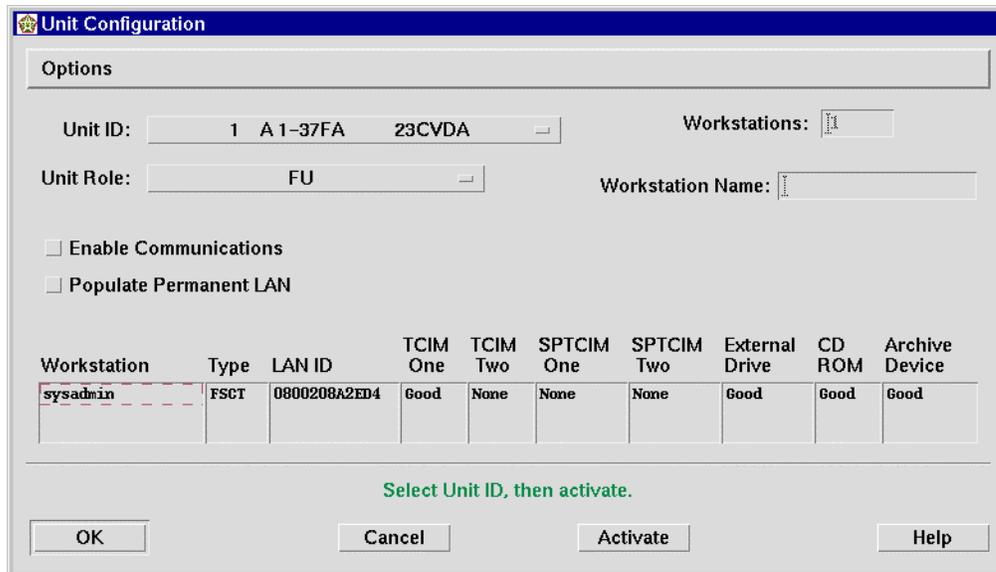
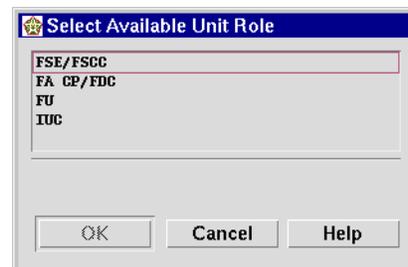


Figure 1.18 Unit Configuration Window

The **Unit Role:** pop-up menu allows selection of **FSE/FSCC/SACC**, **FA CP/FDC**, **FU**, or **IUC** via the **Select Available Unit Role** window.



The number of detected **Workstations:** (including master) is displayed. This field is not editable and has a value range of 1 to 8 workstations in the operational or maintenance mode. A workstation is detected if it is connected to a properly functioning internal local area network (LAN), power is applied, and it has completed its first initialization steps.

The **Enable Communications** and **Populate Permanent LAN** check boxes are used in the FDD software loads only. The **Enable Communications**, when selected, causes all networks in the current communications configuration to be enabled at the time the **Situations** menu is enabled. The **Populate Permanent LAN** selection, when selected will cause all units in the destination units list to be added to the Permanent LAN upon activation of the unit.

The display of unit configuration data is updated automatically at one (1) minute intervals. Display of **Unit Configuration** information is manually updated via the **Options\Refresh** selection. Workstations that enter into the LAN after the **Unit Configuration** window is opened will not be visible until the a refresh occurs.

Displayed workstation information includes **Workstation** name, **Type**, **LAN ID**, and peripherals available at each workstation. The workstation name defaults to the LAN card ID and may be changed by the SA. If a workstation is detected that was included in the previously activated configuration, information for that workstation will be included in the current configuration. If a workstation is detected that was not included in the previously activated configuration, the **Workstation** name is entered by the operator.

CAUTION

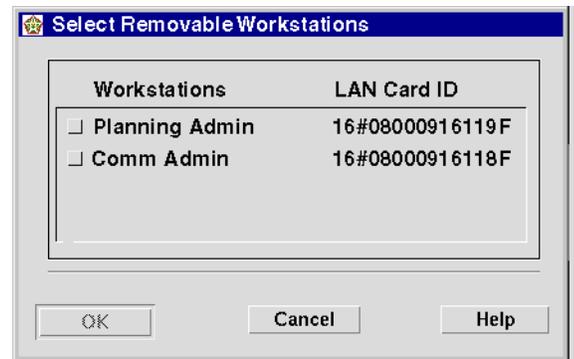
It is critical that the user verify the system time and correct it as necessary prior to activation so that database time stamps will be accurate.

Selecting **Activate** activates the configuration and stores the configuration information in the database. Upon activation the system synchronizes the workstation clocks to the clock of the master workstation, distributes the databases to appropriate workstations, and initializes AFATDS software functions at the workstations.

Selecting **OK** prior to activating the configuration closes the **Unit Configuration** window without performing activation. The window must then be opened via the **System\Configuration\Unit** selection to allow activation of the configuration.

1-15.1.3 Select Removable Workstations Window.

This window is opened via the **Options>Select Removable Workstations** selection in the **Unit Configuration** window. Selected windows are designated as removable so that they can be shutdown and removed from the OPFAC configuration during operation. These selections must be made prior to activation of the OPFAC.



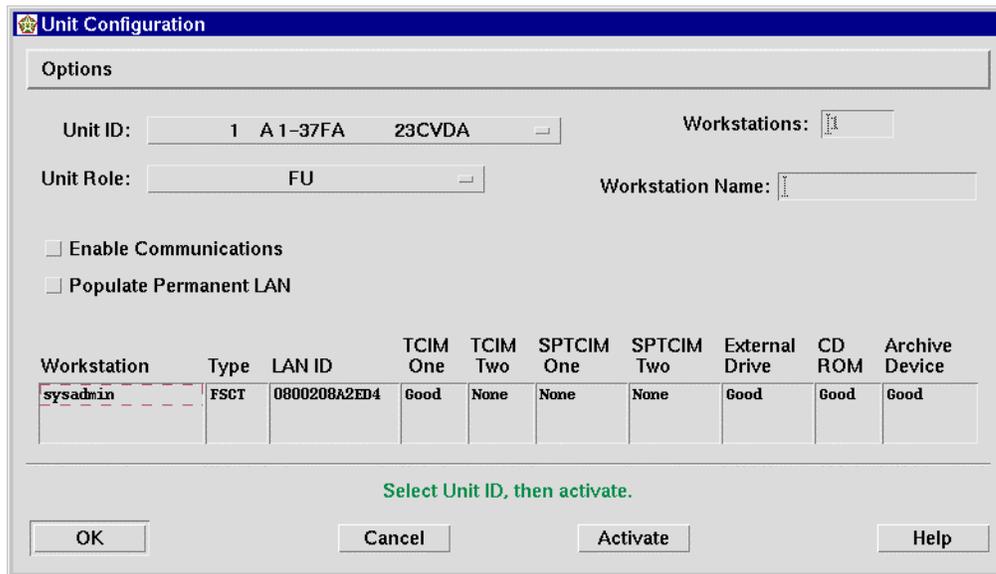
1-15.1.4 Unit Configuration Procedure.

Unit Configuration Procedure

Step	Action	Response
1.	Successful Logon and AFATDS start.	Unit Configuration window opens.

NOTE

Selecting **OK** at any time closes this window temporarily saving changes made. The changes will be saved to the database only if the configuration is activated.



NOTE

Prior to selecting **Activate**, verify that the system time is correct and modify if necessary via **System\Administration\Set Times**. After verifying the system time is correct, activate the configuration by selecting **Activate**. This synchronizes clocks between workstations, stores configuration data in the database and starts AFATDS operational software. To refresh (update) displayed data, select **Options\Refresh**. To perform following functions, proceed to the indicated steps.

- Change unit ID step 2
- Select unit role step 8
- Edit workstation name step 12
- Select removable workstations step 16

CAUTION

Changing the workstation ID will cause the current database to be replaced with the default database. This normally results in the loss of all tactical data. To copy the current database to the default prior to changing the workstation ID, use the Database Utilities function (Start\AFATDS\AFATDS Functions\Database Utilities).

2. Select **Unit ID:\Select...**

Select List window opens.



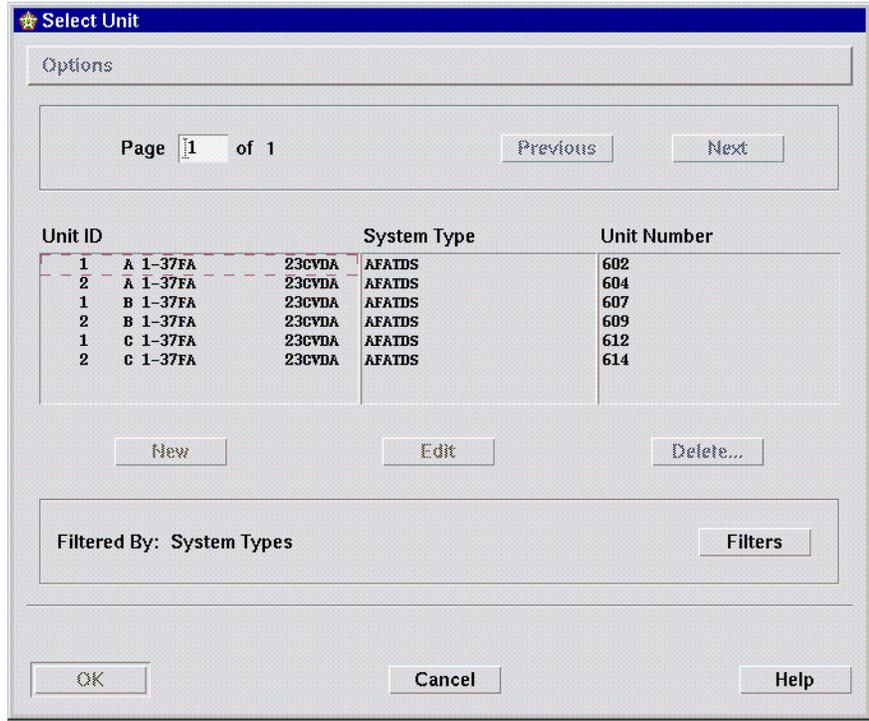
3. Select a list from **Available Unit Lists**.

4. Select **OK**.

Select Unit window opens.

Unit Configuration Procedure - CONT

Step	Action	Response
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- | | | |
|----|--|---|
| 5. | <u>Select new unit ID.</u> | |
| 6. | <u>Select OK.</u> | Select Unit window closes. Selected unit appears in Unit ID: field. |
| 7. | To perform other functions of Unit Configuration window, refer to note prior to step 2. | |
| 8. | <u>Select Unit Role:\Select....</u> | Select Available Unit Role window opens. |

Unit Configuration Procedure - CONT

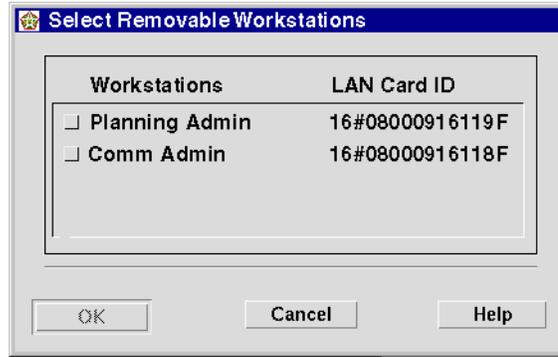
Step	Action	Response
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9.	<u>Select role.</u>	
10.	<u>Select OK.</u>	Select Available Unit Role window closes. Selected role appears in Unit Role: field.
11.	To perform other functions of Unit Configuration window, refer to note prior to step 2.	
12.	<u>Select Workstation</u> to be edited.	
13.	<u>Enter Workstation Name:</u> (1-16 alphanumeric characters).	
14.	<u>Repeat steps 12 and 13</u> for each workstation.	
15.	To perform other functions of Unit Configuration window, refer to note prior to step 2.	
16.	<u>Select Options\Select Removable Workstations.</u>	Select Removable Workstations window opens.

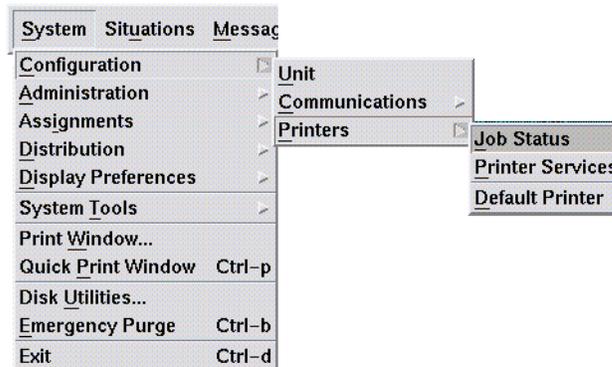
Unit Configuration Procedure - CONT

Step	Action	Response
17.	<u>Select workstations</u> that are to be removable.	
18.	<u>Select OK.</u>	Select Removable Workstations window closes.
19.	To perform other functions of Unit Configuration window, refer to note prior to step 2.	



1-15.2 Setup Printers.

The **System\Configuration\Printers** selection cascades to a menu containing **Job Status**, **Printer Services**, and **Default Printer** selections. These selections are used to monitor print jobs, manage printers, and assign default printers.



1-15.2.1 Printers Window Navigation.

The **System\Configuration\Printers** window navigation is shown in the following figure.

The **System\Configuration\Printers\Job Status** selection opens the **Job Status** window which is used to view status of print jobs sent to printers by users. The **Move...** button on this window allows the user to move a job to another printer via the **Move Jobs** window.

The **System\Configuration\Printers\Printer Services** selection opens the **Printer Services** window. This window is used to assign and manage the OPFAC's printers. Menu selections are available to remove a printer from or add a printer to the OPFAC setup. The **Printer\Abort Job on Printer...** selection opens the **Abort Printer** window. This window is used to stop print jobs that are in-process.

The **System\Configuration\Printers\Default Printer** selection opens the **Default Printer** window. This window assigns a printer as the default for a specific workstation.

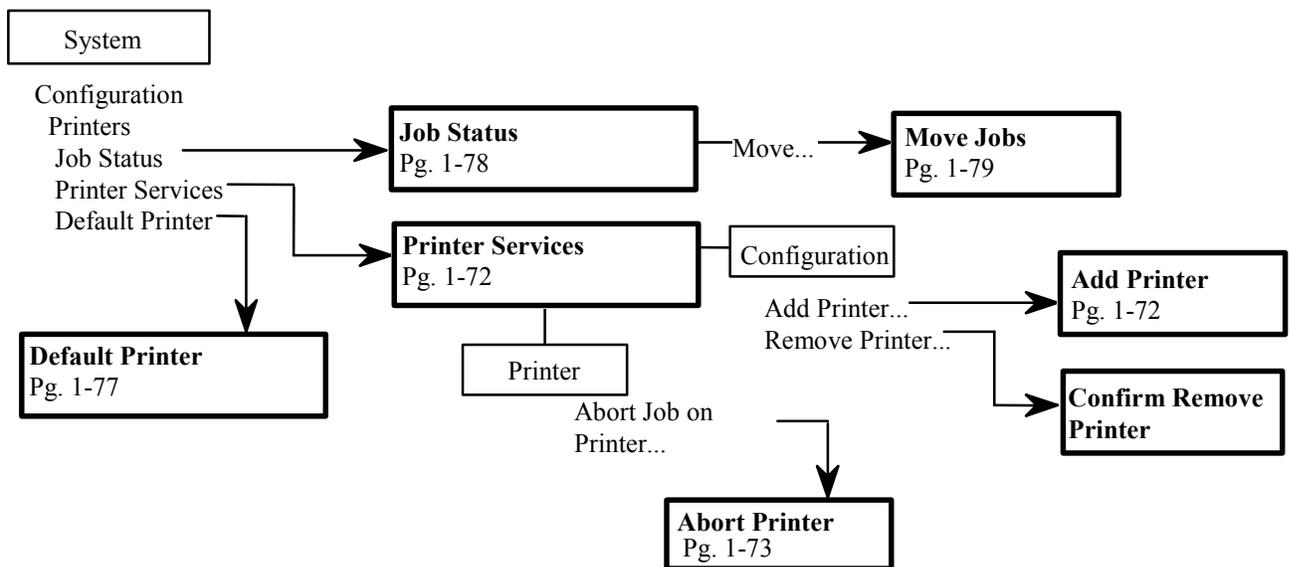


Figure 1.19 Printers Navigation

1-15.2.2 Printer Services.

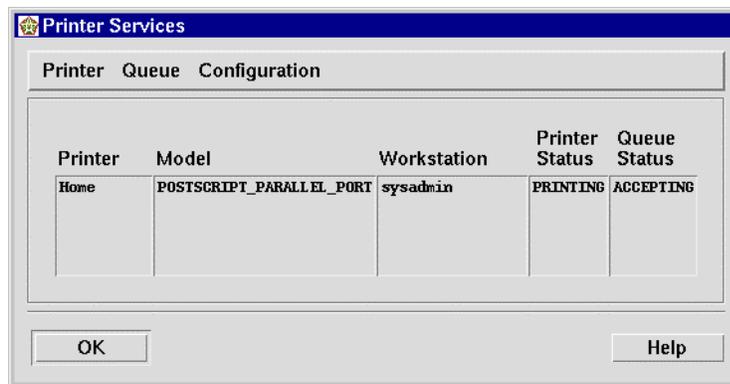
The **System\Configuration\Printers\Printer Services** selection opens the **Printer Services** window. This window allows the user to start, stop, and abort a printer for the assigned workstation. Stopping a printer puts the print job on hold. The print job may be restarted via the **Printer** menu. An aborted job is removed from the printer and must be sent again if printing is required. The SA uses this window to add or remove a printer from the unit configuration. The System Administrator also manages the accepting or rejecting of a print queue.

1-15.2.2.1 Printer Services Window.

This window allows the user to start and stop individual printers and to abort specific printing jobs on a selected printer. These functions are accessed via the **Printer** menu selections. Selecting a printer from the list and **Printer\Stop Printer** stops the printer from printing. The **Printer Status** will indicate **DOWN**. The print job is still available in the printer queue and will be resumed if **Printer\Start Printer** is selected.

Selecting a printer from the list and **Printer\Start Printer** starts the printer. The **Printer Status** will indicate **IDLE** if there are no print jobs in the queue or **PRINTING** if a print job is available.

Selecting a printer from the list and **Printer\Abort Job on Printer...** stops the print job in progress. This job will be removed from the print queue and cannot be restarted. The **Printer Status** will indicate **IDLE** if there are no print jobs in the queue or **PRINTING** if a print job is available.

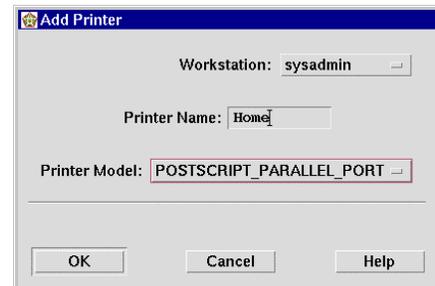


The **Queue** menu selections are used to establish whether or not the printer will accept jobs. Selecting **Accept Jobs** allows the printer to receive jobs. The **Queue Status** will indicate **ACCEPTING**. Selecting **Reject Jobs** prohibits the printer to receive jobs. The **Queue Status** will indicate **REJECTING**.

The user may also add or remove printers from the **Printer Services** window. The **Printer Services** window **Configuration\Add Printer...** selection opens the **Add Printer** window from which a printer can be selected from a list of available printers. The **Printer Services** window **Configuration\Remove Printer...** selection opens the **Confirm Remove Printer** window to confirm removal of a selected printer.

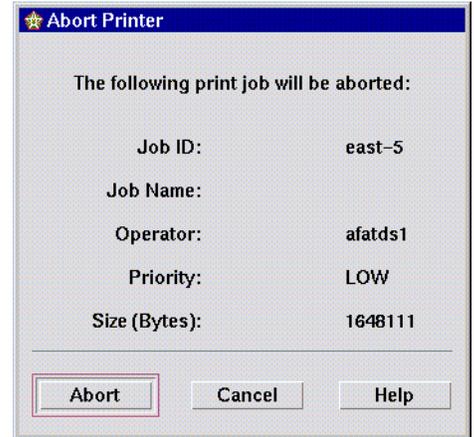
1-15.2.2.2 Add Printer Window.

The **Add Printer** is accessed from the **Printer Services** window via the **Configuration\Add Printer...** selection. The **Workstation:** menu lists all workstations for which a printer was detected. The user enters a **Printer Name:** and selects the **Printer Model:** for each selected workstation. Selecting **OK** then closes the window and adds the printer to the OPFAC configuration.



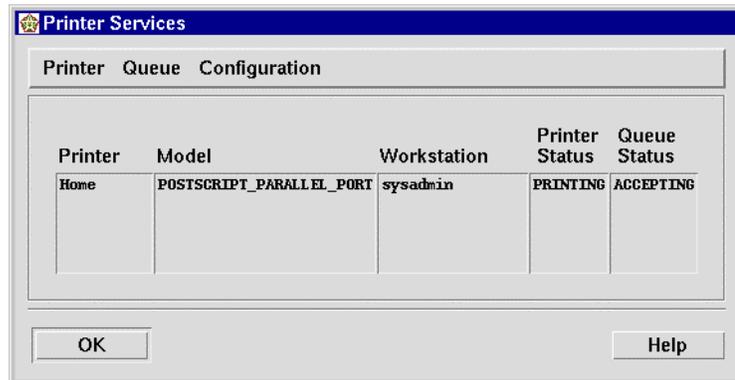
1-15.2.2.3 Abort Printer Window.

The **Abort Printer** window is used to abort a job that is currently being printed. The print job must be selected from the list on the **Printer Services** window. This enables the **Printer\Abort Job on Printer...** selection. This selection opens the **Abort Printer** window which lists the **Job ID:**, **Job Name:** (if assigned), **Operator:**, **Priority:**, and **Size(Bytes):**. Selecting **Abort** stops the print job and removes the job from the print queue.



1-15.2.2.4 Printer Services Procedure.

Printer Services Procedure		
Step	Action	Response
1.	Select <u>System\Configuration\Printers\Printer Services.</u>	The Printer Services window opens.



NOTE

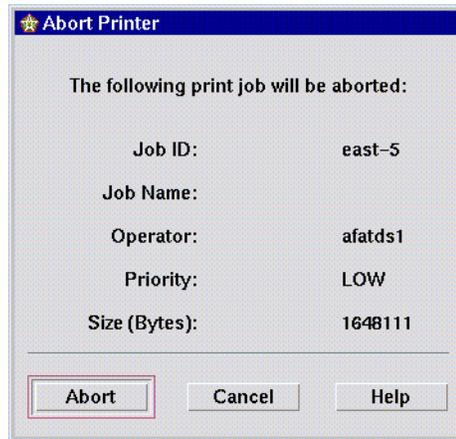
Selecting **OK** at any time closes **Printer Services** window.

To perform following **Printer Services** functions, proceed to indicated steps.

- Start printer step 2
- Stop printer step 5
- Abort printer..... step 8
- Start printer queue (System Administrator only) step 13
- Stop printer queue (System Administrator only) step 16
- Add printer (System Administrator only) step 19
- Remove printer (System Administrator only) step 25

Printer Services Procedure - CONT

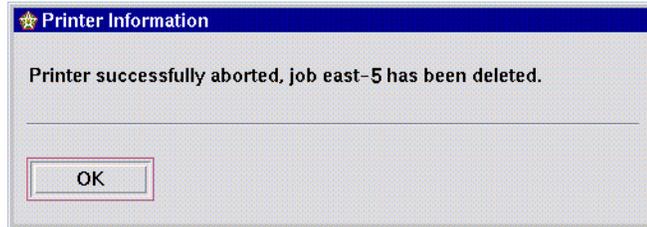
Step	Action	Response
2.	<u>Select printer</u> from list to start.	
3.	<u>Select Printer\Start Printer</u> .	Printer Status indicates IDLE or PRINTING.
4.	To perform other functions of Printer Services window, refer to note prior to step 2.	
5.	<u>Select printer</u> from list to stop.	
6.	<u>Select Printer\Stop Printer</u> .	Printer Status indicates down.
7.	To perform other functions of Printer Services window, refer to note prior to step 2.	
8.	<u>Select printer</u> from list to abort.	
9.	<u>Select Printer\Abort Job on Printer...</u> .	Abort Printer window opens displaying data for current print job on printer.



10. Select **Abort**. **Printer Information** window opens.

Printer Services Procedure - CONT

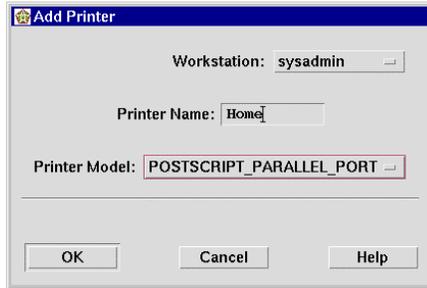
Step	Action	Response
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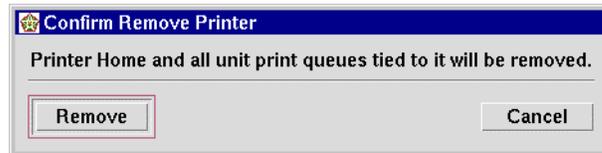
11.	<u>Select OK</u> .	Printer Information window closes.
12.	To perform other functions of Printer Services window, refer to note prior to step 2.	
13.	<u>Select printer</u> from list for which to have print queue started.	
14.	<u>Select Queue\Accept Jobs</u> .	Queue Status indicates ACCEPTING .
15.	To perform other functions of Printer Services window, refer to note prior to step 2.	
16.	<u>Select printer</u> from list for which print queue is to be stopped.	
17.	<u>Select Queue\Reject Jobs</u> .	Queue Status indicates REJECTING .
18.	To perform other functions of Printer Services window, refer to note prior to step 2.	
19.	<u>Select Configuration\Add Printer...</u>	Add Printer window opens.

Printer Services Procedure - CONT

Step	Action	Response
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20.	<u>Select Workstation:</u>	
21.	<u>Enter Printer Name:</u> (1-10 alphanumeric characters).	
22.	<u>Select Printer Model:</u>	
23.	<u>Select OK.</u>	Add Printer window closes and new printer is shown in Printer Services window.
24.	To perform other functions of Printer Services window, refer to note prior to step 2.	
25.	<u>Select printer</u> from list to be removed.	
26.	<u>Select Configuration/Remove Printer...</u>	Confirm Remove Printer window opens.

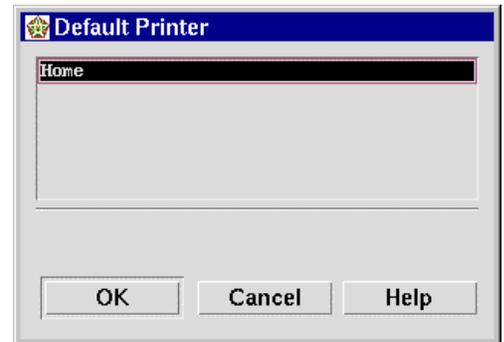


Printer Services Procedure - CONT

Step	Action	Response
27.	Select Remove to remove printer from list.	Confirm Remove Printer window closes and printer is removed from Printer Services window.
28.	To perform other functions of Printer Services window, refer to note prior to step 2.	

1-15.2.2.5 Default Printer Selection.

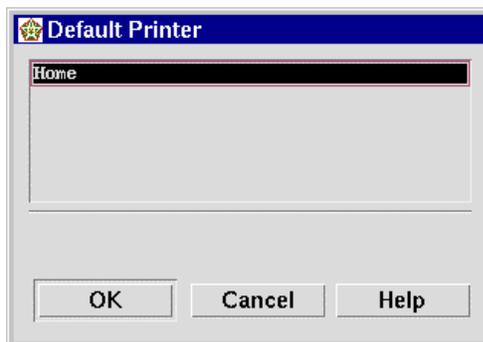
The **System\Configuration\Printers\Default Printer** selection is used to select the printer to be designated as the default printer for the workstation. Default printers are established by each workstation. Print jobs generated at the workstation will be queued to this printer unless the user specifies differently. A maximum of 12 printers may be displayed in the list.



1-15.2.2.6 Default Printer Procedure.

Default Printer Procedure

Step	Action	Response
1.	Select System\Configuration\Printers\Default Printer.	Default Printer window opens with current default printer highlighted.



Default Printer Procedure - CONT

Step	Action	Response
2.	<u>Select printer</u> from list to be default printer.	
3.	<u>Select OK</u> .	Default Printer window closes.

1-15.2.2.7 Job Status.

System\Configuration\Printers\Job Status selection opens the **Job Status** window. This window displays a listing of all print jobs in the default printer queue for the workstation when initially opened. The user may choose to view jobs in other or **All** printer queues within the OPFAC. A selection is also available to view print jobs of an individual user.

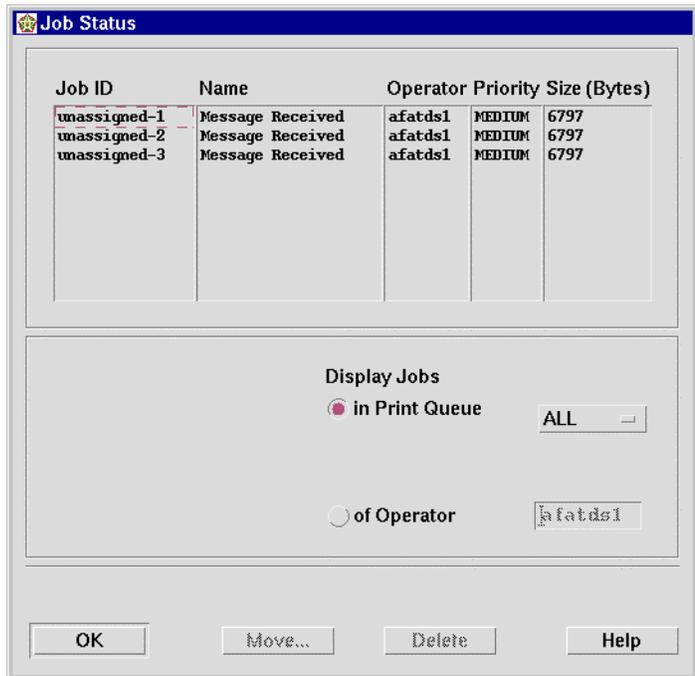
Move... and **Delete** functions allow the user to send a job to another printer or delete the job. Jobs may be moved or deleted only by the workstation that they were generated from with one exception. The System Administrator has privilege to **Move...** a job to another printer and/or **Delete** any job.

1-15.2.2.8 Job Status Window.

The **Job Status** window is accessed via the **System\Configuration\Printers\Job Status** selection. This window displays the **Job ID**, **Name**, **Operator**, **Priority**, and **job Size (Bytes)** for active print jobs within the OPFAC. The user can choose to display only those jobs that are specific to an user or queue. Selecting the radio button for **in Print Queue** and a printer from the associated menu causes the job for that printer only to be displayed. Selecting the radio button for **of Operator** and entering a user name causes the jobs for that user only to be displayed.

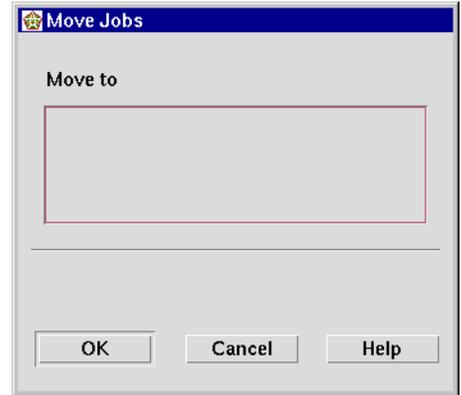
Selecting a job and **Move...** opens the **Move Jobs** window. This window allows the user to select a destination printer for the move.

Selecting a job and **Delete** removes the job from the print queue.



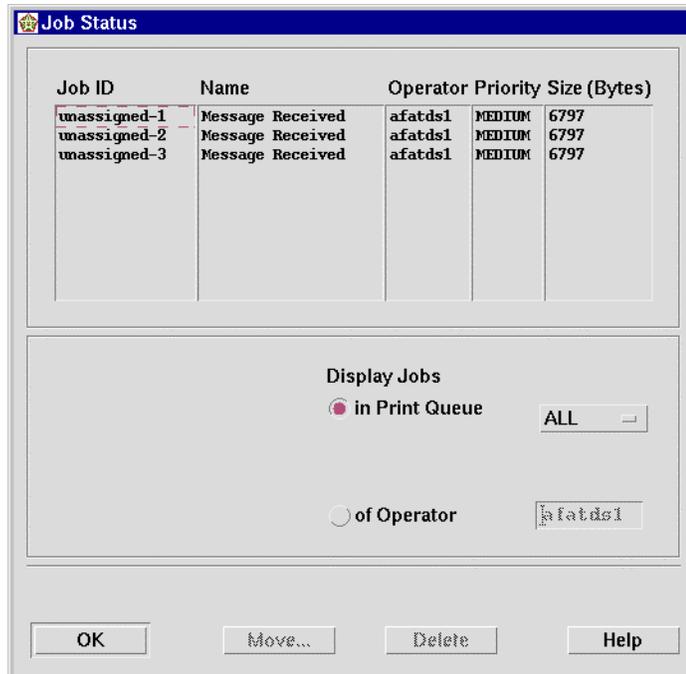
1-15.2.2.9 Move Jobs Window.

The **Move Jobs** window contains a list of available printers. The user selects a printer as the destination for the job move and **OK** to move the job to that printer.



1-15.2.2.10 Job Status Procedure.

Job Status Procedure		
Step	Action	Response
1.	Select System\Configuration\Printers\ Job Status .	Job Status window opens with list of print jobs in queue.



Job Status Procedure - CONT

Step	Action	Response
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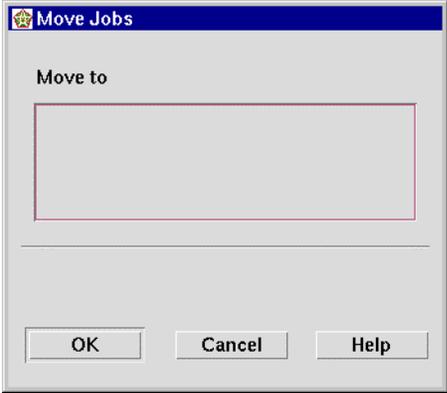
NOTE

Selecting **OK** closes window. To perform **Job Status** functions proceed to indicated steps.

Display jobs in print queue step 2
 Display jobs of operator step 5
 Delete selected job(s) step 8
 Move selected job(s) step 11

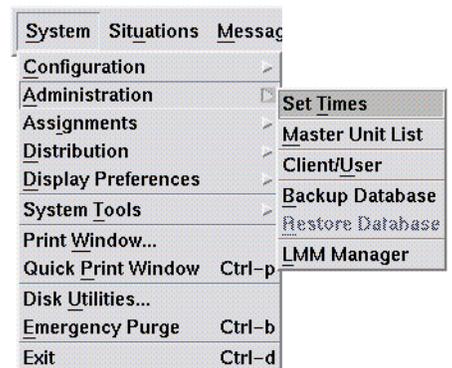
2.	<u>Select in Print Queue</u> radio button.	Status list shows print jobs in Print Queue shown.
3.	<u>Select specific print queue</u>	Current print jobs in displayed queue (or All) are listed.
	or	
	<u>ALL</u> from in Print Queue option menu.	
4.	To perform other functions of Job Status window, refer to note prior to step 2.	
5.	<u>Select of Operator</u> radio button to display print job status of specific user.	Field of Operator enabled for entering user name.
6.	<u>Enter user name</u> (1-8 alphanumeric characters).	Current user print jobs are listed.
7.	To perform other functions of Job Status window, refer to note prior to step 2.	
8.	<u>Select job(s)</u> to delete from list.	
9.	<u>Select Delete.</u>	Selected job(s) is deleted.
10.	To perform other functions of Job Status window, refer to note prior to step 2.	
11.	<u>Select Job(s)</u> to be moved.	
12.	<u>Select Move....</u>	Move Jobs window opens listing available printers.

Job Status Procedure - CONT

Step	Action	Response
		
13.	<u>Select destination printer.</u>	
14.	<u>Select OK.</u>	Job(s) is moved to destination printer.
15.	To perform other functions of Job Status window, refer to note prior to step 2.	

1-16 **SYSTEM ADMINISTRATION.**

The **System\Administration** menu provides access to windows which allow the System Administrator to manage various system administration functions. These functions include maintaining user accounts and IDs, updating master unit list, database backup and restoration, and synchronization of workstation time. The functions, accessed through the **Administration** selection, are shown on the menu at right.



1-16.1 Administration Navigation.

The **System\Administration** thread consists of smaller independent threads which are accessed through the **System\Administration** menu selections.

The **System\Administration\Set Times** selection opens the **Set Times** window which is used to set the system time, synchronize all workstations within an OPFAC to a common time, and to select the displayed time zone.

The **System\Administration\Master Unit List** selection opens the **Master Unit List** window. From the **Master Unit List** window, the user can add, edit, or delete specific unit ID's from the list. Adding a new unit or editing an existing unit opens the **Edit Unit** window. The **Edit Unit** window allows the user to change or review various aspects of the unit including the unit ID and system type. When selecting a system type, the **Select System Type** window opens to allow selection from a list of available system types. Deleting a unit ID from the **Master Unit List** window opens the **Confirm Delete Unit** window.

The **System\Administration\Users** selection opens the **Select User** window which displays a list of assigned user IDs. All user ID and password functions on a COE platform are by the Security Manager using COE functions. Selecting **Options>Edit** from the **Select User** window opens the **User Account** window which allows the user to assign privilege group(s) to the specified user ID. Selecting **Groups** from the **User Account** window opens the **User Groups** window which allows the user to select a group from a list of available user groups.

The **System\Administration\User Groups** selection opens the **User Groups** window. From this window, the user can create a new group, or edit, view, or delete an existing user group. All options except **Delete...** open the **User Group Edit** window. The **User Group Edit** window allows the user to assign privileges to a user group. Selecting the **Delete...** option from the **User Groups** window opens the **Confirm Delete User Group** window.

The **System\Administration\Backup Database** selection opens the **Backup Database** window which allows the user to copy the OPFAC's database to an optical disk. The **System\Administration\Restore Database** selection opens the **Restore Database** window which allows the user to restore a previously backed-up database from an optical disk. The **Backup Database** and **Restore Database** windows utilize the **Verify Backup** and **Verify Restore** windows as a final confirmation from the user before initiating backup or restore operations. The **Restore Database** selection is only available prior to activation of the Unit Configuration. The **Backup** selection is only available after activation.

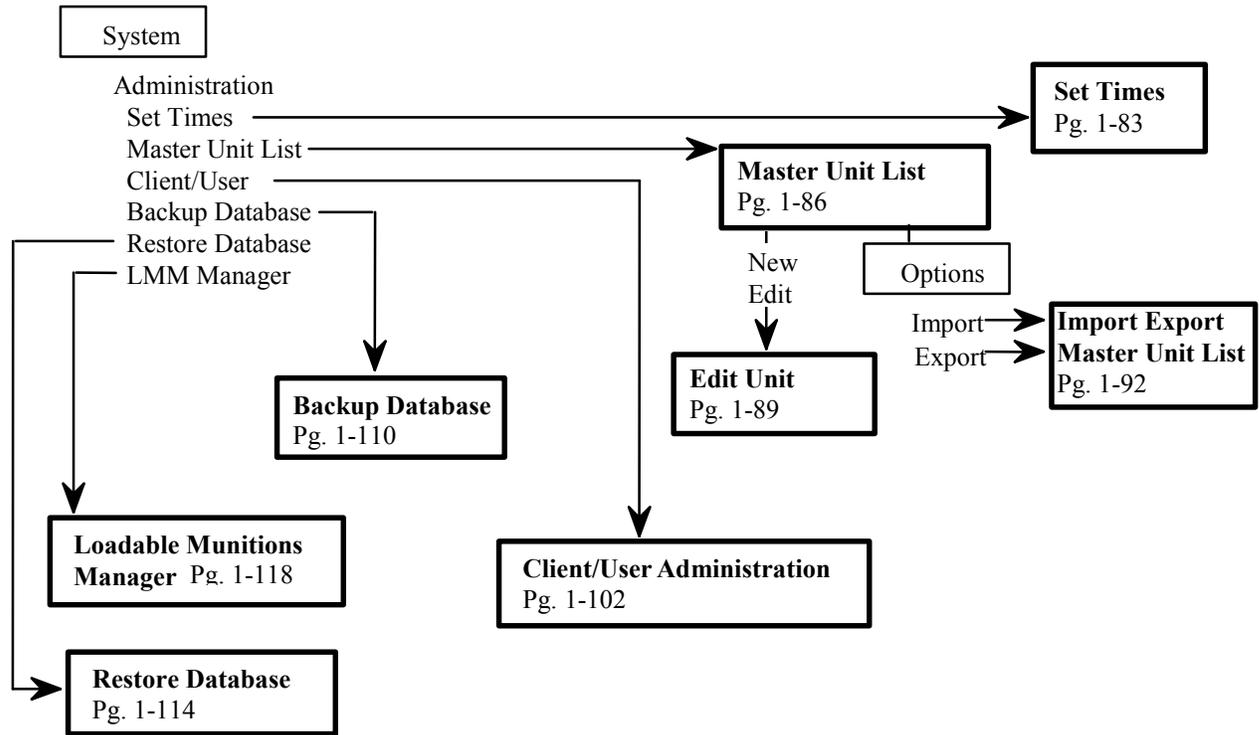


Figure 1.20 Administration Navigation

1-16.2 Administration Functions.

The functions and windows which are accessed from the **System\Administration** menu selections are shown and described in the following paragraphs.

1-16.3 Set Times Window.

This selection opens the **Set Times** window (Figure 1.21). This window displays a **Workstation ID**, **Workstation Time**, and the time difference (**Variance (hr/min/sec)**) for each workstation. The **Synchronization Time**: field displays the time of the selected workstation, or when selected, allows the user to enter a DTG. Time is entered as the day, hour, minute, time zone reference, month, and year. The time may be set to any time without restriction prior to activation. After activation, the time can be set to the currently displayed time ± five minutes only.

CAUTION

Do not attempt to set a system time earlier than January 1992. Times earlier than this will violate software license constraints and will corrupt databases.

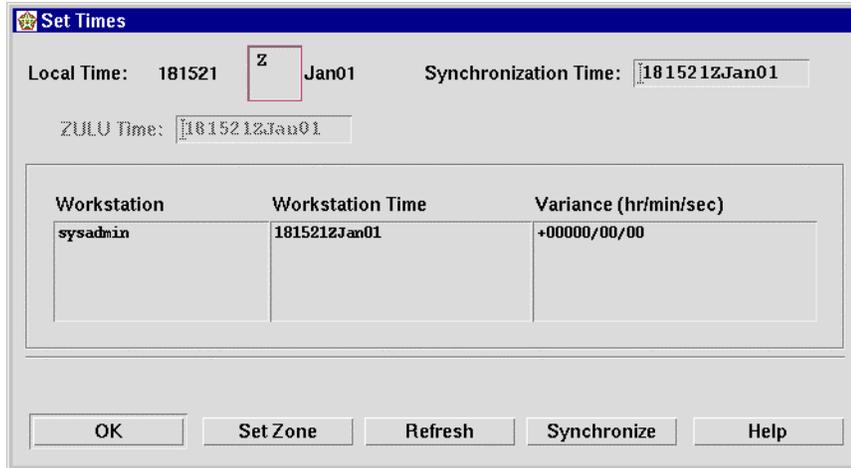


Figure 1.21 Set Times Window

NOTE

Because of the time stamps applied to files, it is important that times be maintained as accurately as possible. Received data contains a time stamp from the sending unit. If the times at the sending and receiving units differ significantly data could be lost. For example, if the sending unit has a system time five minutes earlier than the receiving unit, and the same data was updated within the last five minutes at the receiving unit, the received data will be discarded due to the older time stamp.

The **Local Time:** field displays the time for a selected time zone and is the time that is displayed on the Status Bar. Entering a time zone in the **Local Time:** field and selecting **Set Zone** sets the **Local Time:** display to the time zone and refreshes all time displays. The **ZULU Time:** field displays the current time for the Zulu (GMT) time zone.

The **Synchronize** button sets the time for all workstations to the time shown in the **Synchronization Time:** field. The **Refresh** button updates the **Workstation Time** and **Variance (hr/min/sec)** fields to reflect a current snapshot of time. It is important that the system time be verified and corrected as necessary prior to activation of the OPFAC to ensure that database time stamps are correct. Under normal circumstances, the OPFAC time should not vary significantly enough to require multiple **Set Times** operations. Also, workstations added to the OPFAC subsequent to activation will have their clocks automatically synchronized with the OPFAC.

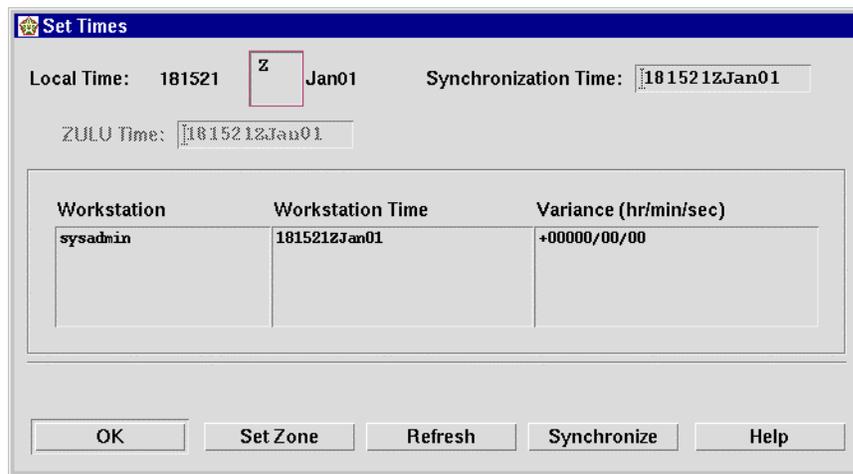
1-16.4 Set Times Procedure.

NOTE

Depressing the **Refresh** button updates the display of workstation times and variances.

Set Times Procedure

Step	Action	Response
1.	<u>Select System\Administration\Set Times.</u>	The Set Times window opens.



2.	<u>Enter local time zone</u> in Local Time: field.	
3.	<u>Select Set Zone.</u>	All times are refreshed and local time is displayed in Local Time: field.
4.	<u>Select Workstation</u> with time to which others synchronize to or <u>Enter Synchronization Time:</u> (Standard DTG format).	Time of selected workstation or manually entered time is displayed in Synchronization Time: .
5.	<u>Select Synchronize.</u>	All workstations synchronize to Synchronization Time: .
6.	<u>Select OK.</u>	Clock Synchronization window closes.

1-16.5 Master Unit List Functions.

The **System\Administration\Master Unit List** selection opens the **Master Unit List** window. This window allows the user to manage the listing of all units in the system. Unit data entered and maintained includes the unit ID's, aliases, and system type. The user can create, edit, or delete units. Functions are also available to import the list from or export the list to an optical disk. In order for AFATDS to operate consistently and correctly, it is critical that the master unit list be maintained in a consistent manner across the entire system, meaning all AFATDS OPFAC's. Under normal circumstances, the master unit list should be administrated by a single higher headquarters and distributed to all other AFATDS equipped units via the master unit list **Export** and **Import** selections. To the extent that is practical, changes to the master unit list subsequent to deployment should be minimized. Deletion of a unit from the master unit list is discouraged since database integrity may be compromised if references to the deleted unit still exist in any database at any AFATDS OPFAC.

1-16.5.1 Master Unit List Window Navigation.

The **Master Unit List** (MUL) window is opened via the **System\Administration\Master Unit List** selection. The **Options** window menu contains selections used to open the import and export windows. **New** and **Edit** buttons open the **Edit Unit** window used to create and edit unit data. The **Filters** button opens the **Unit List Filters** window. This window allows the operator to filter the units displayed on the MUL.

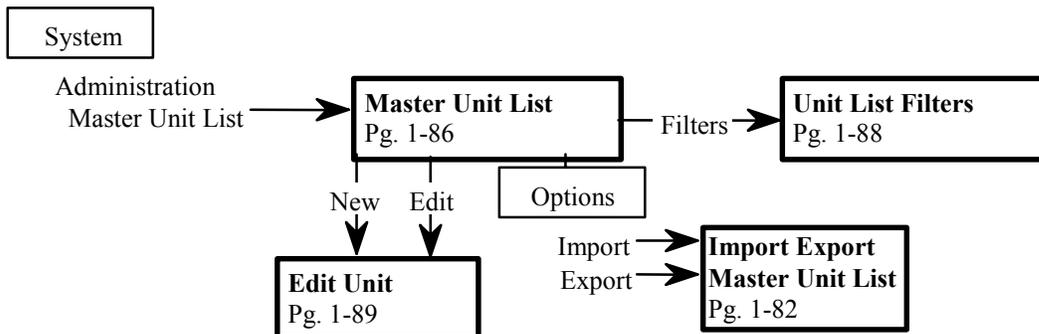


Figure 1.22 Master Unit List Navigation

1-16.5.2 Master Unit List Window.

The **Master Unit List** window (Figure 1.23) displays the **Unit ID**, **System Type**, and **Unit Number** for all units contained in the system that are selected for display. Up to 32,766 units may be contained in the unit list. The units are displayed on pages of up to 200 units each of which 15 lines are visible at one time. The user moves from page to page using the **Previous** and **Next** buttons. The pages are then scrolled to view the units on that page. The user can reduce the number of units displayed by setting filters for specific unit numbers, system type(s), and/or unit ID's. Filters are set by selecting the **Filters** button to open the **Unit List Filters** window. The **Filtered By:** field will display the types of filters set for the display.

NOTE

The terms Naval Gunfire (NGF) and Naval Surface Fire System (NSFS) are both used in this version of software. These terms mean the same thing.

All editing is done on the **Edit Unit** window which is accessed via the **New** and **Edit** selections. Selecting **New** opens the **Edit Unit** window with no data except the **Unit Number** that will be assigned to the new unit. Selecting a unit from the list and **Edit** opens the window with all previously entered data displayed.

The **Options** menu contains selections of **Import**, **Export**, and **Print**. These selections open the appropriate window to import or export data to or from an optical disk and print the master unit listing.

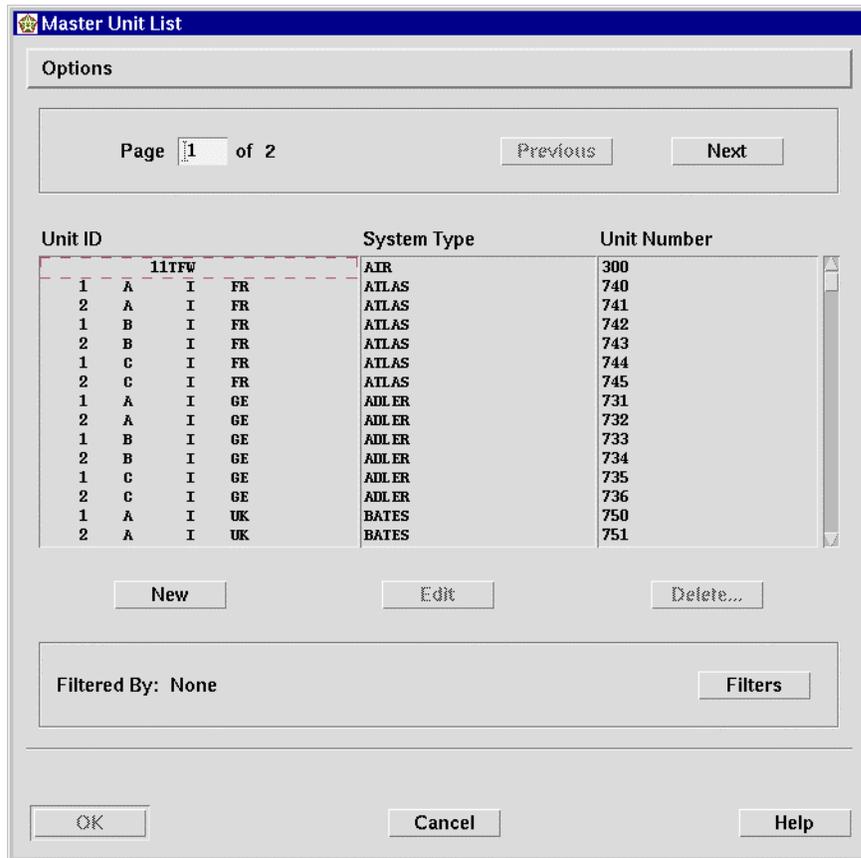


Figure 1.23 Master Unit List Window

1-16.5.3 Unit List Filters Window.

The **Unit List Filters** window is used to set the criteria for the units to be displayed on the **Master Unit List** window. The **Unit Number** fields **From:** and **To:** are used to set the range of unit numbers to be included in the display. As example, entering 500 in the **From:** field and 1200 in the **To:** field will cause the unit list to display only the units whose number fall in this range. The default range for these fields is 1 to 32766 (all units).

The **System Types** check boxes allow the user to select the units to be displayed based on the system type they are using. Check boxes are used to select the **System Types** to be included in the displayed list. A least one type must be selected. Buttons for **All** and **None** are available below the **System Types** list.

The **Unit ID:** consists of six direct entry fields used to enter the echelon identifiers of a unit. The entries must match the entries on the **Edit Unit** window in order for the unit to be listed on the **Master Unit List** window. Leaving a field blank or entering an asterisk will cause all units to be displayed as long as they match the entries of other fields. An asterisk can also be used for a character in an entry. As example, entering 45/* in a field will cause all units that have 45/ in their ID to be listed (e.g., 45/A, 45/B, etc.).

Filters can be used in any combination. As example, filters can be set to display a range of unit numbers (e.g., 400 to 900) and specific system types (e.g., AFATDS and BCS). Only those units falling within the number range and having the specific system type will be displayed.

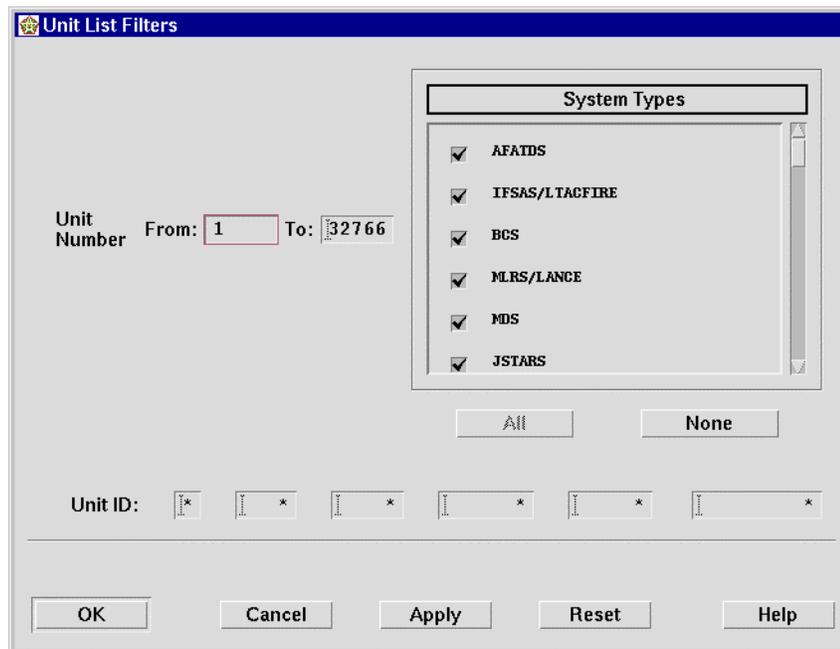


Figure 1.24 Unit List Filters Window

1-16.5.4 Edit Unit Window.

The **Edit Unit** window is opened from the **Master Unit List** window via the **New** or **Edit** buttons. When opened by the **New** button, the only data displayed will be the **AFATDS Unit Number**. Selecting an existing unit and **Edit** opens the window with the previously entered data displayed.

The **AFATDS Unit ID** is filled in and view only when editing an established unit. These fields are enabled and required when creating a new unit. The **AFATDS Unit ID** consists of six (6) fields for the echelons that make up the unit ID. The fields, from left to right, are used to input the section/squad, platoon, battery/company, battalion/squadron, regiment/brigade/wing, and division/corps.

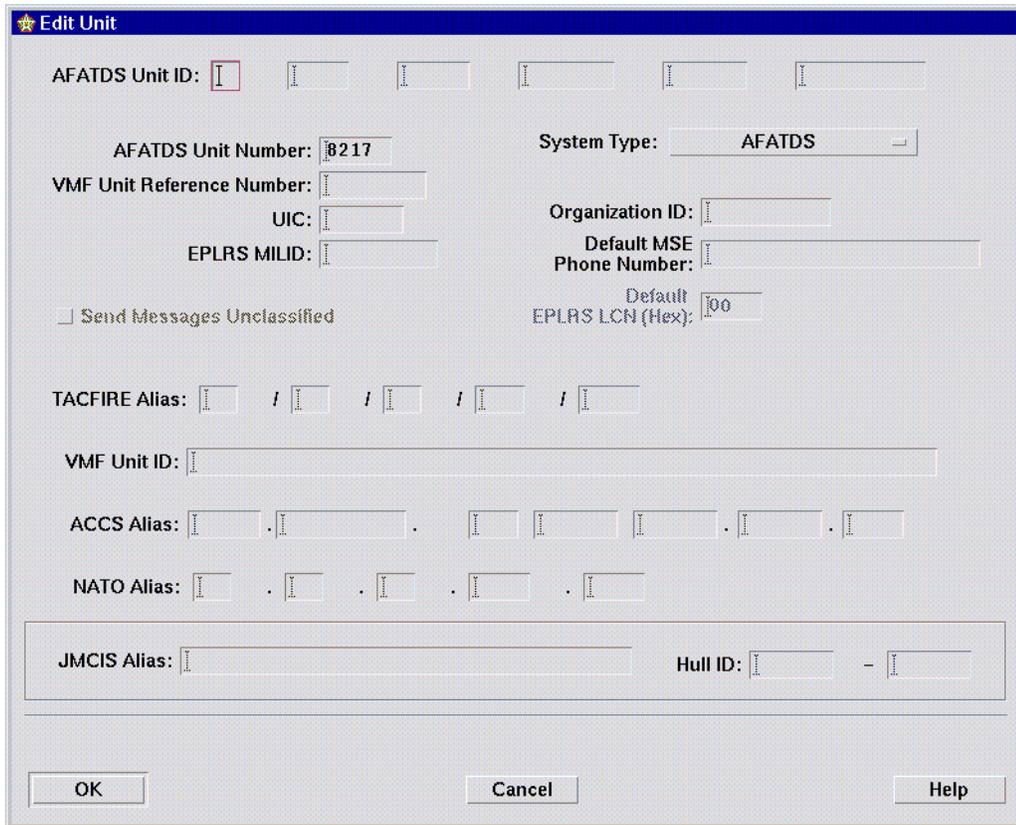
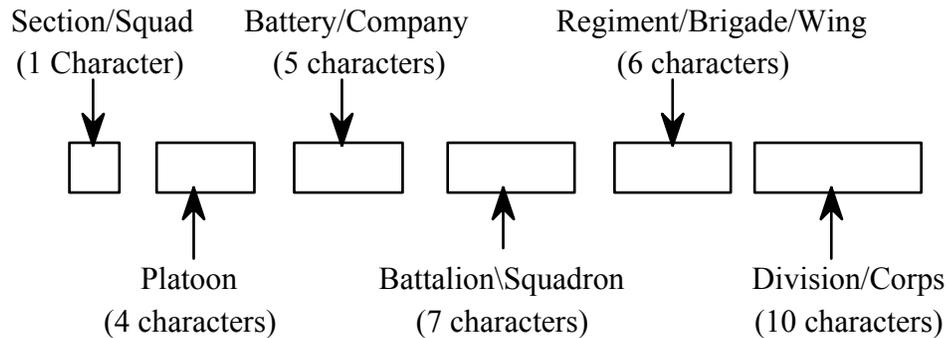


Figure 1.25 Edit Unit Window

The **System Type**: pop-up menu is used to select the system that the unit will be using. When creating a new unit, the field displays the default **Unconfigured**. The **System Type**: selected determines the fields that are required and/or enabled to complete the data entries for the unit. The system type/field combinations are shown in the following table.

Enabled/Required Fields by System

Field entries (E - enabled/ optional, R - required)	System Type							
	AFATDS, Army FCS, Army GDU	MLRS/ LANCE, MDS, JSTARS, DCT, Army DMD, FIST DMD, FED, MBC, ATHS, Firefinder Q-36, Firefinder Q-37, USMC DCT-Air, USMC DCT- Arty	ADLER ATLAS BATES	NGF Air	PKG11 Devices, FOS, JVMF, ABCS00, FBCB2,	CTAPS TBMCS JMCIS	IFSAS/ LTAC- FIRE, BCS,	MCS, ASAS, FAADC 2I, CSSCS,
AFATDS Unit ID	E-R	E-R	E-R	E-R	E-R	E-R	E-R	E-R
AFATDS Unit Number	E-R	E-R	E-R	E-R	E-R	E-R	E-R	E-R
VMF Unit Ref Num	E-R	E	E	E	E-R	E	E	E
UIC	E	E	E		E	E	E	E
EPLRS MILID ID	E	E	E		E	E	E	E
Organization ID	E	E	E	E	E	E	E	E
Default MSE Phone Number	E	E	E		E	E	E	E
Default EPLRS LCN								
Send Messages Unclassified					E			
TACFIRE Alias	E	E-R	E		E	E	E-R	E
VMF Unit ID	E-R	E	E	E	E-R	E	E	E
ACCS Alias	E	E	E		E	E	E	E-R
NATO Alias	E	E	E-R		E	E	E	E
JMCIS Alias	E	E	E	E	E	E	E	E
Hull ID	E	E	E	E	E	E	E	E

The **AFATDS Unit Number:** is filled in and view only when editing an established unit. This field is enabled and required when creating a new unit. The next available number is entered in the field when creating a new unit. This number may be edited by the user. The legal entry is 1 to 32766.

The **VMF Unit Reference Number:** is a identification number assigned to a unit using a VMF device.

The **UIC:** (Unit Identification Code) field contains a unit code assigned by headquarters that is used for numerous applications. This is an optional field that can be edited when reached from **New** or **Edit** on **Master Unit List** window. This field is not used for NSFS and Air types. The legal entry is 6 alphanumeric characters with the first character being alpha.

The **EPLRS MILID** - Enabled only when **System Type:** is AFATDS. The legal entry is 1 to 8 alphanumeric characters.

The **Organization ID:** is used to identify a unit on the TOC LAN.

The **Default MSE Phone Number** legal entry is 1 to 22 numeric characters. This entry is used to provide default phone number when a channel is configured for use with a MSE circuit switch device such as DSVT or DNVT phones.

The **Default EPLRS LCN:** field is enabled only when **System Type:** is AFATDS. The legal entry is 0-255.

The **Send Messages Unclassified** check box is selected when message traffic to and from this unit is to be unclassified.

The **TACFIRE Alias:** field contains an alias used for TACFIRE communications. This field is optional for ADLER and AFATDS system types. It is required for all other system types for which it is enabled.

The **VMF Unit ID:** field is used to enter the unit ID for VMF message traffic.

The **ACCS Alias:** field contains an alias used for ACCS (Army Command and Control System) communications. The legal entry for this field is 1 to 31 alphanumeric characters.

The **NATO Alias:** field contains an alias used for NATO communications. This field is required for ADLER, ATLAS, BATES, and SIR and is optional for all other system types for which it is enabled.

The **JMCIS Alias** and **Hull ID:** fields are used to identify the unit that is the JMCIS interface with AFATDS. The **JMCIS Alias** field entry is 3 to 38 alphanumeric or special characters. The **Hull ID** fields are optional unless the **JMCIS Alias** is 31 or more characters long, they are then required. The first field entry is 2 to 6 alphanumeric characters. The second field entry is 1 to 6 alphanumeric characters.

1-16.5.5 Import\Export Master Unit List Window.

The **Import Export Master Unit List** window is accessed from **System\Administration\Master Unit List** selection. The window is opened from the **Master Unit List** window **Options** menu selections **Import** and **Export**. This window provides the functionality to import or export all unit information in the master unit list. The default button **Import/Export** changes appropriately with the selected function.

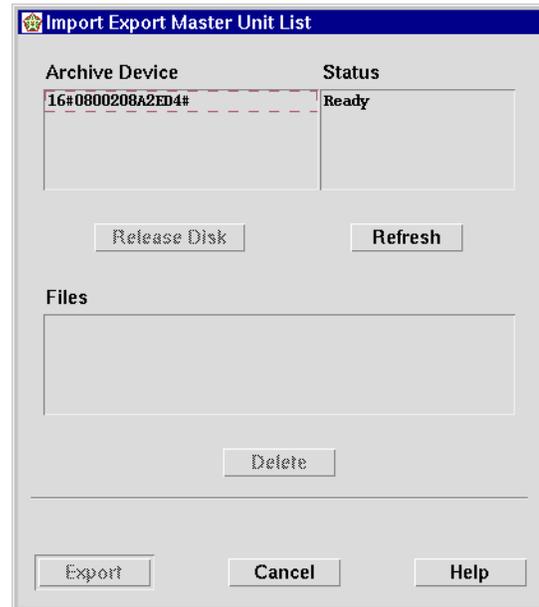
When the **Import Export Master Unit List** window is opened, workstations with removable media attached are displayed in the **Archive Device** list with their associated **Status** of **Ready** or **No Disk**. **No Disk** states that no disk is inserted in the optical disk drive.

When the operation is export, the user selects a workstation in the **Archive Device** list with a **Status** of **Ready** to receive the master unit list and selects **Export**.

The **Import Export Master Unit List** window closes and the master unit list file is written to the selected archive device. This process overwrites any master unit list file which may exist on the optical disk.

When the operation is import, the user selects a workstation in the **Archive Device** list with a **Status** of **Ready** from which to import the file named **Master Unit List**. The **Files** list fills with any existing **Master Unit List** file. When the file is selected, the **Delete** and **Import...** buttons are enabled. Selecting **Import...** opens the **Import Situation** window. Selecting **Import** on this window closes the **Import Situation** window and starts the import process that overwrites the corresponding master unit list file currently stored in the database.

The **Release Disk** button is enabled when an **Archive Device** is selected that has a disk inserted. Selecting **Release Disk** ejects the disk from the optical drive. The **Refresh** button updates this window with current status of the workstations. A low level alert message notifies the user when the import or export process is complete. The user may perform other tasks while importing or exporting the master unit list file.

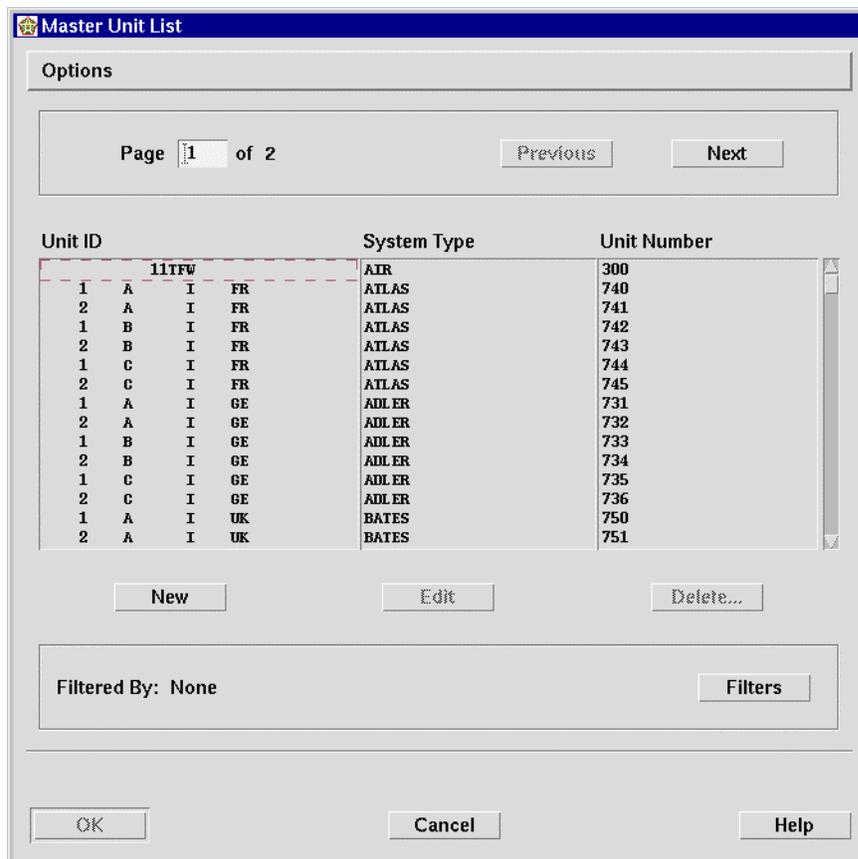


1-16.5.6 Master Unit List Procedure.

The following procedure details the steps necessary to export or import the Master Unit List file to or from removable media.

Master Unit List Procedure

Step	Action	Response
1.	Select System\Administration\Master Unit List .	Master Unit List window opens.



Master Unit List Procedure - CONT

Step	Action	Response
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NOTE

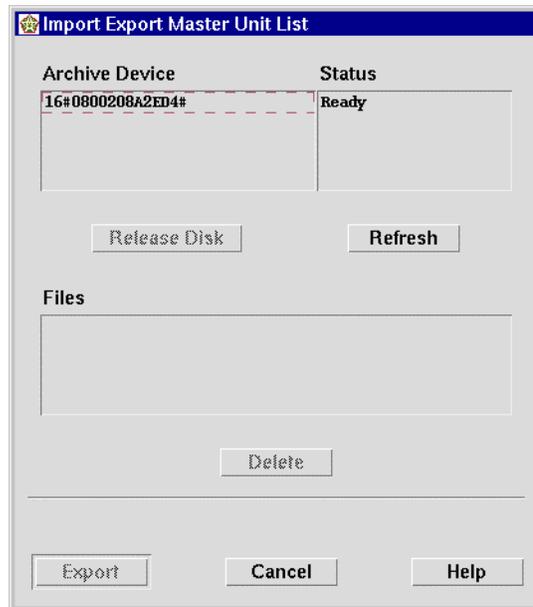
Selecting **OK** at any time closes **Master Unit List** window.

To perform following **Master Unit List** window functions, proceed to indicated steps.

Export list	step 2
Import list	step 7
Create a new unit	step 13
Edit a unit	step 14
Delete a unit	step 29

2. Select **Options\Export**.

Import Export Master Unit List window opens.



Master Unit List Procedure - CONT

Step	Action	Response
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NOTE

To remove disk after export function is complete, access **Import Export Master Unit List** window, select **Archive Device** from which to release disk, and select **Release Disk** button to eject selected disk. To refresh **Archive Device** list select **Refresh** button.

3. Select **Archive Device** with **Status** of **Ready** to receive file.

4. Select **Export**.

Confirm Master Unit List Export window opens.



5. Select **Export**.

Confirm Master Unit List Export window closes. **Import Export Master Unit List** window becomes active.

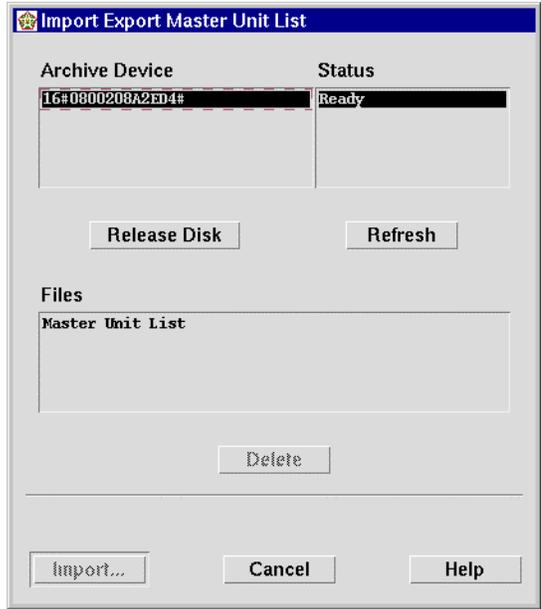
6. To perform other functions of **Master Unit List** window, refer to note prior to step 2.

7. Select **Options\Import**.

Import Export Master Unit List window opens.

Master Unit List Procedure - CONT

Step	Action	Response
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NOTE

To remove disk after import function is complete, access **Import Master Unit List** window, select **Archive Device** from which to release disk, and select **Release Disk** button to eject selected disk.

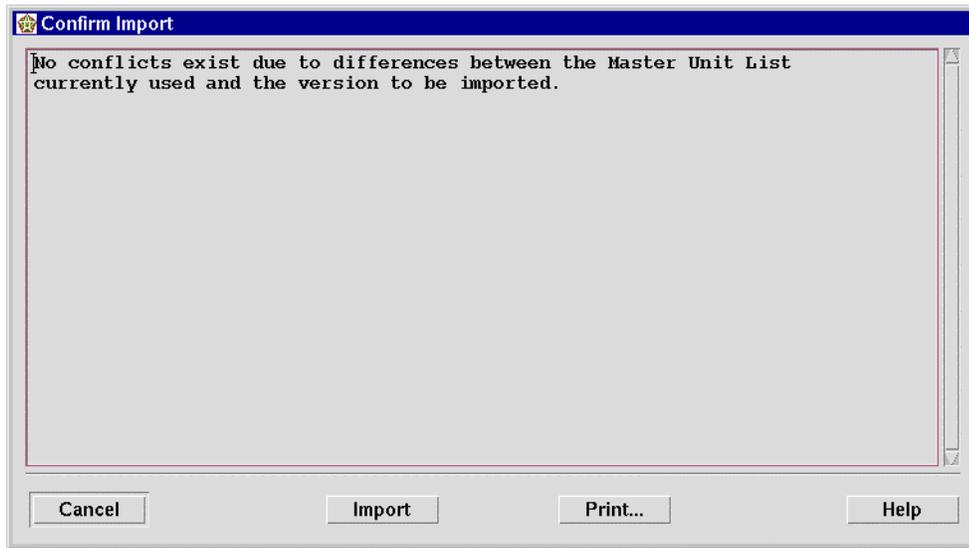
To refresh **Archive Device** list and clear **Files** list select **Refresh** button.

To delete an archive file from optical disk select **Archive Device** with **Status** of **Ready**, select file from **Files** list and select **Delete** button.

- | | |
|--|---|
| 8. <u>Select Archive Device</u> with status of Ready containing master unit list file to import. | Files list fills with any existing archive file names. |
| 9. <u>Select file Master Unit List</u> from Files list. | |

Master Unit List Procedure - CONT

Step	Action	Response
10.	<u>Select Import...</u>	Confirm Import window opens. This window lists any discrepancies note between the current lists and the list to be imported.



11.	<u>Select Import.</u>	Confirm Import window closes.
12.	To perform other functions of Master Unit List window, refer to note prior to step 2.	
13.	<u>Select New</u> (proceed to step 16).	Edit Unit window opens.
14.	<u>Select Unit ID:</u>	
15.	<u>Select Edit.</u>	Edit Unit window opens,

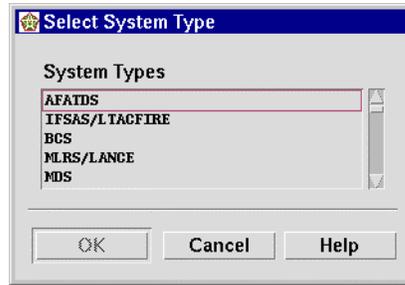
Master Unit List Procedure - CONT

Step	Action	Response
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- | | |
|-----|---|
| 16. | <u>Enter Unit ID:</u> |
| 17. | <u>Enter AFATDS Unit Number:</u> (0-32766). |

Master Unit List Procedure - CONT

Step	Action	Response
18.	<u>Select System Type:</u>	Select System Type window opens.



19.	<u>Select system type.</u>	
20.	<u>Select OK.</u>	Select System Type window closes. Selection appears in System Type : field.
21.	<u>Enter Default MSE Phone Number</u> (1-22 numeric characters).	
22.	<u>Enter Default EPLRS LCN:</u> (0-255).	
23.	<u>Enter EPLRS MILID:</u> (1-8 alphanumeric characters).	

NOTE

Legal entries for **TACFIRE Alias**: fields are:

Section Number.....	1 alphanumeric character
Platoon Number	1 alphanumeric character
Battery	1 alphanumeric character
Battalion or Observer number	2 alphanumeric characters
Regiment/Brigade/Division	3 alphanumeric characters

Master Unit List Procedure - CONT

Step	Action	Response
24.	Enter TACFIRE Alias: (required for AFATDS and TACFIRE systems, 1-8 alphanumeric characters).	

NOTE

Legal entries for **NATO Alias:** fields are:

Section Number 1 alphanumeric character
 Platoon Number 1 alphanumeric character
 Battery 1 alphanumeric character
 Battalion or Observer number 3 alphanumeric characters
 Regiment/Brigade/Division 3 alphanumeric characters

25.	Enter NATO Alias: (1-9 alphanumeric characters).	
-----	--	--

NOTE

The fields for the **ACCS Alias** do not necessarily relate to an echelon. The user will normally enter echelons, but as long as the entries match entries at other OPFAC's and are within legal limits, no other restrictions apply. Legal entries for **ACCS Alias:** fields are:

1st 1-4 alphanumeric characters
 2nd 1-9 alphanumeric characters
 3rd 1-2 alphanumeric characters
 4th 1-5 alphanumeric characters
 5th 1-5 alphanumeric characters
 6th 1-5 alphanumeric characters
 7th 1-3 alphanumeric characters

26.	Enter ACCS Alias: (1-33 alphanumeric characters).	
-----	--	--

Master Unit List Procedure - CONT

Step	Action	Response
27.	<u>Select OK.</u>	Edit Unit window closes.
28.	To perform other functions of Master Unit List window, refer to note prior to step 2.	
29.	<u>Select unit</u> to be deleted.	
30.	<u>Select Delete...</u>	Confirm Unit Delete window opens.
31.	<u>Select Delete.</u>	Confirm Delete Unit window closes.
32.	To perform other functions of Master Unit List window, refer to note prior to step 2.	



1-16.6 Client/User Administration.

The **System\Administration\Client User** selection allows the SA to control the privileges of users assigned to the OPFAC and access to the AFATDS database by clients. Clients are external systems that are given access to, and privileges for, parts of the AFATDS database. Descriptions and procedures for user ID and password are COE functions and are contained in TM 11-7025-297-10-2, chapter 6.

The SA creates and names groups that contain specific and unique privileges. A group may be assigned privileges that allow access to data stored in a single database or in multiple databases. Groups are created for both users and clients. Clients and users are associated with a group or groups to assume the privilege of the group(s).

The absence of a privilege will cause the system to restrict a user/client from performing an action by two methods. The first method, which is used most frequently, is when a user performs the action for which he does not have the required privilege, the expected window will not open. Instead an informational window will open indicating **No privilege exists for selected action!**. This window contains an **OK** button to allow the user to acknowledge that he understands why the expected window did not open. The second method, which is used infrequently, is that a selection will be grayed out preventing the user from selecting an action.

1-16.6.1 Client/User Administration Window.

The **Client/User Administration** window is used to create clients, client and user groups, and associations between clients and users and these groups. Associations are the assignments of groups to a user or client. Tabs at the left of the window control the display of the **Client** or **User** menu trees. Window functions are accessed by the **Action** menu and the icons of the Tool bar.

Clients and Client Groups or Users and User Groups folders are displayed depending on the tab selected. Double-clicking an entry in the tree toggles the display of sub-folder displays in the tree. For example, double-clicking the **Client Groups** folder toggles the display of defined groups. Double-clicking a group folder toggles the display of associations with that group. The frame to the right of the menu tree changes to display the data appropriate to the menu selections.

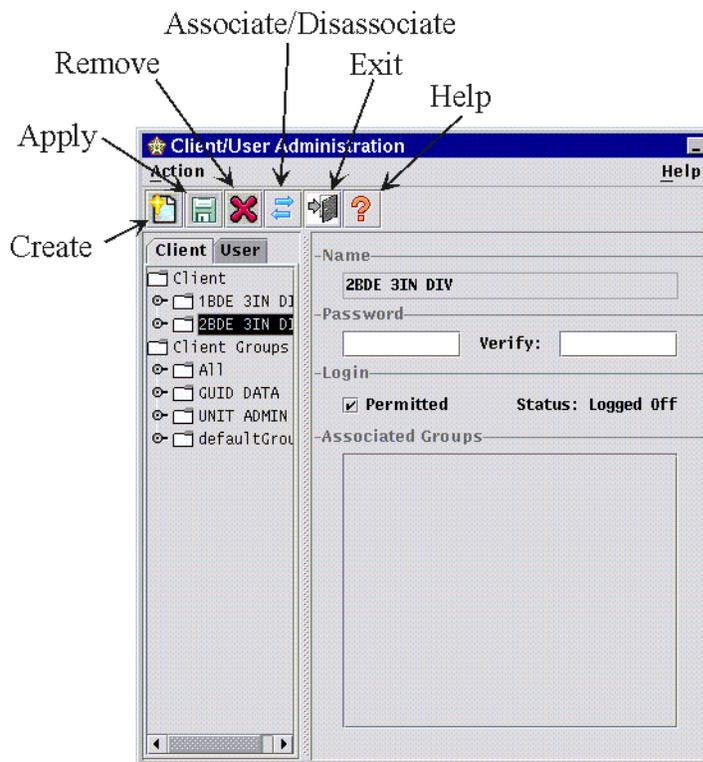


Figure 1.26 Client/User Administration Window

New clients and groups are created using the **Action\New** menu selections or the **Create** icon. The **Create** icon is enabled when a client or group folder is selected. Selecting the icon opens a data frame for a respective item (e.g., a User Group).

The **Action\Number of Clients** selection displays a data frame that lists the clients that are currently connected (logged-in). This frame also can be edited to enter the maximum number (1 to 10) of clients permitted to be connect at any one time.

The **Action\Save** and **Apply** icon selections are used to save (after confirmation) any new or edited data.

The **Remove** icon is used to delete (after confirmation) a client or group. This icon is enabled only when a client or group is selected that does not have any associations.

The **Associate/Disassociate** icon is used to assign groups to clients and users. This icon is enabled when a client or user is selected. The data frame lists the groups associated with a selected client or user and the available groups. Up and Down transfer arrows are used to assign and de-assign groups to and from a client/user.

The **Action\Exit** and **Exit** icon close this window, The **Help** icon opens the Help window.

1-16.6.2 Users Management Procedure.

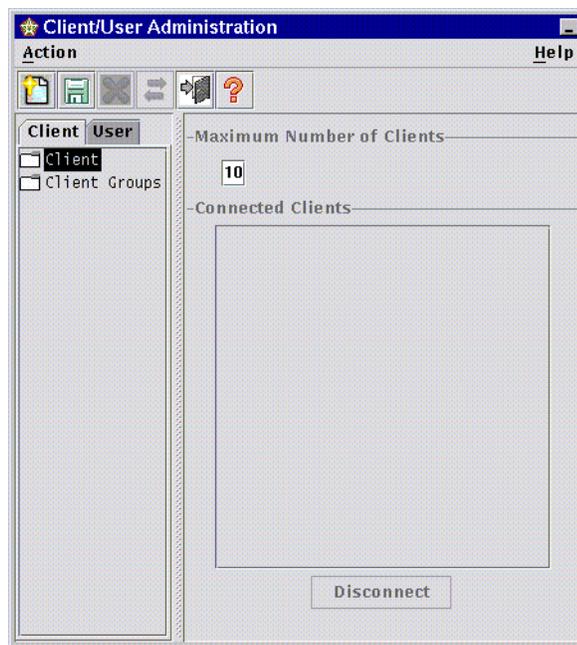
The Users Management Procedure is used to edit user accounts and user groups.

NOTE

The following procedure details the steps necessary to edit individual user accounts. As part of the user account procedure, the user account is assigned to a user group and the group is assigned group privileges.

Users Management Procedure

Step	Action	Response
1.	<u>Select System\Administration\Client/User.</u>	Client/User Administration window opens.



Users Management Procedure - CONT

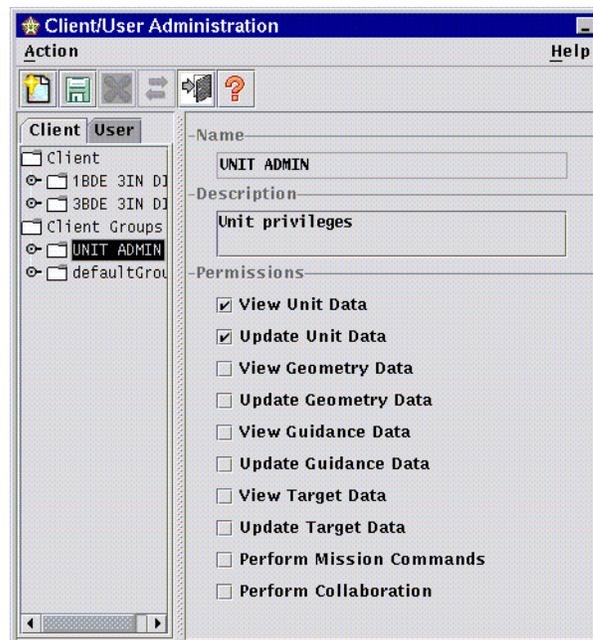
Step	Action	Response
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NOTE

Selecting **Action\Exit** at any time closes this window. To perform following **Client User/Administration** window functions, proceed to indicated steps.

- Create new Client Group step 2
- Edit Client Group step 11
- Create new Client step 16
- Associate/Disassociate a Client/User with a group step 25
- Create new User Group step 33
- Edit User Group step 42
- Delete a Client, Client Group, or User Group step 47

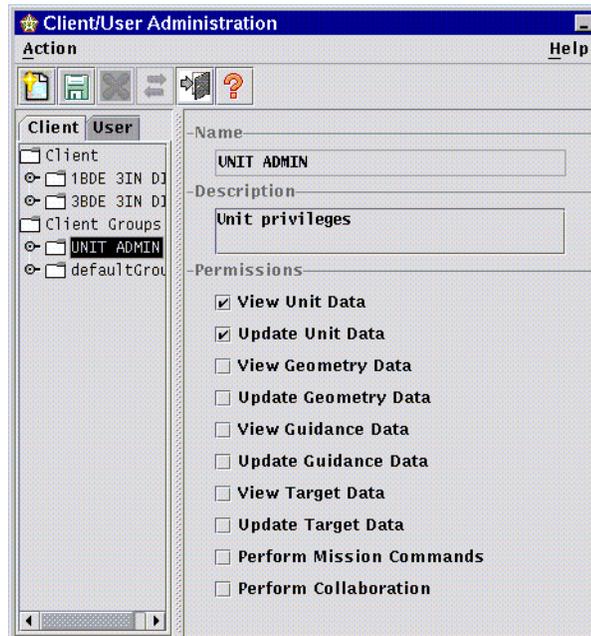
2.	Select Client Groups folder.	
3.	Select Action\New\Client Group or Create icon.	Client Group data frame displayed.



4.	Enter group Name (1 to 32 alphanumeric characters).	
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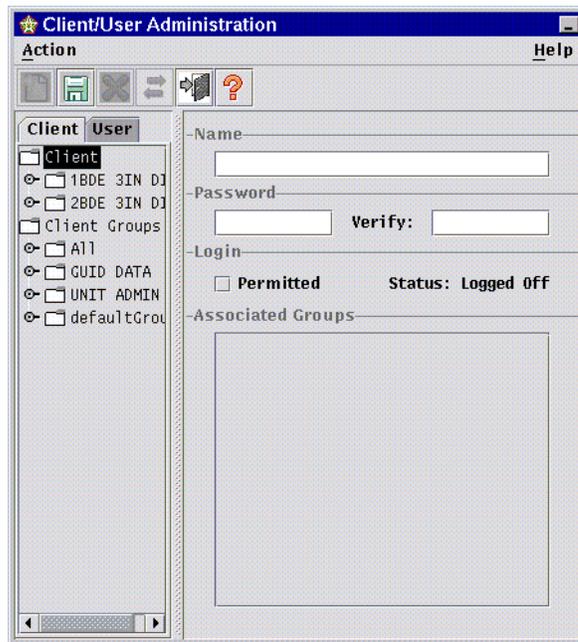
Users Management Procedure - CONT

Step	Action	Response
5.	<u>Enter a Description</u> of the group.	
6.	<u>Select check boxes</u> for Permissions (privileges) to be assigned to group.	
7.	<u>Select Action\Save</u> or Apply icon.	Confirmation window opens.
8.	<u>Select Yes</u> .	Confirmation window closes.
9.	<u>Repeat steps 3 thru 8</u> for each new group.	
8.	<u>Select Yes</u> .	Confirmation window closes.
9.	<u>Repeat steps 3 thru 8</u> for each new group.	
10.	To perform other functions of Client/User Administration window, return to note prior to step 2.	
11.	<u>Select Client Group</u> to be edited from menu tree.	Client Group data frame displayed.



Users Management Procedure - CONT

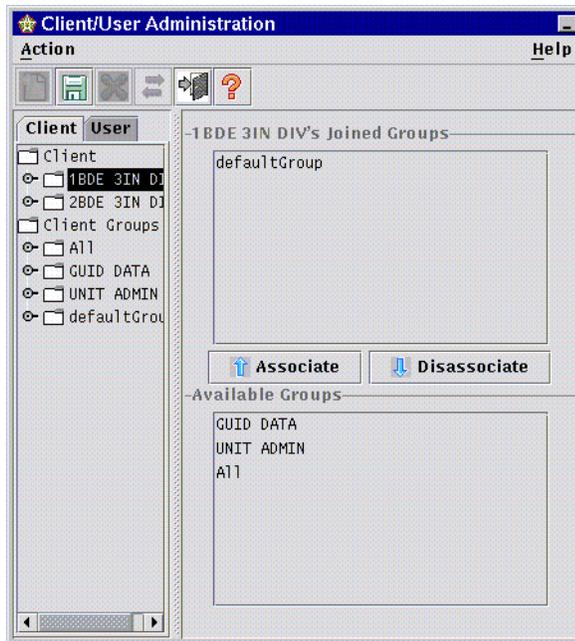
Step	Action	Response
12.	Select <u>check boxes</u> for Permissions (privileges) to be assigned to group.	
13.	Select Action\Save or Apply icon.	Confirmation window opens.
14.	Select Yes .	Confirmation window closes.
15.	To perform other functions of Client/User Administration window, return to note prior to step 2.	
16.	Select Client Groups folder.	
17.	Select Action\New\Client or Create icon.	Client data frame displayed.



18.	Enter Client Name (1 to 32 alphanumeric characters).	Client Group data frame displayed.
19.	Enter Client Password .	
20.	Enter Client Password again to Verify ..	

Users Management Procedure - CONT

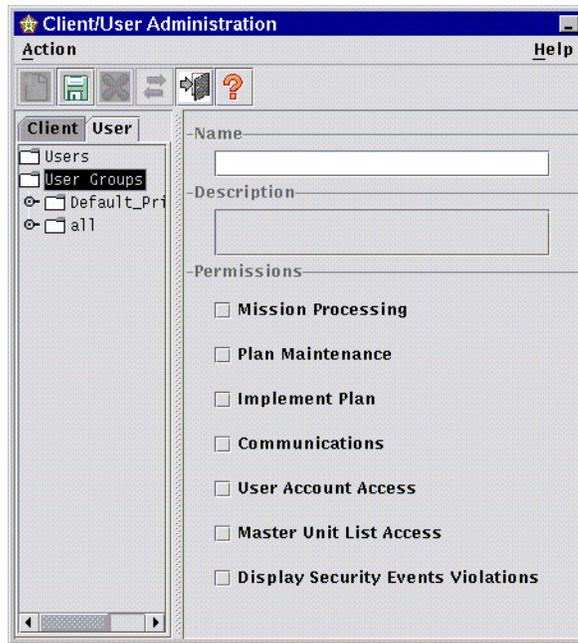
Step	Action	Response
21.	Select Permitted to allow Client login.	
22.	Select Action\Save or Apply icon.	Confirmation window opens.
23.	Select Yes .	Confirmation window closes.
24.	To perform other functions of Client/User Administration window, return to note prior to step 2.	
25.	Select Client or User from menu tree.	
26.	Select Associate/Disassociate icon.	Joined Groups frame is displayed.



27.	Select <u>group</u> .	
28.	Select Associate or Disassociate arrow as appropriate.	Group is moved to appropriate list.
29.	<u>Repeat steps 27 and 28</u> as required.	

Users Management Procedure - CONT

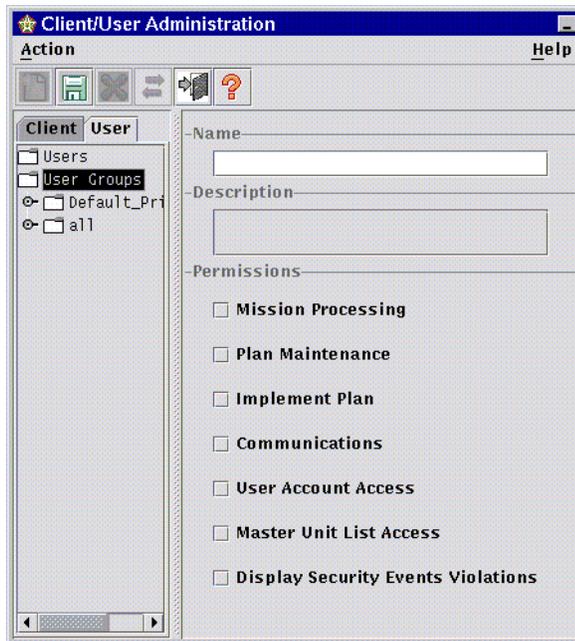
Step	Action	Response
30.	Select Action\Save or Apply icon.	Confirmation window opens.
31.	Select Yes .	Confirmation window closes.
32.	To perform other functions of Client/User Administration window, return to note prior to step 2.	
33.	Select Users Groups folder.	
34.	Select Action\New\User Group or Create icon.	User Group data frame displayed.



- | | |
|-----|---|
| 35. | Enter group Name (1 to 32 alphanumeric characters). |
| 36. | Enter a Description of the group. |
| 37. | Select check boxes for Permissions (privileges) to be assigned to group. |

Users Management Procedure - CONT

Step	Action	Response
38.	Select Action\Save or Apply icon.	Confirmation window opens.
39.	Select Yes .	Confirmation window closes.
40.	Repeat steps 34 thru 39 for each new group.	
41.	To perform other functions of Client/User Administration window, return to note prior to step 2.	
42.	Select Client Group to be edited from menu tree.	Client Group data frame displayed.



43.	Select <u>check boxes</u> for Permissions (privileges) to be assigned to group.	
44.	Select Action\Save or Apply icon.	Confirmation window opens.
45.	Select Yes .	Confirmation window closes.

Users Management Procedure - CONT

Step	Action	Response
46.	To perform other functions of Client/User Administration window, return to note prior to step 2.	
47.	<u>Select Client or group</u> to be deleted from menu tree.	

NOTE

A Client, Client Group, or User Group can not be deleted if any association exists. The **Remove** icon will be disabled if the selected item has an association.

48.	<u>Select the Remove</u> icon.	Confirmation window opens.
49.	<u>Select Yes</u> .	Confirmation window closes.
50.	To perform other functions of Client/User Administration window, return to note prior to step 2.	

1-16.7 Backup Database Window.

The **Backup Database** window is accessed by the **System\Administration\Backup Database** selection. The window displays a listing of workstation names which have attached archive devices (OD or Jaz drives), and provides for archiving the database. Provided also is the ability to release the disk from the optical drive so that a different disk may be inserted, and the ability to refresh the display with data on the new disk.

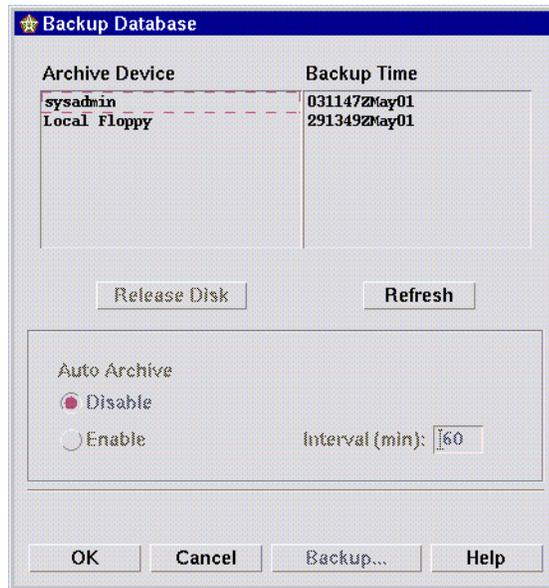
The **Archive Device** listing shows the name of a workstation having an associated archive device. Also listed will be a floppy drive if available at host workstation. The **Backup Time** listing shows the DTG of the last backup; shows **No Disk** if no disk is loaded in the device; or shows **No Data** if no backup data is available on the device. The **Release Disk** button is used to dismount and release the disk from the drive. The **Refresh** button is used to update the window with a current snapshot of the device contents. Selection of the **Backup...** button opens the **Confirm Backup Database** window. The **Backup...** button is only active when an archive device is selected and the **Backup Database** window was accessed via the **System\Administration\Backup Database** selection.

The **Auto Archive** buttons **Disable** and **Enable** are used to turn off and on the feature that is used to automatically backup the database to a selected archive device (OD or Jaz drive). The **Interval (min):** can be set from 30 to 360 with a default of 60 and determines the frequency of backups. The **OK** button closes the window and starts the interval timer if **Enable** is selected. If **Disable** is selected, the **OK** button closes the window without starting the timer.

Frequent archiving of the database is encouraged to prevent the loss of newly entered data. It is highly recommended that the database be archived, as a minimum, any time one or more workstations of an OPFAC, or the entire OPFAC is being shutdown.

1-16.8 Backup Database Procedure.

Backup Database Procedure		
Step	Action	Response
1.	Select System\Administration\Backup Database.	Backup Database window opens.



NOTE

Ensure selected archive device does not show **No Disk** in **Backup Time** list. **No Disk** indicates there is no optical disk in archive device.

Backup Database Procedure - CONT

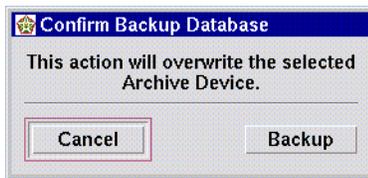
Step	Action	Response
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NOTE

To perform following functions, proceed to indicated steps.

Backup to OD or Jaz step 2
 Backup to local floppy disk step 5

2.	<u>Select a workstation archive device</u> from Archive Device list.	
3.	<u>Select Backup....</u>	Confirm Backup Database window opens.

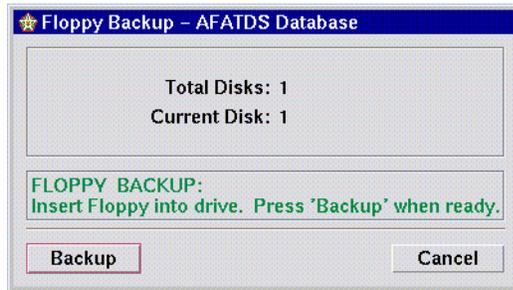
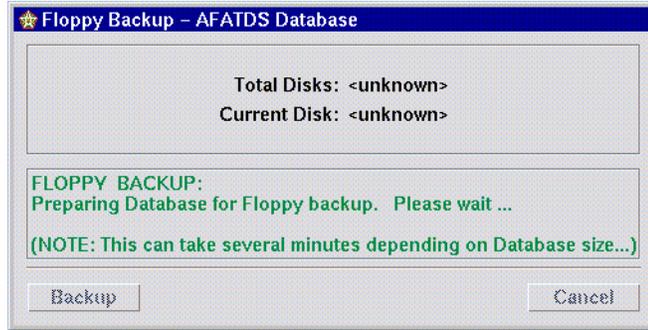


4.	<u>Select Backup.</u>	Confirm Backup Database window closes. Backup Database window closes upon completion of backup.
5.	<u>Select Local Floppy</u> from Archive Device list.	
6.	<u>Select Backup....</u>	Confirm Backup Database window opens.



Backup Database Procedure - CONT

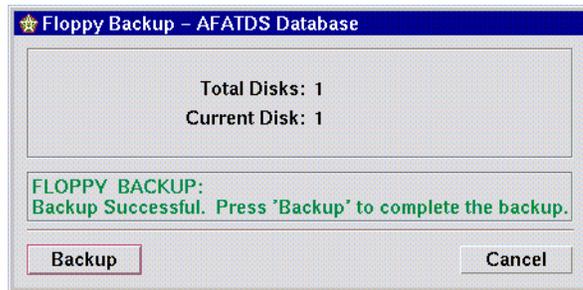
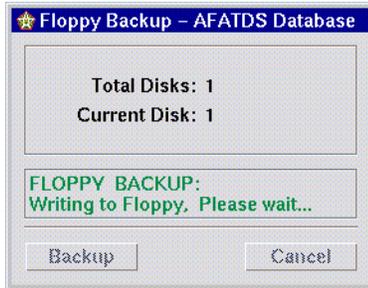
Step	Action	Response
7.	<u>Select Backup.</u>	Floppy Backup - AFATDS Database window opens.



8.	<u>Select Backup.</u>	Floppy Backup - AFATDS Database window displays number of disks required and Current Disk being written.
9.	<u>Follow prompts</u> to complete backup.	

Backup Database Procedure - CONT

Step	Action	Response
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1-16.9 Restore Database Window.

The **Backup Database** window is accessed by the **System\Administration\Backup Database** selection. The window displays a listing of workstation names which have attached archive devices, and provides for restoring the database.

NOTE

Restoring databases from older versions of AFATDS (e, g, A98) must be done using **Database Utilities**.

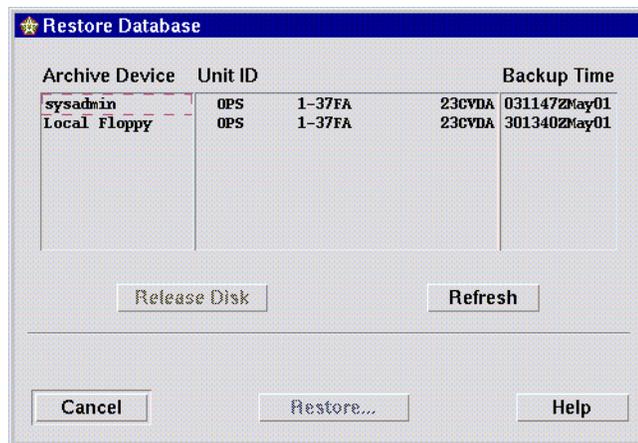
The database can only be restored from an archive device prior to unit activation. Provided also is the ability to release the disk from the drive so that a different disk may be inserted, and the ability to refresh the display with data on the new disk. The **Archive Device** listing shows the name of a workstation having an associated archive device. The **Unit ID** listing displays the unit ID from which the database was backed up from. The **Backup Time** listing shows the DTG of the last backup; shows **No Disk** if no optical disk is loaded in the archive device; or shows **No Data** if no backup has been performed on the archive device. The **Release Disk** button is used to dismount and release the optical disk from the drive.

The **Refresh** button is used to update the window with a current snapshot of the archive device contents. Selection of the **Restore...** button opens the **Confirm Restore Database** window. The **Restore...** button is only active when an archive device with a valid backup is selected and the **Restore Database** window was accessed via the **System\Administration\Restore Database** selection.

Normally a given Unit/OPFAC will be restoring a database that was previously archived at the same Unit/OPFAC. Restoring a database from a backup done at some other Unit will cause the OPFAC to assume the identity of the other unit. If this occurs databases associated with the old OPFAC unit identity will be overwritten and possibly lost if they were not previously archived.

1-16.10 Restore Database Procedure.

Restore Database Procedure		
Step	Action	Response
1.	Select System\Administration\Restore Database.	Restore Database window opens.



NOTE

Ensure selected archive device does not show **No Disk** in **Backup Time** field. **No Disk** indicates there is no optical disk in archive device or that the disk has not been initialized for AFATDS usage.

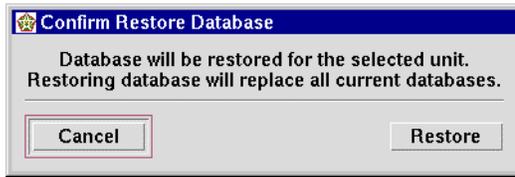
NOTE

To perform following functions, proceed to indicated steps.

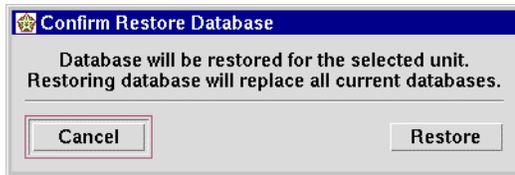
- Restore from OD or Jaz step 2
- Restore from local floppy disk step 5

Restore Database Procedure - CONT

Step	Action	Response
2.	<u>Select a workstation archive device</u> from Archive Device field.	
3.	<u>Select Restore...</u> to restore selected archive device.	Confirm Restore Database window opens.



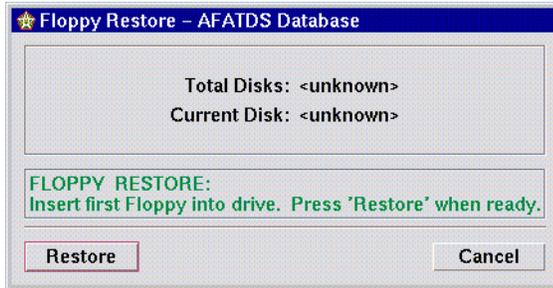
4.	<u>Select Restore.</u>	Confirm Restore Database window closes. Restore Database window closes upon completion of restoration.
5.	<u>Select Local Floppy</u> from Archive Device list.	
6.	<u>Select Restore...</u>	Confirm Restore Database window opens.



7.	<u>Select Restore.</u>	Floppy Restore - AFATDS Database window opens.
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Restore Database Procedure - CONT

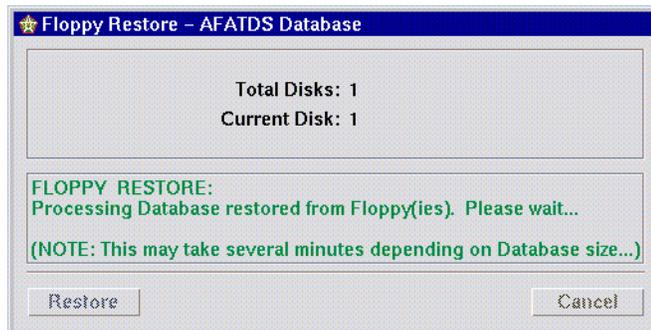
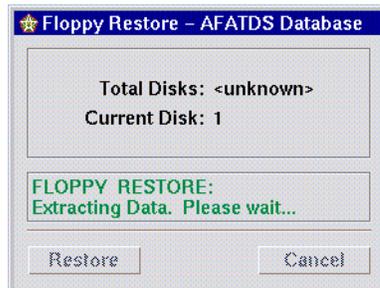
Step	Action	Response
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8. Select **Restore**.

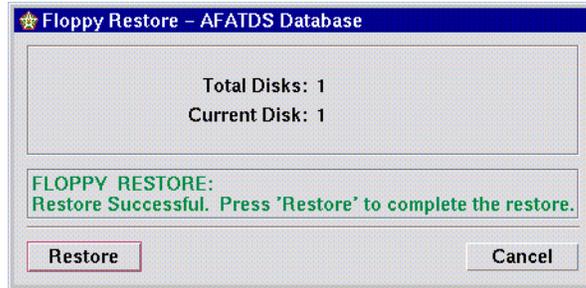
Floppy Backup - AFATDS Database window displays **Current Disk** being read.

9. Follow prompts to complete backup.



Restore Database Procedure - CONT

Step	Action	Response
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1-16.11 Loadable Munitions Module.

The Loadable Munitions Module (LMM) is a software load that contains data for munitions that is not contained in the normal AFATDS setup.

The modules can be activated and deactivated from the **Loadable Munitions Manager** window. The import and delete functions are performed at the COE level by an operator capable of logging in as sysadmin.

LMM's are available for ATACMS Block II (BAT), ATACMS Blocks I and IA (APAM), and the Enhanced Fiber Optic Guided Missile (EFOGM).

1-16.12. Loadable Munitions Manager Window.

The **Loadable Munitions Manager** window (Figure 1.27) allows the user to manage Loadable Munition Modules (LMM's). This window displays the **LMM** name and **State** (ACTIVE/ INACTIVE) for each LMM that has been imported. The list may contain up to ten (10) munition modules, all of which may be in the active state. The **Loadable Munitions Manager** window is accessed from the **System\ Administration\ LMM Manager** selection on the Main Menu for a workstation with System Administration duty assigned.

The **Activate** button initializes a selected module for munition calculation functions or fire mission processing functions. LMM's should be activated prior to performing, planning, or executing fire missions. **Deactivate** will stop a selected LMM from processing and change its state to INACTIVE. The **Region:** button allows the user to select an area of operations. **OK** closes the **Loadable Munitions Manager** window.

The **XDIST (m):** and **ZALT (m):** fields are used to enter values used to construct the **Platoon Area Hazard** (PAH) geometry. The **XDIST (m):** is the radius (default 3000) of the firing position around which the PAH is constructed. The **ZALT (m):** is the height (default 5000) above the firing point that the munition passes through to establish the length of the PAH. For example, if the firing unit has an altitude of 1500m and the **ZALT (m):** is 4000m, the point that the munition passes through 5500m (1500 + 4000) will be the end of the PAH geometry.



Figure 1.27 Loadable Munitions Manager

1-16.12.1 Loadable Munition Manager Procedure.

Loadable Munition Manager Procedure		
Step	Action	Response
1.	<u>Select System\ Administration\ LMM Manager.</u>	Loadable Munitions Manager window opens.

Loadable Munition Manager Procedure - CONT

Step	Action	Response
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2. Select a **Region**:

NOTE

To perform the following functions, proceed to the indicated steps. Select **OK** to close **LMM Manager** window.

Activate a module step 3

Deactivate a module step 8

3. Select inactive **LMM** to activate.

4. Enter **XDIST (m)**: (optional, 0 to 32767).

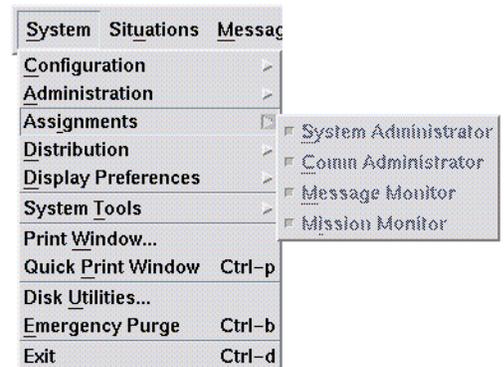
5. Enter **ZALT (m)**: (optional, 0 to 32767).

Loadable Munition Manager Procedure - CONT

Step	Action	Response
6.	<u>Select Activate.</u>	LMM initializes for munition calculations and fire mission processing functions.
7.	<u>Return to note prior to step 3</u> to perform other LMM Manager window functions.	
8.	<u>Select active LMM to deactivate.</u>	
9.	<u>Select Deactivate.</u>	Active LMM process stops running.
10.	<u>Return to note prior to step 3</u> to perform other LMM Manager window functions.	

1-17 **ASSIGNMENTS.**

The **System\Assignments** menu allows the user to assign a duty to his workstation. Duty selections that can be assigned to a workstation are **System Administrator, Comm Administrator, Message Monitor, and Mission Monitor**. Duties may be assigned to the users workstation at any time after activation by checking appropriate check boxes corresponding to each duty that the user wishes to have assigned to his workstation. A duty can only be assigned to one workstation of an OPFAC at a time. Initially, all duties are assigned to the workstation where the OPFAC is activated. A dialog window is displayed which allows the user to confirm reassignment of a duty to a workstation.



Reassignment of a duty to a workstation will cause alerts associated with that duty to be directed to that workstation and will enable specific functionality required for the duty at the workstation. Privileges associated with the account of the user logged into the workstation will determine which enabled functionality the user is allowed to access. Since a duty can only be assigned to one workstation of an OPFAC at a time, when a duty is reassigned to a workstation, a medium level alert is posted to inform the user at the workstation that was previously assigned the duty, that the duty was reassigned. It is expected that users will coordinate as appropriate between themselves prior to reassignment of duty in order to ensure a graceful transition of user responsibilities. The privileges assigned to a user account are specified through the use of the **User** window and the **User Groups** window.

1-17.1 Duty Assignment Procedure.

Duty Assignment Procedure

Step	Action	Response
1.	Select System\Assignments to access duty selections menu.	Duty selections are displayed.
2.	Select appropriate workstation duties.	

1-18 **SYSTEM TOOLS.**

The **System Tools** menu contains selections that allow the user to access the **Event Log** and **Disk Utilization** windows.

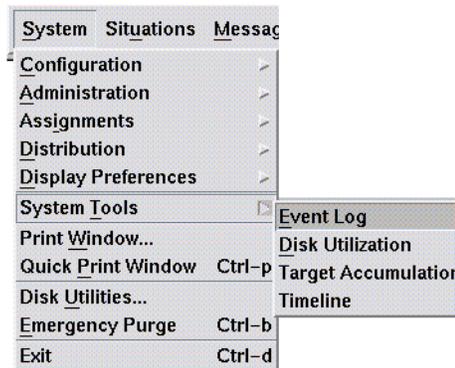


Figure 1.28 System Tools Menu

1-18.1 Event Log Window.

The **System\System Tools\Event Log** selection opens the **Event Log** window (Figure 1.29). The **Event Log** window displays a list of system-related events that have occurred within the OPFAC that fall within the categories selected by the user. Information displayed consists of **DTG**, **Category**, **Source**, **Workstation**, and **Description**. **Displayed Events:** is the number of items currently displayed in the scrollable list. **Total Logged Events:** is the total number of items in the event log whether displayed or not. **Detailed Description:** is a brief description of an event selected from the listing.

The **Options** menu allows the user to establish the types of events that are monitored and displayed. The **Options** menu also allows printing and/or deleting of events and refreshing of the window display. The **Options\Refresh** selection updates the list to include any events that have been monitored since the **Event Log** window was opened.

Sort Menu selections are used to change the order in which events are displayed. Events may be sorted **By Category**, **By Source**, **By Workstation**, or **By DTG**. For example, selecting **Sort\By Category** will sort and display the events by **Category** order.

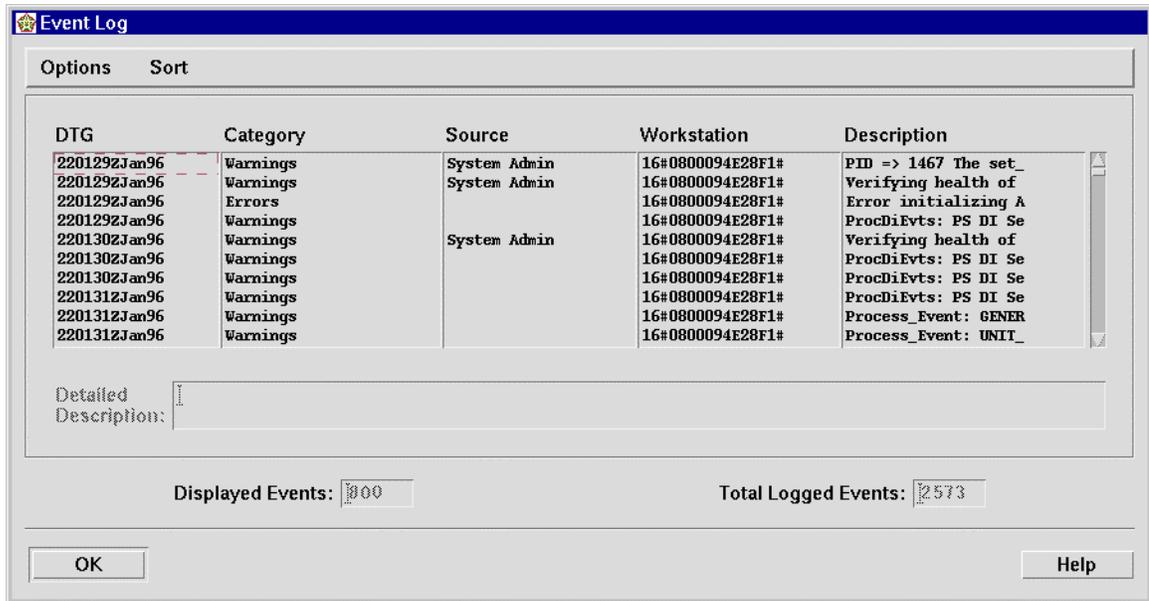


Figure 1.29 Event Log Window

Options\Display Filter... opens the **Event Log Setup Display** window which allows the user to establish the parameters used to determine the events monitored and/or displayed. **Errors, Warnings, Fatal Errors, Security Events, and Security Violations** type events are monitored at all times. **Options\Input Filter...** opens the **Event Log Setup Inputs** window which provides the option to print events before they are overwritten and to turn on additional inputs to the event log.

1-18.2 Event Log Setup Display Window.

The **Event Log** window **Options\Display Filter...** selection opens the **Event Log Setup Display** window which allows the user to select the type of events to be displayed.

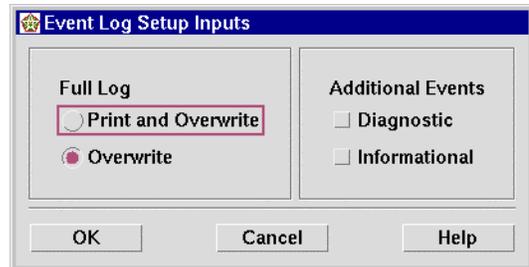
Events to be displayed may be specified by **Category**, **Workstations** in the configuration, or by Date Time Groups (**DTG's**). Selections made while operating are maintained until the system shuts down. **Categories** of events are specified for display by selecting appropriate check boxes. **Workstations** on the configuration are specified to display their related events by selecting the workstation name(s) or **All Workstations** may be selected. Events can be filtered for display for a DTG range by selecting the **Range** radio button and entering the **From:** and **To:** DTG fields. By selecting the **All** radio button, all events for selected **Categories** will be displayed regardless of DTG.



Figure 1.30 Event Log Setup Display Window

1-18.3 Event Log Setup Inputs Window.

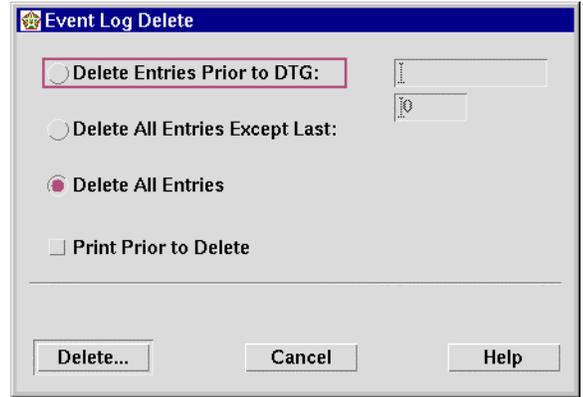
The **Event Log** window **Options\Input Filter...** selection opens the **Event Log Setup Inputs** window which provides the option to print events before they are overwritten when the log becomes full. This window also allows for the selection of Additional Events (**Diagnostic** and **Informational**) to be inputs to the event log along with events which are always logged. Diagnostic and Informational events occur in such a large volume that enabling them as inputs to the event log is strongly discouraged.



The **Print and Overwrite** radio button is selected when a hard copy of logged events is desired before events are overwritten as the event log becomes full. **Diagnostics** and **Informational** events are included as inputs in the event log when their check boxes are selected.

1-18.4 Event Log Delete Window.

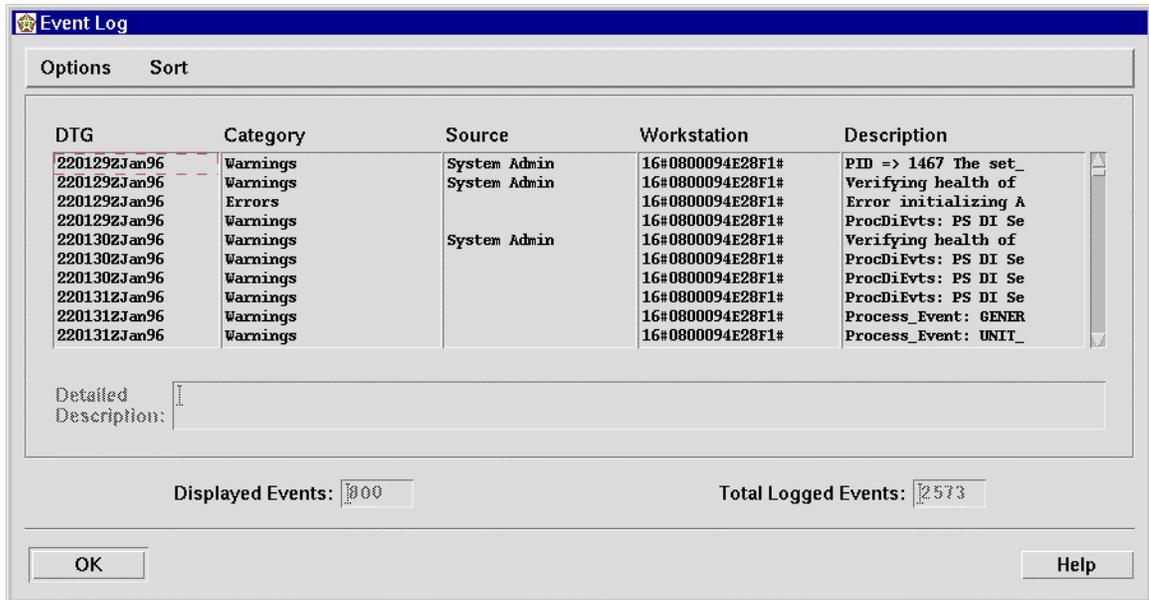
The **Event Log** window **Options\Delete...** selection opens the **Event Log Delete** window which provides three methods for selecting items to be removed from the currently displayed event log entries and allows the events to be printed prior to deletion. Displayed events (entries) may be deleted prior to a specified Date Time Group (**DTG**), or by specifying how many events to save from deletion (0-10000), or all events may be deleted. **Delete...** opens the **Confirm Delete** window for the user to confirm the delete action.



1-18.5 Event Log Procedure.

Event Log Procedure

Step	Action	Response
1.	Select System\System Tools\Event Log.	Event Log window opens with list of logged events to view.



Event Log Procedure - CONT

Step	Action	Response
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NOTE

Select **OK** at any time to closes **Event log** window. Select **Options\ Print** to print contents of the Event log. Select **Options\Refresh** to include events detected since window was opened. To perform following **Event Log** functions, proceed to indicated steps.

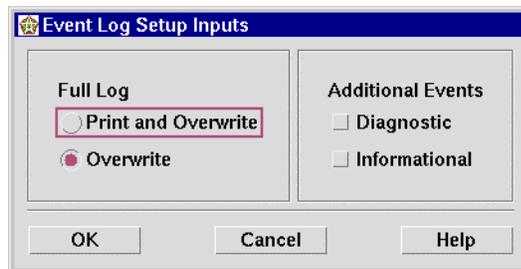
- Change categories and DTG of events to be displayed step 2
- Print events when log is full and select additional events step 8
- Delete events from list step 13
- Sort list of events..... step 19

2. Select **Options\Display Filter...** | **Event Log Setup Display** window opens.



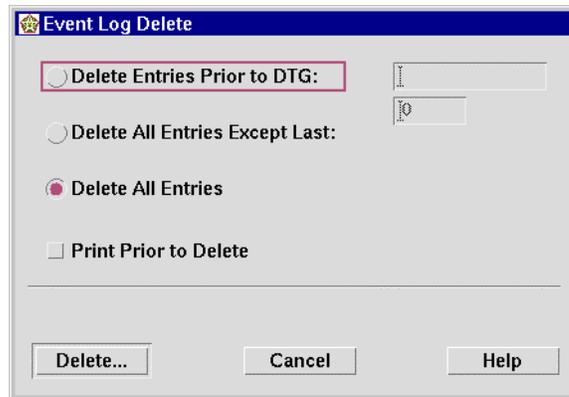
Event Log Procedure - CONT

Step	Action	Response
3.	<u>Select Categories</u> to display.	Events of selected Categories will be displayed on Event Log window.
4.	<u>Select Workstations</u> to display events from or <u>All Workstations.</u>	Selected workstations will receive events for display.
5.	<u>Select All</u> DTG's or <u>Enter From: and To: times of DTG Range to be viewed.</u>	Events of selected Categories within specified DTG range will be displayed on Event log window.
6.	<u>Select OK.</u>	Event Log Setup Display window closes.
7.	To perform other functions of Event Log window, refer to note prior to step 2.	
8.	<u>Select Options\Input Filter...</u>	Event Log Setup Inputs window opens.



Event Log Procedure - CONT

Step	Action	Response
9.	<p><u>Select Print and Overwrite</u> to print hardcopy of events before they are overwritten</p> <p>or</p> <p><u>Select Overwrite.</u></p>	
10.	<p><u>Select Additional Events</u> to be inputs to Event Log window.</p>	<p>If selected, Diagnostics and Informational type events will be logged and displayed if enabled on Event Log Setup Display window.</p>
11.	<p><u>Select OK.</u></p>	<p>Event Log Setup Inputs window closes.</p>
12.	<p>To perform other functions of Event Log window, refer to note prior to step 2.</p>	
13.	<p><u>Select Options\Delete...</u></p>	<p>Event Log Delete window opens.</p>

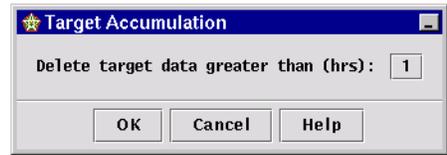


Event Log Procedure - CONT

Step	Action	Response
14.	<p><u>Select Delete Entries Prior to DTG: and enter time</u></p> <p>or</p> <p><u>Select Delete All Entries Except Last: and enter number to keep (0-10000)</u></p> <p>or</p> <p><u>Select Delete All Entries.</u></p>	
15.	<p>To print events, <u>select Print Prior to Delete check box.</u></p>	
16.	<p><u>Select Delete...</u></p>	<p>Confirm Delete window opens.</p>
17.	<p><u>Select Delete</u> to confirm delete action.</p>	<p>Confirm Delete and Event Log Delete windows close.</p>
18.	<p>To perform other functions of Event Log window, refer to note prior to step 2.</p>	
19.	<p><u>Select Sort\By Category, By Source, By Workstation, or By DTG.</u></p>	<p>Events are sorted according to parameter selected.</p>
20.	<p>To perform other functions of Event Log window, refer to note prior to step 2.</p>	

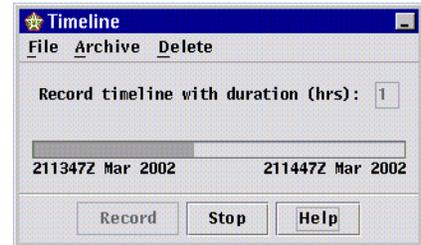
1-18.6 Target Accumulation.

The **Target Accumulation** window is opened via the **System\System Tools\Target Accumulation** selection. This window allows the operator to set the period of time that target data is maintained in the AAS database for viewing by external clients. The number of hours set in this window, from one (1) to 72 determines this period. For example, if the time is set to 12 hours and the window closed (by OK), all target data that becomes older than 12 hours will be automatically deleted from the AAS database.



1-18.7 Timeline.

The Timeline function allows the operator to record unit, geometry, and target/mission events for playback by an external client. Each Timeline can cover a period from one (1) to 72 hours. Three (3) Timelines can be placed in the database for client viewing at any time. Timelines are placed in database slots labeled TL1, TL2, and TL3 for viewing. Portions of the Timeline that clients can view are dependent on the permissions assigned to their client group.



The **Timeline** window is opened via the **System\System Tools\Timeline** selection. The operator records the data by selecting the duration (1 to 72 hours) and the **Record** button. The scheduled recording times are displayed on the window and the progress bar displays the relative status of the recording. Pressing the **Stop** button stops the recording. The recorded data is maintained until it is archived or deleted.

To place the Timeline in a slot for viewing, the operator must download the data to removable media (e.g., an OD drive). The Timeline is then restored to one of the slots in the database. These actions are performed by functions of the **Archive** menu.

The **Delete** menu provides function to delete currently recorded data or data from the TL1, TL2, or TL3 slots.

Timeline Procedures.

Step	Action	Response
1.	Select System\System Tools\Timeline.	Timeline window opens.



Timeline Procedure - CONT

Step	Action	Response
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NOTE

To perform following functions, proceed to indicated steps.

- Record a timeline step 2
- Archive a Timeline step 5
- Restore a Timeline step 9
- Delete a Timeline from database..... step 13
- Delete current Timeline step 16

2.	<u>Enter duration</u> of timeline recording (1 to 72).	
3.	<u>Select Record</u> .	Start and end of timeline displayed below progress bar. Progress bar indicates relative state of recording time.
4.	<u>Proceed to note prior to step 2</u> to perform other functions of Timeline window.	
5.	<u>Select Archive\Timeline</u> .	Archive Timeline window opens.



6.	<u>Enter or accept File Name</u> .	
7.	<u>Select Save</u> .	Archive Timeline window closes.
8.	<u>Proceed to note prior to step 2</u> to perform other functions of Timeline window.	
9.	<u>Select Archive\Restore</u> applicable Timeline.	Restore Timeline window opens.

Timeline Procedure - CONT

Step	Action	Response
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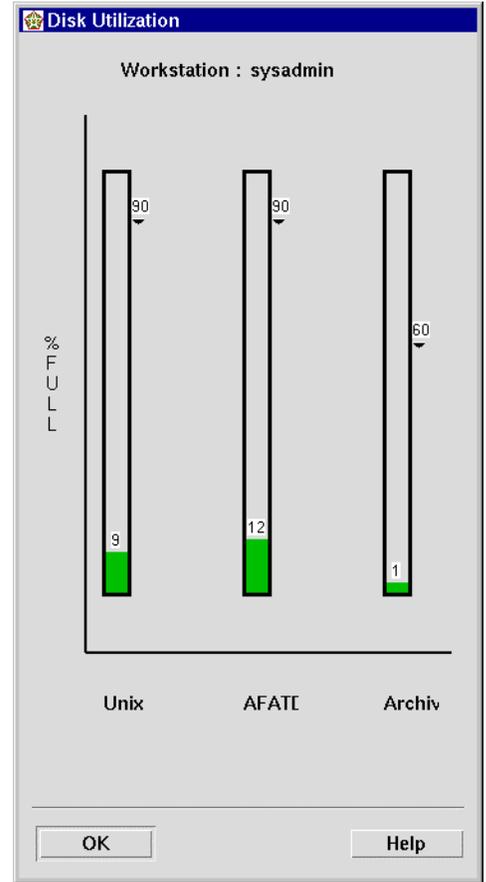


10.	<u>Select File Name:</u> to restore.	
11.	<u>Select OK.</u>	Restore Timeline window closes.
12.	<u>Proceed to note prior to step 2</u> to perform other functions of Timeline window.	
13.	<u>Select Delete\Database</u> applicable slot.	Confirmation window opens.
14.	<u>Select Yes.</u>	
15.	<u>Proceed to note prior to step 2</u> to perform other functions of Timeline window.	
16.	<u>Select Delete\Database\Timeline....</u>	Confirmation window opens.
17.	<u>Select Yes.</u>	
18.	<u>Proceed to note prior to step 2</u> to perform other functions of Timeline window.	

1-18.8 Disk Utilization Window.

The **Disk Utilization** window displays the percentage of disk space used at the local workstation. Status is displayed for the internal and external hard disk drives and the archive disk. Status is displayed numerically and by color code. Green indicates that disk usage is below the threshold; red indicates a near full disk. The **Disk Utilization** window is accessed by selecting **System\System Tools\Disk Utilization**.

When a near full condition exists the user should attempt to delete non-critical data and/or export data that is not currently being used so that it can be deleted from the active system then imported back into the system from the OD or Jaz at some future time when it is again required.



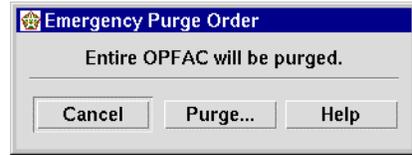
1-18.9 Disk Utilization Procedure.

Disk Utilization Procedure

Step	Action	Response
1.	Select <u>System\System Tools\Disk Utilization</u> .	Disk Utilization window opens displaying percentage of disk space used.
2.	Select <u>OK</u> .	Disk Utilization window closes.

1-19 EMERGENCY PURGE.

The emergency purge function deletes all data from the hard-disk drives at all workstations in the OPFAC configuration. This includes all databases as well as the AFATDS and operating system software. This selection opens the **Emergency Purge** window. Selecting **Purge...** opens the **Confirm Purge** window. Selecting **Purge** begins the purge function. This action will completely shutdown and disable all FSW's in the OPFAC. In order to make an AFATDS OPFAC operational after normal completion of an emergency purge, software would have to be reinstalled at each workstation of the OPFAC and databases would have to be restored from an archive.



1-20 EXIT.

The System Administrator (SA) is given the options of shutting down selected workstations, removable workstations, or the entire OPFAC. The SA enters the time until exit, selects the **Notification Frequency**, and selects the affected workstations. The exit may also be aborted prior to expiration of the time interval.

For a normal exit, a time is entered to allow affected workstation user to prepare for the exit. An exiting alert notification is posted at affected workstations at the specified interval. The exit may be aborted prior to the expiration of the shutdown time.

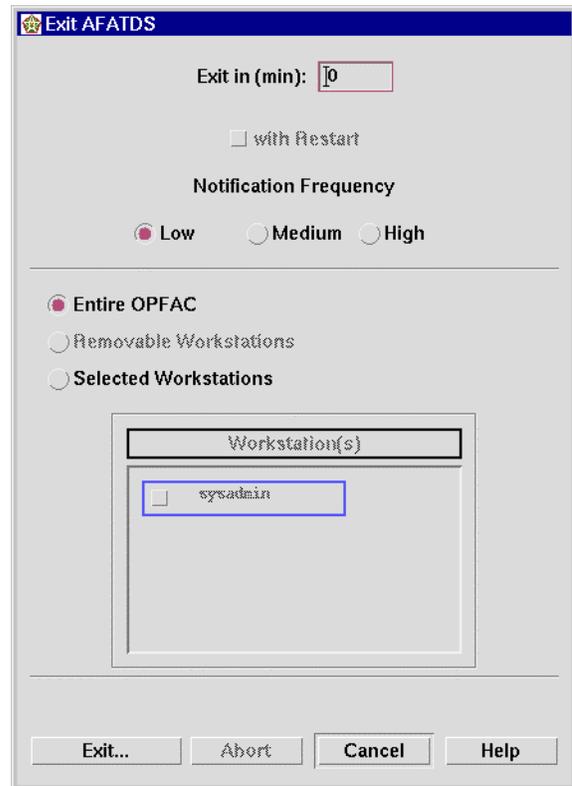
1-20.1 Exit AFATDS Window.

The **Exit AFATDS** window is accessed via the **System\Exit...** menu selection. The user enters the time delay in the **Exit in (min):** field. This is the time interval between the activation of the **Exit...** button and the actual exiting of the AFATDS application system. The legal entry for this field is 0-30 minutes.

Exit may be aborted at any time during this interval by opening the **Exit AFATDS** window and selecting the **Abort** button.

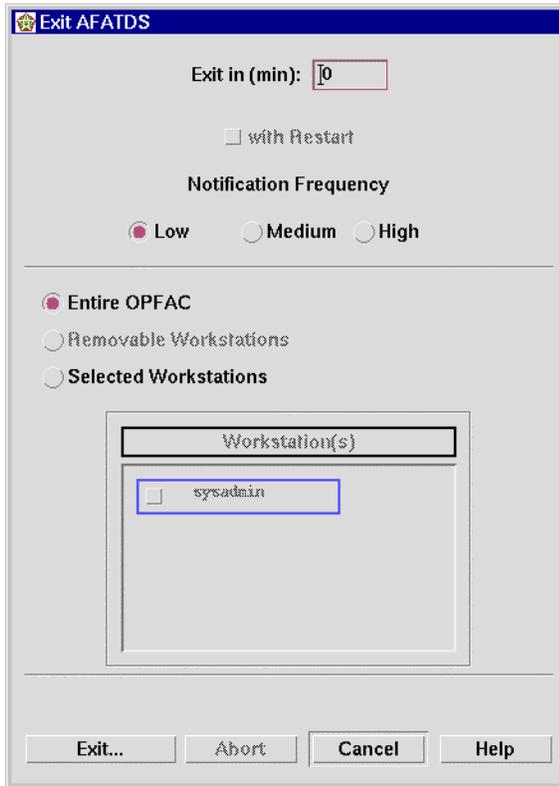
The **with Restart** check box is selected to automatically restart the AFATDS software after shutdown. This function is used to facilitate an automatic and immediate restart of the AFATDS software in order to minimize the time required to affect a new unit configuration.

The **Notification Frequency** radio buttons set the number of times that affected workstations are notified of the shutdown process. The **Low** selection initiates three (3) notifications, the **Medium** selection initiates four (4), and the **High** five (5). The first notification occurs when the shutdown button is activated. All notifications are received in an equally spaced manner. The **Low** selection is the default.



Exit Procedure

Step	Action	Response
1.	<u>Select System\Exit...</u>	Exit AFATDS window opens.

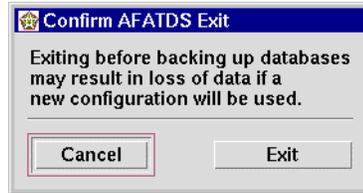


2. Enter number of minutes until exit in **Exit in (min):** (0-30).
3. Select **Notification Frequency**.
4. Select **Workstation(s)** selected for **shutdown**.
5. Select **Exit...**

Confirm AFATDS Exit window opens.

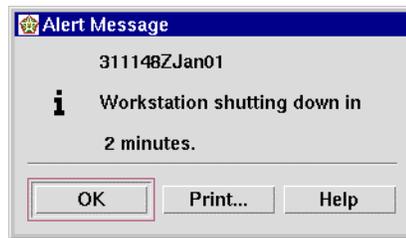
Exit Procedure - CONT

Step	Action	Response
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6. Select **Exit**.

Confirm AFATDS Exit window closes. **Exit AFATDS** window closes. Medium level alert message is generated and exiting message text appears in dialog window at specified interval until system exit.



7. Select **Start\Log-off** from Task Bar.

Logout confirmation window opens.

8. Select **Log Off**.

System configures to DII COE login state.

1-20.2 Abort Exit AFATDS.

To abort exit, the user selects **System\Exit** and **Abort** from the **Exit AFATDS** window.

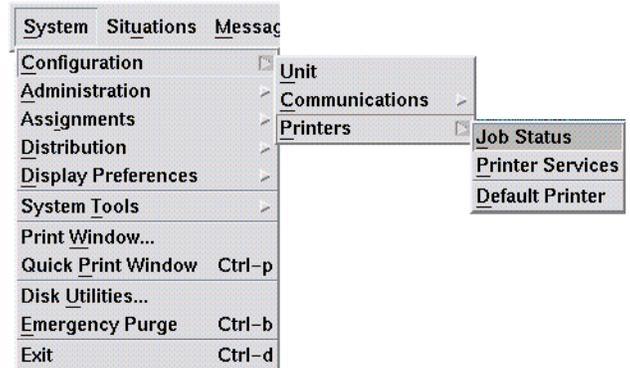
Abort Exit AFATDS Procedure

Step	Action	Response
1.	<u>Select System\Exit...</u>	Exit AFATDS window opens.
2.	<u>Select Abort.</u>	Exit is aborted.

SECTION 5 COMMON OPERATING INSTRUCTIONS

1-21 PRINTING.

The **System\Configuration\Printers** selection cascades to a menu with **Job Status**, **Printer Services**, and **Default Printer** selections.



1-21.1 Printers Window Navigation.

The **System\Configuration\Printers** window navigation is shown in the following figure.

The **System\Configuration\Printers\Job Status** selection opens the **Job Status** window which is used to view status of print jobs and printers.

The **System\Configuration\Printers\Printer Services** selection opens the **Printer Services** window. This window allows the user to start and stop individual printers and to abort specific printing jobs on the selected printer. The System Administrator may also add or remove printers from the **Printer Services** window.

The **Printer Services** window **Configuration\Add Printer...** selection opens the **Add Printer** window from which a printer can be added to the system. The **Printer Services** window **Configuration\Remove Printer...** selection opens the **Confirm Remove Printer** window to confirm removal of the printer.

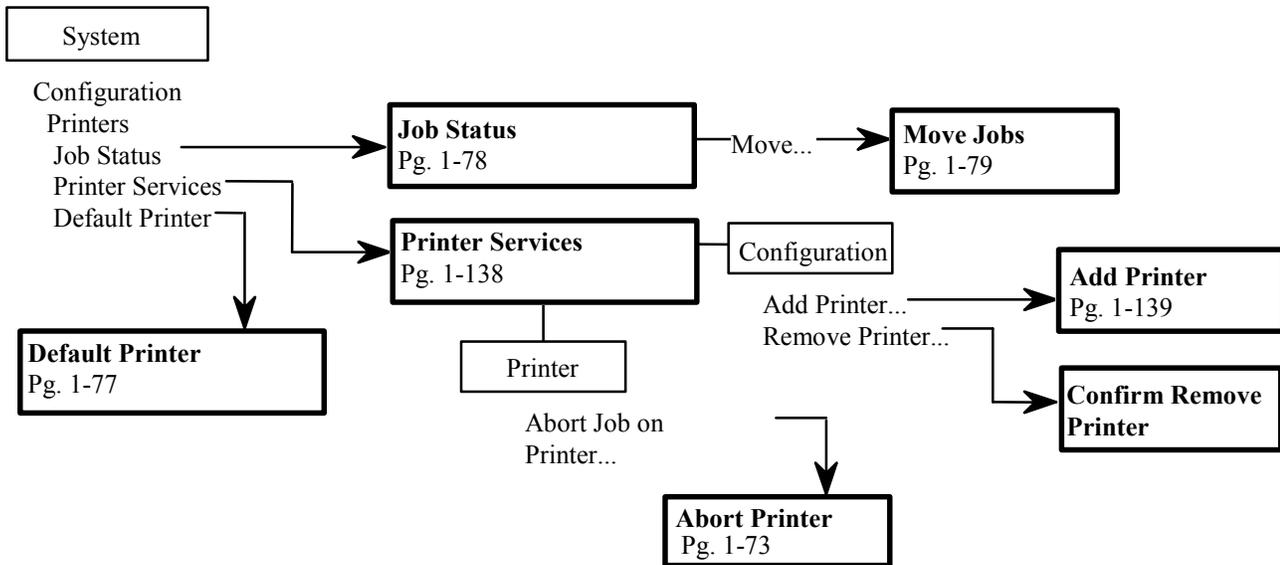


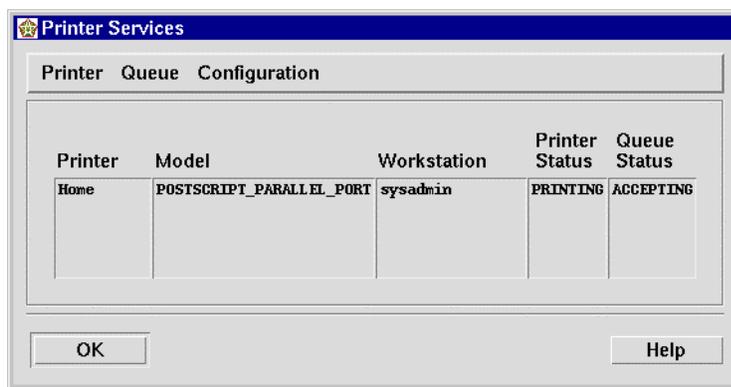
Figure 1.31 Printers Navigation

1-21.2 Printer Services.

The **System\Configuration\Printers\Printer Services** selection opens the **Printer Services** window. This window allows the user to start, stop, and abort a printer for the assigned FSW. The System Administrator uses this window to add or remove a printer for the unit configuration. The System Administrator also manages the accept/reject functions of the print queue.

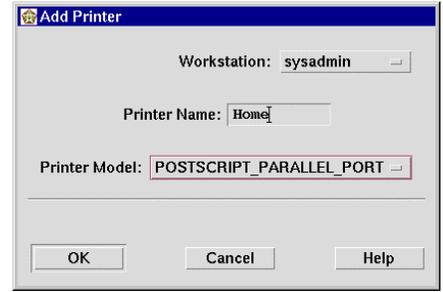
1-21.2.1 Printer Services Window.

This window is accessed via the main menu bar **System/Configuration/Printers/Printer Services**. This window allows the user to Start, Stop, or Abort a printer. Also, this window allows the System Administrator to change print queues to Accept or Reject jobs and to Add or Remove printers from the unit configuration.



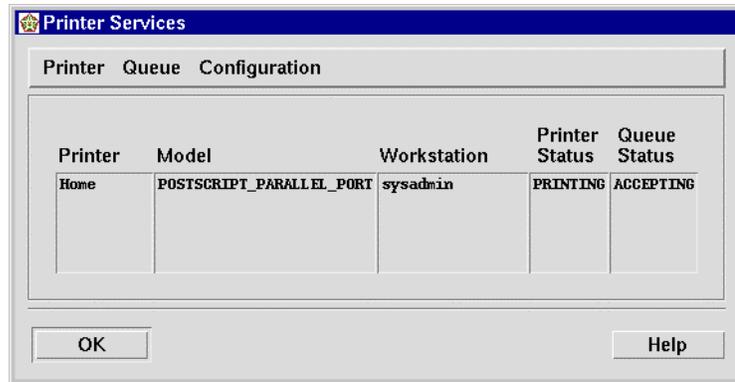
1-21.2.2 Add Printer Window.

This window is accessed via the **Printer Services** window using the **Configuration/Add Printer...** selection. This window allows the System Administrator to Add a printer to a selected workstation, with a specified printer name and priority.



1-21.2.3 Printer Services Procedure.

Printer Services Procedure		
Step	Action	Response
1.	Select <u>System\Configuration\ Printers\ Printer Services.</u>	Printer Services window opens.



Printer Services Procedure - CONT

Step	Action	Response
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NOTE

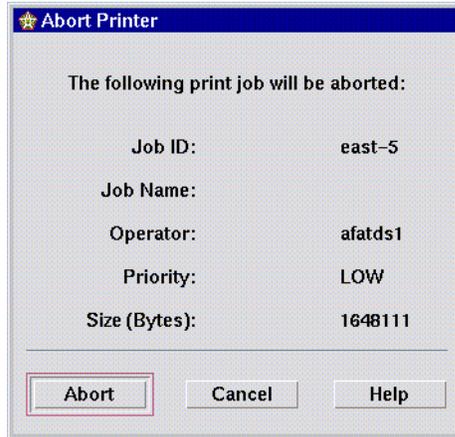
Selecting **OK** closes this window. To perform following functions, proceed to indicated steps.

Start a printer	step 2
Stop a printer	step 5
Abort a printer	step 8
Accept a printer queue (System Administrator only)	step 12
Reject a printer queue (System Administrator only)	step 15
Add a printer (System Administrator only)	step 18
Remove a printer (System Administrator only)	step 24

2.	<u>Select printer</u> from list to start.	
3.	<u>Select Printer\Start Printer.</u>	Selected printer indicates PRINTING in Printer Status.
4.	To perform other functions of Printer Services window, refer to note prior to step 2.	
5.	<u>Select printer</u> from list to stop.	Selected printer is highlighted.
6.	<u>Select Printer\Stop Printer.</u>	Selected printer indicates DOWN in Printer Status.
7.	To perform other functions of Printer Services window, refer to note prior to step 2.	
8.	<u>Select printer</u> from list to abort.	
9.	<u>Select Printer\Abort Job on Printer...</u>	Abort Printer window opens displaying data for current print job on printer.

Printer Services Procedure - CONT

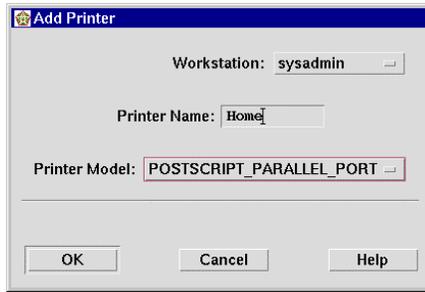
Step	Action	Response
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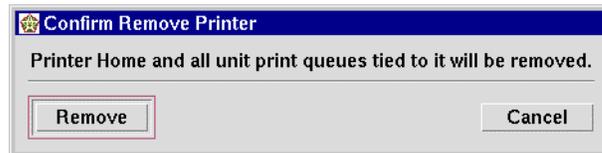
10.	<u>Select Abort.</u>	Printer dialog window is displayed indicating successful abortion of printer job. Select OK to close dialog window.
11.	To perform other functions of Printer Services window, refer to note prior to step 2.	
12.	<u>Select printer</u> from list.	
13.	<u>Select Queue\Accept Jobs.</u>	Selected printer indicates ACCEPTING in Queue Status .
14.	To perform other functions of Printer Services window, refer to note prior to step 2.	
15.	<u>Select printer</u> from list.	
16.	<u>Select Queue\Reject Jobs.</u>	Selected printer indicates REJECTING in Queue Status .
17.	To perform other functions of Printer Services window, refer to note prior to step 2.	

Printer Services Procedure - CONT

Step	Action	Response
18.	<u>Select Configuration/Add Printer...</u>	Add Printer window opens.



19.	<u>Select Workstation:</u>	
20.	<u>Enter Printer Name:</u> (10 alphanumeric characters).	
21.	<u>Select Printer Model:</u>	
22.	<u>Select OK.</u>	Add Printer window closes and new printer is shown in Printer Services window.
23.	To perform other functions of Printer Services window, refer to note prior to step 2.	
24.	<u>Select a printer</u> from list to remove.	
25.	<u>Select Configuration/Remove Printer....</u>	Confirm Remove Printer window opens.



Printer Services Procedure - CONT

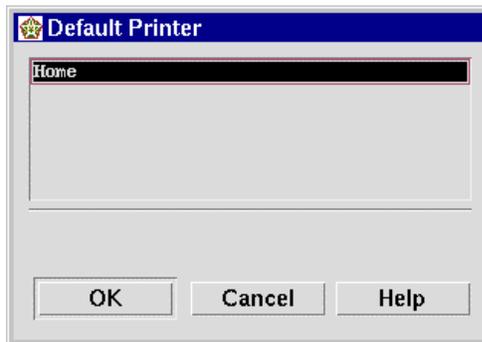
Step	Action	Response
26.	<u>Select Remove</u> to remove printer from list.	Confirm Remove Printer window closes and printer is removed from Printer Services window.
27.	<u>Select OK</u> .	Printer Services window closes.
28.	To perform other functions of Printer Services window, refer to note prior to step 2.	

1-21.2.4 Default Printer Procedure.

The **System\Configuration\Printers\Default Printer** selection is used to select the printer to be designated as the default printer for the FSW. Default printers are established by each FSW. Print jobs generated at the FSW will be queued to this printer unless the user specifies differently. A maximum of 12 printers may be displayed in the list.

Default Printer Procedure

Step	Action	Response
1.	<u>Select System\Configuration\Printers\Default Printer</u> .	Default Printer window opens with current default printer highlighted.



Default Printer Procedure - CONT

Step	Action	Response
2.	<u>Select printer</u> from list.	
3.	<u>Select OK</u> .	Default Printer window closes.

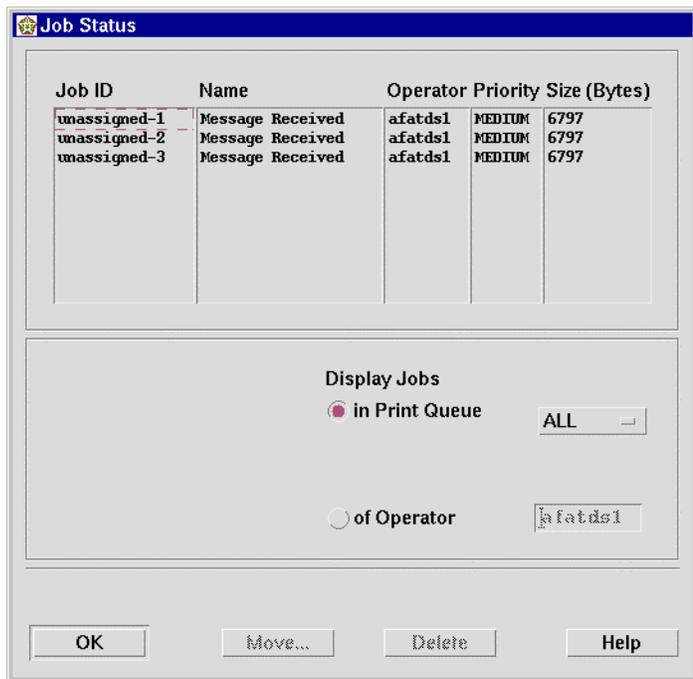
1-21.3 Job Status.

System\Configuration\Printers\Job Status selection opens the **Job Status** window. This window displays a listing of all print jobs in the default printer queue for the FSW when initially opened. The user may choose to view jobs in other or **All** printer queues within the OPFAC. A selection is also available to view print jobs of an individual user.

Move... and **Delete** functions allow the user to send a job to another printer or delete the job. Jobs may be moved or deleted only by the FSW that they were generated from with one exception. The System Administrator has privilege to **Move** and/or **Delete** any job.

1-21.3.1 Job Status Window.

This window is accessed via the main menu bar **System/Configuration/Printers/Job Status**. This window is used to display the status of jobs in the queue of printers. Print jobs of a specified user or a specified printer can be displayed depending on which radio button is selected. Once the radio button is selected, that field becomes sensitive. Print jobs can be selected and then deleted or moved to another printer. If a print job is being moved the **Move Jobs** window is brought up to allow a new destination to be identified.



1-21.3.2 Move Jobs Window.

This window is accessed via the **Job Status** window **Move...** button. This window is used by the user to select a destination to move the job(s) selected on the **Job Status** window to a new location.

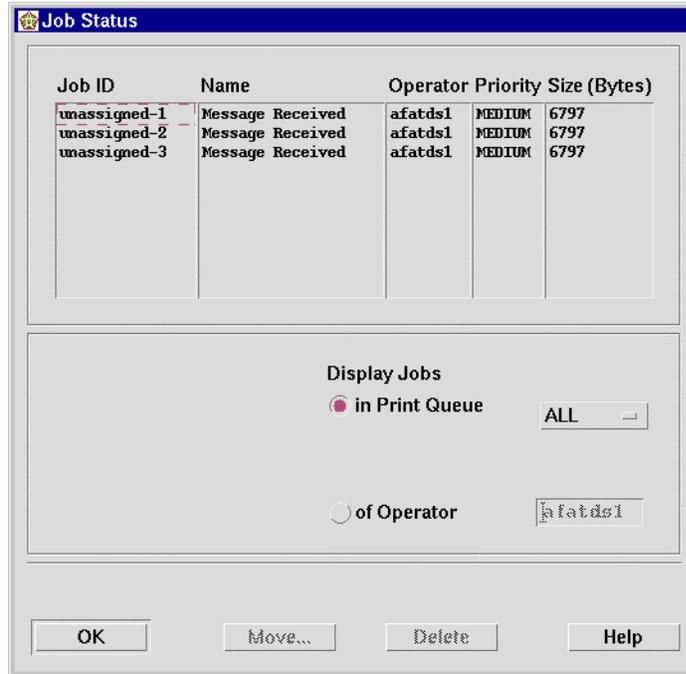


1-21.3.3 Job Status Procedure.

Job Status Procedure		
Step	Action	Response
1.	Select <u>System\Configuration\Printers\ Job Status.</u>	Job Status window opens with list of print jobs in queues.

Job Status Procedure - CONT

Step	Action	Response
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NOTE

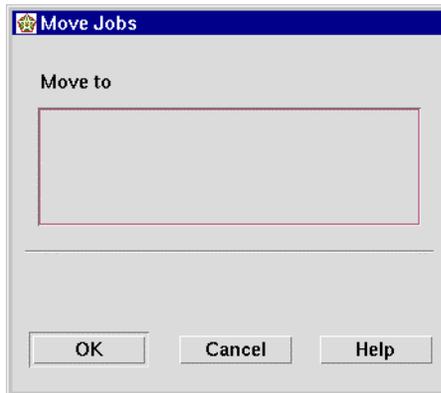
Selecting **OK** closes this window. To perform following functions, proceed to indicated steps.

- Display jobs in print queue step 2
- Display jobs of operator step 4
- Delete selected job(s) step 6
- Move selected job(s) step 10

- | | | |
|----|---|--|
| 2. | <u>Select radio button for Display Jobs in Print Queue.</u> | Print job status lists show status of print jobs in Print Queue shown. |
| 3. | <u>Select in Print Queue option menu to select specific print queue or ALL.</u> | All current print jobs in displayed queue (or All) are listed in window. |

Job Status Procedure - CONT

Step	Action	Response
4.	<u>Select radio button</u> for Display Jobs of Operator to display print job status of specific user.	Adjacent field is enabled for entering name of user.
5.	<u>Enter name of user</u> in direct-entry field.	All current print jobs by selected user are listed in window.
6.	<u>Select job(s)</u> to be deleted from list.	
7.	<u>Select Delete</u> .	Dialog window opens for user confirmation of deletion.
8.	<u>Select Delete</u> .	Selected job(s) is deleted.
9.	To perform other functions of Job Status window, refer to note prior to step 2.	
10.	<u>Select Job(s)</u> to be moved.	
11.	<u>Select Move...</u> button.	Move Jobs window opens listing available printers.



12. | Select destination printer. |

Job Status Procedure - CONT

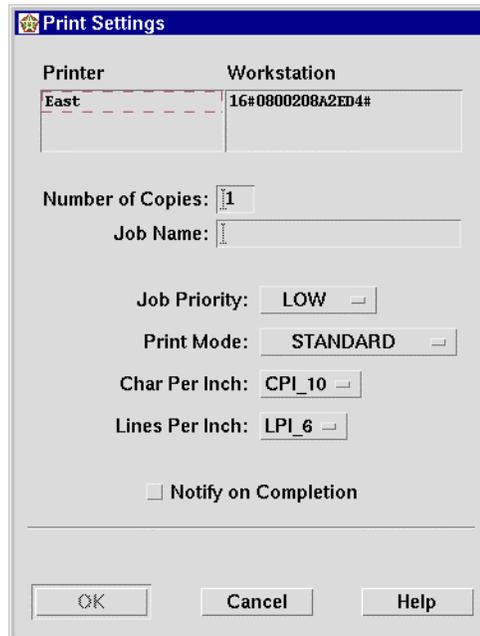
Step	Action	Response
13.	<u>Select OK.</u>	Dialog window opens for user confirmation of move.
14.	<u>Select Move.</u>	Job(s) is moved to destination printer.
15.	To perform other functions of Job Status window, refer to note prior to step 2.	

1-21.4 Print Settings.

The **Print Settings** window opens whenever **Print** is selected from any of the AFATDS windows. The user may select **OK** to use the default settings or modify the settings to conform the printout to a specific job.

Print Settings Procedure

Step	Action	Response
1.	<u>Select Print...</u> from active window.	Print Settings window opens.



Print Settings Procedure - CONT

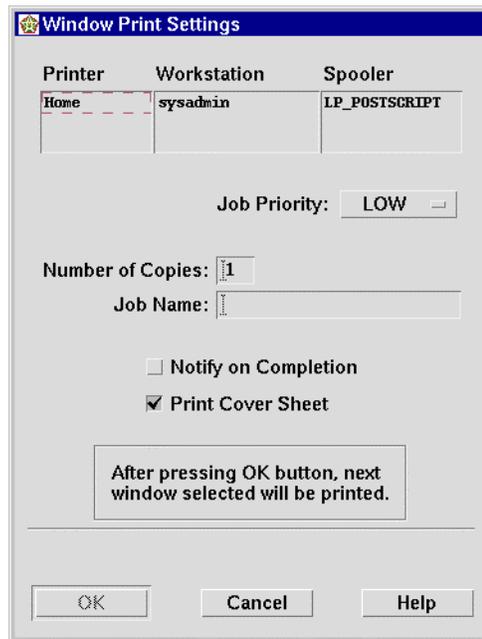
Step	Action	Response
2.	<u>Select Printer:</u>	
3.	<u>Enter Number of Copies:</u> (default is 1).	
4.	<u>Enter Job Name:</u> (1-20 alphanumeric characters).	
5.	<u>Select Job Priority:</u> (default is Low).	
6.	<u>Select Print Mode:</u> (default is Standard).	
7.	<u>Select Character Per Inch:</u> (default is 10).	
8.	<u>Select Lines Per Inch:</u> (default is 6).	
9.	<u>Select Notify on Completion:</u> as required.	
10.	<u>Select OK.</u>	Job is sent to printer.

1-21.5 Print Window Procedure.

The **System\Print Window** selection allows the user to produce a hard copy of any window currently displayed.

Print Window Procedure

Step	Action	Response
1.	<u>Select System\Print Window...</u>	Window Print Settings window opens.



2.	<u>Select Printer:</u>	
3.	<u>Select Job Priority:</u> (default is Low).	
4.	<u>Enter Number of Copies:</u> (default is 1).	
5.	<u>Enter Job Name:</u> (1-20 alphanumeric characters).	
6.	<u>Select Notify on Completion</u> , as required.	
7.	<u>Select OK</u> .	Window Print Settings window closes.
8.	<u>Select window</u> to be printed.	Selected window is sent to printer.

1-22 PRINT SITUATION.

The **Situations\Print Situation** selections of **\Current** and **\Plan...** are used to access the **Print Current** and **Print Plan** windows respectively. These windows are used to select and print data at the local printer.

The **Print Current** window opens directly from the menu selection. The **Situations\Print Situation\Plan...** selection opens the **Select Plan and Phase** window. Selecting a plan and phase and **OK** opens the **Print Plan** window for the selected plan.

1-22.1 Print Current and Print Plan Windows.

The **Print Current** and **Print Plan** windows are identical except for the title and two (2) menu selections. These selections are the absence of the **Information Type:** of **Text** in current and the **Category** of **Miscellaneous** guidance in planning. The **Information Type:** selections are **Guidances, Units, Targets, Geometries, and Text**. The operator can select all or any number of topics for printing.

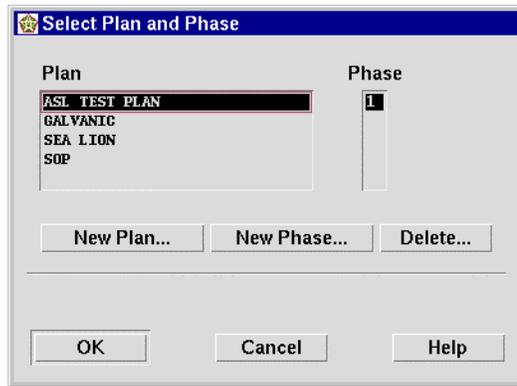
The operator selects the **Information Type:** causing the display of the categories for the selected type in the **Category** field. Selecting a **Category** causes the **Subcategory** field to display the category items and associated check boxes. Selecting a check box marks the item for print. **Select All** and **Deselect All** buttons are available for selecting both **Category** and **Subcategory** fields. Selecting **Select All** or **Deselect All** for a **Category** performs that function for each **Category** and it's included subcategories.

The **Print...** buttons opens the **Print Settings** window as the first step in the printing process. The **Cancel** button closes the window without further actions.

1-22.2 Print Current/Plan Situation Procedure.

Print Current/Plan Situation Procedure

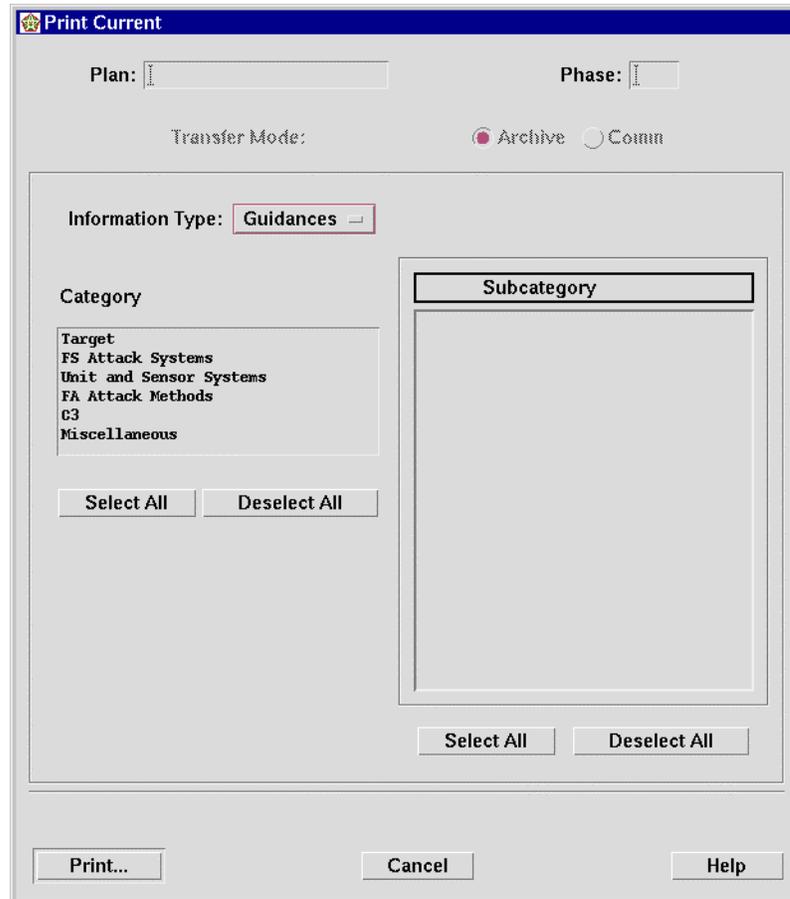
Step	Action	Response
1.	<p><u>Select Situations\Print Situation\Current</u> and proceed to step 4</p> <p>or</p> <p><u>Select Situations\Print Situation\Plan...</u> and proceed to step 2.</p>	<p>Print Current window opens.</p> <p>Select Plan and Phase window opens.</p>



2.	<u>Select plan and phase</u> from list.	
3.	<u>Select OK.</u>	Print Plan window opens for selected plan.

Print Current/Plan Situation Procedure - CONT

Step	Action	Response
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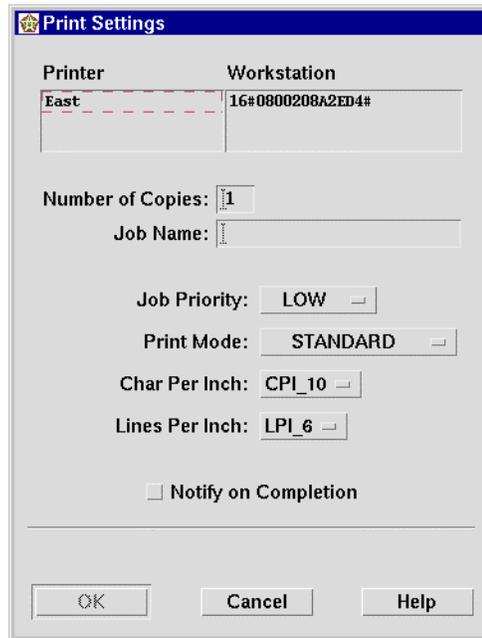


NOTE

If **All Data** is selected as the **Information Type**:, all data for each **Category** and **Subcategory** will be selected. Selecting **Select All** or **Deselect All** for the **Category** field performs the appropriate function on each **Subcategory**.

Print Current/Plan Situation Procedure - CONT

Step	Action	Response
4.	<u>Select Information Type:</u>	Category field displays categories for selected type.
5.	<u>Select Category.</u>	Subcategory field displays items for selected category.
6.	<u>Select items</u> to be printed from Subcategory field.	
7.	<u>Repeat steps 5 and 6</u> for each Category .	
8.	<u>Repeat steps 4 through 7</u> for each Information Type: .	
9.	<u>Select Print...</u>	Print Settings window opens.



10. Select Printer:

Print Current/Plan Situation Procedure - CONT

Step	Action	Response
11.	<u>Enter Number of Copies:</u> (default is 1).	
12.	<u>Enter Job Name:</u> (1-20 alphanumeric characters).	
13.	<u>Select Job Priority:</u> (default is Low).	
14.	<u>Select Print Mode:</u> (default is Standard).	
15.	<u>Select Character Per Inch:</u> (default is 10).	
16.	<u>Select Lines Per Inch:</u> (default is 6).	
17.	<u>Select Notify on Completion:</u> as required.	
18.	<u>Select OK.</u>	Job is sent to printer.

1-23 **DISK UTILITIES.**

1-23.1 Disk Utilities Window.

This window is accessed via the **System\Disk Utilities...** selection. This window will enable the user to manage removable disks and their drives on a local workstation in the OPFAC.

The **Media Device:** selections include the **Optical/Jaz/Flash, Floppy Disk,** and **Compact Disk.** The device selected determines the **Operations:** that will be displayed.

The **Clear...** operation removes all files from the disk. The **Clear/Verify...** operation performs the same function as **Clear...**, and additionally verifies and informs the operator of the clear action. The **Repair...** operation formats a disk and in the process destroys all file data. The **Initialize...** operation installs the file system data on a formatted disk. The **Eject** function releases the disk in the selected device on the local workstation.

1-23.2 Disk Utilities Procedure.

Disk Utilities Procedure

Step	Action	Response
1.	<u>Select System\Disk Utilities...</u>	Disk Utilities window opens.



2.	<u>Select Media Device:</u>	Operations: field lists functions available for selected device.
3.	<u>Select Operation to be performed.</u>	
4.	<u>Select Apply.</u>	Confirmation window opens.
5.	<u>Confirm operation.</u>	Operation is initiated.
6.	<u>Repeat steps 2 thru 5 as required.</u>	
7.	<u>Select OK.</u>	Disk Utilities window closes.

1-24 **TRANSFER PLAN OR CURRENT.**

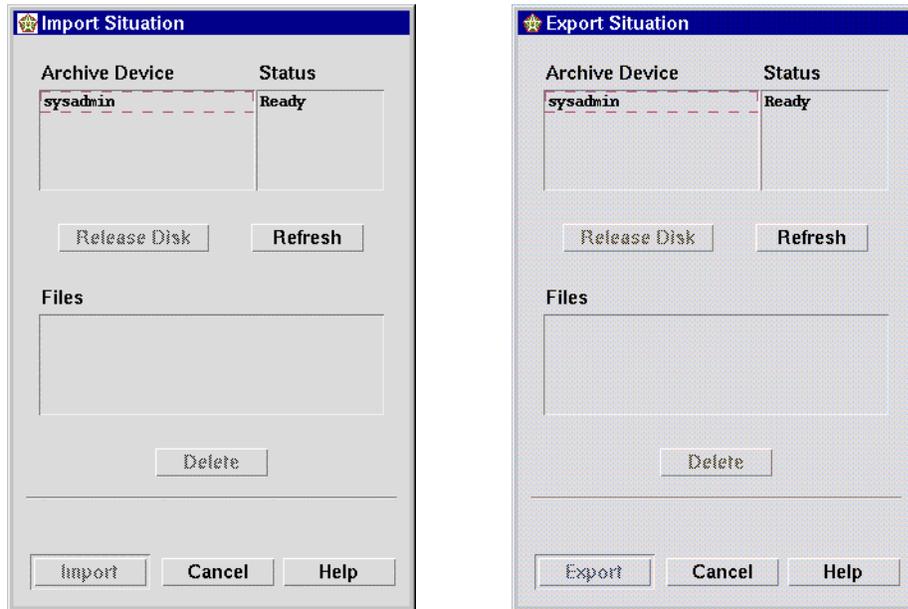
The following procedure details the steps necessary to archive all information of a plan and phase or the current situation to a local workstation or transfer selected information to another OPFAC.

1-24.1 Import\Export Situation Window.

The **Import Situation** and **Export Situation** windows are opened from the **Situations** menu selections. These windows provide the functionality to export or import a single set of plan and phase information. The default button **Import/Export** changes appropriately with the window title.

Import Situation window is opened by selecting **Situations\Import Plan...**

Export Situation window is accessed by selecting **Situations\Transfer Plan...** which opens the **Select Plan and Phase** window in the Select mode. Selecting the plan and phase to transfer and **OK** opens the **Send Plan** window. **Send Plan** contains two radio buttons **Archive** and **Comm**. When the intention is to archive the plan and phase to optical disk, the **Archive** radio button and **Archive...** button is selected which opens the **Export Situation** window. When the intention is to transfer the plan and phase to another OPFAC via radio frequency or field wire, the **Comm** radio button is selected which allows the user to select categories of information to send. Selecting **Comm**, categories, and **Send...** opens the **Send To** window for selecting units or distribution lists instead of opening the **Export Situation** window.



When the **Import** or **Export Situation** window is opened, workstations with removable media attached are displayed in the **Archive Device** list with their associated **Status** of **Ready** or **No Disk**. **No Disk** states that no disk is inserted in the optical disk or JAZ drive.

When the operation is export, the user selects a workstation in the **Archive Device** list with a **Status** of **Ready** to receive plan and phase information and selects **Export**. The **Export Situation** window closes and the selected plan and phase information is written to the selected archive device.

When the operation is import, the user selects a workstation in the **Archive Device** list with a **Status** of **Ready** from which to import plan and phase information. The **Files** list fills with any existing plan and phase archive files. When a file is selected, the **Delete** and **Import** buttons are enabled. Selecting **Import** closes the **Import Situation** window and starts the import process which informs the user that a plan is ready for preview.

The **Release Disk** button is enabled when an Archive Device is selected and ejects the disk from removable media.

The **Refresh** button updates this window with current status of the workstations.

An alert message notifies the user when the import or export process is complete. The user may perform other tasks while importing or exporting information.

1-24.2 Import Situation Procedure.

The following procedure details the steps necessary to import a single set of plan and phase information and delete an archive file from removable media.

NOTE

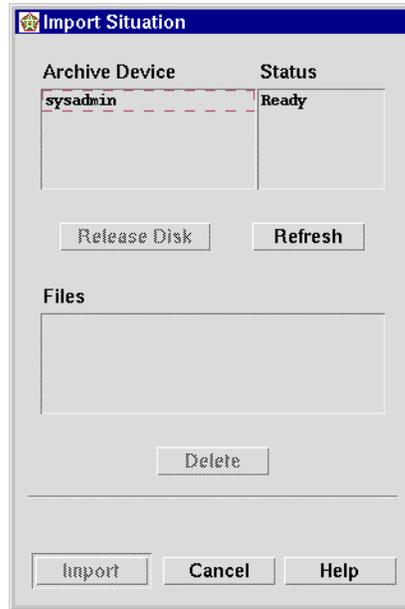
To remove disk after import function is complete, open window as in step 1, select workstation from which to release disk, and select **Release Disk** button to eject disk from optical disk drive.

To refresh **Archive Device** list and clear **Files** list, open window as in step 1 and select **Refresh** button.

To delete an archive file from optical disk select **Archive Device** with **Status** of **Ready**, select file from **Files** list and select **Delete** button.

Import Situation Procedure

Step	Action	Response
1.	<u>Select Situations\Import Plan...</u>	Import Situation window opens.

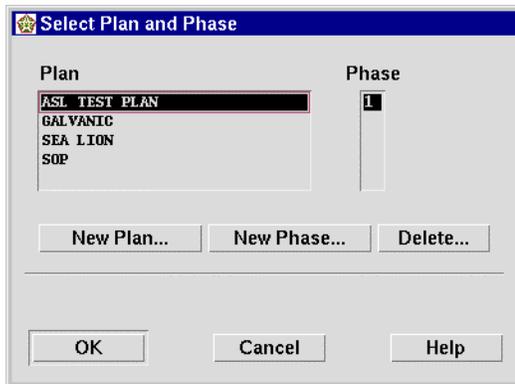


2.	<u>Select Archive Device</u> with Status of <u>Ready</u> that contains file to import.	Files list fills with any existing archive file names.
3.	<u>Select file to import</u> from Files list.	
4.	<u>Select Import</u> .	Import Situation window closes. Archive file is saved to database. User may perform other tasks during import process. End of Import function.

1-24.3 Transfer Plan/Current Procedure.

Transfer Plan/Current Procedure

Step	Action	Response
1.	<p><u>Select Situations\Transfer Plan...</u></p> <p>or</p> <p>Situations\Transfer Current. Proceed to step 4.</p>	<p>Select Plan and Phase window opens in Select mode.</p> <p>Transfer Current window opens.</p>



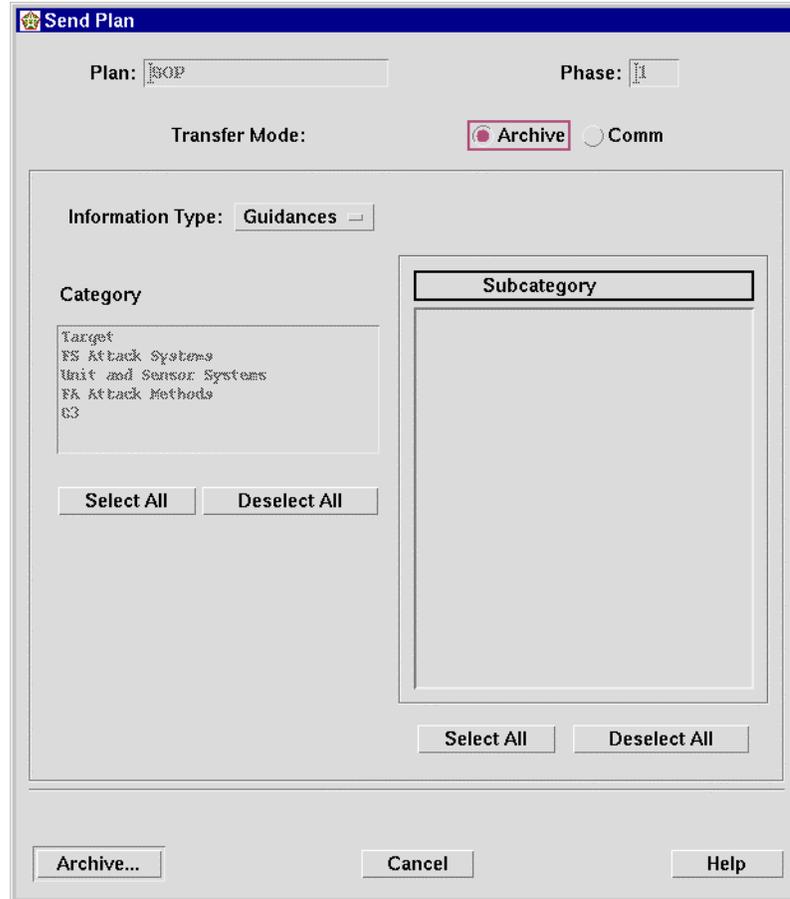
2. Select plan and phase to archive or transfer.

3. Select OK.

Send Plan window opens.

Transfer Plan/Current Procedure - CONT

Step	Action	Response
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NOTE

To archive plan and phase or current to optical disk on local workstation, perform steps 4 thru 7.

To transfer selected categories of plan and phase or current to another OPFAC, perform steps 8 thru 15.

4. Select **Archive** radio button.

5. Select **Archive...**

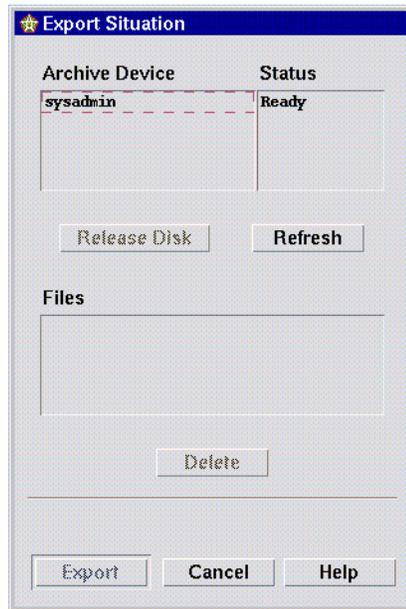
Export Situation window opens with **Delete** button disabled.

Transfer Plan/Current Procedure - CONT

Step	Action	Response
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NOTE

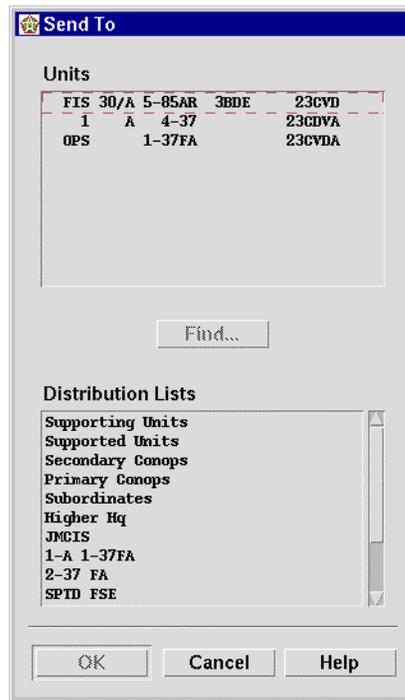
To remove disk after archive function is complete, access **Export Situation** window, select workstation from which to release disk, and select **Release Disk** button to enable eject button on optical disk drive.



6.	<u>Select Archive Device</u> with <u>Status</u> of <u>Ready</u> .	Files list remains blank.
7.	<u>Select Export</u> button to start archive process.	Export Situation window closes. All information of selected plan and phase is written to archive device overwriting any existing archive information. User may perform other tasks during archive process.
8.	<u>Select Comm</u> radio button.	End of Transfer Plan (archive) function.
9.	<u>Select Information Type</u> .	Category selection enabled.
		Category list fills with associated information categories from which to select.

Transfer Plan/Current Procedure - CONT

Step	Action	Response
10.	<u>Select desired Category.</u>	Subcategory list fills with associated information from which to select.
11.	<u>Select desired Subcategory check boxes.</u>	Selections will be transmitted with plan and phase.
12.	<u>Repeat steps 9 thru 11 to complete each Information Type as required.</u>	
13.	<u>Select Send...</u>	Send To window opens.



14. Select unit or distribution list to receive plan and phase.

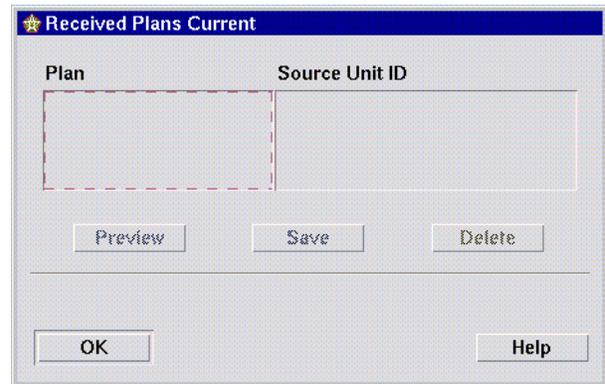
Transfer Plan/Current Procedure - CONT

Step	Action	Response
15.	<u>Select OK.</u>	<p>Send To window closes and plan and phase is sent. User may perform other tasks during transfer process.</p> <p>End of Transfer Plan/Current function.</p>

1-25 RECEIVED PLAN/CURRENT.

1-25.1 Received Plans Current Window.

The **Received Plans/Current** window is opened from the **Situations\Received Plans/Current** selection. This window allows the user to select which incoming guidance and geometry information to preview, save, or delete. The **Plan** list may contain names of plans for planning or the current situation depending on the transmission source (Transfer Plan or Transfer Current). The **Source Unit ID** identifies the unit which sent the plan information.

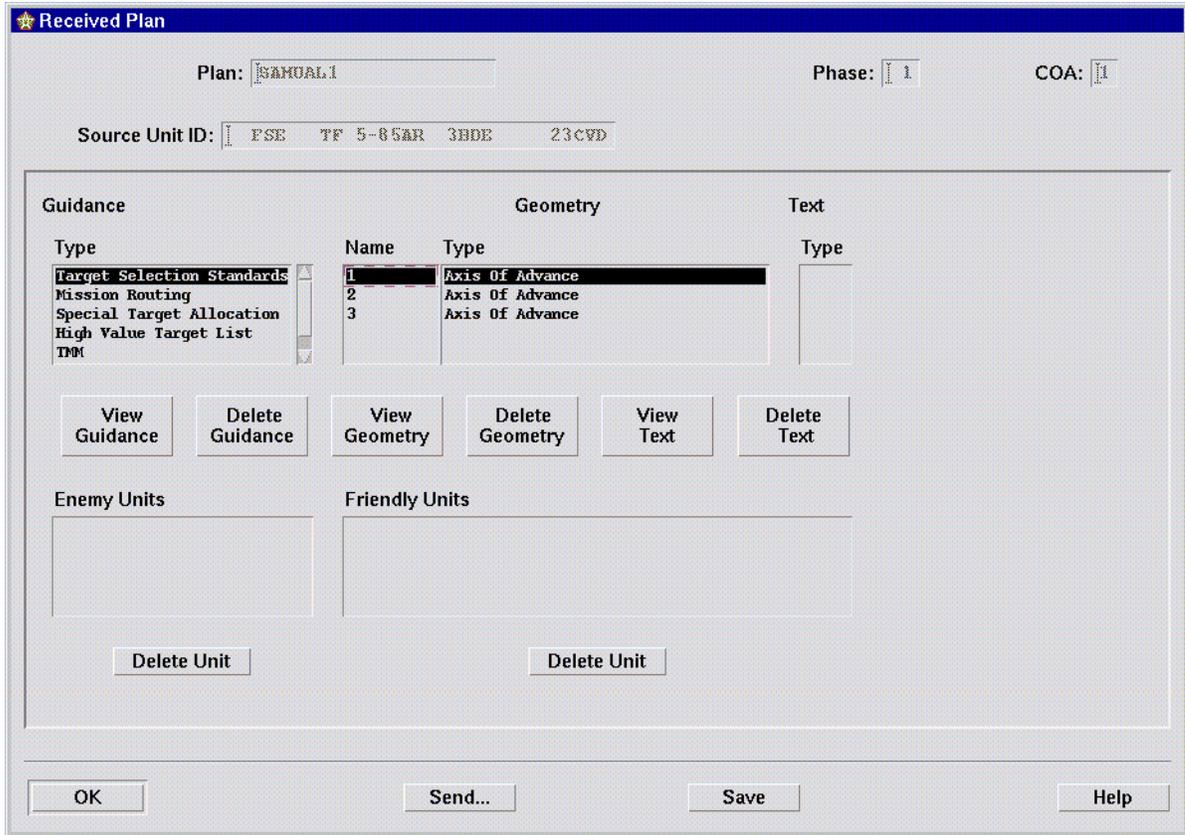


Selecting a plan name enables the **Preview**, **Save**, and **Delete** buttons. **Preview** allows the user to selectively view the received guidance information. **Preview** opens either **Received Plan** window or **Received Current Guidance** window. **Save** saves the selected plan and removes the plan from the list. **Delete** deletes the selected plan and removes the plan from the list.

1-25.2 Received Plan Window.

The **Received Plan** window is opened from the **Received Plans/Current** window when a planning situation plan and **Preview** are selected. This window allows the user to select and view any **Guidance**, **Geometry**, **Friendly Units**, **Enemy Units**, or **Text** information received with a plan from other OPFAC's or non-AFATDS sources. A **View** button for each category opens the associated guidance, geometry, or text window in a view-only mode. A **Delete** button for each list removes selected items from the list. No confirmation is required for any deletion.

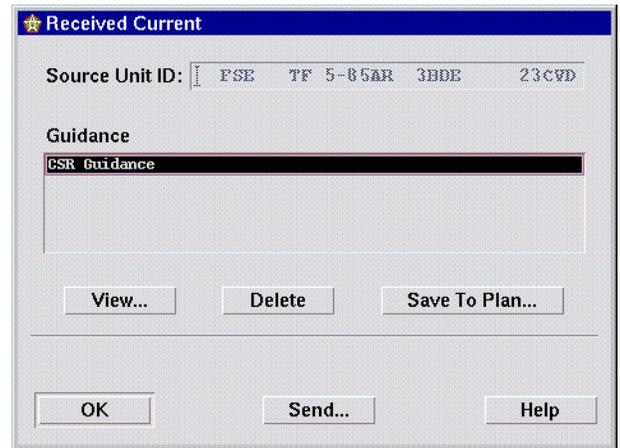
Send... opens the **Send To** window for selecting the unit to receive the listed guidance, geometry, and text information. **Save** saves the plan to the **Plan**, **Phase**, and **COA** indicated on the window. If the plan does not exist at this OPFAC, it will be created. If the plan is incomplete, the required information will be copied from SOP.



1-25.3 Received Current Window.

The **Received Current** window is opened from the **Received Plans/Current** window when a plan for the current situation and **Preview** are selected. This window allows the user to select and **View...** any **Guidance** information received for the current situation from other OPFAC's or non-AFATDS sources. **View** opens a selected guidance window in a view-only mode. The **Delete** button removes a selected guidance from the list without confirmation.

Send... opens the **Send To** window for selecting the unit to receive the guidance information. **Save To Plan...** opens the **Select Plan and Phase** window allowing the user to select the plan to which the selected guidance is to be saved. The guidance can only be saved to a plan which already exists at this OPFAC.

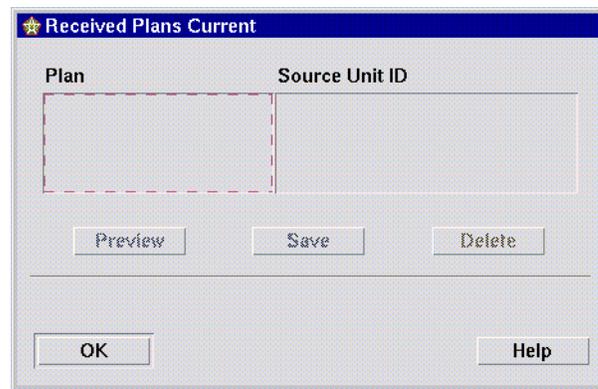


1-25.4 Received Plans Procedure.

The following procedure details the steps necessary to process received plans for the planning or current situation. This procedure is used after the user has been notified via an alert message that a plan has been received as a result of an export/import process. This procedure allows the user to preview the received guidance information (planning or current) before saving or deleting the plan.

Received Plans/Current Procedure

Step	Action	Response
1.	<u>Select Situations\Received Plans/Current.</u>	Received Plans Current window opens.



NOTE

Selecting **OK** at any time closes window.

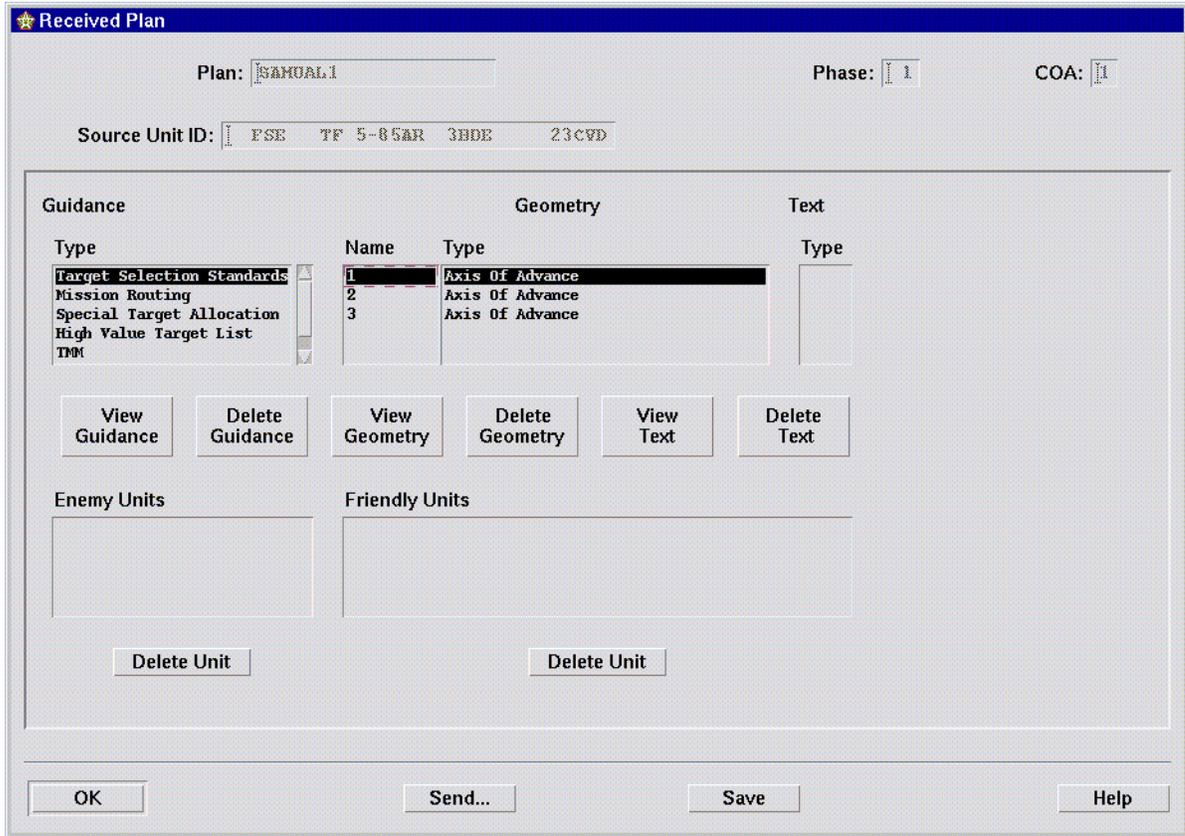
To perform following **Received Plans Current** functions, proceed to indicated steps.

- Preview plan guidances step 2
- Save plan step 23
- Delete plan step 26

2.	<u>Select plan from Plan list.</u>	Received Plan or Received Current Guidance window opens depending on the situation (i.e., planning or current).
3.	<u>Select Preview.</u>	

Received Plans/Current Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes window. If **Received Current Guidance** window opened, proceed to step 13, otherwise proceed to step 4.

To perform following **Received Plan** functions, proceed to indicated steps.

- View guidance, geometry, or text step 4
- Delete guidance, geometry, or text..... step 8
- Save listed guidances, geometries, and text..... step 11

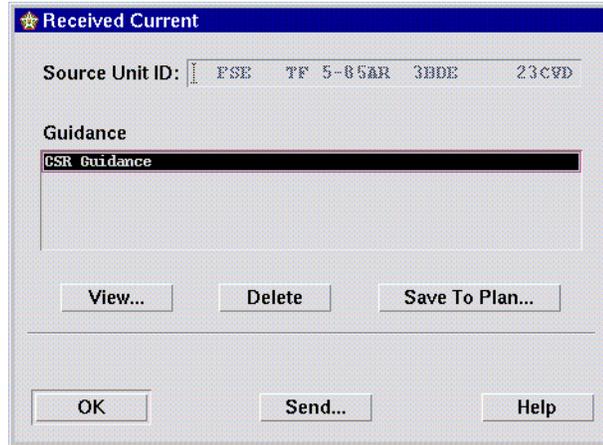
Send... opens **Send To** window for sending listed guidances, geometries, and text to selected unit(s).

Received Plans/Current Procedure - CONT

Step	Action	Response
4.	<u>Select Guidance Type, Geometry Name, or Text Type</u> from list to view.	
5.	<u>Select View button</u> for appropriate category.	Selected guidance, geometry, or text window opens in view-only mode.
6.	<u>When finished viewing</u> guidance, geometry, or text, <u>select OK</u> to close window.	Window closes.
7.	To perform other functions of Received Plan window, return to step 1.	
8.	<u>Select Guidance Type, Geometry Name, or Text Type</u> from list to delete.	
9.	<u>Select Delete button.</u>	Selected guidance, geometry, or text is deleted and list updates.
10.	To perform other functions of Received Plan window, return to note prior to step 4.	
11.	<u>Select Save.</u>	Listed guidances, geometries, and text are saved to plan indicated at top of window. If plan is incomplete, required information is copied from SOP.
12.	<u>Select OK.</u>	Received Plan window closes.
13.	To perform other functions of Received Plan window, return to step 1.	

Received Plans/Current Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes window.

To perform following **Received Current Guidance** functions, proceed to indicated steps.

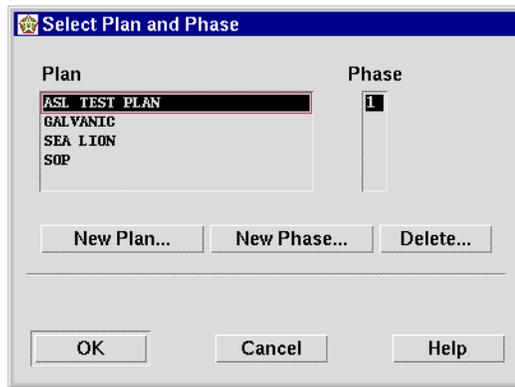
- View guidance step 13
- Delete guidance step 16
- Save to plan step 19

Send... opens **Send To** window for sending listed guidances to selected unit(s).

14.	<u>Select Guidance</u> from list to view.	Selected Guidance window opens in view-only mode.
15.	<u>When finished viewing</u> guidance, <u>select OK</u> to close window.	Window closes.
16.	To perform other functions of Received Current Guidance window, return to note prior to step 14.	
17.	<u>Select Guidance</u> from list to delete.	

Received Plans/Current Procedure - CONT

Step	Action	Response
18.	<u>Select Delete</u> .	Selected guidance is deleted and list updates.
19.	To perform other functions of Received Current Guidance window, return to note prior to step 14.	
20.	<u>Select Guidance</u> from list to save to an existing plan.	
21.	<u>Select Save To Plan...</u> .	Select Plan and Phase window opens.



22.	<u>Select plan</u> from list to which guidance is to be saved.	
23.	<u>Select OK</u> .	Select Plan and Phase window closes.
24.	To perform other functions of Received Current Guidance window, return to note prior to step 14.	
25.	<u>Select Plan</u> from list to save.	
26.	<u>Select Save</u> .	Plan is saved and removed from list.

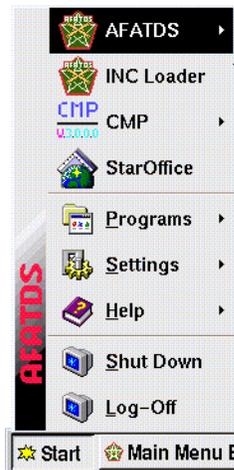
Received Plans/Current Procedure - CONT

Step	Action	Response
27.	To perform other functions of Received Plans/Current window, return to note prior to step 2.	
28.	<u>Select Plan</u> from list to delete.	
29.	<u>Select Delete</u> .	Plan is deleted and removed from list.
30.	To perform other functions of Received Plans/Current window, return to note prior to step 2.	
31.	<u>Select OK</u> .	Received Plan window closes.

1-26 **AFATDS FUNCTIONS MENU.**

The AFATDS Functions Menu applies to all platforms: UCU and CCU-2; unless indicated otherwise. The AFATDS Functions Menu items are listed in sequence they appear on the UCU/CCU-2.

- Netscape Browser
- AFATDS Operators Notebook
- AFATDS Operators Manual (on CD-ROM)
- View End of System Log
- View End of AAS Log
- Enable/Disable External Message Log
- Save Logs
- Save Backup Logs
- Execute Dump Utilities
- Set System Log Filters
- Remove Backup Logs
- Set Operational Indicators
- Set Router Address
- Select DB Suite for Restore Databases
- Database Utilities
- Access LAN printer
- Attach EOD Driver
- Mount OD
- Unmount OD
- Eject Floppy
- Eject CDROM
- TDS Setup
- Enable Audio Alerts
- Disable Audio Alerts
- Audio Alerts Volume Control
- Xterm MCS
- AFATDS Ping
- USMTF Exercise Name
- Screen Saver ON
- Screen Saver OFF
- Unix Ping
- Host Name Query
- Log Filer
- View Event Log Files
- View LAN Status
- View Scratch Files



1-26.1 Netscape Browser.

This selection starts the Netscape™ utility. The Netscape™ window opened will depend on the user settings. Refer to paragraph on Netscape™ for additional information.

1-26.2 AFATDS Operators' Notebook.

This selection opens a window that displays an on-line copy of the AFATDS Operator's Notebook. The operator can view or print a hard copy of any or all of the notebook. The window menu and tool bar allow the operator to manage and control the displays and functions of the window.

The right area of the window displays the on-line copy of the notebook. This area is scrollable using normal methods. The left area displays bookmarks for topics of the notebook. A triangle to the left of a bookmark indicates that sub-topics are included for the bookmark. Selecting a triangle expands the list to display bookmarks for the sub-topics. Selecting a bookmark scrolls the notebook display to the bookmarked topic.

Selecting **File\Print...** opens the **Print** window. This window allows the operator to select a print range and send the file to the printer.

The **Tools\Find...** selection opens a window that allows the operator to enter a search string and set the search criteria to locate occurrences of the string within the notebook.

The **File\Exit** selection closes the notebook viewer window.

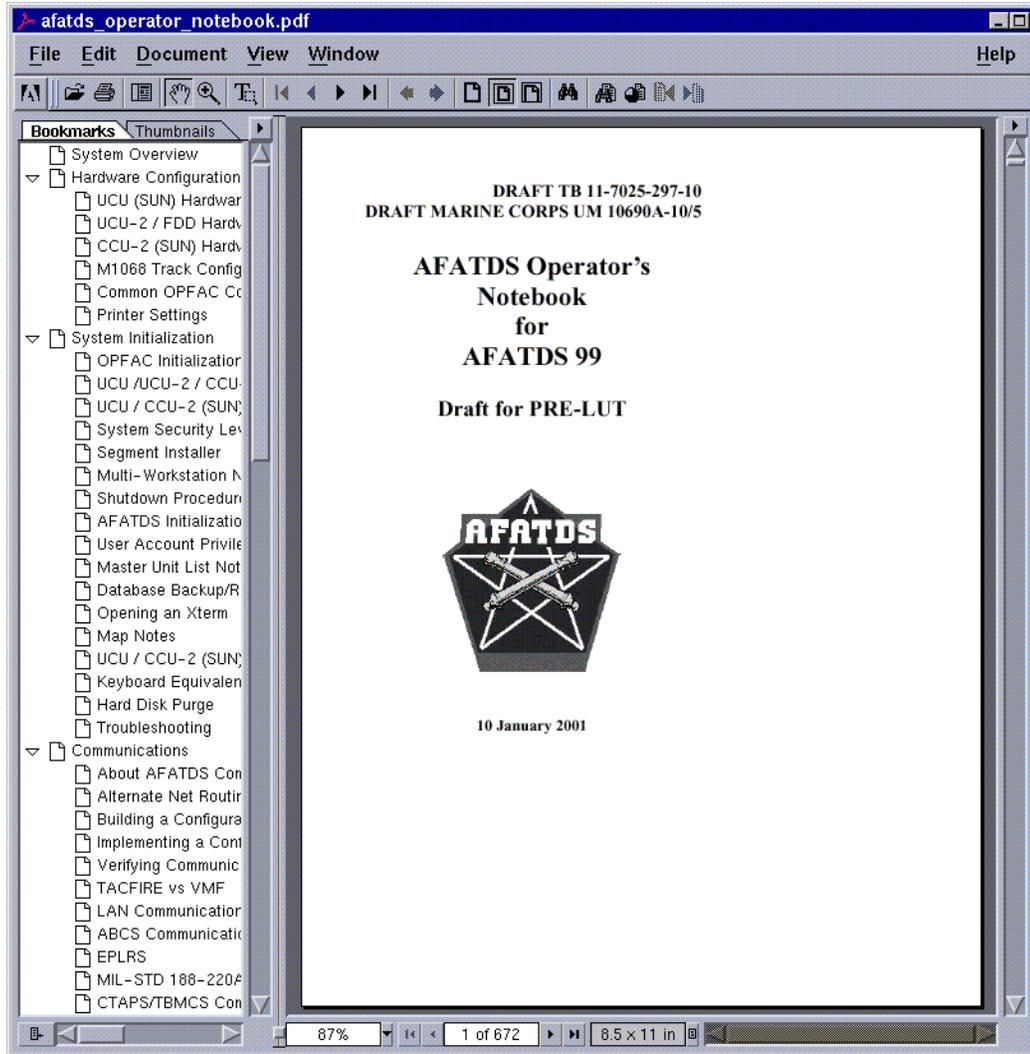


Figure 1.32 AFATDS Operator's Notebook

1-26.3 AFATDS Operator's Manual.

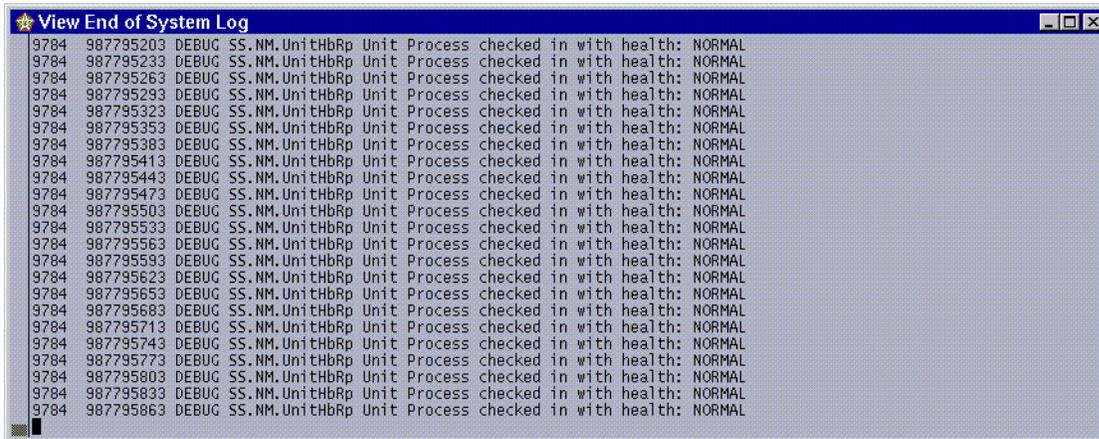
The **AFATDS Operators Manual** selection opens an electronic file of the AFATDS Operator's Manual for that version of AFATDS. The CD containing the file must be installed in the CD drive prior to making this selection.

The Operator's Manual has a table of contents and bookmarks that are linked to the appropriate section of the Operator's Manual. Selecting the page number for a table of contents entry will display the applicable page.

1-26.4 View End of System Log.

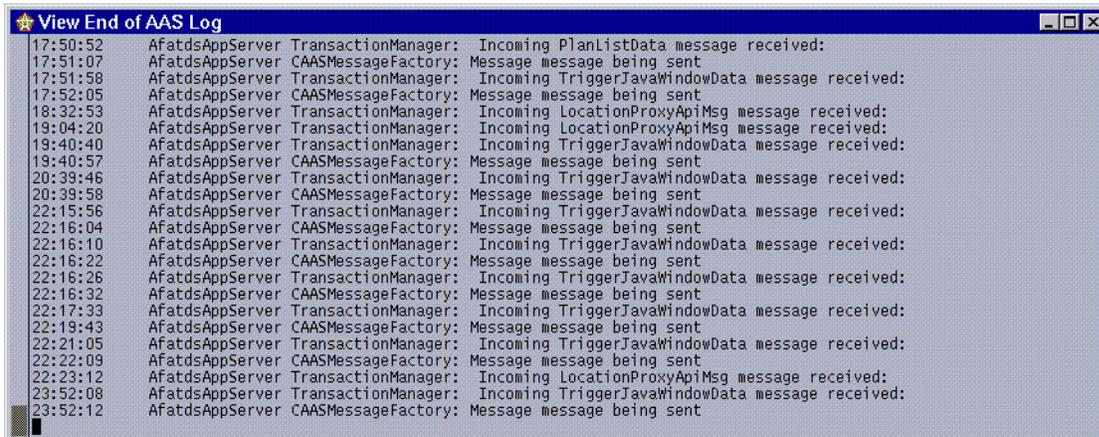
The **View End of System Log** selection is a diagnostic tool that is not recommended for operator use unless proper training has been received and/or technical assistance is available.

This function allows the user to view messages as they are added to the system log. This function may only be terminated by closing the viewing window.



1-26.5 View End of AAS Log.

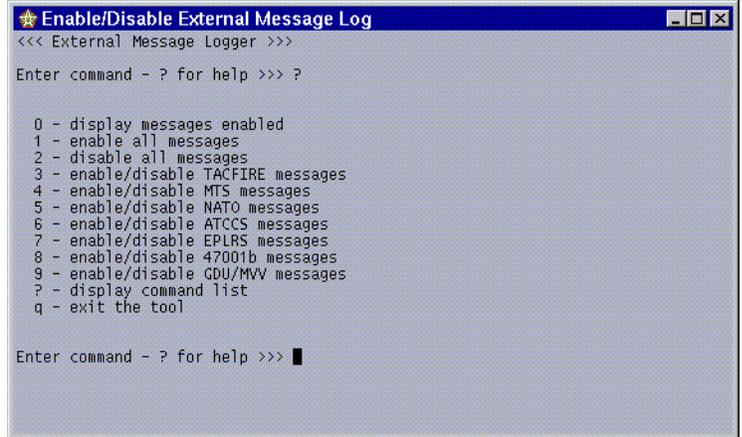
This selection allows the user to view messages as they are added to the AFATDS Application Server (AAS) log.



1-26.6 Enable/Disable External Message Log.

The **Enable/Disable External Message Log** selection is a diagnostic tool that is not recommended for operator use unless proper training has been received and/or technical assistance is available.

Each of the tactical communications gateways (TACFIRE, MTS and NATO) are capable of logging sent and received messages to a text file. Each entry in the file contains the message text itself as well as any pertinent data extracted from it. These log files may be viewed via View Event Log Files or saved to a floppy via Save Logs.



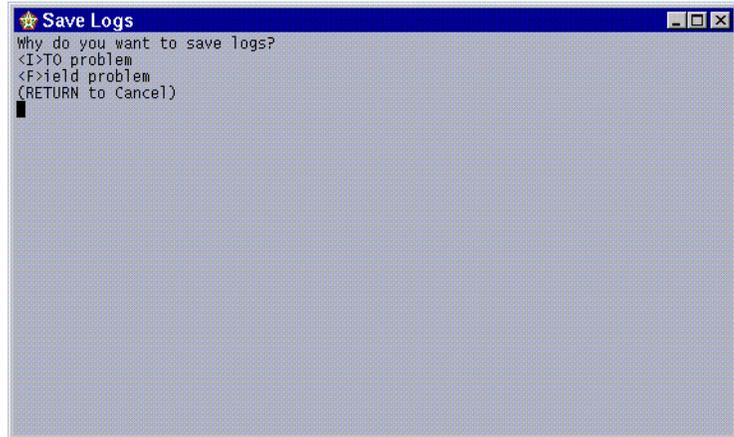
By default, logging of messages is disabled. Logging can be enabled by running the External Message Logger tool. A command line prompt appears where you can type <q> to quit, <?> to get a list of commands, or any of the following commands:

Command Entry	Result
0. Display messages enabled	Shows the current logging status for each protocol for sending and for receiving.
1. Enable all messages	Enable all message logging for all protocols.
2. Disable all messages	Disable all logging for all protocols.
3. Enable/disable all TACFIRE messages	Toggle the message logging status for the TACFIRE protocol. If it was ON, it will now be OFF.
4. Enable/disable all MTS messages	Toggles the message logging status for the MTS protocol. If it was ON, it will now be OFF.
5. Enable/disable all NATO messages	Toggle the message logging status for the NATO protocol. If it was ON, it will now be OFF.
6. Enable/disable ACCS messages	Toggles the message logging status for the ACCS protocol. If it was ON, it will not be OFF.
7. Enable/disable EPLRS messages	Toggles the message logging status for the EPLRS protocol. If it was ON, it will not be OFF.
8. Enable/disable 47001 messages	Toggles the message logging status for the 47001 protocol. If it was ON, it will not be OFF.

Note that message directions are either DATA_REQUEST (outgoing) or DATA_INDICATION (incoming). When prompted by these latter options, enter TRUE to enable a particular direction or FALSE to disable it.

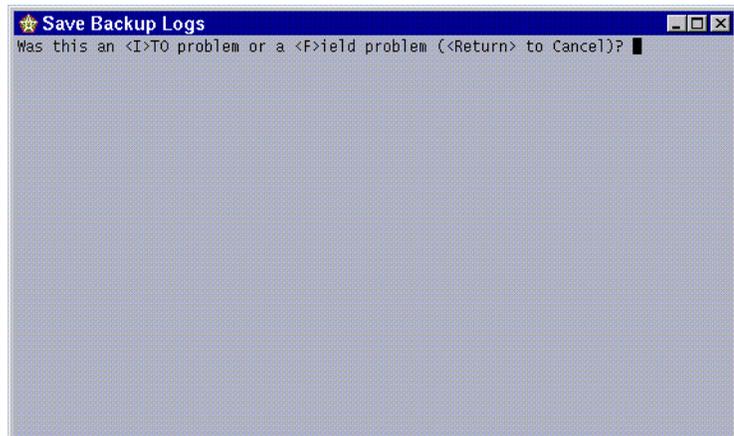
1-26.7 Save Logs.

The **Save Logs** selection is a diagnostic tool that is not recommended for operator use unless proper training has been received and/or technical assistance is available. This selection is used during a problem to save the current AFATDS logs and status to a floppy disk for later analysis. When selected, a window is opened which will prompt the operator for information regarding the problem.



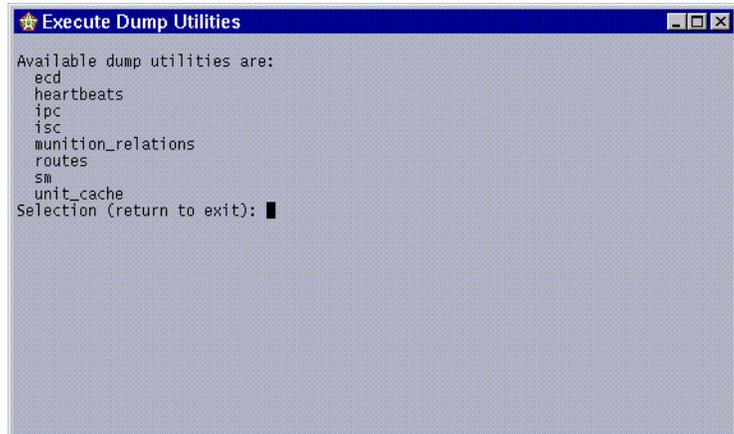
1-26.8 Save Backup Logs.

This selection is used following a problem in which the machine was restarted. It is used to save the backup AFATDS logs and status to a floppy disk for later analysis. When selected, a window is opened which will prompt the operator for information regarding the problem.



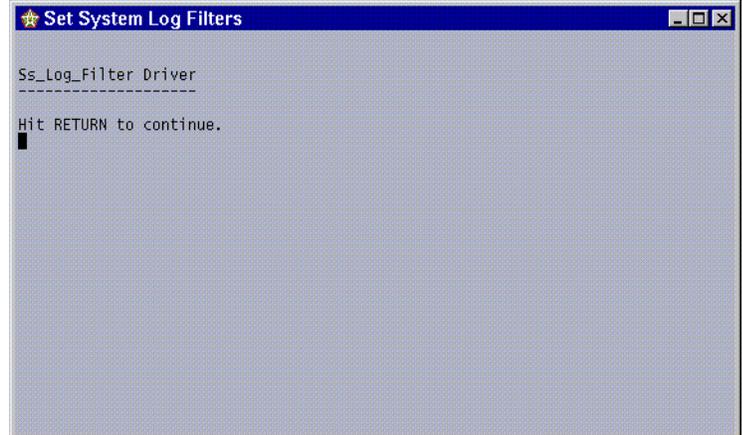
1-26.9 Execute Dump Utilities.

This function allows AFATDS software engineers to tune and debug AFATDS System Support software parameters. Note that misuse of these tools can cause failure of AFATDS software, so casual users should avoid their use.



1-26.10 Set System Log Filters.

This tool provides a means of affecting what log messages go into the System_Log file and what messages go into the Event Log Database when Ss_Log_Services.Insert_Entry is invoked. By default, the System_Log file receives everything and the Event Log receives all except Debug and Information log messages. The tool allows the creation of filters to affect one or both logging areas. The filters for the System_Log are independent from the ones that affect the Event Log.



Initially, Set System Log Filters will be working with the log level of Osr_Logger (i.e., ready to display or allow updating of items associated with the System_Log file). The current log level is always displayed to indicate which log one is working on.

1-26.11 Remove Backup Logs.

The backup logs take up some space on the internal hard drive, sometimes quite a bit of space. Selecting this menu item deletes the backup logs from the internal hard disk. This only needs to be used if an alert is generated which indicates the internal hard disk is almost full.

1-26.12 Set Operational Indicators.

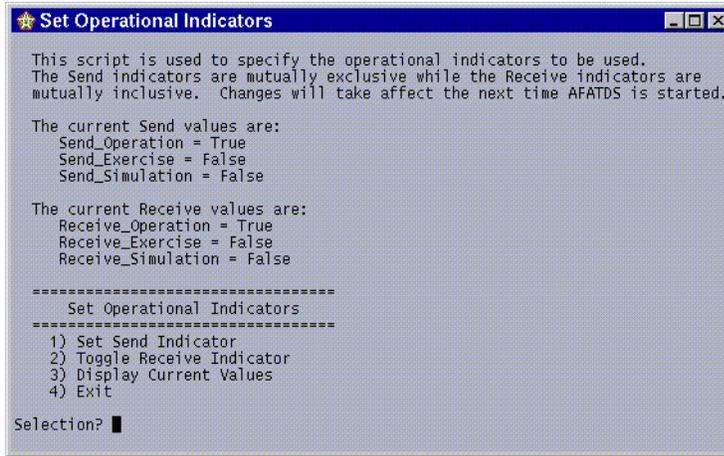
Selection allows operators to set Operational Indicator codes for Package 11 sub-messages. There are three Operational Indicator codes: Operational, Exercise, and Simulation. Operators can select one of the three Operational Indicator codes for messages that are to be sent. The default setting for the send sub-message Operational Indicator code is Operational. Operators can select one, two, or all three Operational Indicator codes (Operational, Exercise, or/and Simulation) for messages that are received. The default setting for the receive Operational Indicator code is Operational.

Changes to the script for Set Operational Indicators are made by selecting the number of the item you want, entering it at the Selection? prompt, and pressing **<Enter>** to execute your selection. You can select Display Current Values to see the current values at any time. When viewing Current Values, True means that the item is selected and False means that the item is not selected. Return to Main Menu takes you back to the main menu for Set Operational Indicators.

When the Operational Indicator values are changed, AFATDS must be exited and restarted before the changes take effect.

Set Operational Indicators Procedure

Step	Action	Response
1.	<u>Select Start\Set Operational Indicators.</u>	Set Operational Indicators window opens. Set Operational Indicators menu is displayed



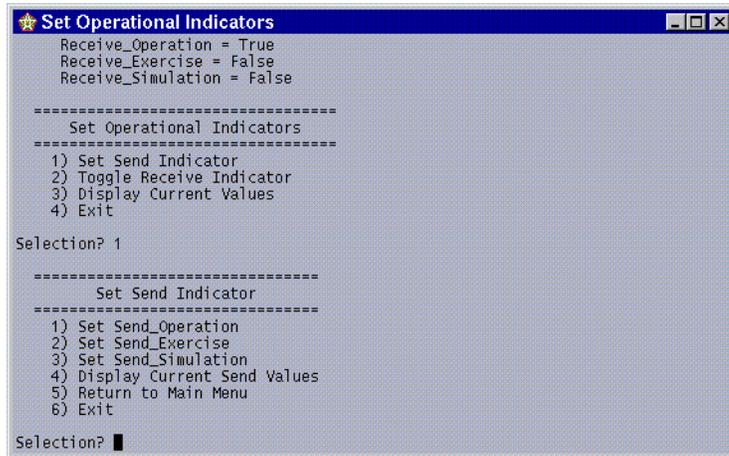
NOTE

Entering the appropriate number for **Exit** closes this window. To perform following functions, proceed to indicated steps.

- Set send indicator step 2
- Change receive indicators..... step 8

Set Operational Indicators Procedure - CONT

Step	Action	Response
2.	<u>Enter 1.</u>	Set Send Indicator menu is displayed.



3.	<u>Enter 1, 2, or 3</u> to select appropriate indicator.	
4.	Press <u><Enter></u> .	Set Send Indicator menu is displayed.
5.	<u>Enter 5.</u>	
6.	Press <u><Enter></u> .	Set Operational Indicators menu is displayed
7.	To perform other functions of Set Operational Indicators window, refer to note prior to step 2.	
8.	<u>Enter 2.</u>	
9.	Press <u><Enter></u> .	Toggle Receive Indicator menu displayed.
10.	<u>Enter 4.</u>	
11.	Press <u><Enter></u> .	Current receive values are displayed.

Set Operational Indicators Procedure - CONT

Step	Action	Response
12.	<u>Enter 1, 2, or 3</u> to toggle appropriate indicator.	
13.	<u>Press <Enter></u> .	Toggle Receive Indicator menu displayed. Selected indicator is toggled.
14.	<u>Repeat steps 10 through 13</u> for each receive indicator as required.	
15.	<u>Enter 5</u> .	
16.	<u>Press <Enter></u> .	Set Operational Indicators menu is displayed
17.	To perform other functions of Set Operational Indicators window, refer to note prior to step 2.	

1-26.13 Set Router Address.

Selection allows the operator to define the IP address for the Default Route if the workstation is going to be on a Wide Area Network.

1-26.14 Select DB Suite for Restore Databases.

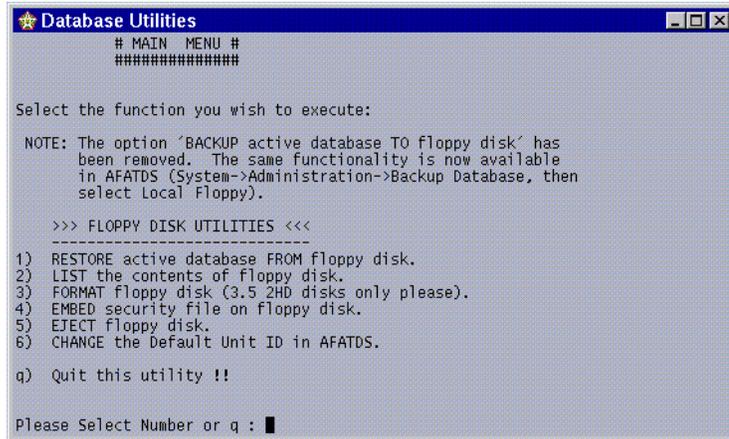
This selection allows you to select the database which will be used the next time you perform a **System\Administration\Restore Database** from that OD or Jaz. The **Select DB Suite for Restore Databases** window opens and prompts the operator to insert the OD or Jaz and select <return>. The prompt then asks the operator if a file system check of the OD or Jaz is required; select <return> to select the default N (no).

The display will show the mount status of the OD or Jaz and the currently selected database set/suite. Also displayed is a menu containing a selection for each database set on the OD or Jaz and a selection for exiting the window without changing the current selection.

If the operator selects a database set and <return>, a menu is displayed that lists the suites within the selected set. Selecting a suite (unit) and <return> establishes that suite as the database that will be restored and closes the window.

1-26.15 Database Utilities.

This utility supports the restoration of databases from / to a floppy disk. This utility can be used to copy databases between the different AFATDS platforms.



The Database Utilities selection is designed to allow the restore function between platforms using a 3.5" HD disk. It can also be used to perform these functions in place of the normal restore. This selection opens the **Database Utilities** window displaying a menu of AFATDS database and floppy disk utilities. These utilities allow the operator to restore databases using the floppy drive. They also allow the operator to format a floppy disk, list the files on a disk, embed a security file, and copy the active database to the default in preparation to change the unit ID.

Selecting **1** from the initial menu displays a brief description of the restore process and a note that current active databases will be overwritten. The display prompts the operator to confirm to continue. With continue selected, the process checks the capability of the database to be restored and lists the files in the database. The continue prompt is again displayed. Electing to continue starts the restore process.

Selecting **2** displays the list of the files contained on the disk. Selecting **3** initiates the prompts for formatting a disk. The operator is prompted to insert the disk and press **<return>** to continue. The display then informs the operator that formatting will erase all data on the disk and requests confirmation to continue. Selecting **q** from the main menu closes the window.

Selecting **4** from the **FLOPPY DISK UTILITIES** portion of the menu imbeds a security identification file on the floppy.

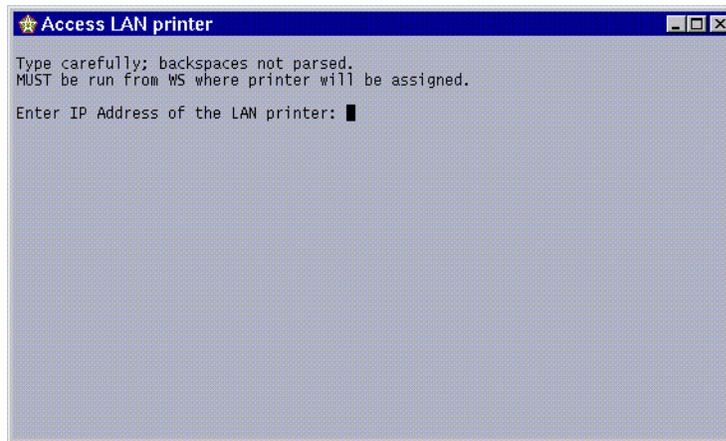
Selecting **5** will eject an installed floppy disk from the drive. Selecting **6** will prompt the operator to verify to continue with the replacement of the default database with the current active database. This is necessary to maintain the use of the active database when changing the host unit ID. Copying the active database to the default database allows the active data to be re-installed if the unit ID is changed.

1-26.16 Access LAN Printer.

A LAN printer can be made available to the operator by configuring the Unix system to recognize the printer. Once Unix is configured, the printer is accessed via normal AFATDS print window procedures. A printer IP address and name, obtained from the system administrator, are entered for the printer connected to the LAN. The following procedure is used to configure Unix.

LAN Printer Setup

Step	Action	Response
1.	<u>Select Start\Access LAN Printer.</u>	Access LAN Printer window opens.



2.	<u>Enter the printer IP Address</u> at the prompt.	
3.	<u>Enter <return>.</u>	
4.	<u>Enter the printer name</u> at the prompt.	
5.	<u>Enter <return>.</u>	The following is displayed as Unix configuration proceeds: Setting up printer (name) now... scheduler stopped scheduler running Printer (name) is idle
6.	<u>Enter <return>.</u>	Access LAN Printer window closes.
7.	<u>Add printer to workstation configuration</u> using the Printer Services Procedure.	Printer is available via normal print functions.

1-26.17 Mount OD.

This selection mounts the optical disk to the drive.

1-26.18 Unmount OD.

This selection unmounts and ejects the optical disk from the drive.

1-26.19 Eject Floppy.

This selection ejects floppy disks for the disk drive.

1-26.20 Eject CDROM.

This selection ejects the CDROM disk from the disk drive.

1-26.21 TDS Setup.

This selection only applies to the institutional Training Device System (TDS) using the SUN systems. When the TDS hardware is connected to the SUN systems, this selection disables the keyboard break and prevents the system from locking up when the AFATDS software is loaded.

1-26.22 Enable Audio Alerts.

This selection turns on the function that gives the operator an audible alert when a fire mission is received. There is no indication given to the operator as to the state (on/off) of the function at the time of selection.

1-26.23 Disable Audio Alerts.

This selection turns off the function that gives the operator an audible alert when a fire mission is received. There is no indication given to the operator as to the state (on/off) of the function at the time of selection.

1-26.24 Audio Alerts Volume Control.

This selection opens the **Audio Alerts Volume Control** window that is used to set and test the audio level for audio alerts. This window can also be used to enable and disable audio alerts. Selection listed for each function are entered at the prompt and **<Enter>** pressed to activate the function.

1-26.25 Xterm MCS.

This selection starts the MCS Xterm function. This function allows the operator to access a MCS terminal (server) and extract data to be displayed on the host terminal. The window opened by the selection displays a default server if one had been selected previously. The operator is prompted to select the default server (Y), not select the default (n), or abort the function (c). If the operator selects the default, the window closes and the server is accessed. If the operator selects abort, the window closes and MCS access is not attempted.

If the operator chooses not to select the default or the window is opened prior to having a default selected, the window displays a list of servers and prompts the user to select a server. Once selected the window closes and the selected server is accessed and becomes the default.

1-26.26 AFATDS Ping.

This function allows the user to check the connectivity of remote hosts. The AFATDS Ping function uses an AFATDS test message to determine if communications are possible between AFATDS systems.

The **AFATDS Ping** selection performs the ping function in the same manner as the **Unix Ping** but offers the operator more control over the ping process. Also, the function is not limited to hosts on the LAN. Any host can be pinged that has established communications with the local host.

This selection opens the **AFATDS Ping** window which initially displays a menu used to manage the ping process. Unless the operator has knowledge of the ping parameters, the normal procedure is to enter <c> at the **Enter Command =>** prompt. This displays the parameters and allows changes to be made. Entering a letter from the left column and <return> at the **Enter Change Parameter Command =>** prompt displays the appropriate prompt for the entry of the new parameter.

The operator returns to the initial menu after viewing and/or making changes to the parameters by selecting <q> or <w>. The <q> selection returns without saving changes made and the <w> selection saves the changes before returning to the initial menu.

The operator can start, stop, and display results of the ping from the initial menu. Entering <S> at the prompt starts a continuous number of pings at the parameter interval. Entering <n> starts the ping which continues for the number of times set in the parameter. Pinging is halted for either of these selections by entering <H>.

1-26.27 USMTF Exercise Name.

This selection opens the USMTF Exercise Name window. This window is used to input names associated with an operation or exercise. The operator is prompted to enter the number for the desired input and select <return>. The prompts that follow instruct the operator to enter the names within the listed parameters.

1-26.28 Screen Saver ON.

This selection turns the Screen Saver functionally on.

1-26.29 Screen Saver OFF.

This selection turns the Screen Saver functionally off.

1-26.30 UNIX Ping.

This function allows the user to check the connectivity of remote hosts. The UNIX Ping function uses the UNIX 'ping' command to check at a fairly low level

1-26.31 Host Name Query.

This selection opens the Host Name Query window. This window displays a list of IP addresses and associated hostnames within a specified domain and name server. The operator is prompted to enter a domain or use the default.

1-26.32 Log Filter.

This utility is used to allow AFATDS development personnel to collect, consolidate, and review logs generated elsewhere. Logs are generally generated in the field on many disks and must be consolidated to one disk for delivery to AFATDS development personnel or the maintenance facility.

1-26.33 View Event Log Files.

Various event log files may be viewed to assess the status of AFATDS software and messaging.

1-26.34 View LAN Status.

LAN status may be assessed via two sets of information available via this function. The arp information indicates the Internet-to-Ethernet translations in use. The lanscan information indicates the configuration and status for each LAN device.

1-26.35 View Scratch Files.

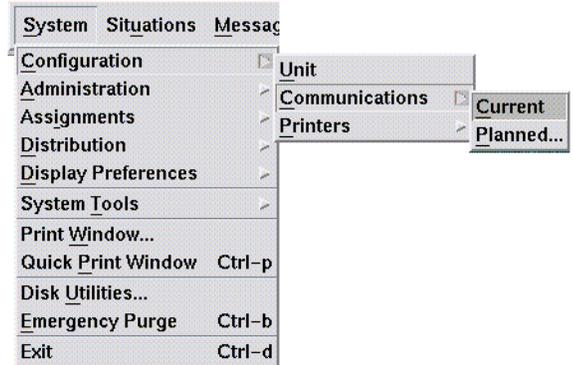
Various scratch files may be viewed to assess the status of AFATDS software.

CHAPTER 2 COMMUNICATIONS

SECTION 1 COMMUNICATIONS MANAGEMENT FUNCTIONS

2-1 CONFIGURE COMMUNICATIONS.

The communications configuration functions are used to plan, activate, and test the communications setups for an OPFAC. AFATDS allows for the storing of up to 99 planned configurations at an OPFAC. These include both configurations created at the OPFAC and imported configurations. If data (Hostname, IP address, etc.) is to be entered by the operator, instead of being imported, a hard copy will be furnished. The **System\ Configuration\ Communications** menu selections open the **Current Networks** and **Planned Networks** windows.



The **System\ Configuration\ Communications\ Planned...** selection allows creation and editing of planned configurations via the **Select Comm Configuration** window. In planning a configuration, the user establishes the networks used, net channel settings, destination units, and routing. These plans do not include net channel assignments or test message functions. These functions are enabled only after a planned configuration is selected as the current configuration.

The **System\ Configuration\ Communications\ Current** selection opens the **Current Networks** window. The user may view and/or edit the current communications data from this window or choose a planned configuration to make it the current configuration. Changes made to the current configuration are implemented and changed in the planned configuration that was the original source of the current configuration. These changes are saved to the database when the **Current Networks** window is closed via the **OK** button.

The user assigns networks for the configuration to the OPFAC's available channels. Test messages are available for direct and indirect transmittal to units in the current configuration after the networks have been turned on.

2-1.1 Communications Windows Navigation.

All communications windows are accessed from the **System\ Configuration\ Communications** menu selections. The **System\ Configuration\ Communications\ Planned...** selection opens the **Select Comm Configuration** window. This window displays the current configuration and lists the planned configurations. The **Options** menu on the **Select Comm Configuration** window contains selections to delete, import, and export configurations. The **Options** menu also accesses the **Planned Networks** window for the creation of new, and editing or copying of existing planned configurations.

The **Planned Networks** window lists the networks assigned to a planned configuration. The **Network** menu selections on the **Planned Networks** window allow the user to delete a network from the configuration or access the **Net Channel Settings** window to copy, edit, or create a network.

The **Options\Select Configuration...** menu selection on the **Planned Networks** window accesses the **Select Comm Configuration** window in the select mode. Selection of a configuration returns the **Planned Networks** window which now lists the networks assigned to the selected configuration.

The **System\Configuration\Communications\Current** selection opens the **Current Networks** window. This window lists the network data for the active configuration. The **Network** menu selections on the **Current Networks** window allow the user to delete a network from the configuration or access the **Net Channel Settings** window to view, edit, copy, or create a network. The **Network\Assign Channel(s)** selection opens the **Net Channel Assignment** window. This window is used to assign networks to the OPFAC channels.

The **Options\Destination Units** selection from the **Current Networks** and **Planned Networks** windows open the **Communication Unit Configuration** window. This window is the focal point for determining the units, routes, and networks for which communications are configured. The **Options** menu allows access to windows to add units, delete units, and view/edit routes. The **Options\Proxy** menu selections access the **New Proxy** and **Edit Proxy** windows to allow data entry for Proxy units. It also allows activation of routes while in current. The **Test Messages** menu selections access windows to test the communications capability while in current.

The **View Aliases** window is accessed from the **Options\View Aliases...** selection on the **Edit Routes** window.

The **Set Serialization** window is accessed from the **Options\Set Serialization** selection on the **Edit Routes** window. Serialization of message traffic is available for use with TACFIRE and NATO protocols.

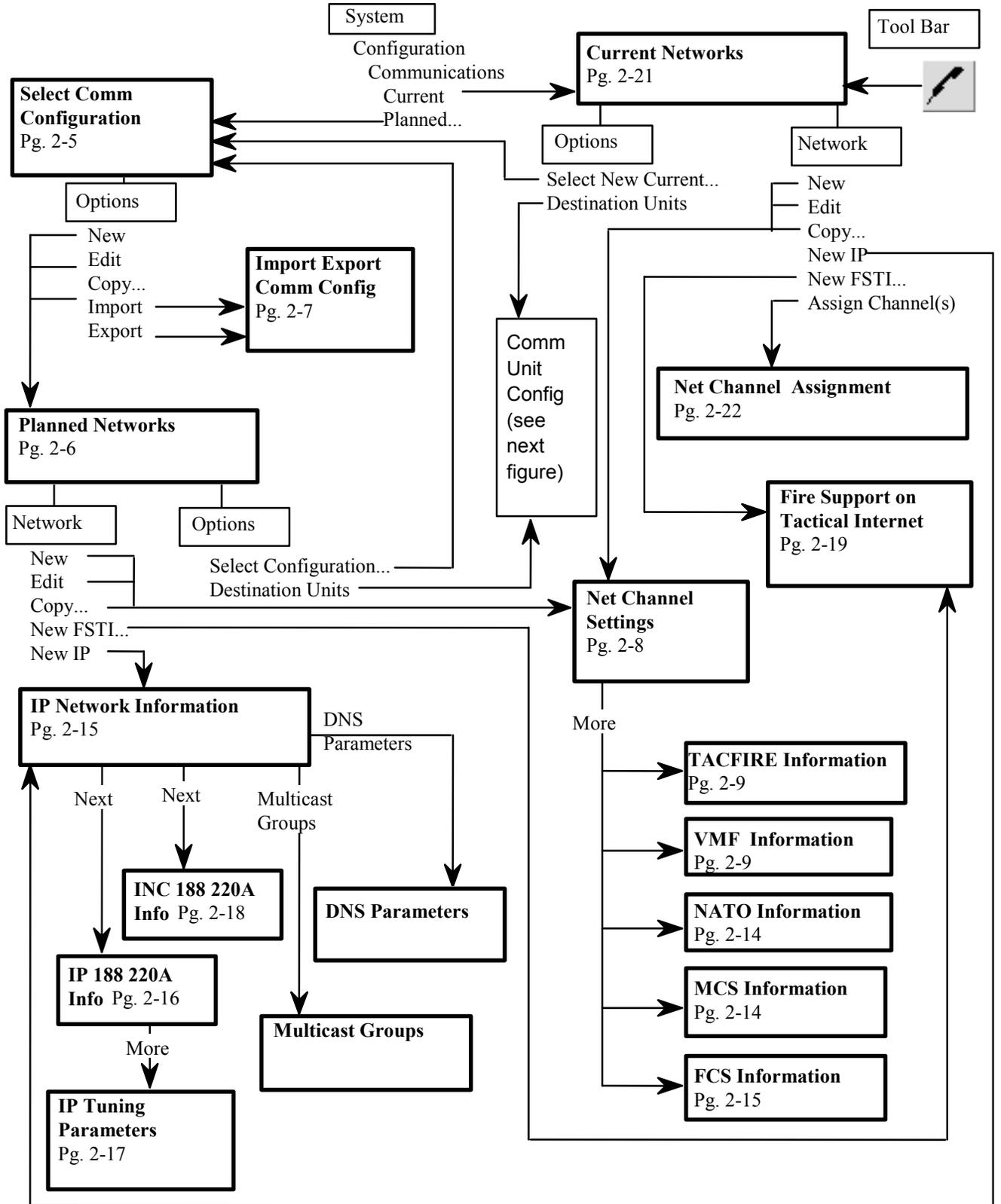


Figure 2.1 Communications Navigation (sheet 1)

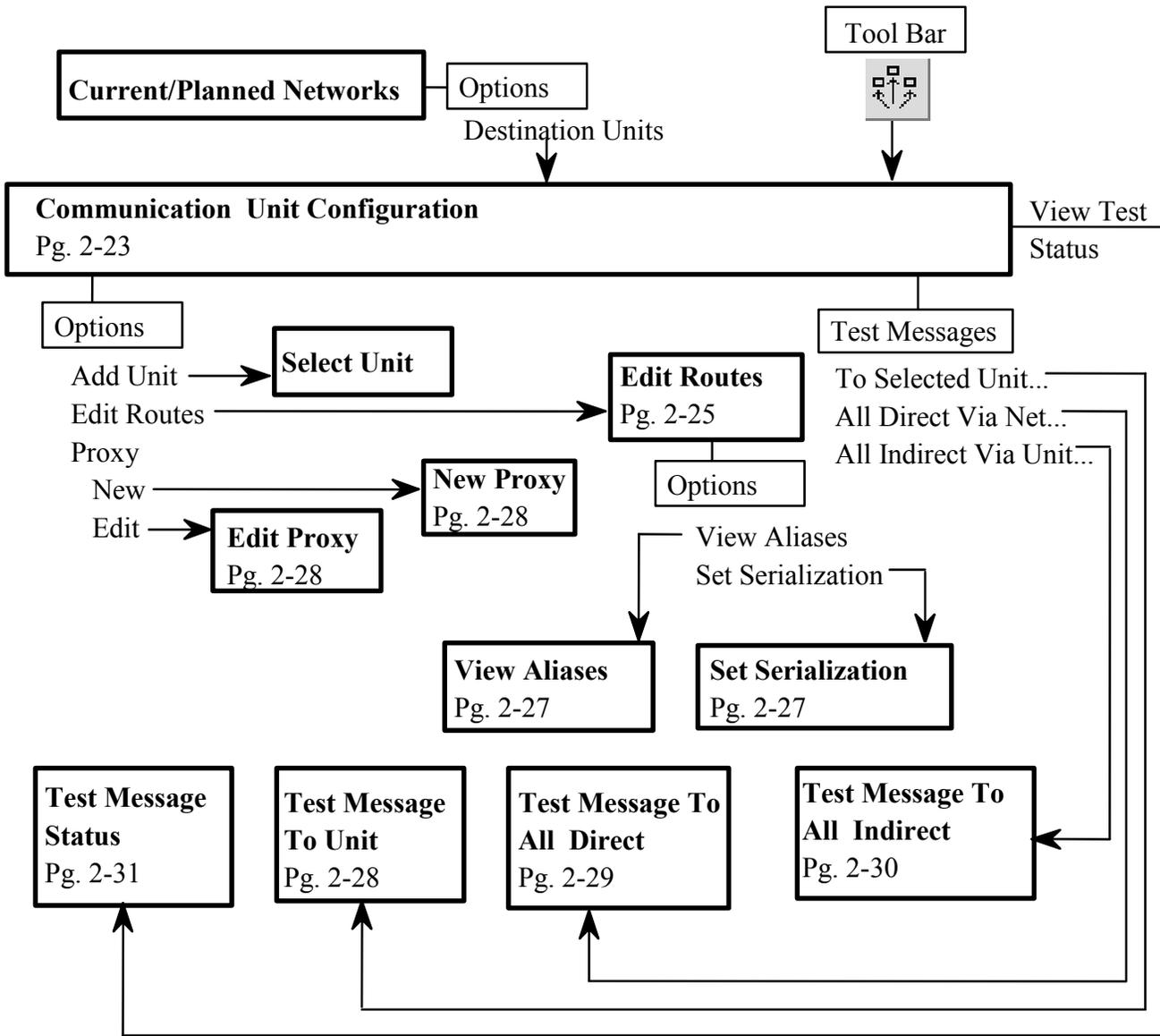


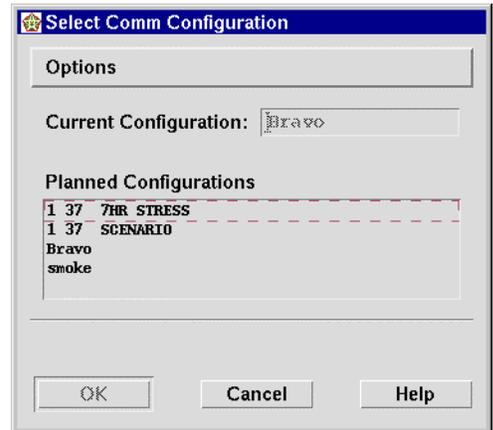
Figure 2.2 Communications Navigation (sheet 2)

2-1.1.1 Select Comm Configuration Window.

The **Select Comm Configuration** window is the starting point for planning a configuration. This window is fully functional when opened via the

System\Configuration\Communications\Planned... menu selection. It is also opened in the select mode as a listing for the selection of a new current configuration or for the selection of another planned configuration for editing/viewing in the **Planned Networks** window. In this mode, the **Options** menu is disabled.

The **Select Comm Configuration** window is accessed via the **System\Configuration\ Communications\Planned...** menu for the management of planned configurations. This includes the creation, editing, deletion, copying, importing, and exporting of configurations. **New** and **Import** are the only **Options** menu functions enabled unless a configuration is selected from the list.



The window contains a **Current Configuration:** field, a **Planned Configurations** list, and an **Options** menu. The **Current Configuration:** field will be blank if a configuration has not been selected for the OPFAC. If one has been selected, the name of the currently active configuration will appear in the field. This field cannot be edited.

The **Planned Configurations** list contains the planned configuration names. This field cannot be edited in this window. The **Options** menu allows the user to **Edit**, **Copy...**, or **Delete...** configurations or create **New** configurations. The **Options** menu also allows the user to **Export** (archive) or **Import** (restore) communication configurations.

Selecting **New**, or after selecting a planned configuration in the list and then **Copy...**, from the **Options** menu opens the **Planned Networks** window in the create mode. The **Planned Networks** window is then used to assign a name to the new configuration.

Selecting a configuration in the list and **Options>Edit** opens the **Planned Networks** window in the edit mode. The **Planned Networks** window is then used to edit the configuration.

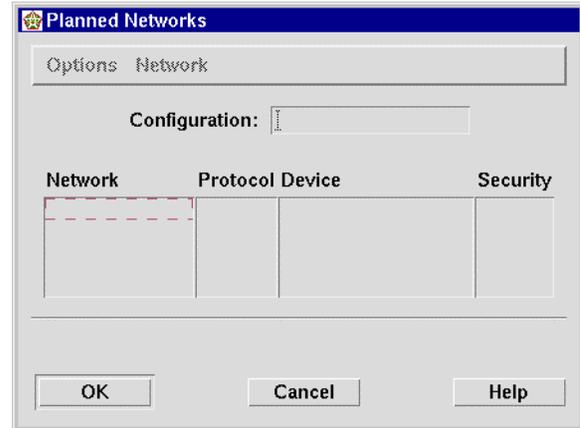
Selecting a configuration, other than the one that is current, and **Options>Delete...** opens the **Confirm Delete** window. Selecting **Delete** on this window removes the planned configuration.

The **Options\Import** selection from the menu allows the user to copy a configuration from an optical disk. The **Options\Export\Archive** and **Options\Export\Archive** menu selections allow the user to copy a configuration to an optical disk or export to other units via the **Send To** window.

2-1.1.2 Planned Networks Window.

The **Planned Networks** window is used to create or edit a planned network. This window is accessed only from the **Select Comm Configuration** window.

Configurations are edited by selecting the configuration and **Options\Edit** from the **Select Comm Configuration** window. This opens the **Planned Networks** window with the configuration data displayed. The **Configuration:** field displays the name of the selected configuration. This field is view only when editing an established configuration. List columns display the **Network** names, **Protocol**, **Device**, and **Security** status for networks assigned to the configuration. These columns are view only on this window. Changes to the configuration are made via windows accessed by the **Options** and **Network** menus.



Creating new configurations involves either the entry of completely new data or the copying and editing of an established configuration. Selecting **Options\New** from the **Select Comm Configuration** window opens the **Planned Networks** window without any data displayed. Selecting a configuration and **Options\Copy...** from the **Select Comm Configuration** window opens the **Planned Networks** window with the data of the selected configuration displayed. When creating a configuration, the **Configuration:** field is editable and required. The legal entry for a **Configuration:** field is 1 to 16 alphanumeric characters.

The **Options\Select Configuration...** selection allows the user to select another planned configuration from the **Select Comm Configuration** window for viewing or editing.

The **Options\Destination Units** selection opens the **Communication Unit Configuration** window. This window lists the units that have been entered in the communication configuration. All units on all networks in the configuration will be displayed.

The **New**, **Edit**, and **Copy...** functions of the **Network** menu open the **Net Channel Settings** window for the creation and/or editing of networks. Selecting a **Network** and **Network\Delete...** opens the **Confirm Delete** window for user confirmation of the deletion. Selecting **Delete** on the confirmation window removes the selected network from the configuration.

The **Network\New IP** selection opens the **IP Information** window for the entry of data for IP type networks.

2-1.1.3 Import\Export Communications Configuration Windows.

The **Import Export Comm Config** windows are identical in format for both the import and export functions when the window is opened via the **Options\Import** or **Options\Export\Archive** selections on the **Select Comm Configuration** window. The only difference appears in the main function button. If **Options\Export** is selected from the **Select Comm Configuration** window, the function button will display **Export**.

If **Options\Import** is selected from the **Select Comm Configuration** window, the function button will display **Import...** The **Import...** button is enabled when a file is selected from the **Files** list. Selecting **Import...** copies the selected configuration file into the system database and displays the configuration name in the **Planned Configurations** list on the **Select Comm Configuration** window.

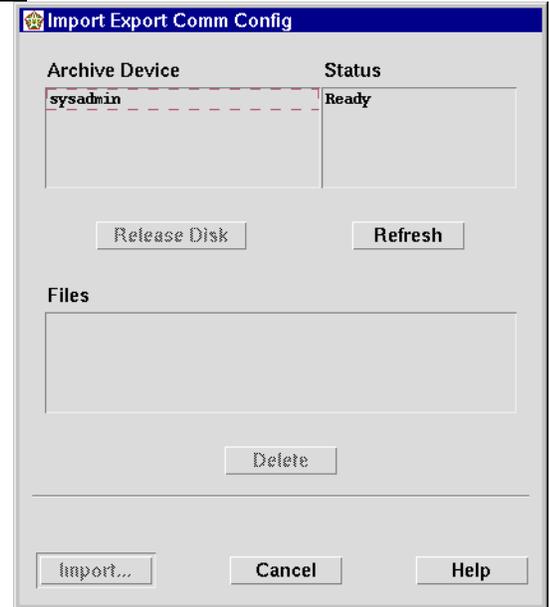
If **Options\Export** is selected from the **Select Comm Configuration** window, the function button will display **Export**. The **Export** button is enabled when an **Archive Device** is selected. Selecting **Export** copies the selected configuration onto the selected **Archive Device**.

Workstations with removable media attached are displayed in the **Archive Device** list with their **Status** (**Ready** or **No Disk**). **No Disk** states that no read/write disk for import or export is inserted in the optical disk drive.

The **Release Disk** function allows the user to unmount and eject a disk on a selected **Archive Device**. This button is enabled only when a device with a status of **Ready** is selected. The **Refresh** button updates the **Archive Device** and **Status** lists. Also, any device with an inserted disk will be mounted at this time.

The **Files** field lists the configuration files that are contained on a disk in a selected **Archive Device**.

The **Delete** button is enabled only when a file is selected from the **Files** list. Selecting **Delete** removes the selected file from the disk.



2-1.1.4 Net Channel Settings Window.

The **Net Channel Settings** window contains the characteristics for a selected network. This window is opened in the create or edit mode from the **Network** menu on the **Planned Networks** or **Current Networks** window.

The **Network Name:** field contains the assigned name of the selected network and may not be changed in the edit mode. In the create mode this field can be edited and an entry is required. The legal entry for a **Network Name:** field is 1 to 16 alphanumeric or special characters.

The **Protocol:** field is a pop-up menu that contains selections for each of the supported communications protocols. The **Protocol:** field can only be edited during the creation or copying of a network; after closing the **Net Channel Settings** window using **OK**, this field is view only. The **More** button is enabled if the selected **Protocol:** is **TACFIRE**, **VMF**, **NATO**, **EPLRS**, or **MCS**. Selecting **More** opens an appropriate window for the selected protocol. These windows are used to enter, edit, or view additional information specific to the protocol.

The **Security:** field is a pop-up menu containing selections of **Secure** and **Clear**. The user selection is made to reflect the status of the network.

The **Media Device:** field is a pop-up menu that contains selections for each of the supported communications devices. A **Media Device:** selection is required for all protocols.

The **Local Address:** field contains the address assigned to the local unit. This entry is not required for and **EPLRS** protocol. It is required for other protocols and the entry varies dependent on the selected protocol.

The **Data Encoding:** field is a pop-up menu that contains selections for each of the supported encoding processes. Note that not all data encoding can be selected for every protocol/media device combination.

The **Data Rate (BPS):** field is a pop-up menu that contains selections for the rate of data flow in bits per second (BPS). The selectable rates vary dependent upon the selected protocol. Note that not all data rates can be selected for every protocol/media device/data encoding combination.

The **Key Time (sec):** field is used to enter the message preamble length in seconds. The preamble is a series of data bits that are sent prior to the actual message to allow the receiving device to obtain bit synchronization. The legal entry is 0-25.5.

2-1.1.5 TACFIRE Information Window.

The **TACFIRE Information** window opens as a result of selecting the **More** button on the **Net Channel Settings** window with the TACFIRE protocol selected. This window contains additional data required that is specific to the TACFIRE protocol.

The **Network Name:** field contains the assigned name of the selected network and may not be changed.

The **Hold Time (sec):** is the maximum length of time after the net has cleared that the system will wait before attempting to access the net. If an ACK or NAK is detected on the network, the system will assume a clear net and initiate a net access delay prior to the expiration of the hold time. The **Hold Time (sec):** field is view only and may not be changed. The **Block Mode:** radio buttons are used to select **Single** or **Double** modes of message transmission.

The **Error Control:** radio buttons are used to select the method of error control. Selections are **None**, **EDC** (Error Detection and Correction), or **EDC/TDC** (Error Detection and Correction / Time Dispersed Coding).

The **Net Access Delay (sec)** is the time delay after net access. If the net is clear at the end of the net access delay (NAD), available messages will be transmitted. The **High** and **Low** areas of the window contain fields for **Initial:** and **Subsequent:** times. The **High** and **Low** correspond to the message priority. The times entered in the **Initial:** fields is the delay time used if the previous message on the net was sent by another unit. The **Subsequent:** fields contain the delay if the previous message was sent by this unit. All of these time entries are required. The legal entry for these fields is 0.0 to 50.0 seconds in 0.5 increments.

The **OK** button closes this window and activates the **Net Channel Settings** window. Entries and changes made to the window information are saved temporarily. This information is saved to a database when the **Net Channel Settings** window is closed via the **OK** button. If the **Net Channel Settings** window is closed via the **Cancel** button the entries and changes are discarded.

The screenshot shows the 'TACFIRE Information' dialog box. At the top, the title bar reads 'TACFIRE Information'. Below the title bar, there are two text input fields: 'Network Name:' containing 'Bravo/Red' and 'Hold Time (sec):' containing '1.61'. The next section contains two columns of radio buttons. The left column is labeled 'Block Mode:' and has 'Single' selected (indicated by a pink circle) and 'Double' unselected. The right column is labeled 'Error Control:' and has 'None', 'EDC', and 'EDC/TDC' (selected with a pink circle) options. Below this is a section for 'Net Access Delay (sec)'. It is divided into 'High' and 'Low' sections. Each section has two input fields: 'Initial:' and 'Subsequent:'. For 'High', 'Initial:' is '0.5' and 'Subsequent:' is '1.0'. For 'Low', 'Initial:' is '1.5' and 'Subsequent:' is '2.0'. At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

2-1.1.6 VMF Information Window.

The **VMF Information** window (Figure 2.3) opens as a result of selecting the **More** button on the **Net Channel Settings** window with the VMF protocol selected. This window contains additional data required that is specific to the VMF protocol.

The **Network Name:** field contains the assigned name of the selected network and can not be changed.

The **Carrier Dropout Time (S):** is the amount of time it takes for radio frequency energy to drop to a negligible level after a transmission has ended. The legal entry for this field is 0.0 to 10.0 seconds in 0.1 increments. All units on the net must use the same value for the **Carrier Dropout Time (S):**.

The **Net Access Delay**: (NAD) pop-up menu allows the user to select a method that determines the amount of time after a net becomes clear that a unit waits before attempting to transmit. If two or more units have message traffic waiting for a clear net, a collision of message traffic would occur if multiple traffic was initiated at the same time. In this case, no message would reach its destination. The **Net Access Delay**: contains five (5) selections that are different methods that can be used to reduce transmission collisions. Testing has shown that the **Adaptive** method allows optimal AFATDS performance and it is recommended that nets supporting AFATDS OPFAC to OPFAC communications use the **Adaptive** method. The use of other methods on nets supporting AFATDS OPFAC to OPFAC communications will result in substantially reduced system performance and an increase in the number of communication anomalies under circumstances such as high net traffic loads and large numbers of net members. Methods other than **Adaptive** should only be used when a net member can't support the Adaptive method. Each method utilizes different criteria that each unit on the net uses to calculate its net access delay, e.g., the USMC DCT system type only supports the **Random** method. Some methods take message priority into account, others consider unit priority, etc. Each unit on a net, however, must use the same NAD method for orderly net access to occur and for ensuring physical frame compatibility. The basic calculation of net access delay is the same for all methods, i.e., an integer factor (called F) times the summation of the key time, net busy detect time, and transmit-to-receive delay time. The value of the summation is the same for all methods and is the same at all units. The difference between the methods is in how the value of F is determined. The difference in net access delays at different units is in the actual value of F calculated at the different units.

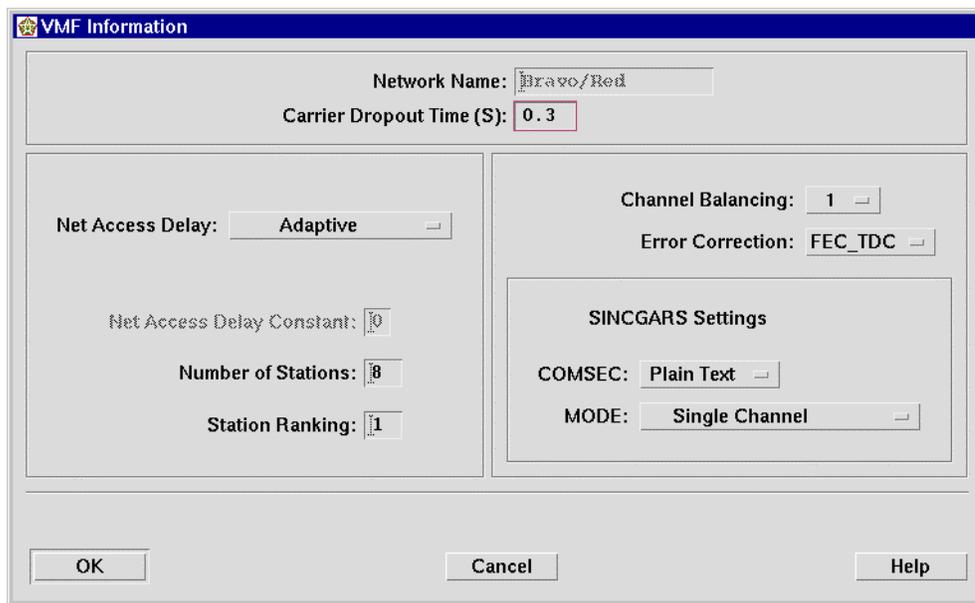


Figure 2.3 VMF Information Window

When the **Random** method is being used, each unit on the net sets F to a randomly selected number between 0 and 7 after every net busy time. Each unit must then delay accessing the net for F times the summation seconds. This method gives equal priority to all units. The possibility of two (2) or more units having the same wait time exists and increases with the number of units on the net.

When the **Random** method is being used, each unit on the net sets F to a randomly selected number between 0 and 7 after every net busy time. Each unit must then delay accessing the net for F times the summation seconds. This method gives equal priority to all units. The possibility of two (2) or more units having the same wait time exists and increases with the number of units on the net.

When the **Random** method is being used, each unit on the net sets F to a randomly selected number between 0 and 7 after every net busy time. Each unit must then delay accessing the net for F times the summation seconds. This method gives equal priority to all units. The possibility of two (2) or more units having the same wait time exists and increases with the number of units on the net.

The **Hybrid** method is similar to the **Random** method, the main difference being in the range of the random number that is assigned to F. If a unit has any high priority messages awaiting transmission, that unit sets F to a randomly selected number between 0 and 3. If the unit has no high priority messages but there is at least one medium priority message awaiting transmission, it sets F to a randomly selected number between 4 and 15. If the unit has no high or medium priority messages awaiting transmission, it set F to a randomly selected number between 16 and 24. This method gives equal priority to all units but takes message priority into consideration. Again there is the possibility of two (2) or more units having the same wait time which increases with the number of units on the net.

The **Adaptive** method should be used for nets supporting AFATDS OPFAC to OPFAC communications. The **Adaptive** method uses the unique number that is assigned to each unit on the net in determining a value for F. This number is entered in the **Station Ranking:** field. Units are assigned a number from 1 to the total number of units on the net (24 maximum). For example, if 16 units are assigned to the net, each unit is assigned a unique number from 1 to 16. Immediately following a transmission on the net, each unit determines a value for F based on its unique number, what unit is assigned the first access opportunity in this net access period (time between messages on the net), the priority of messages it has awaiting transmission, and the priority mode of the net. As an example, assume that unit 1 has been assigned the first access opportunity and all units have no high or medium priority messages awaiting transmission, and the highest priority of any message in the last transmission was low (priority mode of the net is low); unit 1 will set F to 0, unit 2 will set F to 1, unit 3 will set F to 2, etc. After a unit has transmitted, there is another net access period, but for this access period unit 2 has first access opportunity (a different unit (in sequence) is given first access opportunity in each new net access period) so unit 2 will set F to 0, unit 3 will set F to 1, unit 4 will set F to 2, etc. This procedure is repeated for each net access period until the highest unit number has been given the first access opportunity. The following net access period is then started with the lowest unit number having first access opportunity. This procedure allows each unit equal opportunity to the net if they have the same priority of messages.

If any unit sends a high or medium priority message during a transmission, the priority mode of the net is high or medium respectively for the next net access period. If no high or medium priority messages were sent during a transmission the priority mode of the net is low for the next access period.

If the priority mode of the net is high, only those units with high priority messages awaiting transmission will assign a value to F that is less than the number of stations on the net, i.e., the minimum value of F for units with high priority messages is 0, for units with medium priority messages awaiting transmission the minimum value of F is N (N = number of stations on the net). For units that have no high or medium priority messages awaiting transmission the minimum value of F is 2N.

If the priority mode of the net is medium, the minimum value of F for units that have high or medium priority messages awaiting transmission is 0 and for units that have no high or medium priority messages awaiting transmission the minimum value of F is N.

In this manner, the **Adaptive** method allows faster access to the net for those units that have higher priority messages to transmit during those periods of time when a number of higher priority messages are being transmitted. In addition to providing faster access for nodes with higher priority messages, the Adaptive methods ensures that nodes with the same priority of message are given an equal number of access opportunities such that they all have an opportunity to transmit regardless of their station ranking. Note also that during normal operation with the **Adaptive** method no two units will ever have the same wait time, i.e., there are no transmission collisions.

The **Prioritized** method is based upon message priority, unit priority, and previous transmitting unit. A priority is assigned to each unit in the **Station Ranking:** field. Each unit calculates a value for F using its unit priority, the highest priority of any message it has awaiting transmission, and whether or not it sent the previous message. The range of F is 0 to 3N+2. The **Prioritized** method will never assign the same wait time to two units, i.e., there are no transmission collisions. The **Prioritized** methods rigid prioritization scheme fails to provide equal access needed by all AFATDS nodes on the net since the node that will transmit first is fixed based on Station Ranking. Also, degraded net performance results because of the increased net idle time that results when all nodes on the net have low priority traffic to transmit but must wait an extended NAD time to allow for high and medium priority transmission that will not occur.

The **Constant** method enables the **Net Access Delay Constant:** field. A unique number from 0 to 7 is assigned to F at each unit on the net. This ensures that no two units have the same wait time. This method does not provide equal access to all nodes on the net and as a result should only be used during special circumstances, e.g., when the Constant method is the only method supported by all units on the net.

The **Net Access Delay Constant:** field contains the time delay after the net is detected to be clear that a message transmission is started when the **Constant** method is selected. This is a required entry when the **Constant** method is selected. The legal entry for this field is 0 to 7. The default value is calculated by the system.

The **Number of Stations:** field indicates the number of stations on the net. The legal entry is from 1 to 24 and is enabled for **Adaptive** and **Prioritized** methods only.

The **Station Ranking:** field is used to establish a subscriber's priority relative to other subscribers when **Prioritized** is selected and to assign a unique number to a unit when **Adaptive** is selected. This field is required when **Prioritized** or **Adaptive** is selected. The legal entry for this field is 1 to 24.

The **Channel Balancing**: field contains a pop-up menu used to select the number of channels to be used to distribute the communications load among multiple radio pairs thereby increasing the amount of bandwidth to the net members. The selections are **1, 2, 3, and 4**. The selection indicates the number of channels to be used for transmissions of message traffic. This is a required entry with **1** being the default. When multiple channels configured for a net, the actual physical channels assigned to the net must be at the same FSW of a multiple FSW AFATDS OPFAC. Physical channels are assigned to nets configured with multiple channels using the **System/Configuration/Communications/Current/Net Channel Assignment** selection. All AFATDS OPFAC's must agree on the number of channels to be used for the net with each channel requiring independent media, i.e., independent radio frequencies and radio equipment. Also, all net members of a multiple channel net must be AFATDS system types since other system types such as the USMC DCT do not support this capability.

The **Error Correction**: field is a pop-up menu containing None, FEC_TDC, and FEC_Only selections. These correspond to no Forward Error Correction (FEC) or Time Dispersal Coding (TDC), FEC and TDC, and FEC but no TDC. Under normal circumstances the FEC_TDC selection should be utilized. Under special circumstance, such as when maximum efficiency is required over a highly reliable media such as wireline, use of the None selection will improve net efficiency by up to 50% depending on the number of re-transmissions required due to the error rate of media. The FEC_Only selection is provided to account for the possibility that the device being used supports a TDC scheme that would conflict with the VMF TDC scheme.

The **COMSEC**: field is a pop-up menu containing Plain Text, Cipher Text, and Time Delay. These correspond to the different data modes that a SINCGARS radio could operate in. This field is only editable when the device type supporting the VMF net is SINCGARS. It is critical that this setting properly reflects the radios actual front panel settings in order for net collisions to be avoided.

The **MODE**: field is a pop-up menu containing Single Channel, Frequency Hopping, and Frequency Hopping/Master selections. These correspond to the different frequency modes that a SINCGARS radio could operate in. This field is only editable when the device type supporting the VMF net is SINCGARS. It is critical that this setting properly reflects the radios actual front panel settings in order for net collisions to be avoided.

The **OK** button closes this window and activates the **Net Channel Settings** window. Entries and changes made to the window information are saved temporarily. This information is saved to a database when the **Net Channel Settings** window is closed via the **OK** button.

2-1.1.7 NATO Information Window.

The **NATO Information** window opens as a result of selecting the **More** button on the **Net Channel Settings** window with the NATO protocol selected. This window contains additional data required that is specific to the NATO protocol.

The **Network Name:** field contains the assigned name of the selected network and may not be changed.

The **Hold Time (sec):** field contains the maximum length of time that the system will delay initiating a net access delay. If an ACK or NAK is detected on the network, the system will assume a clear net and initiate a net access delay prior to the expiration of the hold time. The **Hold Time (sec):** field is view only and cannot be changed.

The **Block Mode:** radio buttons are used to select **Single** or **Double** modes of message transmission.

The **Error Control:** radio buttons are used to display the method of error control. Selections are **None**, **EDC**, or **EDC/TDC**.

The **Net Access Delay (sec):** fields contain the time delay after net access that a message transmission is started. The **High** and **Low** areas of the window contain fields for **Initial:** and **Subsequent:** times. The **High** and **Low** correspond to the message priority. The times entered in the **Initial:** field is the delay time used if the previous message on the net was sent by another unit. The **Subsequent:** fields contain the delay if the previous message was sent by the host unit. All of these time entries are required. The legal entry for these fields is 0.0 to 50.0 seconds in 0.5 increments.

The **OK** button closes this window and activates the **Net Channel Settings** window. Entries and changes made to the window information are saved temporarily. This information is saved to a database when the **Net Channel Settings** window is closed via the **OK** button.

2-1.1.8 MCS Information Window.

The **MCS Information** window opens as a result of selecting the **More** button on the **Net Channel Settings** window with the MCS protocol selected. This window contains additional data required that is specific to the MCS protocol. The **Network Name:** field contains the assigned name of the selected network and may not be changed. The **Delay after Clear (sec):** field is the number of seconds after the network is clear that the message will be sent. The legal limit is 0.0 to 60 seconds in 0.1 second increments.

The **OK** button closes this window and activates the **Net Channel Settings** window. Entries and changes made to the window information are saved temporarily. This information is saved to a database when the **Net Channel Settings** window is closed via the **OK** button.

NATO Information

Network Name: Bravo/Red

Hold Time (sec): 1.61

Block Mode:

Single

Double

Error Control:

None

EDC

EDC/TDC

Net Access Delay (sec)

High

Initial: 0.5

Subsequent: 1.0

Low

Initial: 1.5

Subsequent: 2.0

OK Cancel Help

MCS Information

Network Name: Bravo/Red

Delay after Clear (sec): 0.0

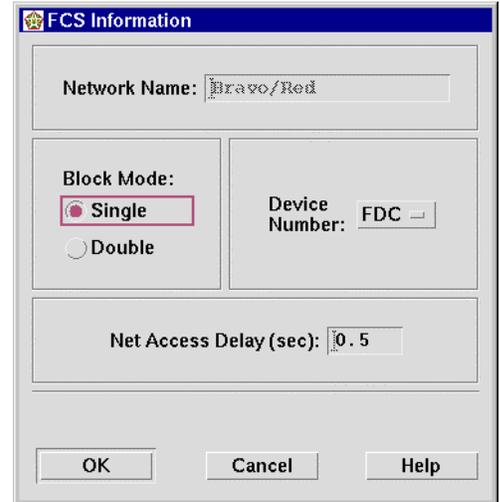
OK Cancel Help

2-1.1.9 FCS Network Information Window.

The **FCS Information** window opens as a result of selecting the **More** button on the **Net Channel Settings** window with the FCS protocol selected. This window contains additional data required that is specific to the FCS protocol. The **Network Name:** field contains the assigned name of the selected network and may not be changed.

The **Block Mode:** radio buttons are used to select **Single** or **Double** modes of message transmission. The **Device Number:** allows the selection of the destination device for the net.

The **Net Access Delay (sec):** fields contain the time delay after net access that a message transmission is started.



2-1.1.10 IP Network Information Window.

The **IP Network Information** window opens as a result of selecting the **New IP**, **Edit**, or **Copy** selection from the **Planned Networks** window **Network** menu. This window is used to enter data for LAN communications.

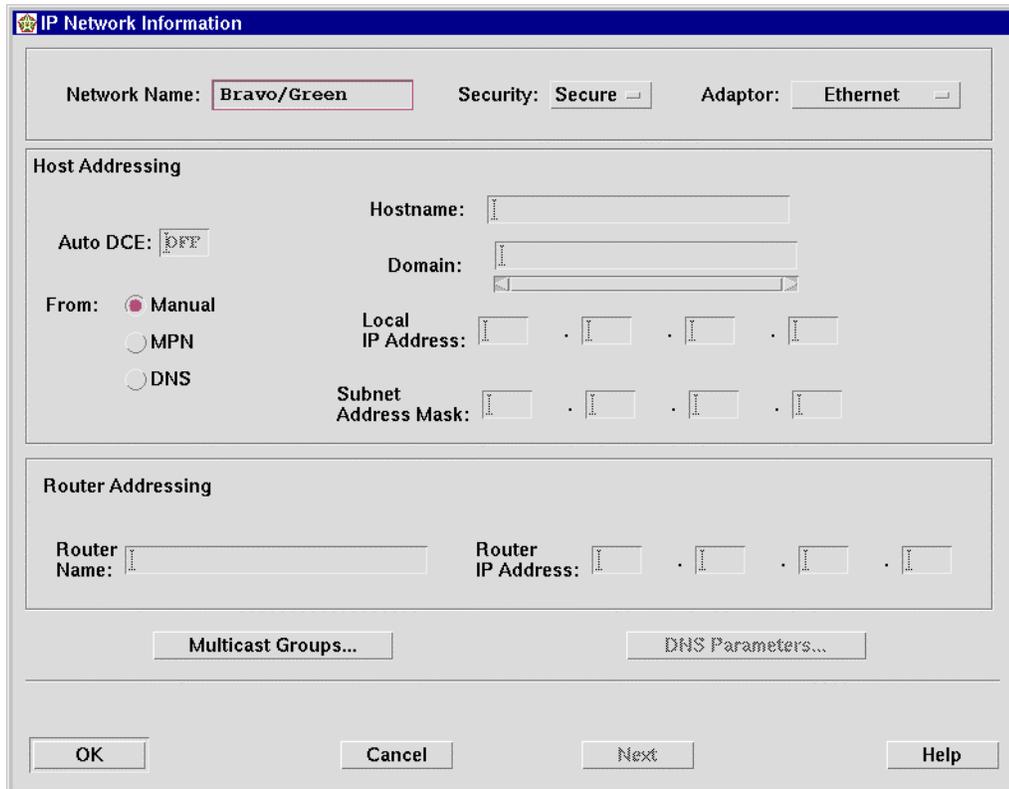


Figure 2.4 IP Network Information Window

The **Network Name:** field is used to enter the 1 to 16 alphanumeric or special character network name and can be edited only in the Create (new) and Copy modes. The **Security:** selection allows the user to select the **Clear** or **Secure** mode of operation. **Secure** is the default. The **Security:** field cannot be edited if the function is an edit of a currently enabled configuration.

The **Adaptor:** selections of **Ethernet** and **TCIM 188 220A** are made according to the software/hardware configuration of the workstation. **Ethernet** is the default. The **Adaptor:** field cannot be edited if the function is an edit of a currently enabled configuration.

The **Auto DCE:** field indicates the state (ON or OFF) of the DCE (Distributed Computing Environment) function. This field is display only. If DCE is activated and **Adaptor:** is Ethernet, the **Hostname:**, **Local IP Address:**, **Router Name:**, and **Router IP Address:** field data will be supplied by DCE.

The **From:** radio buttons are enabled when the adaptor is **Ethernet** and **Auto DCE:** indicates OFF. These buttons indicate the source of address data for this window. With **Manual** selected, the data is entered by the user. With **MPN** (MSE Packet Network) selected the data is defaulted to values received from DCE.

The **Hostname:**, **Local IP Address:**, **Subnet Address Mask**, **Router Name:**, and **Router IP Address:** fields are required entries; data will be supplied via a communications administrator.

The **Next** button is enabled if the selected **Adaptor** is **TCIM 188 220A**. This button opens the **IP 188 220A Information** window for the entry of additional data.

The **Multicast Groups...** and **DNS Parameters...** buttons are used for FDD only.

2-1.1.11 IP 188 220A Information Window.

The **IP 188 220A Information** window (Figure 2.5) is used to select or enter parameters for the IP 188 220A network. This window is opened from the **IP Network Information** window via the **Next** button.

The **Network Name:** field is a display only field indicating the name assigned. The **Local Physical Address:** is a number (from 4 to 95) that represents the hosts network identity.

The **Device:** selections include **2 Wire**, **4 Wire**, **Analog Radio**, **KY 57**, and **SINGGARS**. **SINGGARS** is the default. The selections and defaults for **Data Encoding:**, **COMSEC Mode:**, **Data Rate:**, and **HOP Mode:** are dependent on the device selected.

The **Local Transmission Load:** selection describes the volume of message traffic from the host station as **Heavy**, **Normal**, or **Light**.

The **Media Access Control Parameters** are used to set the method used to determine access to the net by the different stations. The **Method:** selection determines the process to be used. The **Stations:** field is used to entry the number (2 to 64) of stations on the net. The **Frequency of Access Ranking:** entry is used to set the position of the station in the rotation used by the selected method.

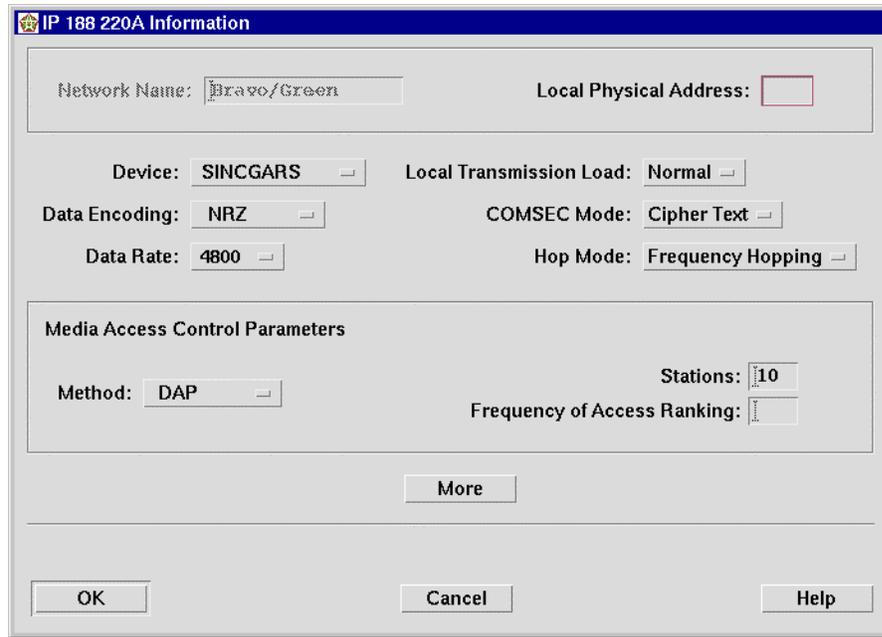


Figure 2.5 IP 188 220A Information Window

2-1.1.12 IP Tuning Parameters Window.

The **IP Tuning Parameters** window allows the operator to adjust (tune) the OPFAC LAN network for 188 220A communications. This window initially displays default values. Selecting the **Customize** check box allows the fields of this window to be edited.

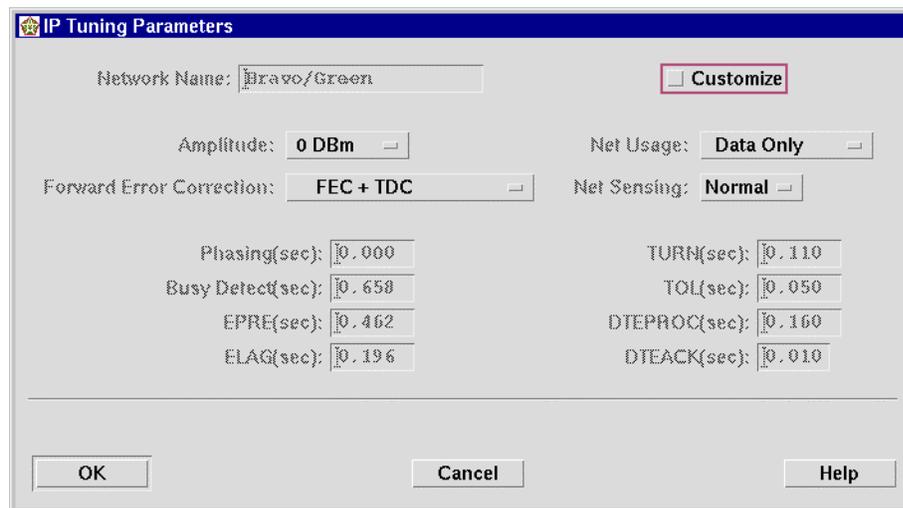


Figure 2.6 IP Tuning Parameters Window

The **Amplitude:** selection allows the operator to select (in DBm) the gain of analog modulated messages. Selections are **0, -6, and -13 DBm**. Default for this field is **0 DBm**.

The **Net Usage**: selection contains selections of **Voice and Data** and **Data Only**.

The **Forward Error Correction**: field is used to select the type of error detection and correction to be used for data messages. The available selections and defaults are dependent on the device type, COMSEC mode, and data encoding selected on the **IP 188 220A** window.

The **Net Sensing**: selections define the quality of the net. Selections are **Normal** (default) and **Noisy**.

The entry in the **Phasing (sec)**: field determines the time interval from end of EPRE during which the TCIM sends alternating ones and zeros. Legal entries are from 0 to 10.000.

The entry in the **Busy Detect (sec)**: field determines the time interval allowed from transmit start at any station (PTT) for all stations to detect net busy. Legal entries are from 0 to 65.000.

The entry in the **EPRE (sec)**: field determines the time interval from push-to-talk (PTT) activation until device has sent its COMSEC or other preamble(s) and is ready to accept data from the TCIM. Legal entries are from 0 to 30.000.

The entry in the **ELAG (sec)**: field determines the time interval from the time that the transmitting TCIM delivers the last bit of data to the media until the media delivers the same bit to the receiving TCIM. Legal entries are from 0 to 65.000.

The entry in the **TURN (sec)**: field determines the time interval for transmitter and receiver to be ready for next operation after end of ELAG. Legal entries are from 0 to 65.000.

The entry in the **TOL (sec)**: field determines the time allowed for computing an acknowledgment. Legal entries are from 0 to 0.500.

The entry in the **DTEPRO (sec)**: field determines the time allotted for the receiving station to process data that does not require acknowledgment before the NAD cycle resumes. Legal entries are from 0 to 65.000.

The entry in the **DTEACK (sec)**: field determines the time allotted for the receiving station to process data and transmit an acknowledgment. Legal entries are from 0 to 0.254.

2-1.1.13 INC 188 220A Information Window.

The **INC 188 220A Information** window is used to select or enter parameters for the INC 188 220A network. This window is opened from the **IP Network Information** window via the **Next** button when INC 188 220A is selected as the **Adaptor**. This window allows the initialization and configuration of a LAN based router.

Selecting the **Enabled** box for a radio (**A** or **B**), enables that radio and the **Frequency**:, **Number of Active Stations**:, and **Usage**: fields.

The **Frequency**: field is used to enter the frequency as set on the respective radio. Legal entries are 0 (zero) F and a three digit number from 000 to 999 (e.g., OF456) or a five digit number from 30000 to 87975.

The **Number of Active Stations**: is the number of stations that are, or will be, active on the network. The legal entry for this field is 2 to 95.

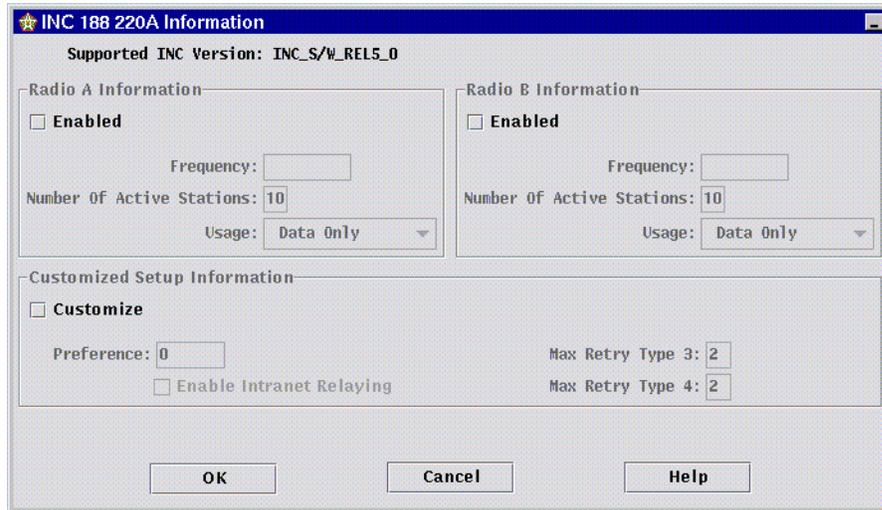


Figure 2.7 INC 188 220A Information Window

The **Usage**: selections are **Data Only** and **Voice and Data**. Selection is made based on the method radio is to be used.

The **Customize** check box enables the fields in the **Customized Setup Information** area of the window. The **Preference** field is used to enter a number from 1 to 2,000,000. The higher the number the higher the relative preference will be for the enabled radios.

The **Enable Intranet Relaying** check box, when checked, allows message traffic to be relayed on the intranet.

The **Max Retry Type 3** and **Type 4** values limit the number of retries for Type 3 and Type 4 messages.

2-1.1.14 Fire Support On Tactical Internet (FSTI) Window.

Fire Support on the Tactical Internet (FSTI) will be able to support up to four (4) fire support subnets on each LAN controller card. This capability will allow AFATDS to operate on multiple LAN channels for enhanced fire support capability. The subnet channels are created each time a new IP network is built. When the operator assigns the channel for a new IP network, another Primary LAN channel is added to the list in the Assign Channels window. The Expert Settings option on the fire Support on the Tactical Internet window allows the operator to enter a router address. This allows AFATDS to communicate with lower bandwidth media, such as EPLRS on the FS on TI. This capability is intended to enhance communications with FBCB2 subscribers when operating in the FDD environment.

This window (Figure 2.8) is used to configure a workstation on the Tactical Network for use with fire support functions. The window is opened by the **Network\New FSTI...** selection on the **Planned Networks** or **Current Networks** windows. The window can also be opened by the selection an established IP FSTI network on the **Planned Networks** or **Current Networks** windows and **Network\Edit** or **Network\ Copy...**

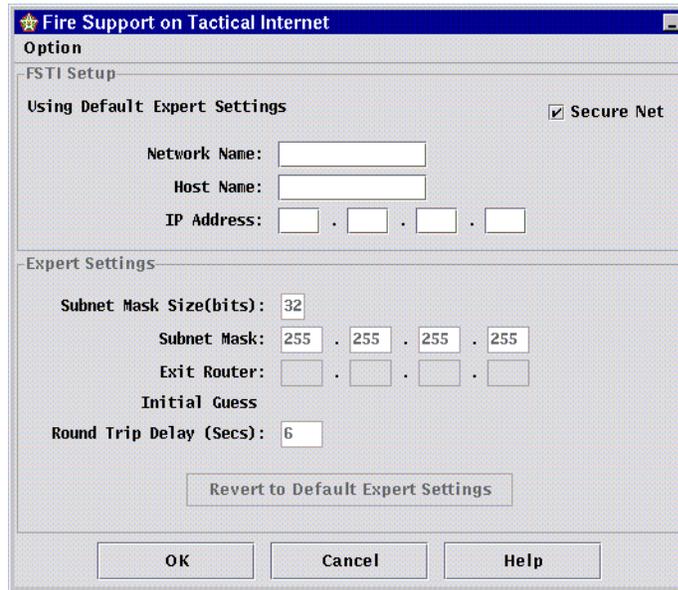


Figure 2.8 Fire Support On Tactical Internet Window

The window initially opens with only the **FSTI Setup** portion of the window displayed. Selecting **Option\Expert Settings\View** expands the window to display the **Expert Settings** portion of the window. With the window expanded, the **Option\Expert Settings** selection changes between **View** and **Edit** selections to allow the operator to toggle between the view and edit modes. The **Edit** selection is not available if the network is enabled. The **Option\FSTI Setup** selection reduces the window to display only the **FSTI Setup** portion of the window.

The **Network Name:** field can be edited only when assigning a name to a new network. The entry for this field is 1 to 16 alphanumeric or special characters.

The **Host Name:** field is also 1 to 16 alphanumeric or special characters and assigns the hostname of the workstation.

The **IP Address:** fields are used to enter the address of the host workstation on the network. The legal entry for each field is 0 to 255.

The **Expert Settings** portion of the window displays parameters that need to be viewed/modified in special situations. The **Subnet Mask Size(bites):** field is the size of the mask (0 to 32). The **Subnet Mask:** field displays the actual mask. Each of these fields will change to reflect the value of the other.

The **Exit Router:** fields are used to input/display the IP address of an exit router, if used.

The **Initial Guess Round Trip Delay (Secs)** field is used to enter an estimation (0.0 to 99.9 seconds) of the time of a round trip transmission to a destination unit.

2-1.1.15 Current Networks Window.

The **System\Configuration\Communications\Current** selection opens the **Current Networks** window (Figure 2.9). The window can also be opened directly by selecting the Current Networks (handset icon) from the current tool bar. This window displays the information for the current communications configuration. If a current configuration does not exist, all fields will be blank.

Information displayed includes the **Network** name(s), **Protocol**, **Workstation** name(s), **Channel** number(s), net **Status**, **Default Route**, **Security**, and **Net Quality**. These fields cannot be edited on this window. The window contains **Options**, **Network**, and **Control** menu selections used to manage the current configuration.

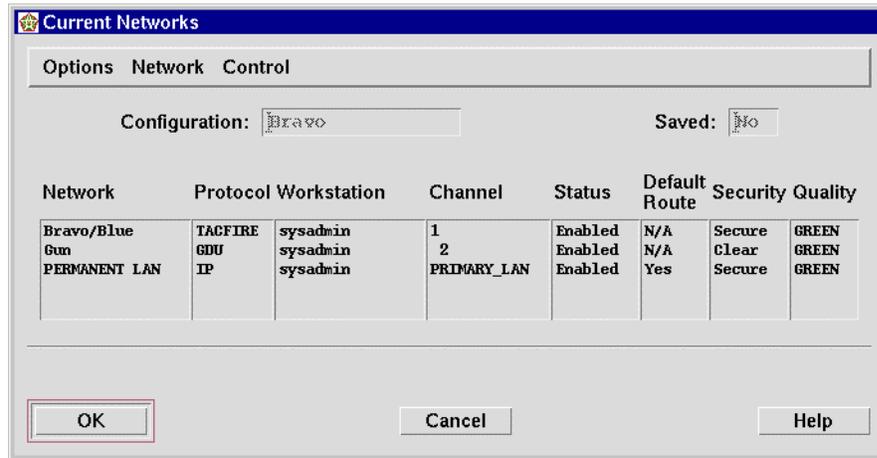


Figure 2.9 Current Networks Window

The **Configuration:** field displays the name of the planned configuration from which the current configuration was created. (Note that the current configuration may not be the same as the planned configuration whose name is displayed in this field. See the next paragraph for details.) For there to be a current configuration, a name must be displayed in this field. If a configuration name is not displayed, the user must select a configuration from a list of planned configurations. The **Options\Select New Current...** selection opens the **Select Comm Configuration** window in the select mode. Selecting a configuration and **OK** closes the **Select Comm Configuration** window and causes the selected planned configuration to become the current configuration and its information will be displayed in the **Current Networks** window.

Changes may be made to the current configuration at any time. Changes made to the current configuration are implemented and changed in the database automatically, however, the changes are not automatically saved to the planned configuration that was the original source of the current configuration. For this reason, a **Saved:** field is included on the window. This field indicates whether the current configuration has been saved into the planned configuration whose name is shown in the **Configuration:** field. This field indicates **Yes** prior to any changes being made to the current configuration after the planned configuration was made current. The field indicates **No** effective with the first change to the current configuration.

Selecting **Options\Save** will save changes made to the current configuration to the planned configuration (at this time the current configuration and the planned configuration will be identical). The **Saved:** field indicates **Yes** after each save and prior to any subsequent changes. The **OK** button also saves the configuration to the planned configuration when used to close the window, Closing the window using the **Cancel** button allows the configuration to retain any changes since the last save. These changes are not saved to the planned configuration and are not available if the configuration is re-started as the current configuration.

The **Network** field lists the networks associated with the configuration.

The **Workstation** and **Channel** fields list the workstation ID's and workstation channel numbers that are assigned to each **Network**.

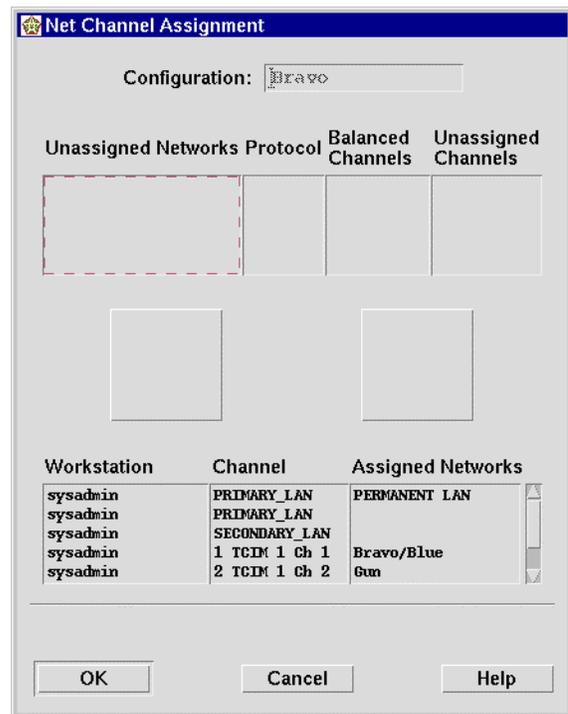
The **Status** field indicates whether the network is **Enabled**, **Disabled**, or **Suspended**. The **Security** field indicates whether the network is **Clear** or **Secure**.

The **Net Quality** field displays the relative quality of the network. The quality is described by a color. The colors are Green (highest quality), Yellow (lowest quality), Red (operational), and Black (not operational). The quality displayed is based on the latest transmissions and may not reflect the current quality exactly.

2-1.1.16 Net Channel Assignments Window.

The **Net Channel Assignment** window provides a means to associate a network with a specific workstation and modem channel(s). This assignment is for the current configuration only and therefore the **Net Channel Assignment** window opens only from the **Current Networks** window. This is done by selecting **Network\Assign Channel(s)**.

The **Configuration:** field displays the name of the planned configuration from which the current configuration was created and may not be edited. The fields at the top of the window display information for networks that are not yet totally assigned (balanced networks could be partially assigned and still appear at the top of the window) to a specific workstation and channel(s). This information includes the **Unassigned Networks** by name, **Protocol**, number of **Balanced Channels**, and **Unassigned Channels**. The **Balanced Channels** and **Unassigned Channels** are applicable only to the VMF protocol and will display N/A for all other protocols.



The fields below the Transfer Arrows display each **Workstation** and **Channel** of the OPFAC by name and number, and, in the **Assigned Networks** field, the network that has been assigned to each.

Networks are assigned to and disassociated from workstation channels using the Transfer Arrows. Networks are assigned to a workstation channel by first selecting an **Unassigned Network** from the top list and a **Workstation/Channel** from the lower list. The down-arrow symbol is then selected. The selected network name is then associated with the selected workstation channel and displayed in the **Assigned Networks** field. The network will be removed from the top list when it is totally assigned to a workstation channel(s). For the VMF protocol, the network will not be removed from the top list until all **Unassigned Channels** have been assigned.

Networks are disassociated from a workstation channel by selecting a **Workstation/Channel** that has a network assigned to it and selecting the up-arrow symbol. This causes the network to be displayed in the **Unassigned Networks** field. A network can be disassociated only when in the **Disabled** status.

The **OK** button closes this window and activates the **Current Networks** window. Entries and changes made to the window information are saved for the current configuration. This information is saved to the planned configuration only when the **Options\Save** selection is made on the **Current Networks** window.

2-1.1.17 Communication Unit Configuration Window.

The **Communication Unit Configuration** window (Figure 2.10) is used to designate the units with which the local unit communicates. Through this window, units are added and removed from the communications configuration, routes are established and edited, message serialization is controlled, and test messages are sent. This window is opened by selecting **Destination Units** from the **Options** menu of either the **Current Networks** or **Planned Networks** window. It can also be opened via the Destination Units icon on the current tool bar.

The **Configuration:** field contains the name of the configuration whose data is shown in the rest of the window. This field cannot be edited. Other fields display the **Destination Unit ID**, **System Type**, **Network**, **Active Route**, **Route**, **DEST Address**, and **LOCAL Address**.

The **Sort By:** radio buttons are used to sort the displayed units by **Unit ID** or **Network**.

The **Active Routes**, **Inactive Routes**, and **Proxies** check boxes select the units to be displayed based on the state of their network.

The **Destination Unit ID** and **System Type** are selected via the **Options\Add Unit** menu selection. This menu selection opens the **Select Unit** window. A unit list is first selected from the **Available Unit Lists** portion of this window and then one or more units are selected (the associated system type will automatically be selected) from the bottom portion of the window. **OK** is then selected to close the **Select Unit** window and add the selected unit(s) to the list of destination units in the **Communication Unit Configuration** window. **Options/Edit Routes** is selected to open the **Edit Routes** window where routing information is entered and/or changed.

Closing the **Edit Routes** window returns the **Communication Unit Configuration** window with the added/edited routing information shown in the **Network**, **Route**, **DEST Address**, and **LOCAL Address** fields.

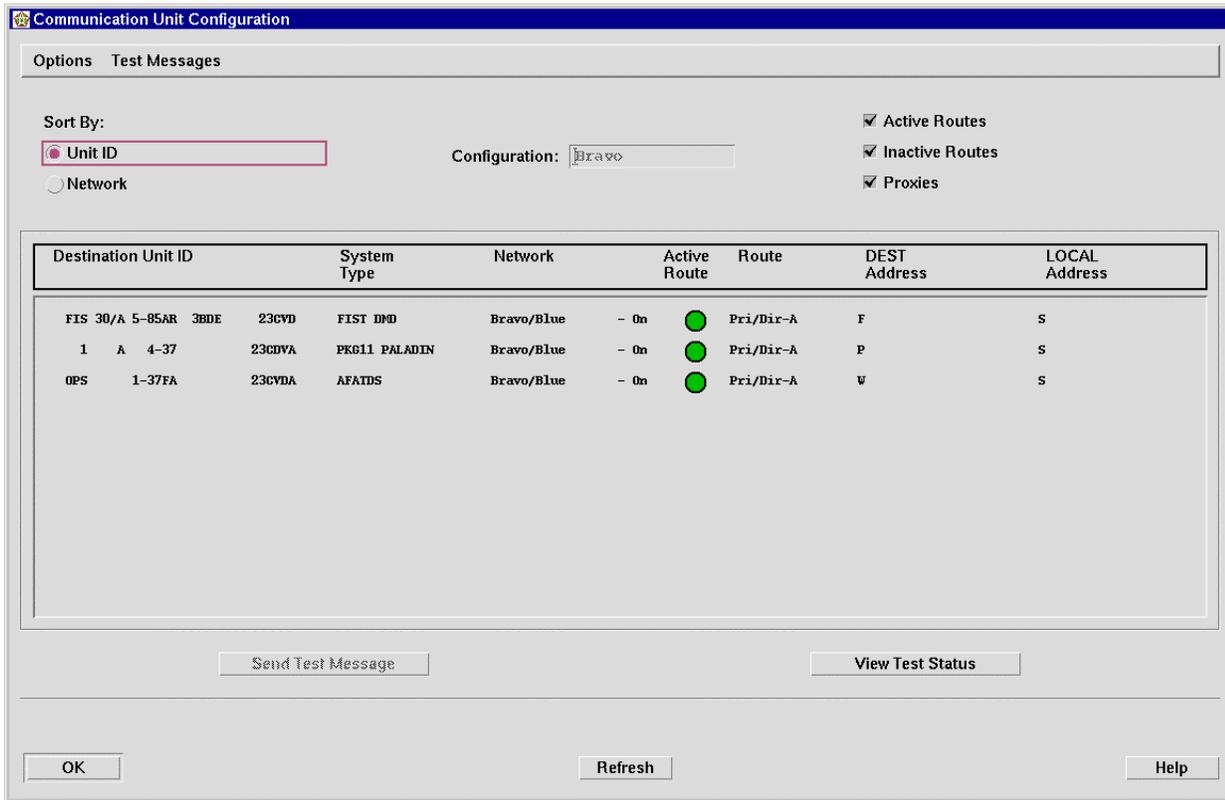


Figure 2.10 Communications Unit Configuration Window

The **Route** column will display the route type (Pri, Sec, or Ter) and the routing (Dir or Ind), or Proxy. Also displayed is the state of the network as active (A) or inactive (I). The **Active Route** column displays a color code to indicate active or inactive routes. Colors used are Green (active) and Red (inactive).

The proxy windows (New and Edit) are opened from the **Options\Proxy\New** and **Options\Proxy>Edit** selections. Selecting a unit from the list that is not a proxy will enable the **Options\Proxy\New** function. Selecting a unit from the list that is a proxy will enable the **Options\Proxy>Edit** function. Units must be entered initially as non-proxy units. New proxies are then created by selecting the unit and **Options\Proxy\New**. Selecting a unit that is a proxy and **Options\Proxy>Delete** returns the data of the unit to the original non-proxy entries.

The **Options\FCS Monitoring** selection is enabled only when a unit is selected that is on a FCS network. The selections **Enable** and **Disable** allow the operator to turn on and off the monitoring of the selected unit. When a unit is being monitored, a **M** will appear in the **Route** column of the **Communications Unit Configuration** window for that unit.

The **Test Messages** menu contains selections used to send test messages to a specific unit, all direct units on a net, and all indirect units via a specific unit. The **Send Test Message** button is used to send a test message to all selected units from the destination list. Each menu selection opens a window designed to support the type of testing to be performed. The **View Test Status** button opens a window displaying the status of all test messages sent.

2-1.1.18 Edit Routes Window.

The **Edit Routes** window (Figure 2.11) provides a mechanism through which **Primary**, **Secondary**, and **Tertiary** routes may be defined for the destination unit. A destination unit can have from zero to three (primary, secondary, and tertiary) routes defined for it. This window is opened by selecting a unit in the **Communication Unit Configuration** window and then selecting **Edit Routes** from the **Options** menu.

The **Destination Unit ID:** and **System Type:** fields are view only and identify the unit and system for which route data is displayed. The **Current Route:** field displays the currently selected route (**Primary**, **Secondary**, **Tertiary** or **None**).

The **Alert When Receive** check box selects whether or not the user is to be alerted whenever a message is received from this unit. Use with caution because a large number of alerts could be generated when this box is checked. It should be used only when there is real need for the alert and messages are received from this unit infrequently.

The **Primary**, **Secondary**, and **Tertiary** radio buttons select the route data to be displayed for viewing/editing. A **Secondary** route can be defined only if a **Primary** route has previously been defined and a **Tertiary** route can be defined only if a **Secondary** route has previously been defined.

The **Direct** and **Indirect** radio buttons select whether communication with the destination is direct (the two units communicate directly with each other on a common net) or indirect (the two units communicate with each other by having one or more other units relay their messages). If **Direct** is selected, the **Via:** field selections determine the net to be used. For **Indirect**, the **Via:** field selections determine the initial unit used to relay the communications. A destination can have only one indirect route defined for it, and that route must be the last defined route in the hierarchy (e.g., Primary=Direct, Secondary=Indirect, Tertiary=Undefined).

The **Destination Address:** field indicates the network address for a destination for direct routing only.

The **Hop Count:** field displays the number of hops (the number of times that a message may have to be transmitted before it reaches the destination unit) for an indirect route. The value in this field is used to adjust re-transmission timers. If the user knows how many hops are going to occur, an entry in this field may increase net efficiency by eliminating unnecessary re-transmissions. The legal entry is 1 to 8.

The **Device Number:** is used to select the SPLL or Platoon number of the destination on a FCS network. The **Gun Pltn/Sect:** selection is used to identify the Platoon/Section (e.g., 1/2) of a Paladin on an AFCS network.

The **Hostname:** field contains the name of the destination host if the route is via a **IP** network. An entry is required in this field only if the destination is not an AFATDS unit. The **Internet Address:** field contains the internet address of the destination host if the route is via a **LAN** network only (not an **IP** network). An entry is required in this field only if the destination is not an AFATDS unit.

Edit Routes

Options

Destination Unit ID: FIST 30 A 2BDE 4ID

System Type: FIST DMD

Current Route: Pri-Dir

Alert When Receive

Primary Secondary Tertiary

Direct Indirect

Via: Bravo/blue

Internet Address: . . .

Hostname:

Destination Address: F Hop Count: Device Number: Gun Pltn/ Sect:

FO Number: 30 Supporting FIST Unit ID:

OK Cancel Help

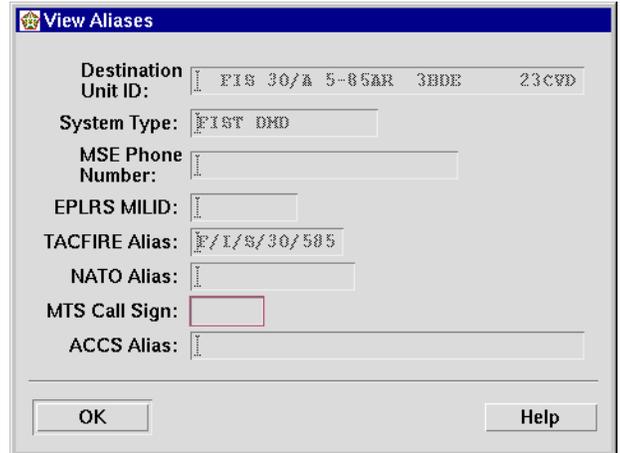
Figure 2.11 Edit Routes Window

If the destination is a forward observer (DMD) that is reached via a FIST DMD (indirect routing), the forward observer number to which that FIST DMD is to relay the message is entered in the **FO Number:** field. If the FIST DMD that will relay the message is accessed via an indirect route, it is selected in the **Supporting FIST Unit ID:** field.

The **Options** menu contains selections used to view aliases for the destination unit and to establish message serialization criteria. The **Options\Clear Route** selection clears data for a selected route (clears the route) if the route is not the active route. Note that when a route is cleared, any routes defined lower in the hierarchy are also cleared (e.g., when primary route is cleared, defined secondary and tertiary routes are also cleared). The **Options\Set Serialization...** selection opens the **Set Serialization** window to allow for serialization control of messages. The **Options\View Aliases...** selection open the **View Aliases** window.

2-1.1.19 View Aliases Window.

The **View Aliases** window displays the aliases for the destination unit for the different communications schemes. This window is view only and displays the assigned aliases and communication identifiers.

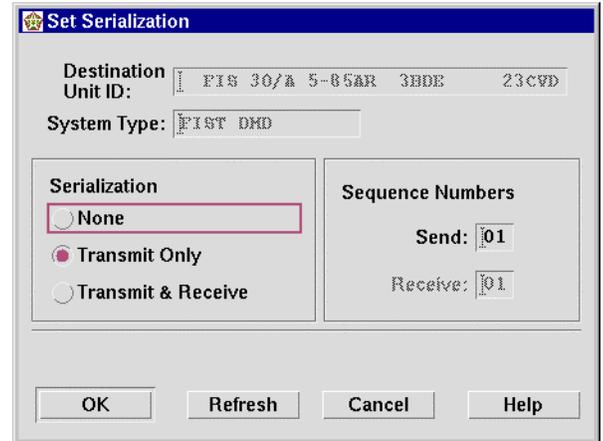


2-1.1.20 Set Serialization Window.

The **Set Serialization** window gives the user the capability to establish the message serialization requirements for a route. The initial value of the **Sequence Numbers** used in the message serializations may also be entered for applicable communications protocols.

The **Destination Unit ID:** and **System Type:** fields are view only and identify the unit and system for which data is displayed.

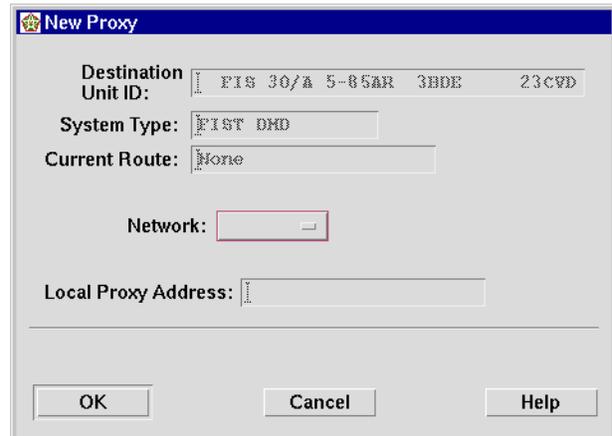
The **Serialization** radio buttons allow the selection of no serialization (**None**), serialize on **Transmit Only**, or serialize on **Transmit & Receive**. **None** and **Transmit Only** serialization modes should be used with caution as serial numbers of received messages are not validated and duplicate message detection is not performed. A **Serialization** selection is required and defaults to **None**.



The **Sequence Numbers** fields are enabled only for the TACFIRE and NATO protocols. With **Transmit & Receive** serialization selected, the **Send:** and **Receive:** fields will be enabled. With **Transmit Only** serialization selected, only the **Send:** field will be enabled. These fields are required entries when enabled. The legal entries are 0 to 99.

2-1.1.21 New/Edit Proxy Windows.

A proxy address is used to serve as an interface between a Package 10 and Package 11 device. Message traffic between these units is automatically formatted and retransmitted at the host station if both units are in the communications configuration and have proxy addresses assigned. The proxy windows are opened from the **Options\Proxy\New** and **Options\Proxy>Edit** selections on the **Communication Unit Configuration** window. Selecting a unit from the list and **Options\Proxy\New** or **Options\Proxy>Edit** opens the **New** or **Edit Proxy** windows respectively.



2-1.1.22 Test Message to Unit Window.

Test Messages\To Selected Unit... opens the **Test Message To Unit** window. The **Test Message To Unit** window allows the user to send a test message to a specific unit via a selected modem channel(s) or all channels on which the unit is available.

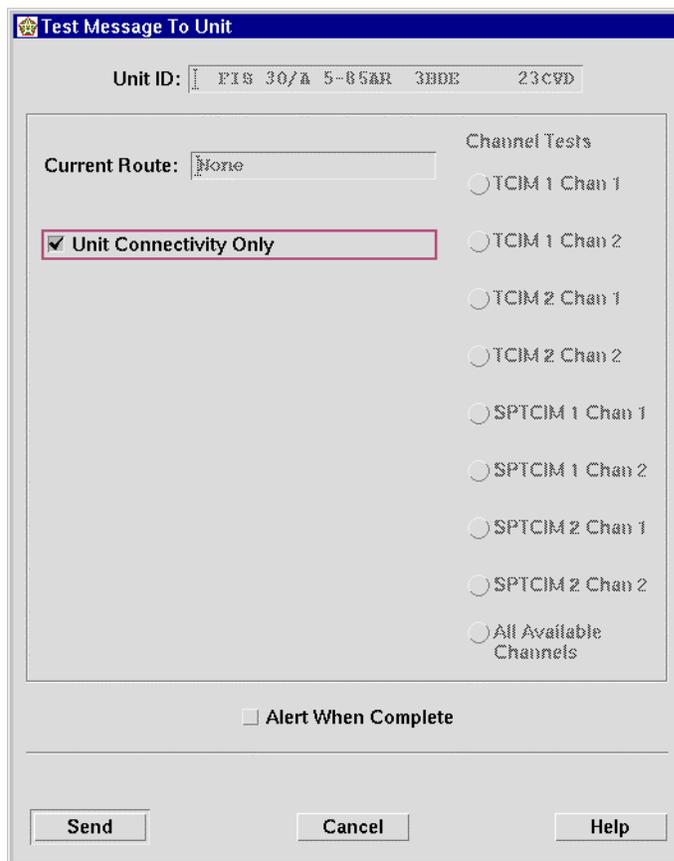


Figure 2.12 Test Message To Unit Window

The **Unit ID:** field is view only and identifies the selected unit. The **Current Route:** is also view only and indicates the currently selected route.

The **Unit Connectivity Only** selection is the default for communication tests. With this selection, the test is completed when the transmission to the selected unit is successful on any channel.

The **Channel Tests** radio buttons select the modem channel(s) used to transmit the test message. This is used with balanced channels only. Only those channels that the unit is available on are enabled.

The **Alert When Complete** check box allows the user to request notification upon completion of the test. This is an optional selection with the default being not selected.

2-1.1.23 Test Message to All Direct Window.

Test Messages\All Direct Via Net... opens the **Test Message To All Direct** window. The **Test Message To All Direct** window allows the user to send a test message to all units on a selected network via a selected modem channel(s).

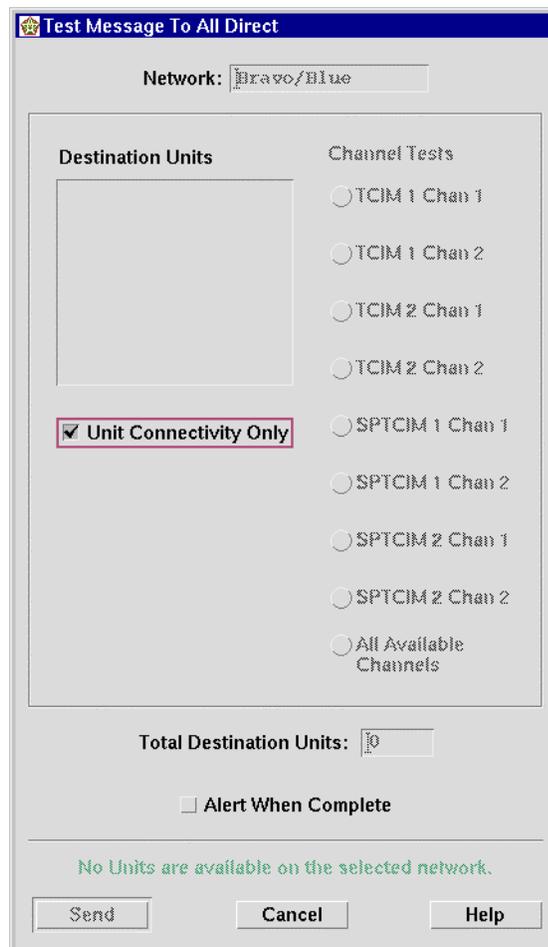


Figure 2.13 Test Message To All Direct Window

The **Network:** field is view only and identifies the selected network.

The **Destination Units** field lists the units assigned to the selected network. All units are selected when this window is initially opened. The user may de-select any units that are not to receive the test message.

The **Unit Connectivity Only** selection is the default for communication tests. With this selection, the test is completed for each unit when the transmission to the unit is successful on any channel.

The **Channel Tests** radio buttons select the modem channel(s) used to transmit the test message. This is used with balanced channels only. Only those channels that the unit is available on are enabled.

The **Total Destination Units:** field displays the number of units selected to receive the test message.

The **Alert When Complete** check box allows the user to request notification upon completion of the test. This is an optional selection with the default being not selected.

2-1.1.24 Test Message to All Indirect Window.

Test Messages\All Indirect Via Unit... opens the **Test Message To All Indirect** window. The **Test Message To All Indirect** window allows the user to send a test message to all indirect units via a selected relay unit.

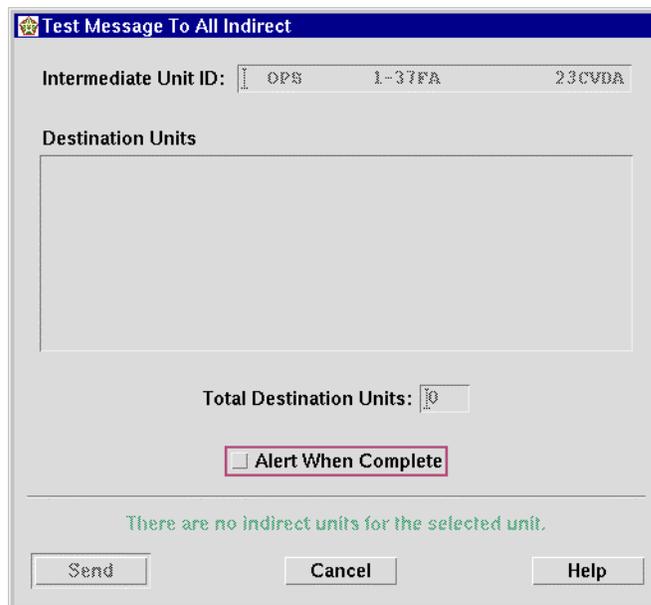


Figure 2.14 Test Message To All Indirect Window

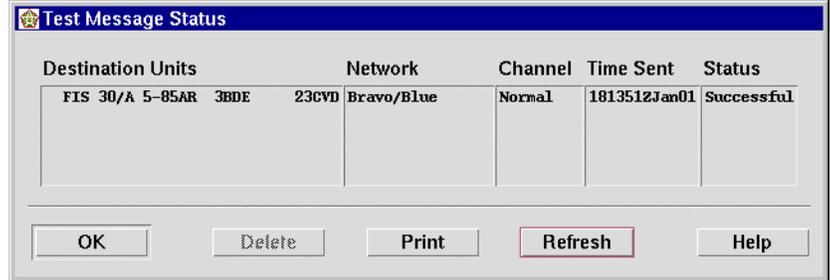
The **Intermediate Unit ID:** field is view only and identifies the selected relay unit.

The **Destination Units** field lists the units assigned to the selected relay unit. All units are selected when this window is initially opened. The user may de-select any units that are not to receive the test message. The **Total Destination Units:** field displays the number of units selected to receive the test message.

The **Alert When Complete** check box allows the user to request notification upon completion of the test. This is an optional selection with the default being not selected.

2-1.1.25 Test Message Status Window.

View Test Status button opens the **Test Message Status** window. The **Test Message Status** window allows the user to display and/or print the status of test messages. Display only fields list the **Destination Units**, **Time Sent**, and **Status** for all test messages transmitted. The **Delete** function allows the user capability to remove selected line items from the listing.



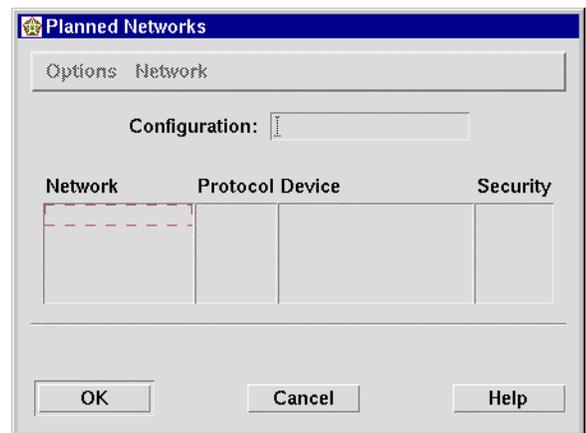
The **Print** function opens the **Print Settings** window. Selecting a printer and **OK** sends to printer the listed status lines. Selecting **Refresh** updates the display to include any message status received after window was initially opened.

2-1.2 FCS Monitoring.

AFATDS allows an operator at an AFATDS Platoon to set up an FCS net such that the AFATDS Platoon will monitor the net for any failed messages that are sent between a Launcher and the AFATDS Battery. Failed messages will be forwarded from the Platoon to the Battery. In addition, the AFATDS Battery needs to set up his communications nets/routing such that the Battery has a direct route to all his launchers, as well as secondary-indirect routes to the launchers through the AFATDS Platoon. With this setup, if a message fails to be transmitted directly from the Battery to a launcher, the route to the launcher will be switched to go indirectly to the launcher through the AFATDS Platoon.

2-1.3 Planned Networks.

The **System\Configuration\Communications\Planned...** selection allows the user to plan communications configurations for later implementation. Up to 99 plans may be established. The planning functions are used to establish the basic data for the configuration. This data includes the networks, net channel settings, destination units, and routing information.

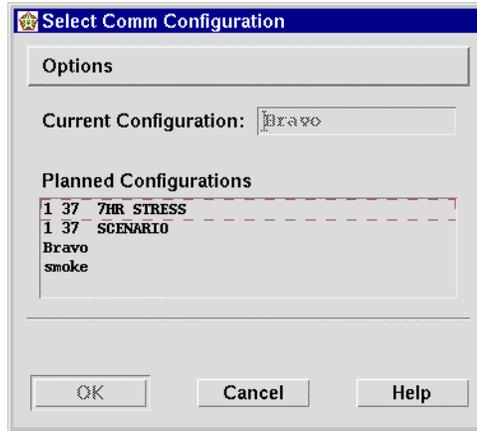


The **Select Comm Configuration** window opens with the **System\Configuration\ Communications\ Planned...** selection. This window displays the **Current Configuration:**, if applicable, and a **Planned Configurations** list. Information on this window is not editable. Navigation to other windows provides for creation and editing of planned configurations. An **Options** menu allows the user to create a configuration using **New** or **Copy...**, **Edit**, **Delete...**, **Export**, and **Import** configurations.

2-1.4 Planned Configurations Procedure.

Planned Configurations Procedure

Step	Action	Response
1.	<u>Select System\Configuration\ Communications\Planned...</u>	Select Comm Configuration window opens.



Planned Configurations Procedure - CONT

Step	Action	Response
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NOTE

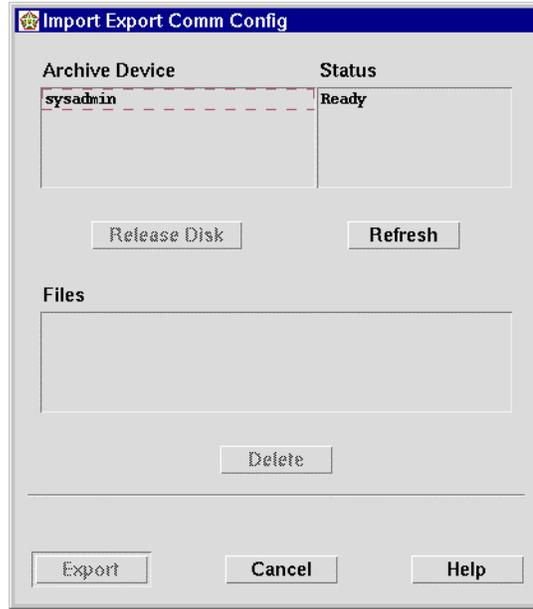
Selecting **Cancel** at any time closes this window. To perform the following functions, proceed to the indicated step.

Delete a configuration	step 2
Export a configuration to archive device.....	step 6
Export a configuration via communications	step 13
Import a configuration	step 18
Edit a configuration	step 25
Create new configuration	step 27
Copy a configuration	step 30

2.	<u>Select configuration</u> to be deleted.	
3.	<u>Select Options\Delete...</u>	Confirm Delete window opens.
4.	<u>Select Delete.</u>	Confirm Delete window closes. Configuration is deleted from database.
5.	To perform other functions of Select Comm Configuration window, refer to note prior to step 2.	
6.	<u>Select configuration(s)</u> to be exported.	
7.	<u>Select Optons\Export\Archive.</u>	Import Export Comm Config window opens.

Planned Configurations Procedure - CONT

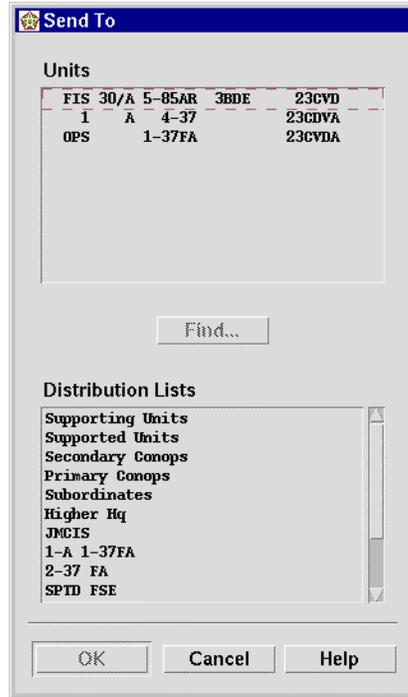
Step	Action	Response
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8.	<u>Select Archive Device</u> to be used.	
9.	<u>Select Export</u> .	Confirm Comm Config Export window opens.
10.	<u>Select Export</u> .	Selected configurations are exported to archive device. Confirm Comm Config Export window closes.
11.	<u>Select Cancel</u> on Import Export Comm Config window.	Import Export Comm Config window closes.
12.	To perform other functions of Select Comm Configuration window, refer to note prior to step 2.	
13.	<u>Select configuration(s)</u> to be exported.	
14.	<u>Select Options\Export\Comm</u> .	Send To window opens; AFATDS OPFAC's in current communications configuration are listed.

Planned Configurations Procedure - CONT

Step	Action	Response
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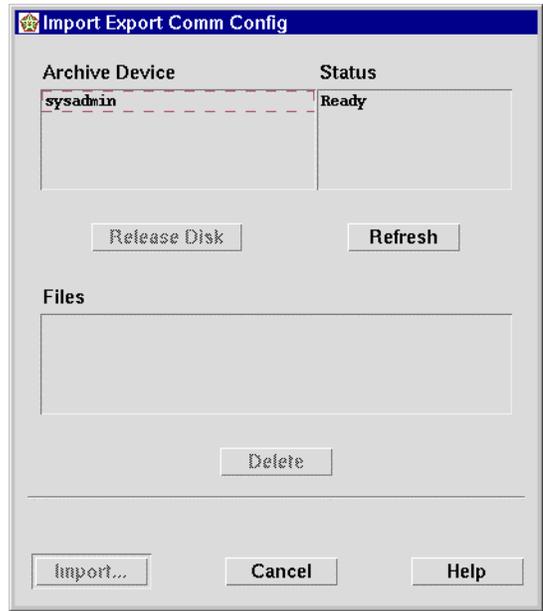
15. Select destination(s) from **Units** and/or **Distribution Lists**.
16. Select **OK**.
17. To perform other functions of **Select Comm Configuration** window, refer to note prior to step 2.
18. Select **Options\Import**.

Send To window closes; transmissions are initiated to destination(s).

Import Export Comm Config window opens.

Planned Configurations Procedure - CONT

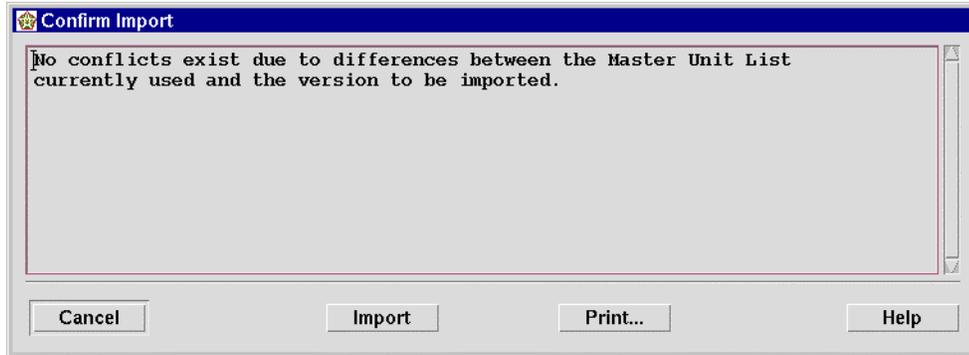
Step	Action	Response
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- | | | |
|-----|--|---|
| 19. | <u>Select Archive Device</u> that contains archived database. | Files list displays archived databases on selected device. |
| 20. | <u>Select configuration</u> to be imported from Files list. | |
| 21. | <u>Select Import...</u> | Confirm Comm Config Import window opens. |

Planned Configurations Procedure - CONT

Step	Action	Response
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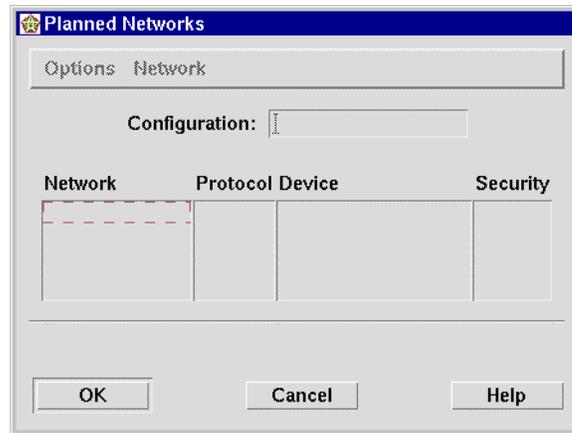
NOTE

Selecting **Cancel** at any time closes this window. To get a hardcopy of the window text, select **Print....**

22.	<u>Select Import.</u>	Selected configurations are imported from archive device. Confirm Comm Config Import window closes.
23.	<u>Select Cancel</u> on Import Export Comm Config window.	Import Export Comm Config window closes.
24.	To perform other functions of Select Comm Configuration window, refer to note prior to step 2.	
25.	<u>Select configuration</u> to edit.	
26.	<u>Select Options\Edit</u> . Proceed to note prior to step 34.	Planned Networks window opens.
27.	<u>Select Options\New</u> .	Planned Networks window opens.
28.	<u>Enter name</u> of new Configuration : (1-16 alphanumeric characters).	
29.	<u>Select OK</u> . Return to note prior to step 2 and perform steps to edit new configuration.	Planned Networks window closes.

Planned Configurations Procedure - CONT

Step	Action	Response
30.	<u>Select configuration</u> to be copied.	
31.	<u>Select Options\Copy...</u>	Planned Networks window opens.
32.	<u>Enter name</u> of new Configuration: (1-16 alphanumeric characters).	
33.	<u>Select OK.</u> Return to note prior to step 2 and perform steps to edit new configuration.	Planned Networks window closes.



NOTE

To perform the following functions of the **Planned Networks** window, proceed to the indicated steps:

Delete a network	step 34
Edit a network	step 38
Create new network	step 40
Copy a network	step 41
Edit an IP network	step 96
Create an IP network	step 98
Copy an IP network	step 99
Edit a FSTI network	step 149
Create a FSTI network	step 151
Copy a FSTI network	step 152

If the user is editing this window as part of the creation of a new configuration, the delete, edit, and copy functions are not available until after creation of first network. To perform functions of **Options\Destination Units**, select **Options\Destination Units** and refer to Communication Unit Configuration paragraph.

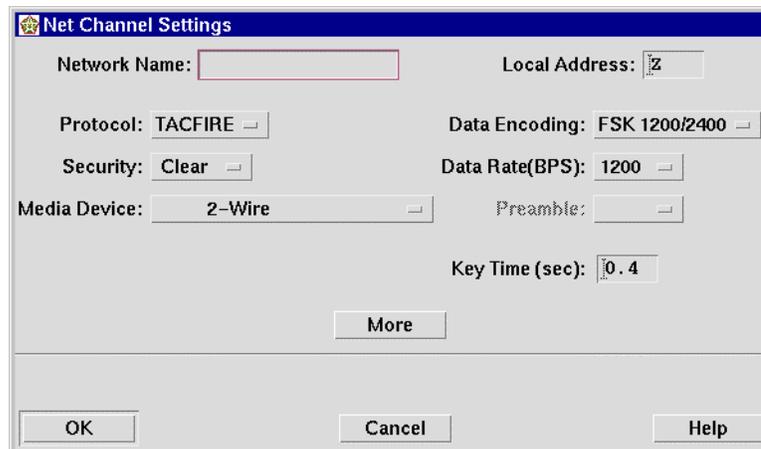
Planned Configurations Procedure - CONT

Step	Action	Response
34.	<u>Select network</u> to delete.	
35.	<u>Select Network\Delete...</u> .	Confirm Delete window opens.
36.	<u>Select Delete.</u>	Confirm Delete window closes.
37.	To perform other functions of Planned Networks window, refer to note prior to step 34.	
38.	<u>Select network</u> to edit.	

NOTE

In steps 39, 40, and 42 the window opened depends on the type of network selected. **IP Network Information** window will open if the selected network is an IP network. Refer to note prior to step 34 for functions of IP networks.

39.	<u>Select Network\Edit.</u> Proceed to step 44.	Net Channel Settings window opens.
40.	<u>Select Network\New.</u> Proceed to step 43.	Net Channel Settings window opens.
41.	<u>Select configuration</u> to be copied.	
42.	<u>Select Network\Copy...</u>	Net Channel Settings window opens.



Planned Configurations Procedure - CONT

Step	Action	Response
43.	<u>Enter Network Name:</u> (1-16 alphanumeric or special characters).	
44.	<u>Select Protocol:</u>	
45.	<u>Enter Local Address:</u> (required except for EPLRS Protocol , legal entries are: TACFIRE - 1 character, 0-9 and A-Z, #, &, *, +, -, ., ? VMF - 2 characters, 0, 2-95 NATO - 2 characters, 0-9 and A-Z MCS - 2 characters, 0-9 and A-Z FCS - 2 characters, 0-9 and A-Z	
46.	<u>Select Security:</u>	
47.	<u>Select Media Device:</u>	
48.	<u>Select Data Encoding:</u>	
49.	<u>Select Data Rate (BPS):</u>	
50.	<u>Enter Key Time (sec):</u> (required except for EPLRS Protocol 0-25.5 in 0.1 increments).	
51.	<u>Select OK for EPLRS and GDU only. More function does not apply. Refer to note prior to step 34 to perform other functions of Planned Networks window.</u>	Planned Networks window becomes active.

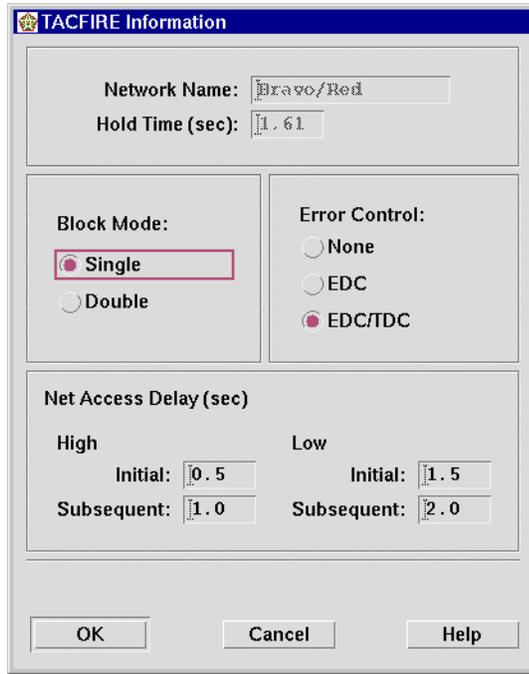
NOTE

TACFIRE, VMF, NATO, FCS, and MCS **Protocols** require additional data entries. The **More** button accesses windows for these data entries. To perform the following functions, proceed to the indicated step.

- Enter TACFIRE data step 52
- Enter VMF data step 62
- Enter NATO data step 75
- Enter MCS data..... step 84
- Enter FCS data step 89

Planned Configurations Procedure - CONT

Step	Action	Response
52.	<u>Select More.</u>	TACFIRE Information window opens.

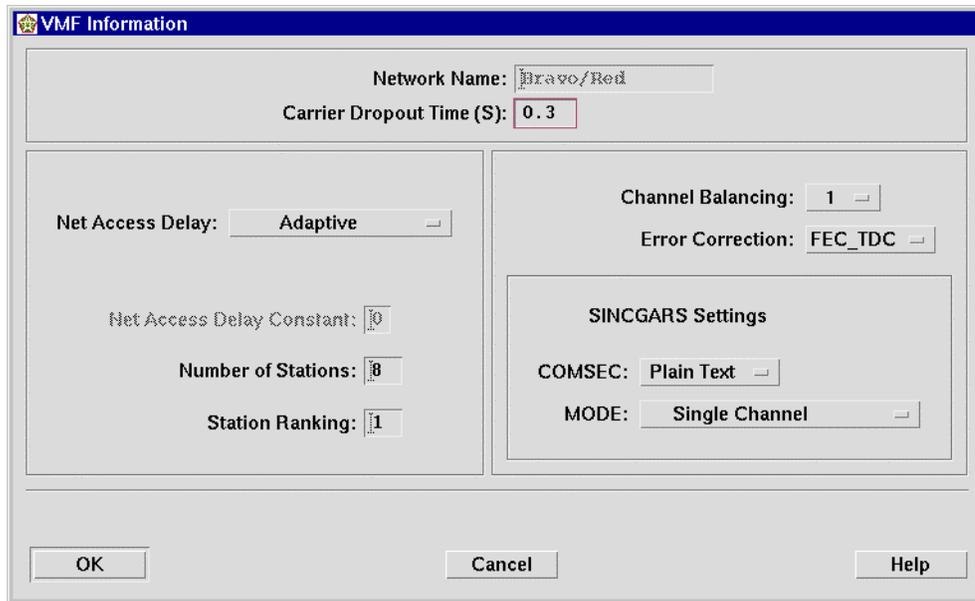


- 53. Select **Block Mode**:
- 54. Select **Error Control**:
- 55. Enter **High Initial**: (0.5-50.00 in 0.5 increments).
- 56. Enter **High Subsequent**: (0.5-50.00 in 0.5 increments).
- 57. Enter **Low Initial**: (0.5-50.00 in 0.5 increments).
- 58. Enter **Low Subsequent**: (0.5-50.00 in 0.5 increments).
- 59. Select **OK**.

TACFIRE Information window closes. **Net Channel Settings** becomes active.

Planned Configurations Procedure - CONT

Step	Action	Response
60.	<u>Select OK.</u>	Net Channel Settings window closes. Planned Networks window becomes active.
61.	Refer to note prior to step 34 to perform other functions of Planned Networks window.	
62.	<u>Select More.</u>	VMF Information window opens.



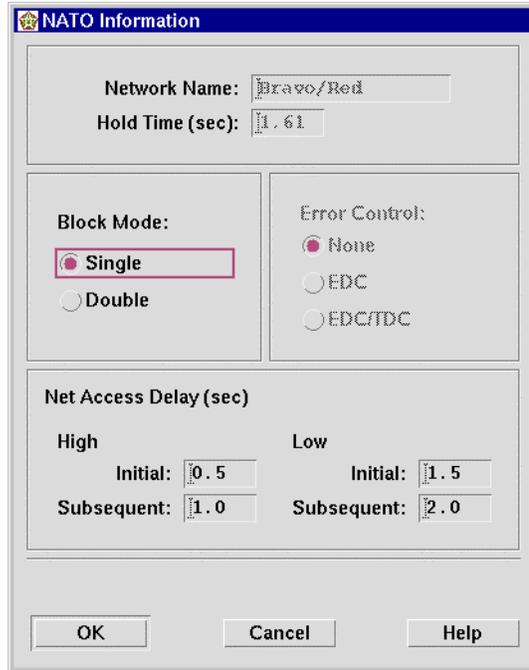
- 63. Enter **Carrier Dropout Time (S)**: (0.0-10.0 in 0.1 increments).
- 64. Select **Net Access Delay**:
- 65. Enter **Net Access Delay Constant**: (required for net access delay of **Constant**, 0-7).
- 66. Enter **Number of Stations**: (required for net access delay of **Prioritized** or **Adaptive**, 1-24).

Planned Configurations Procedure - CONT

Step	Action	Response
67.	<u>Enter Station Ranking:</u> (required for net access delay of Prioritized or Adaptive , 1-24).	
68.	<u>Select Channel Balancing:</u>	
69.	<u>Select Error Correction.</u>	
70.	<u>Select COMSEC:</u> (Only if SINCGARS is media device).	
71.	<u>Select MODE:</u> (Only if SINCGARS is media device).	
72.	<u>Select OK.</u>	VMF Information window closes. Net Channel Settings becomes active.
73.	<u>Select OK.</u>	Net Channel Settings window closes. Planned Networks window becomes active.
74.	Refer to note prior to step 34 to perform other functions of Planned Networks window.	
75.	<u>Select More.</u>	NATO Information window opens.

Planned Configurations Procedure - CONT

Step	Action	Response
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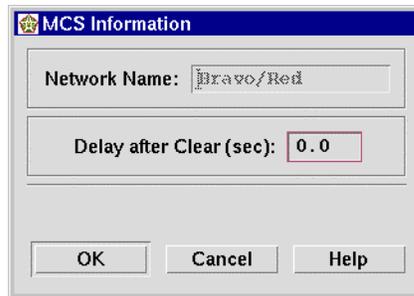


- 76. Select **Block Mode**:
- 77. Enter **High Initial**: (0.0-50.0 in 0.5 increments).
- 78. Enter **High Subsequent**: (0.0-50.0 in 0.5 increments).
- 79. Enter **Low Initial**: (0.0-50.0 in 0.5 increments).
- 80. Enter **Low Subsequent**: (0.0-50.0 in 0.5 increments).
- 81. Select **OK**.

NATO Information window closes. **Net Channel Settings** becomes active.

Planned Configurations Procedure - CONT

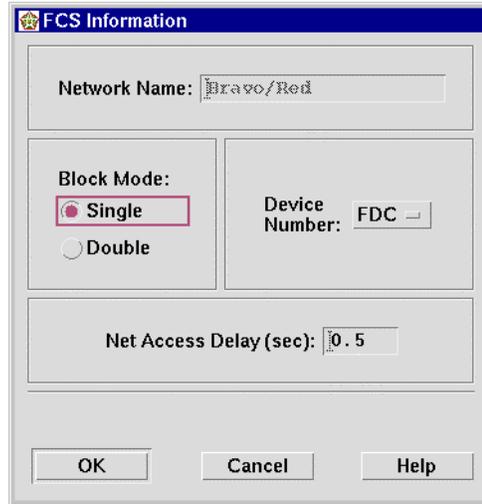
Step	Action	Response
82.	<u>Select OK.</u>	Net Channel Settings window closes. Planned Networks window becomes active.
83.	Refer to note prior to step 34 to perform other functions of Planned Networks window.	
84.	<u>Select More.</u>	MCS Information window opens.



85.	<u>Enter Delay after Clear (sec):</u> (0.0-60.0 in 0.1 increments).	
86.	<u>Select OK.</u>	MCS Information window closes. Net Channel Settings window becomes active.
87.	<u>Select OK.</u>	Net Channel Settings window closes. Planned Networks window becomes active.
88.	Refer to note prior to step 34 to perform other functions of Planned Networks window.	
89.	<u>Select More.</u>	FCS Information window opens.

Planned Configurations Procedure - CONT

Step	Action	Response
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90.	<u>Select Block Mode:</u>	
91.	<u>Select Device Number.</u>	
92.	<u>Enter Net Access Delay (sec):</u> (0.0-50.0 in 0.5 increments).	
93.	<u>Select OK.</u>	FCS Information window closes. Net Channel Settings window becomes active.
94.	<u>Select OK.</u>	Net Channel Settings window closes. Planned Networks window becomes active.
95.	Refer to note prior to step 34 to perform other functions of Planned Networks window.	
96.	<u>Select IP network</u> to edit.	
97.	<u>Select Network\Edit</u> . Proceed to step 102.	IP Network Information window opens.
98.	<u>Select Network\New IP</u> . Proceed to step 101.	IP Network Information window opens.

Planned Configurations Procedure - CONT

Step	Action	Response
99.	<u>Select network</u> to be copied.	
100.	<u>Select Network\Copy...</u> .	IP Network Information window opens.

- | | |
|------|--|
| 101. | <u>Enter Network Name:</u> (required, 1-16 alphanumeric or special characters). |
| 102. | <u>Select Security:</u> state (required, defaults to Secure). |
| 103. | <u>Select Adaptor:</u> (required, defaults to Ethernet). |

Planned Configurations Procedure - CONT

Step	Action	Response
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NOTE

Selecting **Ethernet** with DCE disabled (off) will allow selection of the **From:** buttons. The user can select a source from which to receive network data or **Manual** to enter the data manually. If DCE is enabled and **Ethernet** selected, proceed to step 137. If DCE is disabled and **Ethernet** selected, proceed to step 104. If **TCIM 188 220A** is selected proceed to step 105.

104.	<p><u>Select source</u> of network data using From: radio buttons. Proceed to step 137</p> <p>or</p> <p><u>Select Manual</u> to allow user entries.</p>	<p>Data received from selected source</p> <p>or</p> <p>Window fields enabled.</p>
105.	<p><u>Enter Hostname:</u> (required, not editable if network active)</p>	
106.	<p><u>Enter Local IP Address:</u> (required).</p>	
107.	<p><u>Enter Subnet Address Mask:</u> (optional).</p>	
108.	<p><u>Enter Router Name:</u> (optional).</p>	
109.	<p><u>Enter Router IP Address:</u> (optional).</p>	
110.	<p><u>Select OK</u> if Ethernet selected. Otherwise proceed with step 111.</p>	<p>IP Network Information window closes. Planned Networks becomes active window.</p>
111.	<p><u>Select Next.</u></p>	<p>IP 188 200A Information or INC 188 200A Information window opens.</p>

Planned Configurations Procedure - CONT

Step	Action	Response
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NOTE

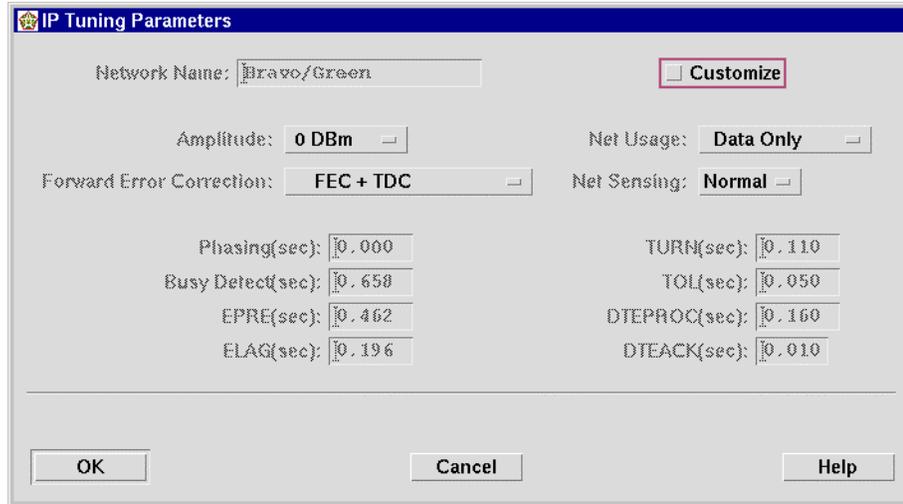
The window opened depends on the type of adaptor selected. Proceed to the indicated steps for the window type:

IP 188 220A Information step 112
INC 188 220A Information step 139

112.	<u>Enter Local Physical Address:</u> (required, legal entry 4 to 95).	
113.	<u>Select Device:</u> (required, defaulted to SINGARS).	
114.	<u>Select Data Encoding:</u> (required).	
115.	<u>Select Data Rate:</u> (required).	
116.	<u>Select Local Transmission Load:</u> (defaulted to Heavy).	
117.	<u>Select Hop Mode:</u> (required).	
118.	<u>Select Method:</u> (required).	
119.	<u>Enter Stations:</u> (required, 2 to 64).	
120.	<u>Enter Frequency of Access Ranking:</u> (required).	
121.	<u>Select More.</u>	IP Tuning Parameters window opens.

Planned Configurations Procedure - CONT

Step	Action	Response
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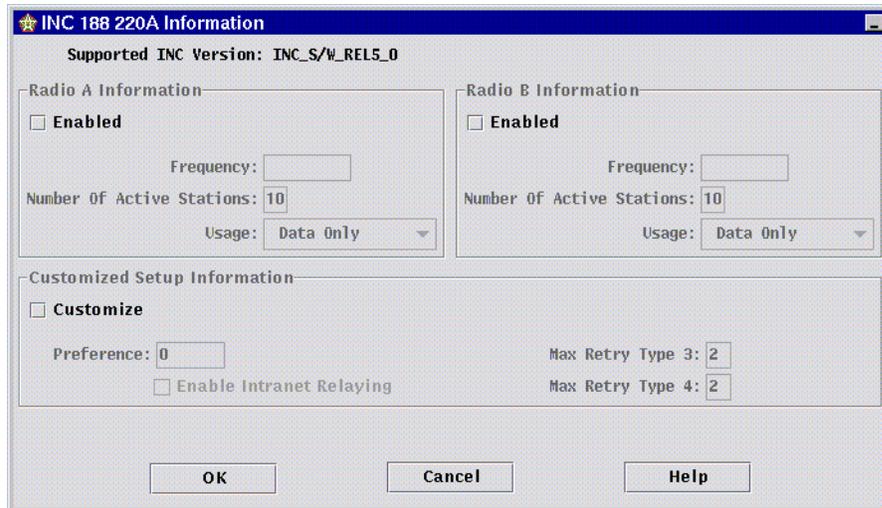
NOTE

This window is view only unless the **Customize** check box is selected.

- 122. Select **Customize**.
- 123. Select **Amplitude**.
- 124. Select **Forward Error Correction**.
- 125. Select **Net Usage**.
- 126. Select **Net Sensing**.
- 127. Enter **Phasing (sec)**: (0 to 10.000).
- 128. Enter **Busy Detect (sec)**: (0 to 65.000).
- 129. Enter **EPRE (sec)**: (0 to 30.000).
- 130. Enter **ELAG (sec)**: (0 to 65.000).

Planned Configurations Procedure - CONT

Step	Action	Response
131.	<u>Enter TURN (sec)</u> : (0 to 65.000).	
132.	<u>Enter TOL (sec)</u> : (0 to 0.500).	
133.	<u>Enter DTEPROC (sec)</u> : (0 to 65.000).	
134.	<u>Enter DTEACK (sec)</u> : (0 to 0.254).	
135.	<u>Select OK</u> .	IP Tuning Parameters window closes. IP 188 220A Information window becomes active.
136.	<u>Select OK</u> .	IP 188 220A Information window closes. IP Network Information window becomes active.
137.	<u>Select OK</u> .	IP Network Information window closes. Planned Networks window becomes active.
138.	To perform other functions of Planned Networks window, refer to note prior to step 34.	

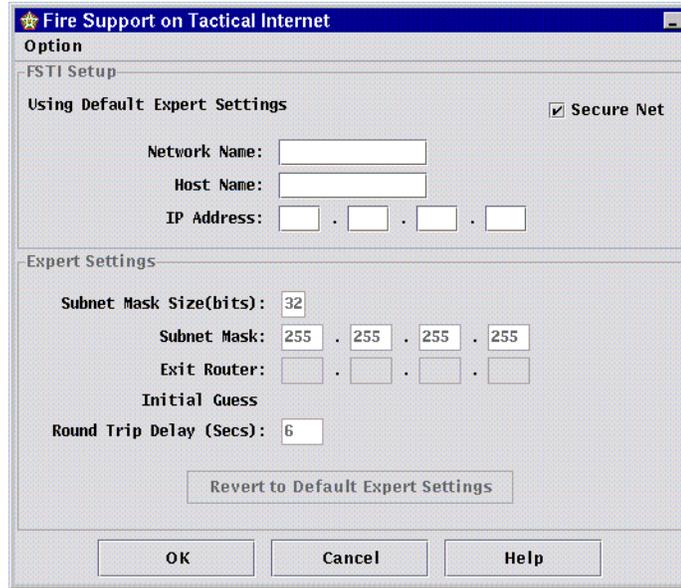


Planned Configurations Procedure - CONT

Step	Action	Response
139.	<u>Select Enabled</u> for one or both radios.	Information fields are enabled.
140.	<u>Enter Frequency:</u> for enabled radio(s). Legal entries 30000 to 87975 or 0F001 to 0F999.	
141.	<u>Enter Number of Active Stations:</u> for enabled radio(s) (1 to 50).	
142.	<u>Select Usage:</u> for enabled radio(s).	
143.	<u>Select Customize.</u>	
144.	<u>Enter Preference:</u> (1 to 2000000).	
145.	<u>Enter Max Retry Type 3:</u> (0 to 5).	
146.	<u>Enter Max Retry Type 4:</u> (0 to 5).	
147.	<u>Select OK.</u>	INC Network Information window closes. Planned Networks window becomes active.
148.	To perform other functions of Planned Networks window, refer to note prior to step 34.	
149.	<u>Select FSTI network</u> to edit.	
150.	<u>Select Network\Edit.</u> Proceed to step 155.	Fire Support on Tactical Internet window opens.
151.	<u>Select Network\New IP.</u> Proceed to step 154.	Fire Support on Tactical Internet window opens.
152.	<u>Select network</u> to be copied.	
153.	<u>Select Network\Copy...</u> Proceed to step 154.	Fire Support on Tactical Internet window opens.

Planned Configurations Procedure - CONT

Step	Action	Response
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154.	<u>Enter Network Name:</u>	
155.	<u>Enter Host Name:</u>	
156.	<u>Enter IP Address:</u>	

NOTE

Steps 157 through 161 are optional and are only required under special circumstances. Proceed to step 162 under normal operation.

157.	<u>Select Option\Expert Settings\View.</u>	Expert Settings portion of window displayed.
158.	<u>Select Option\Expert Settings>Edit.</u>	

Planned Configurations Procedure - CONT

Step	Action	Response
159.	<u>Enter Subnet Mask Size (bits):</u> or Subnet Mask:.	
160.	<u>Enter Exit Router:</u>	
161.	<u>Enter Initial Guess Round Trip Delay (secs)</u> (0.0 to 99.9).	
162.	<u>Select OK.</u>	Fire Support on Tactical Internet window closes.
163.	To perform other functions of Planned Networks window, refer to note prior to step 34.	

2-1.5 Current Networks Configuration.

The **System\Configuration\Communications\Current** selection accesses functions to manage and test the current communications configuration. Unit and sub-net data may be edited, added to, or deleted from the configuration as required. Data displayed on the **Current Networks** window is not editable; changes are made to the configuration using the menu selections.

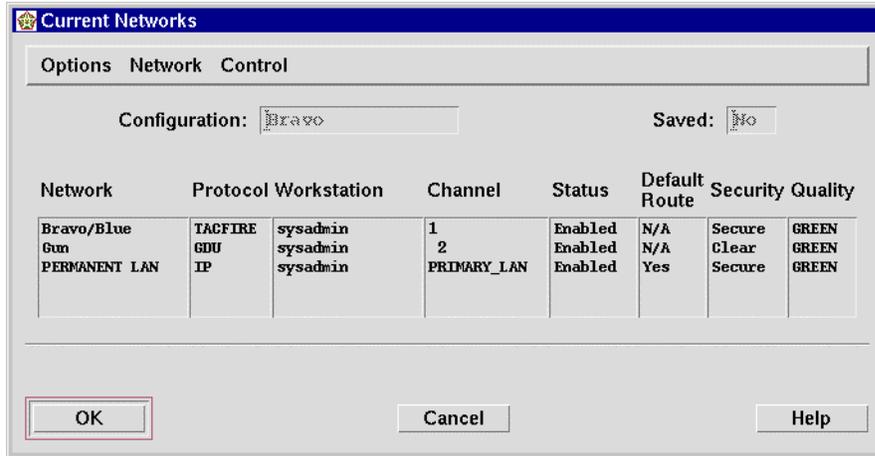
Test messages may be transmitted to a unit, all direct units, and/or all indirect units via an intermediate unit. The status of these transmissions are stored for user initiated display.

Current Networks Configuration

Step	Action	Response
1.	<u>Select System\Configuration\Communications\Current.</u>	Current Networks window opens.

Current Networks Configuration - CONT

Step	Action	Response
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NOTE

This window displays the established data for the configuration. Changes to this configuration are implemented as they are made, but will be lost unless saved using the **Options\Save** menu selection.

Selecting **OK** at any time closes this window. To perform the functions of the **Options\Destination Units**, refer to Communications Unit Configuration paragraph. To perform the following functions, proceed to the indicated steps.

- Select new current step 2
- Assign channel(s) to networks step 6
- Delete a network step 16
- Edit a network step 20
- Create new network step 22
- Copy a network step 23
- Edit an IP network step 77
- Create an IP network step 79
- Copy an IP network step 80
- Edit a FSTI network step 130
- Create a FSTI network step 132
- Copy a FSTI network step 133

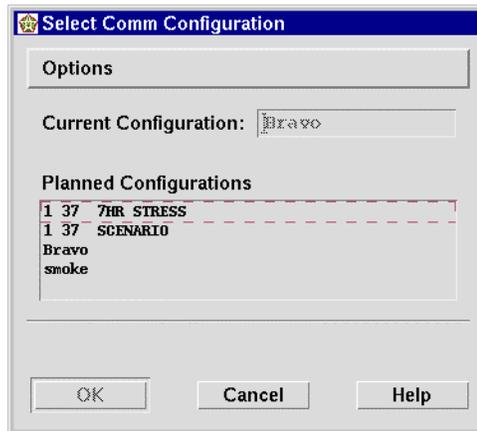
Current Networks Configuration - CONT

Step	Action	Response
	Set a network to On	step 145
	Set all networks On	step 148
	Set a network to Off	step 150
	Set all networks Off	step 151
	Hold communications on a network	step 155

NOTE

The current network, if any, must be turned off prior to selecting a new configuration.

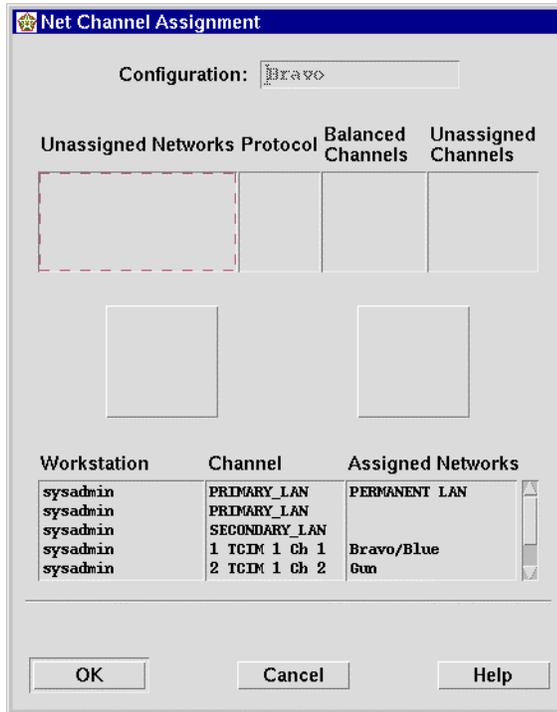
- | | | |
|----|--|---|
| 2. | <u>Select Options\Select New Current...</u> | Select Comm Configuration window opens in select mode. |
|----|--|---|



- | | | |
|----|--|--|
| 3. | <u>Select a configuration.</u> | |
| 4. | <u>Select OK.</u> | Select Comm Configuration window closes. Selected configuration appears on Current Networks window |
| 5. | To perform other functions of Current Networks window, refer to note prior to step 2. | |

Current Networks Configuration - CONT

Step	Action	Response
6.	Select Network\Assign Channel(s) .	Net Channel Assignment window opens.



NOTE

The Transfer arrows are used to assign and de-assign network and workstation combinations. Selecting a **Workstation, Network Name**, and the down-arrow symbol assigns the network to the workstation. Selecting a **Workstation** and the up-arrow symbol de-assigns a network from the workstation. Networks must be turned off prior to de-assignment.

Selecting **OK** closes the **Net Channel Assignment** window and activates the **Current Networks** window.

To perform the following functions, proceed to the indicated steps.

- Assign a channel to a network step 7
- De-assign a channel from a network step 12

Current Networks Configuration - CONT

Step	Action	Response
7.	<u>Select the Unassigned Network.</u>	
8.	<u>Select the Workstation.</u>	
9.	<u>Select the down-arrow symbol.</u>	Network appears in Assigned Networks field for selected FSW channel.
10.	Repeat steps 7 thru 9 for each FSW channel as required.	
11.	To perform other functions of Net Channel Assignment window, refer to note prior to step 7.	
12.	<u>Select the Workstation Channel.</u>	
13.	<u>Select the up-arrow symbol.</u>	Network is removed from Assigned Networks field for selected FSW channel.
14.	Repeat steps 12 and 13 for each FSW channel as required.	
15.	To perform other functions of Net Channel Assignment window, refer to note prior to step 7.	
16.	<u>Select network to delete.</u>	
17.	<u>Select Network\Delete...</u>	Confirm Delete window opens.
18.	<u>Select Delete.</u>	Confirm Delete window closes.
19.	To perform other functions of Current Networks window, refer to note prior to step 2.	
20.	<u>Select network to edit.</u>	

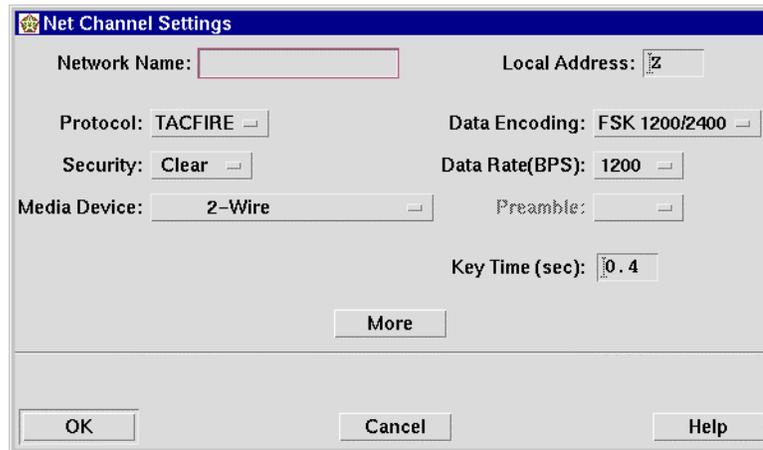
Current Networks Configuration - CONT

Step	Action	Response
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NOTE

In steps 39, 40, and 42 the window opened depends on the type of network selected. **IP Network Information** window will open if the selected network is an IP network. Refer to note prior to step 2 for functions of IP networks.

21.	<u>Select Network\Edit</u> . Proceed to step 26.	Net Channel Settings window opens.
22.	<u>Select Network\New</u> . Proceed to step 25.	Net Channel Settings window opens.
23.	<u>Select configuration</u> to be copied.	
24.	<u>Select Network\Copy...</u>	Net Channel Settings window opens.



25.	<u>Enter Network Name</u> : (1-16 alphanumeric or special characters).
26.	<u>Select Protocol</u> :

Current Networks Configuration - CONT

Step	Action	Response
27.	<p><u>Enter Local Address:</u> (required except for EPLRS Protocol, legal entries are:</p> <p>TACFIRE - 1 character, 0-9 A-Z, #, &, *, +, -, ., ? VMF - 2 characters, 0, 2-95 NATO - 2 characters, 0-9 and A-Z MCS - 2 characters, 0-9 and A-Z</p>	
28.	<p><u>Select Security:</u> (required except for LAN and MPN_LAN Protocols).</p>	
29.	<p><u>Select Media Device:</u> (required except for EPLRS Protocols).</p>	
30.	<p><u>Select Data Encoding:</u> (required).</p>	
31.	<p><u>Select Data Rate (BPS):</u> (required).</p>	
32.	<p><u>Enter Key Time (sec):</u> (0-25.5 in 0.1 increments).</p>	

NOTE

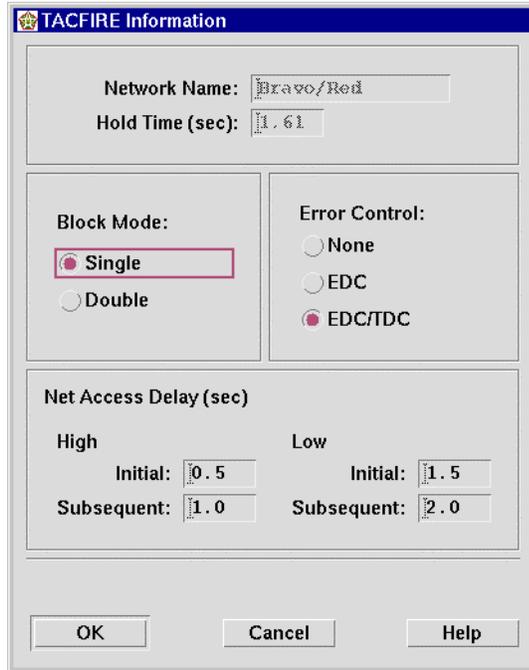
TACFIRE, VMF, NATO, and MCS **Protocols** require additional data entries. Use the **More** button to access windows for these data entries. To perform the following functions, proceed to the indicated step.

- Enter TACFIRE data step 33
- Enter VMF data step 43
- Enter NATO data step 56
- Enter MCS data..... step 65
- Enter FCS data step 70

33.	<u>Select More.</u>	TACFIRE Information window opens.
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Current Networks Configuration - CONT

Step	Action	Response
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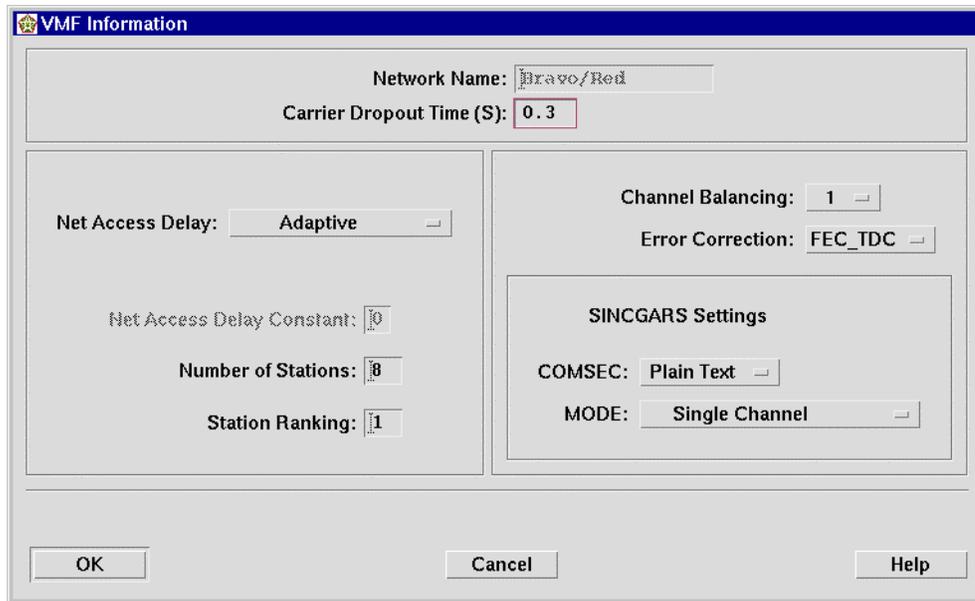


34. Select **Block Mode**:
35. Select **Error Control**:
36. Enter **High Initial**: (0.5-50.00 in 0.5 increments).
37. Enter **High Subsequent**: (0.5-50.00 in 0.5 increments).
38. Enter **Low Initial**: (0.5-50.00 in 0.5 increments).
39. Enter **Low Subsequent**: (0.5-50.00 in 0.5 increments).
40. Select **OK**.

TACFIRE Information window closes. **Net Channel Settings** becomes active.

Current Networks Configuration - CONT

Step	Action	Response
41.	<u>Select OK.</u>	Net Channel Settings window closes. Current Networks window becomes active.
42.	Refer to note prior to step 2 to perform other functions of Current Networks window.	
43.	<u>Select More.</u>	VMF Information window opens.



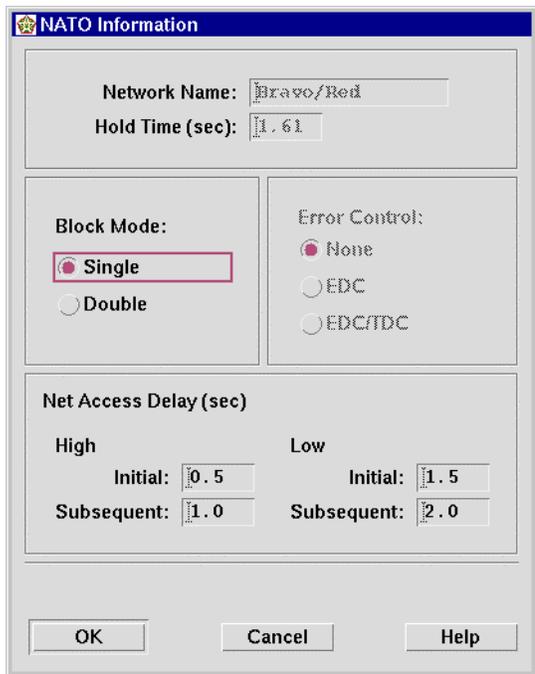
- | | |
|-----|--|
| 44. | <u>Enter Carrier Dropout Time (S):</u> (0.0-10.0 in 0.1 increments). |
| 45. | <u>Select Net Access Delay:</u> |
| 46. | <u>Enter Net Access Delay Constant:</u> (required for net access delay of Constant , 0-7). |
| 47. | <u>Enter Number of Stations:</u> (required for net access delay of Prioritized or Adaptive , 1-24). |

Current Networks Configuration - CONT

Step	Action	Response
48.	<u>Enter Station Ranking:</u> (required for net access delay of Prioritized or Adaptive , 1-16).	
49.	<u>Select Channel Balancing:</u>	
50.	<u>Select Error Correction.</u>	
51.	<u>Select COMSEC:</u> (Only if SINCGARS is media device).	
52.	<u>Select MODE:</u> (Only if SINCGARS is media device).	
53.	<u>Select OK.</u>	VMF Information window closes. Net Channel Settings becomes active.
54.	<u>Select OK.</u>	Net Channel Settings window closes. Current Networks window becomes active.
55.	Refer to note prior to step 2 to perform other functions of Current Networks window.	
56.	<u>Select More.</u>	NATO Information window opens.

Current Networks Configuration - CONT

Step	Action	Response
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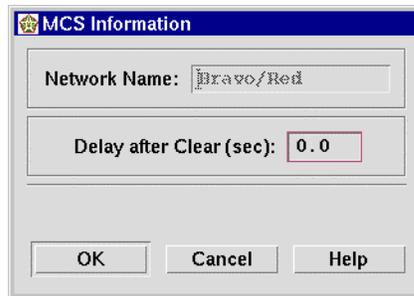


- 57. Select **Block Mode**:
- 58. Enter **High Initial**: (0.0-50.0 in 0.5 increments).
- 59. Enter **High Subsequent**: (0.0-50.0 in 0.5 increments).
- 60. Enter **Low Initial**: (0.050.0 in 0.5 increments).
- 61. Enter **Low Subsequent**: (0.050.0 in 0.5 increments).
- 62. Select **OK**.

NATO Information window closes. **Net Channel Settings** becomes active.

Current Networks Configuration - CONT

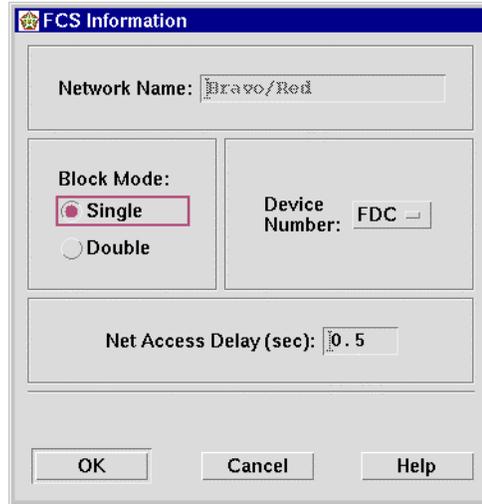
Step	Action	Response
63.	<u>Select OK.</u>	Net Channel Settings window closes. Current Networks window becomes active.
64.	Refer to note prior to step 2 to perform other functions of Current Networks window.	
65.	<u>Select More.</u>	MCS Information window opens.



66.	<u>Enter Delay after Clear (sec): (0.0-60.0).</u>	
67.	<u>Select OK.</u>	MCS Information window closes. Net Channel Settings window becomes active.
68.	<u>Select OK.</u>	Net Channel Settings window closes. Current Networks window becomes active.
69.	Refer to note prior to step 2 to perform other functions of Current Networks window.	
70.	<u>Select More.</u>	FCS Information window opens.

Current Networks Configuration - CONT

Step	Action	Response
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71.	<u>Select Block Mode:</u>	
72.	<u>Select Device Number.</u>	
73.	<u>Enter Net Access Delay (sec):</u> (0.0-50.0 in 0.5 increments).	
74.	<u>Select OK.</u>	FCS Information window closes. Net Channel Settings window becomes active.
75.	<u>Select OK.</u>	Net Channel Settings window closes. Current Networks window becomes active.
76.	Refer to note prior to step 2 to perform other functions of Current Networks window.	
77.	<u>Select IP network</u> to edit.	
78.	<u>Select Network\Edit</u> . Proceed to step 83.	IP Network Information window opens.
79.	<u>Select Network\New IP</u> . Proceed to step 82.	IP Network Information window opens.

Current Networks Configuration - CONT

Step	Action	Response
80.	<u>Select configuration</u> to be copied.	
81.	<u>Select Network\Copy...</u> .	IP Network Information window opens.

- | | |
|-----|--|
| 82. | <u>Enter Network Name:</u> (required, 1-16 alphanumeric or special characters). |
| 83. | <u>Select Security:</u> state (required, defaults to Secure). |
| 84. | <u>Select Adaptor:</u> (required, defaults to Ethernet). |

Current Networks Configuration - CONT

Step	Action	Response
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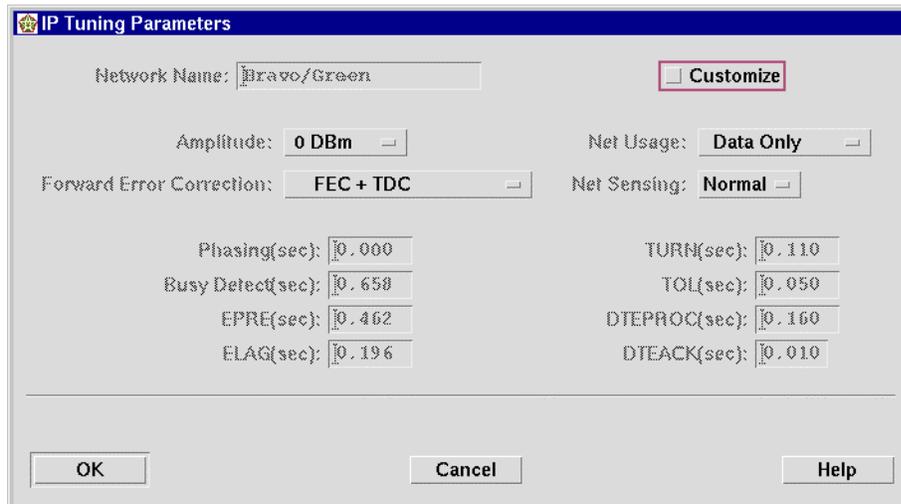
NOTE

Selecting **Ethernet** with DCE disabled (off) will allow selection of the **From:** buttons. The user can select a source from which to receive network data or **Manual** to enter the data manually. If DCE is enabled and **Ethernet** selected, proceed to step 118. If DCE is disabled and **Ethernet** selected, proceed to step 85. If **TCIM 188 220A** is selected proceed to step 92. If **INC 188 220A** is selected proceed to step 120.

85.	<p><u>Select source</u> of network data using From: radio buttons. Proceed to step 118</p> <p>or</p> <p><u>Select Manual</u> to allow user entries.</p>	<p>Data received from selected source</p> <p>or</p> <p>Window fields enabled.</p>
86.	<p><u>Enter Hostname:</u> (required, not editable if network active)</p>	
87.	<p><u>Enter Local IP Address:</u> (required).</p>	
88.	<p><u>Enter Subnet Address Mask:</u> (optional).</p>	
89.	<p><u>Enter Router Name:</u> (optional).</p>	
90.	<p><u>Enter Router IP Address:</u> (optional).</p>	
91.	<p><u>Select OK</u> if Ethernet selected. Otherwise proceed with step 92.</p>	<p>IP Network Information window closes. Current Networks becomes active window.</p>
92.	<p><u>Select Next</u>.</p>	<p>IP 188 200A Information window opens.</p>
93.	<p><u>Enter Local Physical Address:</u> (required, legal entry 4 to 95).</p>	

Current Networks Configuration - CONT

Step	Action	Response
94.	<u>Select Device:</u> (required, defaulted to SINCGARS).	
95.	<u>Select Data Encoding:</u> (required).	
96.	<u>Select Data Rate:</u> (required).	
97.	<u>Select Local Transmission Load:</u> (defaulted to Heavy).	
98.	<u>Select Hop Mode:</u> (required).	
99.	<u>Select Method:</u> (required).	
100.	<u>Enter Stations:</u> (required, 2 to 64).	
101.	<u>Enter Frequency of Access Ranking:</u> (required).	
102.	<u>Select More.</u>	IP Tuning Parameters window opens.



Current Networks Configuration - CONT

Step	Action	Response
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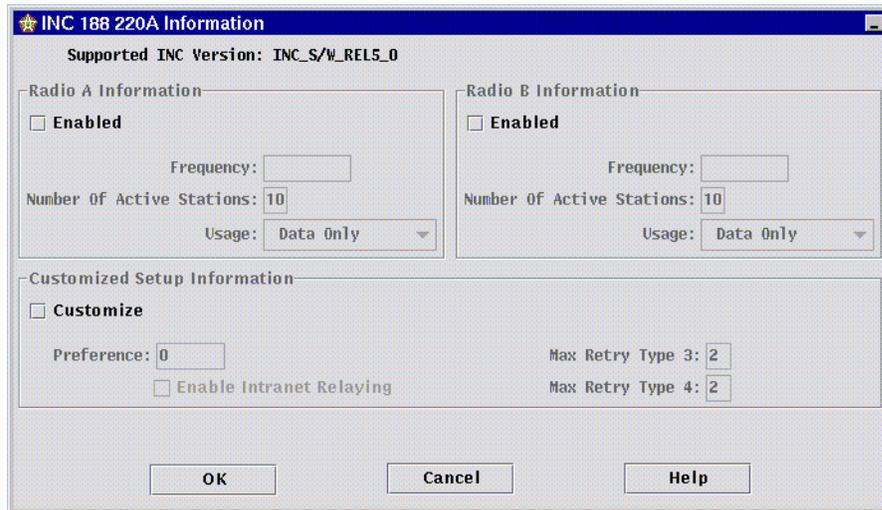
NOTE

This window is view only unless the **Customize** check box is selected.

103.	<u>Select Customize.</u>	
104.	<u>Select Amplitude.</u>	
105.	<u>Select Forward Error Correction.</u>	
106.	<u>Select Net Usage.</u>	
107.	<u>Select Net Sensing.</u>	
108.	<u>Enter Phasing (sec): (0 to 10.000).</u>	
109.	<u>Enter Busy Detect (sec): (0 to 65.000).</u>	
110.	<u>Enter EPRE (sec): (0 to 30.000).</u>	
111.	<u>Enter ELAG (sec): (0 to 65.000).</u>	
112.	<u>Enter TURN (sec): (0 to 65.000).</u>	
113.	<u>Enter TOL (sec): (0 to 0.500).</u>	
114.	<u>Enter DTEPROC (sec): (0 to 65.000).</u>	
115.	<u>Enter DTEACK (sec): (0 to 0.254).</u>	
116.	<u>Select OK.</u>	IP Tuning Parameters window closes. IP 188 220A Information window becomes active.

Current Networks Configuration - CONT

Step	Action	Response
117.	<u>Select OK.</u>	IP 188 220A Information window closes. IP Network Information window becomes active.
118.	<u>Select OK.</u>	IP Network Information window closes. Current Networks window becomes active.
119.	To perform other functions of Current Networks window, refer to note prior to step 2.	



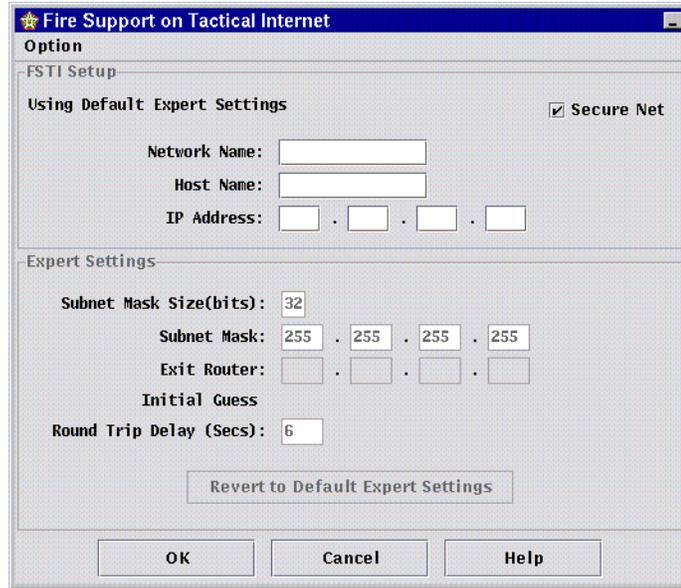
120.	<u>Select Enabled</u> for one or both radios.	Information fields are enabled.
121.	<u>Enter Frequency:</u> for enabled radio(s). Legal entries 30000 to 87975 or 0F001 to 0F999.	
122.	<u>Enter Number of Active Stations:</u> for enabled radio(s) (1 to 50).	
123.	<u>Select Usage:</u> for enabled radio(s).	

Current Networks Configuration - CONT

Step	Action	Response
124.	<u>Select Customize.</u>	
125.	<u>Enter Preference:</u> (1 to 2000000).	
126.	<u>Enter Max Retry Type 3:</u> (0 to 5).	
127.	<u>Enter Max Retry Type 4:</u> (0 to 5).	
128.	<u>Select OK.</u>	INC Network Information window closes. Planned Networks window becomes active.
129.	To perform other functions of Current Networks window, refer to note prior to step 2.	
130.	<u>Select FSTI network</u> to edit.	
131.	<u>Select Network\Edit.</u> Proceed to step 136.	Fire Support on Tactical Internet window opens.
132.	<u>Select Network\New IP.</u> Proceed to step 135.	Fire Support on Tactical Internet window opens.
133.	<u>Select network</u> to be copied.	
134.	<u>Select Network\Copy...</u> Proceed to step 135.	Fire Support on Tactical Internet window opens.

Current Networks Configuration - CONT

Step	Action	Response
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135.	<u>Enter Network Name:</u>	
136.	<u>Enter Host Name:</u>	
137.	<u>Enter IP Address:</u>	

NOTE

Steps 138 through 142 are optional and are only required under special circumstances. Proceed to step 143 under normal operation.

138.	<u>Select Option\Expert Settings\View.</u>	Expert Settings portion of window displayed.
139.	<u>Select Option\Expert Settings>Edit.</u>	

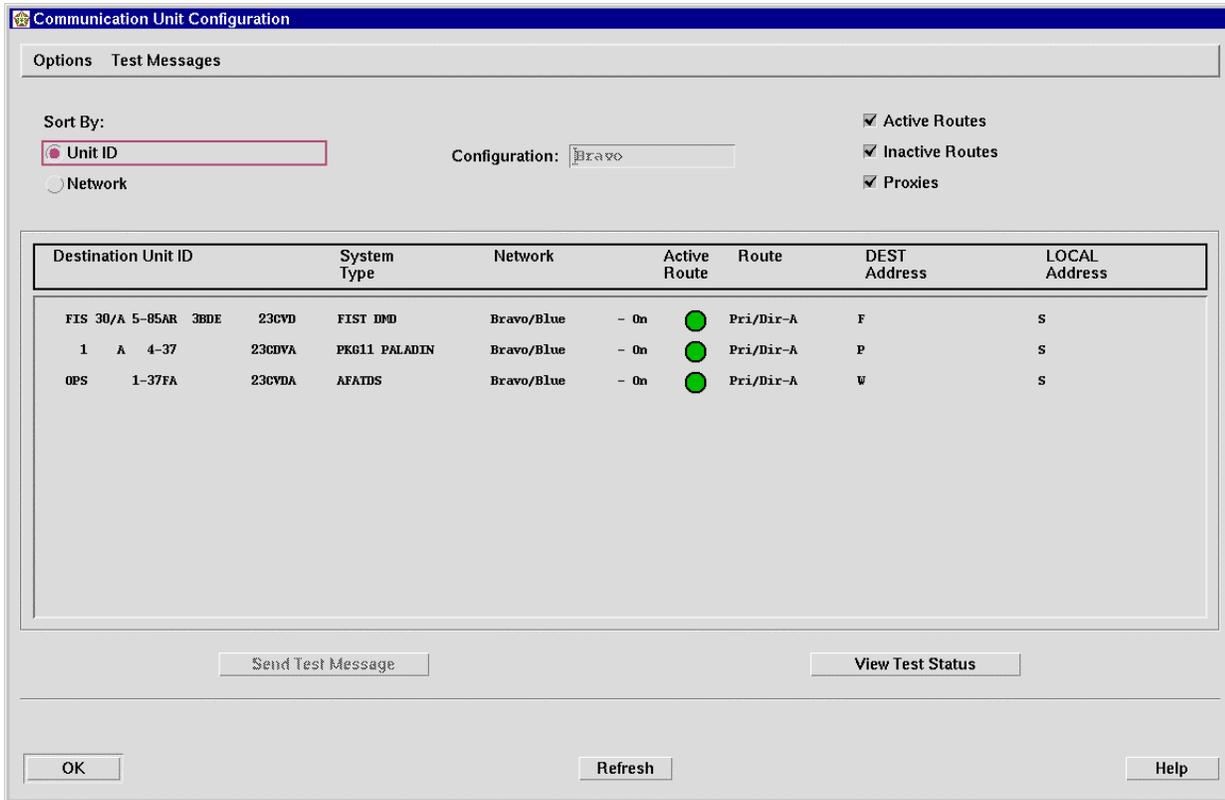
Current Networks Configuration - CONT

Step	Action	Response
140.	<p><u>Enter Subnet Mask Size (bits):</u></p> <p>or</p> <p>Subnet Mask:.</p>	
141.	<p><u>Enter Exit Router:</u>.</p>	
142.	<p><u>Enter Initial Guess Round Trip Delay (secs)</u> (0.0 to 99.9).</p>	
143.	<p><u>Select OK.</u></p>	<p>Fire Support on Tactical Internet window closes.</p>
144.	<p>To perform other functions of Current Networks window, refer to note prior to step 2.</p>	
145.	<p><u>Select network</u> to be turned On.</p>	
146.	<p><u>Select Control\On.</u></p>	<p>Communications are enabled on selected network. Status and Net Quality fields are displayed.</p>
147.	<p>To perform other functions of Current Networks window, refer to note prior to step 2.</p>	
148.	<p><u>Select Control\All On.</u></p>	<p>Communications are enabled on all networks.</p>
149.	<p>To perform other functions of Current Networks window, refer to note prior to step 2.</p>	

Current Networks Configuration - CONT

Step	Action	Response
150.	<u>Select network</u> to be turned Off.	
151.	<u>Select Control\Off</u> .	Communications are disabled on selected network.
152.	To perform other functions of Current Networks window, refer to note prior to step 2.	
153.	<u>Select Control\All Off</u> .	Communications are disabled on all networks.
154.	To perform other functions of Current Networks window, refer to note prior to step 2.	
155.	<u>Select network</u> to be held.	
156.	<u>Select Control\Hold</u> .	Communications are suspended on held network.
157.	To perform other functions of Current Networks window, refer to note prior to step 2.	

2-1.6 Communication Unit Configuration Procedure.



NOTE

The **Communications Unit Configuration** window may be accessed from the Tool Bar icon, **Planned Networks**, or **Current Networks** window. The **Test Messages** menu is enabled only when access is from the **Current Networks** window. Selecting **Refresh** at any time updates display to show changes since window was opened. To perform the following **Options** menu functions, proceed to the indicated steps.

- Add unit to configuration step 1
- Enter routing for destination unit step 6
- Send test message to a unit step 35
- Send test message to all direct units via net step 40
- Send test message to all indirect units via unit step 45
- View test message status step 49
- Activate Routes step 53
- Deactivate Routes step 56
- Create/Edit Proxy unit step 59

Unit Communications Configuration

Step	Action	Response
1.	<u>Select Options\Add Unit</u> from the Communications Unit Configuration window.	Select List window opens



2.	<u>Select unit list</u> from Available Unit Lists.	
3.	<u>Select OK.</u>	Select Unit window opens.
4.	<u>Select Unit ID.</u>	
5.	<u>Select OK.</u>	Select Unit window closes. Communication Unit Configuration window becomes active.
6.	<u>Select Destination Unit ID</u> to be edited.	
7.	<u>Select Options\Edit Routes.</u>	Edit Routes window opens for selected unit.

Unit Communications Configuration - CONT

Step	Action	Response
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Edit Routes

Options

Destination Unit ID: FIST 30 A 2BDE 4ID

System Type: FIST DHD

Current Route: Pri-Dlx

Alert When Receive

Primary Secondary Tertiary

Direct Indirect

Via: Bravo/blue

Internet Address: . . .

Hostname:

Destination Address: F Hop Count: Device Number: Gm Pltn/Sect:

FO Number: 30 Supporting FIST Unit ID:

OK Cancel Help

Unit Communications Configuration - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window and activates the **Communication Unit Configuration** window. To perform other functions of **Communication Unit Configuration** window after closing this window, refer to note prior to step 1. To perform the following functions of the **Edit Routes** window, proceed to the indicated steps.

- Edit routes step 8
- View aliases step 26
- Set serialization step 29

NOTE

The **Options** menu contains selections to activate or clear data for a particular route. The **Options\Clear Route** selection removes all data for the selected route.

- | | | |
|----|--|--|
| 8. | <u>Select Alert When Receive</u> , if applicable. | |
| 9. | <u>Select Primary</u> . | |

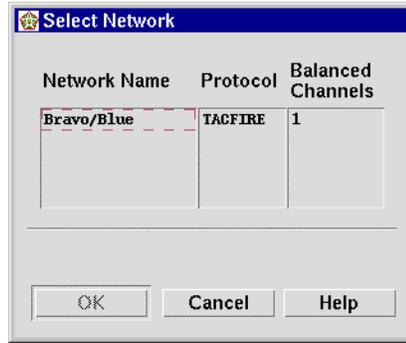
NOTE

The **Primary** route must be set to **Direct** before a **Secondary** route can be entered. Also, the **Secondary** route must be **Direct** before a **Tertiary** route can be entered.

- | | | |
|-----|--|---|
| 10. | <u>Select Direct or Indirect</u> . | |
| 11. | <u>Select Via:</u> | Select Network (direct routing) or Select Unit (indirect routing) window opens. |

Unit Communications Configuration - CONT

Step	Action	Response
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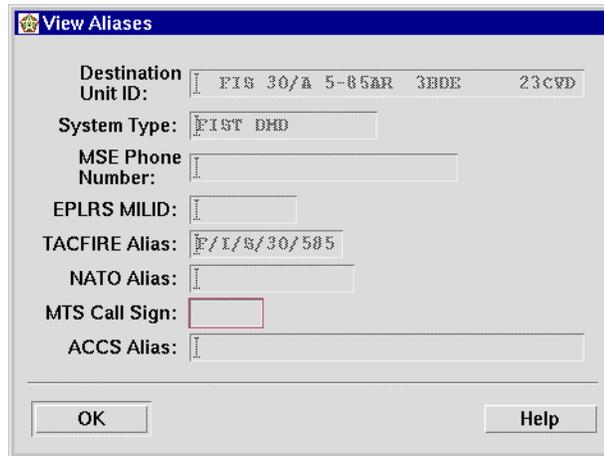
- | | | |
|-----|--|--------------------------------------|
| 12. | <u>Select network or unit ID.</u> | |
| 13. | <u>Select OK.</u> | Select Network window closes. |
| 14. | <u>Enter Internet Address:</u> (only for LAN). | |
| 15. | <u>Enter Hostname:</u> (only for LAN). | |
| 16. | <u>Enter Destination Address:</u> (required for Direct routing). | |
| 17. | <u>Select Device Number:</u> <u>Select...</u> (FCS networks only). | FCS List window opens. |



- | | | |
|-----|----------------------------------|--|
| 18. | <u>Select the device number.</u> | |
|-----|----------------------------------|--|

Unit Communications Configuration - CONT

Step	Action	Response
19.	<u>Select OK.</u>	FCS List window Closes. Selected device appears on Edit Routes window.
20.	<u>Select Gun Pltn/Sect:</u> (Paladin units only).	
21.	<u>Enter Hop Count:</u> (required for Indirect routing 1-8).	
22.	<u>Enter FO Number:</u> (required for TACFIRE devices). (legal entries 1 to 99)	
23.	<u>Select Supporting FIST Unit ID:</u> (as required).	
24.	<u>Repeat steps 9 thru 23</u> as required for Secondary and Tertiary routing.	
25.	To perform other functions of Edit Routes window, refer to note prior to step 8.	
26.	<u>Select Options\View Aliases...</u>	View Aliases window opens.

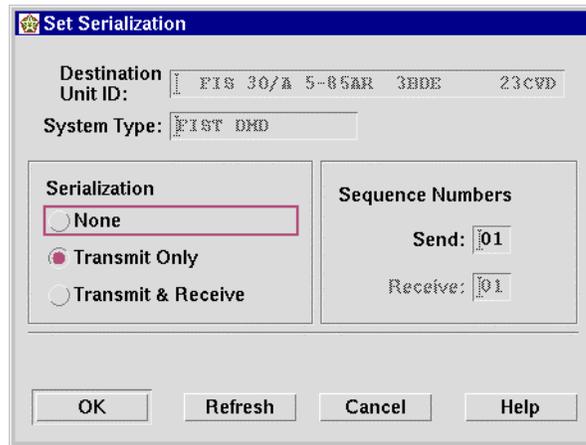


27. Select **OK**.

View Aliases window closes.

Unit Communications Configuration - CONT

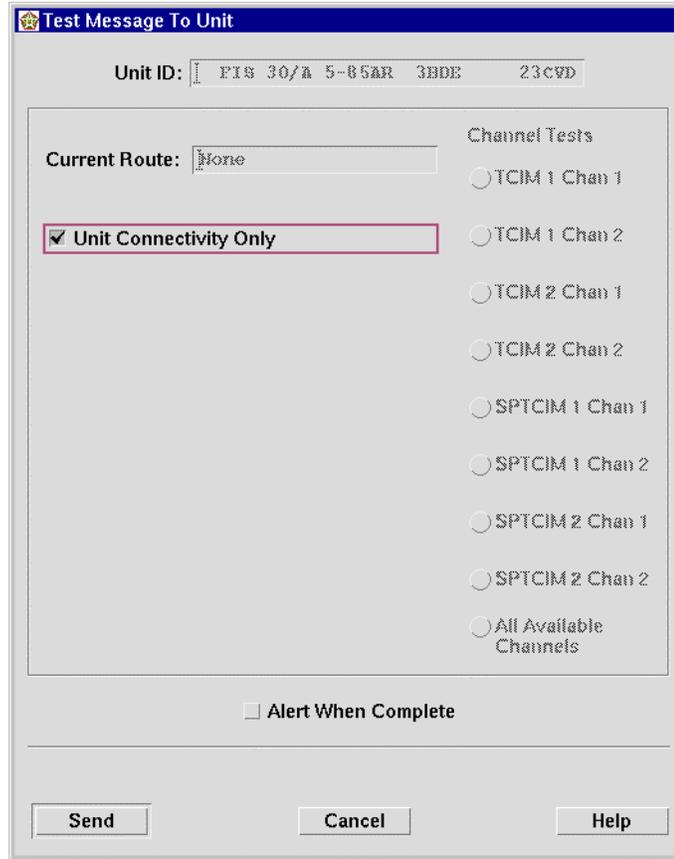
Step	Action	Response
28.	To perform other functions of Edit Routes window, refer to note prior to step 8.	
29.	Select Options\Set Serialization...	Set Serialization window opens.



30.	Select Serialization mode (required for TACFIRE and NATO nets).	
31.	Enter Send: sequence number (required unless None selected, 0-99).	
32.	Enter Receive: sequence number (required if Transmit & Receive selected, 0-99).	
33.	Select OK .	Set Serialization window closes.
34.	To perform other functions of Edit Routes window, refer to note prior to step 8.	
35.	Select Test Messages\To Selected Unit...	Test Message To Unit window opens.

Unit Communications Configuration - CONT

Step	Action	Response
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36. Select channel(s) from **Channel Tests** radio buttons if balanced channels are used

or

select **Unit Connectivity Only** if testing for availability of unit on any channel.

37. Select **Alert When Complete**, if applicable.

38. Select **Send**.

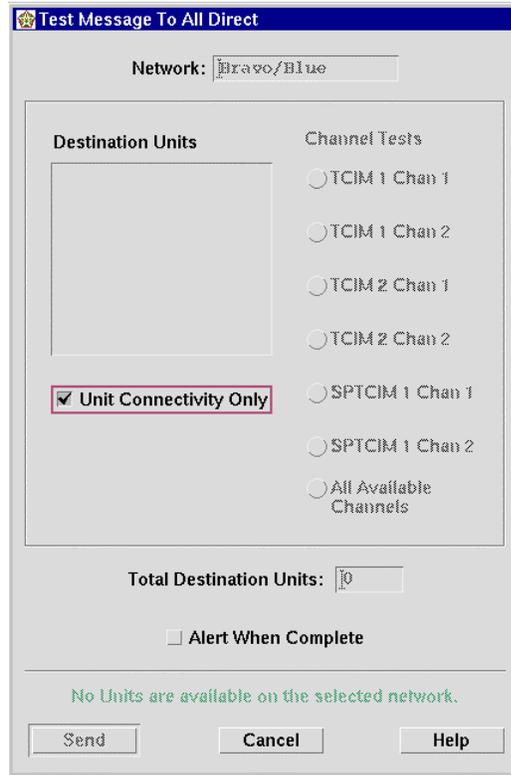
Test Message To Unit window closes.

Unit Communications Configuration - CONT

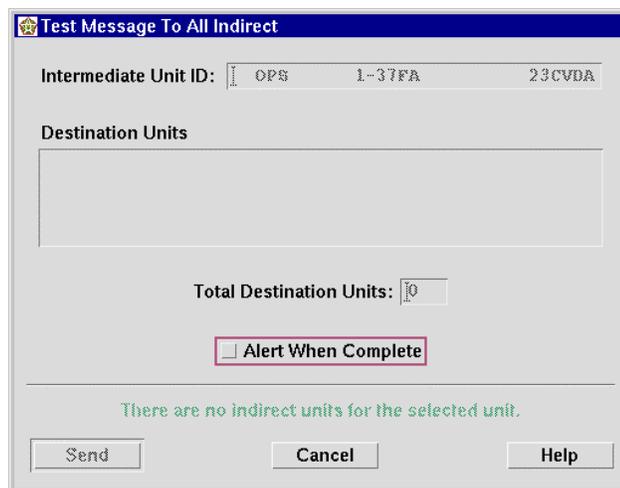
Step	Action	Response
39.	To perform other functions of Communication Unit Configuration window, refer to note prior to step 1.	
40.	<u>Select Test Messages\All Direct Via Net...</u>	Test Message To All Direct window opens.
41.	<u>Select channel(s)</u> from Channel Tests radio buttons if balanced channels are used or <u>select Unit Connectivity Only</u> if testing for availability of unit(s) on any channel.	
42.	<u>Select Alert When Complete</u> if required.	
43.	<u>Select Send</u> .	Test Message To All Direct window closes.
44.	To perform other functions of Communication Unit Configuration window, refer to note prior to step 1.	

Unit Communications Configuration - CONT

Step	Action	Response
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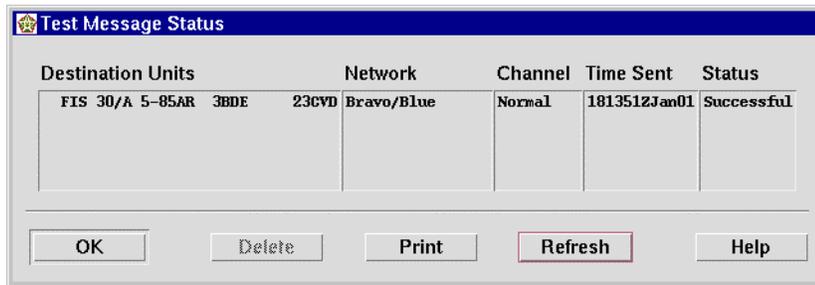


42. Select Test Messages\All Indirect Via Unit. Test Message To All Indirect window opens.



Unit Communications Configuration - CONT

Step	Action	Response
46.	<u>Select Alert When Complete</u> , if required.	
47.	<u>Select Send</u> .	Test Message To All Indirect window closes.
48.	To perform other functions of Communication Unit Configuration window, refer to note prior to step 1.	
49.	<u>Select View Test Status</u> .	Test Message Status window opens.



NOTE

Selecting **Refresh** at any time updates the display to show message status changes since window was opened. To get a hardcopy of window text, select **Print**. Selecting **OK** at any time closes the window.

To perform the following functions, proceed to the indicated steps.

Delete a status step 50

50.	<u>Select status line(s)</u> to be deleted.	
51.	<u>Select Delete</u> .	Status line removed from display.
52.	To perform other functions of Test Message Status window, refer to note prior to step 50.	

Unit Communications Configuration - CONT

Step	Action	Response
53.	<u>Select Destination Unit ID</u> to be activated.	
54.	<u>Select Options\Activate Primary, Secondary, or Tertiary.</u>	Selected route is activated.
55.	To perform other functions of Communication Unit Configuration window, refer to note prior to step 1.	
56.	<u>Select Destination Unit ID</u> to be deactivated.	
57.	<u>Select Options\Deactivate Routes.</u>	Selected route is deactivated.
58.	To perform other functions of Communication Unit Configuration window, refer to note prior to step 1.	
59.	<u>Select Options\Proxy\Edit</u> or <u>Select Options\Proxy\New.</u>	Edit Proxy window opens. New Proxy window opens.
60.	<u>Select Network:</u> (required).	
61.	<u>Enter Local Proxy Address:</u> (required).	
62.	<u>Select OK.</u>	Edit or New Proxy window closes.
63.	To perform other functions of Communication Unit Configuration window, refer to note prior to step 1.	

SECTION 2

JMCIS INTERFACE

2-2 JMCIS INTERFACE.

The Joint Maritime Command Information System/Intelligent Operational System (JMCIS/IOS) interface is used to support the exchange of unit and geometry information between AFATDS and JMCIS. This interface is used at the AFATDS workstation that has a LAN connection to the JMCIS/IOS.

JMCIS is the primary command, control, communications, computer, and intelligence (C4I) system for the U. S. Navy. JMCIS receives, processes, displays, maintains, and assesses the unit characteristics, employment scheduling, materiel condition, combat readiness, war-fighting capabilities, position information, and disposition of own and Allied forces, and allows decision makers to optimize the allocation of resources.

2-3 JMCIS INTERFACE WINDOW.

The **Situations\JMCIS Interface...** selection opens the **JMCIS Interface** window (Figure 2.15) allowing the operator to establish the directional flow of unit data for each unit category. The operator selects check boxes for each category to allow data to be automatically distributed to and from JMCIS. For example, if both check boxes are selected for **All Allied** units, any unit data for an Allied unit received at JMCIS or AFATDS would be processed via the interface both to and from JMCIS.

The **Internet Address:** field is used to enter the IP Address of the interfacing unit. The **Interface Unit ID:** field is used to select the JMCIS/IOS unit that the AFATDS OPFAC communicates data to and from. **Interface:** radio buttons allow the interface to be enabled or disabled.

The **Received Geometries Printout Options** radio buttons allow the operator to select printing criteria for received JMCIS geometries. The selections include **None** (no printouts), **General Only** (general lines, points, and areas), and **All**.

The screenshot shows the 'JMCIS Interface' window. It is divided into three main sections: 'Unit Exchange', 'Comm State', and 'Received Geometries Printout Options'. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

Unit Category	Direction
All Allied	<input checked="" type="checkbox"/> From JMCIS <input checked="" type="checkbox"/> To JMCIS
All Enemy	<input checked="" type="checkbox"/> From JMCIS <input checked="" type="checkbox"/> To JMCIS
All Neutral	<input checked="" type="checkbox"/> From JMCIS <input checked="" type="checkbox"/> To JMCIS
USMC	<input checked="" type="checkbox"/> From JMCIS <input checked="" type="checkbox"/> To JMCIS
USAF	<input checked="" type="checkbox"/> From JMCIS <input checked="" type="checkbox"/> To JMCIS
USCG	<input checked="" type="checkbox"/> From JMCIS <input checked="" type="checkbox"/> To JMCIS
USA	<input type="checkbox"/> From JMCIS <input checked="" type="checkbox"/> To JMCIS
USN	<input checked="" type="checkbox"/> From JMCIS <input type="checkbox"/> To JMCIS

Comm State
Interface: Disable Enable
Interface Unit ID:

Received Geometries Printout Options
 None
 General Only
 All

Figure 2.15 JMCIS Interface Window

SECTION 3 COMMUNICATIONS TROUBLESHOOTING

Problem	Action
<p>Cannot Select a New Current configuration.</p> <p>Error message: Cannot activate configuration because it contains this unit.</p> <p>Error message: Please turn off all networks before changing communications configuration.</p>	<p>Close Current Configuration window. Edit Planned Configuration to remove host unit from Destination Units list.</p> <p>Select any Enabled networks and Control\Off.</p>
<p>Cannot enable network.</p> <p>Error message: Cannot turn network on because it is not assigned to a channel.</p> <p>Error message: Not all networks could be changed to the requested status.</p>	<p>A network(s) is not assigned to a channel. Select Networks\Assign Channel(s) and verify that the networks are assigned to channels. You can only enable networks which have been assigned channels</p> <p>Channels with no destination unit will not be enabled.</p>

Problem	Action
Channels not available for network assignment.	<p>1) The TCIM (if a TCIM net) is not powered on or not functioning properly.</p> <ul style="list-style-type: none"> a. Open the Unit Configuration window by selecting System\Configuration\Unit and view the status of the TCIM. b. Check TCIM for proper SCSI address. c. Verify that the TCIM power switch is ON. Check for a disconnected TCIM cable or lack of a TCIM SCSI terminator. If any hardware problems are found, power down all equipment including the TCIM(s) and fix it, then restart and try again. This may require swapping out the TCIM or SCSI cable for a known working one to troubleshoot the situation. <p>2) ON a CCU-2, the SP-TCIM/TACLINK 3000s are not available. Verify that you did not exit the AFATDS application and not reboot the computer.</p> <p>The LAN (if a LAN net) is not functioning properly. Verify that the external LAN (with the Thin MAU box) is connected and terminated properly. If it is not terminated correctly, turn off affected machines, terminate and restart. The computer will permanently turn off the LAN if it is not terminated properly when started up. This may require swapping in a known good LAN cable or Thin MAU box out for troubleshooting.</p> <p>3) The LAN Card is defective. Open the Unit Configuration window and look at the LAN Card ID. If it is 00000000, the LAN Card is bad. Replace the UCU/CCU.</p>

Problem	Action
Test Message does not succeed.	<ol style="list-style-type: none">1) Destination unit is not fully operational. Ensure that the destination unit is operational and has current networks turned on. 2) Ensure that addresses match completely between you and the destination unit as well as observer numbers, unit numbers, TACFIRE aliases, etc. where applicable. 3) Serialization was incorrect. If the test message was to a TACFIRE device type (BCS, IFSAS, etc.) the first test message may fail if the serial number does not match what the device expected. Try another test message (AFATDS will automatically synchronize serial numbers when it gets the first failed transmission). 4) There are physical problems with the network.<ol style="list-style-type: none">a. A wireline net could have shorted or disconnected wires. b. a radio net might be on the wrong frequencies or have the wrong hop sets entered or selected; verify all freq.'s/hop settings and do voice check. c. the LAN may not be terminated properly; check all LAN connections and terminate properly. d. You could be experiencing radio interference or jamming; attempt to establish using voice. e. you may be outside electronic line of sight of the destination; attempt to relay. f. you may have grounding problems; ensure all equipment, including UPS, is grounded.

Problem	Action
Test Message succeeds but other messages do not.	<ol style="list-style-type: none">1) Unit is a non-AFATDS device and is not in Current. For non-AFATDS devices, the unit must be entered into the Current situation in order to be able to talk to it. This is because the Datum for the unit must be known in order to talk to it.2) Alias is not set up correctly. If trying to communicate with TACFIRE or other device, ensure that the appropriate alias is entered correctly in the Master Unit List.3) Software Failure. There may have been a software error. May require restarting of workstation or OPFAC.

CHAPTER 3 DATABASE

SECTION 1 MAP MANAGEMENT OPERATIONS

3-1 MAP MENU.

The Map Menu contains selections used by the user to manage the map display. Functions allow for the registration, sizing, and positioning of the map. The user also controls the display of symbols and extracts map information using the Map Menu selections.



3-2 DISPLAY MAP PROCEDURE.

When a plan is open, a map with grids is displayed but with no symbols. The **Map\Display Map** selection displays the map in accordance with assigned map setup settings. Selecting **Map\Hide Map** will remove the map from the display.

Display Map Procedure

Step	Action	Response
1.	Select Map\Display Map .	Map is displayed.

3-3 HIDE MAP PROCEDURE.

The **Map\Hide Map** selection causes a displayed map to be removed from the display. The associated Current or Planning window remains displayed. Selecting **Map\Display Map** will return the map to the display.

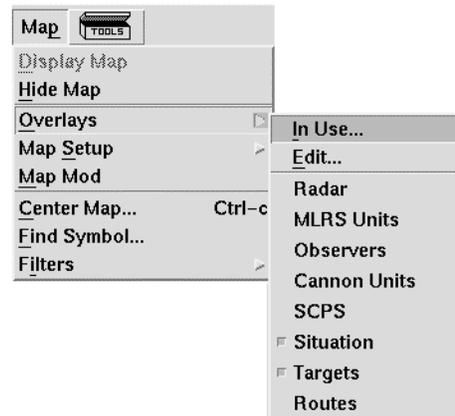
Hide Map Procedure

Step	Action	Response
1.	Select Map\Hide Map .	Map is hidden.

3-4 MAP SETUP AND OVERLAYS.

The **Map\Overlays** and **Map\Map Setup...** selections allow the user to create, edit, and control the display of map symbol overlays. An overlay consists of selected symbols to be displayed when the overlay is turned on. A maximum of eight overlays may be displayed on any map.

The user chooses the symbols for an overlay from nine (9) categories. Four of these categories require additional criteria to be inputted. These categories are **Targets**, **Friendly Units**, **Enemy Units**, and **Geometries**. Each of these categories allows the user to further define the symbols contained on the overlay. For example, the Friendly Units symbol types are divided into sub-types of Unit Type, Echelon, and Planned Situations. The user may select one (1), multiple, or all of the items from each sub-category.



The other selections include **Enemy Firing Vectors**, **Friendly Firing Vectors**, **Route Segments & Obstructions**, **SCP's**, and **Target Indicators**. An overlay may contain selections from any or all of these categories.

Map Setups allow quick access to pre-determined map displays. Map setups are created and edited at an OPFAC and are not required to be associated with a situation (Current or Planning). A map setup consists of a maximum of eight (8) user selected overlays.

3-4.1 Map Setup and Overlay Windows Navigation.

Map\Map Setup...\Edit... opens the **Select Map Setup** window. This window displays all of the **Map Setups** available at the OPFAC. The user selects a setup and **EDIT** to display the selected setup. The **Select Map Setup** window is also accessed from the **Basic Plan Information** window to select a setup to be used for a plan under construction. The **Options** window menu on the **Select Map Setup** window allows access to the **Map Setup** window for the editing and/or creation of map setups. The **Options\Copy From** selection opens the **Select Plan and Phase** window. This selection is used to copy a map setup from a planned situation.

The **Map Setup** window displays the information, including selected overlays, for the displayed setup when accessed via the **Map\Map Setup...\In Use** selection. This window can also be accessed from the pop-up selection **Map Setup\New...** selection on the **Basic Plan Information** window to create a map setup in the planning situation.

Map\Overlays\Edit... opens the **Select Overlay** window. This window displays all of the **Overlays** available at the OPFAC. This window is also opened in the select mode via the **Add...** function on both the **Map Setup** and **Overlay Settings** windows. The **Options** window menu on the **Select Overlay** window allows access to the **Overlay** window for the editing and/or creation of overlays.

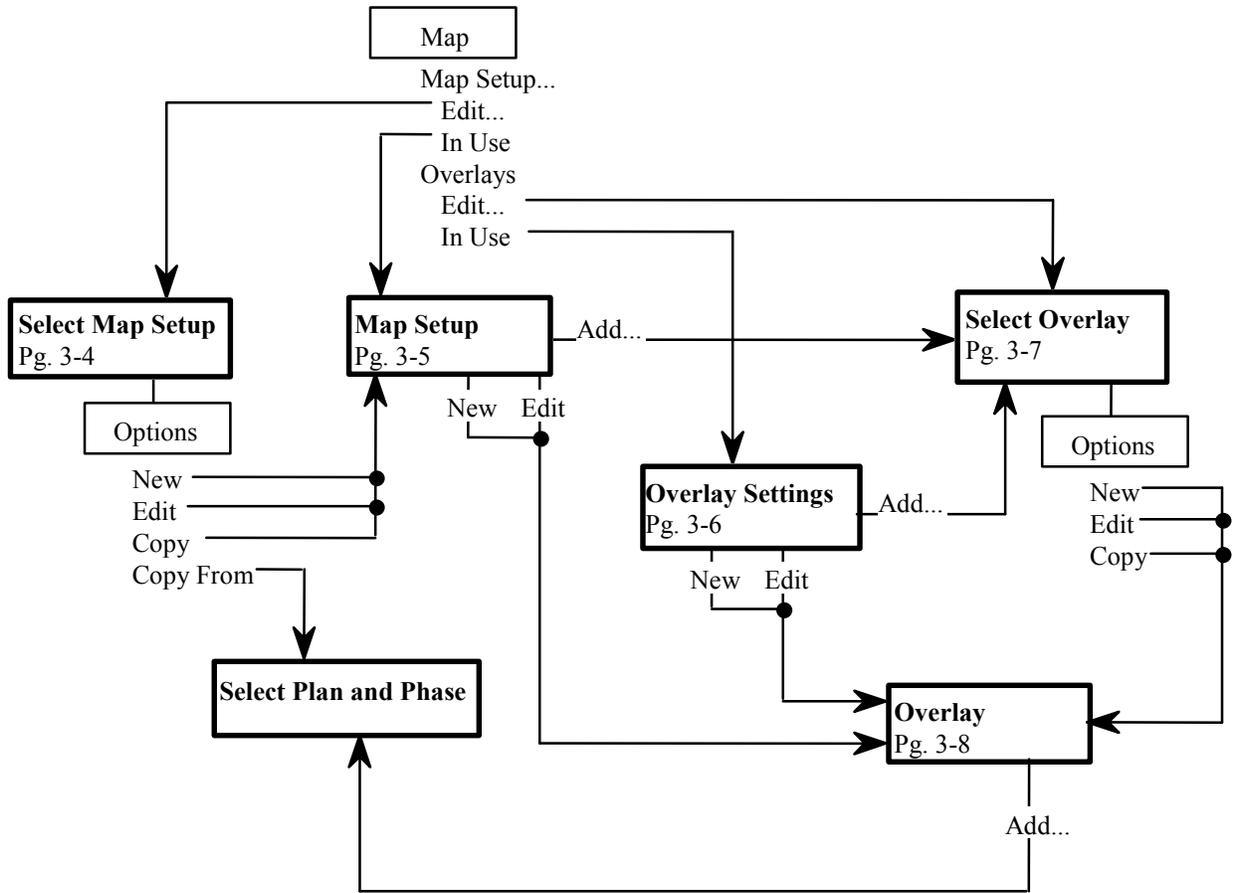


Figure 3.1 Map Setup Navigation

The **Map\Overlays\In Use** selection accesses the **Overlay Settings** window. This window initially lists the overlays assigned to the in use map setup. The maximum number of overlays is eight. The overlays listed here are also listed as menu selections under **Map\Overlays**.

The **Overlay** window is used to construct and/or edit overlays. This window is accessed from the **Map Setup**, **Overlay Settings**, and **Select Overlay** windows. The **Add...** button opens the **Select Plan and Phase** window to allow the user to select a planned situation for display of overlay data.

3-4.2 Select Map Setup Window.

The **Map\Map Setup...\Edit...** selection opens the **Select Map Setup** window. This window is used to select a map setup for display. Selecting a setup from the **Map Setups** list and **EDIT** to display the selected setup. The **Options** menu contains selections to create and edit map setups.

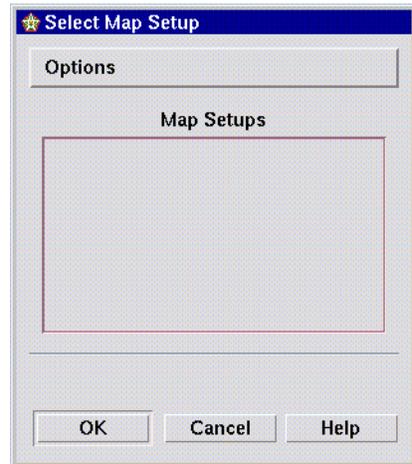
The **Select Map Setup** window lists the established **Map Setups** at the OPFAC level which can later be used when creating a plan.

Selecting a listed setup and **Options\Edit** opens the **Map Setup** window in the edit mode. In this mode overlays for the selected setup are added, removed, edited, and/or created.

Selecting **Options\New** or a listed **Map Setup** and **Options\Copy** opens the **Map Setup** window in the create mode. A name is entered and data is entered/edited as required for the new setup.

Maps created in a planning situation are copied into the **Map Setups** list using the **Options\Copy From** menu selection. This selection opens the **Select Plan and Phase** window in the select mode. Selecting a plan and phase and closing the **Select Plan and Phase** window adds the map setup from the plan and phase to the setup listing.

The **Select Map Setup** window is also used to select a map setup for a planning situation. The **Map Setup\Select...** selection from the **Basic Plan Information** window opens the **Select Map Setup** window in the select mode. Selecting a setup and **OK** closes the window and copies the setup into the plan. All **Options** functions of the **Select Map Setup** window are disabled when this procedure is used.



3-4.3 Map Setup Window.

The **Map Setup** window is used to enter and/or edit the information for a map setup. This information consists of the **Setup Name:**, **Map Center:**, **Map Scale:**, and selected **Overlays**. Up to a maximum of eight (8) overlays may be entered for a map setup. The overlays listed on the window are also displayed as menu selections under **Map\Overlays**.

Map setups are created by entering new information or by editing information from an existing setup. Selecting **Options\New** from the **Select Map Setup** opens a blank **Map Setup** window. The user then enters the information for the new setup. Selecting an established map setup and **Options\Copy** from the **Select Map Setup** opens the **Map Setup** window containing the information, except the name, of the selected setup. The user then enters the name and edits the information to create a new setup. Selecting an established map setup and **Options>Edit** from the **Select Map Setup** window opens the **Map Setup** window allowing the user to change the information, except **Setup Name:**, for the setup.

The **Map\Map Setup...In Use** selection opens the **Map Setup** window in the Edit mode. Changes take effect when the map is re-displayed.

The **Plan:** and **Phase:** fields display the appropriate planning information. These fields are not editable. They will be blank in the current situation.

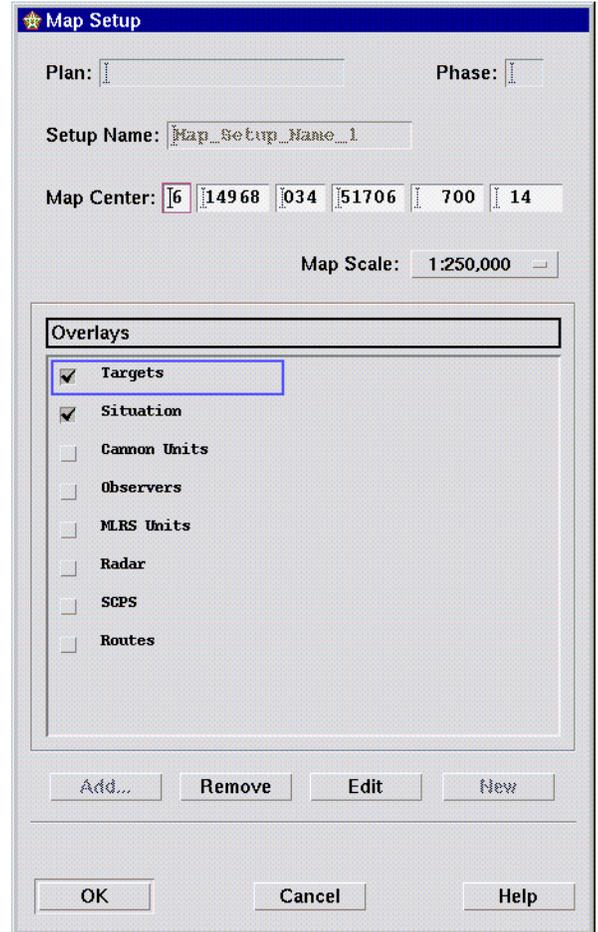
The **Map Center:** field contains the standard location input and is required.

The **Map Scale:** field contains the selections for the map scale associated with the map setup. Selections range from **1:5,000** to **1:1,000,000**. This is a required selection.

The **Overlays** field lists the overlays associated with the map setup. A check box adjacent to each overlay indicates if an overlay is turned on (displayed) when the map is displayed. The state of the overlay (on or off) is also indicated on the **Map\Overlay** menu selection. Changing the state via the menu is temporary and does not change the state of the overlay on the window.

The **Add...** button is only enabled if the **Overlays** list contains less than eight (8) overlays. This button opens the **Select Overlay** window in the Select mode. Selecting an overlay and **OK** on the **Select Overlay** window closes the window and adds the overlay to the list.

The **Remove** button is enabled when a listed overlay is selected. Selecting **Remove** will remove the selected overlay from the list. The overlay is not removed (deleted) from the database, only from the map setup.



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The **Edit** button is enabled when a listed overlay is selected. Selecting **Edit** opens the **Overlay** window containing the information of the selected overlay.

The **New** button is only enabled if the **Overlays** list contains less than eight (8) overlays. This button opens the **Overlay** window in the Create mode.

The **OK** button saves any changes to the database and closes the **Map Setup** window.

The **Cancel** button closes the **Map Setup** window without saving any changes to the Map Setup.

3-4.4 Overlay Settings Window.

The **Overlay Settings** window controls the overlays that are available from the **Map\Overlays** menu selection. When initially opened, this window lists the overlays of the in-use map setup. Overlays may be added to or removed from this list without changing the overlays associated with the map setup. The user may also chose to edit the plan's map setup by selecting **Apply to Map Setup**.

The **Plan:** and **Phase:** fields display the appropriate planning information. These fields are not editable. They will be blank in the current situation.

The **Overlays** field lists the overlays selected. A check box next to each overlay indicates if an overlay is turned on (displayed) when the map setup is selected. The state of the overlay (on or off) is also indicated on the **Map\Overlays** menu selection. Changing the state via the menu is temporary and does not change the state of the overlay on the window.

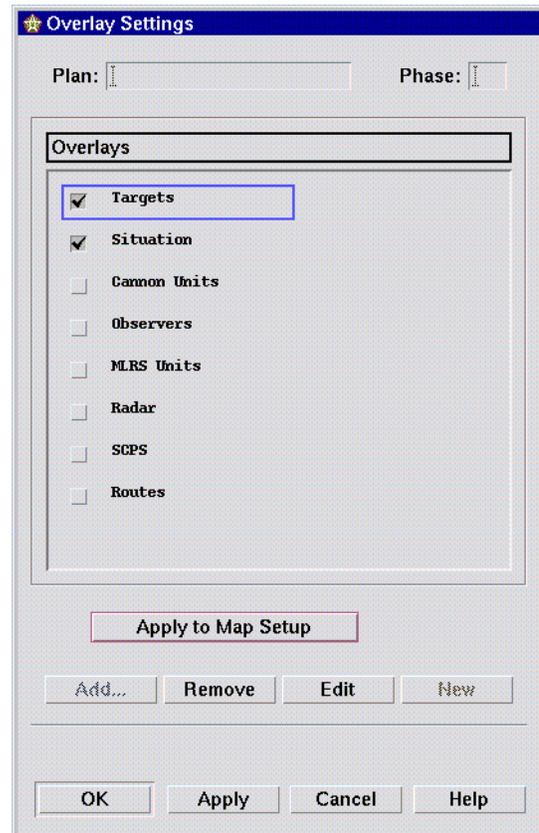
The **Add...** button is only enabled if the **Overlays** list contains less than eight (8) overlays. This button opens the **Select Overlay** window in the Select mode. Selecting an overlay and **OK** on the **Select Overlay** window closes the widow and adds the overlay to the list.

The **Remove** button is enabled when a listed overlay is selected. Selecting **Remove** will remove the selected overlay from the list. The overlay is not removed (deleted) from the database, only the map setup.

The **Edit** button is enabled when a listed overlay is selected. Selecting **Edit** opens the **Overlay** window containing the information of the selected overlay.

The **New** button is only enabled if the **Overlays** list contains less than eight (8) overlays. This button opens the **Overlay** window in the create mode.

The **OK** button saves any changes to the database, refreshes the map display, and closes the **Overlay Settings** window.



The **Apply** button refreshes the map display to reflect any changes to the states (on or off) of the overlays and on overlay category selections.

The **Cancel** button closes the **Overlay Settings** window without applying any changes to the map.

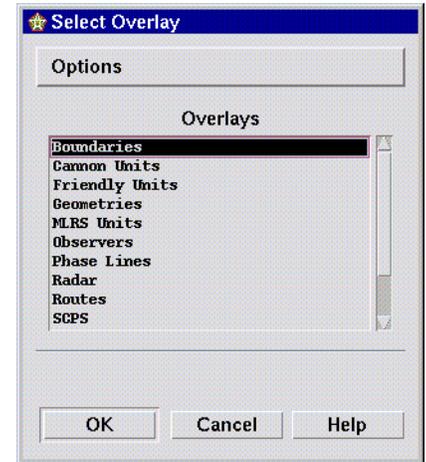
The **Apply to Map Setup** button updates the **Map Setup** window information.

3-4.5 Select Overlay Window.

The **Select Overlay** window lists the overlays available at the OPFAC. The **Map\Overlays>Edit...** selection opens the **Select Overlay** window. This window is also accessed in the select mode from the **Map Setup** and **Overlay Settings** windows via the **Add...** function.

When accessed from the **Map** menu, the **Options** window menu is enabled. The **Options** window menu contains selections to create and edit overlays. Selecting a listed overlay and **Options>Edit** opens the **Overlay** window in the edit mode. In this mode overlays may be edited and/or created.

Selecting **Options\New** or a listed overlay and **Options\Copy** opens the **Overlay** window in the create mode. A name is entered and data is entered/edited as required for the new overlay.



The **Select Overlay** window is also used to select an overlay to be added to a **Map Setup** or **Overlay Settings** window list. Selecting **Add...** from either of these windows opens the **Select Overlay** window in the select mode. Selecting an overlay and **OK** closes the window and adds the overlay to the appropriate list. All **Options** functions of the **Select Overlay** window are disabled when this procedure is used.

3-4.6 Overlay Window.

The **Overlay** window (Figure 3.2) establishes criteria that determines symbols to be displayed on an overlay. This window also allows the user to assign to the overlay the phases of planned situations, the situation presently being viewed on the map, and the current situation. The **Name:** field can be edited and is required in the create mode. In the edit mode this field is read only.

Symbols (except friendly firing vectors, enemy firing vectors, route segments and obstructions, target indicators, and SCP's) are selected by categories and sub-categories from displayed listings. The user selects a symbol category using the radio button for **Targets**, **Friendly Units**, **Enemy Units**, or **Geometries**. After a selection of a category, sub-category fields display appropriate titles and selections. These selections are used to further define symbols of the overlay. Titles of sub-category lists are shown in the following table. Specific target numbers can also be selected by entering the numbers in up to two (2) blocks of numbers. Friendly firing vectors, enemy firing vectors, route segments, target indicators, and SCP's are selected for display using Check boxes.

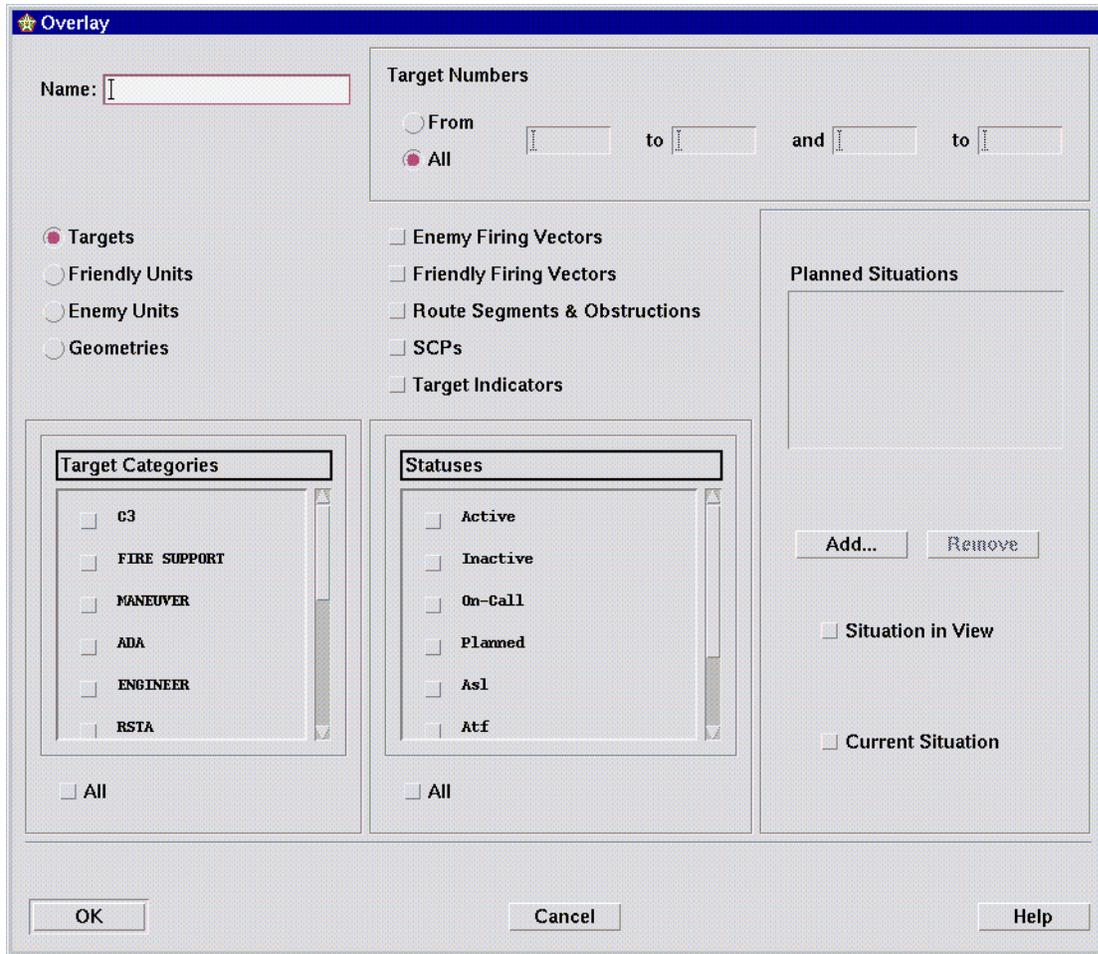


Figure 3.2 Overlay Window

Category	Sub-category		
	Left list	Center list	Right list
Targets	Target Categories	Statuses	Situations
Friendly Units	Unit Types	Echelons	Situations
Enemy Units	Target Categories	-	Situations
Geometries	Categories	Forces	Situations

The overlay is assigned plan phases by adding appropriate phases to the **Planned Situations** list. **Add...** opens the **Select Plan and Phase** window in the Select mode. A phase is removed from the list by selecting the phase and the **Remove** button. The user may assign to the overlay to the phase presently being viewed on the display by selecting the **Situation in View** check box. The overlay is assigned the current (tactical situation) by selecting the **Current Situation** check box.

NOTE

Selecting multiple situations and/or target statuses for display on an overlay may cause confusion when selecting symbols from the map due to hidden symbols. For example, if all target statuses are selected for an overlay, a target symbol will appear at the target location for each target list containing the target. When the symbol is selected, the **Select Symbols** window opens listing the target number once for each target list entry. The operator will not be able to distinguish the individual targets in the list. Symbols associated with a situation (e.g., targets, unit symbols, and geometries) can be hidden in the same manner if multiple situations are selected for an overlay. Route segments, routes, target indicators, and SCP's are not associated with a situation.

3-4.7 Create Overlays Procedure.

Create Overlays Procedure		
Step	Action	Response
1.	<u>Ensure Map\Display Map is selected.</u>	

NOTE

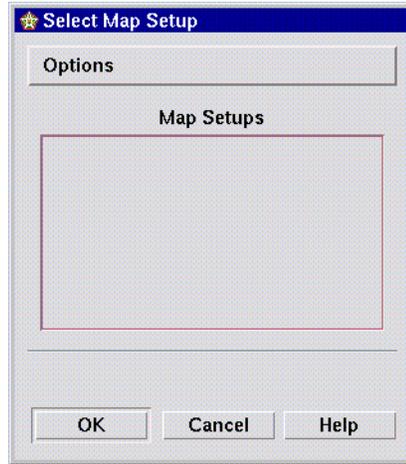
To perform following functions, proceed to indicated steps.

- Select, create, edit (other than in use setup)
- Copy map setup step 2
- View/edit in-use map setup step 15
- View/Edit overlay settings step 30
- Create, delete, edit, or copy overlay step 41

2.	<u>Select Map\Map Setup...\Edit...</u>	Select Map Setup window opens.
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Create Overlays Procedure - CONT

Step	Action	Response
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NOTE

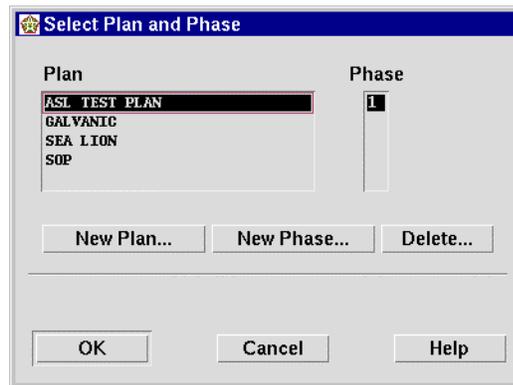
To perform following functions of **Select Map Setup** window, proceed to indicated steps.

- Select and display in-use map setup step 3
- Create a new map setup step 6
- Copy a map setup step 7
- Edit a map setup step 9
- Copy from a plan and phase step 11
- Delete map setup step 15

3. <u>Select map setup</u> from list.	
4. <u>Select OK</u> .	Select Map Setup window closes.
5. To perform other functions of Select Map Setup window, perform step 2 and refer to note prior to step 3.	
6. <u>Select Options\New</u> . Proceed to step 16.	Map Setup window opens.
7. <u>Select map setup</u> to be copied.	
8. <u>Select Options\Copy</u> . Proceed to step 16.	Map Setup window opens.

Create Overlays Procedure - CONT

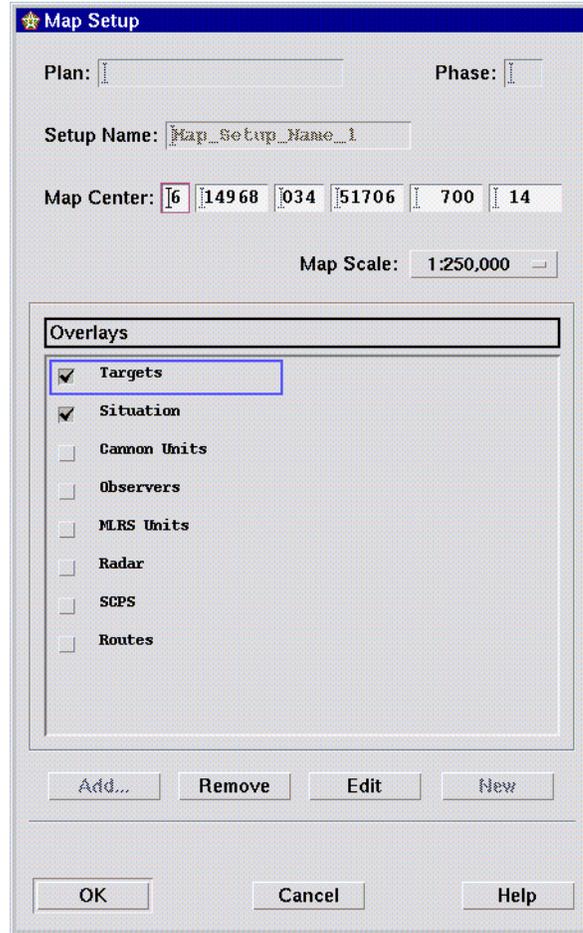
Step	Action	Response
9.	<u>Select map setup</u> to be edited.	
10.	<u>Select Options\Edit</u> . Proceed to step 17.	Map Setup window opens.
11.	<u>Select Options\Copy From</u> .	Select Plan and Phase window opens in Select mode.



12.	<u>Select Plan and Phase</u> from lists.	
13.	<u>Select OK</u> .	Select Plan and Phase window closes. Map Setup becomes active window.
14.	To perform other functions of Select Map Setup window, refer to note prior to step 3.	
15.	<u>Select Map Setup to be deleted</u> .	
16.	<u>Select Options\Delete</u> .	Confirm Delete window opens.
17.	<u>Select Delete</u> .	Confirm Delete window closes. The selected Map Setup is removed from the list. Select Map Setup becomes the active window.
18.	To perform other functions of Select Map Setup window, refer to note prior to step 3.	
19.	<u>Select Map\Map Setup...\In Use</u> . Proceed to step 17.	Map setup window opens in edit mode allowing changes except Setup Name .

Create Overlays Procedure - CONT

Step	Action	Response
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NOTE

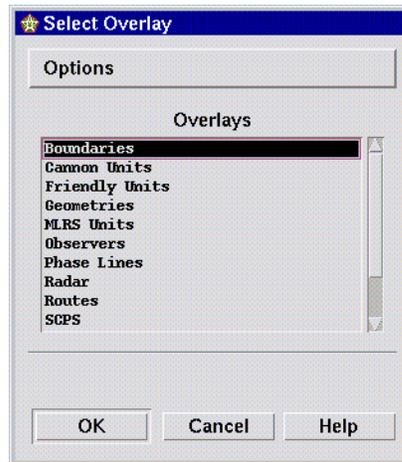
To perform following functions of **Map Setup** window, proceed to indicated steps.

- Add an overlay step 24
- Remove an overlay step 28
- Edit an overlay step 31
- Create a new overlay step 33

20. | Enter **Setup Name:** (1-20 alphanumeric or special characters). |

Create Overlays Procedure - CONT

Step	Action	Response
21.	<u>Enter Map Center:</u> (standard location coordinates).	
22.	<u>Select Map Scale:</u> .	
23.	To perform other functions of Map Setup window, refer to note prior to step 20.	
24.	<u>Select Add...</u> .	Select Overlay window opens in Select mode.



25.	<u>Select Overlay</u> to be added.	
26.	<u>Select OK.</u>	Select Overlay window closes. Map Setup becomes active window.
27.	To perform other functions of Map Setup window, refer to note prior to step 20.	
28.	<u>Select Overlay</u> to be removed.	
29.	<u>Select Remove.</u>	Selected overlay is removed from list.

Create Overlays Procedure - CONT

Step	Action	Response
30.	To perform other functions of Map Setup window, refer to note prior to step 20.	
31.	<u>Select overlay</u> to be edited.	
32.	<u>Select Edit</u> . Proceed to step 56.	Overlay window opens.
33.	<u>Select New</u> . Proceed to step 55.	Overlay window opens.
34.	<u>Select Map\Overlays\In Use</u> .	Overlay Settings window opens.



Create Overlays Procedure - CONT

Step	Action	Response
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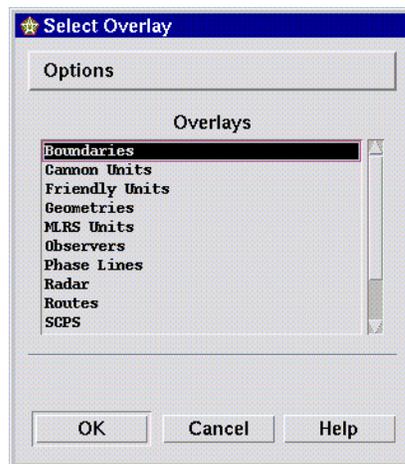
NOTE

To perform following functions of **Overlay Settings** window, proceed to indicated steps.

- Add an overlay step 35
- Remove an overlay step 39
- Edit an overlay step 42
- Create a new overlay step 44

35. Select **Add...**

Select Overlay window opens in Select mode.



36. Select **Overlay** to be added.

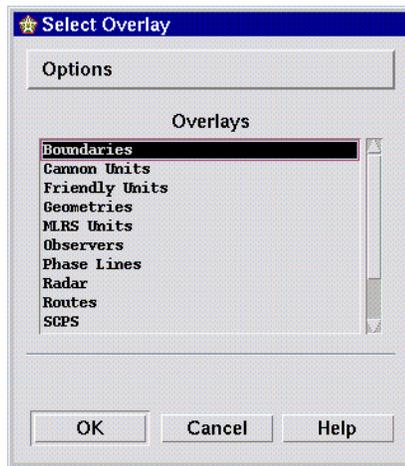
37. Select **OK**.

Select Overlay window closes. **Overlay Settings** becomes active window.

38. To perform other functions of **Overlay Settings** window, refer to note prior to step 35.

Create Overlays Procedure - CONT

Step	Action	Response
39.	<u>Select Overlay</u> to be removed.	
40.	<u>Select Remove</u> .	Selected overlay is removed from list.
41.	To perform other functions of Map Setup window, refer to note prior to step 35.	
42.	<u>Select overlay</u> to be edited.	
43.	<u>Select Edit</u> . Proceed to step 56.	Overlay window opens.
44.	<u>Select New</u> . Proceed to step 55.	Overlay window opens.
45.	<u>Select Map\Overlays>Edit...</u>	Select Overlay window opens.



NOTE

To perform following functions of **Select Overlay** window, proceed to indicated steps.

- Delete an overlay step 46
- Create New overlay..... step 50
- Copy overlay step 51
- Edit overlay step 53

Create Overlays Procedure - CONT

Step	Action	Response
46.	<u>Select overlay</u> to be deleted.	
47.	<u>Select Options\Delete</u> .	Confirm Delete window opens.
48.	<u>Select Delete</u> .	Confirm Delete window closes. Selected overlay is removed from list.
49.	To perform other functions of Select Overlay window, refer to note prior to step 35.	
50.	<u>Select Options\New</u> . Proceed to step 55.	Overlay window opens.
51.	<u>Select overlay</u> to be copied.	
52.	<u>Select Options\Copy</u> . Proceed to step 55.	Overlay window opens.
53.	<u>Select overlay</u> to be edited.	
54.	<u>Select Options>Edit</u> . Proceed to note prior to step 55.	Overlay window opens.

Create Overlays Procedure - CONT

Step	Action	Response
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NOTE

To perform following functions of **Overlay** window, proceed to indicated steps.

- Select targets for overlay step 58
- Select friendly units for overlay step 62
- Select enemy units for overlay step 65
- Select geometries for overlay step 67

Create Overlays Procedure - CONT

Step	Action	Response
55.	<u>Enter Name</u> for overlay (1-20 alphanumeric characters).	
56.	<u>Select Enemy Firing Vectors, Friendly Firing Vectors, Route Segments & Obstructions, Target Indicators,</u> and/or <u>SCPs</u> for display, as required.	
57.	To perform other functions of Overlay window, refer to note prior to step 55.	
58.	<u>Select Targets</u> radio button.	List titles reflect Target Categories, Statuses, and Planned Situations.
59.	<u>Select Target Numbers From</u> if applicable and <u>enter target numbers</u> (default is All).	
60.	<u>Select Target Categories</u> to be displayed or <u>All</u> .	
61.	<u>Select Statuses</u> of targets to be displayed or <u>All</u> . Proceed to note prior to step 70.	
62.	<u>Select Friendly Units</u> radio button.	List titles reflect Unit Types, Echelons, and Planned Situations.
63.	<u>Select Unit Types</u> to be displayed or <u>All</u> .	
64.	<u>Select Echelons</u> of units to be displayed or <u>All</u> . Proceed to note prior to step 70.	
65.	<u>Select Enemy Units</u> radio button.	List titles reflect Target Categories and Planned Situations. Center list not used.
66.	<u>Select Target Categories</u> to be displayed or <u>All</u> . Proceed to note prior to step 70.	
67.	<u>Select Geometries</u> radio button.	List titles reflect Categories, Forces, and Planned Situations.

Create Overlays Procedure - CONT

Step	Action	Response
68.	Select Categories to be displayed or ALL .	
69.	Select Forces of geometries to be displayed or All .	

NOTE

If phase associated with map being viewed should be used for the overlay, select **Situation In View** check box.

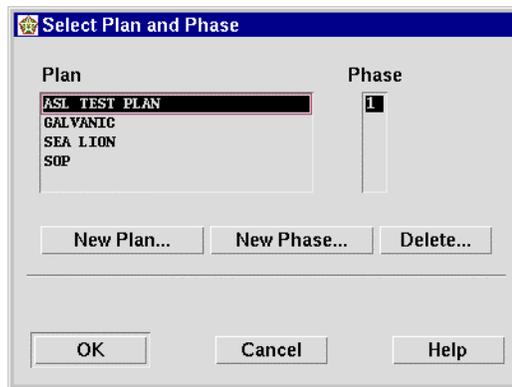
If current situation should be used for the overlay, select **Current Situation** check box.

To perform following functions of **Overlay** window, proceed to indicated steps.

Add a Plan and Phase step 70

Remove a Plan and Phase step 74

70.	Select Add...	Select Plan and Phase window opens in Select mode.
-----	----------------------	---



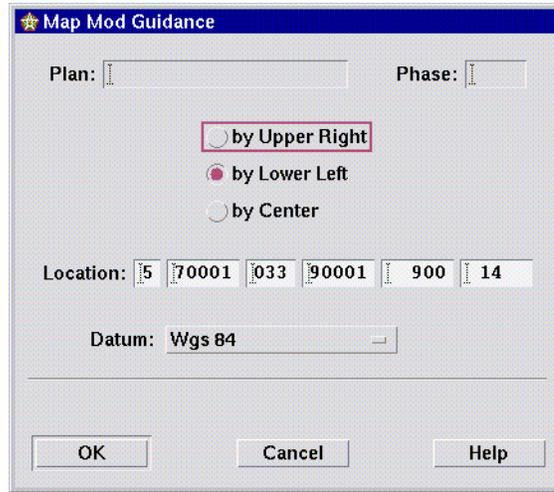
71.	Select Plan and Phase from lists.	
-----	---	--

Enter Map Mod Procedure - CONT

Step	Action	Response
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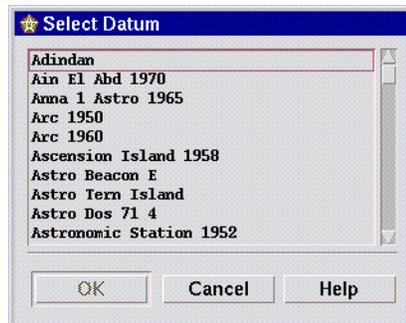
NOTE

Changing the datum will result in a high level alert.



2. Select desired map mod orientation radio button.
3. Enter Location:
4. Select Datum:

Select Datum window opens.



Enter Map Mod Procedure - CONT

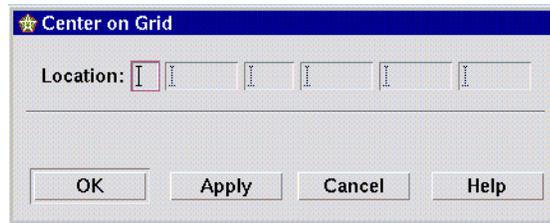
Step	Action	Response
5.	<u>Select Datum.</u>	
6.	<u>Select OK.</u>	Select Datum window closes.
7.	<u>Select OK to close window.</u>	Map Mod Guidance window closes.

3-6 **CENTER MAP ON LOCATION PROCEDURE.**

The **Map\Center Map...** selection opens the **Center on Grid** window. The **Center Map...** function allows the user to enter map coordinates manually and center the map display on these coordinates. This window when opened will contain the coordinates of the center of the map as currently displayed. The window contains an **Apply** selection that allows the user to implement this function without closing the window.

Center Map On Location Procedure

Step	Action	Response
1.	<u>Select Map\Center Map....</u>	Center on Grid window opens.



2.	<u>Enter Location:.</u>	
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NOTE

If continuous use of this window is desired, user may elect to leave this window open and reposition it on the display. **Apply** will implement selections without closing window.

Center Map On Location Procedure - CONT

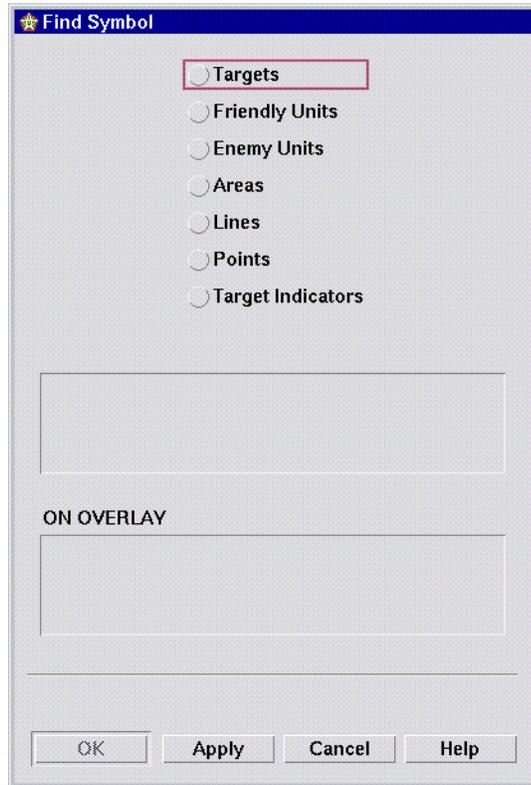
Step	Action	Response
3.	<p><u>Select OK.</u></p> <p>or</p> <p><u>Select Apply to <u>center map</u> on entered coordinates and leave <u>window open</u>.</u></p>	<p>Map is centered on entered coordinates, and Center on Grid window closes.</p> <p>Map is centered on entered coordinates. Center on Grid window remains open.</p>

3-7 FIND SYMBOLS AND GEOMETRIES.

The **Map\Find Symbol...** selection opens the **Find Symbol** window. The **Find Symbol...** function allows the user to select a symbol or geometry from a listing and then locate that symbol on the map display. Selecting a symbol type displays the appropriate listing. List headings will change to reflect the radio button type selected. Selecting the symbol name displays the overlay(s) on which the symbol exists. Selecting the overlay name and **Apply** will center the map on the symbol. Selecting the overlay name and selecting **OK** will center the map on the symbol and close the **Find Symbol** window.

Find Procedure

Step	Action	Response
1.	<u>Select Map\Find Symbol...</u>	Find Symbol window opens.



NOTE

If the symbol selected is not on a currently displayed overlay, an overlay will be displayed as well as the selected symbol.

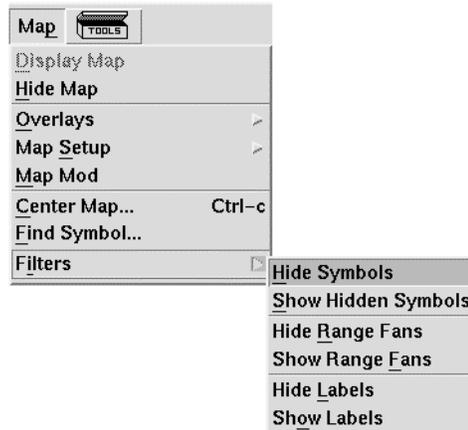
2.	<u>Select</u> symbol <u>type</u> using radio button.	Listing is displayed for selected symbol or geometry type.
3.	<u>Select ID and overlay</u> , of item to be found.	Selected items are highlighted in list.

Find Procedure - CONT

Step	Action	Response
NOTE		
<p>If continuous use of this window is desired, user may elect to leave this window open and reposition it on display. Apply will implement the find function without closing window.</p>		
4.	<p><u>Select OK</u> to find item and close window</p> <p style="text-align: center;">or</p> <p><u>Select Apply</u> to find item and leave window open.</p>	<p>Map centers on item and Find Symbol window closes.</p> <p>Map centers on item and Find Symbol window remains open.</p>

3-8 **FILTERS.**

The **Map\Filters** selections are used to control the display of Symbols, Range Fans, and Labels on the map display.



Hide Symbols. The **Map\Filters\Hide Symbols** selection causes selected symbols to be removed from the map display. Selecting **Map\Filters>Show Hidden Symbols** will return the symbols to the display.

Hide Symbols Procedure

Step	Action	Response
1.	<u>Select desired map symbol(s) to hide.</u>	
2.	<u>Select Map\Filters\Hide Symbols.</u>	Symbols are hidden.

Show Hidden Symbols. The **Map\Filters\Show Hidden Symbols** selection causes hidden symbols to be displayed on the map. Selecting **Map\Filters\Hide Symbols** will hide selected symbols.

Show Hidden Symbols Procedure

Step	Action	Response
1.	<u>Select Map\Filters\Show Hidden Symbols.</u>	All hidden symbols are displayed on map.

Hide Range Fans. The **Map\Filters\Hide Range Fans** selection causes range fans for selected unit(s) to be removed from the map display. Selecting **Map\Filters\Show Range Fans** will show range fans of selected units.

Hide Range Fans Procedure

Step	Action	Response
1.	<u>Select desired unit(s) for which range fans are to be hidden.</u>	
2.	<u>Select Map\Filters\Hide Range Fans.</u>	Range fans of selected units are hidden.

Show Range Fans. The **Map\Filters\Show Range Fans** selection causes range fans of selected units to be displayed on the map. Selecting **Map\Filters\Hide Range Fans** will hide range fans of selected units.

Show Range Fans Procedure

Step	Action	Response
1.	<u>Select Map\Filters>Show Range Fans.</u>	Range fans of selected units are displayed on map.

Hide Labels. The **Map\Filters\Hide Labels** selection causes labels of selected symbols to be removed from the map display. Selecting **Map\Filters>Show Labels** will return hidden labels to the display.

Hide Labels Procedure

Step	Action	Response
1.	<u>Select symbol(s) for which labels are to be hidden.</u>	
2.	<u>Select Map\Filters\Hide Labels.</u>	Labels of selected symbols are hidden.

Show Labels. The **Map\Filters>Show Labels** selection causes labels of selected symbols to be displayed on the map. Selecting **Map\Filters\Hide Labels** will hide labels of selected symbols.

Show Labels Procedure

Step	Action	Response
1.	<u>Select Map\Filters>Show Labels.</u>	Labels of selected symbols are displayed on map.

3-9 JMTK MAP WINDOW.

The Joint Mapping Tool Kit (JMTK) map window displays maps and symbols for the different situations in AFATDS. Maps can be constructed and maintained for the Current situation as well as planning functions. A tab is displayed for each situation. Selecting a tab changes the display and the Situation Menu to reflect the selected tab. The map window Menu and Tool Bars are used to maintain the display and characteristics of the map. The situation data is maintained via the Situation Menu. The Menu Icon contains all of the selections of the Menu and Tool Bars. This icon is opened using the right trackball button and can be positioned anywhere on the map display by dragging with the left-trackball button.

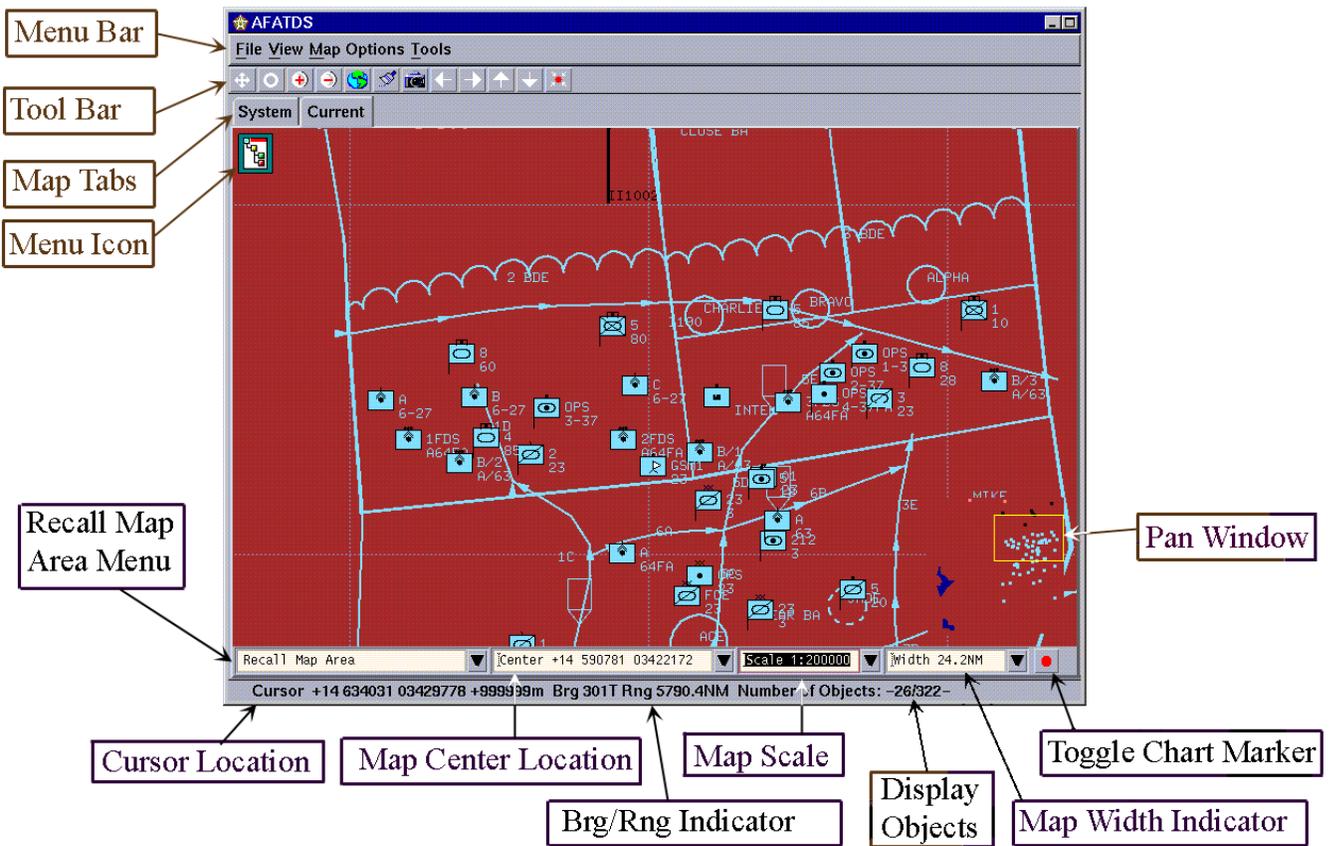


Figure 3.3 JMTK Map Window

The lower right of the map contains the PAN area and a PAN window. The PAN area contains a condensed display of the scrollable map area and symbols. This area increases and decreases as the map scale is changed. The PAN window encloses the area that is viewable on the map display at any one time. Moving the PAN window scrolls the viewable portion of the map.

The PAN window can be positioned in the PAN area using different methods. One method is to use the arrow keys on the tool bar or keyboard. The window will move in the direction indicated by the arrow. Another method is to left-click in the PAN area; The PAN window will center on the cursor. The PAN window can also be positioned by dragging with the left-trackball button.

The **Recall Map Area** menu lists all map views that were saved using the **File\Save Map Area** selection. Maps are saved and named and then listed on this menu for recall.

The Cursor Location field displays the current location of the cursor. This field is dynamic and updates as the cursor is moved. The format (UTM, Lat/Long, etc.) of the location is selected by and is the same as the Map Center Location format.

The Map Center Location displays the coordinates of the designated map center. The center location can be specified by the user and does not have to be the actual physical center of the map. The coordinates are displayed in the format selected from the associated menu.

The Brg/Rng Indicator displays the bearing and range from the Chart Marker to the cursor location. The range will be displayed in the same format (yards, meters, miles, etc.,) selected for the Map Width Indicator.

The Map Scale field displays the current scale setting of the map. The associated menu allows the user to scale in or out in multiples of 2, 3, or 4. The **Adjust Scale** selection changes the scale factor from a non-standard scale (e.g., 1:34678) to the closest standard scale (e.g., 1:50000). The **Whole World** selection adjusts the scale to view the world map. Changing the scale of a map also changes the map width.

The Display Objects field shows the number of objects displayed/number of objects available for display.

The Map Width Indicator field displays the width of the displayed map. The associated menu allows the user to scale in or out in multiples of 2, 3, or 4. The **Adjust Width** selection changes the width from a non-standard width (e.g., 17.86KM) to the closest standard width (e.g., 20KM). The **Whole World** selection adjusts the width to view the world map. Changing the width of a map also changes the map scale.

The Toggle Chart Marker icon toggles the display of the chart marker and Brg/Rng Indicator.

3-9.1 Tool Bar and Menu Selections.

The Tool Bar and Menu contain selections to manage the map data and display. All of the functions of the Tool Bar are also contained in the Menu.

3-9.1.1 Tool Bar.

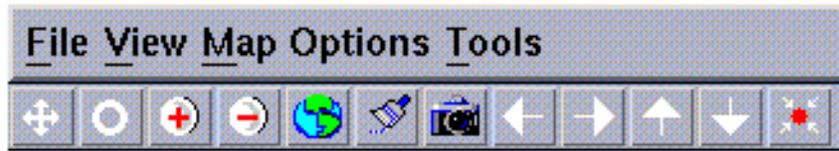


Figure 3.4 Map Tool Bar

The Zoom Cursor is used to select the PAN area of a map view. The icon is selected and the zoom cursor is placed at the position that is to be the center of the PAN area. Rotating the trackball with the left trackball switch depressed causes two boxes to be drawn on the map. The outer box is the PAN area and the inner box the PAN window. Releasing the trackball switch sets the size of the areas. 

The Re-center cursor is used to re-define the center of the map (PAN area). The icon is selected and the Re-center cursor is placed at the position that is to be the center of the PAN area. Left clicking sets the center position. 

The Scale In icon, when selected, changes the scale factor by a magnification of 2. As example, when selected at a scale of 1 : 250000, the factor will change to 1 : 125000. 

The Scale Out icon, when selected, changes the scale factor by a magnification of 1/2. As example, when selected at a scale of 1 : 125000, the factor will change to 1 : 250000. 

The World View icon, when selected, changes the ma scale to view the world map. 

The Refresh icon is used to re-draw the map display to eliminate any clutter that may appear. 

The Snapshot icon is used to copy a picture of the displayed map to a file. This selection opens the **Select or Enter Screen Snapshot Name** window. Entering a name and selecting **OK** closes the window and saves the data to a file. The snapshot is the viewed via the **File\View Saved Snapshots** menu selection. 



The Arrow icons are used to move the PAN window to display different areas of the map.



The Center Chart Marker icon is used to center the chart marker and map on the display.



3-9.2 File Menu.

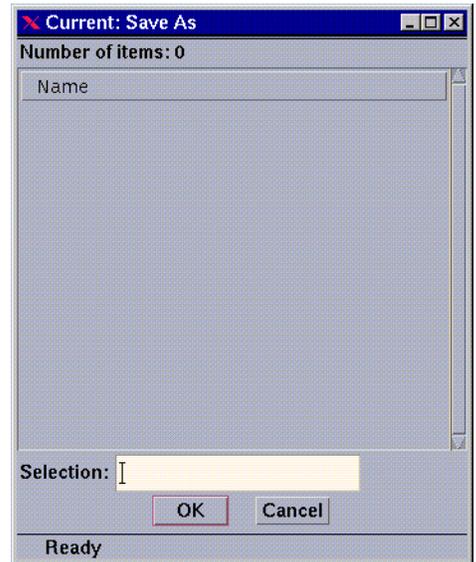


3-9.2.1 Save Session.

The **File\Save Session** selection is not used in AFATDS.

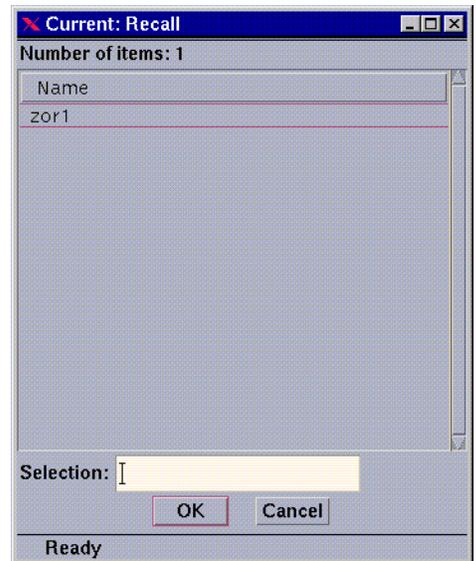
3-9.2.2 Save Map Area.

The **File\Save Map Area** selection is used to save the current view of the map for quick recall. The map center location and scale are saved to a file that is named by the user. This selection opens the **Save As** window. The user enters the name for the saved area in the **Selection:** field and selects **OK** to close the window and save the data.



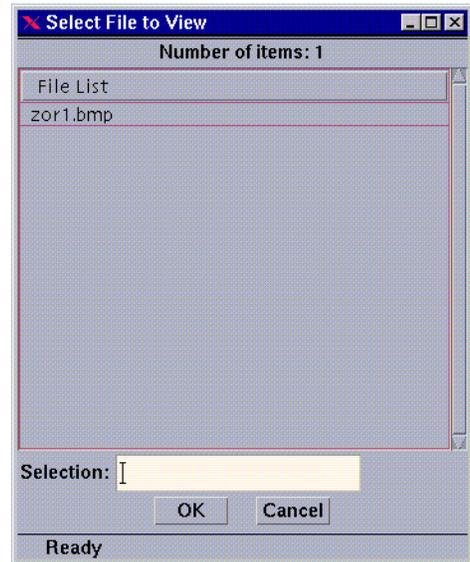
3-9.2.3 Recall Map Area.

The **File\Recall Map Area** selection opens the **Recall** window which is used to display saved map areas.



3-9.2.4 View Saved Snapshots.

The **FileView Saved Snapshots** selection is used to view snapshots that have been saved. This selection opens the **Select File to View** window which lists the saved files. Selecting a file and **OK** closes this window and displays the snapshot.

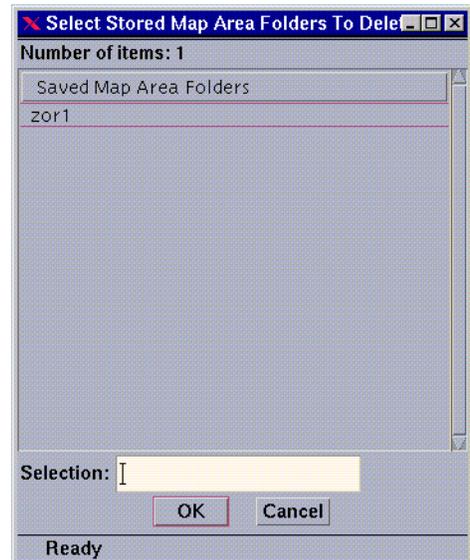


3-9.2.5 Delete Saved Windows.

The **FileDelete Saved Windows** selection is not used in AFATDS.

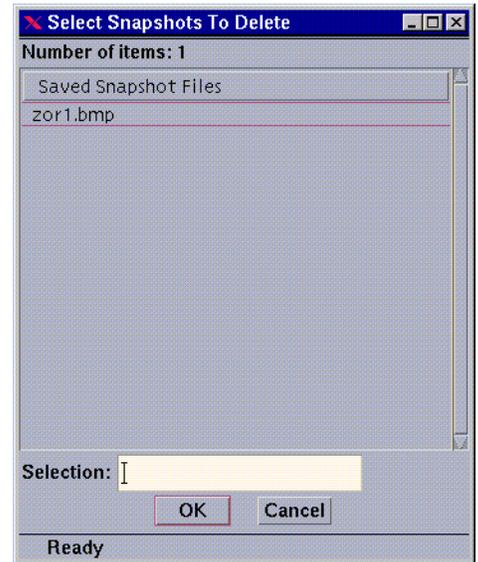
3-9.2.6 Delete Saved Map Areas.

The **FileDelete Saved Map Areas** selection is used to removed saved map areas form the database. The user selects a saved map area folder(s) from the list and **OK** to remove the data.



3-9.2.7 Delete Saved Snapshots.

The **File\Delete Saved Snapshots** selection is used to remove snapshots that have been saved from the database. The user selects a saved snapshot(s) from the list and **OK** to remove the data.

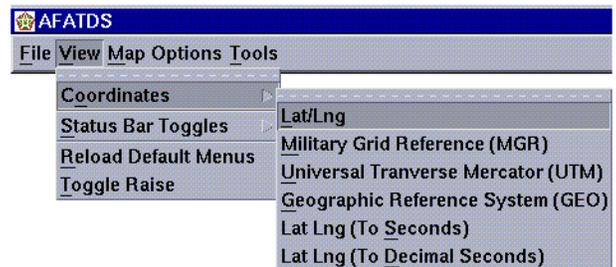


3-9.3 Map View Menu.



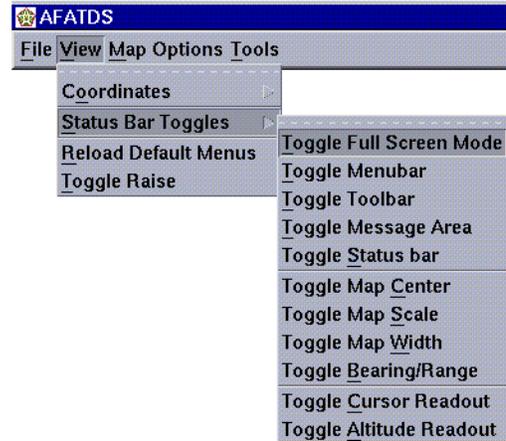
3-9.3.1 Coordinates.

The **View\Coordinates** selection cascades to selections that allow the user to choose the format for the display of map coordinates.



3-9.3.2 Status Bar Toggles.

The **View>Status Bar Toggles** selection cascades to selections that allow the user to toggle (On/Off) the display of the different functions and indicators of the map window.



3-9.3.3 Reload Default Menus.

This selection returns JMTK menus to default settings.

3-9.3.4 Toggle Raise.

This selection brings removed tool bars back to view.

3-9.4 Map Options Menu.

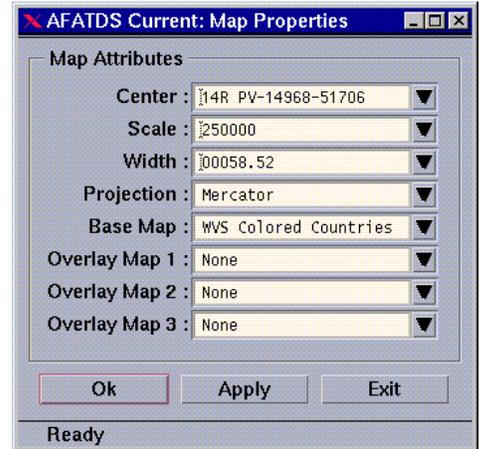
3-9.4.1 Zoom.

The **Map Options\Zoom** selection is used to select the PAN area of a map view. After making this selection, the zoom cursor is placed at the position that is to be the center of the PAN area. Rotating the trackball with the left trackball switch depressed causes two boxes to be drawn on the map. The outer box is the PAN area and the inner box the PAN window. Releasing the trackball switch sets the size of the areas.



3-9.4.2 Map Properties.

The **Map Options\Map Properties** selection allows the user to set map **Center:**, **Scale:**, **Width:** of the map displayed, type of **Projection:**, **Base Map:**, and overlays to map.



3-9.4.3 Recenter.

The **Map Options\Recenter** selection is used to re-define the center of the map (PAN area). After this selection, the Re-center cursor is placed at the position that is to be the center of the PAN area. Left clicking sets the center position.

3-9.4.4 Resize Pan Buffer.

This selection changes the amount of map kept in pan window. This is a default setting and will change the display of all maps.

3-9.4.5 Center Marker.

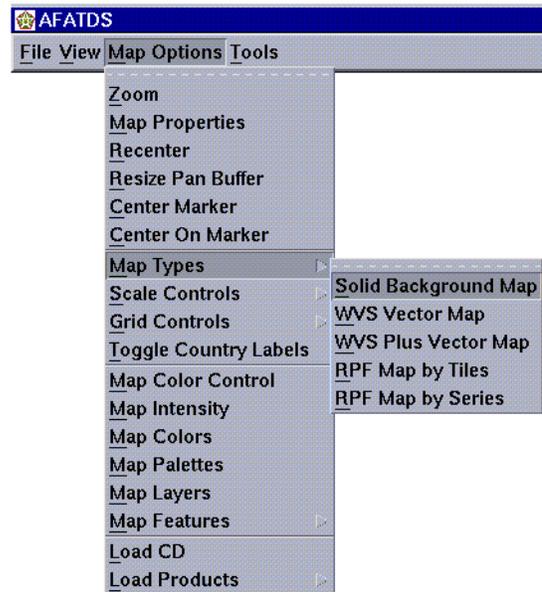
The **Map Options\Center Marker** centers the map display and chart marker on the display.

3-9.4.6 Center On Marker.

The **Map Options\Center On Marker** re-defines the center of the map at the position of the chart marker.

3-9.4.7 Map Types.

This selection allows the user to choose from different map types including: Solid Background Maps, WVS Vector Map, WVS Plus Vector Map, RPF Maps by Tiles, and RPF Maps By Series.



3-9.4.8 Scale Controls.

This selection allows the user to scale in and out using multiple increments.



3-9.4.9 Grid Controls.

This selection is used to turn on or off the display of grid lines and labels.

3-9.4.10 Toggle Country Labels.

This selection is used to turn on or off the display of country names.

3-9.4.11 Map Color Control.

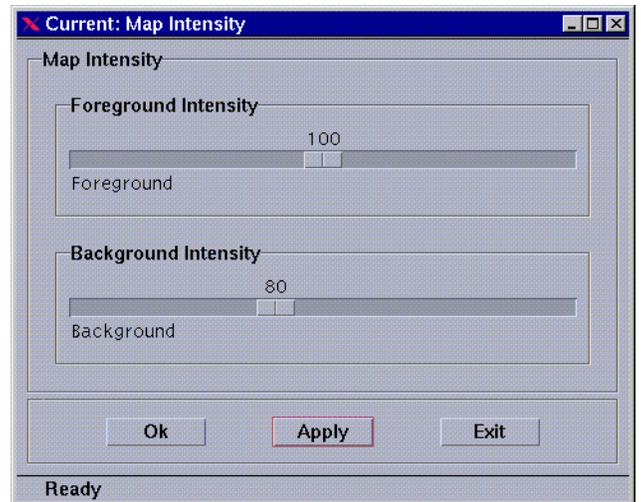
This selection allows the user to set the colors that are available for maps displays.

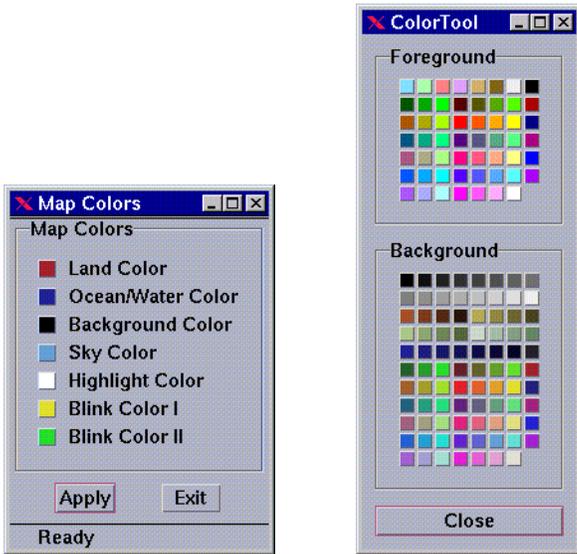
3-9.4.12 Map Intensity.

The **Map Options\Map Intensity** selection allows the user to change contrast and brightness of the map foreground and background.

3-9.4.13 Map Colors.

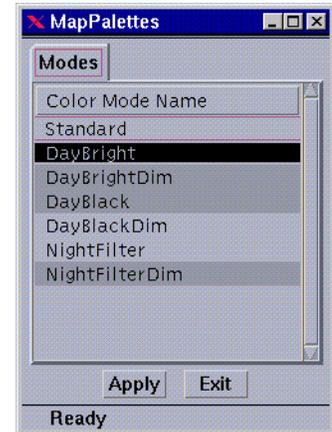
This selections opens the **Map Colors** window which displays the colors selected for the different components of the map. Selecting a component opens the **Color Tool** window to select a color for that component. The color is changed by selecting **Close** on the **Color Tool** window and **Apply** on the **Map Color** window. **Exit** closes the **Map Color** window.





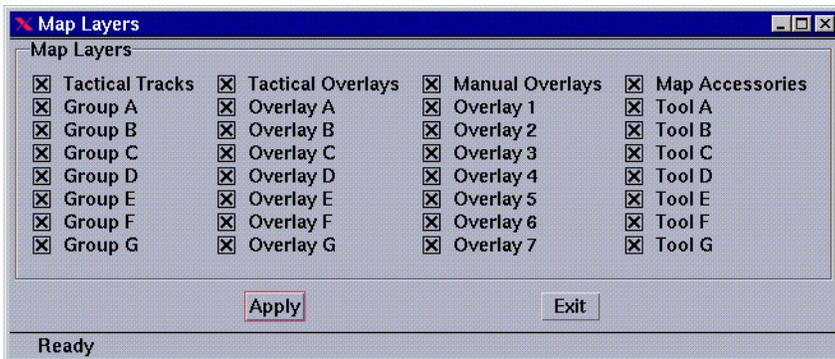
3-9.4.14 Map Palettes.

This selection allows the user to select displays attributes tailored for different viewing conditions.



3-9.4.15 Map Layers.

TBD



3-9.4.16 Map Features.

This selection allows the user to edit list of maps to display, options include: Raster Maps, RPF Maps, VPF Features, Terrain Shading, Bottom Contours, Terrain Contours.

3-9.4.17 Load CD.

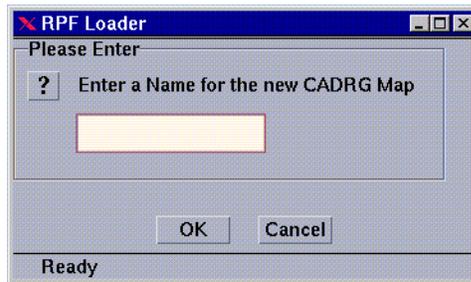
This selection imports map files from a CD.

3-9.4.18 Load Products.

This selection allows the user to load Maps by type from a CD.

Load Products Procedure

Step	Action	Response
1.	<u>Select Map Options\Load Products\Load RPF.</u>	RPF Loader window opens.



CAUTION

Inserting spaces in map name will cause the map tool to crash.

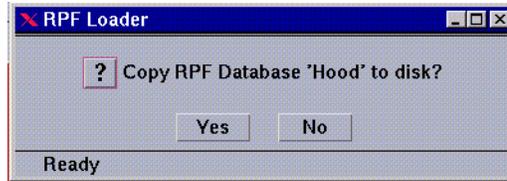
2. Enter name for new map.

3. Select OK.

RPF Loader window prompts for copy RPF database to disk.

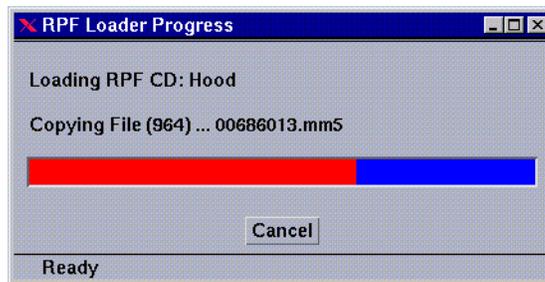
Load Products Procedure - CONT

Step	Action	Response
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4. Select Yes.

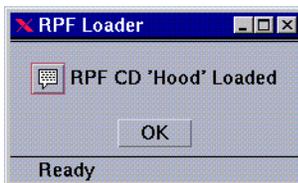
Progress of copy process displayed in **RPF Loader Progress** window. **RPF Loader** window confirms load complete.



5. Select OK.

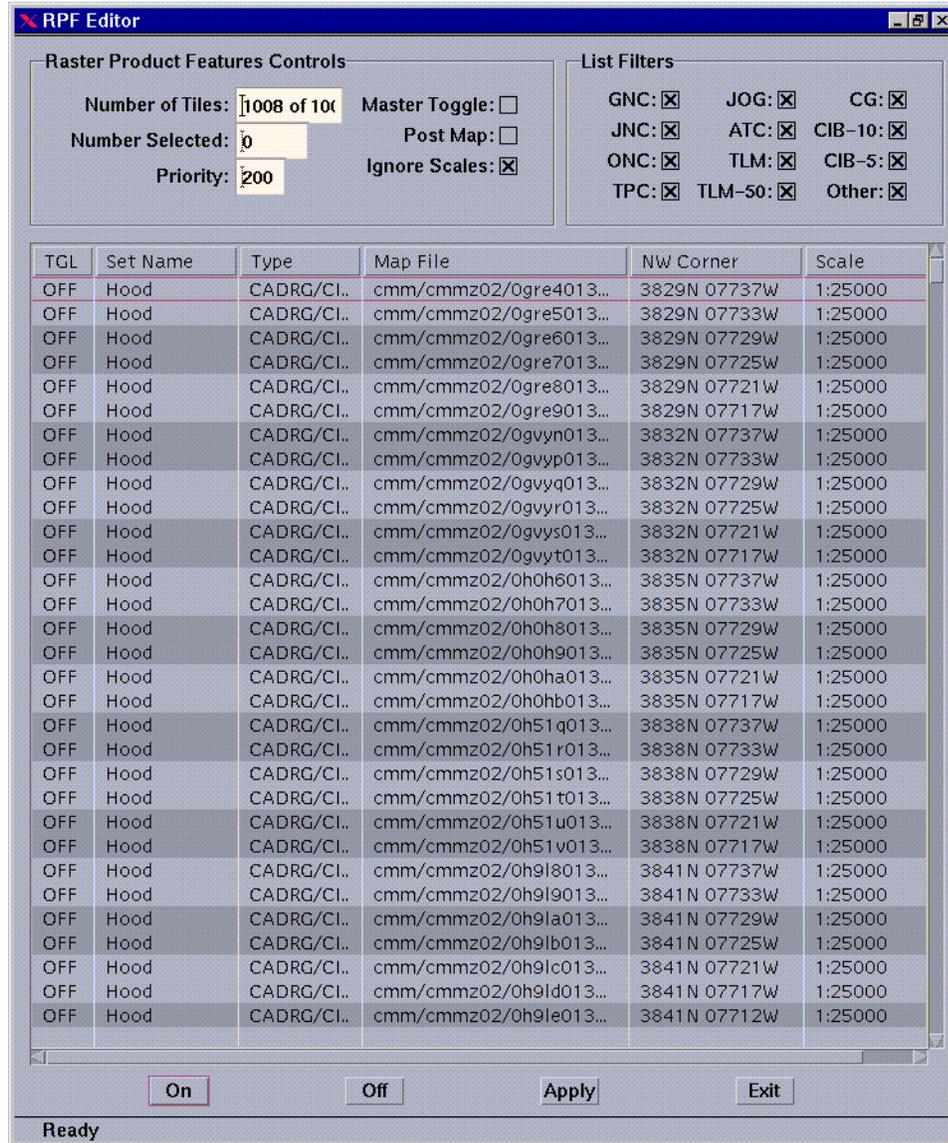
6. Select Map Options\Map Features\RPF Maps.

RPF Editor window opens.



Load Products Procedure - CONT

Step	Action	Response
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7. Select the Map File(s) to be displayed.

8. Select On.

Selected file(s) indicate **ON** in TGL column.

Load Products Procedure - CONT

Step	Action	Response
9.	<u>Select Apply.</u>	
10.	<u>Select Exit.</u>	RPF Editor window closes.
11.	<u>Select Map Options\Map Types\RPF by Tiles.</u>	Map background is displayed.

SECTION 2 FRIENDLY UNIT INFORMATION

3-10 GENERAL.

The **Basic Data** window and several sub-windows that are accessed from the **Basic Data** window contain the unit information. A **Basic Data** window and appropriate sub-windows exist for each unit in the database. The user uses these windows to create, view, and/or edit unit information. This information is entered in the database and is available for use by any system function requiring unit information. The **Basic Data** window contains entries to identify a unit by service, type, and ID. This window also contains location information and a function to create, view, and/or edit the unit's symbol.

Unit types include Cannon, Mortar, Rocket, Air, Aviation, NSFS, Observer, Other, and Radar. The windows available depend on the unit type selected. As example, the **Unit Organization** and **Movement Factors** windows are used for ground units but are not used Air or NSFS units.

3-11 UNIT INFORMATION WINDOW NAVIGATION.

The first diagram shown (Figure 3.5) displays the navigation for the **Unit Workspace** window thread that is common to the majority of the unit types. The second diagram (Figure 3.6) shows the navigation from the **Unit Workspace** menu tree that varies with the unit type.

Navigation to the **Unit Workspace** window is from the **Units\Workspace...** or **Units\Edit This Unit** selections on the Current Menu Bar or from the unit symbol **Edit** selection.

When creating a new unit using all new information, the **Create New Unit** window is accessed from the **Options\New\New Friendly Unit** selection from the **Unit Workstation** window.

When creating a new unit using information copied from an existing unit, the **Select Unit To Copy To** window is used. The **Select Unit To Copy To** window is accessed directly from the unit symbol of the unit to be copied or the **Options\Copy...** selection from the **Unit Workstation** window.

To copy from a unit symbol, highlight the unit symbol, depress Button 3 of the trackball, and from the pull-down select **Copy**. The **Select Unit To Copy To** window appears and the user selects a unit from the list to copy to and **OK**. The **Copy Unit Information** window appears. The user selects the items to be copied by depressing individual check boxes or all. Grayed out selections cannot be copied. The user selects **OK**. The new unit is added to the map and the **Unit Workspace** list.

From the **Unit Workspace** window, **Options/Copy...** is selected to open up the **Select Unit To Copy To** window. A unit is selected from the list to copy to and then **OK**. The **Copy Unit Information** window appears. Selecting the data to be copied and **OK** then adds the new unit to the map and the **Unit Workspace** list.

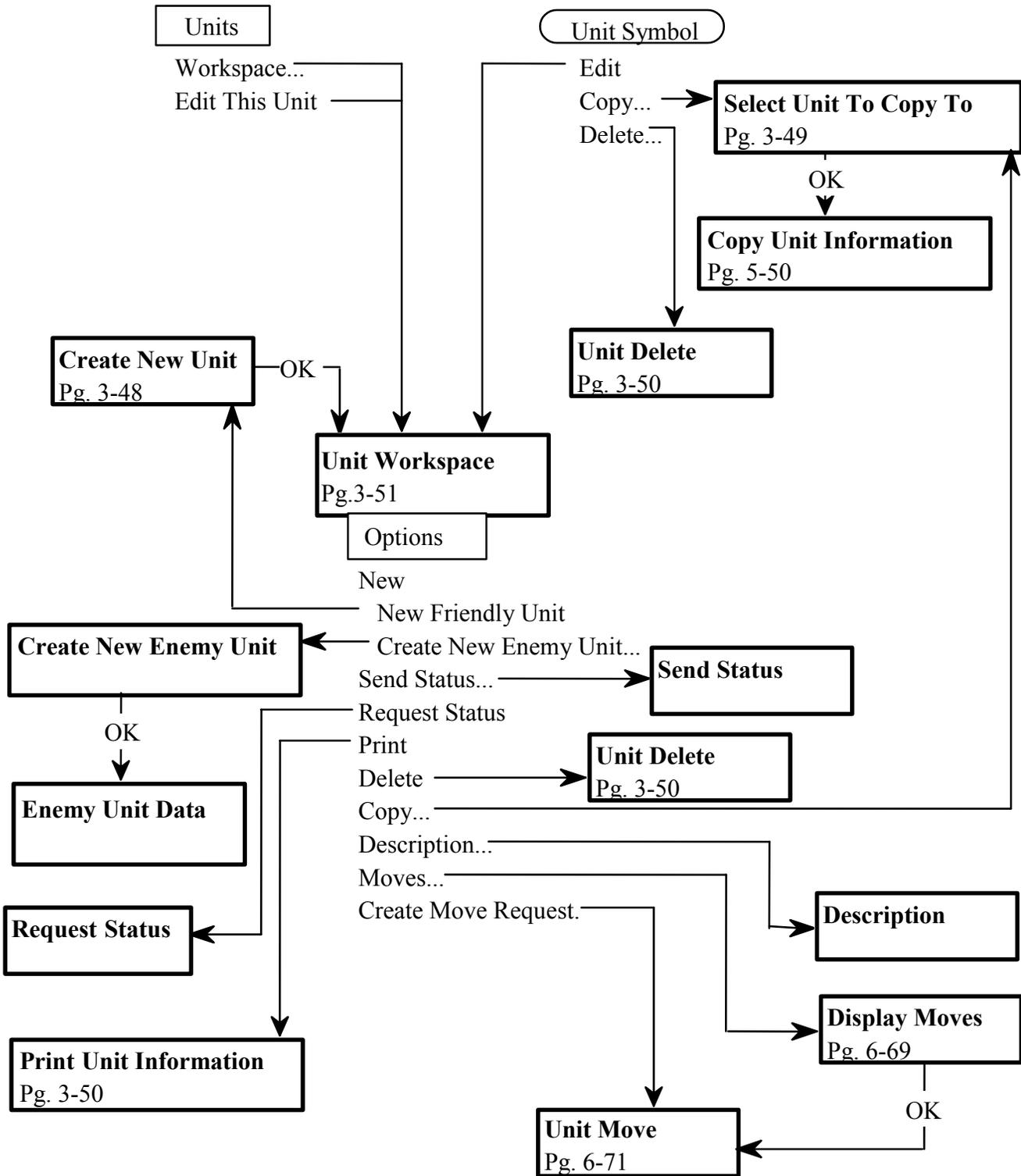
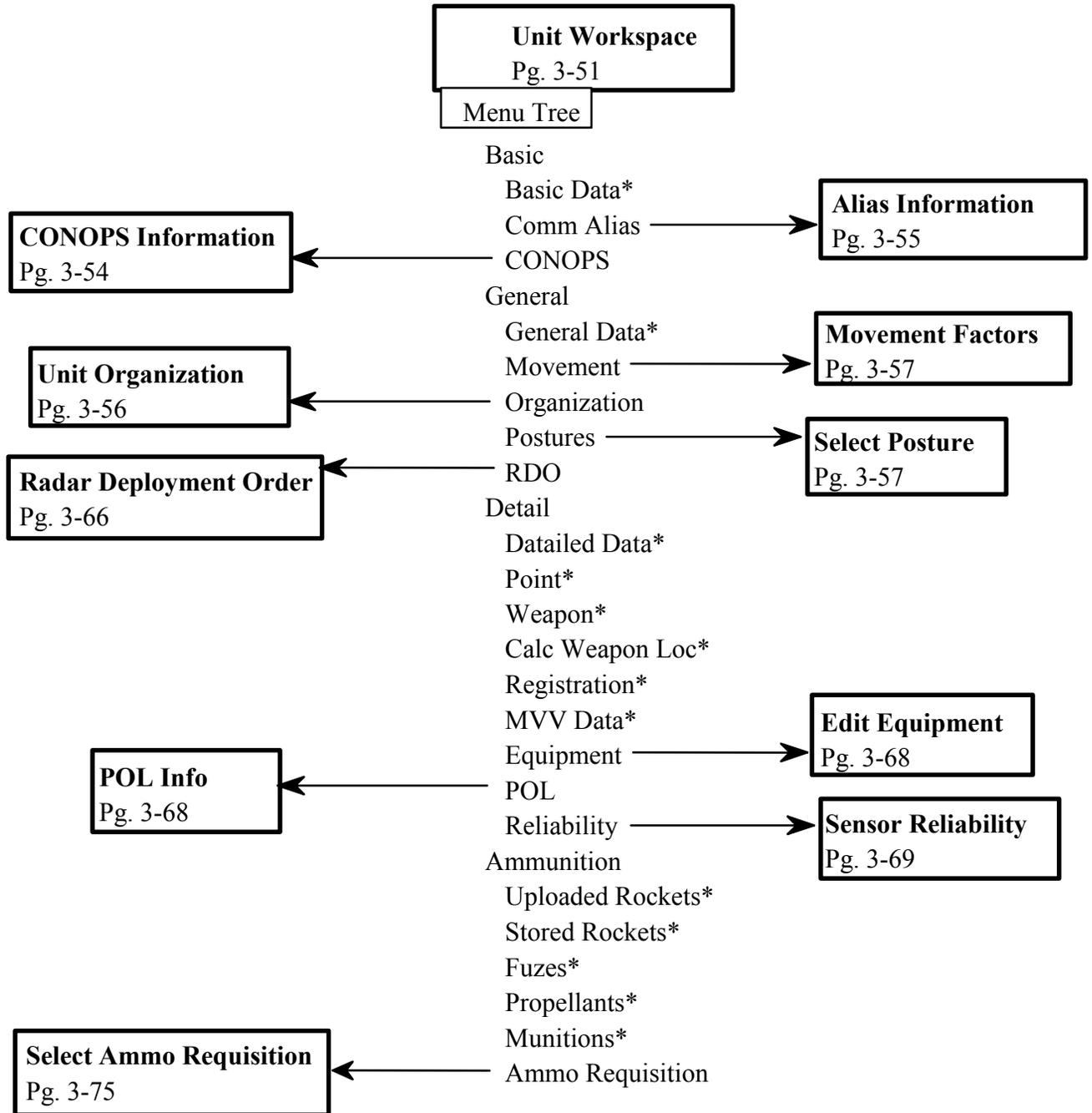


Figure 3.5 Unit Windows Navigation



* - Data is displayed on parent window.

Figure 3.6 Workspace Menu Navigation

3-12 CREATE NEW UNIT WINDOW.

The **Create New Unit** window is used to assign a **Unit Type:** and **Unit ID** to a unit that is being created. The **Unit ID** list will display all units in the **Master Unit List** that have not been assigned to a situation (current or plan).

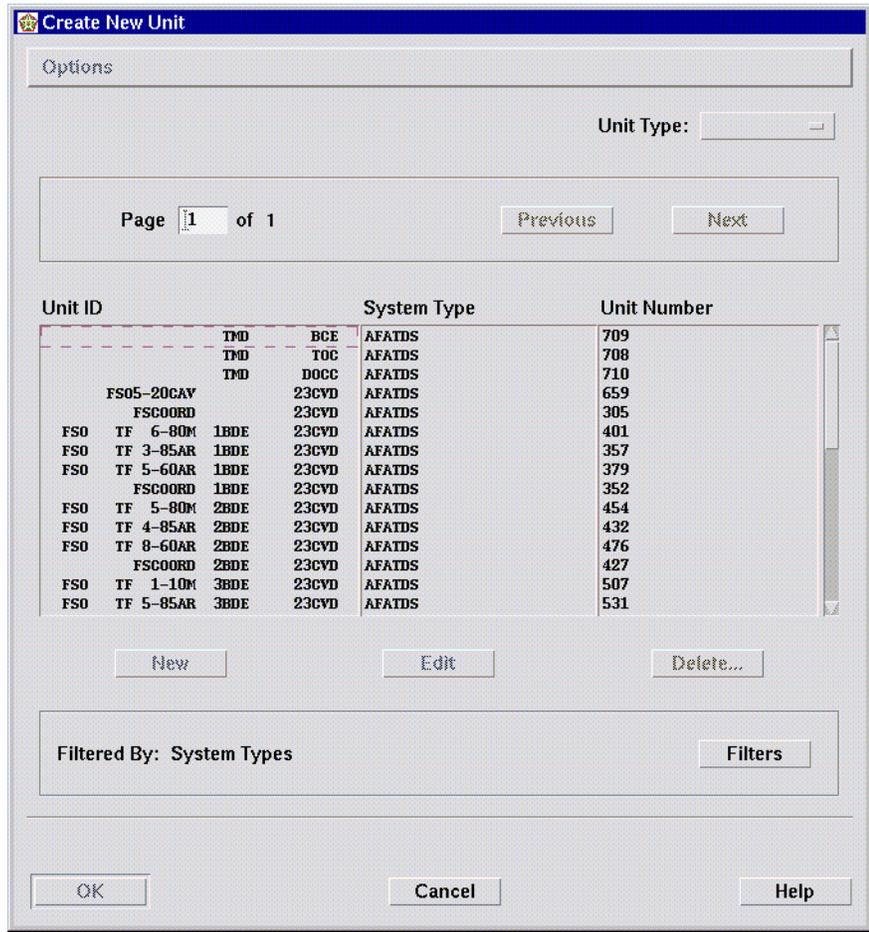


Figure 3.7 Create New Unit Window

3-13 SELECT UNIT TO COPY TO WINDOW.

The **Select Unit To Copy To** window is used to select a unit to be created and included into a situation (Current or Planned) using the copy function. This window lists all units in the Master Unit List that have not been included into a situation. The window is accessed via the Copy... selection from the **Select Unit** window or a unit symbol pop-up menu.

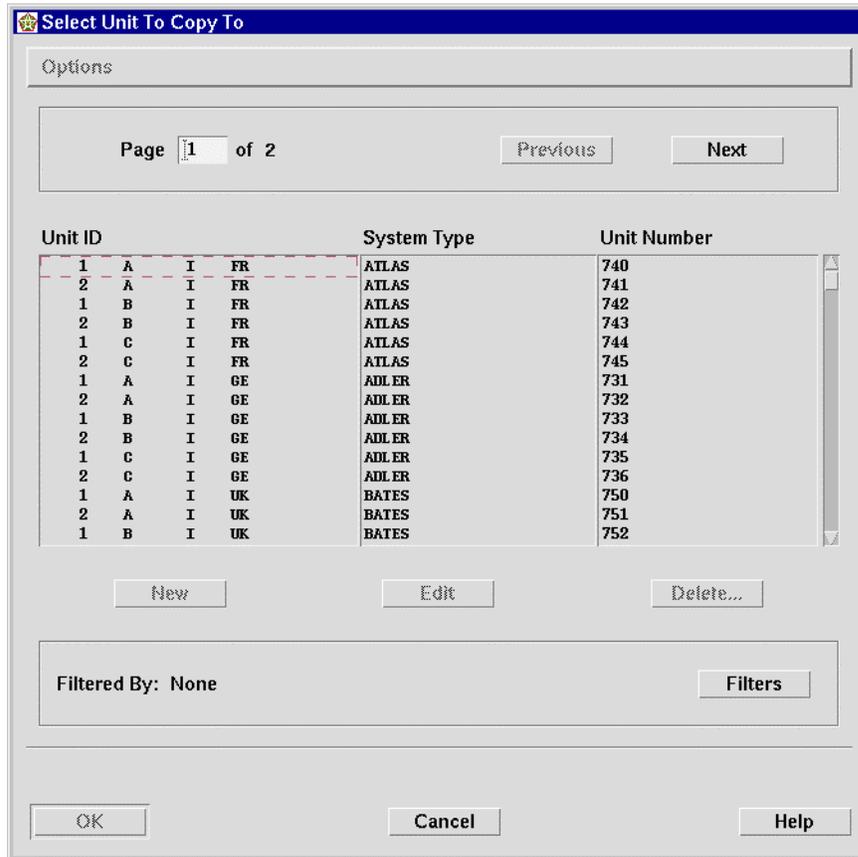


Figure 3.8 Select Unit To Copy To Window

3-14 COPY/DELETE/PRINT UNIT INFORMATION WINDOWS.

The window used to copy, delete, and print unit data is the same for all functions. The window title (**Copy Unit Information** shown) will change to reflect the selected function. The field name also changes in a like manner. **Delete...** opens the **Unit Delete** window. **Print...** opens the **Print Unit Data** window. **Copy...** opens the **Copy Friendly Unit** window. The user selects the data category to be copied, deleted, or printed using the check boxes. With the categories checked, selection **OK** completes the function. As example, selecting **Fuzes**, **Propellants**, and **Weapons** from a **Print Unit Data** window and **OK** sends data from the selected categories to the printer. The copy and delete functions perform in the same manner.

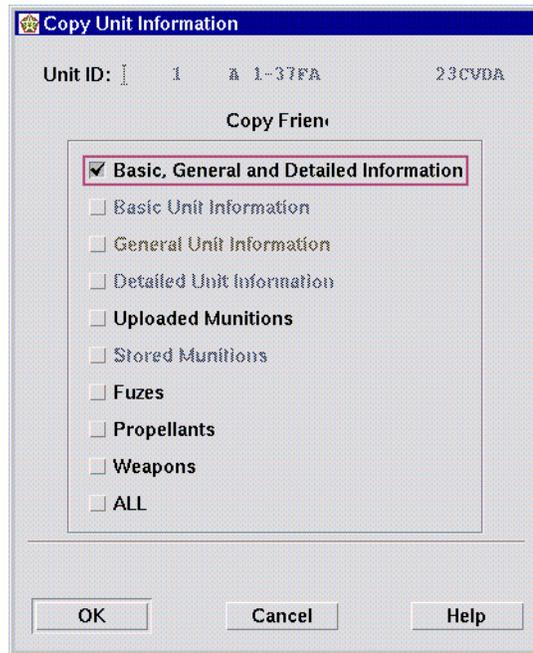


Figure 3.9 Copy/Print/Delete Unit Information Window

3-15 UNIT WORKSPACE WINDOW.

The **Unit Workspace** window is the focal point for the entry of unit information. Windows are opened from this window to select or enter data. The **Role**, **Echelon**, and **Function** menus are used to choose the components of the unit symbol. The **Options** and tree menus on the **Unit Workspace** window accesses windows and screens to enter additional data. As these windows are closed, the **Unit Workspace** window becomes the active window to allow access to the other windows and screens.

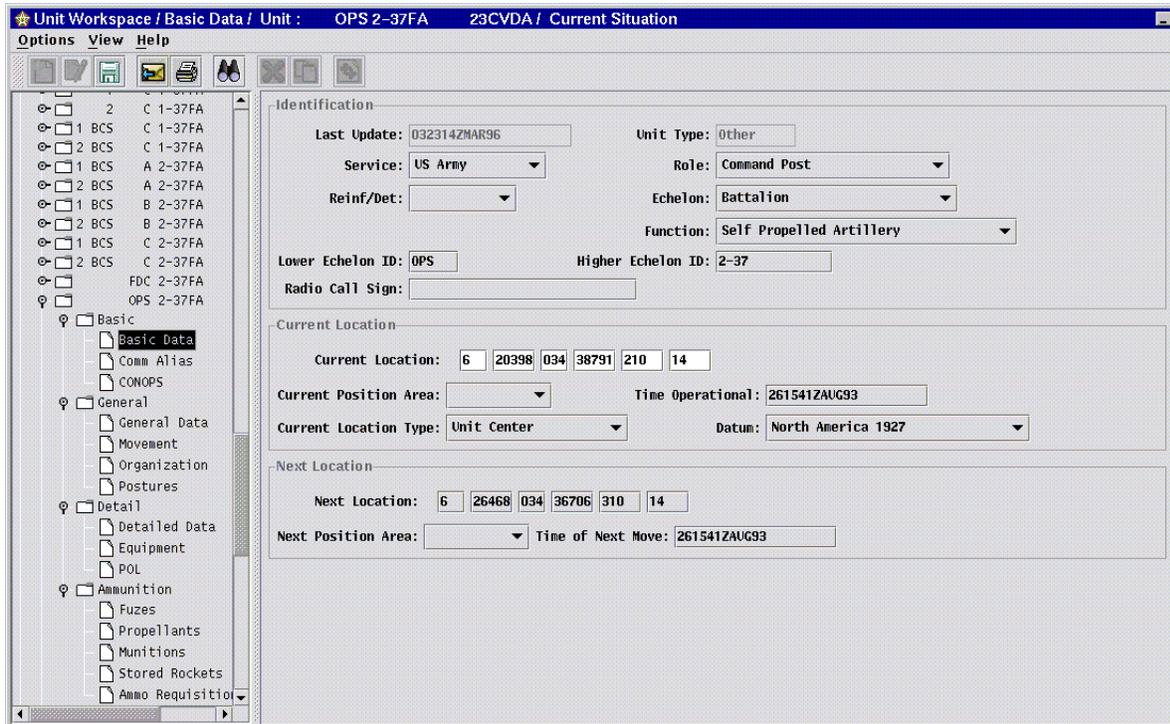


Figure 3.10 Unit Workspace Window

The menu tree on the **Unit Workspace** window lists all of the units (friendly and enemy) contained in the situation being viewed (current or planning). The **Options** menu contains selections used to manage the unit data. Icons for some of the **Options** selections are displayed below the menu bar. The icons active are dependent upon the selections from the menu tree. For example, **Add To Target List** is only available if an enemy unit is selected.

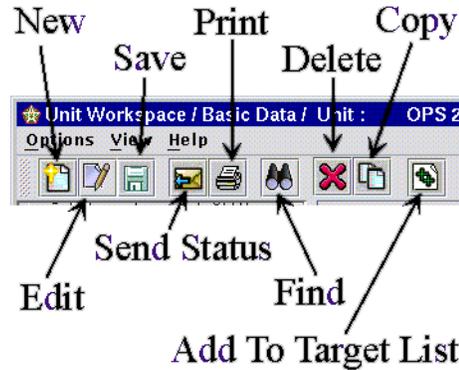


Figure 3.11 Unit Workspace Tool Bar

3-15.1 Basic Unit Data Window Frame and Windows.

The basic unit data (BUD) window (Figure 3.12) and several sub-windows that are accessed from the BUD window contain the unit information. A BUD window and appropriate sub-windows exist for each unit in the database. The user uses these windows to create, view, and/or edit unit information. This information is entered in the database and is available for use by any system function requiring unit information. The BUI window contains entries to identify a unit by service, type, and ID. This window also contains location information and a function to create, view, and/or edit the unit's symbol.

As the window title implies, the BUD window contains the information that is basic to the unit. The different frames of this window are accessed by the menu tree at the left of the window. The menu tree lists only basic, general, and detailed selections when initially creating a new unit. After entering required data in each of these frames, the **Apply** button is pressed and the menu tree is expanded to access additional frames and windows. The Basic and General Data frames are the same for all types of friendly units. The Detailed Data frames are tailored to fit the unit type. Unit information is entered, viewed, and edited via this window.

The **Unit ID:**, situation or plan name, and the time of **Last Update:** appear in the title bar. The **Plan:** and **Phase:** fields display the plan name and phase number for a unit that is being edited during a planning operation.

Entries and selections in the **Identification** section of the frame are used to display to the operator unit identification information and to create the unit map symbol.

The **Last Update:** field displays the date of the last update for the unit. This field cannot be edited. The **Unit Type:** field displays the information that was entered via the **Create New Unit** window at the time the unit was created. This field cannot be edited.

The **Service:** selection is a pop-up menu that allows the user to select the branch of service to which the unit is attached.

When creating a new unit, the **Role** is the only symbol function enabled. Selecting this button opens a pop-up menu to select the role. The **Echelon** button is now enabled. Selecting **Echelon** opens a pop-up menu used to select the echelon of the unit. The **Function** selection opens a menu for the selection of the unit's function. The menu displayed is appropriate for the role type chosen.

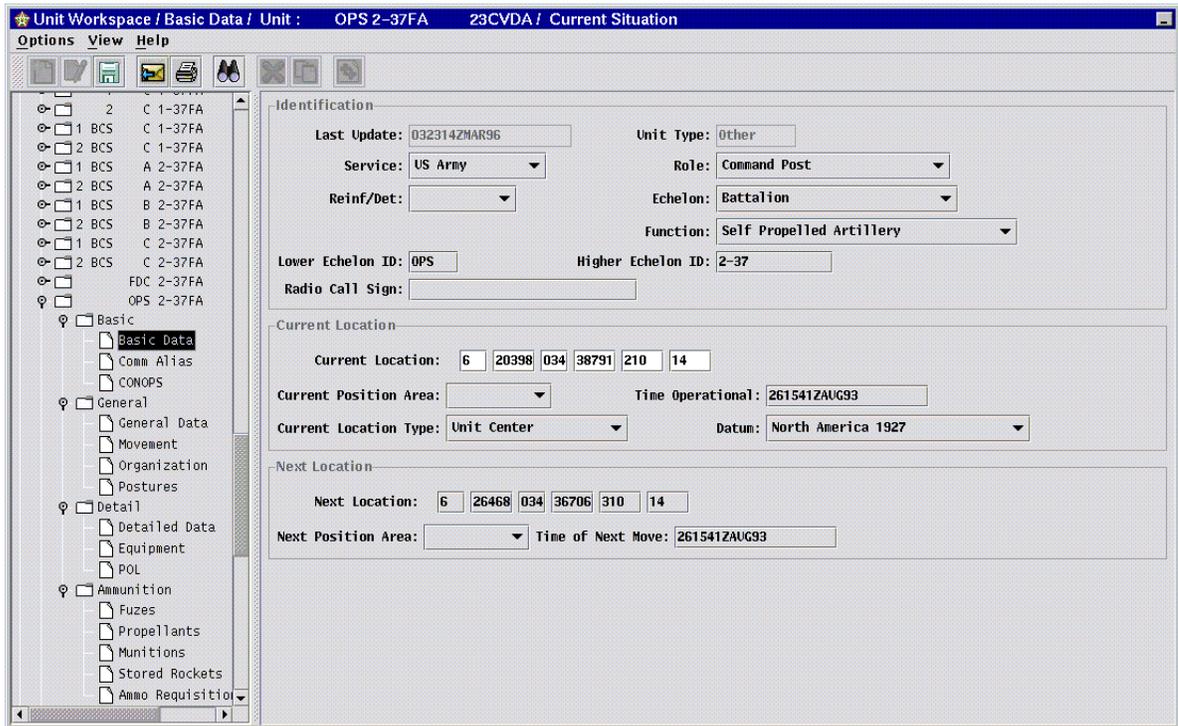


Figure 3.12 Basic Unit Data Frame

The **Reinf/Det** selection is made from a pop-up menu. The **Lower Echelon ID:** and **Higher Echelon ID:** fields are used to input the designator of the next higher and lower echelons.

The **Radio Call Sign:** field is a direct entry field used to enter the voice call sign of the unit.

The entries and selections in the **Current Location** section are used to input and display a unit's location by coordinates and/or geometry.

The **Current Location** field accepts the standard coordinate inputs as described in section one of this manual. Selecting the **Current Position Area** button will display a pop-up menu of available areas for selection.

NOTE

If a **Current Position Area** is selected for a NSFS unit, the **Current Location:** field will default to the coordinates of the center of the Position Area.

The **Current Location Type:** is a pop-up menu that displays the available location types. The **Time Operational:** is used to enter the time a unit was or will become operational. The **Datum:** selection opens a pop-up menu to allow the user to select the datum for the maps in use.

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The **Next Location** section of the window is used to input and display the coordinates of the **Next Location**:, the **Next Position Area**:, and the **Time of Next Move** to the location.

3-15.1.1 CONOPS Information Window.

The **CONOPS Information** window is used to enter and view information relating to inter-unit functionally during CONOPS operations. Refer to TM 11-7025-297-10-6 chapter 3 for the description of entering data to this window and the use of the window during CONOPS procedures.

The screenshot shows a window titled "CONOPS Information" with a blue header bar. Below the header is a section labeled "Options" in a grey box. The main area contains several input fields and checkboxes:

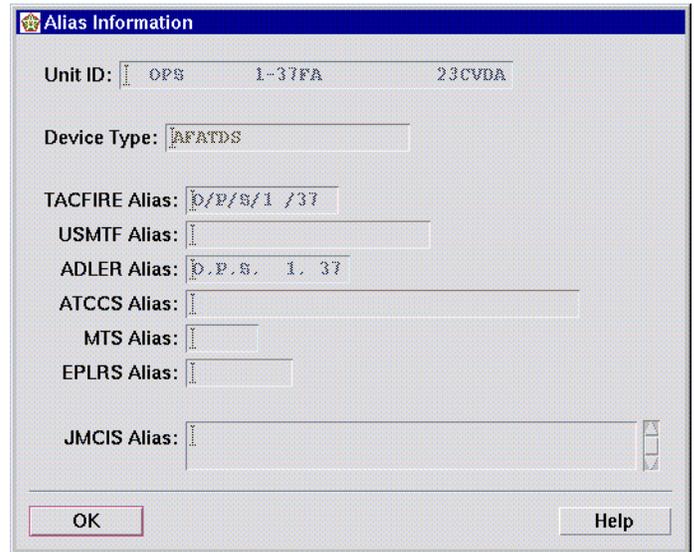
- Unit ID:** A text box containing "OPS 1-37FA 23CVDA".
- Comm Config:** A dropdown menu.
- Address Missions To:** A dropdown menu with "Principal" selected.
- Two checkboxes: Active Unit Organization and Mission Routing.
- Primary Backup OPFAC Unit ID:** A text box containing "FDC 2-37FA 23CVDA".
- Secondary Backup OPFAC Unit ID:** A text box.
- Active Command Unit ID:** A text box.
- Active Supported Unit ID:** A text box.
- Unit Backed Up 1:** A text box containing "FDC 2-37FA 23CVDA".
- Unit Backed Up 2:** A text box containing "FSE 3BDE 23CVD".
- Unit Backed Up 3:** A text box containing "1 A 1-37FA 23CVDA".

At the bottom of the window are three buttons: "OK", "Cancel", and "Help".

Figure 3.13 CONOPS Information

3-15.1.2 Alias Information Window.

This window is accessed via the **Basic Unit Info** window **Basic\Comm Alias** menu tree selection. The **Alias Information** window is used to view the alias assigned to the unit for the different communications protocols. The **Unit ID:** field displays the ID of the unit being viewed. The **Device Type:** field identifies the device in use for the unit. The **Alias:** fields identify the communications alias(es) of a unit.



3-15.2 General Unit Data Frame and Windows.

Selecting **General Data** from the menu tree displays the **Command Support** and **Status** sections of the unit window.

The **Command Support** section is used to select and display the command/supported, MET, and Battery HQ relationships.

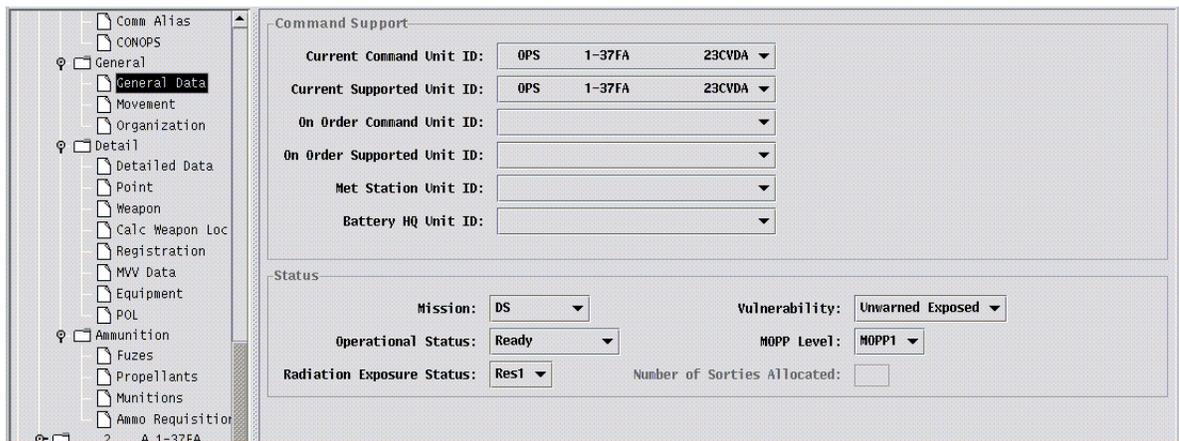


Figure 3.14 General Unit Data Frame

The **Current Command Unit ID:** selection opens the **Current Command Unit** window to select a current command unit ID. The **Current Supported Unit ID:** selection opens the **Current Supported Unit** window to select a current supported unit ID. The **On Order Command Unit ID:** selection opens the **On Order Command Unit** window to select an on order command unit ID. The **On Order Supported Unit ID:** selection opens the **On Order Supported Unit** window to select an on order supported unit ID.

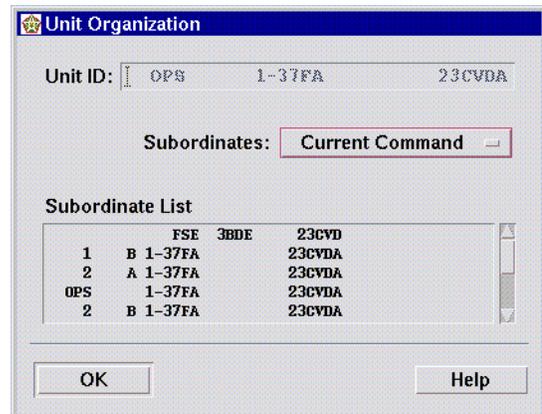
The **Met Station Unit ID** selection opens the **Met Station** window to select a Met Station unit ID. The **Mission:** selections are Not Given, DS, GS, R, GSR, Attached, and OPCON. The **Operational Status:** selections are Ready, Out of Action, Moving, and Not Given. The **MOPP Level:** selections are MOPP 0-4. The **Radiation Exposure Status:** selections are RES 0-3. The **Vulnerability:** selections are Unwarned Exposed, Warned Exposed, and Warned Protected. The **Time of Next Move:** field displays the DTG of the next move. The **Time Operational:** field displays the DTG of the operational time. The **Number of Sorties Allocated:** field displays the number of sorties allocated. The **Next** button opens the appropriate detailed information window.

The **Status** section is used to select and display unit status data.

The **Mission:** selections are **Not Given, DS, GS, R, and GSR.** The **Operational Status:** selections are **Ready, Out of Action, Moving, Not Given, Cool, and Degraded.** The **MOPP Level:** selections are **MOPP 0-4.** The **Radiation Exposure Status:** selections are **RES 0-3.** The **Vulnerability:** selections are **Unwarned Exposed, Warned Exposed, and Warned Protected.** The **Number of Sorties Allocated:** field (Other type units only) displays the number of sorties allocated.

3-15.2.1 Unit Organization Window.

This window is accessed via the **Basic Unit Data** window **GeneralOrganization** menu tree selection. The **Unit Organization** window is a view-only window. The **Unit ID:** field displays the ID of the unit being created or edited. This field cannot be edited. The organization category is selected from the **Subordinates:** pop-up menu. The appropriate **Subordinate List** is then displayed for the selected category. **Current Command** is the default category.



3-15.2.2 Movement Factors.

This window is accessed via the **Basic Unit Data** window **General\Movement** menu tree selection. The **Movement Factors** window allows the user to enter and display the vehicular characteristics of a unit. These characteristics are used to determine the capability of a unit to move on a selected route.

The **Unit ID:** field displays the ID of the unit being created or edited. This field cannot be edited.

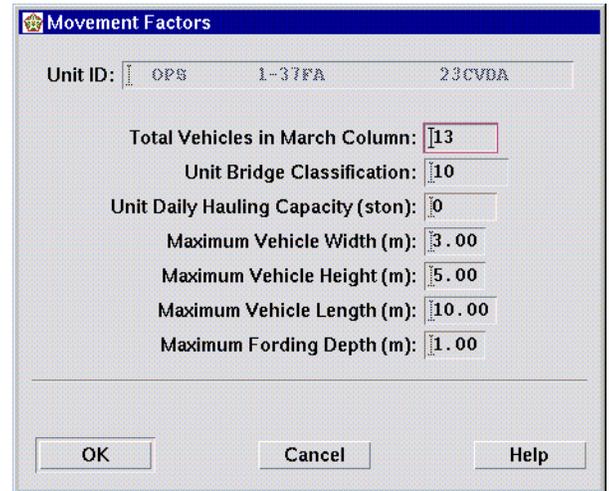
The **Total Vehicles in March Column:** entry is used, with vehicle length and interval, to compute the column length.

The **Unit Bridge Classification:** entry represents the minimum weight classification of a bridge that will support the heaviest vehicle in the unit.

The **Unit Daily Hauling Capacity (ston):** is the maximum weight of equipment that may be carried by the vehicles assigned to the unit.

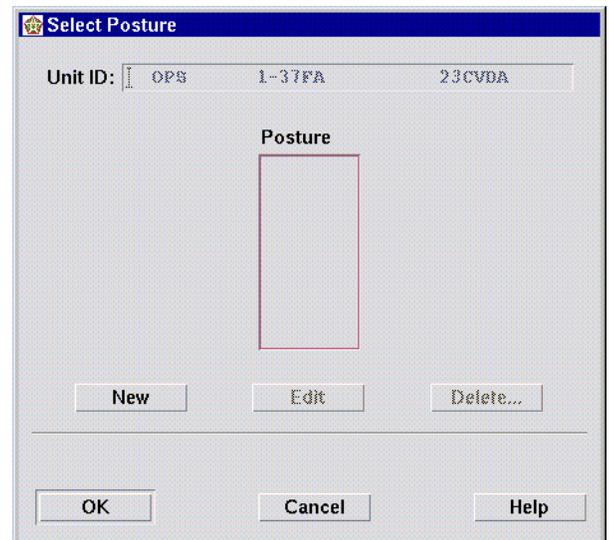
The **Maximum Vehicle Width (m):**, **Height (m):**, and **Length (m):** entries contain entries for the widest, highest, and longest vehicle dimensions.

The **Maximum Fording Depth (m):** for the unit is the maximum depth that can be forded by the vehicle with the least fording capability.



3-15.2.3 Select Posture Window.

The **Posture** selection from a Rocket or Other unit symbol opens the **Select Posture** window. This window displays the **Unit ID:** and a list of established postures by number. Selecting a posture enables the **Edit** button. The **New** and **Edit** buttons opens the **Unit Posture** window to create or change posture data respectively. The **Delete** button removes data for a selected posture. The **OK** button closes the window and saves new or changed posture data. The **Cancel** button closes the window without saving data.



3-15.2.4 Unit Posture.

This window is used to enter and display the posture data. The **Unit ID:** and **Posture ID:** are display only. The user enters **Location:**, **Azimuth Of Lay (mils):**, and the times that this posture is effective. The times are entered in standard DTG format in the **From DTG:** and **To DTG:** fields. The **On-Call Target Number:** selection is used to assign a target to the posture via the **Select On-Call Target** window.

The number of rounds available for each reaction time are entered in the reaction time fields for each **Munition Model**. The reaction time fields are **0-2 min**, **2-5 min**, **5-20 min** and **20+ min**.

Unit Posture

UNIT ID: [A 63FA 23CVDA]

Posture ID: [1]

Location: [] [] [] [] [] []

Azimuth Of Lay (mils): [0] From DTG: [081805ZMay01]

On-Call Target Number: [] To DTG: [081805ZMay01]

Munition Model	0-2 min	2-5 min	5-20 min	20+ min
[]	[0]	[0]	[0]	[0]
[]	[0]	[0]	[0]	[0]
[]	[0]	[0]	[0]	[0]
[]	[0]	[0]	[0]	[0]
[]	[0]	[0]	[0]	[0]

OK Send... Cancel Help

3-15.3 Detail Unit Data Frames and Windows.

3-15.3.1 Cannon/Mortar Rocket/Missile Unit Data Tab.

This frame is accessed via the **Detailed Data** menu tree selection. The information includes the shift and response times, rates of fire, physical positioning, range and azimuth, and quantities of weapons.

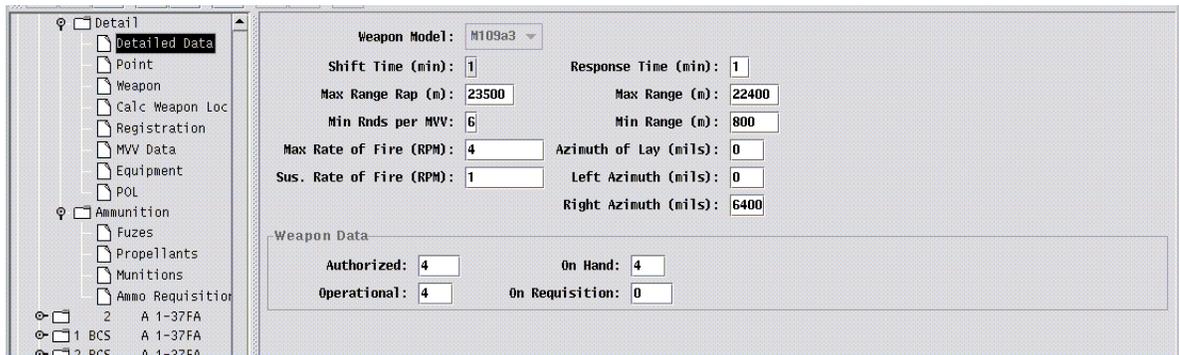


Figure 3.15 Cannon/Mortar Rocket/Missile Data Frame

The **Weapon Model:** field can be selected when creating a new unit and cannot be edited once the data for this window is saved. Selecting a **Weapon Model:** causes default values to be entered that are specific to the weapon.

The **Shift Time (min):** field is used to enter the amount of time in minutes which a system requires to shift between targets when firing. Legal entry is 1 or 2 minutes.

The **Response Time (min):** field is used to enter the amount of time in minutes for unit to fire on a target from time unit first receives the fire order. Legal entry 1 to 99 minutes.

The **Max Range Rap (m):** field is used to enter the maximum range for rocket assisted projectile (cannon only) in meters.

The **Max Range (m):** field is used to enter the maximum range in meters.

The **Min Rnds per MVV:** field is used to enter the minimum number of rounds to be fired to establish MVV for the weapon (cannon or mortar). Legal entry is 1 to 99.

The **Min Range (m):** field is used to enter the minimum range in meters of the weapon.

The **Max Rate of Fire (RPM):** field is used to enter the maximum number of rounds per minute the weapon can fire.

The **Azimuth of Lay (mils):** field is used to enter the direction in mils in which weapon is oriented when in position.

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The **Sus Rate of Fire (RPM)**: field is used to enter the number of rounds per minute weapon can sustain firing. Field is not applicable (subdued) for Rocket Units.

The **Left Azimuth (mils)**: field is used to enter the leftmost edge in mils to which weapon can traverse. [Legal entries: 0 to 6399]

The **Right Azimuth (mils)**: field is used to enter the rightmost edge in mils to which weapon can traverse. [Legal entries: 0 to 6399]

The **Weapons Authorized**: field is used to enter the number of weapons unit is authorized. [Legal entries: 0 to 99999]

The **Weapons Operational**: field is used to enter the number of weapons operational. [Legal entries: 0 to 9999]

The **Weapons On Hand**: field is used to enter the number of weapons unit has present. [Legal entries: 0 to 99999]

The **Weapons On Requisition**: field is used to enter the number of weapons on requisition. [Legal entries: 0 to 99999]

3-15.3.1.1 Points Frame.

The Point Data frame displays the Firing, Hide, Reload, and Rendezvous points associated with the unit. The data of this window is view only. All point data is created and edited via the point geometry function.

Item	Point Type	Point ID	Location						Usage History	Usage Thresholds	Geometry Name
1	Firing Point	A1	6	55586	034	50819	0	14	0	99 MIKE	

Figure 3.16 Points Frame

The **Item** column is a sequentially numbered list of items. The **Point Type** column lists the points as one of the four types. The **Point ID** column lists the ID (alias) of the point (A2, B1, etc.). The list is sorted by this column. The **Location** column displays the map coordinates of the points.

The **Usage History** displays the number of times the point has been occupied and increments by 1 with each usage. The **Usage Thresholds** displays the threshold level as established for the point. The **Geometry Name** displays the name assigned to the point at creation.

3-15.3.1.2 Weapon Data Frame.

The **Weapon** data frame displays information on the identification, status, and location of assigned weapons. Information on this frame is view only except for the **Delete** function.

The **Wpn No.** column displays the locally assigned number of the weapon. The **Bumper No.** is a unique number assigned to the specific weapon. The **Status** is the operational status of the weapon. The **Wpn Loc** is the map coordinates of the weapon location. The **Last Updated** fields display the last time (DTG) that data was changed and saved for the weapon.

Wpn No.	Bumper No.	Status	Wpn Loc.						Last Updated
4	A10	Ready	6	25660	034	44204	200	14	281826ZJUN01
3	A13	Ready	6	25560	034	44202	200	14	281826ZJUN01
2	A12	Ready	6	25460	034	44201	200	14	281826ZJUN01
1	A11	Ready	6	25360	034	44200	200	14	281826ZJUN01

Figure 3.17 Weapon Data Frame

The **New** button opens the **Cannon Weapon** window to enter data for a weapon new to the unit. Selecting a weapon from the list enables the **Edit** and **Delete** buttons. Selecting **Edit** opens the **Cannon Weapon** window to allow changes to be made to an established weapon. Selecting **Delete** removes weapon data for the selected weapon.

3-15.3.1.3 Cannon Weapon Window.

The **Cannon Weapon** window (Figure 3.18) is used to create and edit weapon and mask information. This window is accessed from the **Weapon** data frame **New** or **Edit** button.

The **Last Updated** fields display the last time (DTG) that data was changed and saved for the weapon.

The **Weapon Number**: selection indicates the weapon for the displayed data. This field is only editable for a new weapon. The **Bumper Number**: is the permanently assigned weapon number. The **Status** selection is the operational mode of the weapon.

The **Weapon Model**:, **Caliber**:, and **FA Category** fields display data based on the model as entered in the Detailed Data frame. The **Min Range (m)**: and **Max Range (m)**: fields are used to enter the minimum and maximum ranges (in meters) of the weapon and are defaulted by model type.

Max QE (mils) is the maximum quadrature elevation that can be set for the weapon. The **Max Rate of Fire (RPM)**: and **Sus Rate of Fire (RPM)**: fields are used to enter the rates of fire of the weapon and are defaulted by model type.

The **MCA** checkbox when selected, indicates the weapon possesses an M94 chronograph that is digitally linked to the GDU communications network. **Copperhead Capable** check box, when selected, indicates the weapon has Copperhead available. Only weapons with this selection will be considered during mission processing to fire Copperhead munitions.

Cannon Weapon

Last Update: 131812ZFEB01 Max QE (mils): 1333

Weapon Number: 1 Max Rate of Fire (RPM): 4

Bumper Number: Sus Rate of Fire (RPM): 1

Status: Ready

Weapon Model: M109A3 MCA

Caliber: 155MM CopperHead Capable

FA Category: Self Propelled Powder Temperature (F): 70

Min Range (m): 800 Bridge Class: 24

Max Range (m): 22400 Time Operational: 261039ZAUG93

Location Data

Location: 6 25363 034 44203 200 14

Prime Mover/Ammo Carrier

Vehicle Model: Bumper Number:

Mask/Azimuth Data

Azimuth of Lay(mils): 0

Item	Left AZ(mils)	Right AZ(mils)	Rng To Msk(m)	VA(mils)

Add Delete

OK Cancel Apply Help

Figure 3.18 Cannon Weapon Window

Powder Temperature (F): stores the measured propellant temperature of ready ammunition. This value is used in the technical computation of firing data to modify the muzzle velocity for the effect of temperature.

Bridge Class: is the weight a bridge must support to allow this gun to pass. This defaults based on the weapon model and cannot be edited by the operator. **Time Operational:** is the DTG the unit became operational. This is automatically entered but can be edited. This value is not used in processing.

Location: displays the grid from the basic unit data until weapon locations are calculated in the Calculate Wpn Loc tab. After calculation, the actual weapon location is displayed. Weapon location cannot be edited on the weapon tab. It must be edited on the Calculate Weapon Location tab.

The **Prime Mover/Ammo Carrier** section allows storage of data for the prime mover of a towed weapon or the ammunition vehicle for a self-propelled gun.

The **Mask/Azimuth Data** section displays all entered mask data. Up to eight sets of mask data can be stored. The **Add** button allows the mask data to be input. Each mask is composed of a right and left azimuth (not deflection), range (range-to-crest) and a vertical angle (site-to-crest). This data is used during fire mission processing to determine near crest violations, automating the application of XO's min QE.

The **Apply** button must be used to save data for each weapon to be added or edited. The button is selected to save the data prior to selecting another **Weapon Number:** for addition or edit.

3-15.3.1.4 Calculate Weapon Location Frame.

The Calculate Weapon Location frame is used to enter the location of assigned weapons and to compute the **Center of Battery Location**. The weapon location can be entered as standard map coordinates or calculated using polar data from a reference point.

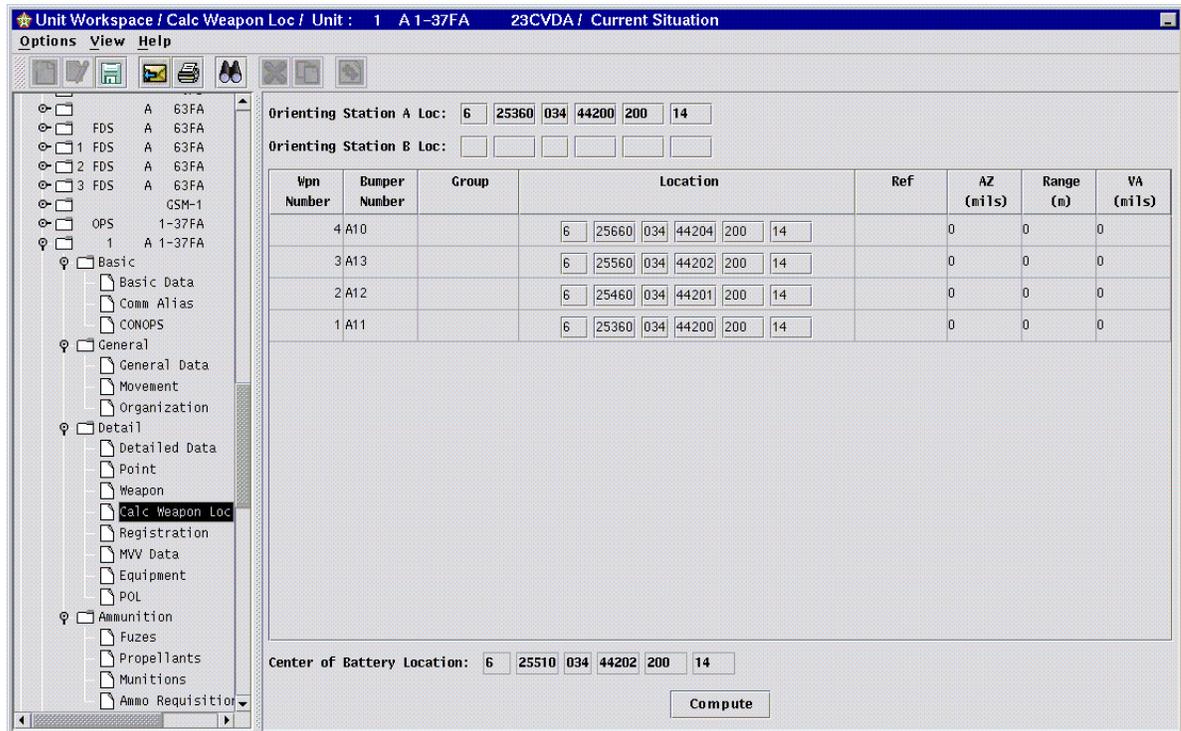


Figure 3.19 Calculate Weapon Location Frame

Orienting Station A Loc: and **Orienting Station B Loc:** fields are used to enter coordinates for two reference stations that can be used to orient other weapons. The **Wpn Number** and **Bumper Number** fields identify each weapon and can not be edited. The **Group** selections locate the weapon in relation to other weapons as **Left**, **Center**, or **Right**.

The **Location** fields can be entered directly using map coordinates, or calculated by entering polar data with reference to an orienting station or another weapon. The **Ref** selection allows the operator to select a station or weapon (by number) as the reference. The **AZ (mils)** field is used to enter the azimuth from the reference point to the weapon. The **Range (m)** field is the distance (in meters) from the reference point to the weapon. The **VA (mils)** is the vertical angle, (+ or -, in mils) from the reference point to the weapon.

The **Center of Battery Location:** field displays the calculated location of the battery based on weapon locations. Pressing the **Compute** button updates this location on this frame as well as the unit location on the **Basic Data** frame.

3-15.3.1.5 Registration Frame.

The **Registration** frame is used to display registration data that has been stored for use by assigned weapons. The **Reg Number** is a sequential number that identifies each row of data. The **Registering Unit** is the unit that conducted the registration. The **Wpn Number** is the weapon that fired the registration. The **Reg Time** is the DTG of the registration. The **Proj Model**, **Proj Lot**, and **Proj Country** identify the projectile fired for the registration.

The **New...** button opens the **New Registration** window to create a new set of registration data. The **Edit...** button opens the **Edit Registration** window to edit a selected set of data. The **Delete** button removes a selected set of data from the list. The **Send...** button opens the **Send To** window to select a destination unit to receive a selected set of data.

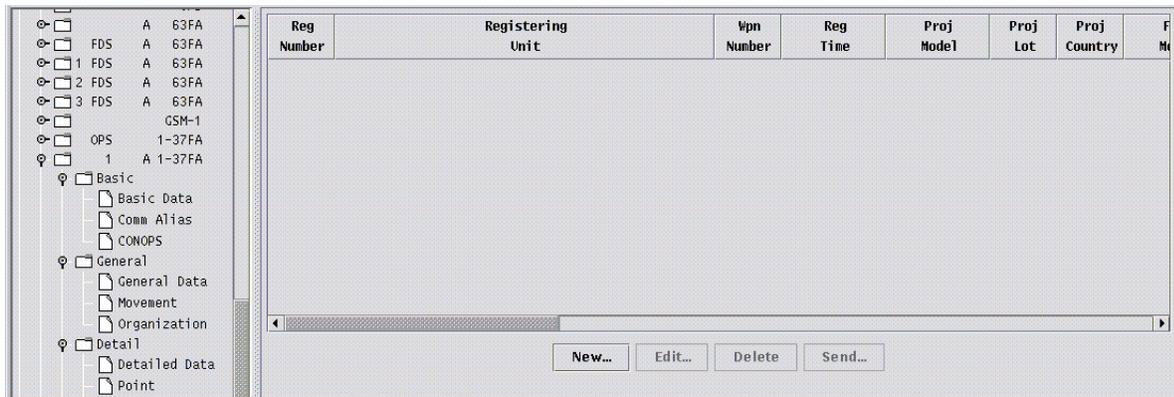


Figure 3.20 Registration Frame

3-15.3.1.6 MVV Frame.

MVV calibration data is automatically applied to a fire as available. Stored MVV data is checked to determine if previously fire data matches the mission to be fired. The matching criteria is as follows:

1. Weapon firing is the weapon for which MVV data was determined and stored.
2. Projectile fired is of the same family as the projectile calibrated.
3. The charge:
 - a. Fired matches the charge calibrated.
 - b. Fired matches within three increments, with higher calibrated transferring to lower fired charge preferred.
 - c. Restricted charge's MVV data will never transfer to any other charge.

The MVV data frame lists by **Line** number the **Proj Model**, **Prop Model**, **Prop Lot**, **Prop Chg**, **MVV (m/sec)**, **Type**, and **Last Update** of data.

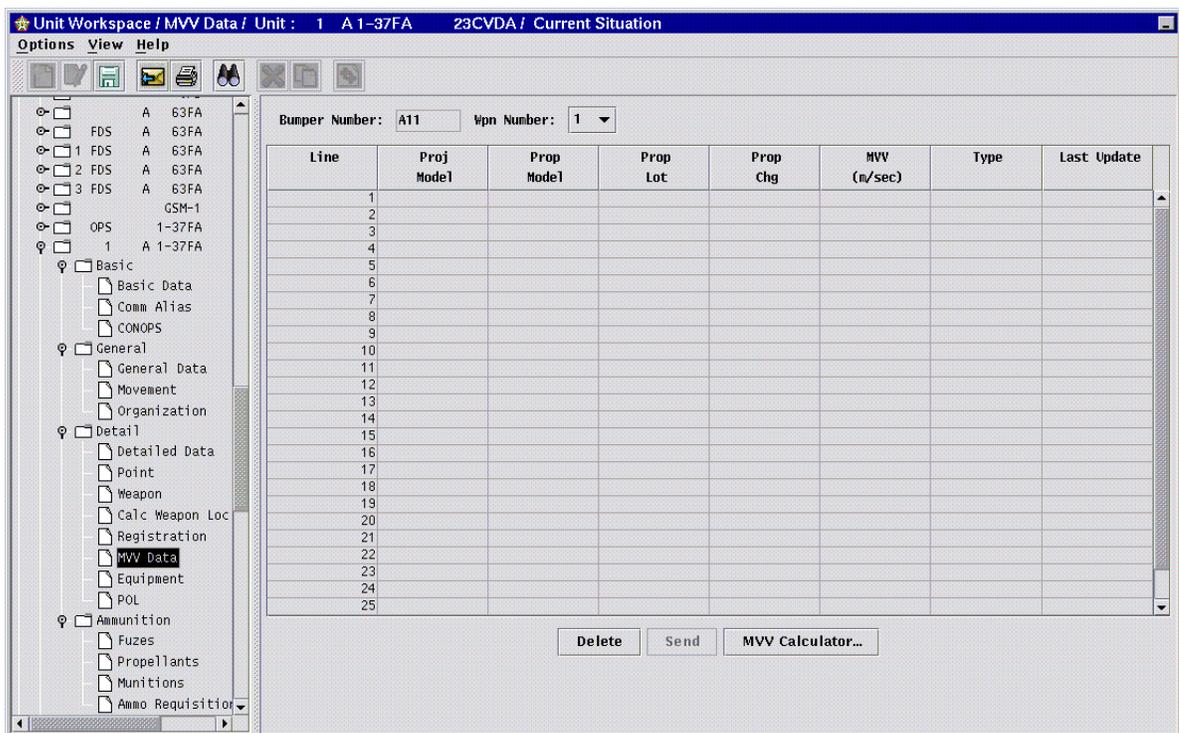


Figure 3.21 MVV Frame

3-15.3.2 Radar Unit Data Frame.

The Radar unit detailed frame is used to enter/display data specific to a radar unit. The **Radar Model:** field is display only. The type is determined when the unit to be created is selected.

The **Accuracy (m):** field is used to enter the expected target location accuracy. Legal entry is 1 to 1000 meters and has a default value dependent on the radar model.

The **Direction of Search (mils):** with the azimuth and range values determine the units range fan. Frequency and radar quantity information is also entered via this frame.

This frame contains listings for **Radar FFZ's** and **Cueing Units (by priority)**. Each list has an **Add...** and **Remove** button. Selecting **Add...** opens a window containing either a list of available FFZ's or units. When adding a cueing unit to a particular position (by priority), first select the list position and then the **Add...** button. The unit selected will then occupy the selected position.

The screenshot displays the Radar Unit Data Frame interface. On the left is a tree view with categories like Basic, General, and Detail. The main area contains the following fields and controls:

- Radar Model:** AN TPQ 37 (dropdown)
- Accuracy (m):** 100 (text input)
- Direction of Search (mils):** 500 (text input)
- Left Azimuth (mils):** 6100 (text input)
- Right Azimuth (mils):** 1300 (text input)
- Lower Frequency Code:** 3 (text input)
- Upper Frequency Code:** 13 (text input)
- Max Range 1 (m):** 30000 (text input)
- Max Range 2 (m):** 50000 (text input)
- Min Range (m):** 3000 (text input)
- Category:** Artillery Mortars (dropdown)
- Category:** Rockets (dropdown)
- Radar Quantities:**
 - Authorized: 1 (text input)
 - On Hand: 1 (text input)
 - Operational: 1 (text input)
 - On Requisition: 0 (text input)
- Radar FFZ's:** A list box containing AT1 and CFF1, with **Add...** and **Delete** buttons below.
- Cueing Units (by priority):** An empty list box, with **Add...** and **Delete** buttons below.

Figure 3.22 Radar Unit Frame

3-15.3.2.1 Radar Deployment Order Window.

The radar deployment order (RDO) is used to establish the location and/or coverage area of a radar unit. The normal method used to send a RDO is to open the radar unit icon menu and select **RDO**. The user then selects the **Current Location:** or **Next Location:** radio button to determine the unit location to be sent for the deployment. The **Next Location:** field can be edited to the deployment location required. The **Effective Time:** time is the time that the unit is operational at the new location or capable of a new coverage area. The range fan is then determined by entering the **Direction Of Search(mils):**, **Right Azimuth(mils):**, and **Left Azimuth(mils):**. **Radar Zones** are added or removed from the list as required. The **Send** button then saves the data to the database and transmits the RDO.

The data initially displayed on this window is taken from the basic, general, and detailed information tabs. Data can be edited on this window and will be saved when the RDO is sent. When sending a RDO, the location (current or next) for the deployment is selected via radio buttons. Only the selected location is sent with the deployment data.

The screenshot shows the 'Radar Deployment Order' window with the following fields and values:

- Unit ID: CBR 96 B 99TAB 23CVDA
- Sensor Type: AN/TPQ-37 (dropdown menu)
- Effective Time: (empty text box)
- Mission: GS (dropdown menu)
- Supported HQ: OPS 23CVDA (dropdown menu)
- Current Location: 6 31889 034 36197 0 14
- Next Location: 1 66021 000 00000 -9999 31
- Search Sector:
 - Direction Of Search (mils): 6100
 - Left Azimuth (mils): 5300
 - Right Azimuth (mils): 500
 - Lower Frequency Code: 1
 - Upper Frequency Code: 5
 - Min Range (M): 3000
 - Max Range 1 (M): 30000
 - Max Range 2 (M): 50000
- Radar Zone: (empty list area with 'Add...' and 'Remove' buttons)
- Cueing Units (by priority): (empty list area with 'Add...' and 'Remove' buttons)
- Buttons: OK, Send, Cancel, Help

Figure 3.23 Radar Deployment Order Window

3-15.3.3 Air/Aviation Unit Data Frame.

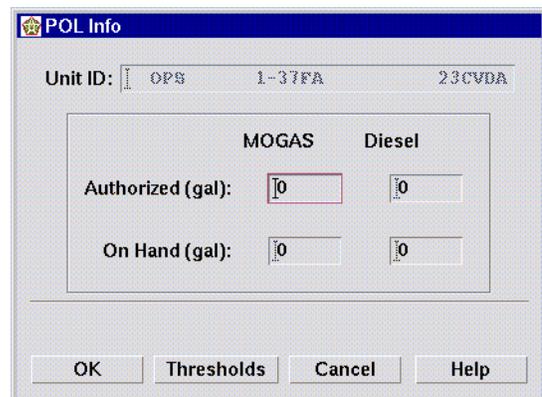
The Air/Aviation data frame displays the **Response Time (min):**, **Mission Saturation:**, and **Munition Types Available** for air support allocated to the **Unit ID:**. Munition types not applicable to the unit type are greyed-out.



Figure 3.24 Air/Aviation Unit Frame

3-15.3.4 POL Information Window.

This window is accessed via the **Basic Unit Data** window **Detail\POL** menu tree selection. The **POL Info** window is used to enter and/or view the **Authorized (gal):** and **On Hand (gal):** of **MOGAS** and **Diesel** fuel for a unit. The **Unit ID:** field displays the ID of the unit being created or viewed. This field cannot be edited.



A direct-entry field is provided for **Authorized (gal):** and **On Hand (gal):** for both types of fuel. These fields are both editable, but are not required entries.

The **Thresholds** button accesses the **Thresholds** window. This window is used to control the status display on the **POL Summary** window that is accessed from the unit **Description** window. The **Thresholds** window function is described later in this section.

3-15.3.5 Edit Equipment Window.

This window is accessed via the **Basic Unit Info** window **Detail\Equipment** menu tree selection. The **Edit Equipment** window is used to enter and/or view the equipment availability and status for a unit. The **Unit ID:** field displays the ID of the unit being created or viewed. This field cannot be edited.

Radio buttons are used to select the category of equipment for data display. Data includes the **Model**, **Auth** (authorized) quantity, **On Hand** quantity, **Opnl** (operational) quantity, and the number of items **On Req** (requisition).

The **Model** fields cannot be edited. All quantity fields can be edited, but are not required.

The **Thresholds** button accesses the **Thresholds** window. This window is used to control the status display on the **Equipment Summary** window that is accessed from the unit **Description** window. The **Thresholds** window function is described later in this section.

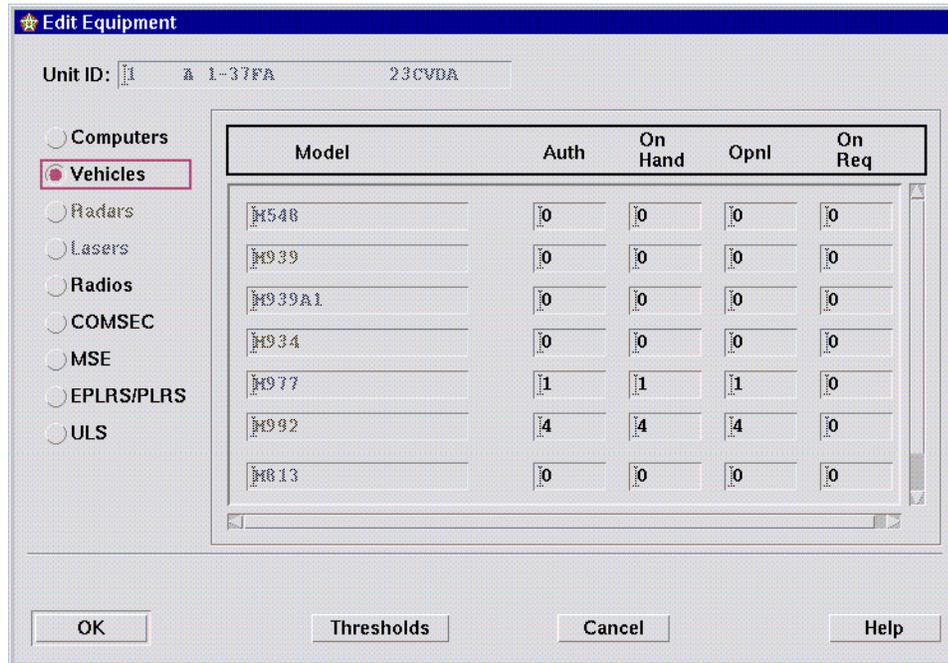
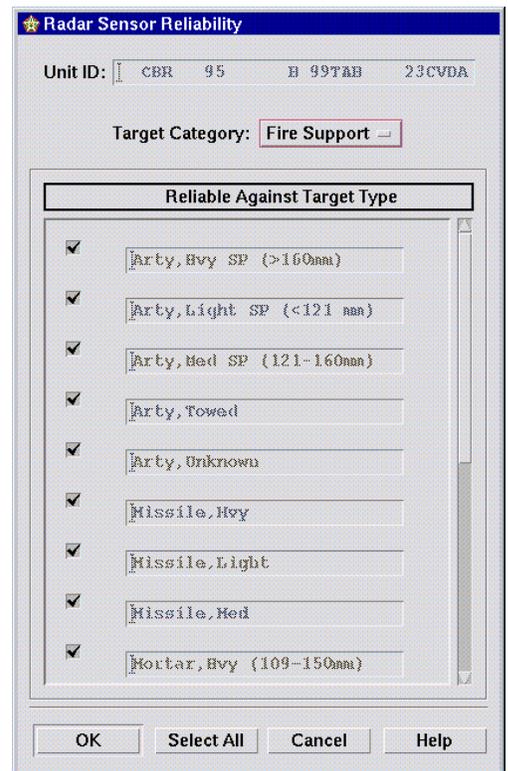


Figure 3.25 Edit Equipment Window

3-15.3.6 Radar Sensor Reliability Window.

This window is accessed via the **Radar Unit Data** window using the **Options/Reliability** selection. This window allows the user to assign true/false values of reliability for a sensor against various target types. Selecting a check box for a target type indicates that the sensor is reliable for that type.



3-15.4 Ammunition Data Frames and Windows.

3-15.4.1 Fuze Frame.

The **Fuzes** frame displays data on the categories, quantities, and models of fuzes at the local unit. The **Category** fields list the types of fuzes. The **Authorized Quantity** lists the authorization of each category of fuze. This field is editable on this frame.

The **On Hand** is the number of fuzes available for each **Model**. The **Last Update** is the DTG that the data for a category/model was changed. The **DODAC** is the Department of Defense Ammunition Code for the fuse model.

The **Delete** button removes the **On Hand** quantity for a selected category/model. The **Edit** button opens the **Fuze** window for a selected category and model.

The screenshot shows a software interface with a navigation tree on the left and a data table titled "Fuze Summary" on the right. The table has six columns: Category, Authorized Quantity, On Hand, Model, Last Update, and DODAC. The data rows include various fuze types like PD, Time, VT, and CP with their respective quantities and codes.

Category	Authorized Quantity	On Hand	Model	Last Update	DODAC
PD	128	0	MK399 MOD1	082140ZSEP93	1390N347
PD	128	64	M557	082140ZSEP93	1390N335
PD	128	64	M572	082140ZSEP93	1390N311
PD	128	0	M739	082140ZSEP93	1390N340
PD	128	0	M739A1	082140ZSEP93	1390N341
Time	400	0	M548	101626ZSEP93	1390N282
Time	400	48	M564	101626ZSEP93	1390N278
Time	400	0	M565	101626ZSEP93	1390N248
Time	400	290	M577	101626ZSEP93	1390N335
Time	400	0	M577A1	101626ZSEP93	1390N336
Time	400	48	M582	101626ZSEP93	1390N286
Time	400	0	M582A1	101626ZSEP93	1390N286
Time	400	0	M762	101626ZSEP93	1390N289
Time	400	0	M767	101626ZSEP93	1390N290
VT	160	0	M514	081409ZSEP93	1390N411
VT	160	0	M514A1	081409ZSEP93	1390N462
VT	160	64	M514A3	081409ZSEP93	1390N462
VT	160	0	M514B1	081409ZSEP93	1390N462
VT	160	48	M728	081409ZSEP93	1390N463
VT	160	0	M732A2	081409ZSEP93	1390N291
VT	160	48	M732	081409ZSEP93	1390N464
CP	0	0	M78	300911ZAU93	1390N330

Figure 3.26 Fuze Frame

3-15.4.1.1 Fuze Window.

This window is accessed via the Fuze frame **Edit** selection. This window is used to enter the fuze records of a unit. This window is valid for cannon and other units.

The Fuze window displays the following information:

- Unit ID:** 1 A 1-37FA 23CVDA
- Last Update:** 082140ZSep93
- Model:** M739
- Color:** []
- Category:** PD
- Charges:** []
- DODAC:** 1390N340
- Min Range(in):** []
- Max Range(in):** []

Item	Lot Code	Lot Number	On Hand	Projectile Weight (Pounds)	Projectile Weight (Squares)
1	[]	[]	[]	[]	[]
2	[]	[]	[]	[]	[]
3	[]	[]	[]	[]	[]
4	[]	[]	[]	[]	[]

TOTAL on Hand: 0

Buttons: OK, Cancel, Help, Delete

Figure 3.27 Fuze Window

3-15.4.2 Propellant Frame.

The **Propellants** frame displays data on the categories, quantities, and models of propellants at the local unit. The **Category** fields list the types of propellants. The **Authorized Quantity** lists the authorization of each category of propellant. This field is editable on this frame.

The **On Hand** is the number of propellants available for each **Model**. The **Last Update** is the DTG that the data for a category/model was changed. The **DODAC** is the Department of Defense Ammunition Code for the propellant model. The **Charges** field lists the available charges for each propellant.

The **Delete** button removes the **On Hand** quantity for a selected category/model. The **Edit** button opens the **Propellant** window for a selected category and model.

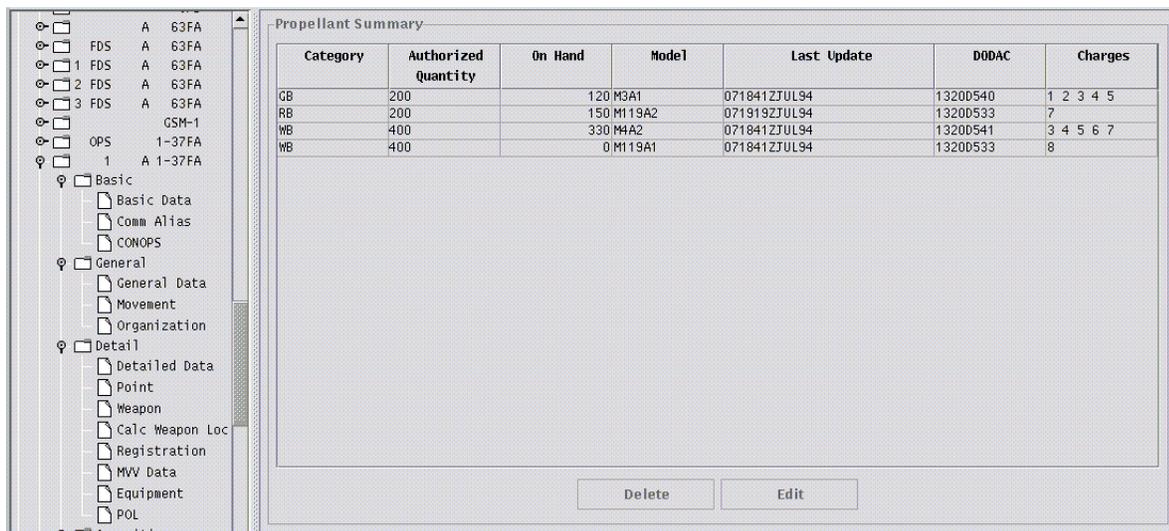


Figure 3.28 Propellant Frame

3-15.4.2.1 Propellant Window.

This window is accessed via the Propellant frame **Edit** selection. This window is used to enter propellant records of a unit. This window is valid for cannon and other units.

The screenshot shows a software window titled "Propellant". At the top, there are input fields for "Unit ID" (containing "1 A 1-37FA 23CVDA") and "Last Update" (containing "131817ZFeb01"). Below these are fields for "Model" (M119A2), "Color" (Red Bag), "Charges" (7), "Category" (empty), "DODAC" (1320D533), "Min Range(in)" (empty), and "Max Range(in)" (empty). A table with 6 columns is present: "Item", "Lot Code", "Lot Number", "On Hand", "Projectile Weight (Pounds)", and "Projectile Weight (Squares)". The first row contains the values "1", "R", "RBP93D222 003", "300", and two empty cells. Below the table is a "TOTAL on Hand:" field containing "300". At the bottom are "Delete", "OK", "Cancel", and "Help" buttons.

Item	Lot Code	Lot Number	On Hand	Projectile Weight (Pounds)	Projectile Weight (Squares)
1	R	RBP93D222 003	300		
2					
3					
4					

Figure 3.29 Propellant Window

3-15.4.3 Munitions Frame.

The **Munitions** frame displays data on the categories, quantities, and models of munitions at the local unit. The **Category** fields list the types of munitions. The **Authorized Quantity** lists the authorization of each category of munition. This field is editable on this frame.

The **On Hand** is the number of munitions available for each **Model**. The **Last Update** is the DTG that the data for a category/model was changed. The **DODAC** is the Department of Defense Ammunition Code for the munition model. The **Min Range (m)** and **Max Range (m)** display the minimum and maximum ranges for the munition category/model.

The **Delete** button removes the **On Hand** quantity for a selected category/model. The **Edit** button opens the **Munition** window for a selected category and model.

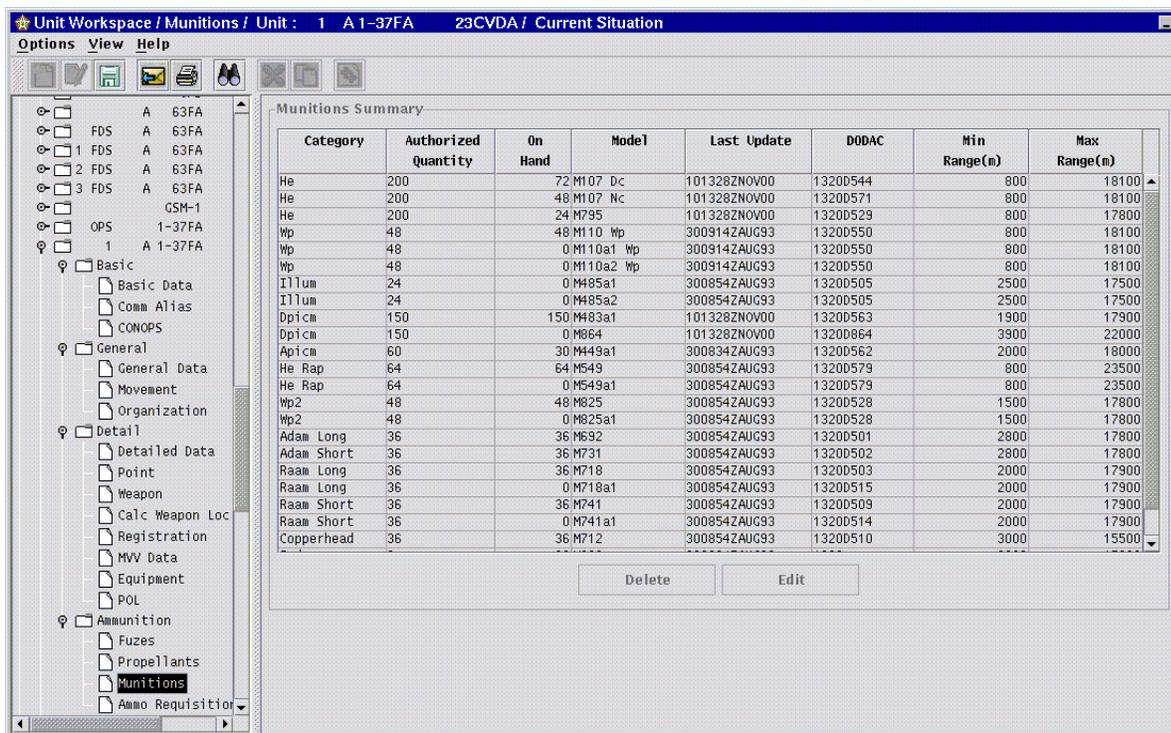


Figure 3.30 Munitions Frame

3-15.4.3.1 Cannon Mortar Mmunition Window.

This window is accessed via the Mmunition frame **Edit** selection. This window is used to enter the munition records of a C/M unit.

Cannon Mortar Mmunition

Unit ID: [1 A 1-37FA 23CVDA]

Last Update: [132026ZFeb01]

Model: [M795] Color: []

Category: [HE] Charges: []

DODAC: [1320D529] Min Range(m): [900]

Max Range(m): [17800]

Item	Lot Code	Lot Number	On Hand	Projectile Weight (Pounds)	Projectile Weight (Squares)
[1]	[]	[JDC90A141 567]	[2400]	[103.5]	[]
[2]	[]	[]	[]	[]	[]
[3]	[]	[]	[]	[]	[]
[4]	[]	[]	[]	[]	[]

TOTAL on Hand: [2400]

[Delete]

[OK] [Cancel] [Help]

Figure 3.31 Cannon Mortar Mmunition Window

3-15.4.4 Select Ammo Requisition Window.

This window is accessed via the **Basic Unit Info\Options\Ammo Requisition** window. This window allows the user to maintain ammo requisition data for the unit.

Select Ammo Requisition

Options: []

Unit ID: [1 A 1-37FA 23CVDA]

DTG Created: []

[OK] [Cancel] [Help]

3-15.4.4.1 Ammo Requisition Window.

This window is accessed via the **Select Ammo Requisition** window. This window allows the user to fill out an ammo requisition. This window allows the operator to print a hard copy of the request. Electronic transfer is not available in current software.

The screenshot shows the 'Ammo Requisition' window with the following fields and controls:

- Unit ID: 1 A 1-37FA 23CVDA
- DTG Required: 301349ZMar01
- DODAAC: [empty]
- Allocation Period: [empty]
- Requested By: [empty]
- Date (Julian): 1089

Item	Ammunition	DODIC	NSN	Model	UI	Qty
1	Munitions	[empty]	[empty]	[empty]	[empty]	0

Buttons: New, Delete, OK, Print..., Cancel, Help

Figure 3.32 Ammo Requisition Window

3-16 MLRS MUNITION WINDOW.

This window is accessed via the **Uploaded Rocket Summary** tab of the BUD window **New** or **Edit** selection. This window is used to enter the munition quantities in a launcher or uploaded on a Rocket unit.

The screenshot shows a dialog box titled "MLRS Munition". At the top, there is a "Unit ID" field containing "1 2 A 65FA 23CVDA" and a "Last Update" field containing "151444ZMay01". Below these is a section for "Model" (Hjeq), "Category" (MLRS DPICM), "DODAC" (empty), "Min Range (m)" (15000), and "Max Range (m)" (60000). A "Posture Response Time" section contains a sub-section "On Hand" with three input fields: "0-2 min:" (0), "2-5 min:" (0), and "5-20 min:" (0). To the right of this are three more input fields: "MLRS on-ground:" (empty), "On-ground Response (min):" (empty), "MLRS on-wheels:" (empty), and "On-wheels Response (min):" (empty). At the bottom of the "On Hand" section is a "TOTAL on Hand:" field containing "0". At the very bottom of the dialog are three buttons: "OK", "Cancel", and "Help".

Figure 3.33 MLRS Munition Window

3-17 STORED MLRS MUNITION WINDOW.

This window is accessed via the **Stored Rocket Sites** tab of the BUD window **Edit** selection. This window is used to enter the munition quantities in a storage site.

The screenshot shows a software window titled "Stored MLRS Munition". It contains several input fields and a section for response times. The fields are as follows:

- Unit ID: 1 2 A 65FA 23CVDA
- Last Update: 1515052May01
- Model: H1eq
- Category: MLRS DPICM
- DODAC: [empty]
- Min Range (m): 15000
- Max Range (m): 60000
- Posture Response Time section:
 - On Hand: [empty]
 - 0-2 min: [empty]
 - 2-5 min: [empty]
 - 5-20 min: [empty]
 - MLRS on-ground: 0
 - On-ground Response (min): 0
 - MLRS on-wheels: 0
 - On-wheels Response (min): 0
- TOTAL on Hand: 0

At the bottom of the window are three buttons: OK, Cancel, and Help.

Figure 3.34 Stored MLRS Munition Window

3-18 THRESHOLDS WINDOW.

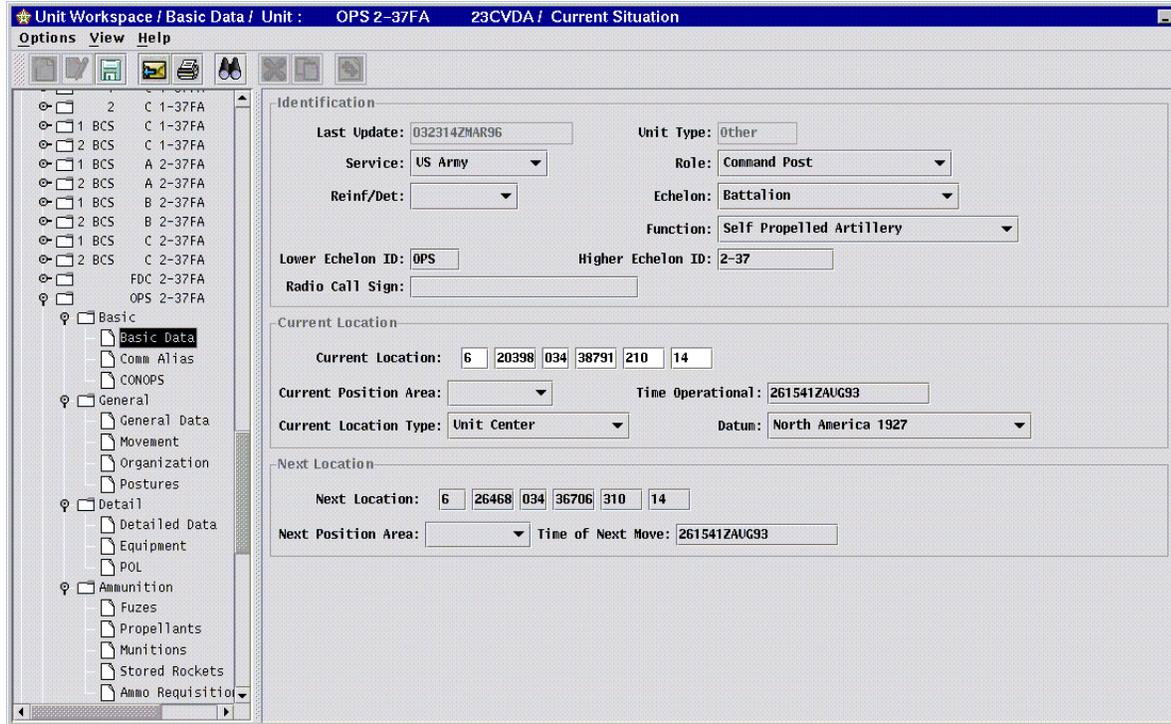
The **Thresholds** window is accessed from many different points. This window is used to set alert thresholds for the different categories of authorized items. Thresholds are set by placing the cursor in one of the adjustable areas (black, red, or yellow) and depressing the left trackball button. With the button depressed, a light colored border appears inside the selected area. Moving the cursor right or left (trackball button depressed) causes the left edge of the selected area to move in the same direction. When the trackball button is released, the value determined by the position of the left edge of the area will be displayed in the corresponding status at the top of the window.



Figure 3.35 Thresholds Window

3-19 CREATE/EDIT FRIENDLY UNIT PROCEDURE.

As explained in the window navigation description, the **Unit Workspace** window is accessed in various manners. The method of access depends on the procedure to be performed. A unit is created by copying and editing data from an existing unit or by entry of all new data. This procedure describes the creation of a unit using all new data in order to cover all steps of the process. To edit data for a unit, the user selects the appropriate steps from the procedure to accomplish the required editing.



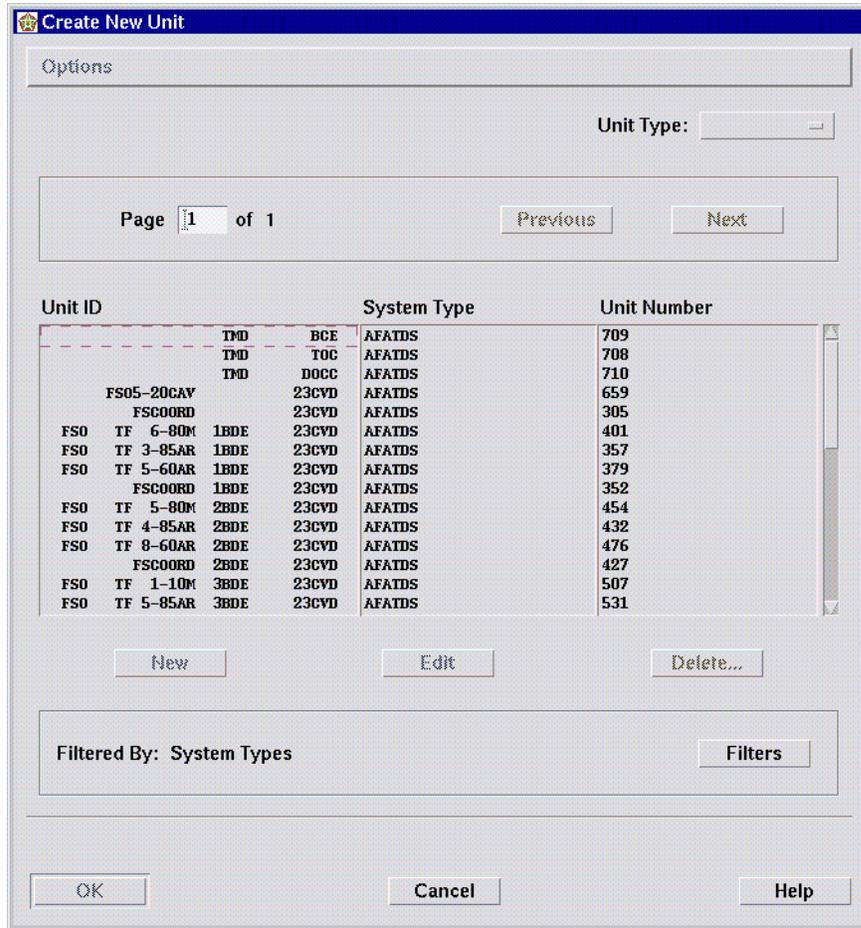
NOTE

Open the **Unit Workspace** window using the **Units Workspace...** selection. To perform the following functions of the **Unit Workspace** window, proceed to the indicated steps.

- Create a new friendly unit step 1
- Copy a unit from established units list step 5
- Copy unit from map symbol step 7
- Edit a unit from established units list step 14
- Edit unit from map symbol step 16

Create/Edit Friendly Unit Procedure

Step	Action	Response
1.	<u>Select Options\New\New Friendly Unit.</u>	Create New Unit window opens.



NOTE

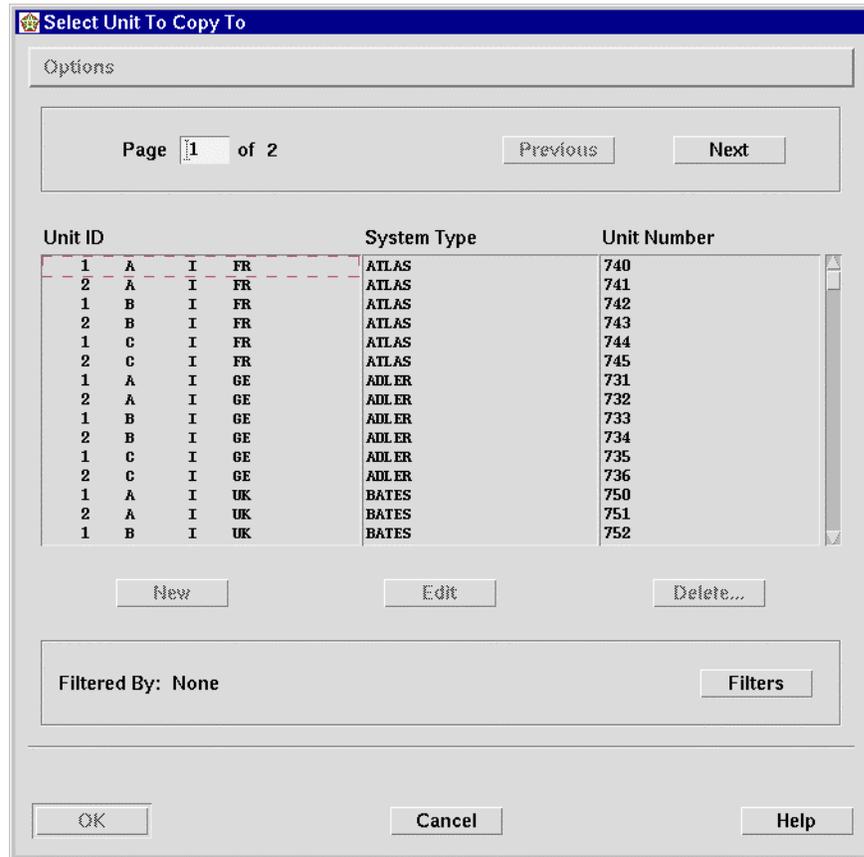
The number of units viewed may be reduced by using the **Filters** function. This allows the operator to find a unit more quickly. See the paragraph on Master Unit List for a description of this function.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
2.	<u>Select Unit Type:</u>	
3.	<u>Select Unit ID.</u>	
4.	<u>Select OK.</u> Proceed to note prior to step 19.	Unit Workspace window activates.
5.	<u>Select Unit ID to be copied.</u>	
6.	<u>Select Options\Copy...</u> Proceed to step 10.	Select Unit To Copy To window opens.
7.	<u>Select unit to be copied</u> on map display using Left Trackball button.	
8.	<u>Depress Right Trackball button.</u>	Unit menu opens.
9.	<u>Select Copy...</u> from menu.	Select Unit To Copy To window opens.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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NOTE

The number of units viewed may be reduced by using the **Filters** function. This allows the operator to find a unit more quickly. See the paragraph on Master Unit List for a description of this function.

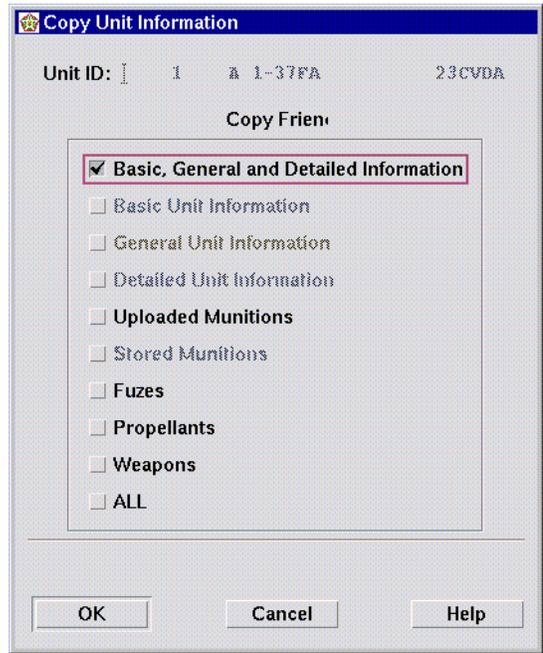
10. Select new unit ID from **Select Unit To Copy To** list.

11. Select OK.

Copy Unit Information window opens.

Create/Edit Friendly Unit Procedure - CONT

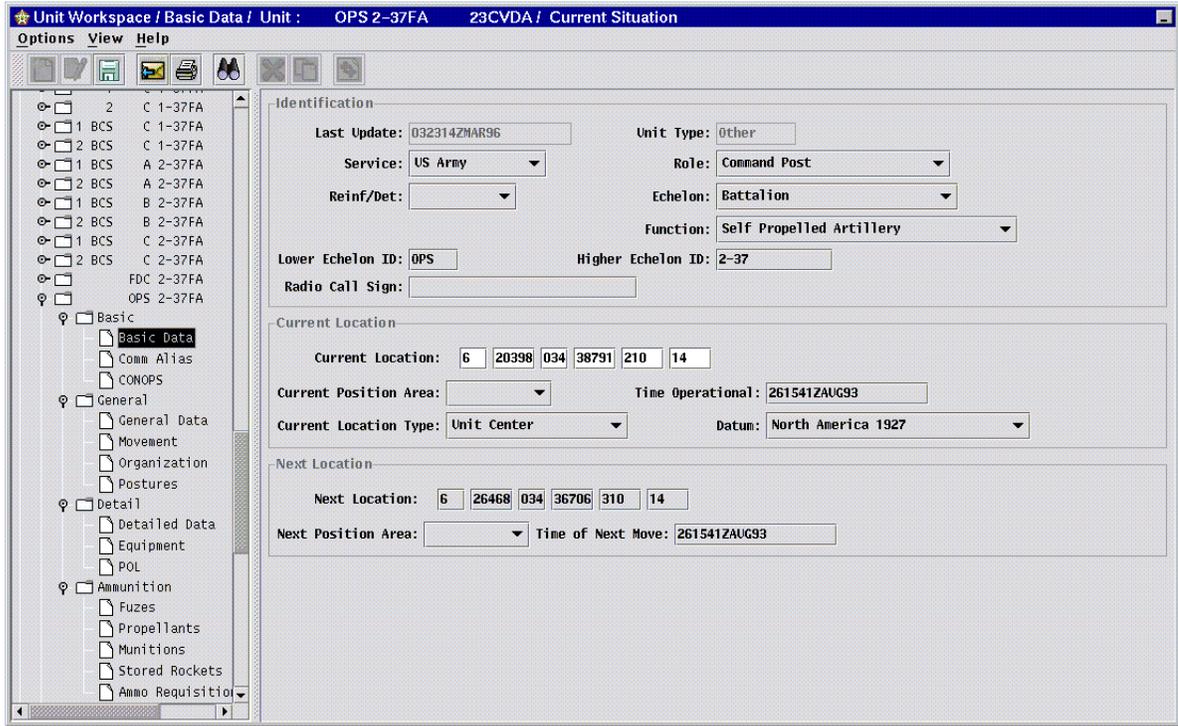
Step	Action	Response
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12.	<u>Select items to copy</u> using check boxes.	
13.	<u>Select OK</u> . (proceed to step 19).	New Unit ID is added to the Unit Workspace window.
14.	<u>Select unit to edit</u> .	
15.	<u>Select Options>Edit</u> . Proceed to step 19.	Menu tree expands for selected unit.
16.	<u>Select unit</u> to be edited on map display using <u>Left Trackball button</u> .	
17.	<u>Depress Right Trackball button</u> .	Unit menu opens.
18.	<u>Select Edit</u> from menu.	Unit Workspace window opens.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
------	--------	----------



NOTE

The following table indicates which selections are applicable for the different unit types.

Menu Tree Selection	Unit Type							
	Other	Cannon/ Mortar	Rocket	Observer	Radar	Air	Aviation	NSFS
BASIC								
Basic Data								
Comm Alias								
CONOPS								
GENERAL								
General Data								
Movement								
Organization								
Postures								
RDO								
DETAIL								
Detailed Data								
Point								
Weapon								
Calc Weapon Loc								
Registration								
MVV Data								
Equipment								
POL								
Reliability								
SPLL Command								
Deployment Command		Howitzer only						
AMMUNITION								
Uploaded Rockets								
Stored Rockets								
Fuzes								
Propellants								
Munitions								
Ammo Requisition								
Gun								
Missile								

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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NOTE

Proceed to step 19 when creating a new unit. To perform the following functions during a unit edit, proceed to the indicated steps.

Edit Basic Data information	step 19
View Comm Alias	step 36
Edit CONOPS information	step 39
Edit General Info	step 66
Edit Movement Factors	step 80
View Unit Organization	step 90
Edit Cannon/Mortar or Rocket/Missile Unit Data	step 95
Edit Other Unit Data	step 114
Edit Observer Unit Data	step 119
Edit Radar Unit Data	step 134
Edit Air/Aviation Unit Data	step 159
Edit NSFS Unit Data	step 165
View Point Data	step 188
Edit weapon Data	step 191
Calculate weapon location	step 219
Edit registration data	step 231
Edit MVV data	step 262
Edit Equipment data	step 272
Edit POL data	step 286
Edit Fuzes	step 299
Edit Propellants	step 310
Edit Munitions (Cannon/Mortar unit).....	step 321
Edit Uploaded Rockets	step 334
Edit Stored Rockets	step 343
Ammo Requisition	step 361
Edit MLRS Posture	step 387
Edit Radar Deployment Order	step 412
Edit reliability	step 432
Print unit data	step 438
Send unit data	step 445

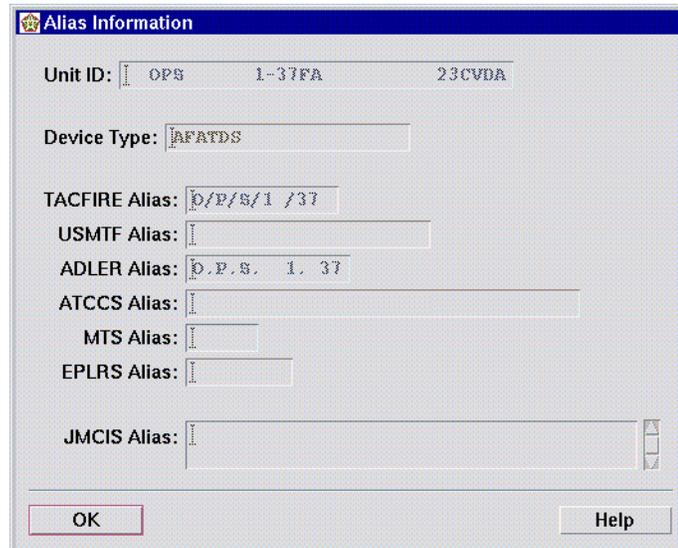
- | | |
|-----|---------------------------------|
| 19. | <u>Select Service:</u> |
| 20. | <u>Select Reinf/Det:</u> |
| 21. | <u>Select Role.</u> |

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
22.	<u>Select Echelon.</u>	
23.	<u>Select Function.</u>	
24.	<u>Enter Lower Echelon ID:.</u>	
25.	<u>Enter Higher Echelon ID:.</u>	
26.	<u>Enter Radio Call Sign:.</u>	
27.	<u>Enter Current Location:.</u>	
28.	<u>Select Current Position Area:.</u>	
29.	<u>Enter Time Operational:.</u>	
30.	<u>Select Current Location Type:.</u>	
31.	<u>Select Datum:.</u>	
32.	<u>Enter Next Location:.</u>	
33.	<u>Select Next Position Area:.</u>	
34.	<u>Enter Time of Next Move:.</u>	
35.	<u>If creating a new unit, proceed to step 66.</u>	
36.	<u>Select Basic\Comm Alias</u> from menu tree.	Alias Information window opens.

Create/Edit Friendly Unit Procedure - CONT

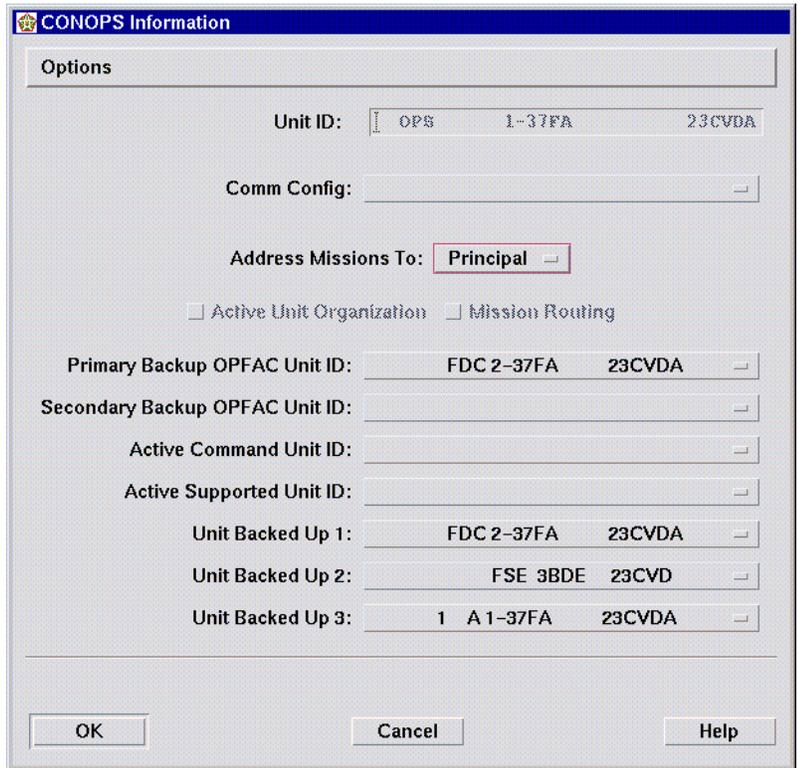
Step	Action	Response
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- | | | |
|-----|---|---|
| 37. | <u>View alias information, select OK.</u> | Alias Information window closes. |
| 38. | <u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window. | |
| 39. | <u>Select Basic\CONOPS</u> from menu tree. | CONOPS Information window opens. |

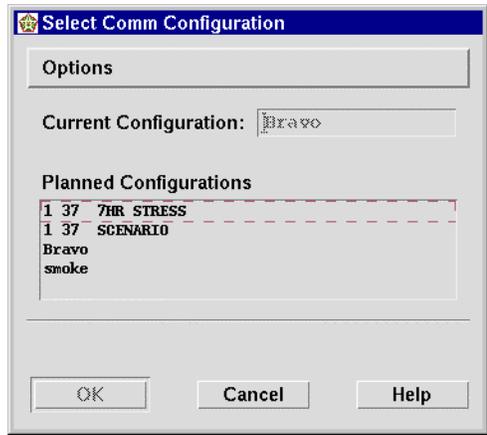
Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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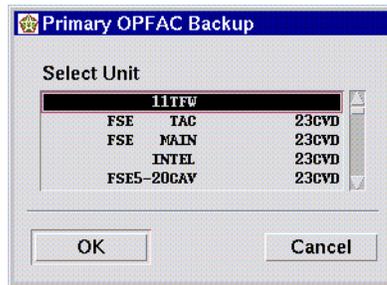
40. Select Comm Config:\Select...

Select Comm Configuration window opens.

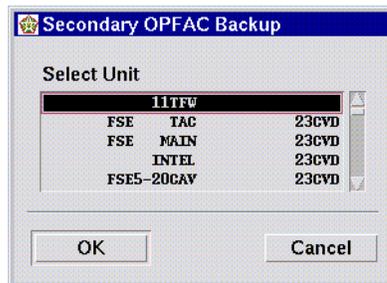


Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
41.	<u>Select a configuration.</u>	
42.	<u>Select OK.</u>	Select Comm Configuration window closes. Selection is displayed on CONOPS Information window.
43.	<u>Select Primary Backup OPFAC Unit ID:\Select...</u>	Primary OPFAC Backup window opens.

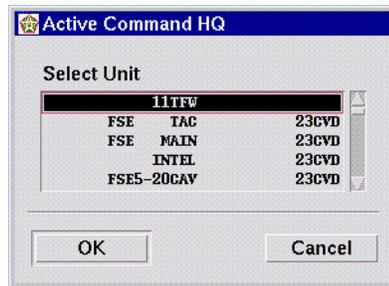


44.	<u>Select Primary Backup unit.</u>	
45.	<u>Select OK.</u>	Primary OPFAC Backup window closes. Selection is displayed on CONOPS Information window.
46.	<u>Select Secondary Backup OPFAC Unit ID:\Select...</u>	Secondary OPFAC Backup window opens.

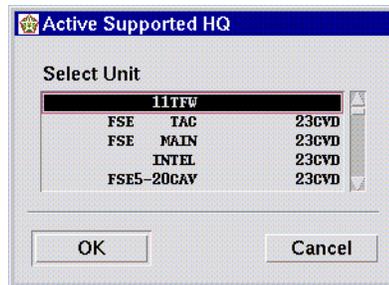


Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
47.	<u>Select Secondary Backup unit.</u>	
48.	<u>Select OK.</u>	Secondary OPFAC Backup window closes. Selection is displayed on CONOPS Information window.
49.	<u>Select Active Command Unit ID:\Select...</u>	Active Command HQ window opens.

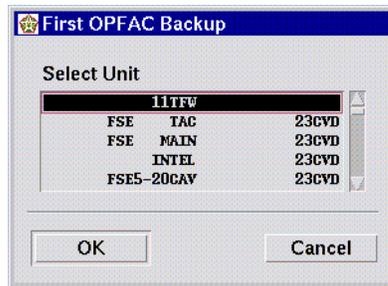


50.	<u>Select Active Command unit.</u>	
51.	<u>Select OK.</u>	Active Command HQ window closes. Selection is displayed on CONOPS Information window.
52.	<u>Select Active Supported Unit ID:\Select...</u>	Active Supported HQ window opens.

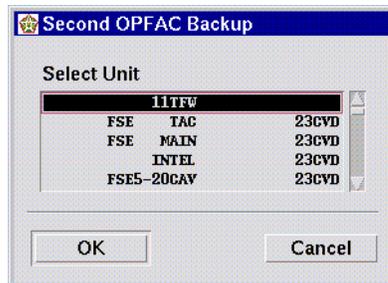


Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
53.	<u>Select Active Supported unit.</u>	
54.	<u>Select OK.</u>	Active Supported HQ window closes. Selection is displayed on CONOPS Information window.
55.	<u>Select Unit Backed Up 1:\Select....</u>	First OPFAC Backup window opens.

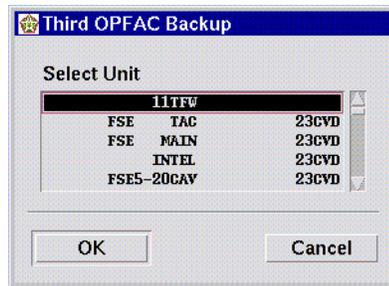


56.	<u>Select unit.</u>	
57.	<u>Select OK.</u>	First OPFAC Backup window closes. Selection is displayed on CONOPS Information window.
58.	<u>Select Unit Backed Up 2:\Select....</u>	Second OPFAC Backup window opens.



Create/Edit Friendly Unit Procedure - CONT

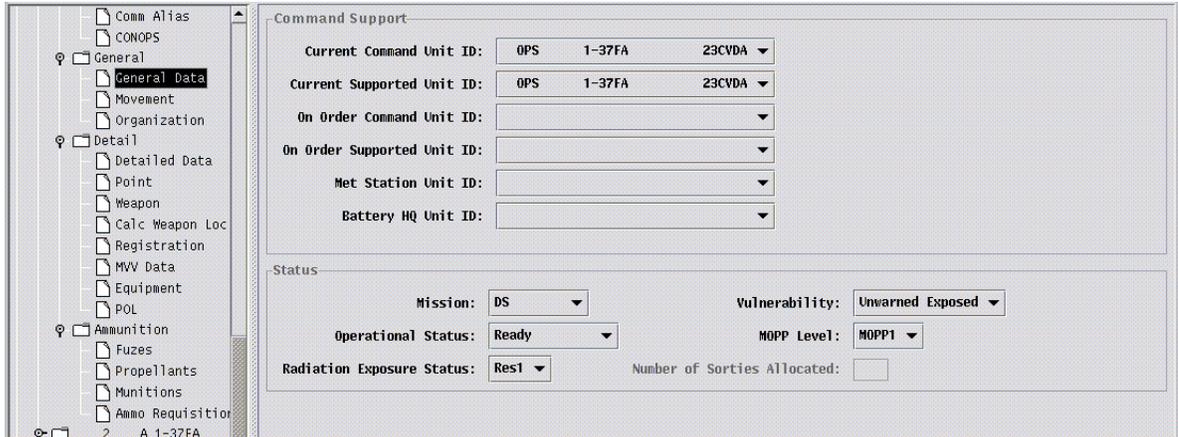
Step	Action	Response
59.	<u>Select unit.</u>	
60.	<u>Select OK.</u>	Secondary OPFAC Backup window closes. Selection is displayed on CONOPS Information window.
61.	<u>Select Unit Backed Up 3:\Select....</u>	Third OPFAC Backup window opens.



62.	<u>Select unit.</u>	
63.	<u>Select OK.</u>	Third OPFAC Backup window closes. Selection is displayed on CONOPS Information window.
64.	<u>Select OK.</u>	CONOPS Information window closes.
65.	<u>Proceed to note prior to step 19 to perform other functions of Unit Workspace window.</u>	
66.	<u>Select General\General Data from menu tree.</u>	General Data frame is displayed.

Create/Edit Friendly Unit Procedure - CONT

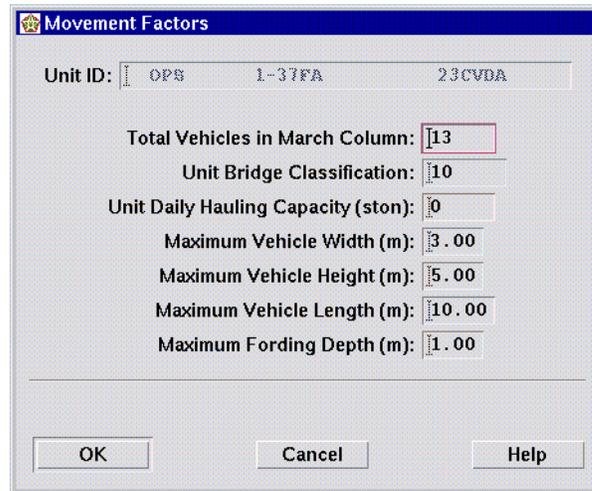
Step	Action	Response
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- | | |
|-----|---|
| 67. | <u>Select Current Command Unit ID:</u> |
| 68. | <u>Select Current Supported Unit ID:</u> |
| 69. | <u>Select On Order Command Unit ID:</u> |
| 70. | <u>Select On Order Supported Unit ID:</u> |
| 71. | <u>Select Met Station ID:</u> |
| 72. | <u>Select Battery HQ Unit ID:</u> |
| 73. | <u>Select Mission:</u> |
| 74. | <u>Select Vulnerability:</u> |

Create/Edit Friendly Unit Procedure - CONT

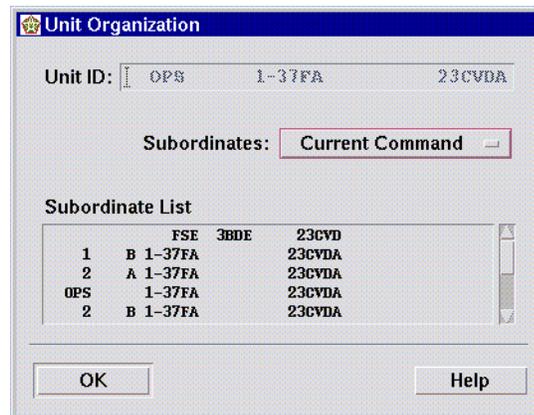
Step	Action	Response
75.	<u>Select Operational Status:</u>	
76.	<u>Select MOPP Level:</u>	
77.	<u>Select Radiation Exposure Status:</u>	
78.	<u>Enter Number of Sorties Allocated:</u>	
79.	<u>If creating a new unit proceed to note prior to step 19 to select detailed data frame for unit type or perform other functions of Unit Workspace window.</u>	
80.	<u>Select General\Movement from the menu tree.</u>	Movement Factors window opens.



81.	<u>Enter Total Vehicles in March Column: (0-99999).</u>
82.	<u>Enter Unit Bridge Classification: (0-99).</u>

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
83.	<u>Enter Unit Daily Hauling Capacity (ston):</u> (0-99999).	
84.	<u>Enter Maximum Vehicle Width (m):</u> (0.00-6.00).	
85.	<u>Enter Maximum Vehicle Height (m):</u> (0.00-9.99).	
86.	<u>Enter Maximum Vehicle Length (m):</u> (0.00-30.00).	
87.	<u>Enter Maximum Fording Depth (m):</u> (0.00-9.99).	
88.	<u>Select OK.</u>	Movement Factors window closes.
89.	<u>Proceed to note prior to step 19 to perform other functions of Unit Workspace window.</u>	
90.	<u>Select General\Organization</u> from menu tree.	Unit Organization window opens.



Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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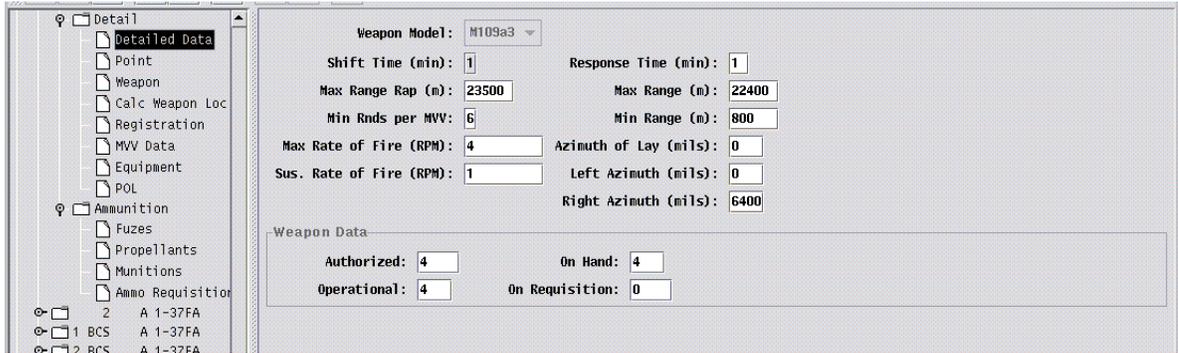
NOTE

This window is view only. A selection from the **Subordinates** pop-up menu displays the appropriate listing.

91.	<u>Select Subordinates:</u> .	Subordinate List displays list for selected category.
92.	Repeat step 91 as required for each <u>Subordinates:</u> selection.	
93.	<u>Select OK.</u>	Unit Organization window closes.
94.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
95.	<u>Select Detail\Detailed Data.</u>	Detailed frame for cannon/mortar or rocket/missile is displayed.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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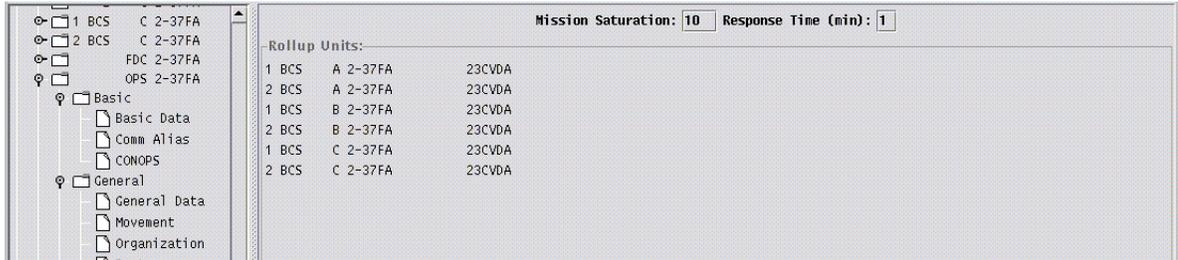
96. Select **Weapon Model:** (new unit only).
97. Enter **Shift Time (min):** (1-2).
98. Enter **Response Time (min):** (1-99).
99. Enter **Max Range RAP(m):** (0-200000).
100. Enter **Max Range (m):** (0-200000).
101. Enter **Min Rnds per MVV:**
102. Enter **Min Range (m):** (0-200000).
103. Enter **MAX Rate of Fire (RPM):** (1.5-30.0).

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
104.	<u>Enter Azimuth of Lay (mils):</u> (0-6399).	
105.	<u>Enter Sus Rate of Fire (RPM):</u> (0.5-30.0).	
106.	<u>Enter Left Azimuth (mils):</u> (number of mils difference from AOL to left limit; 0-6400).	
107.	<u>Enter Right Azimuth (mils):</u> (number of mils difference from AOL to right limit; 0-6400).	
108.	<u>Enter Authorized:</u> quantity of weapons. (0-99999).	
109.	<u>Enter Operational:</u> quantity of weapons. (0-9999).	
110.	<u>Enter On Hand:</u> quantity of weapons. (0-99999).	
111.	<u>Enter On Requisition:</u> quantity of weapons. (0-99999).	
112.	<u>Select Options\Save</u> if creating a new unit.	Menu tree is expanded.
113.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
114.	<u>Select Detail\Detailed Data</u> .	Detailed frame for Other type unit is displayed.

Create/Edit Friendly Unit Procedure - CONT

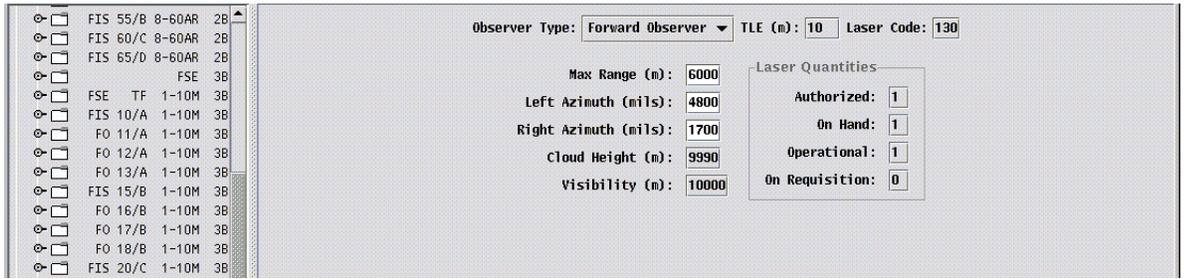
Step	Action	Response
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- | | | |
|------|---|--|
| 115. | <u>Enter Mission Saturation:</u> | |
| 116. | <u>Enter Response Time (min):</u> | |
| 117. | <u>Select Options\Save</u> if creating a new unit. | Menu tree is expanded. |
| 118. | <u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window. | |
| 119. | <u>Select Detail\Detailed Data</u> . | Detailed frame for Observer unit is displayed. |

Create/Edit Friendly Unit Procedure - CONT

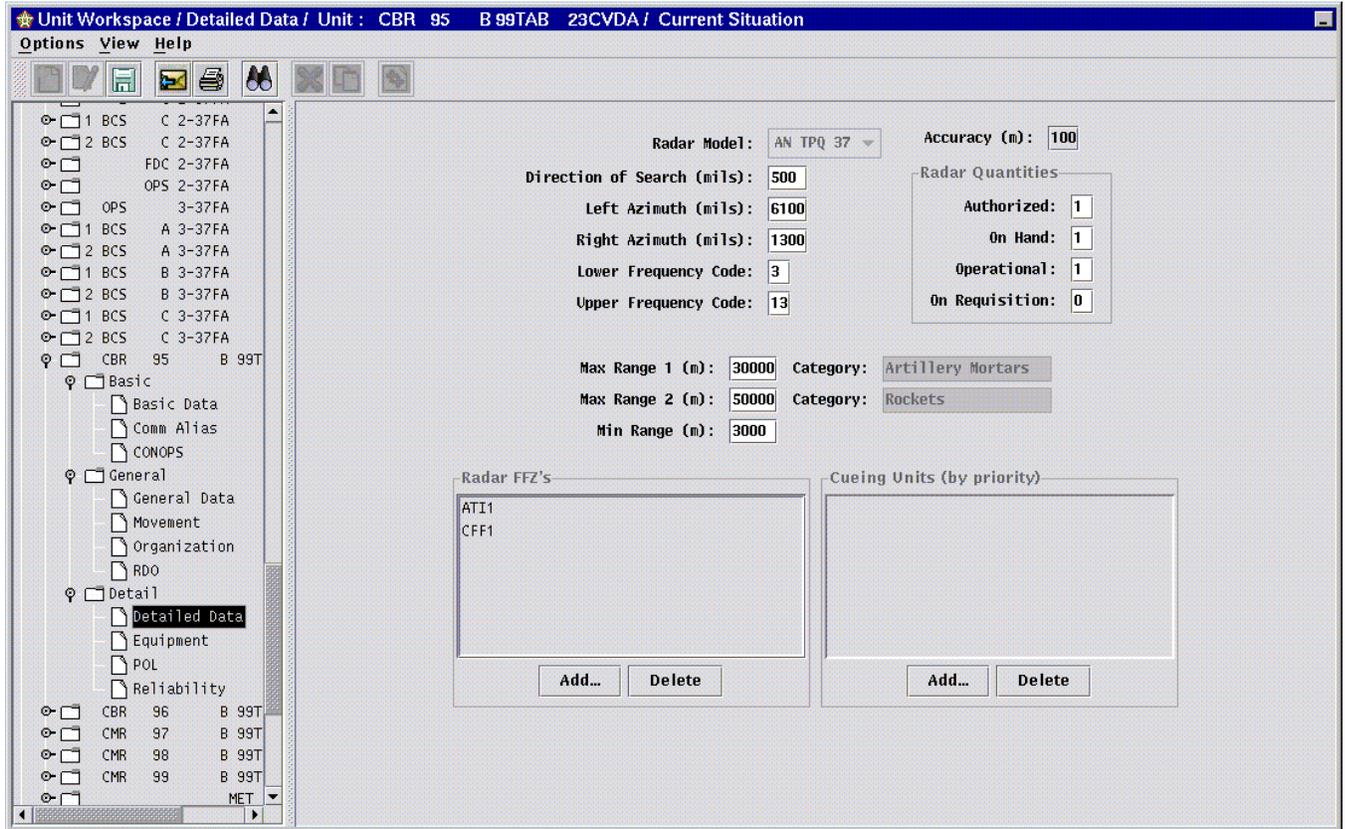
Step	Action	Response
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120.	<u>Select Observer Type:</u>	
121.	<u>Enter TLE (m):</u>	
122.	<u>Enter Laser Code:</u>	
123.	<u>Enter Max Range (m):</u> (0-99999).	
124.	<u>Enter Left Azimuth (mils):</u> (0-6400).	
125.	<u>Enter Right Azimuth (mils):</u> (0-6400).	
126.	<u>Enter Cloud Height (m):</u> (0-9990).	
127.	<u>Enter Visibility (m):</u> (0-99900).	
128.	<u>Enter Authorized:</u> quantity of lasers (0-99).	
129.	<u>Enter On Hand:</u> quantity of lasers (0-99).	
130.	<u>Enter Operational:</u> quantity of lasers (0-99).	
131.	<u>Enter On Requisition:</u> quantity of lasers (0-99).	
132.	<u>Select Options\Save</u> if creating a new unit.	Menu tree is expanded.
133.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
134.	<u>Select Detail\Detailed Data.</u>	Detailed frame for Radar unit is displayed.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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135. Select Radar Model:
136. Enter Accuracy (m): (0-100).
137. Enter Direction of Search (mils): (0-6399).
138. Enter Left Azimuth (mils): (0-800).
139. Enter Right Azimuth (mils): (0-800).
140. Enter Lower Frequency Code: (0-21).
141. Enter Upper Frequency Code: (10-31
Upper Frequency Code must be 10 greater than Lower Frequency Code).

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
142.	Enter Authorized: quantity of radars (0-99).	
143.	Enter On Hand: quantity of radars (0-99).	
144.	Enter Operational: quantity of radars (0-99).	
145.	Enter On Requisition: quantity of radars (0-99).	
146.	Enter Max Range 1 (m): (1500-24000).	
147.	Enter Max Range 2 (m): (1500-99999).	
148.	Enter Min Range (m): (750-23000).	

NOTE

Removal of FFZ's is accomplished by selecting the FFZ and **Remove**.

149.	Select Add... for the Radar FFZ's field.	Select Fire Finder Zone window opens.
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150.	Select zone to be added.	
151.	Select OK .	Select Fire Finder Zone window closes. Radar Unit Data window becomes active window.

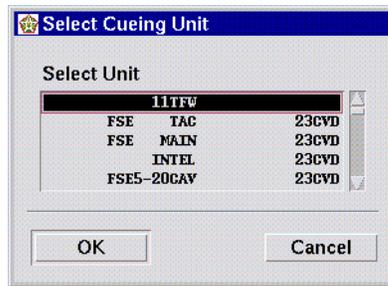
Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
152.	<u>Repeat steps 149 thru 151 as required.</u>	

NOTE

Removal of Cueing units is accomplished by selecting the unit and **Remove**.

153.	<u>Select Add... for the Cueing Units (by priority) field.</u>	Select Cueing Unit window opens.
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154.	<u>Select units to be added.</u>	
155.	<u>Select OK.</u>	Select Cueing Unit window closes. Radar Unit Data window becomes active window.
156.	<u>Repeat steps 153 thru 155 as required.</u>	
157.	<u>Select Options\Save if creating a new unit.</u>	Menu tree is expanded.
158.	<u>Proceed to note prior to step 19 to perform other functions of Unit Workspace window.</u>	
159.	<u>Select Detail\Detailed Data.</u>	Detailed frame for Air/Aviation unit is displayed.

Create/Edit Friendly Unit Procedure - CONT

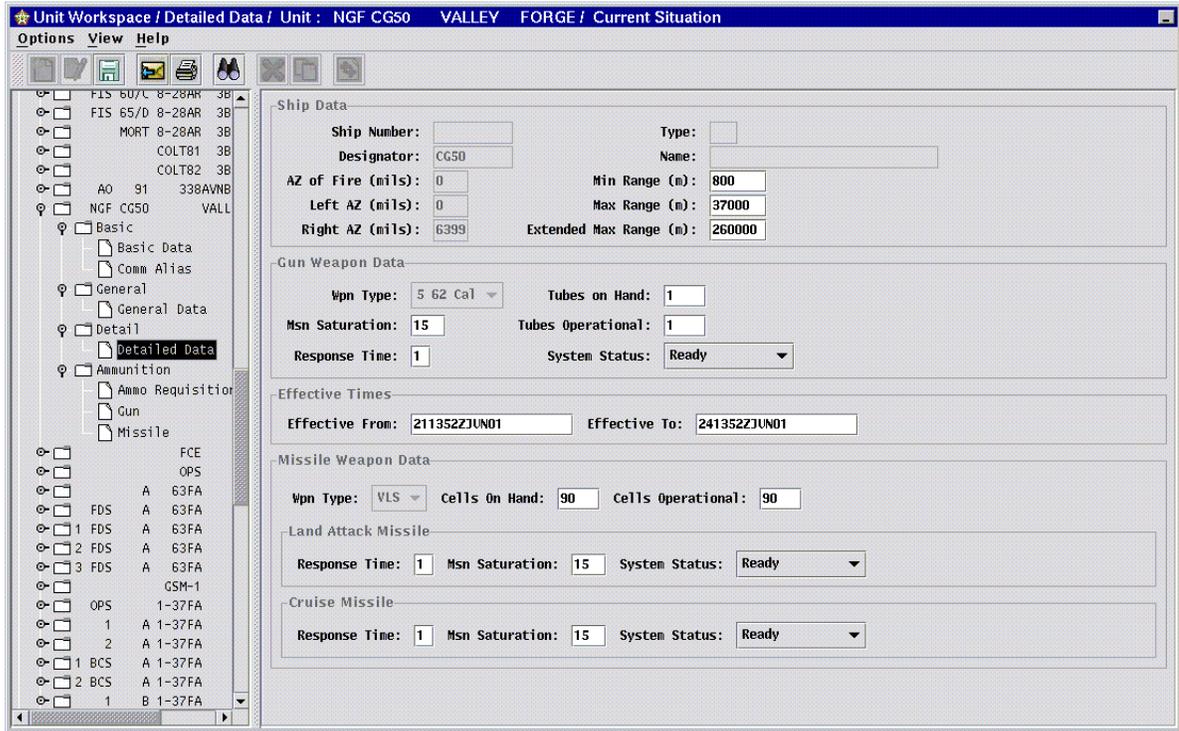
Step	Action	Response
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160.	<u>Enter Response Time (min):</u> (1-180).	
161.	<u>Enter Mission Saturation:</u>	
162.	<u>Select Munition Types Available.</u>	
163.	<u>Select Options\Save</u> if creating a new unit.	Menu tree is expanded.
164.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
165.	<u>Select Detail\Detailed Data.</u>	Detailed frame for NSFS unit is displayed.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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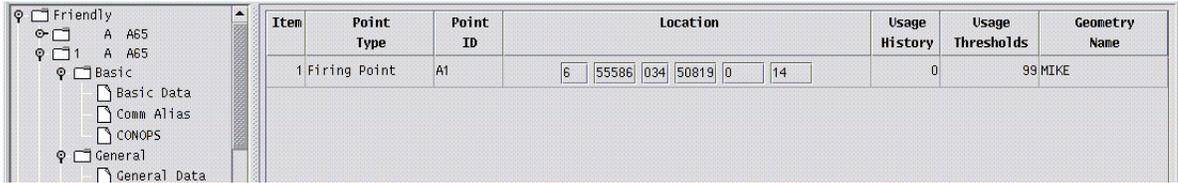
- 166. Enter Min Range (m): (optional, 0 to 9999999).
- 167. Enter Max Range (m): (optional, 0 to 9999999).
- 168. Enter Extended Max Range (m): (optional, 0 to 9999999).
- 169. Select Wpn Type:
- 170. Enter Msn Saturation: (0-9999).
- 171. Enter Response Time (min): (optional, 1 to 180).
- 172. Enter Tubes on Hand: (optional, 1 to 20).

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
173.	<u>Enter Tubes Operational:</u> (optional, 1 to 20).	
174.	<u>Select System Status:</u> .	
175.	<u>Enter Effective From:</u> time (required).	
176.	<u>Enter Effective To:</u> time (required).	
177.	<u>Select Wpn Type:</u> for Missile Weapon Data .	
178.	<u>Enter Cells On Hand:</u> for Missile Weapon Data .	
179.	<u>Enter Cells Operational:</u> for Missile Weapon Data .	
180.	<u>Enter Response Time:</u> for Land Attack Missile .	
181.	<u>Enter Msn Saturation:</u> for Land Attack Missile .	
182.	<u>Select System Status:</u> for Land Attack Missile .	
183.	<u>Enter Response Time:</u> for Cruise Missile .	
184.	<u>Enter Msn Saturation:</u> for Cruise Missile .	
185.	<u>Select System Status:</u> for Cruise Missile .	
186.	<u>Select Options\Save</u> if creating a new unit.	Menu tree is expanded.
187.	Proceed to note prior to step 19 to perform other functions of Unit Workspace window.	
188.	<u>Select DetailPoint</u> from menu tree.	Point frame is displayed.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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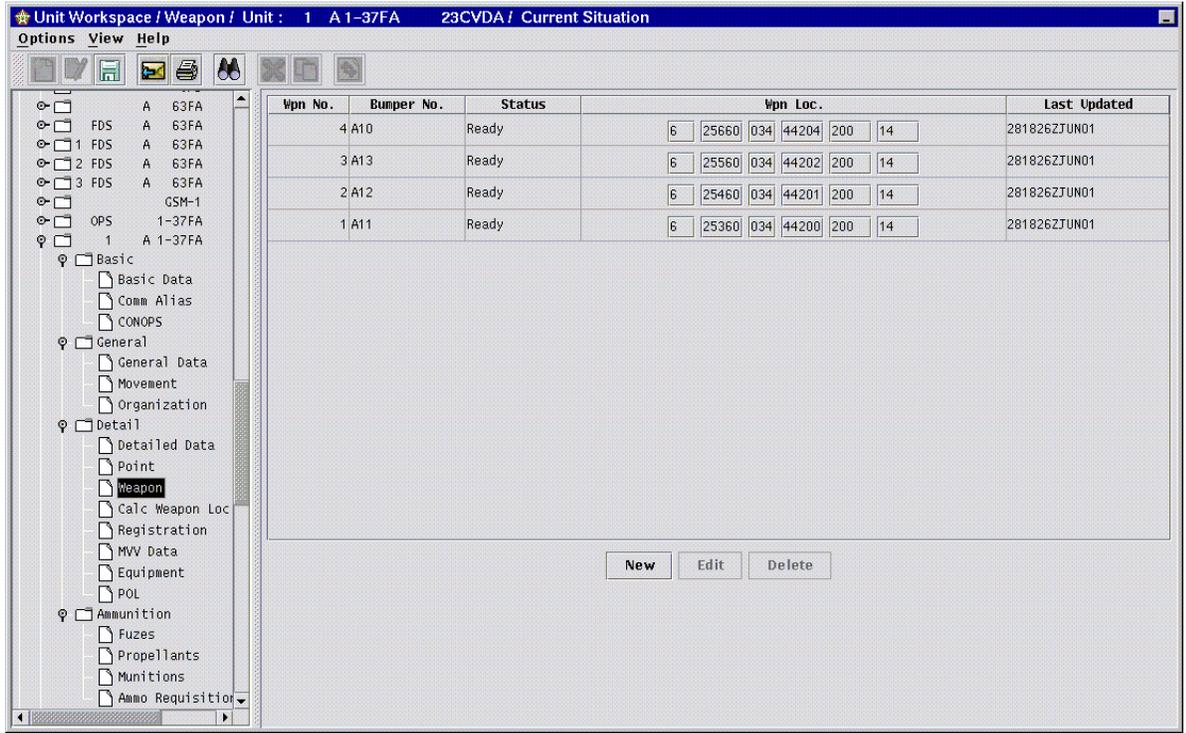
NOTE

Point data entered and associated with a unit using the new geometry functions.

189.	<u>View Point data.</u>	
190.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
191.	<u>Select DetailWeapon.</u>	Weapon frame is displayed (view only).

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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NOTE

To perform the following functions of the point data frame, proceed to the indicated step.

- Create new weapon step 192
- Edit existing weapon step 193
- Delete weapon step 216

192. Select **New**. Proceed to step 195.

Cannon Weapon window opens

193. Select weapon to edit.

194. Select **Edit**.

Cannon Weapon window opens

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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- 195. Enter **MAX QE (mils):** (0-2000).
- 196. Select **Weapon Number:**.
- 197. Enter **MAX Rate of Fire (RPM):** (1.5-30.0).
- 198. Enter **Bumper Number:** of weapon.
- 199. Enter **Sus Rate of Fire (RPM):** (.5-30.0).

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
200.	<u>Select Status:</u> .	
201.	<u>Select MCA</u> as applicable.	
202.	<u>Select CopperHead Capable</u> as applicable.	
203.	<u>Enter Powder Temperature (F):</u> (-130-+145).	
204.	<u>Enter Min Range (m):</u> (0-200000).	
205.	<u>Enter Max Range (m):</u> (0-200000).	
206.	<u>Enter Time Operational:</u> .	
207.	<u>Enter Location:</u> .	
208.	<u>Select Vehicle Model:</u> .	
209.	<u>Enter Bumper Number:</u> of vehicle.	
210.	<u>Enter Azimuth of Lay (mils):</u> .	

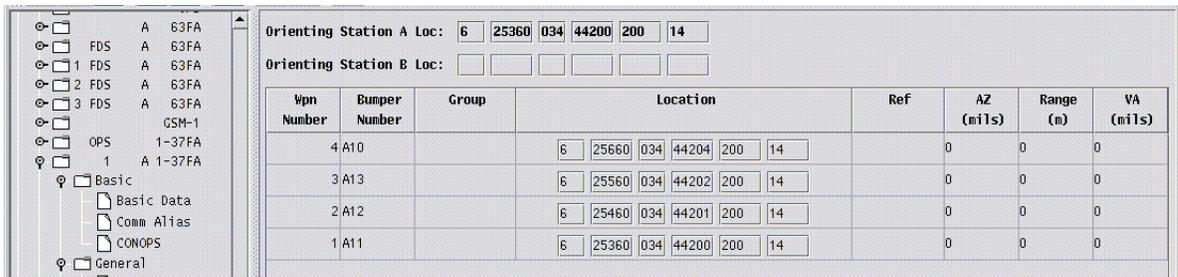
NOTE

To add new mask data proceed to step 211. To delete mask data proceed to step 216.

211.	<u>Select Add.</u>	Next Item number becomes available.
212.	<u>Enter Left AZ (mils).</u>	
213.	<u>Enter Right AZ (mils).</u>	
214.	<u>Enter Rng To Mask (m).</u>	
215.	<u>Enter VA (mils).</u>	
216.	<u>Select Item</u> to be deleted.	
217.	<u>Select Delete.</u>	

Create/Edit Friendly Unit Procedure - CONT

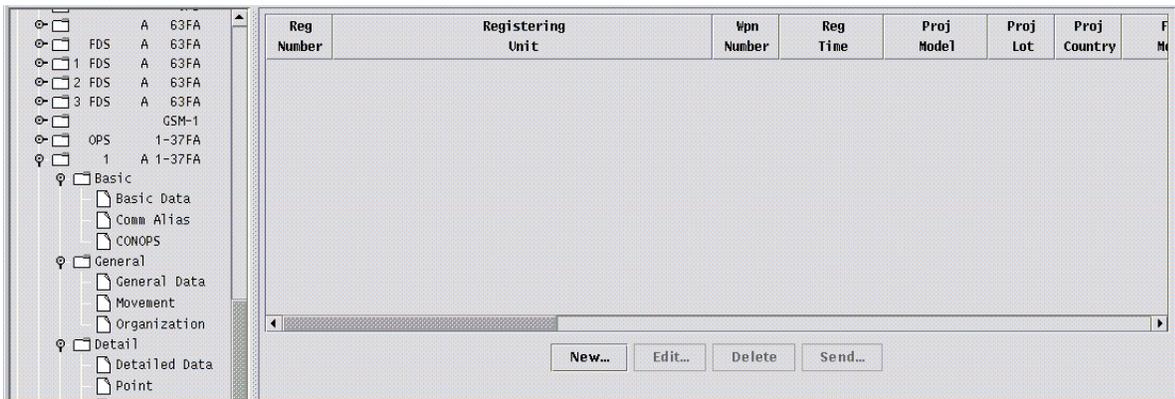
Step	Action	Response
218.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
219.	<u>Select Detail/Calc Weapon Loc.</u>	Weapon location frame opens.



220.	<u>Enter Orienting Station A Loc:</u>	
221.	<u>Enter Orienting Station B Loc:</u>	
222.	<u>Select Group</u> for applicable Wpn Number .	
223.	<u>Enter Location</u> for applicable Wpn Number .	
224.	<u>Select Ref</u> for applicable Wpn Number .	
225.	<u>Enter AZ (mils)</u> for applicable Wpn Number .	
226.	<u>Enter Range (m)</u> for applicable Wpn Number .	
227.	<u>Enter VA (mils)</u> for applicable Wpn Number .	
228.	<u>Repeat steps 222 thru 227</u> for each Wpn Number .	
229.	<u>Select Compute</u> .	Center of Battery Location: is computed and displayed.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
230.	<u>Proceed to note prior to step 19 to perform other functions of Unit Workspace window.</u>	
231.	<u>Select DetailRegistration.</u>	Registration frame opens.



NOTE

To perform the following functions of the point data frame, proceed to the indicated step.

- Create new registration step 232
- Edit existing registration step 233
- Delete registration step 253
- Send registration step 257

232.	<u>Select New...</u> proceed to step 235.	New Registration window opens.
233.	<u>Select registration to edit.</u>	
234.	<u>Select Edit.</u>	Edit Registration window opens.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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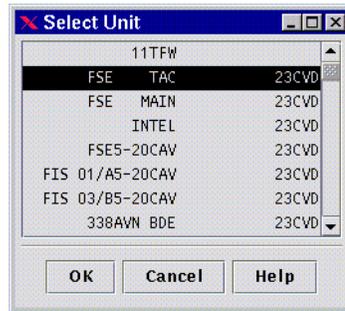
- | | |
|------|---|
| 235. | <u>Enter Weapon Number:</u> |
| 236. | <u>Select Angle of Fire:</u> |
| 237. | <u>Select MET Used:</u> |
| 238. | <u>Enter Range (m):</u> |
| 239. | <u>Enter Time Fuze Setting (sec):</u> |
| 240. | <u>Enter Range Correction (m):</u> |
| 241. | <u>Enter Time Correction (sec):</u> |
| 242. | <u>Enter Def Correction (mils):</u> |
| 243. | <u>Select Model:</u> for Projectile (new registration only). |

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
244.	<u>Select Lot:</u> for Projectile (new registration only).	
245.	<u>Select Model:</u> for Fuze (new registration only).	
246.	<u>Select Lot:</u> for Fuze (new registration only).	
247.	<u>Select Model:</u> for Propellant (new registration only).	
248.	<u>Select Lot:</u> for Propellant (new registration only).	
249.	<u>Select Charge:</u> (new registration only).	
250.	<u>Select Update.</u>	Registration is recalculated based on data.
251.	<u>Select OK.</u>	New or Edit Registration window closes.
252.	<u>Proceed to note prior to step 232</u> to perform other functions of registration data frame.	
253.	<u>Select registration to delete.</u>	
254.	<u>Select Delete...</u>	Confirmation window opens.
255.	<u>Select Yes.</u>	Selected row is deleted.
256.	<u>Proceed to note prior to step 232</u> to perform other functions of registration data frame.	
257.	<u>Select registration to send.</u>	
258.	<u>Select Send...</u>	Select Unit window opens.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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259. Select destination unit.

260. Select **OK**.

261. Proceed to note prior to step 232 to perform other functions of registration data frame.

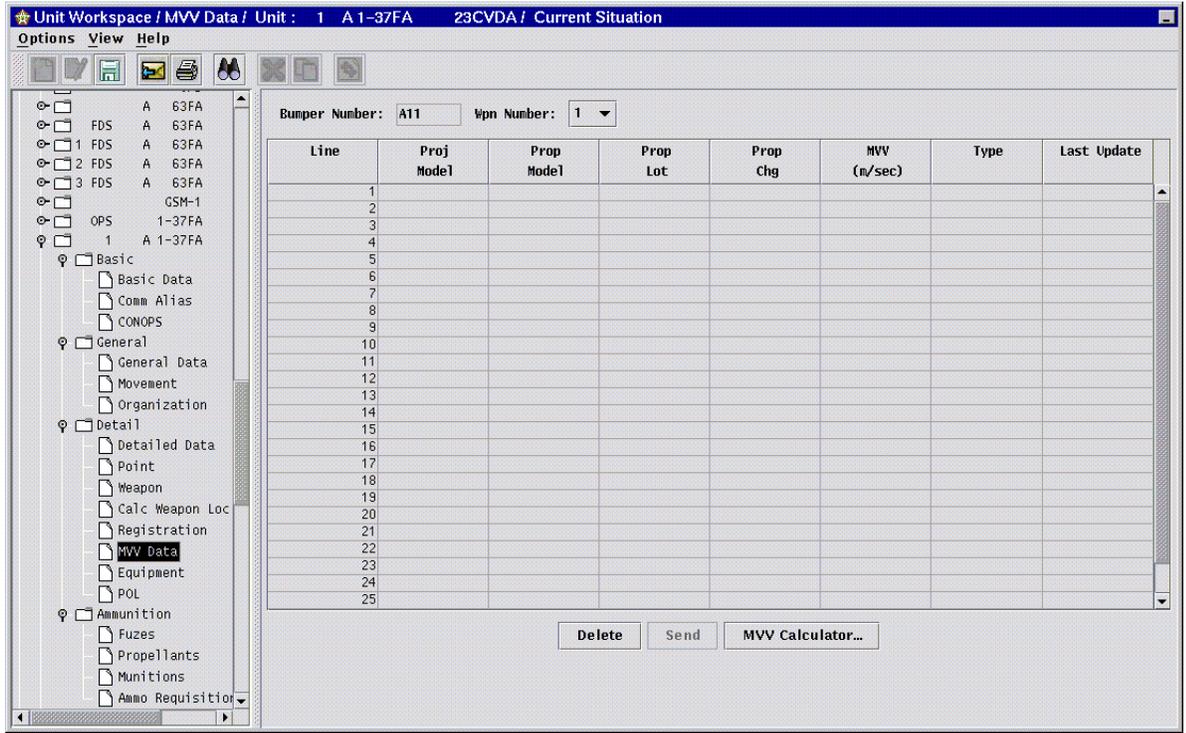
262. Select **DetailMVV Data**.

Select Unit window closes.

MVV data frame is displayed.

Create/Edit Friendly Unit Procedure - CONT

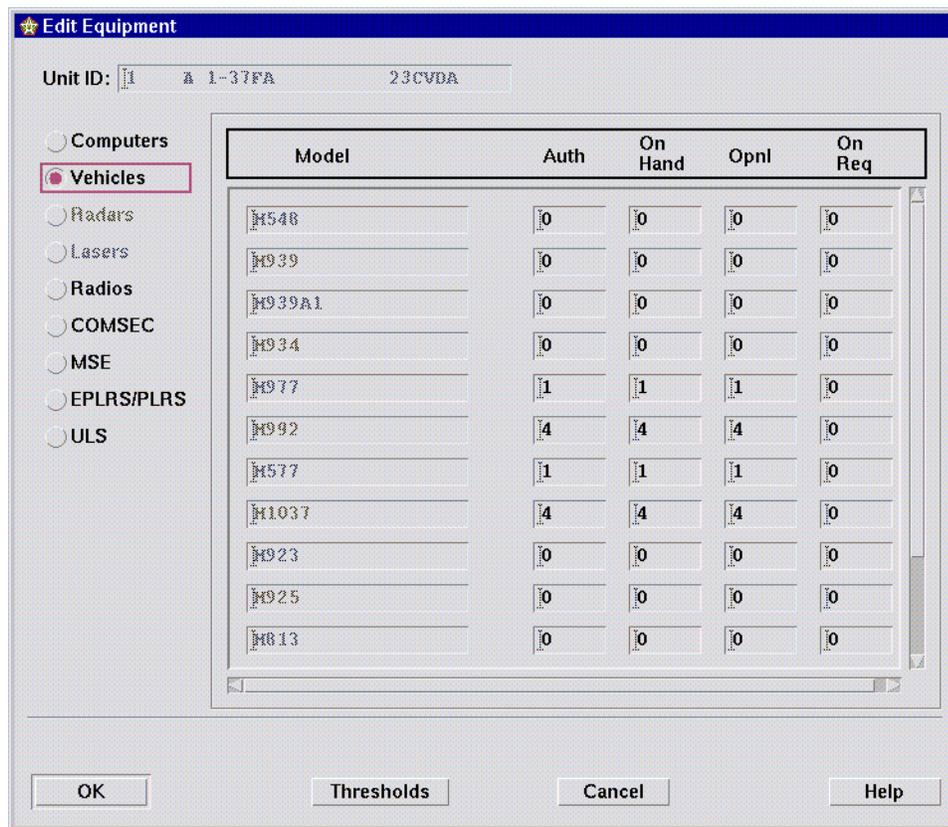
Step	Action	Response
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- | | | |
|------|--------------------------------------|--|
| 263. | Select Wpn Number . | Data is displayed for selected weapon. |
| 264. | Select Proj Model . | |
| 265. | Select Prop Model . | |
| 266. | Select Prop Lot . | |
| 267. | Select Prop Chg . | |
| 268. | Enter MVV (m/sec) . | |
| 269. | Select Type . | |
| 270. | Enter Last Update (optional). | |

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
271.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
272.	<u>Select DetailEquipment</u> .	Edit Equipment window opens.



NOTE

To perform the following functions of the **Edit Equipment** window, proceed to the indicated step.

- Enter equipment data step 273
- Set equipment thresholds step 280

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
273.	<u>Select type of equipment.</u>	Data for type is displayed.
274.	<u>Enter Auth</u> value.	
275.	<u>Enter On Hand</u> value.	
276.	<u>Enter Opnl</u> value.	
277.	<u>Enter On Req</u> value.	
278.	<u>Repeat steps 273 thru 277</u> as required for other equipment types.	
279.	<u>Proceed to note prior to step 273</u> to perform other functions of Edit Equipment window.	
280.	<u>Select Thresholds.</u>	

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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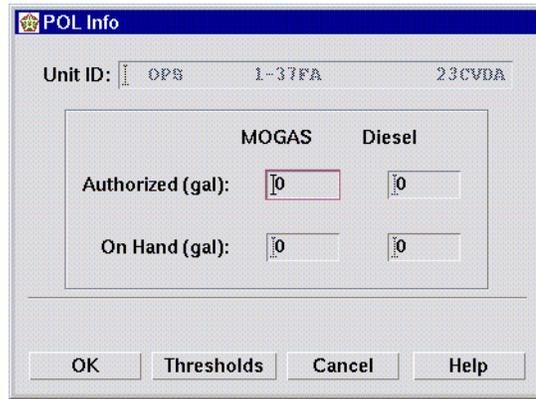
- 281. Select **Category** of equipment.
- 282. Drag bars dividing status indicator settings to right or left as required.
- 283. Select **OK**.
- 284. Proceed to note prior to step 273 to perform other functions of **Edit Equipment** window.
- 285. Proceed to note prior to step 19 to perform other functions of **Unit Workspace** window.
- 286. Select **Detail/POL**.

Thresholds window closes.

POL Info window opens.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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NOTE

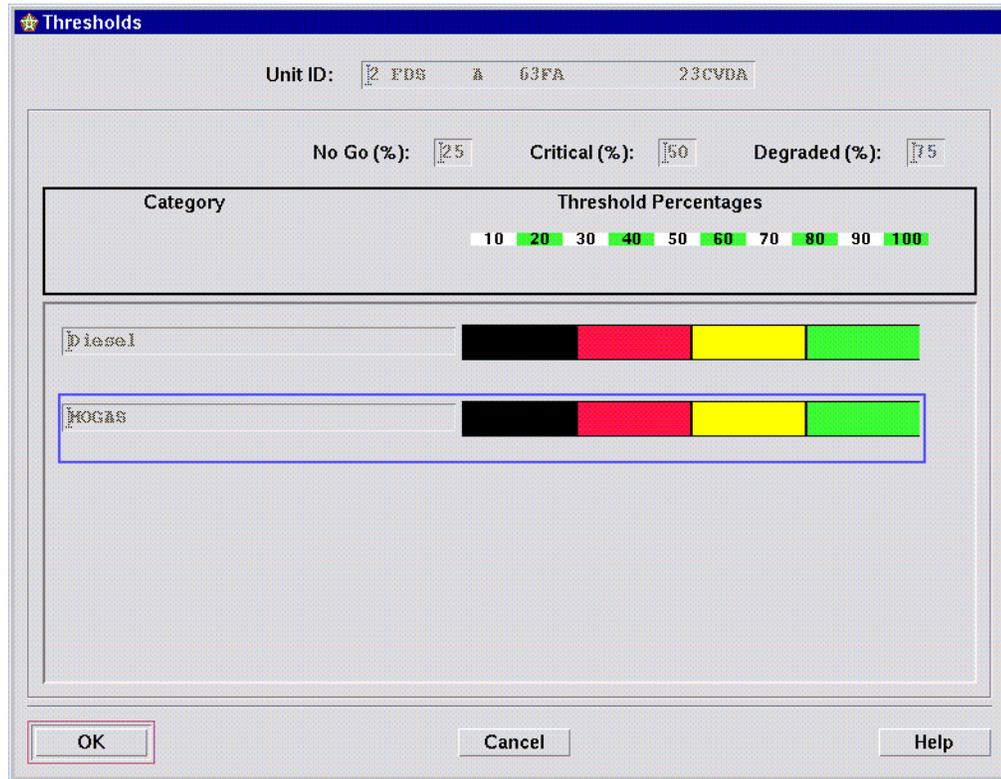
To perform the following functions of the **POL** window, proceed to the indicated step.

- Enter POL data step 287
- Set POL thresholds step 293

287.	<u>Enter Authorized (gal): of MOGAS.</u>	
288.	<u>Enter Authorized (gal): of Diesel.</u>	
289.	<u>Enter On Hand (gal): of MOGAS.</u>	
290.	<u>Enter On Hand (gal): of Diesel.</u>	
291.	<u>Proceed to note prior to step 287</u> to perform other functions of POL Info window.	
292.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
293.	<u>Select Thresholds.</u>	Thresholds window opens.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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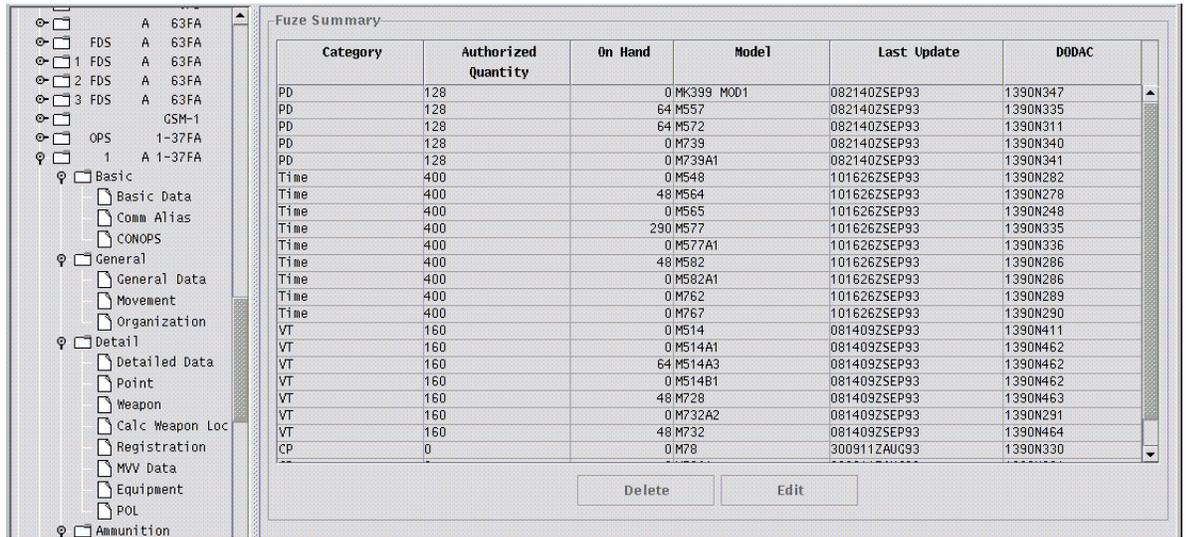
- 294. Select **Category** of POL.
- 295. Drag bars dividing status indicator settings to right or left as required.
- 296. Select **OK**.
- 297. Proceed to note prior to step 287 to perform other functions of **POL Info** window.
- 298. Proceed to note prior to step 19 to perform other functions of **Unit Workspace** window.
- 299. Select **Ammunition\Fuzes**.

Thresholds window closes.

Fuze data frame is displayed.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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NOTE

To perform the following functions of the fuze data frame, proceed to the indicated step.
 To delete the **On Hand** quantity, select the model and **Delete**.

Enter/edit fuze data step 300

- | | | |
|------|---|--|
| 300. | <u>Enter Authorized Quantity</u> for a Category . | Entered value is displayed for all models of category. |
| 301. | <u>Select Model</u> to edit. | |
| 302. | <u>Select Edit</u> . | Fuze window opens. |

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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The screenshot shows a software window titled "Fuze". At the top, it displays "Unit ID: 1 A 1-37FA 23CVDA" and "Last Update: 082140ZSep93". Below this are several input fields: "Model: M739", "Color:", "Category: PD", "Charges:", "DODAC: 1390N340", "Min Range(in):", and "Max Range(in):".

Item	Lot Code	Lot Number	On Hand	Projectile Weight (Pounds)	Projectile Weight (Squares)
1					
2					
3					
4					

Below the table, it shows "TOTAL on Hand: 0" and a "Delete" button. At the bottom of the window are "OK", "Cancel", and "Help" buttons.

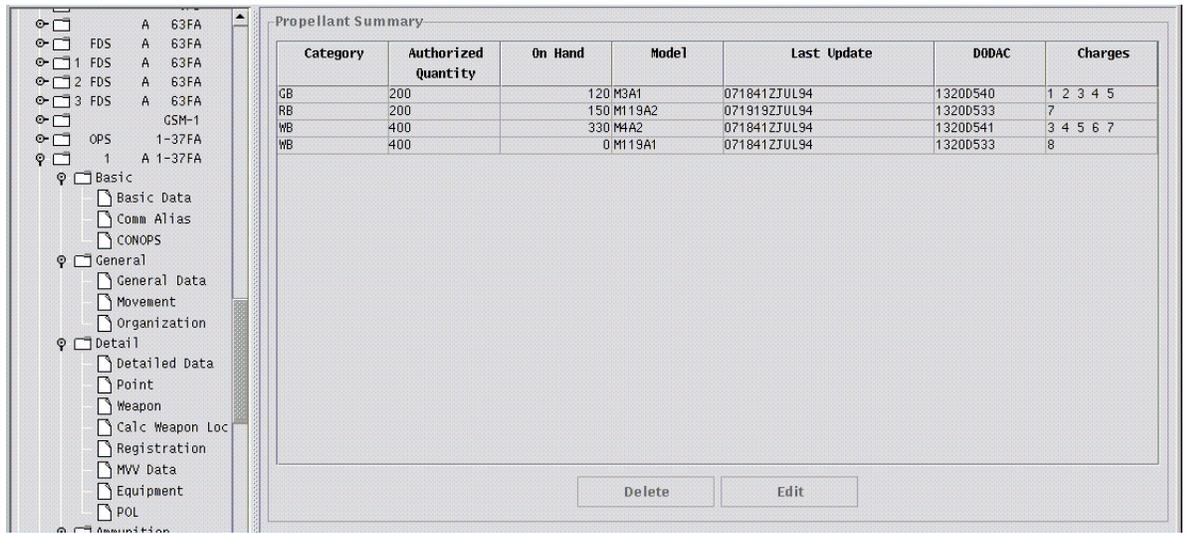
NOTE

The **Lot Code** and **Lot Number** fields cannot be edited if data is present when this window is opened. Data in these fields will be removed when the **On Hand** quantity is deleted by the user or decrements to zero (0). The user selects the **On Hand** field and **Delete** to delete the quantity. Lot information will be removed when the data is saved.

- 303. Enter **Lot Code** (A-Z, capital letters).
- 304. Enter **Lot Number**:
- 305. Enter **On Hand** quantity. (0-99999).

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
306.	<u>Repeat steps 303 thru 305</u> for each available lot number.	
307.	Select OK .	Fuze window closes.
308.	<u>Proceed to note prior to step 300</u> to perform other functions of fuze frame.	
309.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
310.	Select Ammunition\Propellants .	Propellants frame is displayed.



NOTE

To perform the following functions of the propellant data frame, proceed to the indicated step. To delete the **On Hand** quantity, select the model and **Delete**.

Enter/edit propellant data step 311

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
311.	<u>Enter Authorized Quantity</u> for a Category .	Entered value is displayed for all models of category.
312.	<u>Select Model</u> to edit.	
313.	<u>Select Edit</u> .	Propellant window opens.

The screenshot shows the 'Propellant' window with the following fields and values:

- Unit ID: 1 A 1-37FA 23CVDA
- Last Update: 1318172Feb01
- Model: M119A2
- Color: Red Bag
- Charges: 7
- Category: [Empty]
- DODAC: 1320D533
- Min Range(in): [Empty]
- Max Range(in): [Empty]

Item	Lot Code	Lot Number	On Hand	Projectile Weight (Pounds)	Projectile Weight (Squares)
1	R	RBP93D222 003	300	[Empty]	[Empty]
2	[Empty]	[Empty]	[Empty]	[Empty]	[Empty]
3	[Empty]	[Empty]	[Empty]	[Empty]	[Empty]
4	[Empty]	[Empty]	[Empty]	[Empty]	[Empty]

TOTAL on Hand: 300

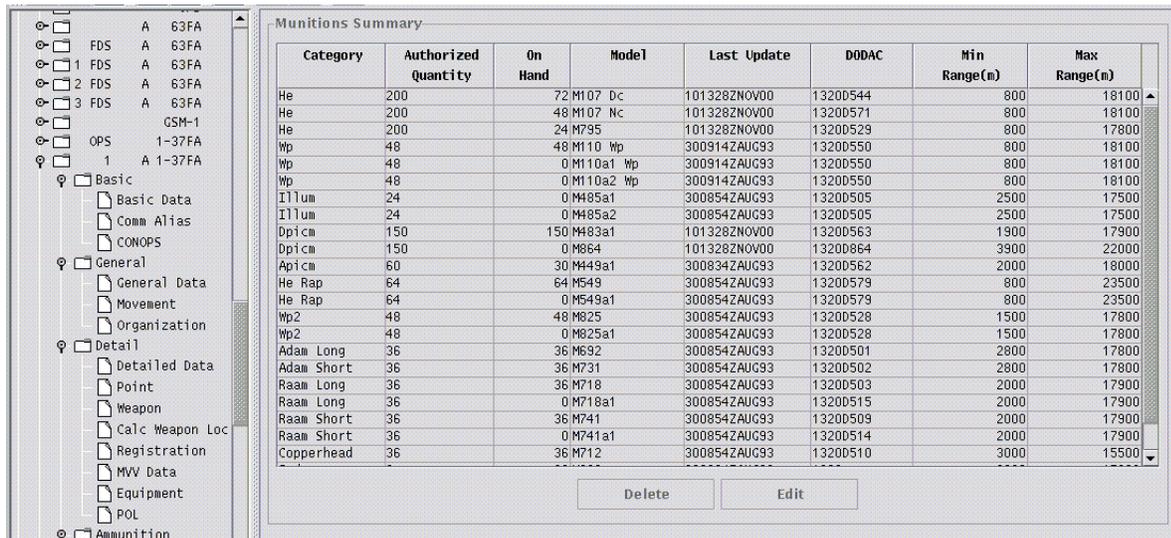
Buttons: Delete, OK, Cancel, Help

NOTE

The **Lot Code** and **Lot Number** fields cannot be edited if data is present when this window is opened. Data in these fields will be removed when the **On Hand** quantity is deleted by the user or decrements to zero (0). The user selects the **On Hand** field and **Delete** to delete the quantity.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
314.	<u>Enter Lot Code</u> (A-Z, capital letters).	
315.	<u>Enter Lot Number:</u>	
316.	<u>Enter On Hand</u> quantity. (0-99999).	
317.	<u>Repeat steps 314 thru 316</u> for each available lot number.	
318.	<u>Select OK.</u>	Propellant window closes.
319.	<u>Proceed to note prior to step 311</u> to perform other functions of propellant frame.	
320.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
321.	<u>Select Ammunition\Munitions.</u>	Munitions frame is displayed.



Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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NOTE

To perform the following functions of the munitions data frame, proceed to the indicated step. To delete the **On Hand** quantity, select the model and **Delete**.

Enter/edit munition data step 322

322.	<u>Enter Authorized Quantity</u> for a Category .	Entered value is displayed for all models of category.
323.	<u>Select Model</u> to edit.	
324.	<u>Select Edit</u> .	Cannon Mortar Munition window opens.

Cannon Mortar Munition

Unit ID: [1 A 1-37FA 23CVDA]

Last Update: [1320262Feb01]

Model: [M795] Color: []

Category: [HE] Charges: []

DODAC: [1320D529] Min Range(m): [000]

Max Range(m): [17800]

Item	Lot Code	Lot Number	On Hand	Projectile Weight (Pounds)	Projectile Weight (Squares)
[1]	[L]	[JDC90A141 567]	[2400]	[103.5]	[]
[2]	[]	[]	[]	[]	[]
[3]	[]	[]	[]	[]	[]
[4]	[]	[]	[]	[]	[]

TOTAL on Hand: [2400]

[Delete]

[OK] [Cancel] [Help]

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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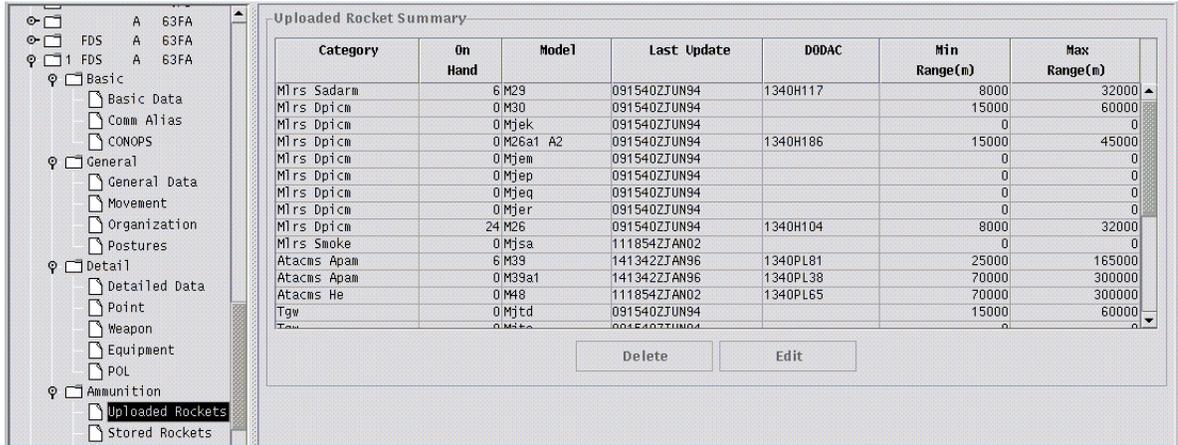
NOTE

The **Lot Code** and **Lot Number** fields cannot be edited if data is present when this window is opened. Data in these fields will be removed when the **On Hand** quantity is deleted by the user or decrements to zero (0). The user selects the **On Hand** field and **Delete** to delete the quantity.

325.	<u>Enter Lot Code</u> (A-Z, capital letters).	
326.	<u>Enter Lot Number:</u>	
327.	<u>Enter On Hand</u> quantity. (0-99999).	
328.	<u>Enter Projectile Weight (Pounds)</u> .	
329.	<u>Enter Projectile Weight (Squares)</u> .	
330.	<u>Repeat steps 325 thru 329</u> for each available lot number.	
331.	<u>Select OK</u> .	Cannon Mortar Munition window closes.
332.	<u>Proceed to note prior to step 326</u> to perform other functions of munitions frame.	
333.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
334.	<u>Select Ammunition\Uploaded Rockets</u> .	Uploaded rockets frame is displayed.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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NOTE

To perform the following functions of the uploaded rocket data frame, proceed to the indicated step. To delete the **On Hand** quantity, select the model and **Delete**.

Enter/edit uploaded rocket data step 335

335. Select **Model** from list.

336. Select **Edit**.

MLRS Munition window opens.

Create/Edit Friendly Unit Procedure - CONT

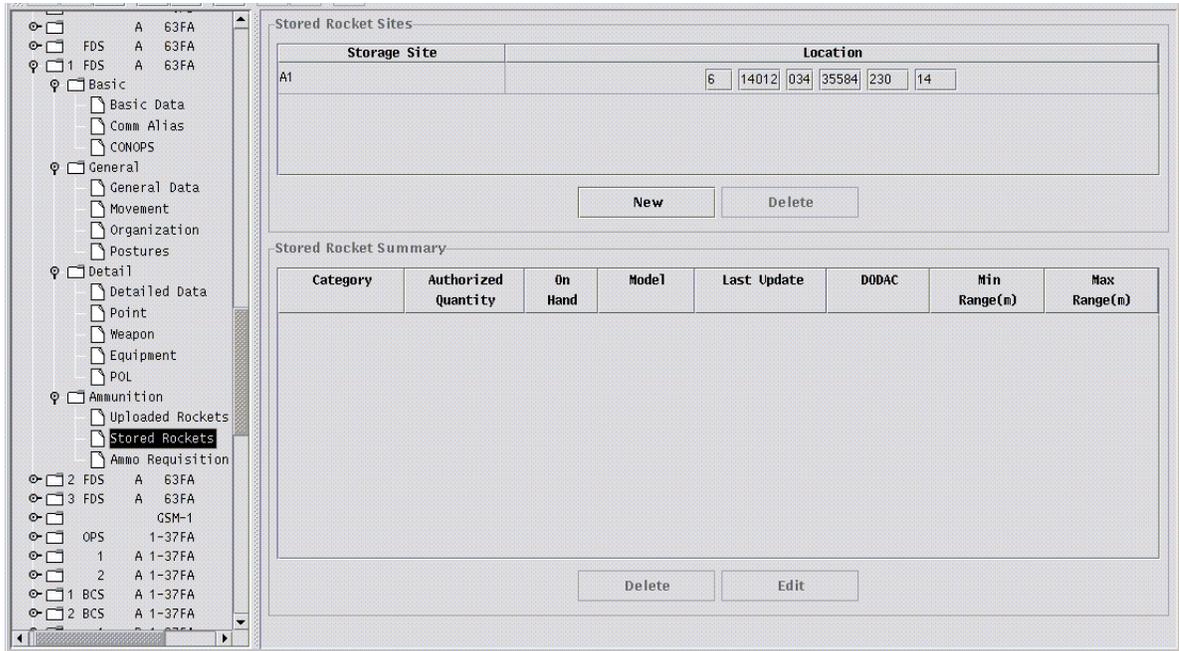
Step	Action	Response
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- 337. Enter On Hand 0-2 min quantity.
- 338. Enter On Hand 2-5 min quantity.
- 339. Enter On Hand 5-20 min quantity.
- 340. Select OK.
- 341. Repeat steps 335 thru 340 for each rocket model.
- 342. Proceed to note prior to step 19 to perform other functions of **Unit Workspace** window.

MLRS Munition window closes.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
343.	<u>Select Ammunition\Stored Rockets.</u>	Stored rockets frame is displayed.



NOTE

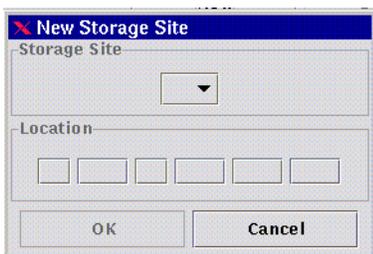
To delete a storage site, select the site and **Delete**. To delete the **On Hand** quantity, select the model and **Delete**. To perform the following functions of the stored rocket data frame, proceed to the indicated step.

- Create a new storage site step 344
- Enter/edit stored rocket data step 350

344.	<u>Select New.</u>	New Storage Site window opens.
------	--------------------	---------------------------------------

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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345.	<u>Select Storage Site.</u>	
346.	<u>Enter Location.</u>	
347.	<u>Select OK.</u>	New Storage Site window closes.
348.	<u>Proceed to note prior to step 344</u> to perform other functions of stored rockets frame.	
349.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
350.	<u>Select Storage Site.</u>	Stored Rocket Summary is displayed.
351.	<u>Select rocket Model.</u>	
352.	<u>Enter Authorized Quantity</u> as required.	
353.	<u>Select Edit.</u>	Stored MLRS Munition window opens.

Create/Edit Friendly Unit Procedure - CONT

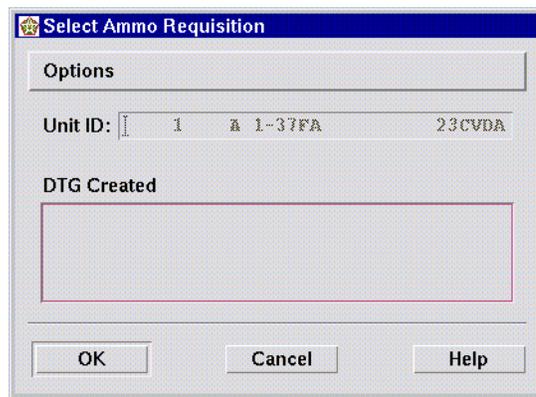
Step	Action	Response
------	--------	----------

- 354. Enter MLRS on-ground:
- 355. Enter On-ground Response (min):
- 356. Enter MLRS on wheels:
- 357. Enter On-wheels Response (min):
- 358. Select OK.
- 359. Proceed to note prior to step 344 to perform other functions of stored rockets frame.

Stored MLRS Munition window closes.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
360.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
361.	<u>Select Ammunition\Ammo Requisition</u> .	Select Ammo Requisition window opens.



NOTE

Selecting **OK** at any time closes this window and activates the **Basic Unit Info** window. To perform other functions of **Unit Workspace** window after closing this window, refer to note prior to step 19.

To perform the following functions of the **Select Ammo Requisition** window, proceed to the indicated steps.

- Delete ammo requisition step 362
- Edit ammo requisition step 366
- Copy ammo requisition step 368
- Create new requisition step 370

362.	<u>Select requisition by DTG Created</u> .	
363.	<u>Select Options\Delete...</u> .	Confirm Delete window opens.
364.	<u>Select Delete</u> .	Confirm Delete window closes, requisition removed from list.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
365.	To perform other functions of Select Ammo Requisition window, refer to note prior to step 362.	
366.	<u>Select requisition</u> by DTG Created .	
367.	<u>Select Options\Edit</u> . Proceed to step 371.	Ammo Requisition window opens in edit mode.
368.	<u>Select requisition</u> by DTG Created .	
369.	<u>Select Options\Copy</u> . Proceed to step 371.	Ammo Requisition window opens in copy mode.
370.	<u>Select Options\New</u> .	Ammo Requisition window opens.

Ammo Requisition

Unit ID:

DTG Required:

DODAAC:

Allocation Period:

Requested By:

Date (Julian):

Item	Ammunition	DODIC	NSN	Model	UI	Qty
<input type="text" value="1"/>	<input type="text" value="Munitions"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>

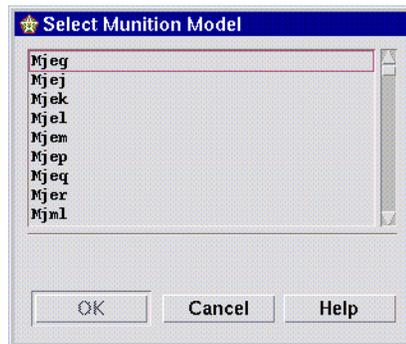
Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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NOTE

The **New** and **Delete** buttons allow the user to add and/or remove line items on the requisition form. Selecting **New** adds a line item. Selecting a line item and **Delete** removes the selected item. The **Print...** button allows the user to obtain a hard copy of the requisition.

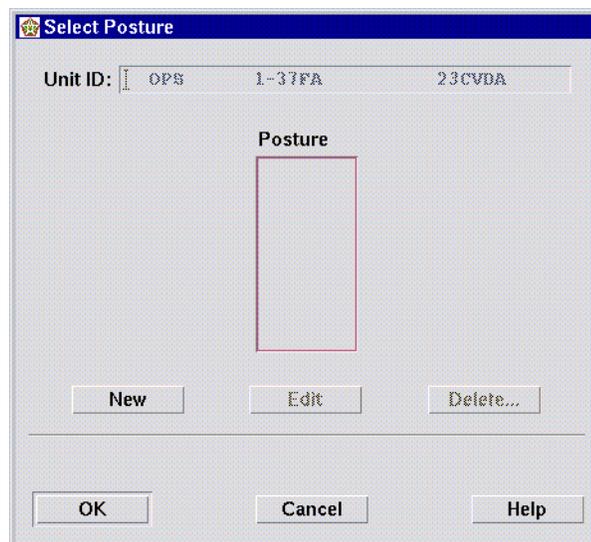
371.	<u>Enter DTG Required:</u>	
372.	<u>Enter DODAAC:</u> (1-6 alphanumeric characters).	
373.	<u>Enter Allocation Period:</u> (1-15 alphanumeric characters).	
374.	<u>Enter Requested By:</u> (1-30 alphanumeric characters).	
375.	<u>Select Ammunition type.</u>	
376.	<u>Enter NSN</u> (####-##-###-####).	
377.	<u>Select Model\Select...</u>	Select Munition Model window opens.



378.	<u>Select munition model.</u>	
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Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
379.	<u>Select OK</u> .	Select Munition Model window closes. DODIC and Model fields are completed.
380.	<u>Enter UI</u> (2 alpha characters).	
381.	<u>Enter Qty</u> (0-9999).	
382.	<u>Select New</u> and repeat steps 375 thru 381 for each line item as required.	
383.	<u>Select OK</u> .	Ammo Requisition window closes, Select Ammo Requisition window becomes active window.
384.	<u>Proceed to note prior to step 362</u> to perform other functions of Select Ammo Requisition window.	
385.	<u>Select OK</u> .	Select Ammo Requisition window closes.
386.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
387.	<u>Select General\Postures</u> .	Select Posture window opens.



Create/Edit Friendly Unit Procedure - CONT

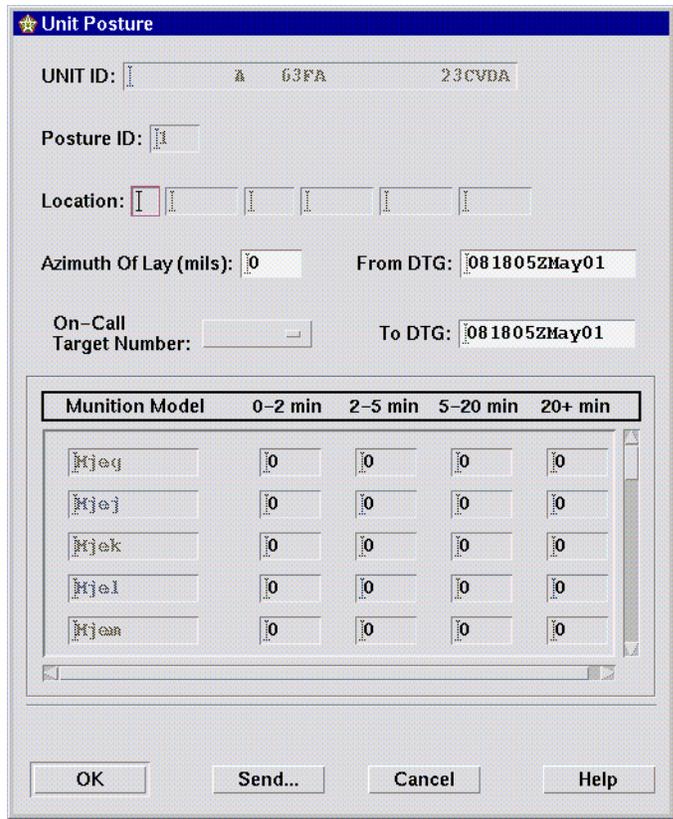
Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. To perform other functions of **Unit Workspace** window after closing this window, refer to note prior to step 19. To perform the following functions of the **Select Posture** window, proceed to the indicated steps.

- Create new posture step 388
- Edit a posture step 389
- Delete a posture step 402
- Send a posture step 406

388.	<u>Select New</u> . Proceed to step 391.	Unit Posture window opens.
389.	<u>Select a Posture</u> .	
390.	<u>Select Edit</u>	Unit Posture window opens.



Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
391.	<u>Enter Location:</u> of firing unit.	
392.	<u>Enter Azimuth Of Lay (mils):</u> (0-6400).	
393.	<u>Enter From DTG:</u> .	
394.	<u>Enter To DTG:</u> .	

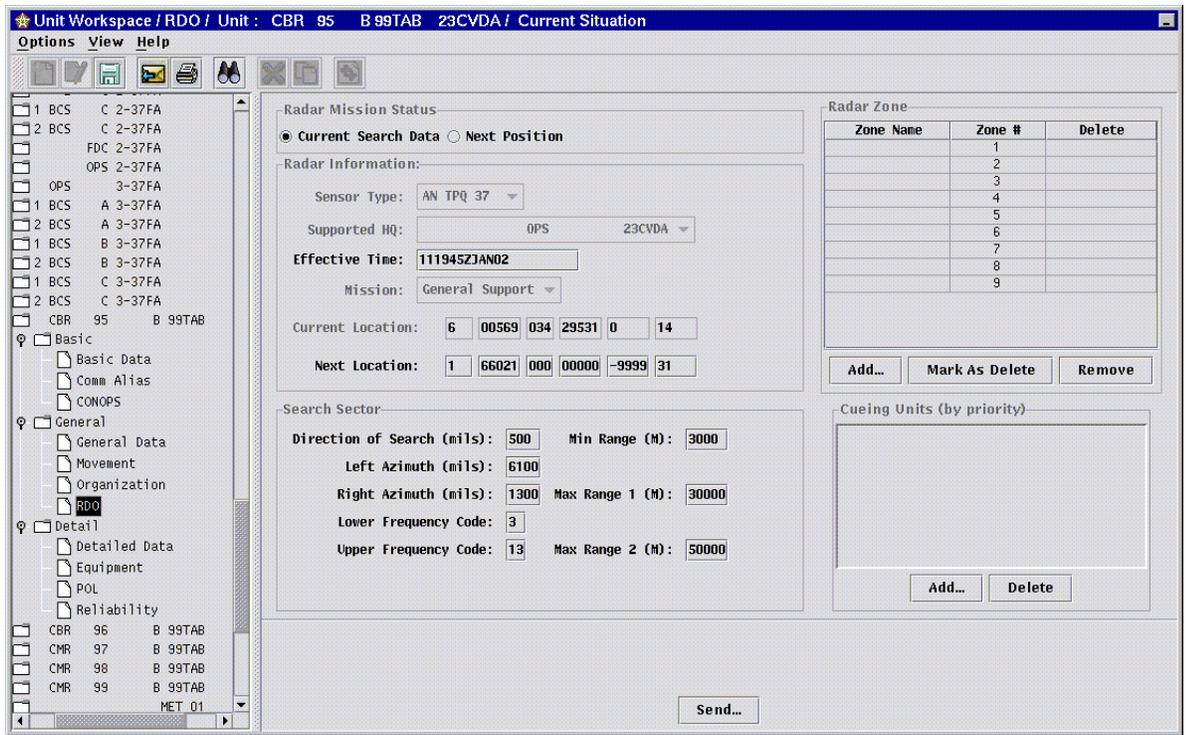
NOTE

If an **On-Call Target Number:** is selected for the posture, the **Location:** field and the **20+ min** field data will be entered using mission information.

395.	<u>Select On-Call Target Number:</u> .	
396.	<u>Select Munition Model:</u> .	
397.	<u>Enter Munition Quantity for Posture Response Time of 0-2 min.</u> (0-216).	
398.	<u>Enter Munition Quantity for Posture Response Time of 2-5 min.</u> (0-216).	
399.	<u>Enter Munition Quantity for Posture Response Time of 5-20 min.</u> (0-216).	
400.	<u>Repeat steps 496 thru 499 as required.</u>	
401.	To perform other functions of Select Posture window, refer to note prior to step 388.	
402.	<u>Select Posture</u> to be deleted.	
403.	<u>Select Delete...</u> .	Delete confirmation window opens.
404.	<u>Select Delete.</u> .	Delete confirmation window closes. Posture is deleted.
405.	To perform other functions of Select Posture window, refer to note prior to step 388.	

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
406.	<u>Select Posture</u> to be sent.	
407.	<u>Select Send...</u>	Send To window opens.
408.	<u>Select destination unit(s)</u> .	
409.	<u>Select OK</u> .	Unit Posture and Send To windows close. Posture is transmitted.
410.	To perform other functions of Select Posture window, refer to note prior to step 388.	
411.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
412.	<u>Select General\RDO</u> .	Radar Deployment Order window opens.



Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window and activates the **Unit Workspace** window. To perform other functions of **Unit Workspace** window after closing this window, refer to note prior to step 19.

To perform the following functions, proceed to the indicated steps.

Edit Radar Deployment Order data	step 413
Add FFZ	step 422
Add Cueing Unit	step 426
Send a RDO	step 430

413. Enter **Direction Of Search (mils):** (0-6399).

414. Enter **Left Azimuth (mils):** (0-800).

415. Enter **Right Azimuth (mils):** (0-800).

416. Enter **Lower Frequency Code:** (0-21).

417. Enter **Upper Frequency Code:** (10-31).

418. Enter **Min Range (m):** (750-23000).

419. Enter **Max Range 1 (m):** (1500-24000).

420. Enter **Max Range 2 (m):** (1500-99999).

421. If creating a new unit proceed to step 422.

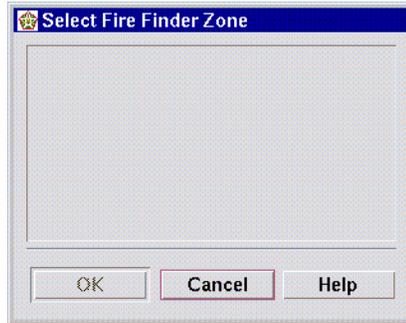
To perform other functions of **Radar Deployment Order** window, refer to note prior to step 413.

422. Select **Add...** for the **Radar FFZ's** field.

Select Fire Finder Zone window opens.

Create/Edit Friendly Unit Procedure - CONT

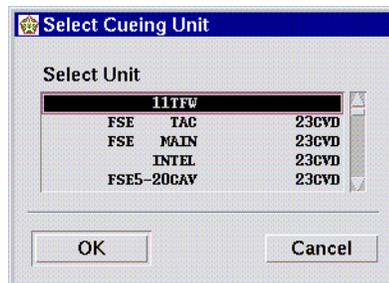
Step	Action	Response
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NOTE

Only those Fire Finder zones that have previously been established will be displayed. Any zone(s) required for the unit being constructed will have to be created using the new geometries procedure.

423.	<u>Select zones</u> to be added.	
424.	<u>Select OK.</u>	Select Fire Finder Zone window closes.
		Radar Deployment Order window becomes active window.
425.	If creating a new unit proceed to step 426.	
	To perform other functions of Radar Deployment Order window, refer to note prior to step 413.	
426.	<u>Select Add...</u> for the <u>Cueing Unit</u> field.	Select Cueing Unit window opens.

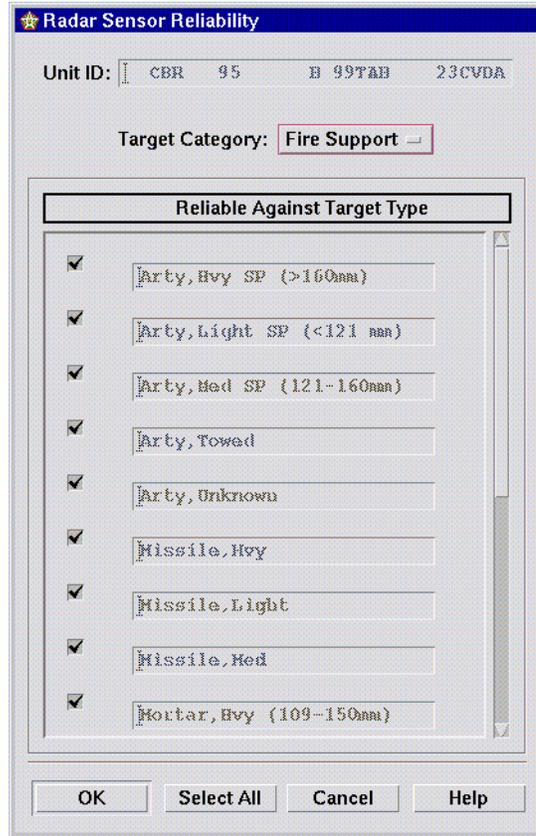


Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
427.	<u>Select units</u> to be added.	
428.	<u>Select OK.</u>	Select Cueing Unit window closes. Radar Deployment Order window becomes active window.
429.	To perform other functions of Radar Deployment Order window, refer to note prior to step 413.	
430.	<u>Select Send.</u>	RDO sent. Radar Deployment Order window closes.
431.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
432.	<u>Select Detail/Reliability.</u>	Radar or Observer Sensor Reliability window opens.

Create/Edit Friendly Unit Procedure - CONT

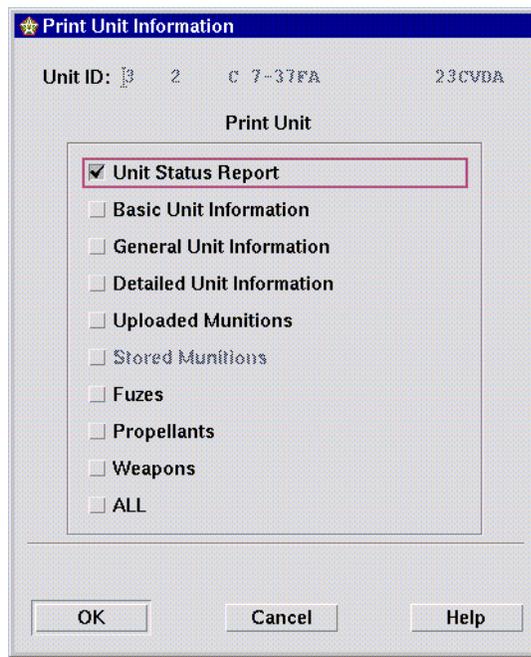
Step	Action	Response
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- | | | |
|------|--|--|
| 433. | Select Target Category: | List displays target types for selected category. |
| 434. | Select target types for which sensor is considered reliable | |
| | or | |
| | Select Select All if sensor is considered reliable for all target types in selected category. | |
| 435. | Repeat steps 433 and 434 as required for each applicable Target Category . | Radar or Observer Sensor Reliability window closes. |
| 436. | Select OK. | |

Create/Edit Friendly Unit Procedure - CONT

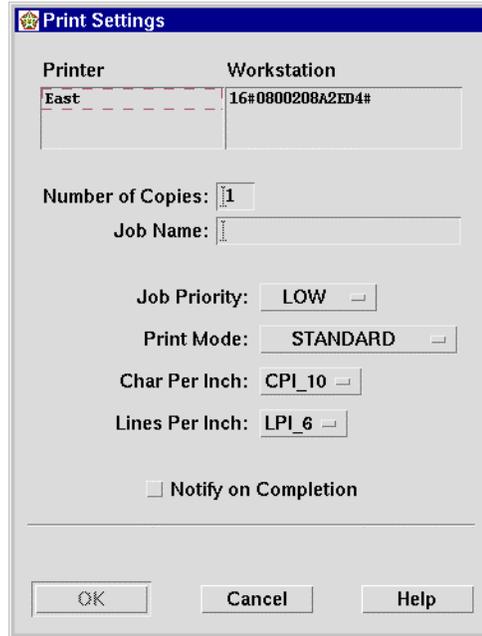
Step	Action	Response
437.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
438.	<u>Select Print</u> .	Print Unit Information window opens.



439.	<u>Select categories</u> to print or <u>select ALL</u> .	
440.	<u>Select OK</u> .	Print Settings window opens.

Create/Edit Friendly Unit Procedure - CONT

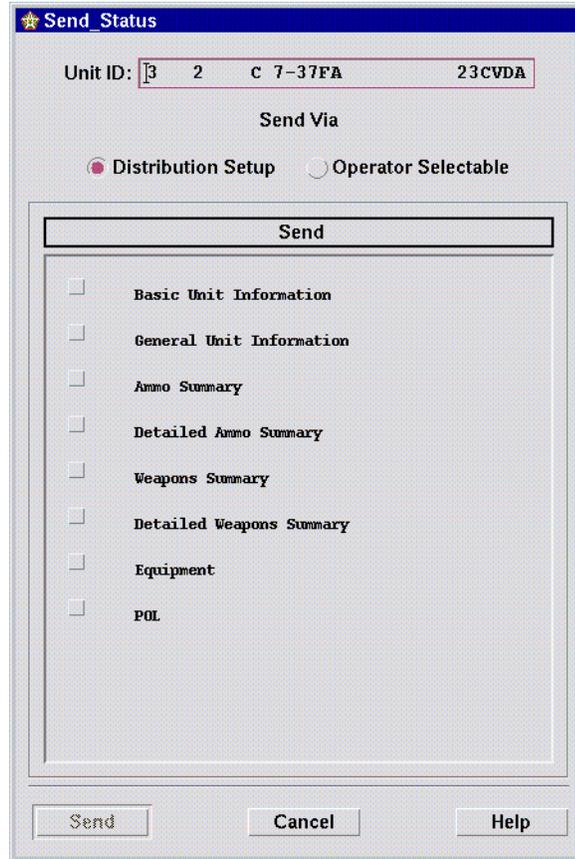
Step	Action	Response
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441.	<u>Select OK</u> after entering print information.	Printer Information window opens. Print Settings window closes.
442.	<u>Select OK</u> .	Printer Information window closes. Print job is submitted to print queue.
443.	<u>Select Cancel</u> .	Print Unit Data window closes.
444.	<u>Proceed to note prior to step 19</u> to perform other functions of Unit Workspace window.	
445.	<u>Select Send Status...</u> .	Send Status window opens for selecting categories of information to send to other OPFAC's. Only Basic Unit Information is selectable in planning.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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446. Select categories to send. Choose **Distribution Setup** or **Operator Selectable** button.

447. Select Send.

Send Status window closes and selections are sent to OPFAC's as defined in data distribution criteria. If **Operator Selectable** option is chosen, **Select Unit** window appears. User selects 1 or more units and selects **OK**. Message is sent.

Create/Edit Friendly Unit Procedure - CONT

Step	Action	Response
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NOTE

Ensure that the unit selected to **Send Status...** is the unit that is in the **Select Unit** window. The unit that is highlighted and expanded will be the unit data that is transmitted. Highlighting a unit without expanding will not send data.

448.	Proceed to note prior to step 19 to perform other functions of Unit Workspace window.	
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3-20 CREATE/EDIT ENEMY UNIT PROCEDURE.

As explained in the window navigation description, the **Unit Workspace** window is accessed in various manners. The method of access depends on the procedure to be performed. A unit is created by copying and editing data from an existing unit or by entry of all new data. This procedure describes the creation of a unit using all new data in order to cover all steps of the process. To edit data for a unit, the user selects the appropriate steps from the procedure to accomplish the required editing.

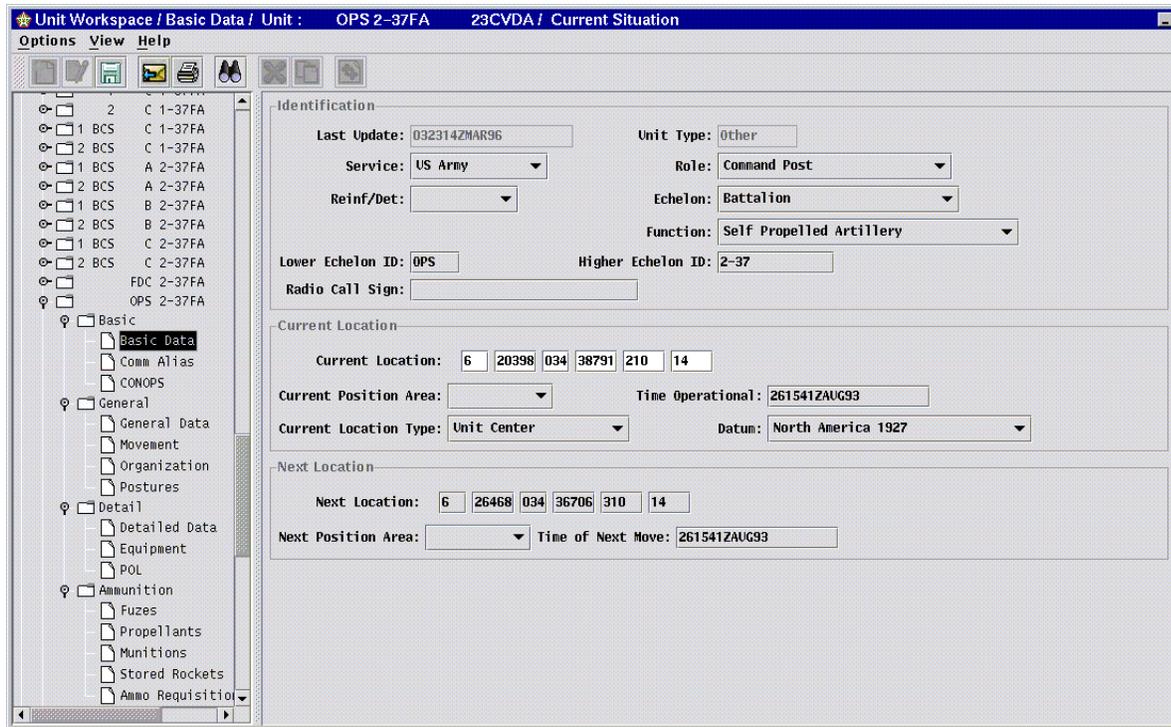


Figure 3.36 Unit Workspace Window

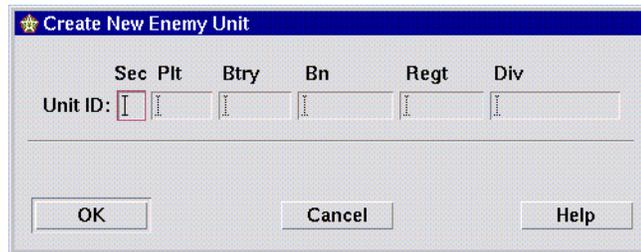
NOTE

Open the **Unit Workspace** window using the **Units Workspace...** selection. To perform the following functions of the **Unit Workspace** window, proceed to the indicated steps.

- Create a new enemy unit step 1
- Copy a unit from established units list step 4
- Copy unit from map symbol step 6
- Edit a unit from established units list step 14
- Edit unit from map symbol step 16

Create/Edit Enemy Unit Procedure

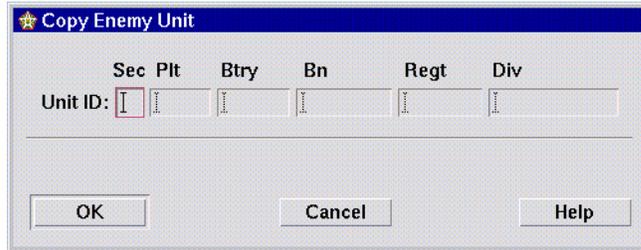
Step	Action	Response
1.	<u>Select Options\New\Create New Enemy Unit....</u>	Create New Enemy Unit window opens.



2.	<u>Enter new Unit ID:</u>	
3.	<u>Select OK.</u> Proceed to note prior to step 18.	Enemy Unit Data window opens.
4.	<u>Select Unit ID to be copied</u> from menu tree.	
5.	<u>Select Options\Copy....</u> Proceed to step 9.	Copy Enemy Unit window opens.
6.	<u>Select unit to be copied</u> on map display using Left Trackball button.	
7.	<u>Depress Right Trackball button.</u>	Unit menu opens.
8.	<u>Select Copy....</u>	Copy Enemy Unit window opens.

Create/Edit Enemy Unit Procedure - CONT

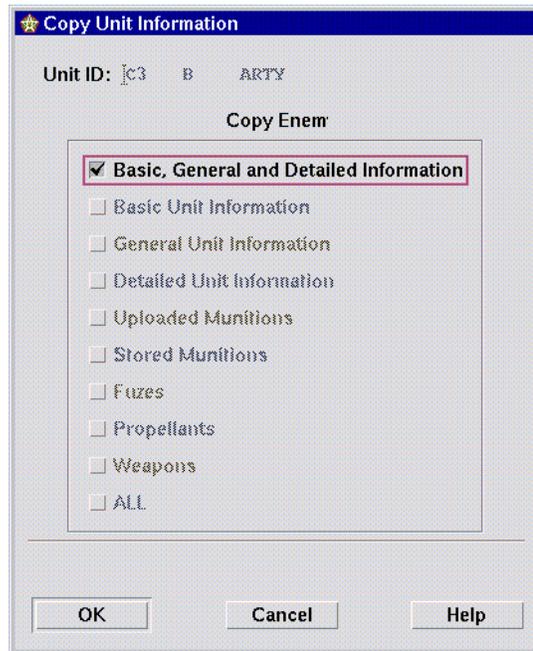
Step	Action	Response
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9. Enter new **Unit ID:**

10. Select **OK.**

Copy Unit Information window opens.



11. Select **OK.**

Copy Unit Information window closes.
Enemy unit is added to menu tree list.

Create/Edit Enemy Unit Procedure - CONT

Step	Action	Response
12.	<u>Proceed to note prior to step 1</u> to perform other functions of Unit Workspace window.	
13.	<u>Select Unit ID to be edited</u> from menu tree.	
14.	<u>Select Options\Edit.</u> Proceed to step 18.	Enemy Unit Data window opens.
15.	<u>Select unit to be copied</u> on map display using Left Trackball button.	
16.	<u>Depress Right Trackball button.</u>	Unit menu opens.
17.	<u>Select Edit.</u> Proceed to step 18.	Enemy Unit Data window opens.

Enemy Unit Data

Status: _____

Plan: _____ Phase: _____ Last Update: 29203120ct01

Unit ID: C3 B ARTY Activity: _____

Location: 5 77000 034 58000 0 14 Direction: _____ Speed (kph): 0

Target Type: Arty.Med SP (121-160mm) Number of Platoon Units: 6

Role: _____
 Echelon: _____
 Function: _____

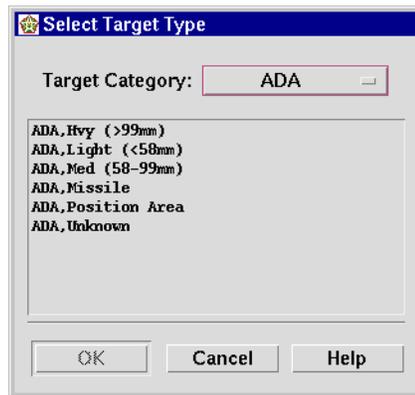
Reinf/Det: _____

Clear Symbol Lower Echelon ID: 1 Higher Echelon ID: Arty

OK Cancel Help

Create/Edit Enemy Unit Procedure - CONT

Step	Action	Response
18.	<u>Select Activity:</u>	
19.	<u>Enter Location:</u>	
20.	<u>Select Direction:</u> if unit is moving (optional).	
21.	<u>Enter Speed (kph)</u> if unit is moving (optional).	
22.	<u>Select Target Type:\Select...</u>	Select Target Type window opens.



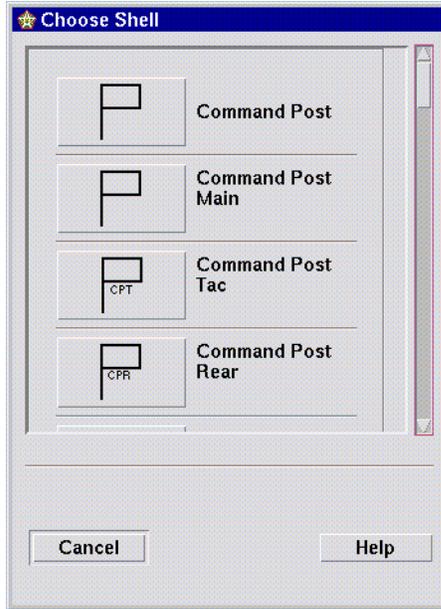
23.	<u>Select Target Category.</u>	
24.	<u>Select target type.</u>	
25.	<u>Select OK.</u>	Select Target Type window closes. Target type is displayed in Target Type: field.
26.	<u>Enter Number of Platoon Units.</u>	

NOTE

The **Role**, **Echelon**, **Function**, **Lower Echelon ID:**, and **Higher Echelon ID:** are used to construct the unit symbol. When editing or copying a unit, the **Role** selection will not be enabled because a symbol exists for the unit. Select **Clear Symbol** to enable the **Role** selection if the symbol is to be changed.

Create/Edit Enemy Unit Procedure - CONT

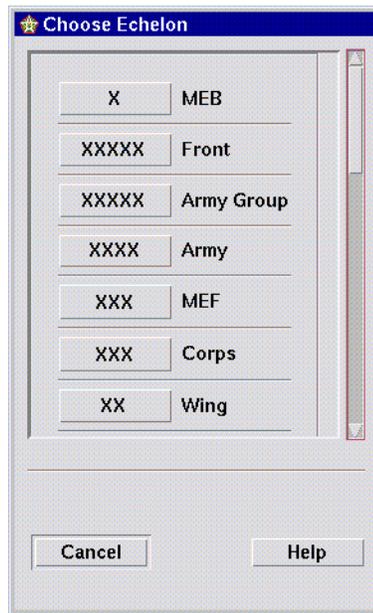
Step	Action	Response
27.	<u>Select Role.</u>	Choose Shell window opens.



28.	<u>Select Shell</u> from list.	Choose Shell window closes. Enemy Unit Data window becomes active window. Echelon selection enabled.
29.	<u>Select Echelon.</u>	Choose Echelon window opens.

Create/Edit Enemy Unit Procedure - CONT

Step	Action	Response
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30. Select echelon from list.

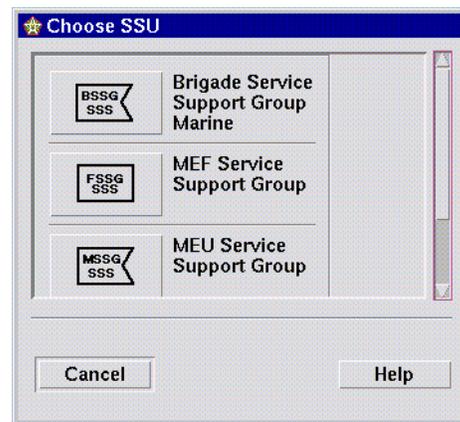
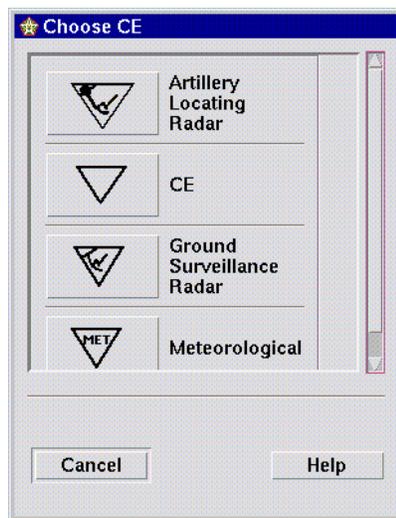
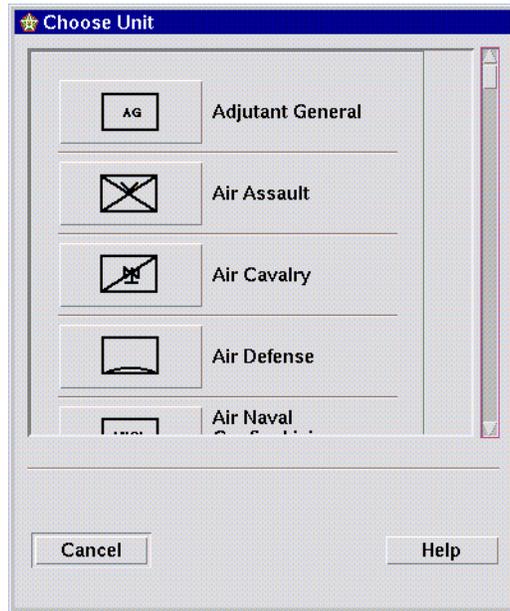
Choose Echelon window closes. **Enemy Unit Data** window becomes active window. **Function** selection enabled.

31. Select **Function**.

Choose Unit, SSU, CE, or OP window opens, as appropriate for shell type.

Create/Edit Enemy Unit Procedure - CONT

Step	Action	Response
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32. Select function.

Choose Unit, SSU, CE, or OP window closes. **Enemy Unit Data** window becomes active window.

Create/Edit Enemy Unit Procedure - CONT

Step	Action	Response
33.	<u>Select Reinf/Det.</u>	
34.	<u>Enter Lower Echelon ID:.</u>	
35.	<u>Enter Higher Echelon ID:.</u>	
36.	<u>Select OK.</u>	Enemy Unit Data window closes. Unit, if new, is added to Unit Workstation menu tree.

3-21 **TARGET/ASR NUMBERING.**

The **Targets\Target Numbering** selection opens the **Target Numbers** window. This window is used to enter the target number blocks assigned to the OPFAC. An **Allocated Numbers** selection allows the user to assign numbers to subordinate units via the **Allocated Target Numbers** window. The **Targets\ASR Numbering** selection opens the **ASR Numbers** window. This window is used to enter the ASR number blocks assigned to the OPFAC.

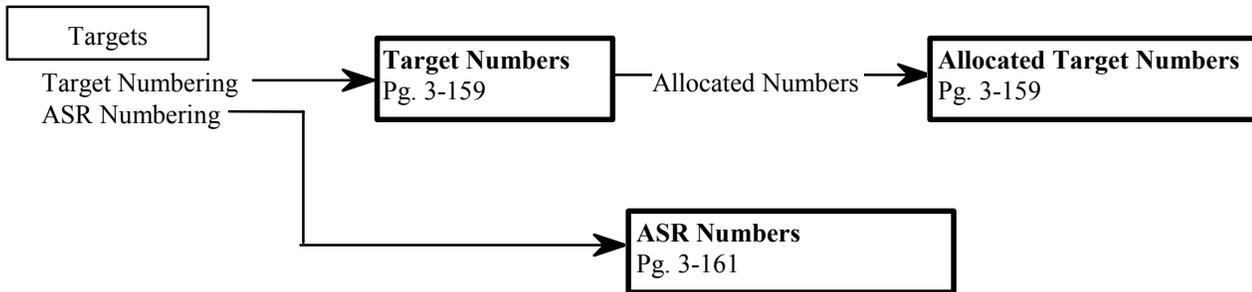


Figure 3.37 Target Numbering Navigation

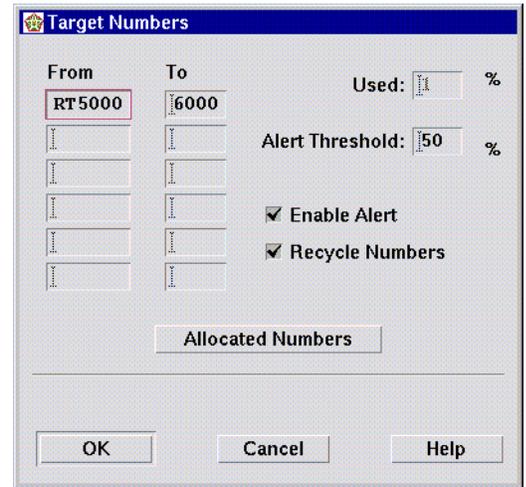
3-21.1 Target Numbers Window.

The **Target Numbers** window contains fields to enter up to six (6) blocks of target numbers. Legal entries for these fields range from AA0000 to ZZ9999. Only the numeric characters are entered in the **To** fields. The **Used: %** field displays the percentage of these numbers that are assigned to available target databases. This field is view only.

The user enters a value that an alert is to be generated at when the available numbers reach the specified value. This value (0 to 100) is entered in the **Alert Threshold: %** field. This entry is optional.

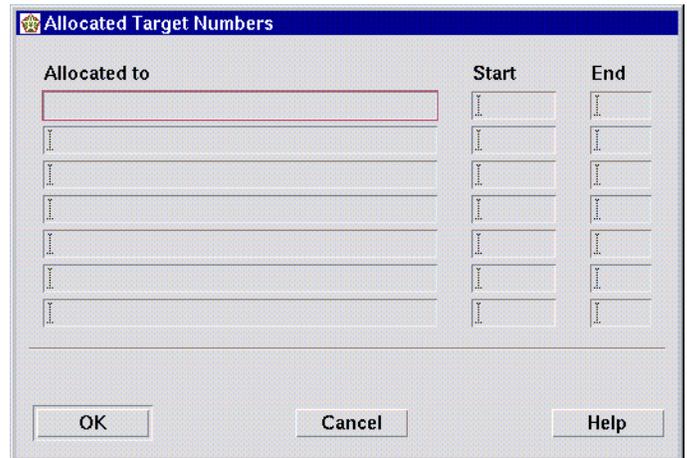
The **Enable Alert** check box is selected if the user wants an alert generated if the available numbers reach the threshold value. This selection is optional.

The **Recycle Numbers** check box is selected if the user wants to be alerted when the system starts to reuse target numbers that were assigned but are no longer associated with a target. This selection is optional.



3-21.2 Allocated Target Numbers Window.

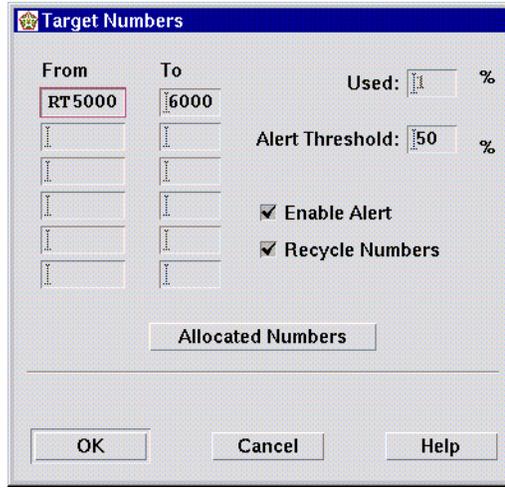
The **Allocated Target Numbers** window is a user scratch pad to track target numbers assigned to subordinate units or held in reserve. The user enters the unit ID's in the **Allocated to** fields. Adjacent to each unit ID, the **Start** and **End** numbers are entered. Legal entries for these fields range from AA0000 to ZZ9999. Only the numeric characters are entered in the **End** fields.



3-21.3 Enter Target Numbers Procedure.

Enter Target Numbers Procedure

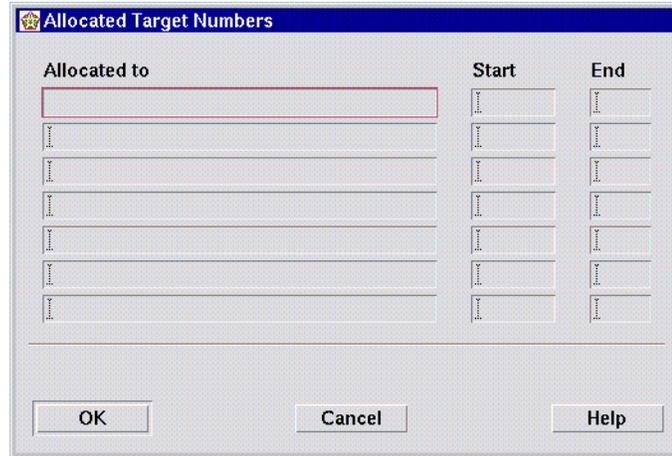
Step	Action	Response
1.	<u>Select Targets\Target Numbering.</u>	Target Numbers window opens.



- | | | |
|----|---|---|
| 2. | <u>Enter the Target Numbers in From (first number) and To (last number) fields for each block of numbers.</u> | |
| 3. | <u>Enter Alert Threshold % (0-100).</u> | |
| 4. | <u>Select Enable Alert if applicable.</u> | |
| 5. | <u>Select Recycle Numbers if applicable.</u> | |
| 6. | <u>Select Allocated Numbers.</u> | Allocated Target Numbers window opens. |

Enter Target Numbers Procedure - CONT

Step	Action	Response
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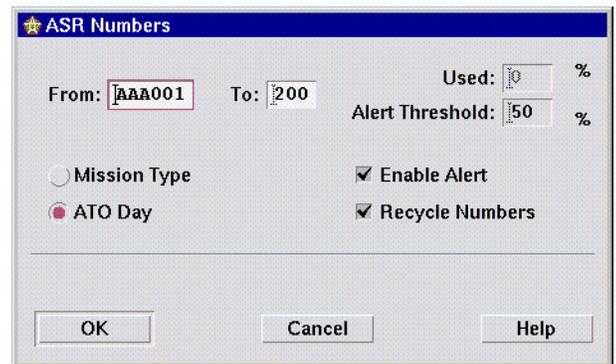


7. Enter Unit ID's numbers are to be allocated to in **Allocated To** fields.
8. Enter **Start** and **End** numbers.
9. Select **OK**.
10. Select **OK**.

Allocated Target Numbers window closes.
Target Numbers window closes.

3-21.4 ASR Numbers Window.

The **ASR Numbers** window is used to assign a block of numbers to be assigned automatically to a generated ASR. This window is opened by the **ASR Numbering** selection from the **Targets** menu on either the **Current** or **Planning** map. These numbers will be assigned when the user creates an ASR via the **Air Support List** window or an ASR is created via an Air OTF.



An ASR number is eight alphanumeric characters in length. The first and second will indicate a **Mission Type** or **ATO Day** depending on the selection made on this window. The **ATO Day** value is entered on the ASL window during creation of the ASL. The **Mission Type** value is dependent on the ASR type.

ASR Type	Value
Air Interdiction	01
Close Air Support	02
Assault Support	03
Electronic Warfare	04
Reconnaissance	05
Air Drop	06
Medical Evacuation	07

The third through fifth positions must be uppercase alpha characters (A to Z). The last three positions must be numeric. Only the numeric value is entered in the **To** field.

The **Used: %** field displays the percentage of these numbers that are assigned to ASR's in the database. This field is view only.

The user enters a value that an alert is to be generated at when the available numbers reach the specified value. This value (0 to 100) is entered in the **Alert Threshold: %** field. This entry is optional. The **Enable Alert** check box is selected if the user wants an alert generated if the available numbers reach the threshold value. This selection is optional.

The **Recycle Numbers** check box is selected if the user wants to be alerted when system starts to reuse target numbers that were assigned but are no longer associated with a target. This selection is optional.

3-21.5 Enter ASR Numbers Procedure.

Enter ASR Numbers Procedure

Step	Action	Response
1.	<u>Select Targets\ASR Numbering.</u>	ASR Numbers window opens.
2.	<u>Enter the ASR Numbers in From and To fields.</u>	
3.	<u>Select Mission Type or ATO Day.</u>	
4.	<u>Enter Alert Threshold % (0-100).</u>	
5.	<u>Select Enable Alert if applicable.</u>	
6.	<u>Select Recycle Numbers if applicable.</u>	
7.	<u>Select OK.</u>	

SECTION 3 DATA DISTRIBUTION.

3-22 OVERVIEW.

The **Distribution** menu selections allow the user to create and modify distribution lists and set up the criteria for automatic distribution of received data.

A distribution list consists of a list name and a list of units. The distribution lists allow the user to group a number of units to be used as a destination for the transfer of data. This list allows the user to designate a number of destination units with one (1) selection instead of making multiple selections. AFATDS contains seven (7) default lists and any other lists created by the user. The units in a default list are determined by unit data (e.g., command unit, supported unit, etc.). Default lists cannot be edited but may be copied to create a new editable list. The user adds or removes units from a list to determine the destinations for that list. A unit may appear on any or all lists.

Unit and geometry data received at an OPFAC is automatically distributed to other units in accordance with distribution criteria entered at the OPFAC. The user must manually send data generated at the host OPFAC. The user selects the type of data, the distribution list, and the criteria to be used for distribution. For example, the user may select **Geometries** from **Higher** units (type), Alpha2 (a user created distribution list), and **Any Change** (criteria). In this case, any change to geometries received from higher units would be sent to all units on the Alpha2 distribution list.

3-23 DISTRIBUTION WINDOWS NAVIGATION.

The **System\Distribution\Lists** menu selection opens the **Select Distribution List** window. This window displays all distribution lists in alphabetical order. The user maintains the user created distribution lists by adding or deleting units. The **Options** menu allows navigation to other windows for the maintenance functions.

The **System\Distribution\Criteria** menu selection opens the **Selection List** window. The **Selection List** window is used to setup automatic relay distribution criteria. The **Options\Distribution Criteria...** selection on the **Select Distribution List** window also accesses this window.

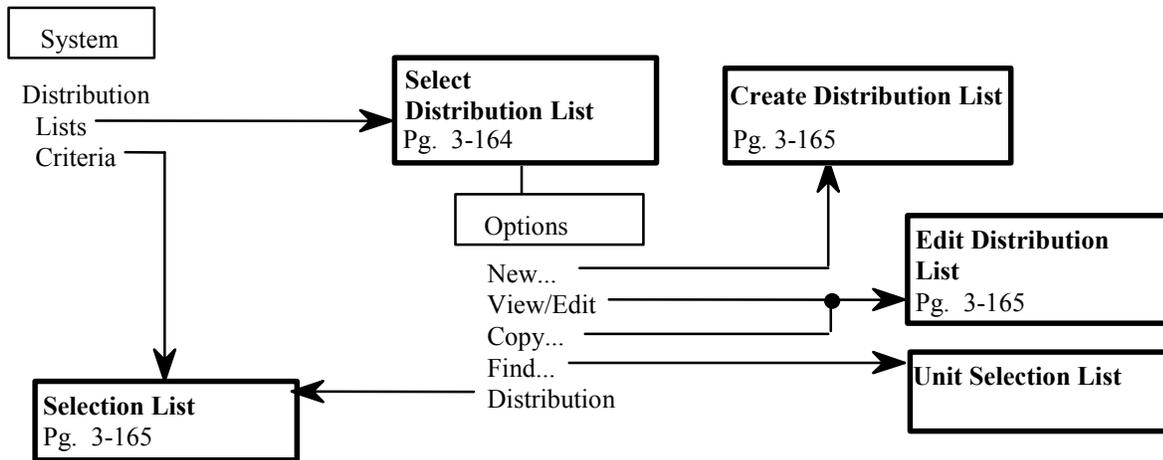


Figure 3.38 Distribution Navigation

3-24 **SELECT DISTRIBUTION LIST WINDOW.**

The **System\Distribution\Lists** selection opens the **Select Distribution List** window which displays the established lists. The **Higher Hq, Primary Conops, Secondary Conops, Subordinates, Supported Units, and Supporting Units** are default lists and cannot be edited.

The **Copy...** and **View/Edit** selections from the **Options** menu open the **Edit Distribution List** window. Selecting **Options\New...** opens a blank **Create Distribution List** window. Selecting **Options\Copy...** opens the **Edit Distribution List** window with the **Units in List** field containing data of the copied list. In this case, a name is entered for the list and units are added or removed to create a new list.



Selecting **Options\View/Edit** opens the **Edit Distribution List** window to edit a selected list. The **Options\Delete...** selection causes a selected distribution list to be deleted.

The **Options\Find...** selection opens the **Unit Selection List** window. A unit is selected from this window and the window is closed via **OK**. The **Select Distribution List** window becomes the active window. All distribution lists containing the selected unit will be displayed as selected on the **Select Distribution List** window.

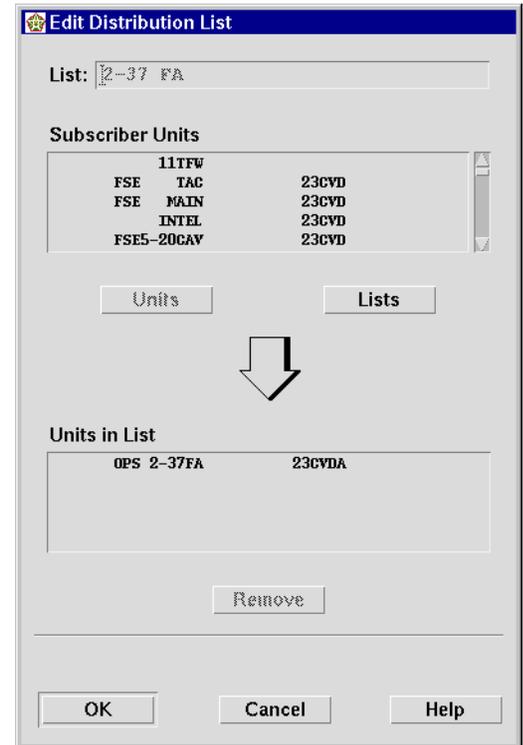
The **Options\Distribution Criteria...** selection opens the **Selection List** window.

3-25 CREATE/EDIT DISTRIBUTION LIST WINDOW.

The **Edit Distribution List** and **Create Distribution List** windows allow the user to view a default distribution list or to view, create, and/or edit user defined distribution lists. The **Edit Distribution List** window is accessed via the **Options\View/Edit** or **Options\Copy...** selection from the **Select Distribution List** window. The **Create Distribution List** window is opened via the **Options\New** selection.

NOTE

The default distribution lists may not be edited or deleted. The default distribution lists consist of: **Higher Hq, JMCIS, Primary Conops, Secondary Conops, Subordinates, Supported Units, and Supporting Units.**



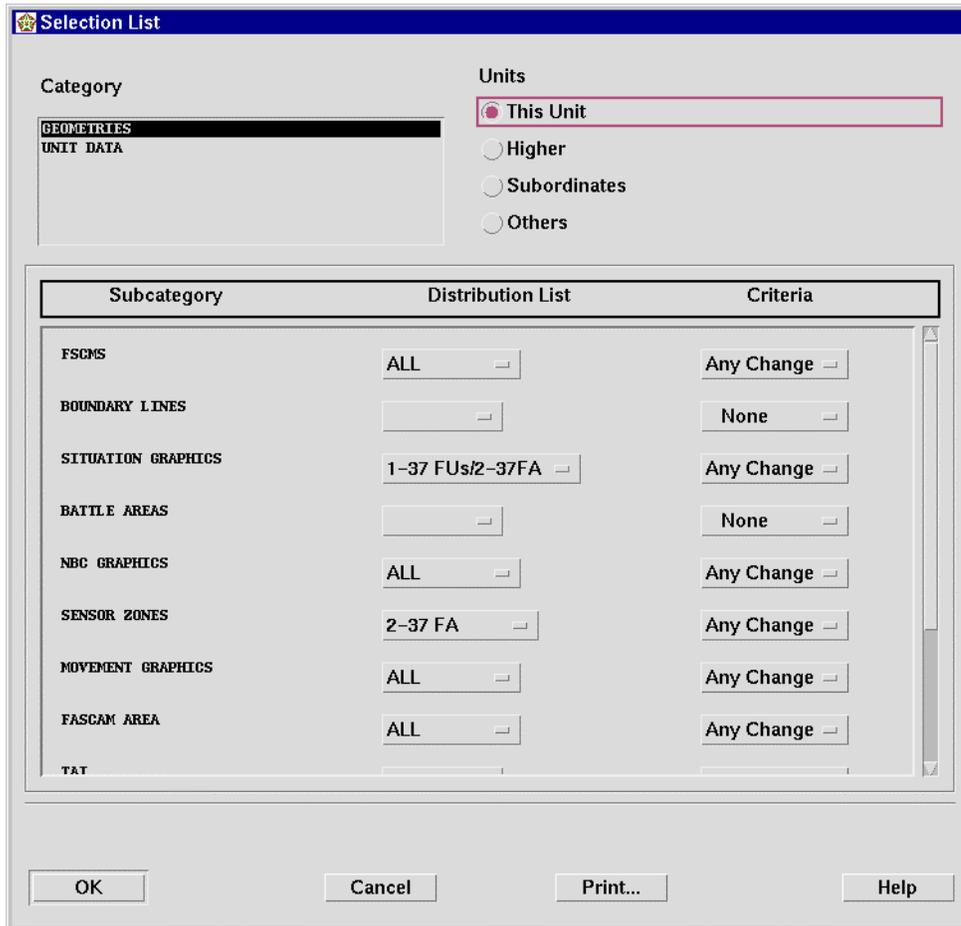
The **List:** field displays the name of the distribution list to be edited. When creating a new list, the name of the list is entered by the user. The **Subscriber Units** field displays a list of unit ID's when **Units** is selected or a list of distribution lists when **Lists** is selected. Selecting **Lists** changes the top list title from **Subscriber Units** to **Distribution Lists**. The **Units in List** field displays a list of unit ID types which are part of the distribution list name selected in the **Distribution Lists** field. The **Down Arrow** is used to copy either single unit ID's from the **Subscriber Units** field or multiple unit ID's which are part of a selected distribution list in the **Distribution Lists** field. When copying a distribution list, all of the unit ID's which are part of the selected distribution list are displayed in the **Units in List** field. Selecting the **OK** button adds all of the unit ID's listed in the **Unit in List** field to the distribution list shown in the **Distribution Lists** field. The **Remove** button is used to remove a unit selected in the **Units in List** field.

3-26 SELECTION LIST WINDOW.

The **System\Distribution\Criteria** selection opens the **Selection List** window. The **Selection List** window allows the user to tailor the distribution characteristics of the OPFAC. The **Category** list displays the data as two (2) different categories. These types consist of **GEOMETRIES** and **UNIT DATA**. The **Units** list allows the user to select the level at which the data was created or effected. The **Units** radio button selections consist of **This Unit, Higher, Subordinates, and Others**. A **Distribution List** and **Criteria** are established for each **Subcategory** for each combination of **Category** and **Units** selections (8 combinations).

Selecting **This Unit** and establishing a **Distribution List** and **Criteria** for each **Subcategory** will determine distribution for data received about the host unit. For example, if a change to the host unit data is received that meets the established criteria, the data will be distributed to the units in the selected **Distribution List**.

The same method is used to distribute data received for **Higher** (up one echelon), **Subordinates** (down one echelon), and **Others** (all other) units.



For example, the user selects **Category\GEOMETRIES** and **Units\This Unit**. Each **Subcategory** for geometries is then displayed with a **Distribution List** and **Criteria** selection. Selections are made for each **Subcategory**. The user then repeats this procedure for the remaining **Units** selections. The procedure is then completed for the remaining **Category** selections.

The **Distribution List** menu opens the **Select Distribution List** window allowing the user to select a specific distribution list. Selecting a blank line means that no distribution will occur for the **Subcategory**.

The **Criteria** menu allows the user to set distribution for **Any Change**, **Threshold**, or **None**. With **Any Change** selected, the incoming data is compared with the current database. If a change is detected, the incoming data will be distributed.

The **Threshold** selection is used only for subcategories where the quantities of assets are monitored as a factor of unit capabilities (e.g., POL, ammo, weapons, etc.). The **Threshold** selection allows distribution only if the Critical/Degraded threshold is crossed. Selecting **None** means that no distribution will occur for the **Subcategory**.

Selecting the **Print...** button opens the **Print Settings** window.

3-27 **MANAGING DISTRIBUTION LISTS PROCEDURE.**

Managing Distribution Lists Procedure		
Step	Action	Response
1.	<u>Select System\Distribution\Lists.</u>	Select Distribution List window opens.



NOTE

Selecting **OK** at any time closes **Select Distribution List** window.

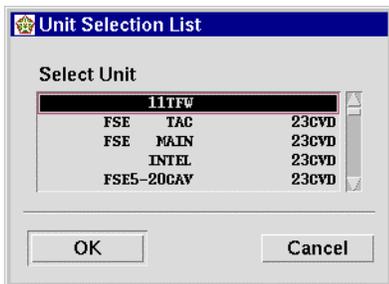
To perform following functions, proceed to indicated steps.

- Find distribution lists associated with a unit step 2
- View/Edit distribution list step 6
- Create new distribution list step 8
- Copy existing distribution list step 9
- Delete distribution list step 17
- Specify distribution criteria step 20

2.	<u>Select Options\Find....</u>	Unit Selection List window opens.
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Managing Distribution Lists Procedure - CONT

Step	Action	Response
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- | | |
|----|--|
| 3. | <u>Select unit.</u> |
| 4. | <u>Select OK.</u> |
| 5. | To perform other functions of Select Distribution List window, refer to note prior to step 2. |

Distribution lists containing unit ID are highlighted in **Select Distribution List** window.

NOTE

Default distribution lists cannot be edited.

- | | |
|-----|--|
| 6. | <u>Select distribution list</u> to view/edit. |
| 7. | <u>Select Options\View/Edit.</u> Proceed to step 12. |
| 8. | <u>Select Options\New....</u> Proceed to step 11. |
| 9. | <u>Select distribution list</u> to be copied. |
| 10. | <u>Select Options\Copy....</u> |

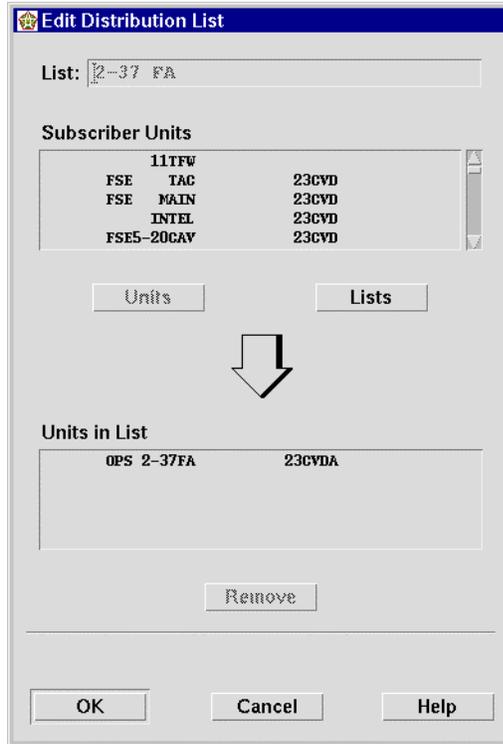
Edit Distribution List window opens.

Create Distribution List window opens.

Edit Distribution List window opens.

Managing Distribution Lists Procedure - CONT

Step	Action	Response
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11.	<u>Enter List: name</u> (1-16 alphanumeric characters).	
12.	<u>Select Units</u> button to fill top list with subscriber units from which to choose	Top list title changes to Subscriber Units and list fills with unit IDs
	or	or
	<u>Select Lists</u> button to fill top list with distribution list names from which to choose.	Top list title changes to Distribution Lists and list fills with distribution list names.
13.	<u>Select unit(s) or distribution</u> list from top list and Down Arrow .	Selected units or units from selected distribution list fill into Units in List in order to create or edit the distribution list.
14.	Repeat steps 12 and 13 as required.	

Managing Distribution Lists Procedure - CONT

Step	Action	Response
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NOTE

To remove a unit from distribution list, select desired unit from **Units in List** and **Remove** button.

15.	<u>Select OK</u> .	Edit or Create Distribution List window closes.
16.	To perform other functions of Select Distribution List window, refer to note prior to step 2.	

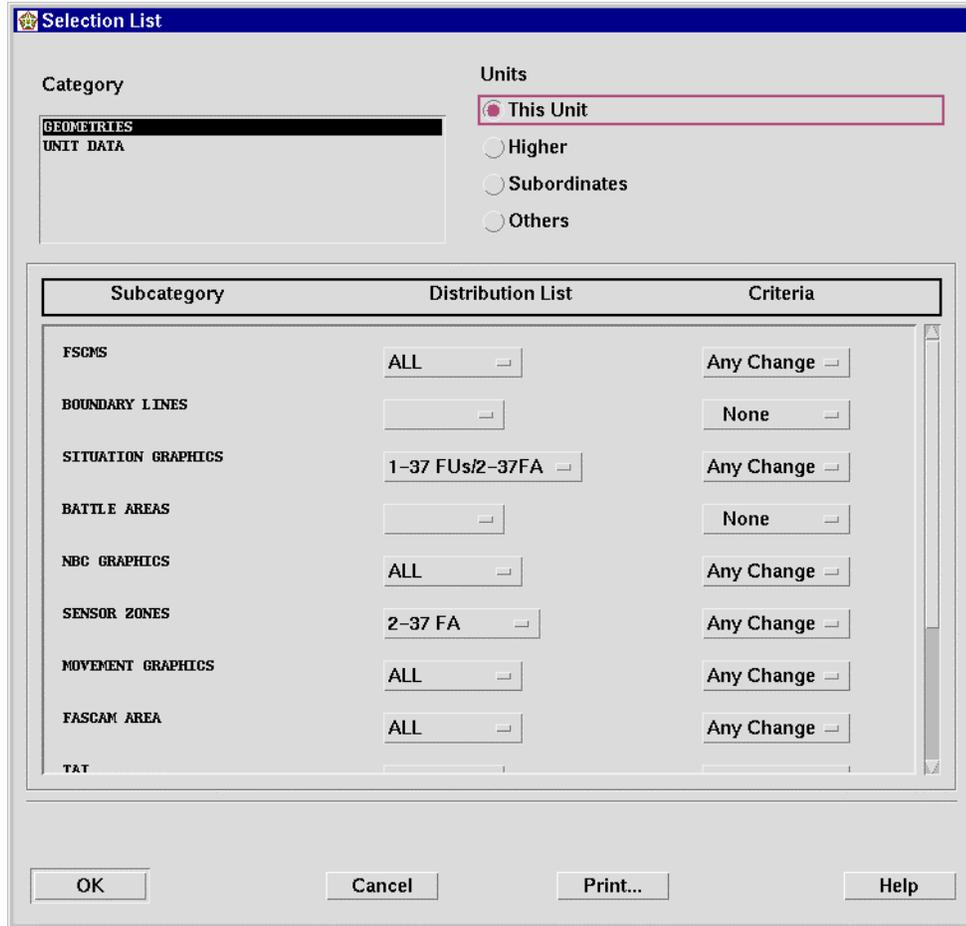
NOTE

Default distribution lists cannot be deleted.

17.	<u>Select distribution list</u> to delete.	
18.	<u>Select Options\Delete...</u>	Distribution list is removed from the listing.
19.	To perform other functions of Select Distribution List window, refer to note prior to step 2.	
20.	<u>Select Options\Distribution Criteria...</u>	Selection List window opens for specifying distribution criteria.

Managing Distribution Lists Procedure - CONT

Step	Action	Response
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- | | |
|--|---|
| <p>21. <u>Select desired units</u> by selecting one of the Units radio buttons.</p> | <p>Subcategory, Distribution List, and Criteria information updates accordingly.</p> |
| <p>22. <u>Select desired category</u> from Category list.</p> | <p>Subcategory, Distribution List, and Criteria information updates accordingly.</p> |
| <p>23. <u>Select Distribution List for each Subcategory</u> as required.</p> | |
| <p>24. <u>Select Criteria:</u></p> | |

Managing Distribution Lists Procedure - CONT

Step	Action	Response
25.	<u>Repeat steps 22 through 24</u> to set distribution criteria for each Category as required.	
26.	<u>Repeat steps 21 through 25</u> to set distribution criteria for each Units selection as required.	

NOTE

To print distribution criteria, select **Print...** and on **Print Settings** window select **OK**.

27.	<u>Select OK</u> .	Selection List window closes.
28.	To perform other functions of Select Distribution List window, refer to note prior to step 2.	

3-28 AFATDS APPLICATION SERVER.

The AFATDS Application Server (AAS) provides external clients access to AFATDS operational data and functionality. Access is provided through a set of public Application Programming Interfaces (API's) that supports real time secure communications, identification, and information exchanges between AFATDS and external client devices using Interface Definition Language (IDL).

3-28.1 Access.

The AFATDS Server allows up to ten external clients to be connected simultaneously to AFATDS via Local Area Network (LAN). The AFATDS Server allows external clients to access data or invoke functionality with the following limitations.

- External clients must provide a valid client name and password before access to AFATDS is permitted.
- External clients can only access those capabilities explicitly allowed by the AFATDS System Administrator, which are associated with the client name supplied by the external client during the log-in process. These restrictions allow external clients to access only those capabilities to which they are explicitly permitted access.

- External clients are treated as entities directly associated with and limited to a single AFATDS server. External clients are only given data through legal access to, and employment of, the public APIs and are not considered an external system. Communication with clients is done through the public API's and does not require entry of any associated data in the AFATDS MUL, communication tables, or Unit database.
- Clients are individually managed by the associated AFATDS server. Any data uniquely requested or required by the client will be provided directly and solely to the client involved.

3-28.2 AAS Functionally.

The interfaces between AFATDS and external clients are organized into broad API groupings based upon functional and operational use. These interfaces are organized into the API groups listed below. Individual clients may only access the portions of this functionality for which they have been assigned permissions.

3-28.2.1 Geometries.

The Geometry API's allows clients to create, delete, read, and update geometry information associated with battlefield geometries. Geometry data is only provided for the current situation.

3-28.2.2 Target And Mission.

The Target and Mission APIs allows clients to create, delete, read, and update target and mission information associated with fire mission data, Fire Plans/Schedules/Target Lists, fire mission data, tactical air requests, intelligence information, and Fire Order/Order to Fire. The ability to create and delete plans is limited to the current situation. Clients can initiate fire missions, checkfires by target, checkfire all, cancel checkfires and send End of Mission messages to AFATDS. Clients can add and delete missions on all target lists and create and delete named target lists. Clients can submit air support requests and view, edit, and delete air support requests and air support lists. Clients can view all active and inactive target data to include purged targets. Targets that have been purged can be viewed for up to 72 hours after having been purged. Clients can get Counterfire Target Reports, Missions Fired Reports, and Air Support List Reports.

3-28.2.3 Timeline.

The Time Line (Record and Playback) API's allows clients to request and retrieve information for units, geometries, and targets and missions. Data associated with battlefield geometries, fire mission data, Fire Plans/Schedules/Target Lists, and friendly unit situation and capabilities can be recorded for up to 72 hours for each Timeline. Timeline API's do not support access to air mission data.

3-28.2.4 Units.

The Unit API's allow clients to read and update unit information associated with friendly unit situation and capability, friendly unit supply information, and characteristics data. Clients can get Unit Ammunition Reports and Unit Status Reports.

3-28.2.5 Guidances.

The Guidance API's allow clients to view guidances for Target Selection Standards (TSS), High Value Target (HVT) list, Target Management Matrix (TMM), and mission prioritization.

3-28.2.6 Collaboration.

The Collaboration API's allow multiple clients connected to a common AFATDS Server to collaborate with other clients. The Collaboration capabilities include chat, coordination of normal mission functions, moderator synchronization of map views, and utilization of interactive graphic collaboration tools.

3-28.2.7 Admin, Common, and Login.

These API's provide the capability for Clients to login, obtain access to the AFATDS Server within the restrictions of their permissions, and provides core services required by all clients to obtain and pass information.

3-28.3 System Administrator AAS Responsibilities.

Access to the AFATDS Server by clients is authorized and controlled by an AFATDS operator who has been assigned the System Administrator duties. The AFATDS operator responsibilities for the AFATDS Server fall into two areas, client administration and data management.

3-28.3.1 Client Administration.

Before a client can access the AFATDS Server, the client must be created, assigned specific permissions to access the authorized data on the AFATDS Server, and authorized access to the AFATDS server. Client administration functionality is accessed by selecting System\Administration\Client/User. New clients are created, assigned unique client names, assigned a password, and given permission to login to the AFATDS Server. Client names and passwords must be passed off line to the client.

Clients must be assigned permissions to all or a part of the AFATDS Server functionality before they can access any AFATDS data. Server permissions are authorized by assigning clients to Client Groups that are authorized specific server permissions. If no Client Groups exist that contains the specific permissions you want to authorize a client to have, a new Client Group can be created. A new client group is assigned a group name and authorized one or more of the possible permissions.

Authorized permissions are View Unit Data, Update Unit Data, View Geometry Data, Update Geometry Data, View Guidance Data, Update Guidance Data, View Target Data, Update Target Data, Perform Mission Commands, and Perform Collaboration. An AFATDS System Administrator then associates the client with one or more Client Groups. The client can then access data authorized by the permissions of any of the Client Groups with which they are associated. Selecting and viewing a client will show their associated Client Groups.

Selecting **Action\Number of Clients** displays the individual clients that are currently connected to the AFATDS Server. From this window, the AFATDS System Administrator can set the number of clients, from 0 to 10, that are authorized to be connected to the AFATDS server at any one time. The AFATDS System Administrator can also select a specific client(s) and disconnect that client(s).

3-28.3.2 Data Management.

The AFATDS System Administrator has data management responsibilities associated with the target accumulation and timeline functionality.

3-28.3.2.1 Target Accumulation.

Target accumulation allows clients to view all active and historical target data, to include inactive target data for purged targets, for an authorized period. Target accumulation data is not viewable by the AFATDS functionality. Target accumulation is accessed via **System\System Tools\Target Accumulation**. The AFATDS System Administrator can set the number of hours that target data is accumulated from 1 hour to 72 hours. Once target data becomes older than the number of hours authorized, it is automatically deleted from the database.

3-28.3.2.2 Timeline.

Timeline functionality allows the AFATDS System Administrator to record unit, geometry and targets and missions events for playback by an external client. The portions of the timeline that individual clients can playback are dependent upon their assigned permissions.

The timeline functionality is accessed via **System\System Tools\Timeline**. The AFATDS System Administrator can select a time period to record data from 1 hour to 72 hours. When the **Record** button is selected the timeline starts recording. The **Timeline** window must be left open, though it can be minimized, while data is being recorded. The scheduled recording times are displayed on the window and the progress bar displays the relative status of the recording. Closing the **Timeline** window stops the timeline recording. Additionally, recording can be stopped at anytime by selecting the **Stop** button. Recorded data is maintained until it is archived or deleted.

After completion or stopping of the timeline recording, data can be archived to a OD, Jaz disk, or Flash disk. For a client to view timeline data, the timeline data must be restored to one of the three (TL1, TL2, or TL3) timeline slots. Clients must provide off line to the AFATDS System Administrator information on what timeline data to have loaded. The AFATDS System Administrator can delete currently recorded data or the data from the TL1, TL2, or TL3 slots.

SECTION 4 GUIDANCES

3-29 OVERVIEW.

Guidances contain information used in the decision making processes of AFATDS. They can be used to supply information, impose restrictions, filter and select data, and make decisions concerning data and assets. Guidance information is normally supplied by higher echelon units and is distributed to other units in the support/command chain. Guidances are not always a rule, in some cases guidances are only used if operator supplied information or specific direction is not entered. Guidances are divided into ten (10) categories as follows: Target, System Preferences and Restrictions, Cannon, Mortar, Rocket/Missile, Aviation, Air Support, Naval Surface Fire Support, MET and Survey, and C3 and Logistics.

This section covers all guidance windows available to the user. The guidance windows are entered through the Planning or Current Situation Menus by selecting **Guidances\Workspace...** then the guidance category and name from the **Guidance Workspace** window. The **Plan** and **Phase** name and **COA** number are common fields across the top of most guidance windows. These fields are blank if the situation is Current. The **Send...** button on guidance windows are functional only when the situation is Current.

3-30 TARGET GUIDANCES.

Target guidances are **Target Selection Standards (TSS)**, **Target Decay Time**, **Target Duplication**, **High Value Target List**, **Target Management Matrix (TMM)** **High Payoff Targets**, **Mission Prioritization**, **Immediate Mission Routing**, and **Special Target Allocation**. These guidances are used to input information based on target categories and types. Targets are assigned values, priorities, routing and reporting instructions, and are filtered to determine if attack is warranted.

3-30.1 Target Guidances Window Navigation.

Target guidances are accessed from the Guidances pull-down menu on the Main Menu bar.

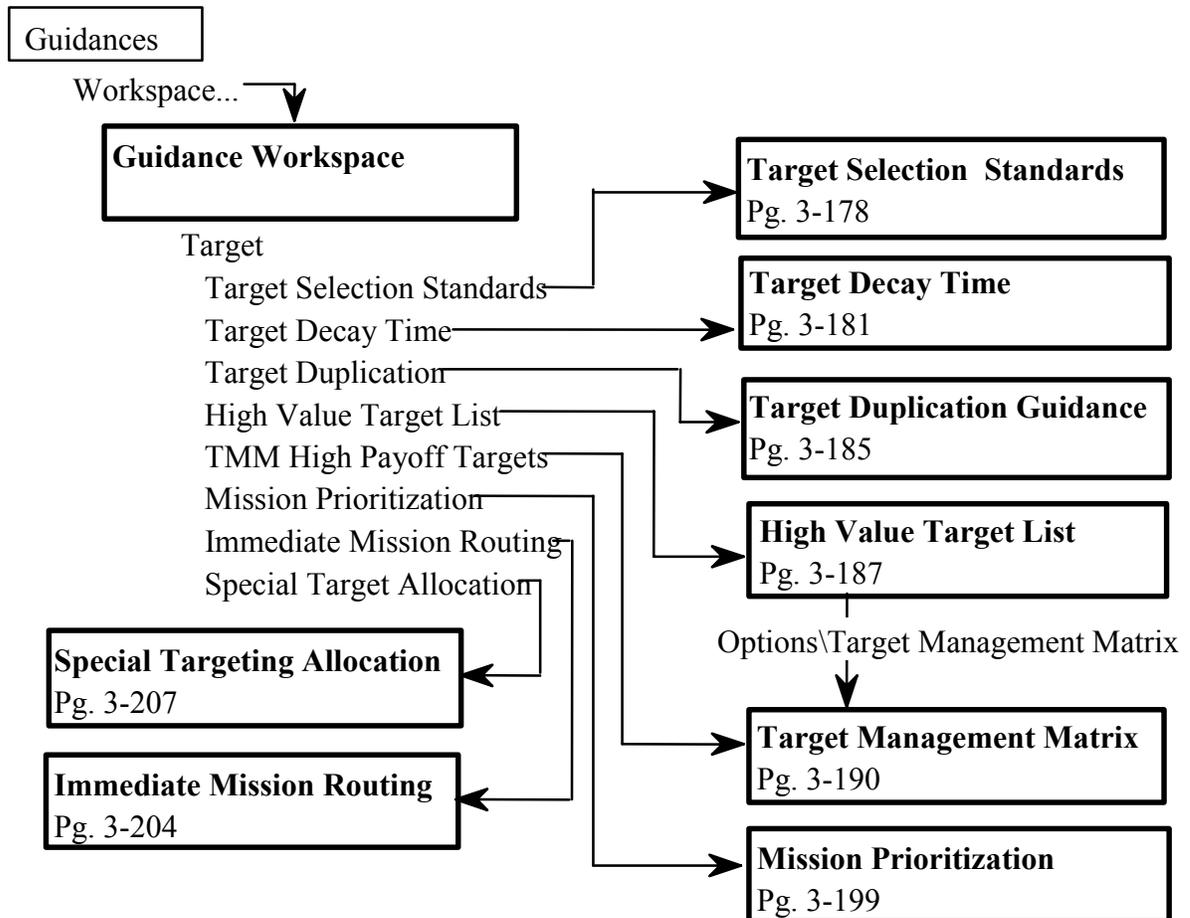


Figure 3.39 Target Guidances Navigation

3-30.2 Target Selection Standards Guidance.

The **Target Selection Standards** (TSS) guidance is a filter used to determine if a target meets the criteria to be attacked. The criteria includes the accuracy of the target location, time elapsed since the target was reported, and the reliability of the reporting agency. All ATI type targets are checked against the TSS filter. Calls for Fire (CFF) are checked against the TSS only when the check box is selected on the **Target Selection Standards** window. All targets failing TSS checks will be submitted for processing as Suspect Targets.

The Target Location Error (TLE) is the accuracy component of TSS guidance. The TLE is determined first by the value received with the target data. If TLE is not received with target data, a value is used based on a percentage of the sensor to target range (Q36 and Q37 radar only) or the TLE entered in the database for the observing unit. A default value will be used for a target if a TLE is not determined by one of the previous methods. This default is based on the reporting unit type. If the determined TLE exceeds the value entered for the TSS guidance, the target will fail TSS filtering.

The time element is based on the acquired or sensed time received with the target data. If a time is not received with target data, the time the target was received at the first AFATDS OPFAC will be used. If the time elapsed since the target was acquired or received exceeds the time value entered for the TSS guidance, the target will fail TSS filtering.

The reliability of an observer or radar unit is determined by selections made in the unit's database via the **Basic Unit Info** window. Each target type selected as reliable for a unit will pass TSS checks. Non-observer units will be assumed to be reliable for TSS purposes.

The **Target Selection Standards** window specifies the target age standards and the accuracy which sensors must meet in order to pass the TSS check. The standards are based on target type.

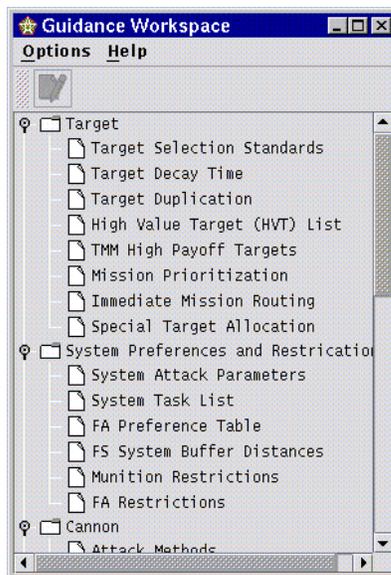
Target Type	Max TLE (m)	Max Rpt Age (min)
CP, Battalion	150	120
CP, Division	200	2000
CP, Forward	200	120
CP, Regiment	120	1100
CP, Small	80	120
CP, Unknown	100	120
Guidance Equipment	100	120
Navigation Aids	100	60

Selection of a **Target Category**: fills the **Target Type** list with appropriate target types and TSS information. The user may edit the maximum acceptable Target Location Error (**Max TLE (m)**) and maximum acceptable reporting age (**Max Rpt Age (min)**) allowed for each **Target Type**. TLE is the accuracy to which a target must be located. User initiated missions and CFF's or ATI's which do not meet these standards will fail the TSS checks. If the reporting sensor has a TLE that exceeds the entered **Max TLE** or the time since the target was reported exceeds the **Max Rpt Age**, the target will fail TSS.

In the Current situation, **Send...** is for sending TSS information to a selected unit(s).

3-30.3 Target Selection Standards Procedure.

Target Selection Standards Procedure		
Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



2.	<u>Select Target\Target Selection Standards</u> guidance type.	
3.	<u>Select Options\Edit</u> or double-click selection.	Target Selection Standards window opens.

Target Selection Standards Procedure - CONT

Step	Action	Response
------	--------	----------

Target Selection Standards

Plan: [] Phase: [] COA: []

Target Category: **C3**

Target Type	Max TLE (m)	Max Rpt Age (min)
CP, Battalion	150	120
CP, Division	200	2000
CP, Forward	200	120
CP, Regiment	120	1100
CP, Small	80	120
CP, Unknown	100	120
Guidance Equipment	100	120
Navigation Aids	100	60

Check Calls for Fire against TSS

OK Send... Cancel Help

- | | |
|--|---|
| <p>4. <u>Select Target Category:</u></p> <p>5. <u>Enter Max TLE(m)</u> for each Target Type (1-9999).</p> <p>6. <u>Enter Max Rpt Age(min)</u> for each Target Type (1-9999).</p> | <p>Target Type list updates.</p> |
|--|---|

Target Selection Standards Procedure - CONT

Step	Action	Response
7.	<u>Repeat steps 4 thru 6</u> to complete each Target Category .	
8.	Select Check Calls for Fire against TSS check box if CFF's are to be checked against TSS.	
9.	Select OK .	Target Selection Standards window closes.

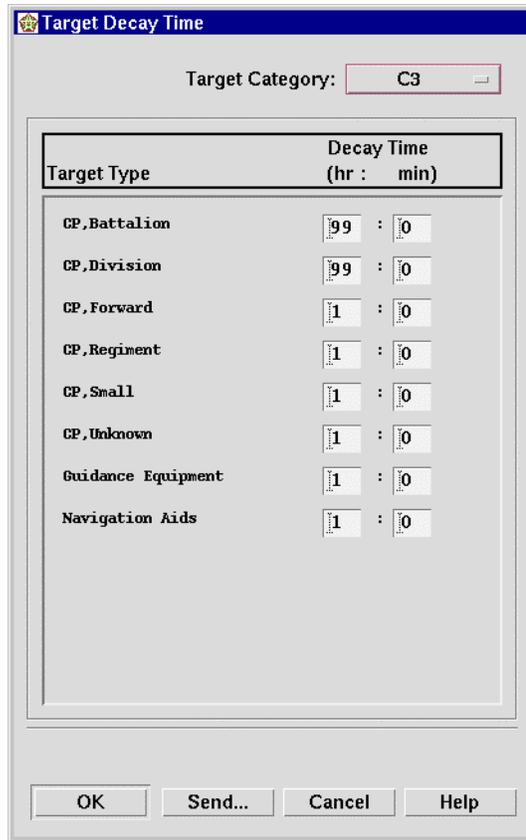
3-30.4 Target Decay Time Window.

The **Target Decay Time** window specifies the length in time in which each target type is suitable for engagement after it has been acquired.

The user enters target **Decay Time (hr : min)** in hours and minutes for each **Target Type**. The **Target Type** list is updated when a different **Target Category:** is selected.

This guidance may significantly affect mission processing. Targets with short decay times may time out and not be attacked if there are any significant mission processing delays for user intervention, coordination, or attack of higher priority targets.

In the Current situation, **Send...** is for sending Target Decay Time information to selected unit(s).



The image shows a software window titled "Target Decay Time". At the top, there is a "Target Category:" label followed by a dropdown menu showing "C3". Below this is a table with two columns: "Target Type" and "Decay Time (hr : min)". The table lists several target types with their corresponding decay times. At the bottom of the window, there are four buttons: "OK", "Send...", "Cancel", and "Help".

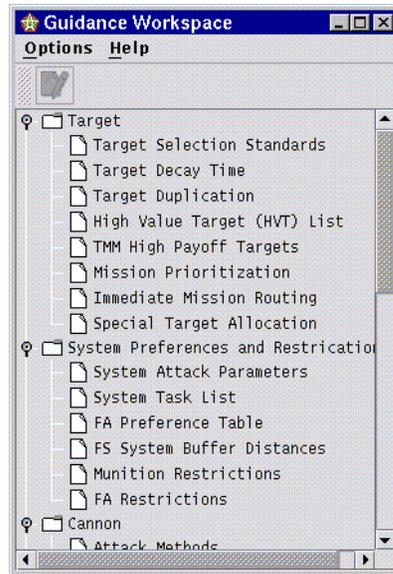
Target Type	Decay Time (hr : min)
CP, Battalion	99 : 0
CP, Division	99 : 0
CP, Forward	1 : 0
CP, Regiment	1 : 0
CP, Small	1 : 0
CP, Unknown	1 : 0
Guidance Equipment	1 : 0
Navigation Aids	1 : 0

Figure 3.40 Target Decay Time Guidance Window

3-30.5 Target Decay Time Procedure.

Target Decay Time Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



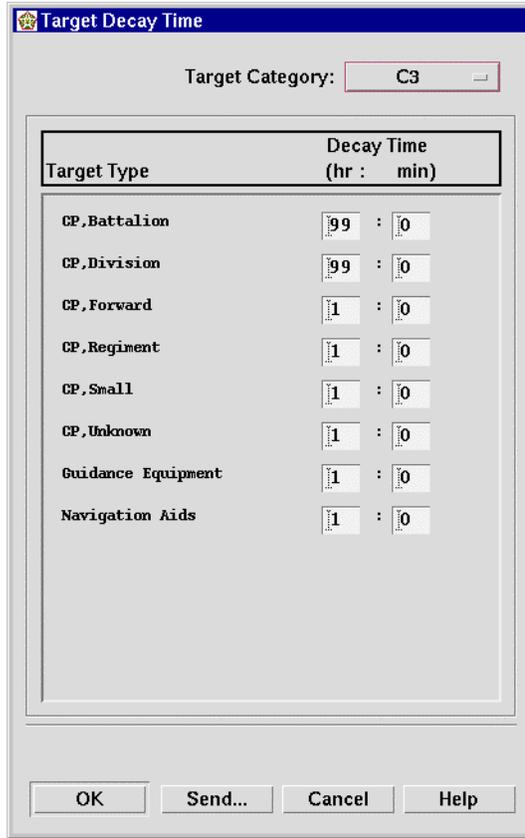
2. Select **Target\Target Decay Time** guidance type.

3. Select **Options\Edit**
 or
 double-click selection.

Target Decay Time window opens.

Target Decay Time Procedure - CONT

Step	Action	Response
------	--------	----------



NOTE

Selecting **OK** at any time closes window saving changes made.

4.	<u>Select Target Category:</u>	Target Type list updates.
5.	<u>Enter target Decay Time for each Target Type (hr - 0-99, min - 0-59).</u>	
6.	<u>Repeat steps 4 and 5 to complete each Target Category:</u>	
7.	<u>Select OK.</u>	Target Decay Time window closes.

3-30.6 Target Duplication Guidance Window.

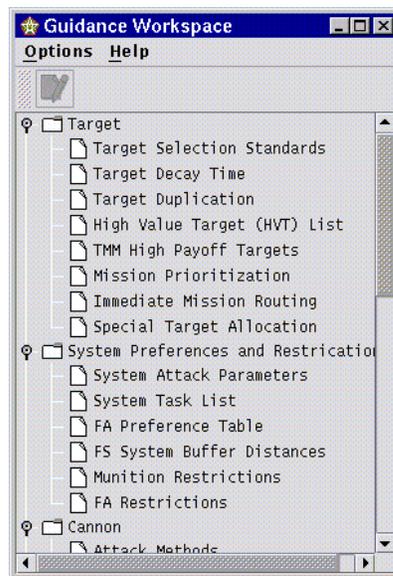
The **Target Duplication Guidance** window specifies the separation distances in meters used to determine if any targets or similar targets are to be considered duplicates. Any targets or similar targets within the separation distances are considered duplicates, otherwise they are considered as separate targets.

This guidance may significantly affect mission processing. If separation distances are too small, duplicate targets may not be detected. If separation distances are too large, more targets which are not duplicates will fail the target duplication checks.

In the Current situation, **Send...** is for sending Target Duplication information to selected unit(s).

3-30.7 Target Duplication Guidance Procedure.

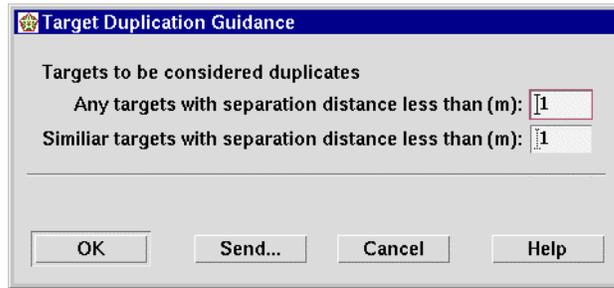
Target Duplication Guidance Procedure		
Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



2. | Select **Target\Target Duplication** guidance type. |

Target Duplication Guidance Procedure - CONT

Step	Action	Response
3.	<u>Select Options\Edit</u> or double-click selection.	Target Duplication Guidance window opens.



NOTE

Selecting **OK** at any time closes window saving changes made.

4.	<u>Enter separation distance for Any targets (m)</u> (0-9999).	
5.	<u>Enter separation distance for Similar targets (m)</u> (0-9999).	
6.	<u>Select OK</u> .	Target Duplication Guidance window closes.

3-30.8 High Value Target List Guidance.

The **High Value Target (HVT) List** guidance is used to determine the **Effects**, precedence (**When** to attack), and **Value** for each target category. The selections/entries for this guidance are used to set the relative values for the target categories. These values become the starting (default) value for the **Target Management Matrix (TMM)** guidance.

The **High Value Target (HVT) List** window (Figure 3.41) allows the user to edit the **Effects**, %, **When**, and **Value** fields.

For each target **Category**, the user selects the **Effects** (Destroy, Neutralize, Suppress or Specified %) to be used. Values are automatically entered for % fields when Destroy, Neutralize, or Suppress is selected. When **Specified %** is selected for **Effects**, the user enters the relative percentage (0-100) in the % field.

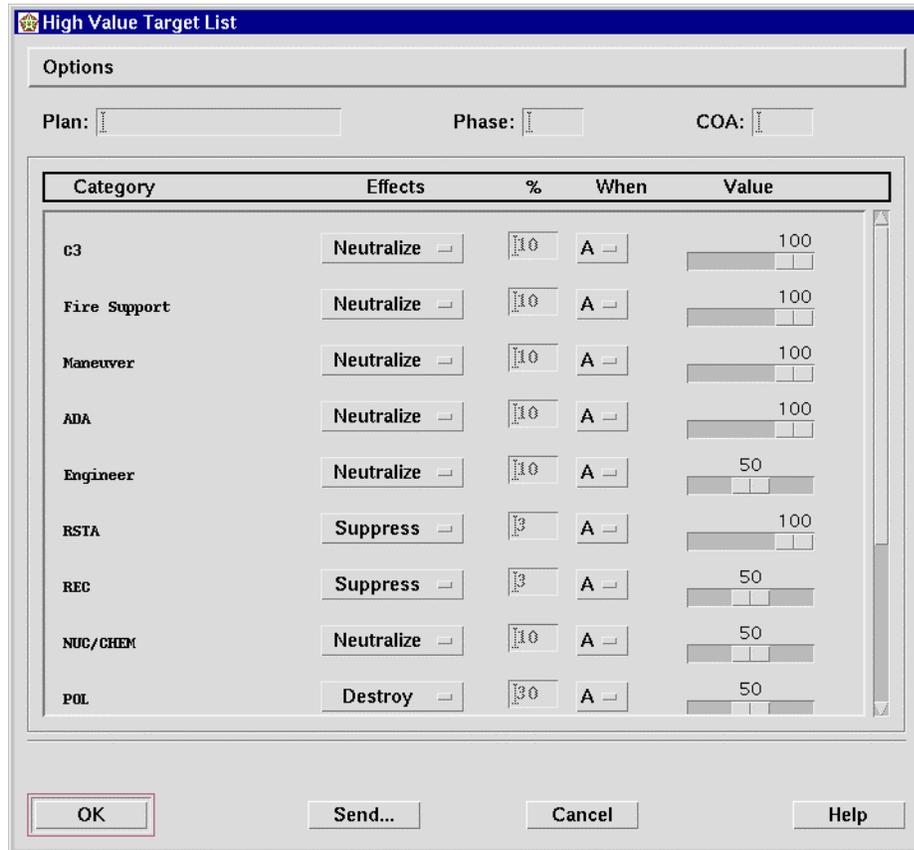


Figure 3.41 High Value Target List Window

The **When** to attack (**A** - As Acquired, **I** - Immediate, **P** - Planned, or **E** - Excluded) fields are used to set the precedence for each category. When a category is Excluded, all target types in that category will be displayed as Excluded on the TMM window when the window is cleared and re-opened. All other target types will displayed as Non-High Payoff following the same procedure.

The **Value** field is used to set the relative value of the target categories (0 to 100). This value will be used on the TMM for all Non-High Payoff targets and the highest value set for any category will be the minimum value for all High Payoff targets.

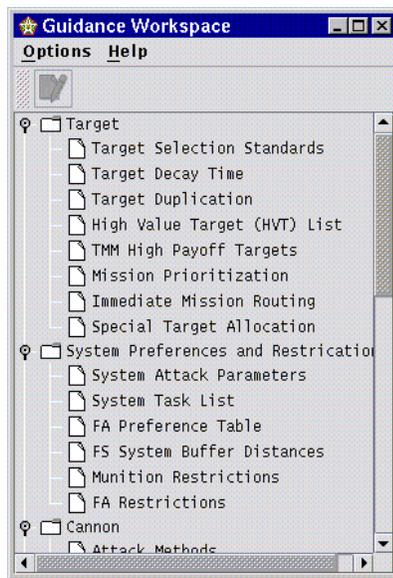
In the Current situation, **Send...** is for sending HVT information to a selected unit(s).

The **Options** window menu contains two selections. The **Target Management Matrix (TMM)** selection provides an alternate entry path to the **Target Management Matrix** guidance window. The **Base On Enemy Situation** option is selected if the user chooses to have the High Value Target List **Effects**, **When**, and **Value** data based on the Enemy Situation that has been defined for the plan and phase. When **Base On Enemy Situation** is selected, the HVT List is refreshed to display the new High Value Target List data. The **Base On Enemy Situation** option is disabled when the situation is Current.

3-30.9 High Value Target List Procedure.

High Value Target List Procedure

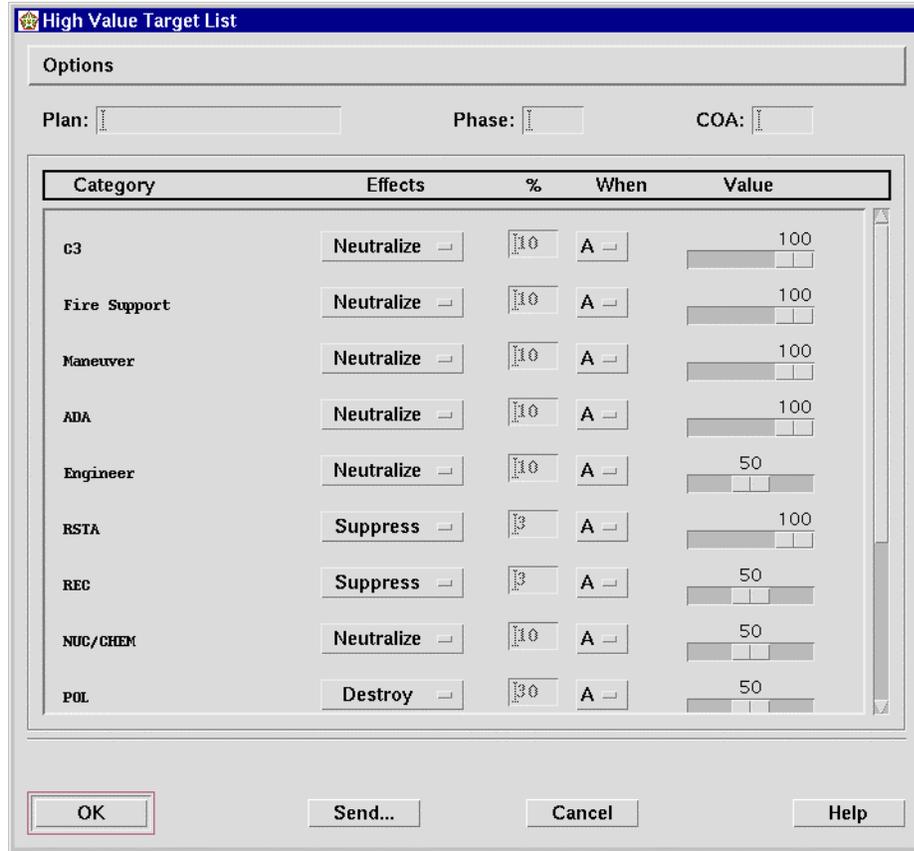
Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



2.	<u>Select Target\High Value Target (HVT) List</u> guidance type.	
3.	<u>Select Options\Edit</u> or double-click selection.	High Value Target List window opens.

High Value Target List Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes window saving changes made. To access TMM guidance window, select **Target Management Matrix** from **Option** window menu. (Refer to TMM procedure.) To have HVT List **Effects**, **When**, and **Value** information based on Enemy Situation, select **Base On Enemy Situation** from **Options** window menu. (planning only)

4. Select **Destroy**, **Suppress**, **Neutralize** or **Specified %** from **Effects** for each **Category**.
5. If **Specified %** was selected for **Effects**, enter percentage in % field (0-100).

Default value is entered in % field for **Effects** selection as follows:
 Suppress - 3, Neutralize - 10, Destroy - 30

High Value Target List Procedure - CONT

Step	Action	Response
6.	<u>Select When to attack option Immediate (I), As Acquired (A), Planned (P), or Excluded (E) for each Category.</u>	
7.	<u>Drag Value indicator to desired relative Value to rank each Category.</u>	
8.	<u>Select OK.</u>	High Value Target List window closes.

3-30.10 Target Management Matrix Guidance.

The **Target Management Matrix** guidance is used to define target types as **High Payoff Targets** (HPT), **Non-High Payoff Targets** (Non-HPT), or targets excluded from attack (**Excluded Targets**). The TMM settings significantly influence planned FS Course of Action and FA Estimate processing results and current situation processing results. Precedence (**When**), **Effects**, Target Damage Assessment (**TDA**), and Intelligence and Electronic Warfare (**IEW**) requirements are entered for HPT and Non-HPT target types. A relative **Value** is also set for each HPT. This **Value** is added to the highest value set for any target category on the **High Value Target List** window. For example, if the highest weighting of all categories set in the HVT List is 95 and the HPT is given a weighting of 20, the real weighting of the target type is 115.

The **Target Management Matrix** (TMM) window (Figure 3.42) allows the user to view or edit the TMM guidance in both the Planning and Current situation. The **Effects** and % fields are disabled for non-effects (volleys) target types. When **Effects** is Specified %, the percentage (0-100) is entered by the user. When **Suppress**, **Neutralize**, or **Destroy** is selected, the % field fills in with the default values; 3 for Suppress, 10 for Neutralize, and 30 for Destroy. HPT's also have a relative numerical **Value** which allows the user to rank target types relative to other HPT's. Non-HPT's and Excluded target types are automatically assigned the **Value** which their respective target category was assigned in the **High Value Target List** window.

This window also specifies which HPT's and Non-HPT's require Target Damage Assessment (**TDA**) and whether targets should be routed to Intelligence and Electronic Warfare (**IEW**) for coordination. **TDA** reporting and **IEW** routing are specified by selecting their corresponding check boxes.

Target types are allocated as either HPT, Non-HPT, or Excluded. The **High Payoff Targets** list displays all targets designated as HPT regardless of the **Category**: selected, while the **Non-High Payoff Targets** and **Excluded Targets** lists reflect the targets within the category selected via the **Category**: selection. The user may select target types within one of the three groups and click the arrow next to the destination group to move target types between groups.

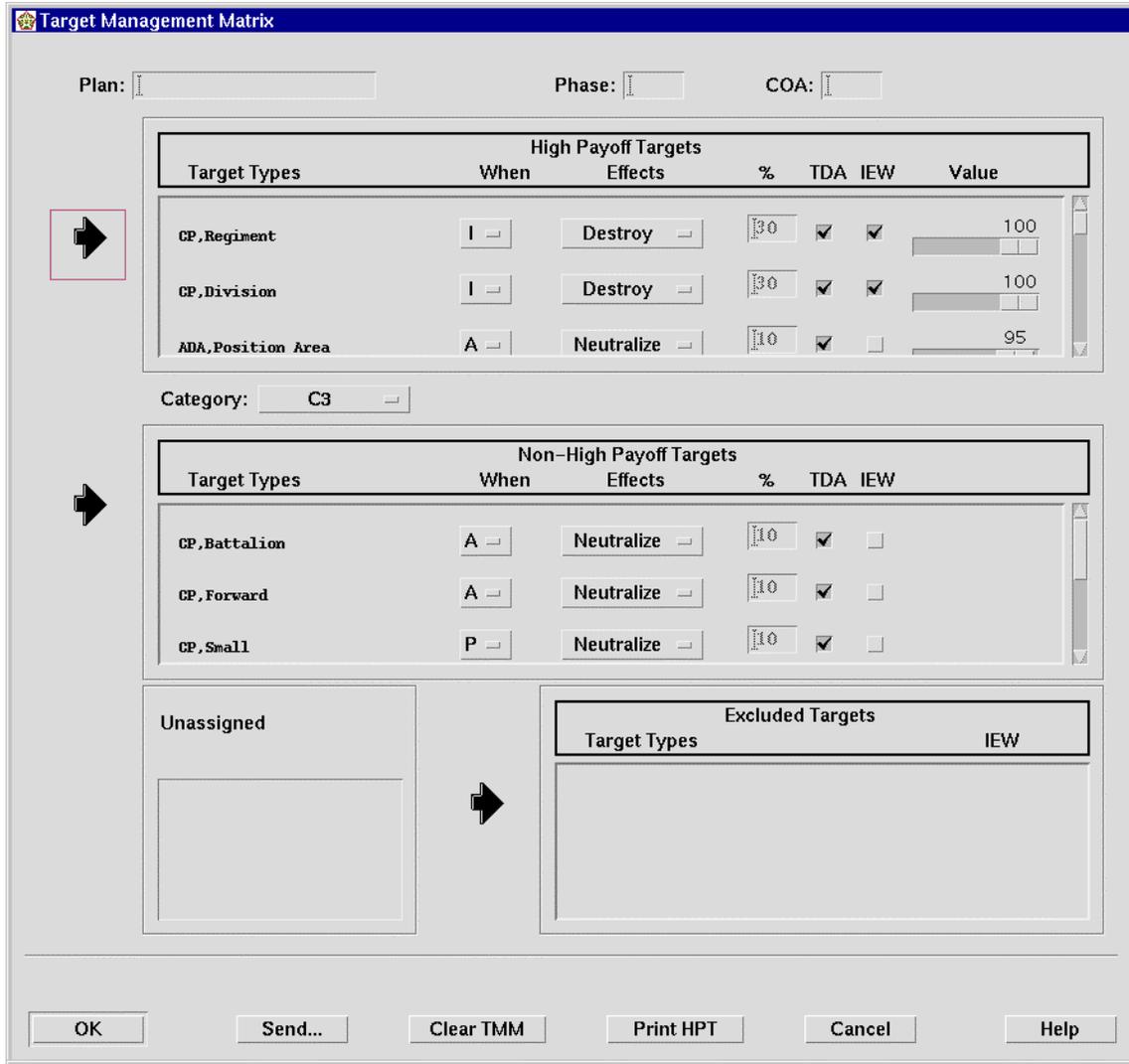


Figure 3.42 Target Management Matrix Window

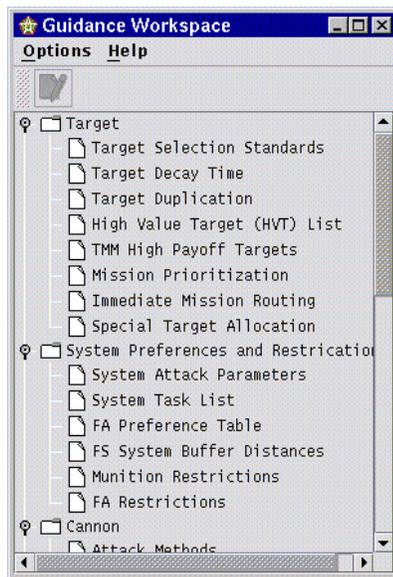
The **Clear TMM** button will clear target types from all groups, place all target types in the source (**Unassigned**) list in the bottom-left of the window and allow the user to move target types from the source list into each group as desired. Target types may not be moved back into the **Unassigned** list. **When**, **Effects**, and **Value** are initially inherited from the **High Value Target List** window and **TDA** and **IEW** settings are de-selected. Any target type left unallocated when the window is closed will be allocated to Non-HPT (or Excluded if they are designated as such in the **High Value Target List** window).

In the Current situation, **Send...** is for sending TMM information to a selected unit(s).

3-30.11 TMM Procedure.

TMM Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



2.	<u>Select Target\TMM High Payoff Targets</u> guidance type.	
3.	<u>Select Options\Edit</u> or double-click selection.	Target Management Matrix window opens.

TMM Procedure - CONT

Step	Action	Response
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Target Management Matrix

Plan: Phase: COA:

High Payoff Targets

Target Types	When	Effects	%	TDA	IEW	Value
CP, Regiment	I <input type="text"/>	Destroy <input type="text"/>	30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	100
CP, Division	I <input type="text"/>	Destroy <input type="text"/>	30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	100
ADA, Position Area	A <input type="text"/>	Neutralize <input type="text"/>	10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	95

Category:

Non-High Payoff Targets

Target Types	When	Effects	%	TDA	IEW
CP, Battalion	A <input type="text"/>	Neutralize <input type="text"/>	10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CP, Forward	A <input type="text"/>	Neutralize <input type="text"/>	10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CP, Small	P <input type="text"/>	Neutralize <input type="text"/>	10	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Unassigned

Excluded Targets

Target Types	IEW

TMM Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes window saving changes made.

To perform following TMM functions, proceed to indicated steps.

Clear TMM	step 4
Allocate unassigned targets	step 6
Move High Payoff, Non-High Payoff, or Excluded Targets	step 12
Edit High Payoff Targets	step 16
Edit Non-High Payoff Targets	step 24
Edit Excluded Targets	step 32
Print HPT.....	step 36
Send.....	step 38

4.	<u>Select Clear TMM.</u>	Target types in all groups are cleared. Target types are placed in source (Unassigned) list. User may move target types from source list into each group as desired.
5.	<u>Return to note prior to step 4</u> to perform other functions.	
6.	<u>Select appropriate target Category:</u>	
7.	On Unassigned list, <u>select target(s) to assign to specific target list.</u>	
8.	<u>Select destination arrow</u> for appropriate list.	Targets move to indicated list.
9.	<u>Repeat steps 7 and 8</u> until desired targets within Category : are assigned.	
10.	<u>Repeat steps 6 thru 9</u> until desired targets for each Category : are assigned.	End of Allocate Unassigned targets function.
11.	<u>Return to note prior to step 4</u> to perform other functions.	
12.	<u>Select target(s)</u> from source list.	
13.	<u>Select destination arrow</u> for appropriate list.	Targets move to indicated list.

TMM Procedure - CONT

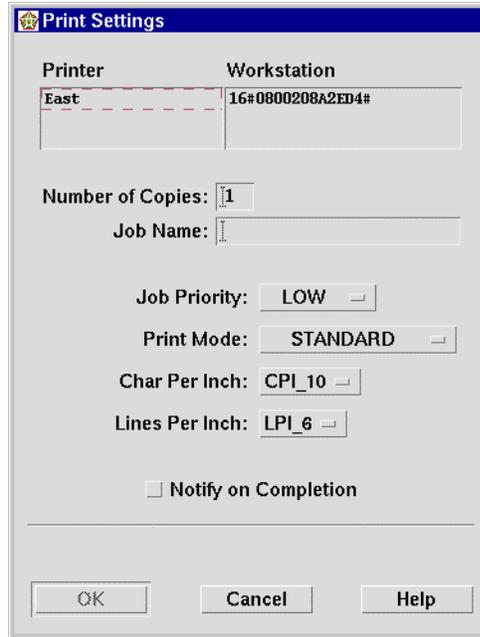
Step	Action	Response
14.	<u>Repeat steps 12 and 13</u> as required.	End of move High Payoff, Non-High Payoff, or Excluded Targets .
15.	<u>Return to note prior to step 4</u> to perform other functions.	
16.	For desired target type on High Payoff Targets list, <u>select</u> Immediate (I), As Acquired (A), or Planned (P), from When field.	
17.	For desired target type on High Payoff Targets list, <u>select</u> Suppress, Neutralize, Destroy , or Specified % from Effects field.	Default value entered in % field for Effects selection as follows: Suppress - 3, Neutralize - 10, Destroy -30
18.	If Specified % was selected for Effects , <u>enter percentage in % field</u> (0-100).	
19.	For desired target type on High Payoff Targets list, <u>select TDA</u> check box.	
20.	For desired target type on High Payoff Targets list, <u>select IEW</u> check box.	
21.	For desired target type on High Payoff Targets list, <u>drag Value</u> bar to desired relative value.	
22.	<u>Repeat steps 16 thru 21</u> until High Payoff Targets are edited, as required.	End of edit High Payoff Targets function.
23.	<u>Return to note prior to step 4</u> to perform other functions.	
24.	<u>Select desired target category</u> :	
25.	For desired target type on Non-High Payoff Targets list, <u>select</u> Immediate (I), As Acquired (A), or Planned (P) from When field.	

TMM Procedure - CONT

Step	Action	Response
26.	For desired target type on Non-High Payoff Targets list, <u>select Suppress, Neutralize, Destroy, or Specified %</u> from Effects field.	Default value is entered in % field for Effects selection as follows: Suppress - 3, Neutralize - 10, Destroy -30
27.	If Specified % is selected for Effects , <u>enter percentage in % field</u> (0-100).	
28.	For desired target type on Non-High Payoff Targets list, <u>select TDA check box</u> .	
29.	For desired target type on Non-High Payoff Targets list, <u>select IEW check box</u> .	
30.	<u>Repeat steps 24 thru 29 until Non-High Payoff Targets are edited</u> , as required.	End of edit Non-High Payoff Targets function.
31.	<u>Return to note prior to step 4</u> to perform other functions.	
32.	Select desired target categories:.	
33.	<u>For desired target type on Excluded Targets list, select IEW check box</u> .	
34.	<u>Repeat steps 32 and 33 until Excluded Targets are edited</u> , as required.	End of edit Excluded Targets function.
35.	<u>Return to note prior to step 4</u> to perform other functions.	
36.	<u>Select Print HPT</u> .	Print Settings window opens.

TMM Procedure - CONT

Step	Action	Response
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37. Select **OK**.

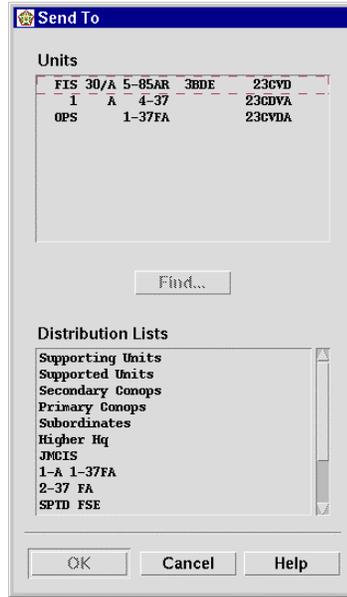
Print Settings window closes. Data sent to printer.

38. Select **Send...**

Send To window opens.

TMM Procedure - CONT

Step	Action	Response
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39.	<u>Select unit.</u>	
40.	<u>Select distribution list.</u>	
41.	<u>Select OK.</u>	Send To window closes.

3-30.12 Mission Prioritization Guidance.

The **Mission Prioritization** guidance is used to set the priority of factors related to mission processing. These factors are the value of the target (from TMM), On-Call Precedence, Priority Of Fires, and the Targeted Area Of Interest (TAI). These factors can vary by plan and can be edited in both the Planning and Current situation.

The Fire Mission Cutoff specifies the minimum value a mission must have in order to be engaged with a specific FS system. During current operations the mission value (computed based on the TMM) is compared with the mission cutoff value for each FS system to determine if a FS system should be considered for the mission being processed. Direct-entry fields for **Fire Mission Cutoff Values** contain the cutoff values (0-100) for the six FS systems.

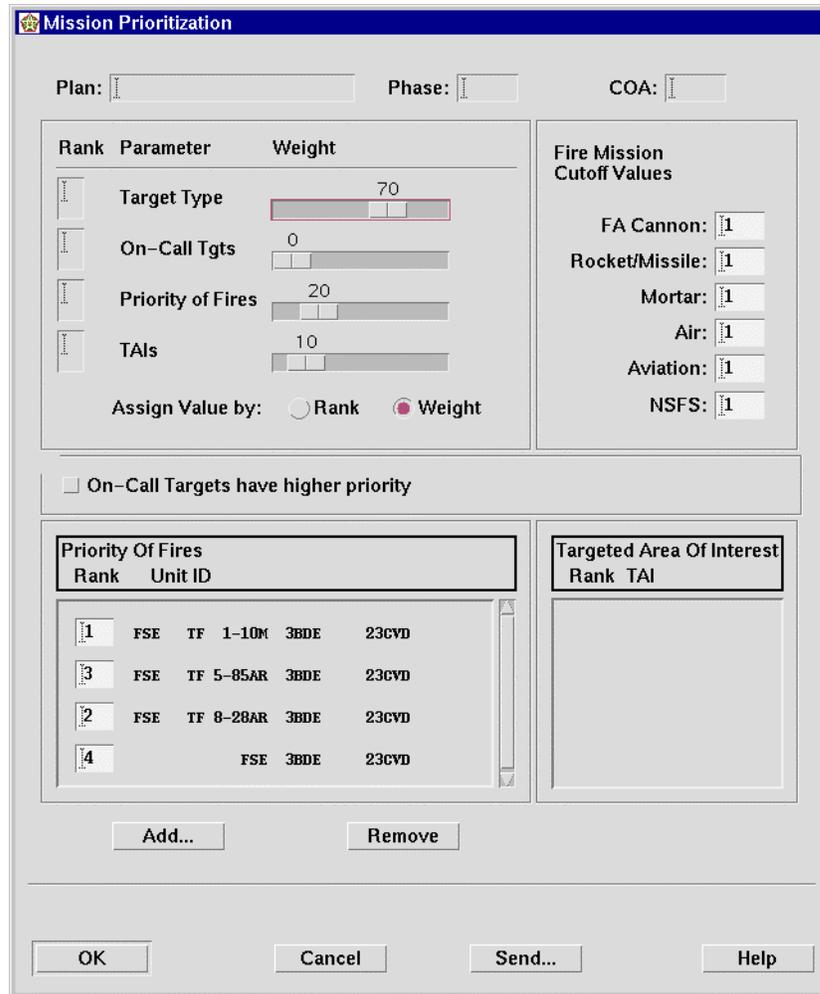


Figure 3.43 Mission Prioritization Window

The **Priority Of Fires** specifies the rank order of maneuver units defined in the friendly situation. Units with the lowest number receive higher priority for fire support. If all other elements involved in mission prioritization (Target Type, On-Call Tgts, and TAI's) are equal, the target requested by a sensor working for the higher ranking maneuver unit will receive a higher fire mission value. Direct entry fields contain the ranking(1-99) of the maneuver units. **Add...** is used to select units to be added to the Unit ID list. **Remove** removes selected unit(s) from the Unit ID list.

The **On-Call Targets have higher priority** check box allows the user to indicate that On-Call Targets should have a higher priority than a target not established as On-Call. If all other elements involved in mission prioritization (Target Type, Priority of Fires, and TAI's) are equal, the On-Call Target will receive a higher fire mission value when the check box is selected.

The **Targeted Area Of Interest** is used to define the rank order of TAI's. If all other elements involved in mission prioritization (Target Type, Priority of Fires, On-Call Tgts) are equal, the target located in the higher ranking TAI receives a higher fire mission value. Direct-entry fields for **Targeted Area Of Interest** contain the ranking order (1-99) of the TAI's.

A relative value matrix for parameters is located in the upper left portion of the **Mission Prioritization** window. This factor is used to assign relative values to the parameters considered in mission prioritization (Target Type, On-Call Tgts, Priority of Fires, and TAI's). Direct-entry fields for the four displayed parameters contain the rankings (1-4) of the parameters shown. When the **Weight** radio button is selected, values may be assigned to the parameters by selecting and dragging the **Weight** indicator to the desired relative value.

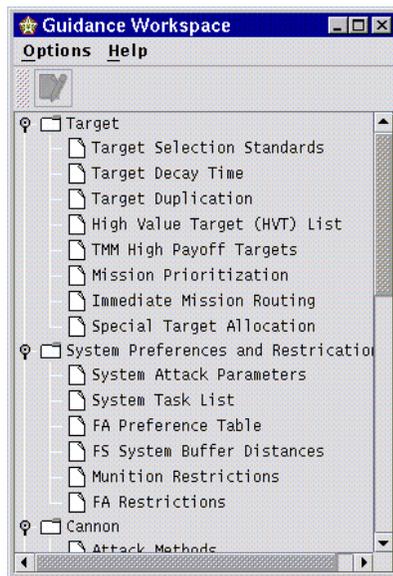
In the Current situation, **Send...** is for sending Mission Prioritization guidance information to selected unit(s).

The **OK** button saves displayed information, closes the window, and adjusts rankings to be in continuous order. If parameter values are by **Weight**, the **Rank** values are calculated based on value of the weights. If values are by **Rank**, values of weights are calculated based on ranks, target values, number and priority of units, number and priority of TAI's, and On-Call precedence. These values will be displayed the next time this window is opened. The **Send...** button affects the data in the same manner as the **OK** button.

3-30.13 Mission Prioritization Procedure.

Mission Prioritization Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



Mission Prioritization Procedure - CONT

Step	Action	Response
2.	Select Target\Mission Prioritization guidance type.	
3.	Select Options>Edit or double-click selection.	Mission Prioritization window opens.

Mission Prioritization

Plan: [] Phase: [] COA: []

Rank	Parameter	Weight
[]	Target Type	70
[]	On-Call Tgts	0
[]	Priority of Fires	20
[]	TAls	10

Assign Value by: Rank Weight

On-Call Targets have higher priority

Priority Of Fires				
Rank	Unit ID			
[1]	FSE TF 1-10M 3BDE			23CVD
[3]	FSE TF 5-85AR 3BDE			23CVD
[2]	FSE TF 8-28AR 3BDE			23CVD
[4]	FSE 3BDE			23CVD

Targeted Area Of Interest	
Rank	TAI

Add... Remove

OK Cancel Send... Help

Mission Prioritization Procedure - CONT

Step	Action	Response
------	--------	----------

NOTE

Selecting **OK** at any time closes window saving changes made. To indicate On-Call Targets have higher priority than targets not established as On-Call, select **On-Call Targets have higher priority** check box. To perform following **Mission Prioritization** functions, proceed to indicated steps.

- Assign Relative Value Matrix values by weight step 4
- Assign Relative Value Matrix values by rank step 7
- Enter fire mission cutoff values step 10
- Rank priority of fires step 15
- Rank targeted areas of interest step 24

4.	<u>Select Assign Value by: Weight radio button.</u>	
5.	<u>Drag Weight indicator to desired relative value for each Parameter.</u>	End of Assign Relative Value Matrix values by Weight function.
6.	<u>Return to note prior to step 2 to perform other functions.</u>	
7.	<u>Select Assign Value by: Rank radio button.</u>	
8.	<u>Enter priority value in Rank field for each Parameter (1-4).</u>	End of Assign Relative Value Matrix values by Rank function.
9.	<u>Return to note prior to step 2 to perform other functions.</u>	
10.	<u>Enter Fire Mission Cutoff Value for FA: (0-100).</u>	
11.	<u>Enter Fire Mission Cutoff Value for Mortar: (0-100).</u>	
12.	<u>Enter Fire Mission Cutoff Value for Air: (0-100).</u>	
13.	<u>Enter Fire Mission Cutoff Value for NSFS: (0-100).</u>	End of Fire Mission Cutoff guidance function.

Mission Prioritization Procedure - CONT

Step	Action	Response
14.	<u>Return to note prior to step 4</u> to perform other functions.	

NOTE

To perform following **Priority Of Fires** functions, proceed to indicated steps.

Add priority of fires unit(s) step 15
 Remove priority of fires unit(s) step 19
 Rank priority of fires units..... step 22

15.	<u>Select Add...</u>	Select Unit window opens in Select mode.
16.	<u>Select Unit</u> for Unit ID list.	
17.	<u>Select OK</u> .	Unit ID appears in list with a ranking of 99 (default). End of Add... Priority Of Fires Units function.
18.	<u>Return to note prior to step 15</u> to perform other functions.	
19.	<u>Select Unit ID to remove</u> .	
20.	<u>Select Remove</u> .	Unit ID and Rank are removed. End of Remove Priority Of Fires Units function.
21.	<u>Return to note prior to step 15</u> to perform other functions.	

NOTE

Two or more units can be assigned the same ranking.

22.	<u>Enter priority value in Rank field</u> for each Unit ID (1-99).	End of Rank Priority Of Fires Units function.
23.	<u>Return to note prior to step 4</u> to perform other functions.	

Mission Prioritization Procedure - CONT

Step	Action	Response
24.	<u>Enter priority value in Rank field for each Targeted Area Of Interest (1-99).</u>	End of Rank Targeted Area Of Interest function.
25.	<u>Return to note prior to step 4 to perform other functions.</u>	

3-30.14 Mission Routing Window.

The **Mission Routing** guidance allows the user to specify preferred fire units for special missions. The user selects the preferred **Fire Unit ID** to which each **Mission Type** (Immediate Suppression and Immediate Smoke) will be routed to if the unit is capable to attack. This guidance speeds the processing of immediate missions through the FSE/FSCC to a fire unit. This guidance is used at FSE/FSCC units only. In the Current situation, **Send...** is for sending mission routing information to a selected unit(s).

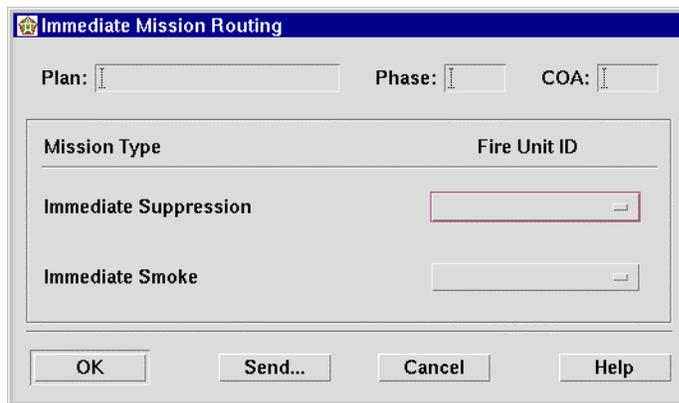
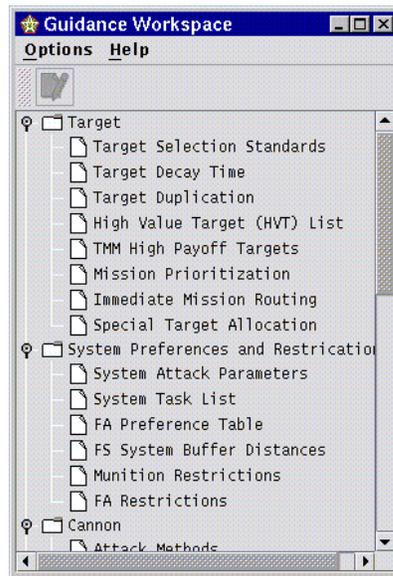


Figure 3.44 Immediate Mission Routing Window

3-30.15 Immediate Mission Routing Procedure

Immediate Mission Routing Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



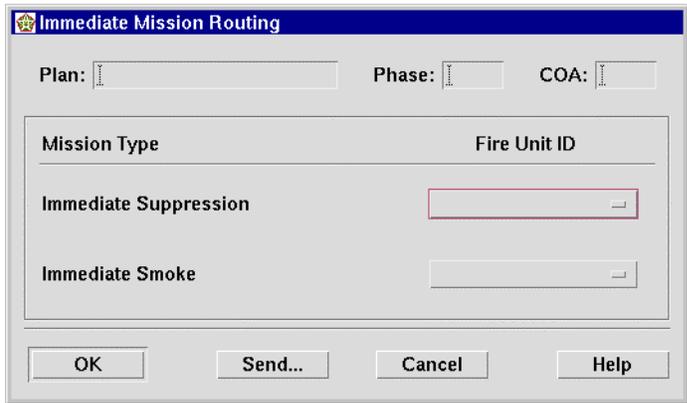
2. Select **Target\Immediate Mission Routing**
 guidance type.

3. Select **Options\Edit**
 or
 double-click selection.

Immediate Mission Routing window opens.

Immediate Mission Routing Procedure - CONT

Step	Action	Response
------	--------	----------



NOTE

Selecting **OK** at any time closes window saving changes made.

4.	<u>Select Fire Unit ID for <u>Immediate Suppression</u> missions.</u>	Select Unit window opens.
5.	<u>Select unit.</u>	
6.	<u>Select OK.</u>	Select Unit window closes.
7.	<u>Select Fire Unit ID for <u>Immediate Smoke</u> missions.</u>	
8.	<u>Select unit.</u>	
9.	<u>Select OK.</u>	Select Unit window closes.
10.	<u>Select OK.</u>	Immediate Mission Routing window closes.

3-30.16 Special Targeting Allocation Guidance.

The **Special Targeting Allocation** guidance allows the user to allocate special missions to a maneuver unit and specify the **Fire Unit ID** and number of allocated missions. Maneuver units are added or removed from the **MVR Unit ID** list with the **Add...** and **Remove** buttons. When a maneuver unit is selected, associated information is displayed and may be edited for each **Mission Type**. The user selects the **Fire Unit ID** and enters the number of **Allocated Msns**. The legal entry is 0-99. The **MVR Unit ID's** and **Fire Unit ID's** are selected from the **Select Unit** window. The Special Targeting Allocation guidance does not affect mission processing. In the Current situation, **Send...** is for sending **Special Targeting Allocation** information to a selected unit(s).

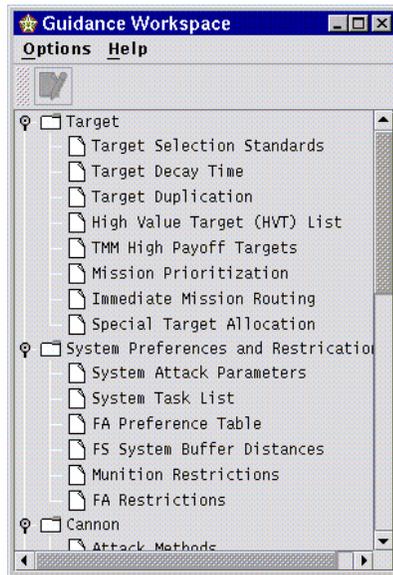
Mission Type	Allocated Msns	Fire Unit ID
FASCAM	<input type="text"/>	<input type="text"/>
Priority Target	<input type="text"/>	<input type="text"/>
Priority Copperhead	<input type="text"/>	<input type="text"/>
Planned Copperhead	<input type="text"/>	<input type="text"/>
FPF	<input type="text"/>	<input type="text"/>

Figure 3.45 Special Targeting Allocation Window

2-31.1.13 Special Targeting Allocation Procedure.

Special Targeting Allocation Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



2. Select **Target\Special Target Allocation**
guidance type.

3. Select **Options\Edit**

or

double-click selection.

Special Targeting Allocation window opens.

NOTE

Selecting **OK** at any time closes window saving changes made. To perform following **Special Targeting Allocation** functions, proceed to indicated steps.

- Add MVR unit ID step 4
- Remove MVR unit ID step 8
- Select fire unit ID and assign number of allocated missions step 11

Special Targeting Allocation Procedure - CONT

Step	Action	Response
4.	<u>Select Add...</u>	Select Unit window opens in Select mode.
5.	<u>Select unit</u> for MVR Unit ID list.	
6.	<u>Select OK</u> .	Unit appears in MVR Unit ID list. End of Add... MVR Unit ID function.
7.	<u>Return to note prior to step 4</u> to perform other functions.	
8.	<u>Select MVR Unit ID</u> to remove from list.	
9.	<u>Select Remove</u> .	Unit is removed from list. End of Remove MVR Unit ID function.
10.	<u>Return to note prior to step 4</u> to perform other functions.	
11.	<u>Select MVR Unit ID</u> for which to view or edit information.	
12.	<u>Select Fire Unit ID</u> for each Mission Type .	
13.	<u>Enter number of Allocated Msns</u> for each Mission Type (0-99 or blank).	End of Fire Unit ID selection and Allocated Msns entry function.
14.	<u>Return to note prior to step 4</u> to perform other functions.	

3-31 SYSTEM PREFERENCES AND RESTRICTIONS GUIDANCES.

System Preferences and Restrictions guidances are used to set the FS preferences for target types and restrictions on FA assets. There are nine selections for **FS Attack** guidances as shown on this page.

3-31.1 System Preferences and Restrictions Guidances Window Navigation.

System Preferences and Restrictions guidances are accessed from the Guidances pull-down menu on the Main Menu bar.

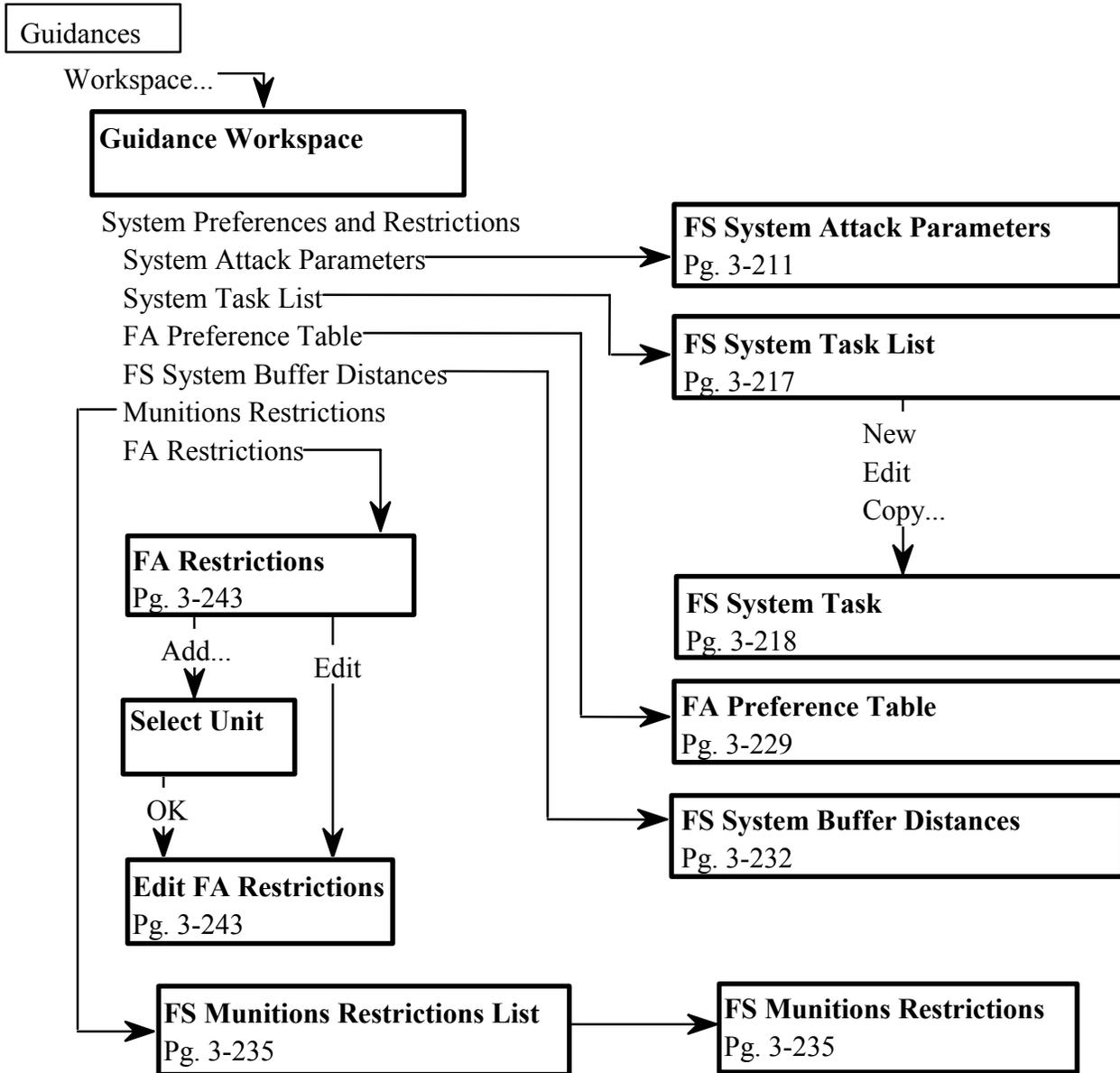


Figure 3.46 System Preferences And Restrictions Guidance Navigation

3-31.2 System Attack Parameters Guidance.

The **FS System Attack Parameters** window specifies guidance information for attack parameters for each FS system type without having to maintain detailed unit data. This guidance is used at a FSE/FSCC and is used to determine the availability of each of the FS systems for a mission. The level of attack analysis performed is determined by the Attack Analysis Level selection at the OPFAC. Regardless of the level, the mission will be routed to the selection made in the **Route to** field for a capable FS system.

An FS system is considered capable for a mission based on the **Response Time (min)**, **Saturation** limit, and **Range Capability**. The **Response Time (min)** field is used to enter the average time required for a FS system to engage a target after receiving the fire mission. If the value in this field is within the requirements of the mission or is left blank, the system will be considered response time capable.

The **Saturation** field is used to enter the maximum number of missions a FS system can support at any time. If the value in this field is more than the number of current mission being fired or this field is left blank, the system will be considered saturation capable.

A FS system is considered range capable if the target falls within the range established on the **FS System Attack Parameters** window. This range is set by selecting a geometry (e.g., deep, close, or rear battle area) or entering a maximum distance from the FLOT. If no range values are enter or selected, the system is considered range capable.

3-31.3 FS System Attack Parameters Window.

The **FS System Attack Parameters** window is opened via the **Guidances Workstation** window **System Preferences and Restrictions\System Attack Parameters** selection.

The **Route to** selection, **Select...**, opens the **Select Unit** window for selection of the OPFAC to receive the mission for each FS system.

The **Response Time (min)** field is an optional entry (1 to 60). This value is the average time required for the FS system to engage the target after receiving the mission.

The **Saturation** field is an optional entry (1 to 999). This value is the maximum number of missions a FS system can support at any time.

The **Range Capability** is entered as the maximum distance (1 to 9999999 meters) beyond the FLOT or a geometry that can be ranged. A pop-up menu is used to select the **Geometry** or **Distance** parameter. With **Geometry** selected, a pop-up menu is enabled to select the geometry. With **Distance** selected, a direct entry field is enabled for the distance entry.

In the Current situation, **Send...** is for sending FS system attack parameters information to a selected unit(s).

FS System Attack Parameters

Plan: Phase: COA:

FS System	Route to	Response Time(min)	Saturation	Range Capability
FA Cannon	<input type="text"/>	<input type="text"/>	<input type="text"/>	Geometry <input type="text"/>
Rkt/Msl	<input type="text"/>	<input type="text"/>	<input type="text"/>	Geometry <input type="text"/>
Mortar	<input type="text"/>	<input type="text"/>	<input type="text"/>	Geometry <input type="text"/>
Air	<input type="text"/>	<input type="text"/>	<input type="text"/>	Geometry <input type="text"/>
Aviation	<input type="text"/>	<input type="text"/>	<input type="text"/>	Geometry <input type="text"/>
Naval Gun	<input type="text"/>	<input type="text"/>	<input type="text"/>	Geometry <input type="text"/>

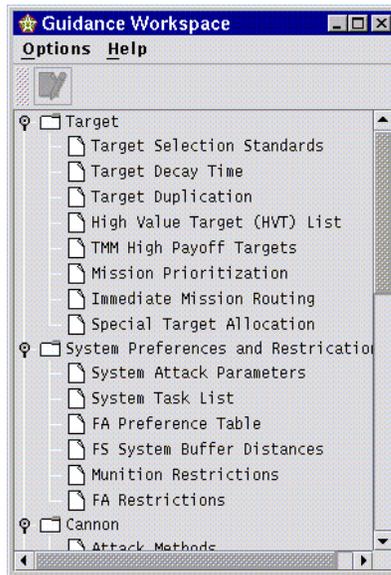
OK Cancel Send... Help

Figure 3.47 System Attack Parameters Guidance Window

3-31.4 FS System Attack Parameters Procedure.

FS System Attack Parameters Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



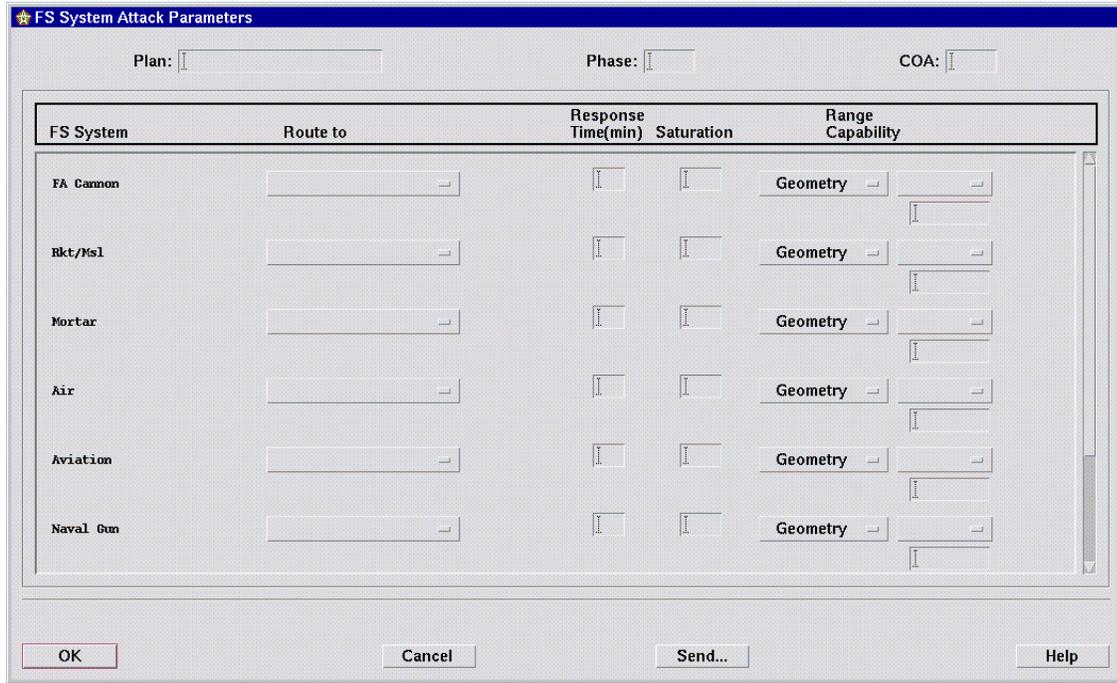
2. Select **System Preferences and Restrictions\ System Attack Parameters** guidance type.

3. Select **Options\Edit**
 or
 double-click selection.

FS System Attack Parameters window opens.

FS System Attack Parameters Procedure - CONT

Step	Action	Response
------	--------	----------



4. Select **Route to** menu for a **FS System**.

Menu appears.

5. Select **Select...**

Select Unit window opens.

FS System Attack Parameters Procedure - CONT

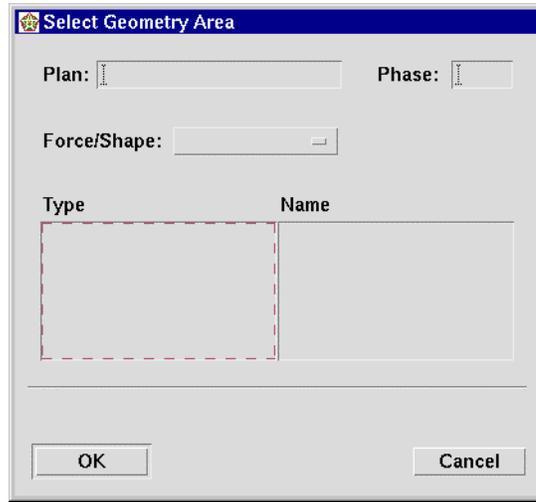
Step	Action	Response
------	--------	----------



6.	<u>Select unit</u> from list.	
7.	<u>Select OK.</u>	Select Unit window closes. Unit ID displayed in Route to field.
8.	<u>Enter Response Time (min)</u> (optional, 1 to 60).	
9.	<u>Enter Saturation</u> level (optional, 1 to 999).	
10.	<u>Select Range Capability</u> menu.	Menu appears.
11.	<u>Select Geometry</u> (proceed to step 13)	
	or	
	<u>Select Distance.</u>	Distance field enabled.
12.	<u>Enter maximum distance from FLOT</u> in meters (optional, 1 to 9999999). Proceed to step 17.	
13.	<u>Select pop-up menu</u> at right of Geometry button.	Menu appears.

Special Targeting Allocation Procedure - CONT

Step	Action	Response
14.	<u>Select Select...</u>	Select Geometry Area window opens.



15.	<u>Select geometry</u> from list.	
16.	<u>Select OK.</u>	Select Geometry Area window closes. Selected geometry displayed on menu button.
17.	<u>Repeat steps 4 through 16</u> as required for other FS systems.	
18.	<u>Select OK.</u>	FS System Attack Parameters window closes.

3-31.5 FS System Task Guidance.

The FS System Task Guidance is used to determine how to process specified targets based on a set of parameters. The target parameters are the target category/type, location (by geometry), strength (minimum and maximum), and size (minimum and maximum). The action parameters are to engage or do not engage (DNE) the target with a FS system, unit, or munition.

Criteria containing both target and action parameters is called a rule. Rules can provide instructions on how to engage (permissive) or restrict engagement (restrictive) of targets that meet rule criteria. For example, a rule can state that Tank Heavy targets in a specified geometry are to be engaged with MLRS-DPICM. Another rule could state that all ADA targets are do not engage with aviation systems. Up to 200 rules can be established for this guidance.

Each rule has a ranking. Rules are automatically ranked when they are entered based on the number of specified parameters. The more parameters specified, the higher rank the rule. They are also ranked based on the sequence of input. For example, when two rules that have equal parameters the rule input first will take precedence. The operator has the option of specifying a ranking for a rule. During attack analysis, only the five (5) highest ranking permissive and restrictive rules that meet target criteria are used. If a conflict exists between a permissive and restrictive rule, the restrictive rule takes precedence.

3-31.6 FS System Task List Window.

The **FS System Task List** window is opened via the **Guidances\FS Attack\System Task List** menu selection. This window lists the established rules. The **Plan**, **Phase**, and **COA** fields are view only and are used in the planning situation.

The **Rank** column displays the rank order of the rules, displayed in order from 1 to 200. This is the order in which rules are checked against received fire missions requests. The action for the target will be from the first task encountered that matches the target data. The **Op Spec** (operator specified) column is used to indicate (display an **X**) if the **Rank** of the rule was specified by the operator. The numbers in this column will always be consecutive with no duplications or omitted numbers. If the order of the list is changed by a deletion, copy, or operator specified rank, the list will automatically be re-numbered.

The **Cat/Target** column displays the target type, if specified, or the target category for the rule. The **Geometry** column displays the geometry name if a geometry is selected as part of the rule.

The **Radius (m) (min/max)** column displays the minimum and maximum radius for the rule, if specified.

The **Strength (min/max)** column displays the minimum and maximum target strength for the rule, if specified. The **FS System/Unit** column displays the specified system or unit that is to be used to engage or is restricted from engaging the target.

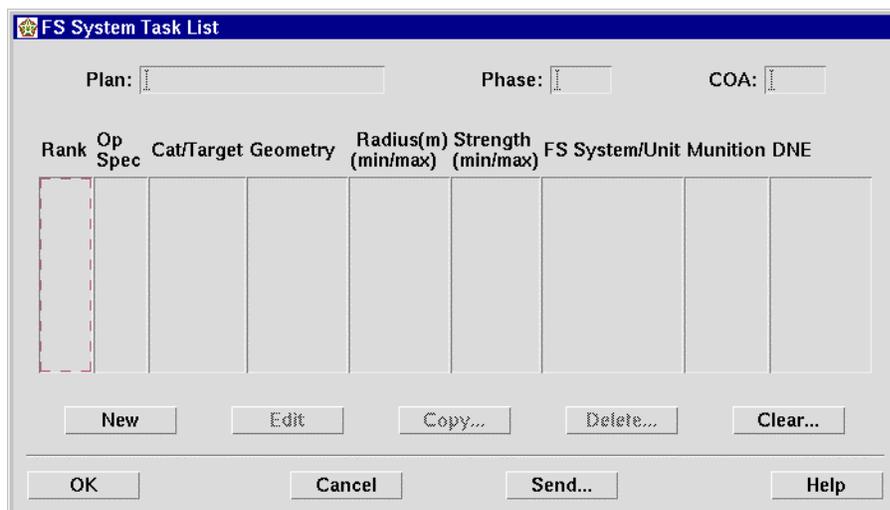


Figure 3.48 FS System Task List Window

The **Munition** column displays a specified munition that is to be used to engage or is restricted from engaging the target.

The **DNE** column is used to indicate (display an **X**) if the rule is a do not engage action.

The **New** button opens the **FS System Task** window that is blank except for the **Rank** value and a target **Category:** of **Any**.

The **Edit** and **Copy...** buttons also open the **FS System Task** window. To enable these buttons, an existing rule must be selected. The **Edit** button opens the window containing the rule data of the selected rule. The data can then be edited. The **Copy...** button opens the window containing the rule data of the selected rule, except that a new number (next available) will appear in the **Rank** field. The data can then be edited to create a new rule.

The **Delete...** button is used to delete a selected rule(s). A confirmation window will open for the delete action.

The **Clear...** button is used to remove all rules from the list. A confirmation window will open for the clear action.

The **OK** button closes this window and saves any changes made while the window was open.

The **Cancel** button closes this window without saving any changes.

The **Send...** button opens the **Send To** window for selection of a destination(s) for transmittal of this guidance.

3-31.7 FS System Task Window.

The **FS System Task** window (Figure 3.49) is opened from the **FS System Task List** window via the **New**, **Edit**, or **Copy...** buttons.

The **Rank** is the order that tasks are checked against a mission request to determine if a task exists for the target data. The next number, from 1 to 200, is assigned to a task when this window is opened via the **New** button. If the window is opened via the **Copy...** button, the number will be one (1) higher than the task selected to be copied.

The user can specify the rank of a task to change the rank relative to other tasks. For example, if two or more similar tasks are used and a target is received that would meet the criteria of these tasks, the user can determine which task is used by placing it higher in the ranking (lower numbered). To do this, the **Rank Operator Specified** check box is selected. This enables the **Rank** field for entry of the specified rank.

The **Category:** menu is used to select the target category for the task. The selections are the standard categories or **Any**. The default is **Any**.

The **Type:** menu is activated when a target category is selected. This menu is used to select the target type to be used for this task. Selection of a target type is optional.

The **Within Geometry:** menu allows the user to select an area geometry as part of the task criteria. Selection of a geometry is optional.

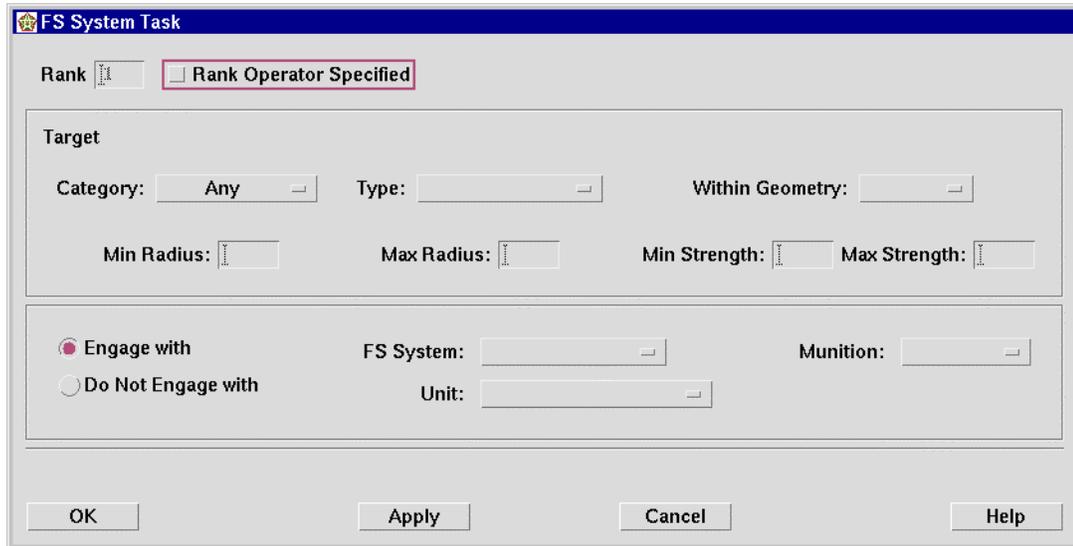


Figure 3.49 FS System Task Window

The **Min Radius:** and **Max Radius:** fields are used to enter the target size criteria for the task. The **Min Radius:** entry is the smallest area that will meet the task criteria. The **Max Radius:** is the largest. Both a minimum and maximum can be entered. This requires a target be at least the minimum size but not exceeding the maximum. If the target in a mission request is an area target, the total area is compared to the area of the circular target in the task to determine if target meets task criteria.

The **Min Radius:** and **Max Radius:** fields are optional. The legal entries are 0 to 9999 for both fields. If entry is made only in one field, the other field will default; 0 for minimum and 9999 for maximum.

The **Min Strength:** and **Max Strength:** fields function the same as the size criteria. The legal entries and defaults are also the same.

The **Engage with** and **Do Not Engage with** radio buttons are used to determine the use or restriction of a **FS System**, **Unit**, or **Munition**. A system, unit, or munition must be selected for a task.

The **FS System:** menu allows the user to select **Any** or a specific FS system. The **Unit:** menu will be enabled is a FS system is selected. Selection of a **Unit:** is optional.

The **Munition:** menu allows the user to select **Any** or a specific munition for the task.

The **OK** button closes this window and saves any changes made while the window was open.

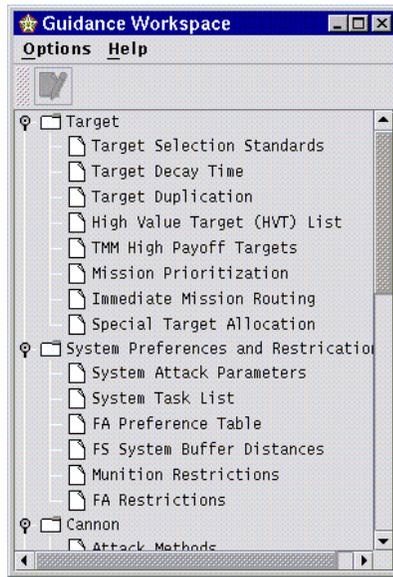
The **Apply** button saves the task and increments the **Rank** field to allow the creation of another task.

The **Cancel** button closes this window without saving any changes.

3-31.8 FS Attack System Tasks Procedure.

FS Attack System Tasks Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



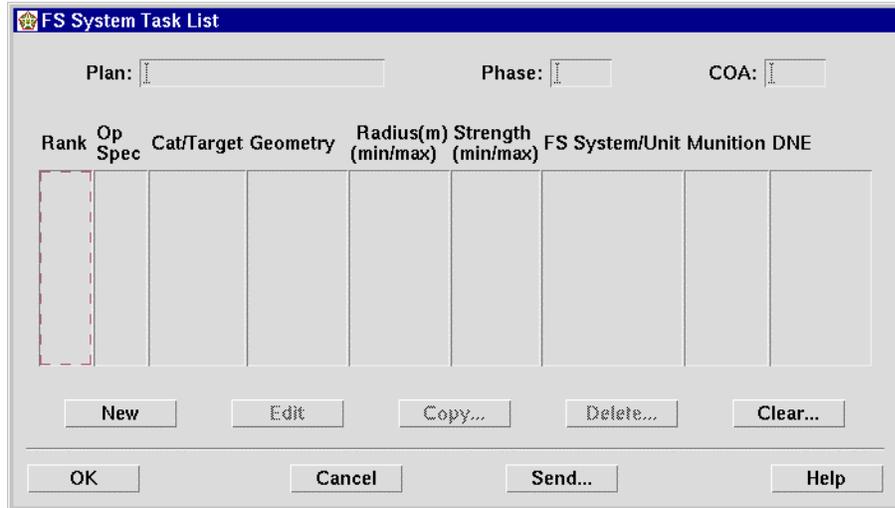
2. Select **System Preferences and Restrictions\System Task List** guidance type.

3. Select **Options>Edit**
 or
 double-click selection.

FS System Task List window opens.

FS Attack System Tasks Procedure - CONT

Step	Action	Response
------	--------	----------



NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **FS System Task List** window, proceed to the indicated steps.

- Create new rule step 4
- Edit or copy rule step 5
- Delete a rule step 39
- Clear task list step 43
- Send guidance step 45

4.	<u>Select New</u> . Proceed to step 7.	FS System Task window opens.
5.	<u>Select rule</u> to be copied or edited.	
6.	<u>Select Edit or Copy...</u> .	FS System Task window opens.

FS Attack System Tasks Procedure - CONT

Step	Action	Response
------	--------	----------

NOTE

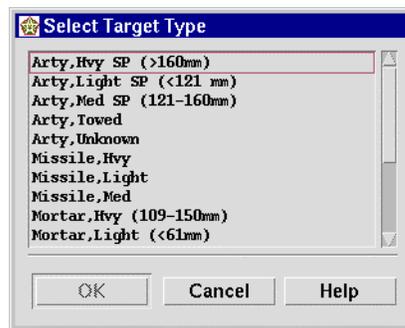
Selecting **OK** at any time closes this window and activates the **FS System Task List** window. To perform other functions of **FS System Task List** window after closing this window, refer to note prior to step 2. To perform the following functions of the **FS System Task** window, proceed to the indicated steps. All selections and entries in the **Target** area on this window are optional. After setting rule criteria, select **Engage with** or **Do Not Engage with** as appropriate.

- Operator specify rank step 7
- Set target category/type step 10
- Set geometry step 15
- Set target size step 21
- Set target strength step 24
- Set FS system..... step 27
- Set munition step 31
- Set unit step 35

- | | | |
|----|---|-------------------------------|
| 7. | Select Rank Operator Specified check box. | Rank field is enabled. |
| 8. | Enter Rank . Must be a value that does not exceed one more than the number or rules currently established. | |

FS Attack System Tasks Procedure - CONT

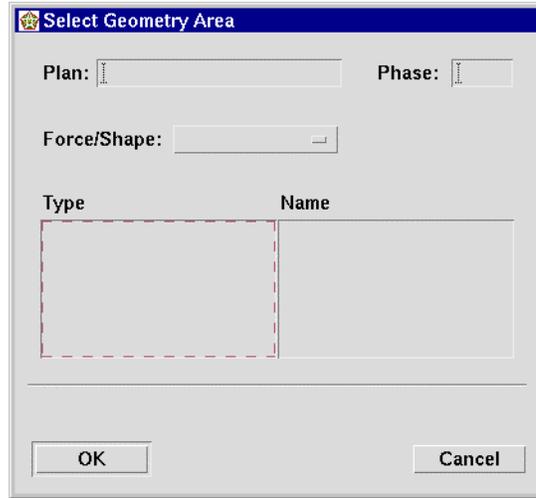
Step	Action	Response
9.	To perform other functions of FS System Task window, refer to note prior to step 7.	
10.	<u>Select target category or Any</u> from Category: menu.	Selection appears on Category: menu button.
11.	<u>Select Select...</u> from Type: menu.	Select Target Type window opens.



12.	<u>Select target type</u> from list.	
13.	<u>Select OK</u> .	Select Target Type window closes. Selection appears on Type: menu.
14.	To perform other functions of FS System Task window, refer to note prior to step 7.	
15.	<u>Select Within Geometry:</u> menu.	
16.	<u>Select <blank> or Any</u> or <u>Select...</u>	Selection appears on Within Geometry: menu. Proceed to step 20. or Select Geometry Area window opens.

FS Attack System Tasks Procedure - CONT

Step	Action	Response
------	--------	----------

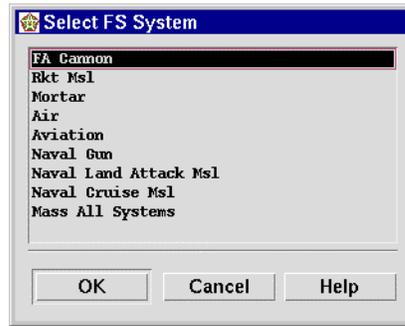


17. Select **Friendly Area** from **Force/Shape:** menu button.
18. Select geometry from **Type** list.
19. Select **OK**.
20. To perform other functions of **FS System Task** window, refer to note prior to step 7.
21. Enter **Min Radius:** (0 to 9999).
22. Enter **Max Radius:** (0 to 9999).
23. To perform other functions of **FS System Task** window, refer to note prior to step 7.
24. Enter **Min Strength:** (0 to 9999).
25. Enter **Max Strength:** (0 to 9999).
26. To perform other functions of **FS System Task** window, refer to note prior to step 7.

Select Geometry Area window closes.
 Selection appears on **Type:** menu.

FS Attack System Tasks Procedure - CONT

Step	Action	Response
27.	<p><u>Select <blank> or Any</u></p> <p>or</p> <p><u>Select...</u> from FS System: menu.</p>	<p>Selection appears on FS System menu. Proceed to step 30.</p> <p>or</p> <p>Select FS System window opens.</p>

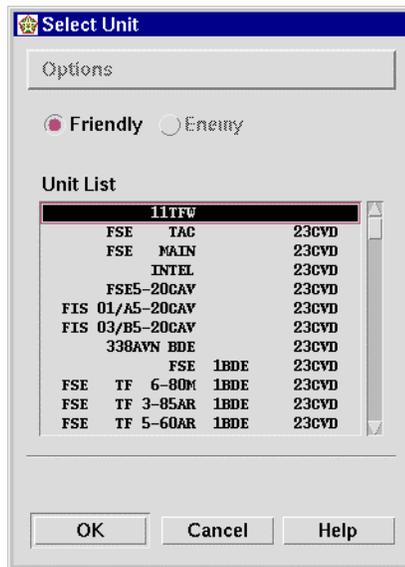


28.	<u>Select FS System.</u>	
29.	<u>Select OK.</u>	Select FS System window closes. Selection appears on FS System: menu.
30.	To perform other functions of FS System Task window, refer to note prior to step 7.	
31.	<p><u>Select <blank> or Any</u></p> <p>or</p> <p><u>Select...</u> from Munition: menu.</p>	<p>Selection appears on Munition: menu. Proceed to step 34.</p> <p>or</p> <p>Select Munition window opens.</p>



FS Attack System Tasks Procedure - CONT

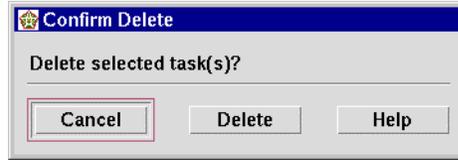
Step	Action	Response
32.	<u>Select munition.</u>	
33.	<u>Select OK.</u>	Select Munition window closes. Selection appears on Munition: menu.
34.	To perform other functions of FS System Task window, refer to note prior to step 7.	
35.	<u>Select <blank></u>	Selection appears on Unit: menu. Proceed to step 38.
	or	or
	<u>Select...</u> from Unit: menu.	Select Unit window opens.



36.	<u>Select unit.</u>	
37.	<u>Select OK.</u>	Select Unit window closes. Selection appears on Unit: menu.
38.	To perform other functions of FS System Task window, refer to note prior to step 7.	

FS Attack System Tasks Procedure - CONT

Step	Action	Response
39.	<u>Select task(s) to be deleted.</u>	
40.	<u>Select Delete...</u>	Confirm Delete window opens.



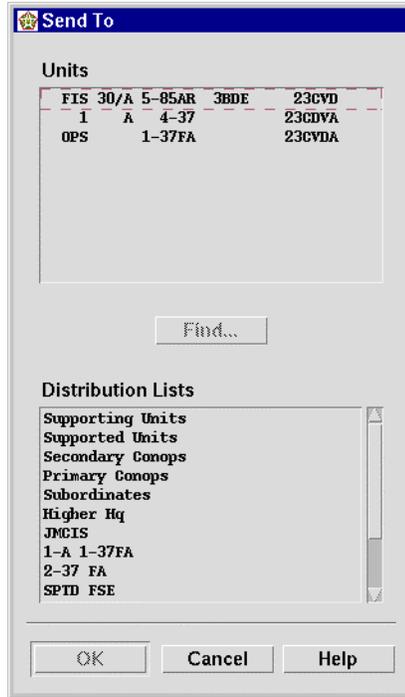
41.	<u>Select Delete.</u>	Confirm Delete window closes. Task is deleted.
42.	To perform other functions of FS System Task List window, refer to note prior to step 4.	
43.	<u>Select Clear...</u>	Confirm Clear window opens.



44.	<u>Select Clear.</u>	Confirm Clear window closes. All tasks are removed from list.
45.	<u>Select Send.</u>	Send To window opens.

FS Attack System Tasks Procedure - CONT

Step	Action	Response
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46. Select **Units** and/or **Distribution Lists** as destinations for the guidance.

47. Select **OK**.

48. To perform other functions of **FS System Task List** window, refer to note prior to step 4.

Send To window closes. Guidance is sent to destinations.

3-31.9 FA Preference Guidance.

For each target type, this guidance specifies a preferred ranking of fire units to attack the target. This guidance may be used to cause specific targets to be routed to or attacked by a specific unit. Fire units (maximum 9) are added to the guidance table and then ranked as to the order that they are considered during mission processing.

3-31.10 FA Preference Table Window.

The **FA Preference Table** window specifies the order in which FA Units should be considered for attacking specific target types. The table allows fire missions to be distributed to preferred attack units.

The user enters the rank order in fields next to each **Target Type** to indicate preference of a particular FA Unit to engage a specific **Target Type**. Valid entries are; 1-99, R - to indicate the unit is restricted from engaging the target type, N - to indicate the unit is not available, or blank to indicate no unit preference. The **Target Type** list is updated when a different **Target Category**: is selected. For each **Target Type**, the rankings associated with each unit in the guidance are adjusted to be continuous when **Send...** or **OK** are selected. For example, 1, 9, 7, 2 is adjusted to 1, 4, 3, 2. Adjusted values are displayed the next time this window is opened.

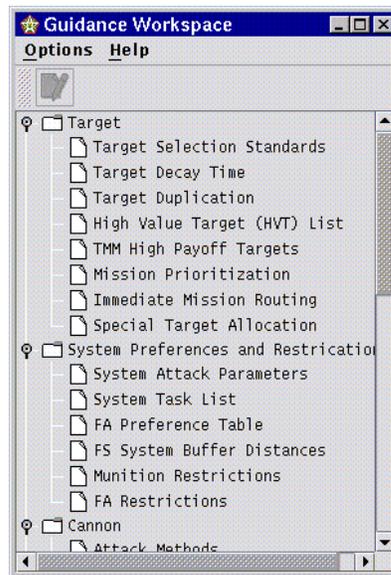
Add... opens the **Select Unit** window for selecting units to add to the list. Up to nine units may be in the list. Units are added to the horizontal scrolling list above the rank fields. **Remove** opens the **Remove Units** window for selecting the Unit ID to be removed. Selecting **Remove** removes the unit ID from the list.

In the Current situation, **Send...** is for sending FA preference information to selected unit(s).

3-31.11 FA Preference Table Procedure.

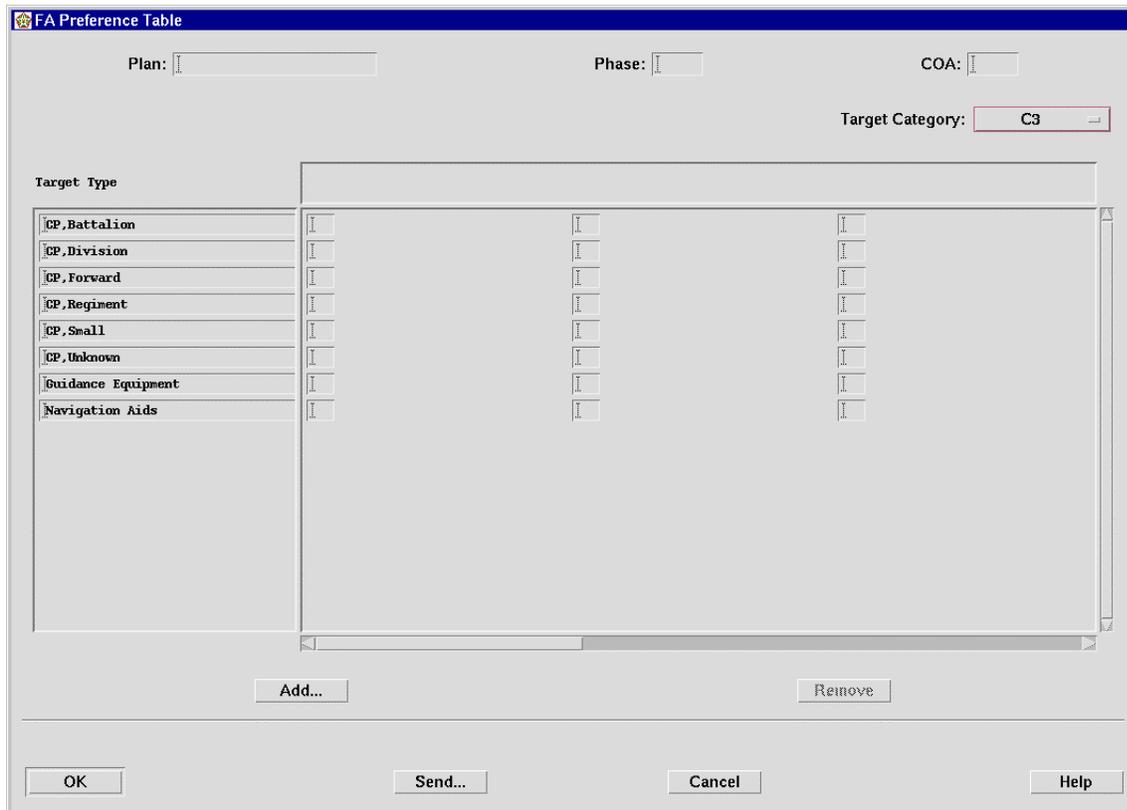
FA Preference Table Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



FA Preference Table Procedure - CONT

Step	Action	Response
2.	Select <u>System Preferences and Restrictions\FA Preference Table</u> guidance type.	
3.	Select <u>Options\Edit</u> or double-click selection.	FA Preference Table window opens.



FA Preference Table Procedure - CONT

Step	Action	Response
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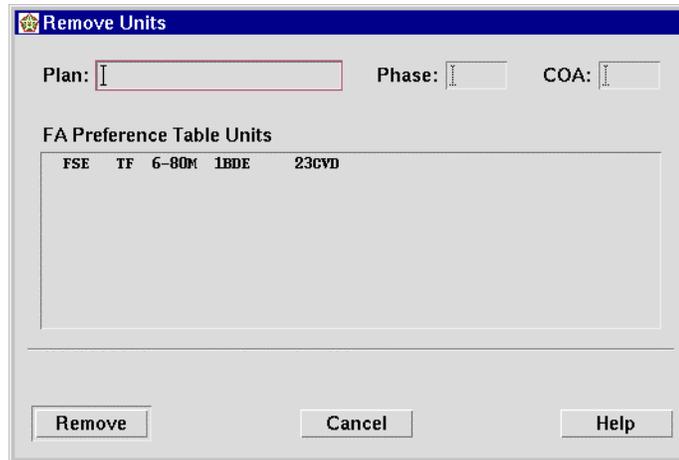
NOTE

Selecting **OK** at any time closes window saving changes made.

To perform following **FA Preference Table** functions, proceed to indicated steps.

- Add unit(s) step 4
- Remove unit(s) step 8
- Rank units step 12

4.	<u>Select Add...</u>	Select Unit window opens in Select mode.
5.	<u>Select unit.</u>	
6.	<u>Select OK.</u>	Unit is returned to FA Preference Table . End of Add... unit function.
7.	<u>Return to note prior to step 4</u> to perform other functions.	
8.	<u>Select Remove.</u>	Remove Units window opens.



9.	<u>Select unit</u> to remove.	
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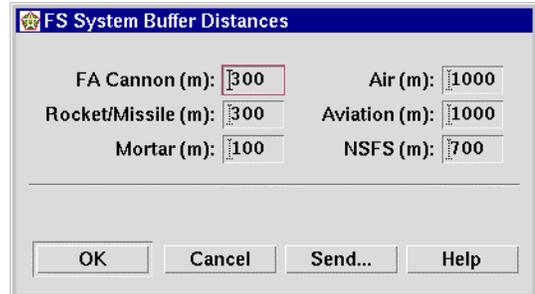
FA Preference Table Procedure - CONT

Step	Action	Response
10.	<u>Select Remove.</u>	Remove Units window closes. Unit and associated rank information is removed from list. End of Remove unit function.
11.	<u>Return to note prior to step 4</u> to perform other functions.	
12.	<u>Select Target Category:</u>	Target Type list updates.
13.	<u>Rank units</u> against each Target Type (1-99, R, N, or blank).	
14.	<u>Repeat steps 12 and 13</u> to complete each Target Category :	End of Rank units function.
15.	<u>Return to note prior to step 4</u> to perform other functions.	

3-31.12 FS System Buffer Distances Window.

The **FS System Buffer Distances** window specifies buffer distances used during geometry (FSCM's and boundaries) checks. Distances are entered for each FS System (Air, Mortar, NSFS, and FA) and applied to a given target (during the Current Geometry Violations Check) in order to determine coordination requirements for each system.

The user enters buffer distances in meters (0-9999) to be used for geometry checks for each FS System. Blank fields default to 200 meters when **OK** is selected to close the window.



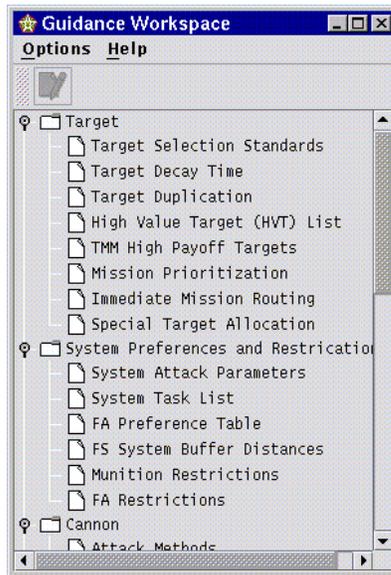
This guidance may significantly affect mission processing. Buffer distances are applied to target shape for evaluating potential FSCM violations which generate coordination requirements. If buffer distances are too small, probability of inadvertent FSCM violations is increased. If buffer distances are too large, probability of unnecessary coordination and delays is increased while probability of inadvertent FSCM violations is decreased.

In the Current situation, **Send...** is for sending system buffer distances information to selected unit(s).

3-31.13 FS System Buffer Distances Procedure.

FS System Buffer Differences Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



2.	<u>Select System Preferences and Restrictions\ FS System Buffer Distances</u> guidance type.	
3.	<u>Select Options\Edit</u> or double-click selection.	FS System Buffer Distances window opens.

FS System Buffer Differences Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes window saving changes made.

4.	<u>Enter FA (m) buffer distance (0-9999).</u>	
5.	<u>Enter Mortar (m) buffer distance (0-9999).</u>	
6.	<u>Enter Air (m) buffer distance (0-9999).</u>	
7.	<u>Enter NSFS (m) buffer distance (0-9999).</u>	
8.	<u>Select OK.</u>	FS System Buffer Distances window closes.

3-31.14 FS Munitions Restrictions Guidance.

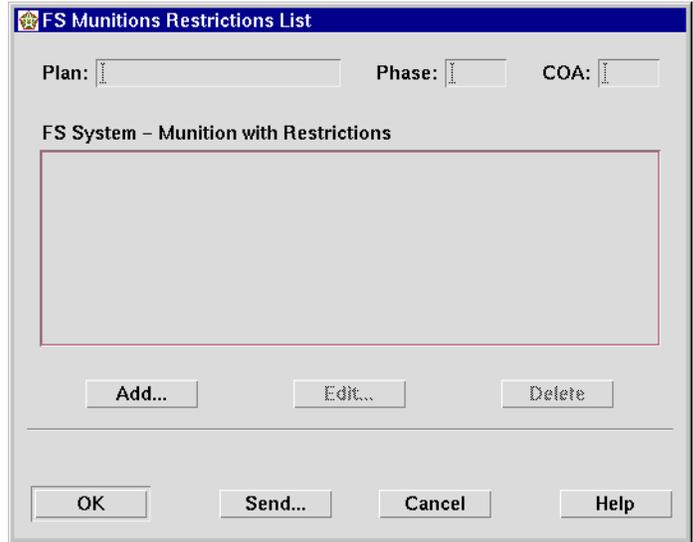
The FS Munitions Restrictions Guidance is used to restrict a FS system from firing a particular munition under certain criteria. Criteria can include (but is not limited to) target size, target strength, TLE, and distance from FLOT.

A set of criteria, called a rule, must contain at least a system/munition combination and one (1) restriction. For example, selecting a Rocket/Missile system, MLRS DPICM munitions, and a **Min Target Strength**: of 50 would restrict this munition on targets with a strength of less than 50. Up to 200 rules can be created at any time. Adding other criteria to the rule modifies the restriction.

3-31.15 FS Munitions Restrictions List Window.

The **FS Munitions Restrictions List** window is opened via the **Guidances Workspace** window **System Preferences and Restrictions\Munitions Restrictions** menu selection. This window lists the rules currently established. The FS system and munition for each rule is displayed. The **Plan**, **Phase**, and **COA** fields are view only and are used in the planning situation.

The **Add...** and **Edit...** buttons open the **Munitions Restrictions** window. This window is used to enter data for a new rule or to edit an existing rule. The **Add...** button opens a blank **Munitions Restrictions** window for the creation of a new rule.



Selecting a rule from the list and **Edit...** opens the **Munitions Restrictions** window displaying the data for the selected rule. The **Delete** button is used to remove an existing rule. Selecting a rule from the list and **Delete** removes the rule; no confirmation is required for this action. Closing the window using the **Cancel** button will negate any deletions made while the window was open.

The **OK** button closes this window and saves any changes made while the window was open.

The **Send...** button opens the **Select Unit** window to select a unit(s) as a destination for the transmittal of this guidance.

The **Cancel** button closes this window without saving any changes.

3-31.16 FS Munitions Restrictions Window.

The **FS Munitions Restrictions** window (Figure 3.50) is used to create, edit, and view the munition restrictions rules. This window is opened from the **FS Munitions Restrictions List** window **Add...** and **Edit...** buttons. When opened via the **Add...** button, the window will contain no rule data. When opened via the **Edit...** button, the window will display the data for the selected rule for user edit or viewing.

The **FS System** and **Munition Category** menus are editable when creating a new rule and are view only in the edit mode. These menus are used to select the system and associated munition for the rule.

The **Min Target Size** fields are optional entries used to restrict a munition on targets that are smaller than the entered criteria. If a **Radius (m):** is entered, the **Length (m):** and **Width (m):** fields are disabled. **Length (m):** and **Width (m):** values must both be entered for a rectangular target. The value for **Width (m):** must be equal to or smaller than the **Length (m):** value. The legal entry for **Radius (m):** is 0 to 9999 meters. The legal entries for **Length (m):** and **Width (m):** are 0 to 99999 meters.

The **Min Dist from FLOT (m):** field restricts the system/munition combination from being fired on a target that is closer to the FLOT than the entered value. This is an optional entry with a legal value of 0 to 99999 meters.

The **Min Target Strength**: field restricts the system/munition combination from being fired on a target that has a strength less than that of the entered value. This is an optional entry with a legal value of 0 to 9999.

The **Max TLE (m)**: field is used to enter the maximum TLE permitted before the restriction is applied. This is an optional entry with a legal value of 0 to 9999.

The **Max Rnds**: and **Max Vlys**: fields are used to enter the maximum rounds or volleys that the system/munition combination is restricted from firing. If the mission requires more rounds or volleys than the restricted value, this system/munition combination is restricted. Only one of these fields can be entered for a rule. These fields are optional with legal values of 0 to 99999 for rounds and 0 to 200 for volleys.

The screenshot shows a dialog box titled "FS Munitions Restrictions". At the top, there are three input fields: "Plan:", "Phase:", and "COA:". Below these are two dropdown menus: "FS System" and "Munition Category". The main area contains several more input fields: "Min Target Size" with sub-fields for "Radius(m)", "Length(m)", and "Width(m)"; "Min Dist from FLOT(m)"; "Min Target Strength"; "Max TLE(m)"; "Max Rnds"; "Max Vlys"; and "ECOF%". There are two list boxes: "Countermeasures" and "Environmental". The "Countermeasures" list includes: Decoy, Hot Spots, Foliage, Corner Reflectors, Chaff, and Fires. The "Environmental" list includes: Low Clouds, Rain, Woods, Standing Water, Plowed Fields, and Urban Areas. Below each list box are "All" and "None" buttons. At the bottom of the dialog are "OK", "Cancel", and "Help" buttons.

Figure 3.50 FS Munitions Restrictions Window

The Effects Cutoff Factor (ECOF) % is the minimum acceptable effects for each volley of fire. If the first volley does not produce the effects entered in the **ECOF%** field, the system/munition will be restricted. This field applies only to ATACMS-BAT munitions. This field is optional with a legal value of 0.0 to 9.9%.

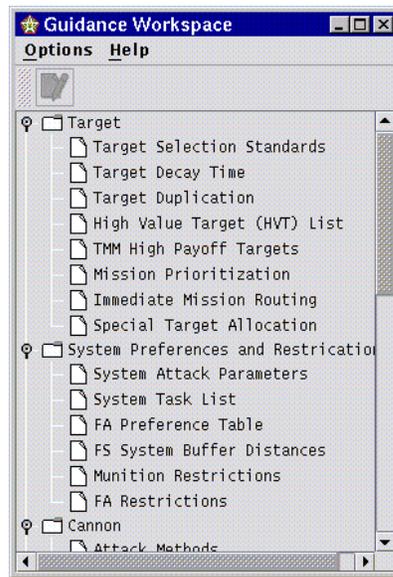
Restrictions are also available for **Countermeasures** employed and **Environmental** conditions at the target. The user selects check boxes for items within each of the categories. If an item is selected, the system/munition is restricted from firing a mission that contains the selected countermeasure or environment. Buttons **All** and **None** are used to select all or none of the items in each category.

The **OK** button closes this window and saves any changes made while the window was open.

The **Cancel** button closes this window without saving any changes.

3-31.17 FS Munitions Restrictions Guidance Procedure.

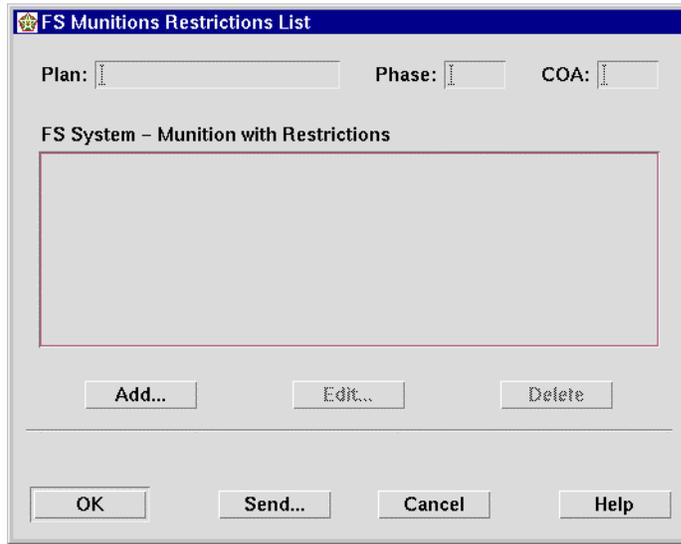
FS Munitions Restrictions Guidance Procedure		
Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



2.	<u>Select System Preferences and Restrictions\ Munitions Restrictions</u> guidance type.	
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FS Munitions Restrictions Guidance Procedure - CONT

Step	Action	Response
3.	<u>Select Options\Edit</u> or double-click selection.	FS Munitions Restrictions List window opens.



NOTE

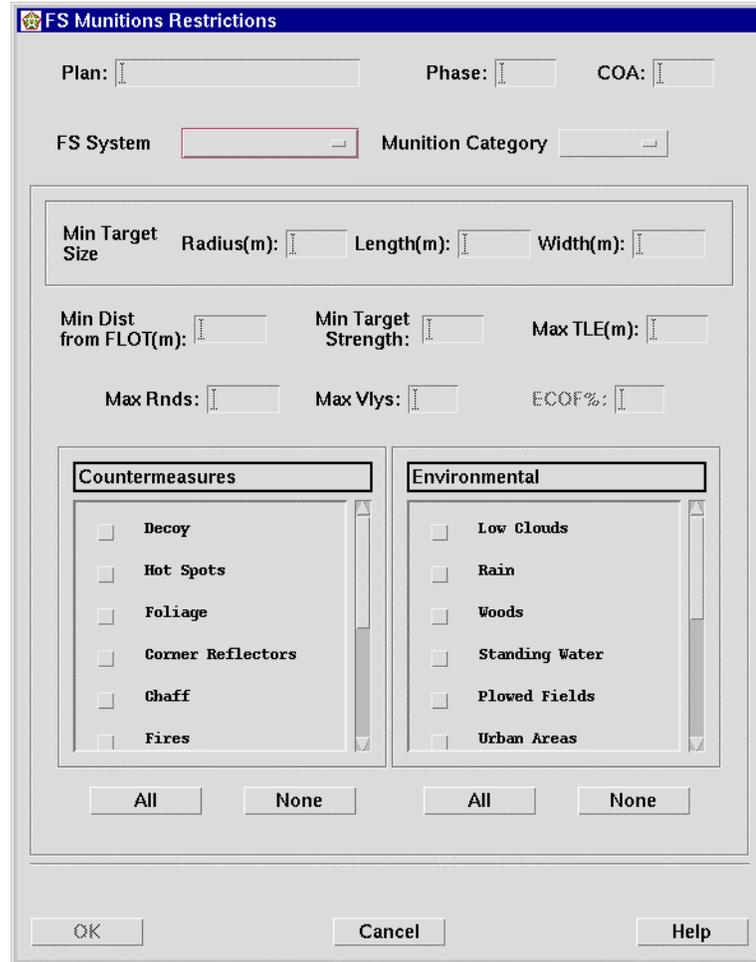
Selecting **OK** at any time closes this window. To perform the following functions of the **FS Munitions Restrictions List** window, proceed to the indicated steps.

- Edit or view a rule step 4
- Add restriction step 6
- Delete a rule step 21
- Send guidance step 24

4.	<u>Select a rule</u> to edit or view.	
5.	<u>Select Edit...</u> Proceed to step 11.	Edit FS Munitions Restrictions window opens.
6.	<u>Select Add...</u>	FS Munitions Restrictions window opens.

FS Munitions Restrictions Guidance Procedure - CONT

Step	Action	Response
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7. Select a FS System.

Selected system appears on **FS System** menu.

8. Select Munition Category>Select...

Select Munition Category window opens.

FS Munitions Restrictions Guidance Procedure - CONT

Step	Action	Response
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9. Select munition from list.

10. Select **OK**.

Select Munition Category window closes.
 Selected munition is displayed on **FS Munitions Restrictions** window.

NOTE

Each of the following entries and selections are optional. Leaving an item blank results in no restriction for that item.

11. Enter a **Min Target Size** value for **Radius(m)**: (0 to 9999) or values for **Length(m)**: and **Width(m)**: (0 to 99999).

12. Enter a **Min Dist from FLOT(m)**: (0 to 99999).

13. Enter a **Min Target Strength**: (0 to 9999).

14. Enter a **Max TLE(m)**: (0 to 9999).

15. Enter **Max Rnds**: (0 to 99999) or **Max Vlys**: (0 to 200).

16. Enter the **ECOF%** value (0.0 to 9.9).

FS Munitions Restrictions Guidance Procedure - CONT

Step	Action	Response
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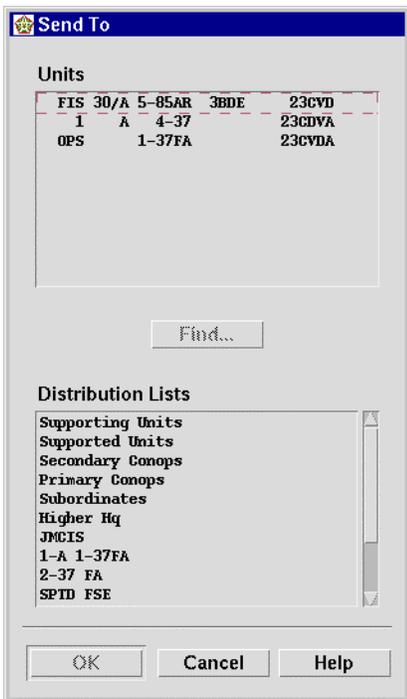
NOTE

In the two (2) following steps, **All** and **None** buttons are provided to aid the user in the rapid selection and de-selection of items.

17.	<u>Select Countermeasures</u> to be restricted.	
18.	<u>Select Environmental</u> conditions to be restricted.	
19.	<u>Select OK</u> .	FS Munitions Restrictions window closes.
20.	To perform other functions of FS Munitions Restrictions List window, refer to note prior to step 4.	
21.	<u>Select the rule</u> to be deleted.	
22.	<u>Select Delete</u> .	Selected rule is removed from list.
23.	To perform other functions of FS Munitions Restrictions List window, refer to note prior to step 4.	
24.	<u>Select Send...</u> .	Send To window opens.

FS Munitions Restrictions Guidance Procedure - CONT

Step	Action	Response
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25. Select **Units** and/or **Distribution Lists** as destinations for the guidance.

26. Select **OK**.

27. To perform other functions of **FS Munitions Restrictions List** window, refer to note prior to step 4.

Send To window closes. Guidance is sent to destinations.

3-31.18 FA Restrictions Window.

The **FA Restrictions** window contains a list of all units which have FA restrictions and provides access to the **Edit FA Restrictions** window where restrictions are set.

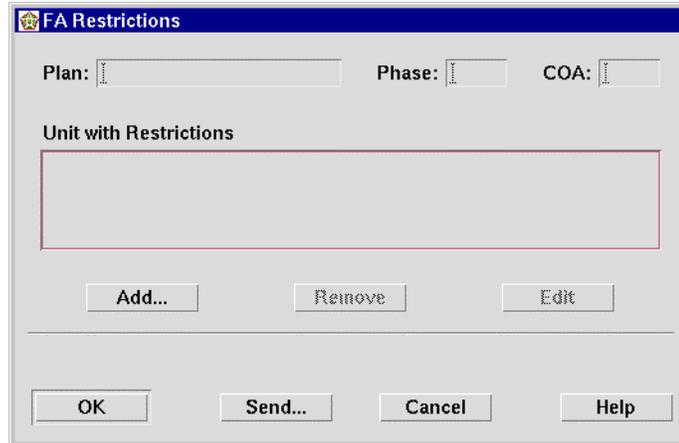


Figure 3.51 FA Restrictions Window

Add... opens the **Select Unit** window for selecting a Unit ID to be added to the **Unit with Restrictions** list. Selecting a unit and **OK** on the **Select Unit** window opens the **Edit FA Restrictions** window with no initial restrictions associated with the unit.

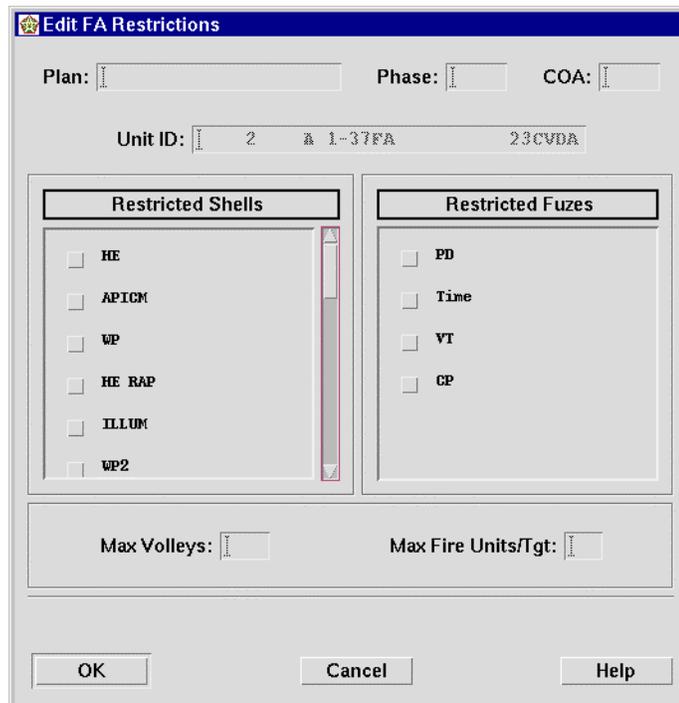


Figure 3.52 Edit FA Restrictions Window

The user selects the check boxes for **Restricted Shells** and **Restricted Fuzes** which the unit is restricted from using to attack any target. **Max Volleys:** is the maximum number of volleys which an FA unit can fire at a single target . The legal entry is 0-200. **Max Fire Units/Tgt:** is the maximum number of FA units that can attack any target. A blank field indicates no restrictions. The legal entry is 1-20. **Max Volleys:** is used to determine if more than one fire unit is required to achieve desired damage levels. The **Max Fire Units/Tgt:** entry may be a constraint in developing capable massed unit attack options if the entry is less than the number of fire units available. For example, if the entry limits the number of fire units to 3 and 5 units are available, the attack option will be based on using only 3 units. If the system were allowed to use up to the 5 available units, a better attack option could be possible.

A unit may be removed from the list by selecting the unit and **Remove**.

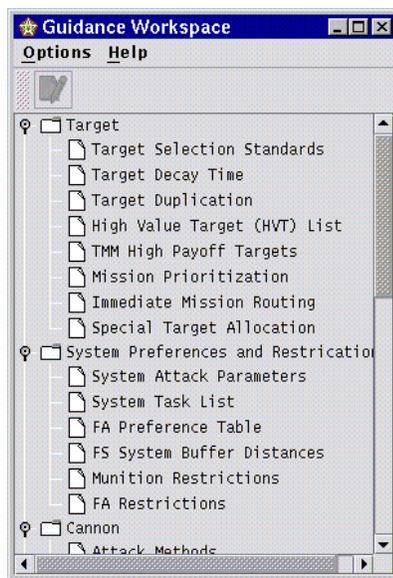
Selecting a unit and **Edit** opens the **Edit FA Restrictions** window for editing.

In the Current situation, **Send...** is for sending FA restrictions information to selected unit(s).

3-31.19 FA Restrictions Procedure.

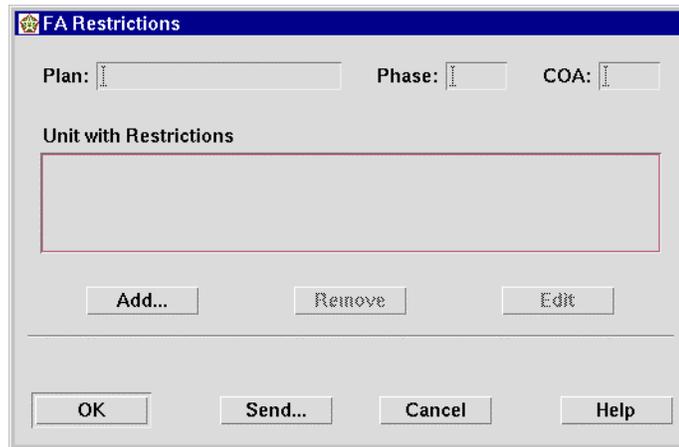
FA Restrictions Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



FA Restrictions Procedure - CONT

Step	Action	Response
2.	Select System Preferences and Restrictions\FA Restrictions guidance type.	
3.	Select Options>Edit or double-click selection.	FA Restrictions window opens.



NOTE

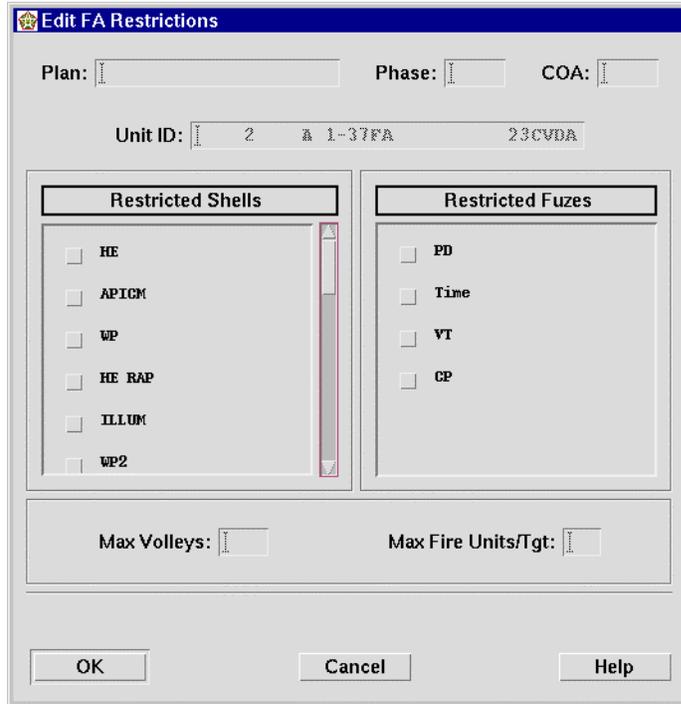
Selecting **OK** at any time closes window saving changes made. To perform following **FA Restrictions** functions, proceed to indicated steps.

- Add units and select restrictions step 4
- Remove units step 13
- Edit unit restrictions step 16

4.	Select Add...	Select Unit window opens in Select mode.
5.	Select unit for restrictions.	
6.	Select OK .	Edit FA Restrictions window opens.

FA Restrictions Procedure - CONT

Step	Action	Response
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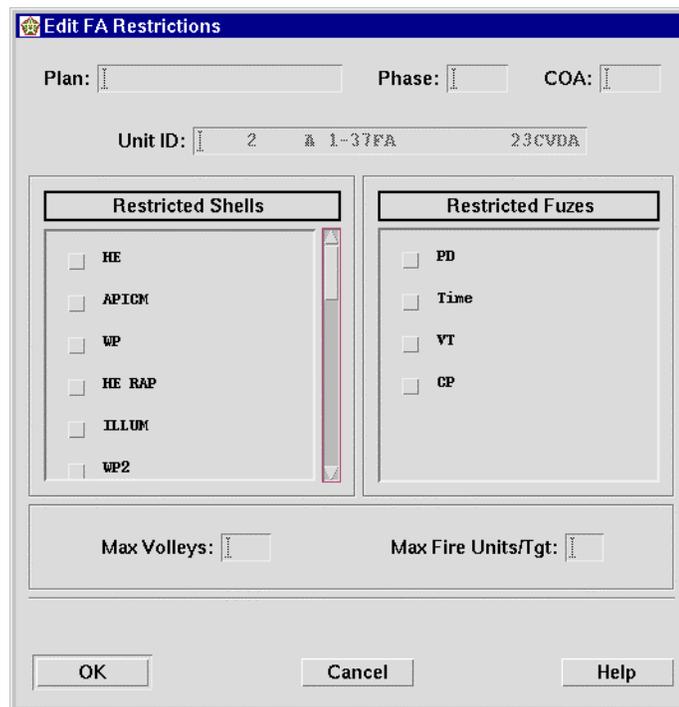
7. Select shells to restrict.
8. Select fuzes to restrict.
9. Enter **Max Volleys:** (0-200 or blank).
10. Enter **Max Fire Units/Tgt:** (1-20 or blank).
11. Select OK.
12. Return to note prior to step 4 to perform other functions.
13. Select unit to remove.
14. Select Remove.

Edit FA Restrictions window closes.
 End of **Add...** unit function.

Unit and associated restrictions are removed
 from list. End of **Remove** unit function.

FA Restrictions Procedure - CONT

Step	Action	Response
15.	<u>Return to note prior to step 2</u> to perform other functions.	
16.	<u>Select unit</u> to edit restrictions.	
17.	<u>Select Edit</u> .	Edit FA Restrictions window opens.



18.	<u>Edit restrictions</u> as in steps 7 thru 10.	End of Edit unit restrictions function.
19.	<u>Select OK</u> .	Edit FA Restrictions window closes.
20.	<u>Return to note prior to step 4</u> to perform other functions.	

3-32 **CANNON GUIDANCES.**

Cannon Guidances are used to establish **Attack Methods** and **Immediate Attack Methods** for cannon missions.

3-32.1 Cannon Guidances Window Navigation.

Cannon Attack Methods guidances are accessed from the **Guidance Workspace** window via the **Guidances\Workspace** pull-down menu on the Main Menu bar.

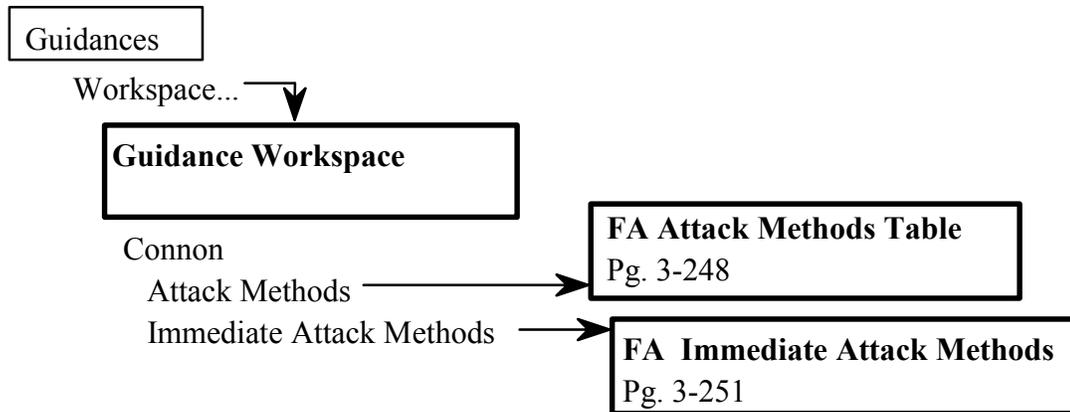


Figure 3.53 Cannon Guidances Window

3-32.2 FA Cannon Attack Methods Guidance.

This guidance specifies the first and second preferred cannon shell/fuze/volleys for each target type.

3-32.3 FA Cannon Attack Methods Table Window.

The **FA Attack Methods Table** window specifies information on use of FA munitions against specific targets in order to create plan-specific FA attack methods. The user selects shell and fuze combinations and enters the number of volleys (**Vlys**) for the **FIRST** and **SECOND SHELL** munitions and selects the **Fire Unit Size**. **Target Types** are updated when a different **Target Category:** is selected.

If a blank is selected to indicate no first **Shell**, remaining **FIRST** and **SECOND SHELL** fields are disabled. If no first **Fuze** is specified, first **Vlys** is disabled. **Vlys** will be enabled if a shell has an integral fuze.

If a blank is selected to indicate no second **Shell**, remaining **SECOND SHELL** fields are disabled. If no second **Fuze** is specified, second **Vlys** is disabled. **Vlys** will be enabled if a shell has an integral fuze.

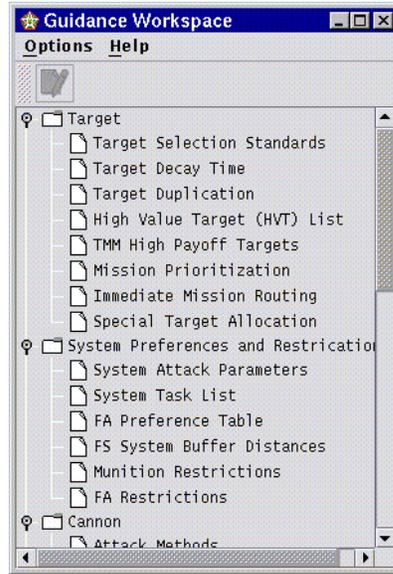
If a value is entered in either **Vlys** field, a selection other than blank must be selected for **Fire Unit Size**.

In the Current situation, **Send...** is for sending FA Attack Methods to selected unit(s).

3-32.4 FA Cannon Attack Methods Table Procedure.

FA Attack Methods Table Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



2. Select **Cannon\Attack Methods** guidance type.

3. Select **Options\Edit**
 or
 double-click selection.

FA Attack Methods Table window opens.

FA Attack Methods Table Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes window saving changes made. The **Send...** button opens the **Send To** window. This window allows the user to select a unit(s) and/or distribution list(s) to as a destination(s) for the data selected in the **Target Category:** field.

- | | |
|---|---|
| <ol style="list-style-type: none"> 4. <u>Select Target Category:</u> 5. <u>Select first Shell.</u> 6. <u>Select first Fuze.</u> 7. <u>Enter first Vlys number (0- 200 or blank).</u> 8. <u>Select second Shell.</u> | <p>Target Type list updates.</p> |
|---|---|

FA Attack Methods Table Procedure - CONT

Step	Action	Response
9.	<u>Select second Fuze.</u>	
10.	<u>Enter second Vlys number</u> (0-200 or blank).	
11.	<u>Select Fire Unit Size</u> (required if Vlys entered in either field).	
12.	<u>Repeat steps 5 thru 11</u> to complete each Target Type .	
13.	<u>Repeat steps 4 thru 12</u> to complete each Target Category .	
14.	<u>Select OK.</u>	FA Attack Methods Table window closes.

3-32.5 FA Immediate Attack Methods Window.

The **FA Immediate Attack Methods** window specifies FA attack methods for Immediate Suppression and Immediate Smoke missions. The user selects shell and fuze combinations, enters number of volleys for first and second shell munitions, and selects fire unit size.

If a blank is selected to indicate no first **Shell**, remaining **FIRST SHELL** and **FIRST SHELL** fields are disabled. If no first **Fuze** is specified, first **Vlys** is disabled. **Vlys** will be enabled if a shell has an integral fuze.

If a blank is selected to indicate no first **Shell**, remaining **FIRST SHELL** fields are disabled. If no first **Fuze** is specified, first **Vlys** is disabled. **Vlys** will be enabled if a shell has an integral fuze.

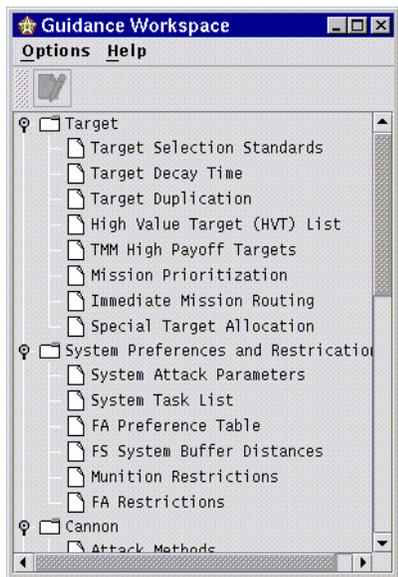
If either **Vlys** is entered, **Fire Unit Size** field is required.

In the Current situation, **Send...** is for sending FA immediate attack methods information to selected unit(s).

3-32.6 FA Immediate Attack Methods Procedure.

FA Immediate Attack Methods Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



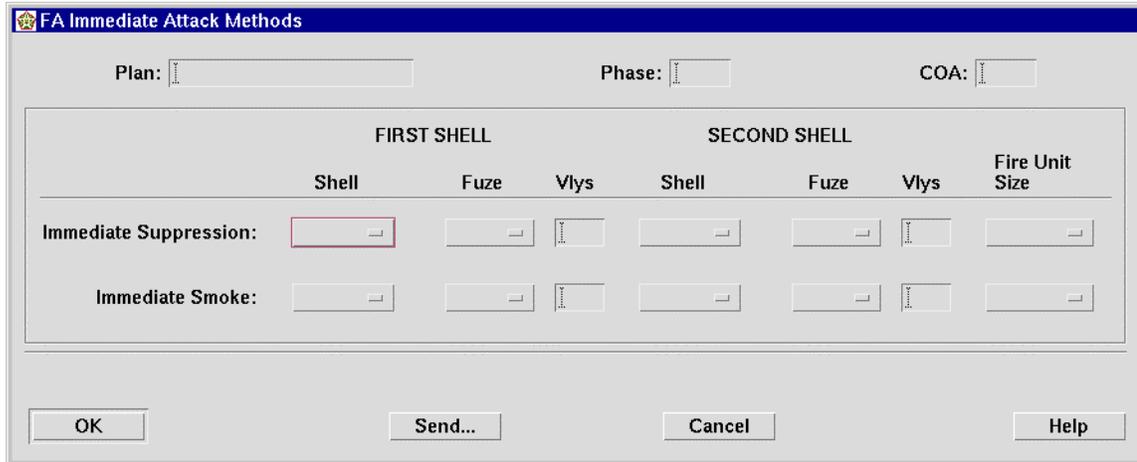
2. Select **Cannon\Immediate Attack Methods**
guidance type.

3. Select **Options\Edit**
or
double-click selection.

FA Immediate Attack Methods window opens.

FA Immediate Attack Methods Procedure - CONT

Step	Action	Response
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4.	For Immediate Suppression : <u>select first Shell</u> .	
5.	For Immediate Suppression : <u>select first Fuze</u> .	
6.	For Immediate Suppression : <u>enter first Vlys number</u> (0-200 or blank).	
7.	For Immediate Suppression : <u>select second Shell</u> .	
8.	For Immediate Suppression : <u>select second Fuze</u> .	
9.	For Immediate Suppression : <u>enter second Vlys number</u> (0-200 or blank).	
10.	For Immediate Suppression , select Fire Unit Size (required if entry in either Vlys field).	
11.	<u>Repeat steps 4 thru 10 for Immediate Smoke</u> : mission.	
12.	<u>Select OK</u> .	FA Immediate Attack Methods window closes.

3-33 MORTAR GUIDANCES.

Cannon Guidances are used to establish **Attack Methods**, **Immediate Attack Methods**, and **Restrictions** for mortar missions.

3-33.1 Mortar Guidances Window Navigation.

Mortar guidances are accessed from the **Guidance Workspace** window via the **Guidances\Workspace** pull-down menu on the Main Menu bar.

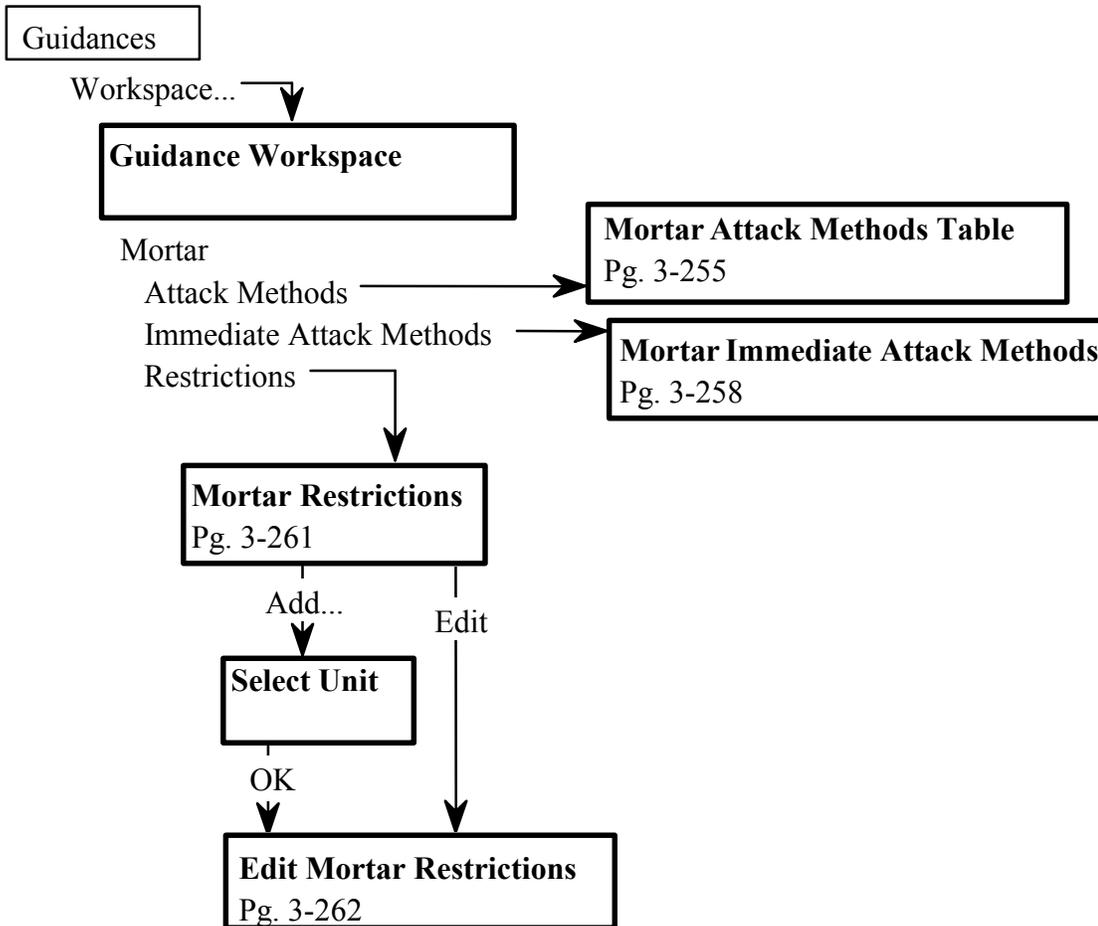


Figure 3.54 Mortar Guidances Navigation

3-33.2 Mortar Attack Methods Table Guidance.

The **Mortar Attack Methods Table** guidance allows the user to specify information on the use of mortar munitions against specific targets. This guidance is not used unless a mortar unit is an asset at the host unit. All fields on the **Mortar Attack Methods Table** are optional.

Mortar attack methods are specified by selecting **Shell** and **Fuze** types and entering number of volleys (**Vlys**) for the **FIRST** and **SECOND SHELL** for each **Target Type**. The **Fire Unit Size** is also selected. The **Target Type** list is updated when a different **Target Category** is selected.

If a blank is selected to indicate no first **Shell**, remaining **FIRST SHELL** and **SECOND SHELL** fields are disabled. If no first **Fuze** is specified, first **Vlys** is disabled. **Vlys** will be enabled if a shell has an integral fuze. If a blank is selected to indicate no second **Shell**, remaining **SECOND SHELL** fields are disabled. If no second **Fuze** is specified, second **Vlys** is disabled. **Vlys** will be enabled if a shell has an integral fuze. If a value is entered in either **Vlys** field, then a selection other than a blank must be selected for **Fire Unit Size**.

In the Current situation, **Send...** is for sending mortar attack methods information to a selected unit(s).

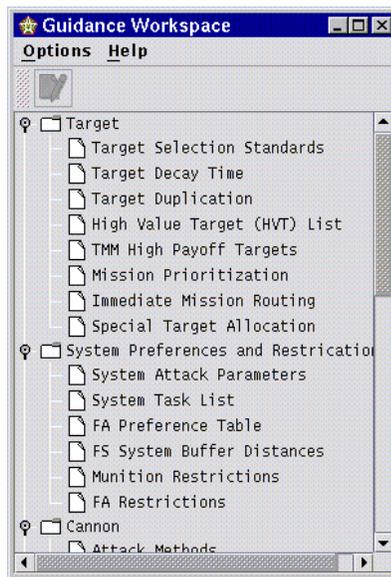
Target Type	FIRST SHELL			SECOND SHELL			Fire Unit Size
	Shell	Fuze	Vlys	Shell	Fuze	Vlys	
CP, Battalion	[]	[]	[]	[]	[]	[]	[]
CP, Division	[]	[]	[]	[]	[]	[]	[]
CP, Forward	[]	[]	[]	[]	[]	[]	[]
CP, Regiment	[]	[]	[]	[]	[]	[]	[]
CP, Small	[]	[]	[]	[]	[]	[]	[]
CP, Unknown	[]	[]	[]	[]	[]	[]	[]
Guidance Equipment	[]	[]	[]	[]	[]	[]	[]
Navigation Aids	[]	[]	[]	[]	[]	[]	[]

Figure 3.55 Mortar Attack Methods Table Window

3-33.3 Mortar Attack Methods Procedure.

Mortar Attack Methods Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



2.	<u>Select Mortar\Attack Methods guidance type.</u>	
3.	<u>Select Options\Edit</u> or double-click selection.	Mortar Attack Methods Table window opens.

Mortar Attack Methods Procedure - CONT

Step	Action	Response
------	--------	----------

Mortar Attack Methods Table

Plan: Phase: COA:

Target Category:

Target Type	FIRST SHELL			SECOND SHELL			Fire Unit Size
	Shell	Fuze	Vlys	Shell	Fuze	Vlys	
CP, Battalion	<input type="text"/>						
CP, Division	<input type="text"/>						
CP, Forward	<input type="text"/>						
CP, Regiment	<input type="text"/>						
CP, Small	<input type="text"/>						
CP, Unknown	<input type="text"/>						
Guidance Equipment	<input type="text"/>						
Navigation Aids	<input type="text"/>						

NOTE

Selecting **OK** at any time closes window saving changes made.

- | | |
|--|---|
| <ol style="list-style-type: none"> 4. <u>Select Target Category:</u> 5. <u>Select first Shell.</u> 6. <u>Select first Fuze.</u> | <p>Target Type list updates.</p> |
|--|---|

FA Immediate Attack Methods Procedure - CONT

Step	Action	Response
7.	<u>Enter first Vlys number</u> (0-200 or blank).	
8.	<u>Select second Shell</u> .	
9.	<u>Select second Fuze</u> .	
10.	<u>Enter second Vlys number</u> (0-200 or blank).	
11.	<u>Select Fire Unit Size</u> (required if value entered in either Vlys field).	
12.	<u>Repeat steps 5 thru 11</u> to complete each Target Type .	
13.	<u>Repeat steps 4 thru 12</u> to complete each Target Category :	
14.	<u>Select OK</u> .	Mortar Attack Methods Table window closes.

3-33.4 Mortar Immediate Attack Methods Guidance.

The **Mortar Immediate Attack Methods** table specifies mortar attack methods for Immediate Suppression and Immediate Smoke missions. The user selects shell and fuze combinations, enters number of volleys for first and second shell munitions, and selects fire unit size.

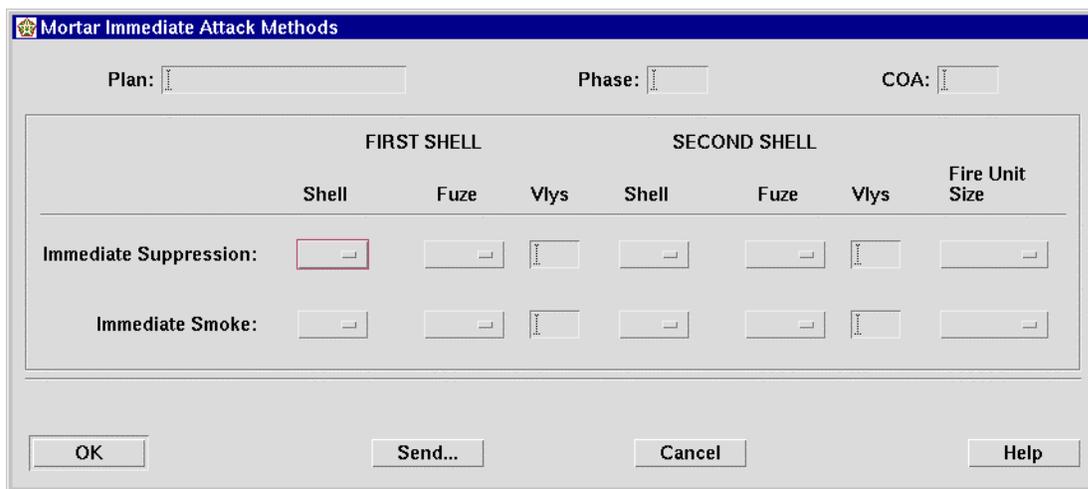


Figure 3.56 Mortar Immediate Attack Methods Window

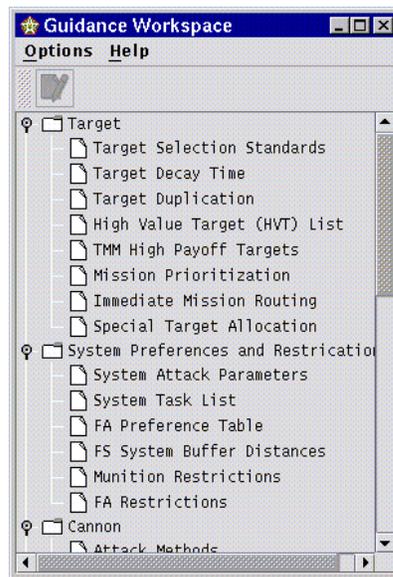
If a blank is selected to indicate no first **Shell**, remaining **FIRST SHELL** and **SECOND SHELL** fields are disabled. If no first **Fuze** is specified, first **Vlys** is disabled. **Vlys** will be enabled if a shell has an integral fuze.

If a blank is selected to indicate no second **Shell**, remaining **SECOND SHELL** fields are disabled. If no first **Fuze** is specified, first **Vlys** is disabled. **Vlys** will be enabled if a shell has an integral fuze.

In the Current situation, **Send...** is for sending mortar immediate attack methods information to selected unit(s).

3-33.5 Mortar Immediate Attack Methods Procedure.

Mortar Immediate Attack Methods Procedure		
Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



2.	<u>Select Mortar\Immediate Attack Methods</u> guidance type.	
3.	<u>Select Options\Edit</u> or double-click selection.	Mortar Immediate Attack Methods window opens.

Mortar Immediate Attack Methods Procedure - CONT

Step	Action	Response
------	--------	----------

NOTE

Selecting **OK** at any time closes window saving changes made.

4. For **Immediate Suppression:** select first Shell.
5. For **Immediate Suppression:** select first Fuze.
6. For **Immediate Suppression:** enter first Vlys number (0-200 or blank).
7. For **Immediate Suppression:** select second Shell.
8. For **Immediate Suppression:** select second Fuze.
9. For **Immediate Suppression:** enter second Vlys number (0-200 or blank).

Mortar Immediate Attack Methods Procedure - CONT

Step	Action	Response
10.	For Immediate Suppression :, <u>select Fire Unit Size</u> .	
11.	<u>Repeat steps 4 thru 10 for Immediate Smoke</u> : mission.	
12.	<u>Select OK</u> .	Mortar Immediate Attack Methods window closes.

3-33.6 Mortar Restrictions Guidance.

The **Mortar Restrictions** guidance window contains a list of all units with mortar restrictions and provides access to the **Edit Mortar Restrictions** window where restrictions are set.

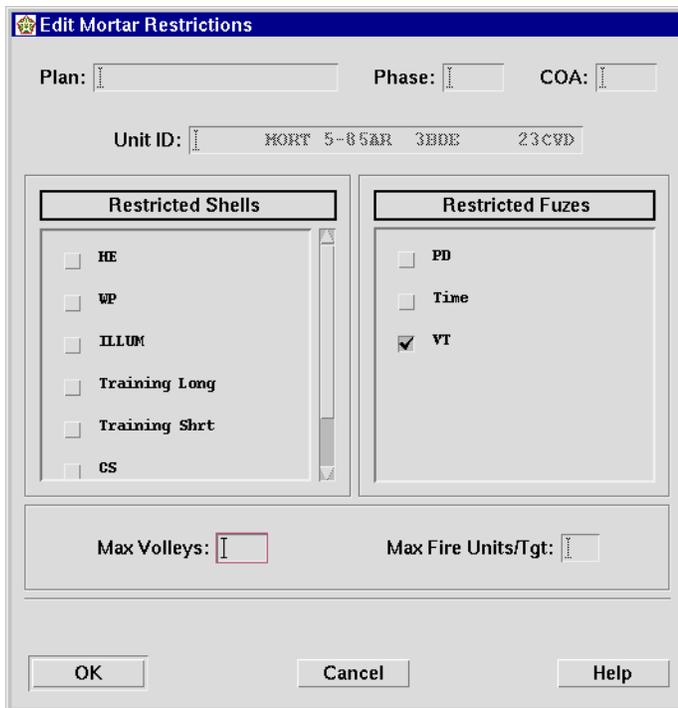
Add... opens the **Select Unit** window for selecting a Unit ID to be added to the **Unit with Restrictions** list. Selecting a unit and **OK** on the **Select Unit** window opens the **Edit Mortar Restrictions** window with no initial restrictions associated with the unit.



The user selects the check boxes for **Restricted Shells** and **Restricted Fuzes** which the unit is restricted from using to attack any target. **Max Volleys:** is the maximum number of volleys which a mortar unit can fire at a single target. The legal entry is 0-200. **Max Fire Units/Tgt:** is the maximum number of mortar units that can attack any target. The legal entry is 1-20. A blank field indicates no restrictions. **Max Volleys:** is used to determine if more than one fire unit is required to achieve desired damage levels. **Max Fire Units/Tgt:** may be a constraint in developing capable massed unit attack options (when less than the number available).

A unit may be removed from the **Mortar Restrictions** window by selecting the unit and **Remove**.

Selecting a unit and **Edit** opens the **Edit Mortar Restrictions** window for editing.



In the Current situation, **Send...** is for sending mortar restriction information to a selected unit(s).

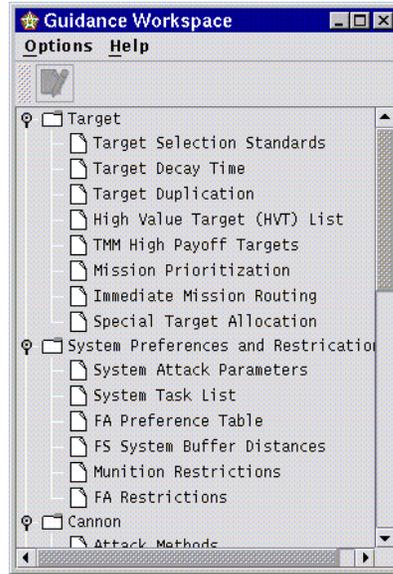
3-33.7 Mortar Restrictions Procedure.

Mortar Restrictions Procedure

Step	Action	Response
1.	Select Guidances\Workspace...	Guidance Workspace window opens.

Mortar Restrictions Procedure - CONT

Step	Action	Response
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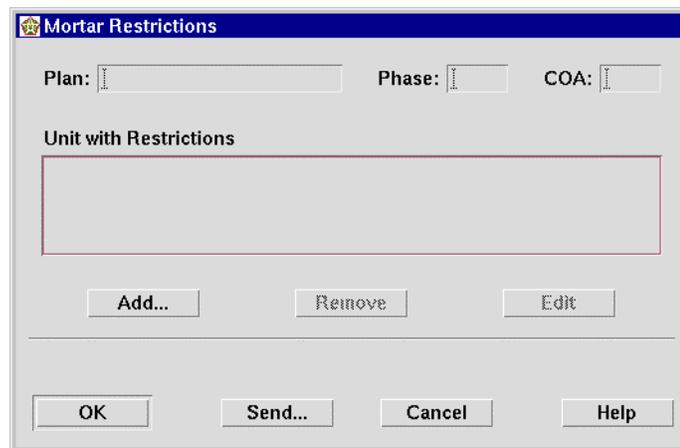
2. Select **Mortar\Restrictions** guidance type.

3. Select **Options\Edit**

or

double-click selection.

Mortar Restrictions window opens.



Mortar Restrictions Procedure - CONT

Step	Action	Response
------	--------	----------

NOTE

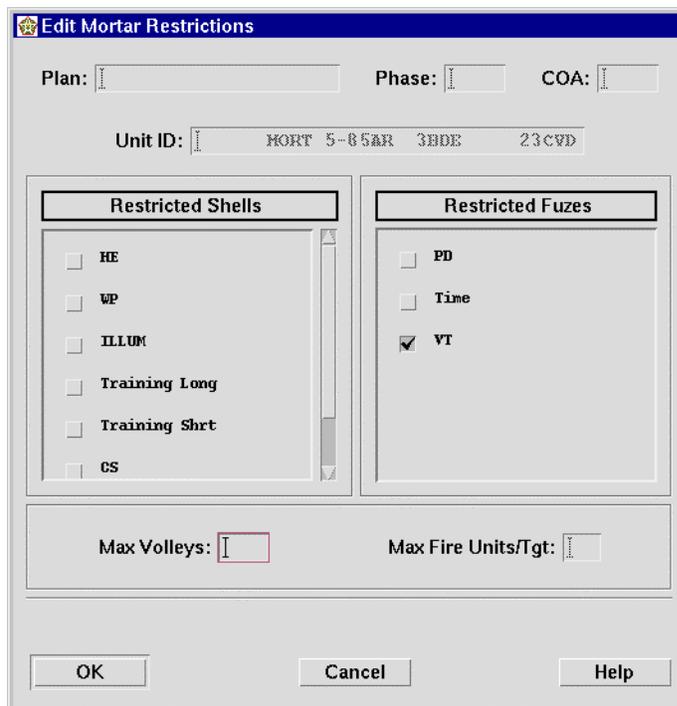
Selecting **OK** at any time closes window saving changes made.

To perform following **Mortar Restrictions** functions, proceed to indicated steps.

- Add units and select restrictions step 4
- Remove units step 13
- Edit existing unit restrictions step 16

- | | |
|---|--|
| <p>4. <u>Select Add...</u></p> <p>5. <u>Select unit to be restricted.</u></p> <p>6. <u>Select OK.</u></p> | <p>Select Unit window opens in Select mode.</p>

<p>Edit Mortar Restrictions window opens.</p> |
|---|--|



Mortar Restrictions Procedure - CONT

Step	Action	Response
7.	<u>Select shells</u> to restrict.	
8.	<u>Select fuzes</u> to restrict.	
9.	Enter Max Volleys: (0-200 or blank).	
10.	Enter Max Fire Units/Tgt: (1-20 or blank).	
11.	<u>Select OK</u> .	End of Add... unit function. Edit Mortar Restrictions window closes.
12.	<u>Return to note prior to step 4</u> to perform other functions.	
13.	<u>Select unit</u> to remove.	
14.	<u>Select Remove</u> .	Unit is removed from list. End of Remove unit function.
15.	<u>Return to note prior to step 2</u> to perform other functions.	
16.	Select unit to edit restrictions.	
17.	<u>Select Edit</u> .	Edit Mortar Restrictions window opens.

Mortar Restrictions Procedure - CONT

Step	Action	Response
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18.	<u>Edit restrictions</u> as in steps 7 thru 10.	End of Edit unit restrictions function.
19.	<u>Select OK</u> .	Edit Mortar Restrictions window closes.
20.	<u>Return to note prior to step 4</u> to perform other functions.	

3-34 ROCKET/MISSILE GUIDANCE.

This guidance specifies the rocket/missile munition and quantity for each target type.

3-34.1 Rocket/Missile Guidances Window Navigation

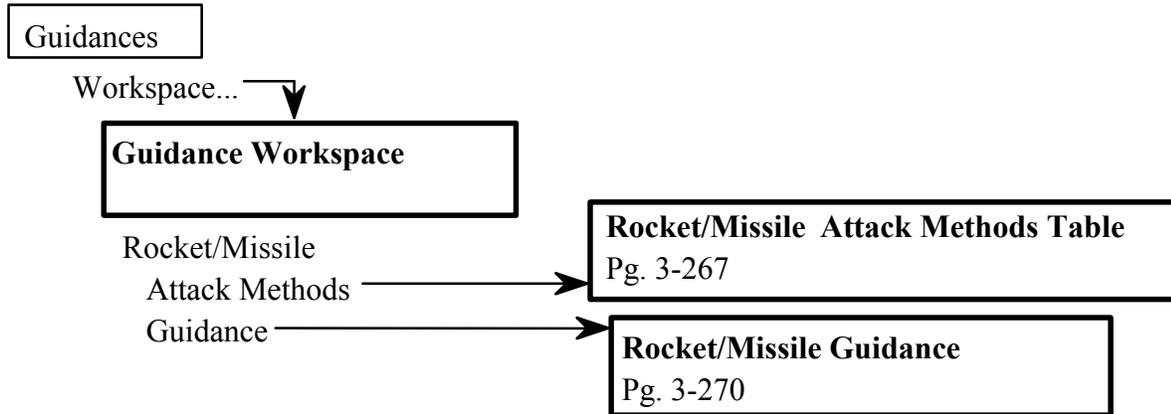


Figure 3.57 Rocket/Missile Guidance Navigation

3-34.2 Rocket/Missile Attack Methods Table Window.

The **Rocket/Missile Attack Methods Table** window (Figure 3.58) specifies information on use of rocket/missile munitions against specific targets in order to create plan-specific attack method. The user selects **Munition** type and enters the **Number** of this munition to be used. **Target Types** are updated when a different **Target Category:** is selected.

In the Current situation, **Send...** is for sending Rocket/Missile Attack Methods to selected unit(s).

Figure 3.58 Rocket/Missile Attack Methods Table Window

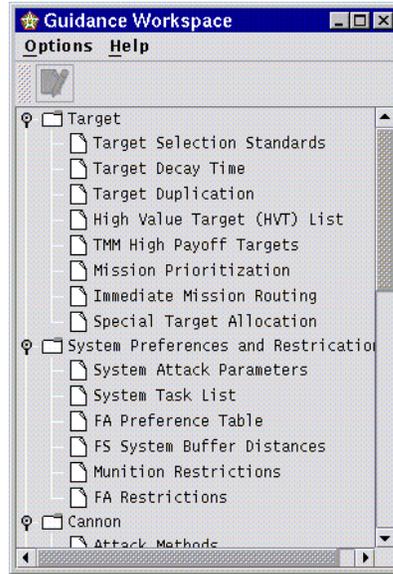
3-34.3 Rocket/Missile Attack Methods Table Procedure.

Rocket/Missile Attack Methods Table Procedure

Step	Action	Response
1.	Select <u>Guidances\Workspace...</u>	Guidance Workspace window opens.

Rocket/Missile Attack Methods Table Procedure - CONT

Step	Action	Response
------	--------	----------



2. Select Rocket/Missile\Attack Methods
guidance type.

3. Select Options>Edit
or
double-click selection.

Rocket/Missile Attack Methods Table
window opens.

NOTE

Selecting **OK** at any time closes window saving changes made. The **Send...** button opens the **Send To** window. This window allows the user to select a unit(s) and/or distribution list(s) to as a destination(s) for the data selected in the **Target Category:** field.

4. Select Target Category:

Target Type list updates.

Rocket/Missile Attack Methods Table Procedure - CONT

Step	Action	Response
5.	<u>Select Munition</u> for a Target Type .	
6.	<u>Enter Number</u> of munitions for a Target Type .	
7.	<u>Repeat steps 5 and 6</u> to complete each Target Type .	
8.	<u>Repeat steps 4 thru 7</u> to complete each Target Category .	
9.	<u>Select OK</u> .	Rocket/Missile Attack Methods Table window closes.

3-34.4 Rocket Missile Guidance Window.

With Technical Fire Direction (TFD), the **Rocket Missile Guidance** (Figure 3.59) has been expanded to include additional data. The **Plan:**, **Phase:**, and **COA:** fields are used only during the planning function to display the Plan, Phase, and COA being constructed and are view only.

The **Self Destruct Code (1-6):** is the code used to destruct the munition in-flight. The **Time between Rnds (sec):** is used to enter the time interval between rounds fired from the same launcher. The **Dwell Time (min):** is the maximum time that a launcher may remain at the firing point after completing a fire mission.

If the Rocket/Missile Guidance Multiple Missions check box is not enabled the launcher should only be allowed to fire a single mission from the current firing point. AFATDS checks to determine if dwell time start is set to an actual time. If so, this indicates that a fire mission has been sent to the launcher and precludes an additional mission from this point. The next available firing point is assigned. If dwell time start has not been set, the launcher has not been assigned a mission and can thus use the current firing point.

If the **Rocket/Missile Guidance Multiple Missions** check box *is* enabled and if dwell time start has not been set, the launcher has not been assigned a mission and can thus use the current firing point. If the current time is less than or equal to dwell time start, it is assumed that the launcher has time to at least receive the next fire order on the same firing point. The time necessary to complete the assigned mission is incremented by two minutes to represent the firing of the new mission. If this value is less than or equal to the dwell time start plus the dwell time, the current firing point may be assigned if the uploaded munitions are capable of firing the mission. If the uploaded munitions are not capable, the next available firing point is selected.

The **High QE Authorized** checkbox indicates whether or not launchers are authorized to fire using high QE's. The **Allow Multiple Missions**, when selected, allows AFATDS to consider multiple missions from a firing point. Multiple missions can only be considered if the dwell time at the point will not be exceeded.

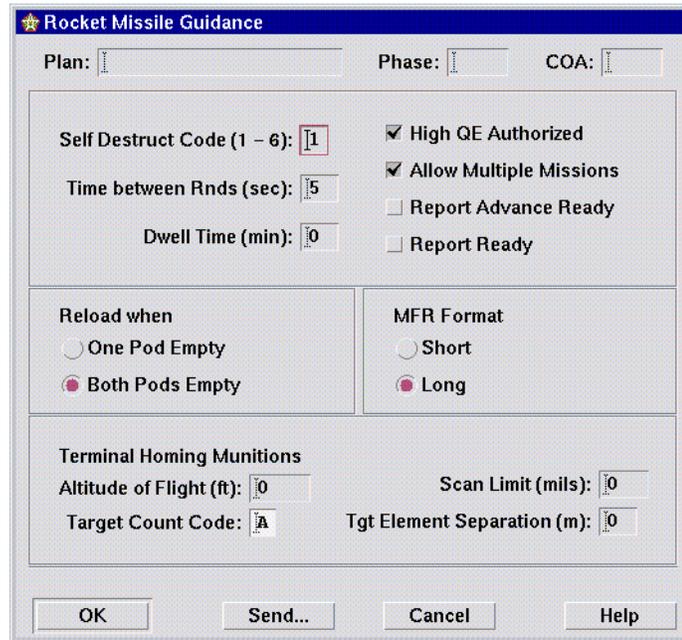


Figure 3.59 Rocket/Missile Guidance Window

The **Report Advance Ready** and **Report Ready** checkboxes, when checked, request the firing unit to report advance ready and/or ready after receiving a CFF.

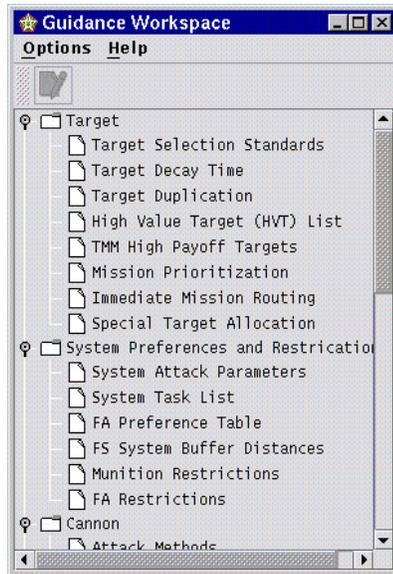
The **Reload when** guidance determines when AFATDS will sent a launcher to a reload point. The launcher will be instructed to reload for either a **One Pod Empty** or **Both Pods Empty** condition. The **MFR Format** guidance is used to instruct the launcher to use a **Short** or **Long** format for a MFR report.

The **Terminal Homing Munitions** guidances include the **Altitude of Flight (ft):**, **Target Count Code:**, **Scan Limits (mils):**, and **Tgt Element Separation (m):**.

3-34.5 MLRS Guidance Procedure.

MLRS Guidance Procedure

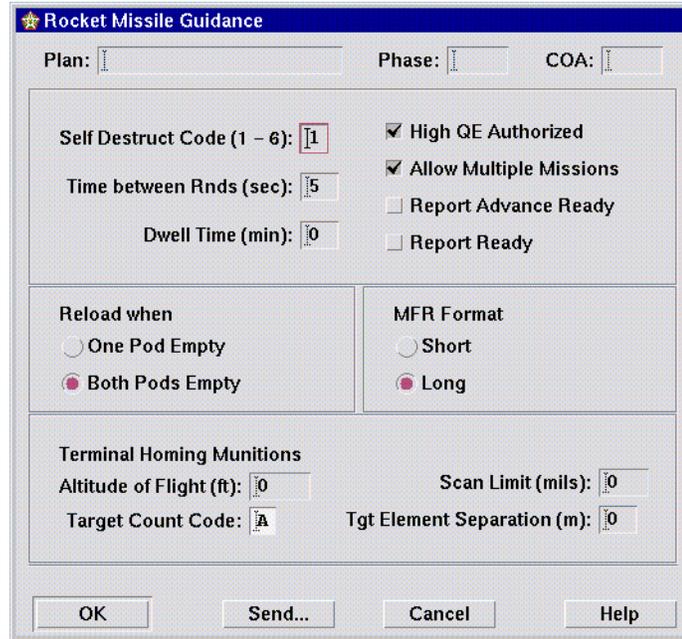
Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



2.	<u>Select Rocket/Missile\Guidance guidance type.</u>	
3.	<u>Select Options\Edit</u>	Rocket Missile Guidance window opens.
	or	
	double-click selection.	

MLRS Guidance Procedure - CONT

Step	Action	Response
------	--------	----------



4. **Enter Self Destruct Code (1 - 6):.**
5. **Enter Time Between Rnds (sec):** (5 - 99, optional).
6. **Enter Dwell Time (min):** (0 - 99, optional).
7. **Select High QE Authorized** if applicable.
8. **Select Allow Multiple Missions** if applicable.
9. **Select Report Advance Ready** if applicable.
10. **Select Report Ready** if applicable.
11. **Select Reload when** one or both pods empty.
12. **Select MFR Format** of Long or Short.
13. **Enter Altitude of Flight** for **Terminal Homing Munitions** (0 - 9999).

MLRS Guidance Procedure - CONT

Step	Action	Response
14.	<u>Enter Target Count Code for Terminal Homing Munitions (A - Z).</u>	
15.	<u>Enter Scan Limit (mils):</u>	
16.	<u>Enter Target Element Separation (m):</u>	
17.	<u>Select OK.</u>	Rocket Missile Guidance window closes.

3-35 **AVIATION GUIDANCE.**

The **Aviation** Guidance provides attack methods guidance for aviation (rotary wing) missions.

3-35.1 Aviation Attack Methods Table Guidance.

The **Aviation Attack Methods Table** guidance (Figure 3.60) specifies information on use of air munitions against specific targets. This guidance is not used unless a Air unit is an asset at the host unit.

The user selects **FIRST CHOICE** and **SECOND CHOICE Munition**, and enters number of **Rounds** for each **Target Type**. Target Types are updated when a different **Target Category:** is selected.

If a blank is selected to indicate no first **Munition** is specified, remaining **FIRST CHOICE** and **SECOND CHOICE** fields are disabled. If a blank is selected to indicate no second **Munition** is specified, second **Rounds** field is disabled.

In the Current situation, **Send...** is for sending air attack methods information to a selected unit(s).

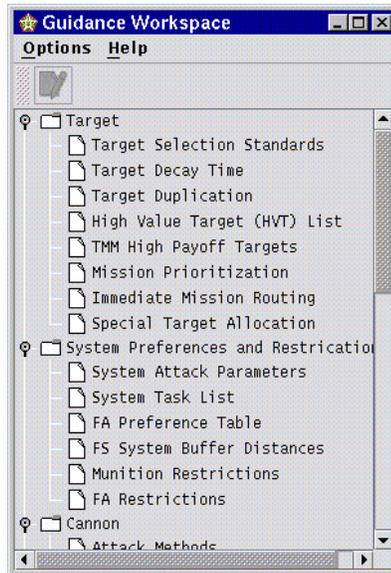
Figure 3.60 Aviation Attack Methods Table Window

3-35.2 Aviation Attack Methods Table Procedure.

Aviation Attack Methods Table Procedure		
Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.

Aviation Attack Methods Table Procedure - CONT

Step	Action	Response
------	--------	----------



2. Select **Aviation\Attack Methods** guidance type.

3. Select **Options>Edit**

or

double-click selection.

Aviation Attack Methods Table window opens.

Aviation Attack Methods Table Procedure - CONT

Step	Action	Response
------	--------	----------

Target Type	FIRST CHOICE		SECOND CHOICE	
	Munition	Rounds	Munition	Rounds
CP,Battalion	Rockets		Rockets	
CP,Division	Rockets		Rockets	
CP,Forward	Rockets		Rockets	
CP,Regiment	Rockets		Rockets	
CP,Small	Rockets		Rockets	
CP,Unknown	Rockets		Rockets	
Guidance Equipment	Rockets		Rockets	
Navigation Aids	Rockets		Rockets	

NOTE

Selecting **OK** at any time closes window saving changes made.

- | | |
|---|---|
| <ol style="list-style-type: none"> 4. <u>Select Target Category:</u> 5. <u>Select first Munition.</u> 6. <u>Enter first Rounds number</u> (0-999 or blank). 7. <u>Select second Munition.</u> | <p>Target Type list updates.</p> |
|---|---|

Aviation Attack Methods Table Procedure - CONT

Step	Action	Response
8.	<u>Enter second Rounds number</u> (0-999 or blank).	
9.	<u>Repeat steps 5 thru 8</u> to complete each Target Type .	
10.	<u>Repeat steps 4 thru 9</u> to complete each Target Category .	
11.	<u>Select OK</u> .	Aviation Attack Methods Table window closes.

3-36 **AIR SUPPORT GUIDANCES.**

Air Support Guidance provides attack methods guidance for air (fixed wing) missions.

3-36.1 Air Attack Methods Table Guidance.

The **Air Attack Methods Table** (Figure 3.61) guidance specifies information on use of air munitions against specific targets. This guidance is not used unless a Air unit (fixed wing) is an asset at the host unit.

The user selects **FIRST CHOICE** and **SECOND CHOICE Munition**, and enters number of **Rounds** for each **Target Type**. Target Types are updated when a different **Target Category** is selected.

If a blank is selected to indicate no first **Munition** is specified, remaining **FIRST CHOICE** and **SECOND CHOICE** fields are disabled. If a blank is selected to indicate no second **Munition** is specified, second **Rounds** field is disabled.

In the Current situation, **Send...** is for sending air attack methods information to a selected unit(s).

Air Attack Methods Table

Plan: Phase: COA:

Target Category:

Target Type	FIRST CHOICE		SECOND CHOICE	
	Munition	Rounds	Munition	Rounds
CP, Battalion	<input type="text" value="Rockets"/>	<input type="text"/>	<input type="text" value="Rockets"/>	<input type="text"/>
CP, Division	<input type="text" value="Rockets"/>	<input type="text"/>	<input type="text" value="Rockets"/>	<input type="text"/>
CP, Forward	<input type="text" value="Rockets"/>	<input type="text"/>	<input type="text" value="Rockets"/>	<input type="text"/>
CP, Regiment	<input type="text" value="Rockets"/>	<input type="text"/>	<input type="text" value="Rockets"/>	<input type="text"/>
CP, Small	<input type="text" value="Rockets"/>	<input type="text"/>	<input type="text" value="Rockets"/>	<input type="text"/>
CP, Unknown	<input type="text" value="Rockets"/>	<input type="text"/>	<input type="text" value="Rockets"/>	<input type="text"/>
Guidance Equipment	<input type="text" value="Rockets"/>	<input type="text"/>	<input type="text" value="Rockets"/>	<input type="text"/>
Navigation Aids	<input type="text" value="Rockets"/>	<input type="text"/>	<input type="text" value="Rockets"/>	<input type="text"/>

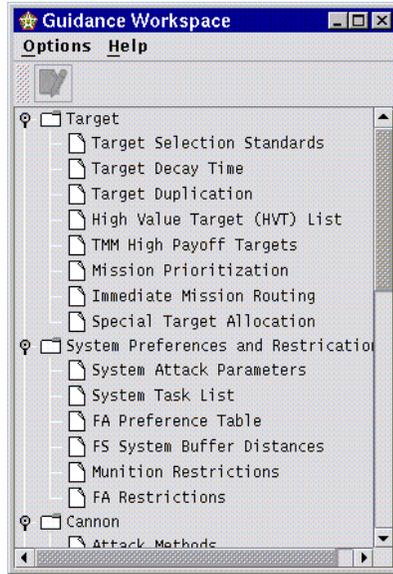
OK Cancel Send... Help

Figure 3.61 Air Attack Methods Table Window

3-36.2 Air Attack Methods Table Procedure.

Air Attack Methods Table Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



2.	<u>Select Air Support\Attack Methods</u> guidance type.	
3.	<u>Select Options>Edit</u> or double-click selection.	Air Attack Methods Table window opens.

Air Attack Methods Table Procedure - CONT

Step	Action	Response
------	--------	----------

Target Type	FIRST CHOICE		SECOND CHOICE	
	Munition	Rounds	Munition	Rounds
CP,Battalion	Rockets		Rockets	
CP,Division	Rockets		Rockets	
CP,Forward	Rockets		Rockets	
CP,Regiment	Rockets		Rockets	
CP,Small	Rockets		Rockets	
CP,Unknown	Rockets		Rockets	
Guidance Equipment	Rockets		Rockets	
Navigation Aids	Rockets		Rockets	

NOTE

Selecting **OK** at any time closes window saving changes made.

- | | |
|---|---|
| <ol style="list-style-type: none"> 4. <u>Select Target Category:</u> 5. <u>Select first Munition.</u> 6. <u>Enter first Rounds number</u> (0-999 or blank). 7. <u>Select second Munition.</u> | <p>Target Type list updates.</p> |
|---|---|

Air Attack Methods Table Procedure - CONT

Step	Action	Response
8.	<u>Enter second Rounds number</u> (0-999 or blank).	
9.	<u>Repeat steps 5 thru 8</u> to complete each Target Type .	
10.	<u>Repeat steps 4 thru 9</u> to complete each Target Category .	
11.	<u>Select OK</u> .	Air Attack Methods Table window closes.

3-37 NAVAL SURFACE FIRE SUPPORT GUIDANCES.

The Naval Surface Fire Support Guidance provides attack methods guidance and restrictions for naval missions.

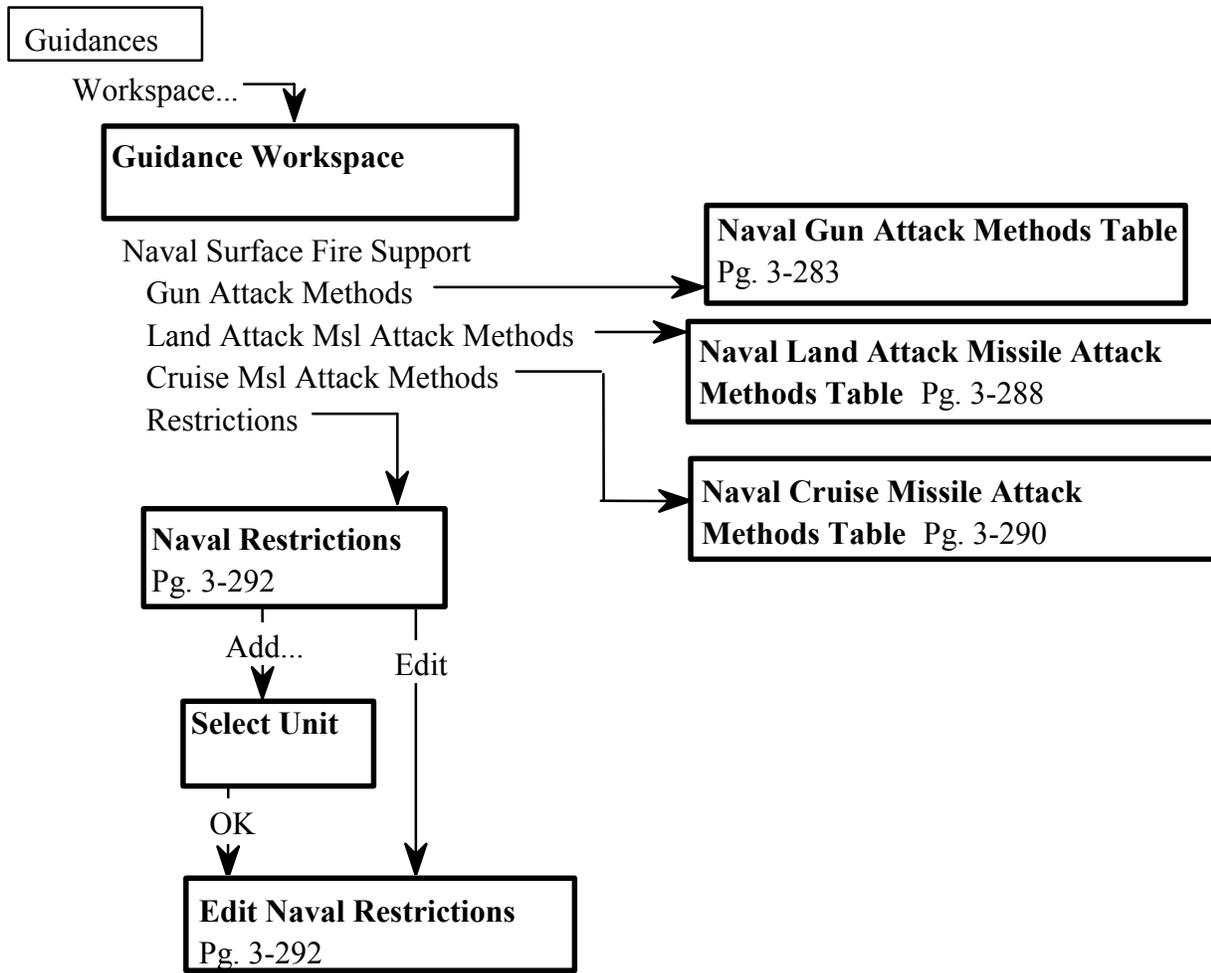


Figure 3.62 Naval Surface Fire Support Guidance Navigation

3-37.1 Naval Gun Attack Methods Guidance.

The **Naval Gun Attack Methods Table** guidance specifies information on use of naval gunfire munitions against specific targets. This guidance is not used unless a naval unit is an asset at the host unit. The user selects **First** and **Second Choice Munition**, **Fuze**, and **Qty** of munitions for each **Target Type**. **Target Type** list is updated when a different **Target Category**: is selected.

If a blank is selected to indicate no **First Choice**, remaining **First Choice** and **Second Choice** fields are disabled.

If a blank is selected to indicate no **Second Choice**, remaining **Second Choice** fields are disabled.

In the Current situation, **Send...** is for sending Naval Gun Attack Methods information to a selected unit(s).

Naval Gun Attack Methods Table

Plan: Phase: COA:

Target Category:

Target Type	First Choice			Second Choice		
	Munition	Fuze	Qty	Munition	Fuze	Qty
CP, Battalion	DPICM <input type="text"/>	Time <input type="text"/>	<input type="text" value="12"/>	HE <input type="text"/>	PD <input type="text"/>	<input type="text" value="16"/>
CP, Division	DPICM <input type="text"/>	Time <input type="text"/>	<input type="text" value="16"/>	HE <input type="text"/>	PD <input type="text"/>	<input type="text" value="32"/>
CP, Forward	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CP, Regiment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CP, Small	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CP, Unknown	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Guidance Equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Navigation Aids	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

OK Cancel Send... Help

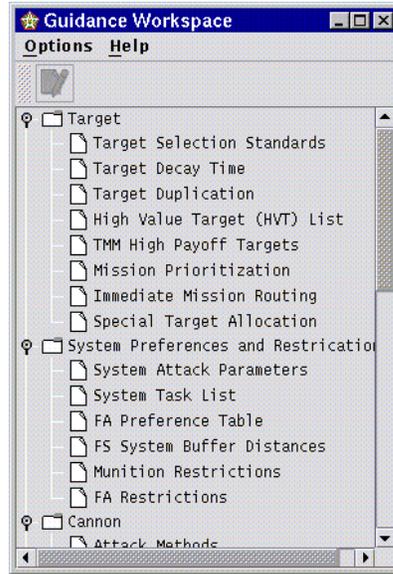
Figure 3.63 Naval Gun Methods Table Window

3-37.2 Naval Gun Attack Methods Procedure.

Naval Gun Attack Methods Procedure		
Step	Action	Response
1.	Select <u>Guidances\Workspace....</u>	Guidance Workspace window opens.

Naval Gun Attack Methods Procedure - CONT

Step	Action	Response
------	--------	----------



2. Select Naval Surface Fire Support\Gun Attack Methods guidance type.

3. Select Options>Edit
or
double-click selection.

Naval Gun Attack Methods Table window opens.

Naval Gun Attack Methods Procedure - CONT

Step	Action	Response
------	--------	----------

Target Type	First Choice			Second Choice		
	Munition	Fuze	Qty	Munition	Fuze	Qty
CP, Battalion	DPICM	Time	12	HE	PD	16
CP, Division	DPICM	Time	16	HE	PD	32
CP, Forward						
CP, Regiment						
CP, Small						
CP, Unknown						
Guidance Equipment						
Navigation Aids						

NOTE

Selecting **OK** at any time closes window saving changes made.

- | | |
|--|---|
| <ol style="list-style-type: none"> 4. <u>Select Target Category:</u> 5. <u>Select first Munition.</u> 6. <u>Select first Fuze.</u> | <p>Target Type list updates.</p> |
|--|---|

Naval Gun Attack Methods Procedure - CONT

Step	Action	Response
7.	<u>Enter first Qty number</u> (0-999 or blank).	
8.	<u>Select second Munition.</u>	
9.	<u>Select second Fuze.</u>	
10.	<u>Enter second Qty number</u> (0-999 or blank).	
11.	<u>Repeat steps 5 thru 10</u> to complete each Target Type .	
12.	<u>Repeat steps 4 thru 11</u> to complete each Target Category ..	
13.	<u>Select OK.</u>	NSFS Attack Methods Table window closes.

3-37.3 Naval Land Attack Missile Attack Methods Guidance.

The **Naval Land Attack Missile Attack Methods** guidance specifies information on use of naval land attack missiles against specific targets. This guidance is not used unless a naval unit is an asset at the host unit. The user selects **Munition** and **Number** of munitions for each **Target Type**. **Target Type** list is updated when a different **Target Category:** is selected.

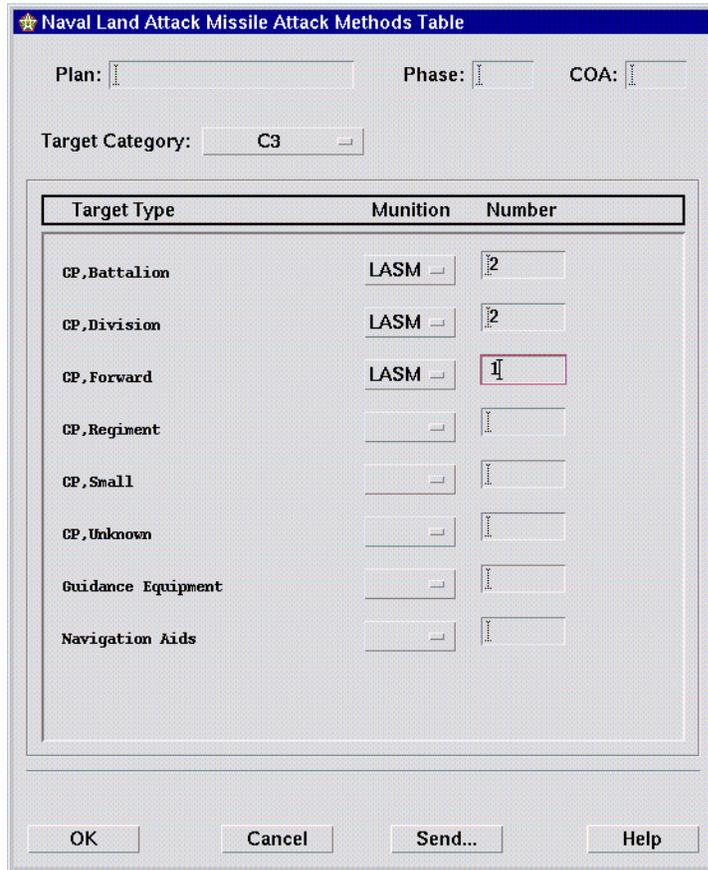


Figure 3.64 Naval Land Missile Attack Methods Table Window

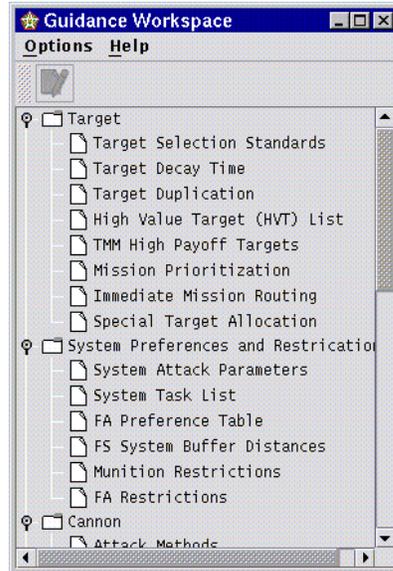
3-37.4 Naval Land Attack Missile Attack Methods Procedure.

Naval Land Attack Missile Attack Methods Procedure

Step	Action	Response
1.	Select <u>Guidances\Workspace...</u>	Guidance Workspace window opens.

Naval Land Attack Missile Attack Methods Procedure - CONT

Step	Action	Response
------	--------	----------



2.	Select <u>Naval Surface Fire Support\Naval Land Atk Msl Attack Methods</u> guidance type.	
3.	Select <u>Options>Edit</u> or double-click selection.	Naval Land Attack Missile Attack Methods Table window opens.
4.	Select <u>Target Category:</u> .	Target Type list updates.
5.	Select <u>Munition</u> for Target Type.	
6.	Enter <u>Number</u> of munitions for Target Type.	
7.	Repeat steps 5 thru 6 to complete each Target Type .	
8.	Repeat steps 4 thru 7 to complete each Target Category: .	
9.	Select <u>OK</u> .	

3-37.5 Naval Cruise Missile Attack Methods Guidance.

The **Naval Cruise Missile Attack Methods** guidance specifies information on use of naval cruise missiles against specific targets. This guidance is not used unless a naval unit is an asset at the host unit. The user selects **Munition** and **Number** of munitions for each **Target Type**. **Target Type** list is updated when a different **Target Category**: is selected.

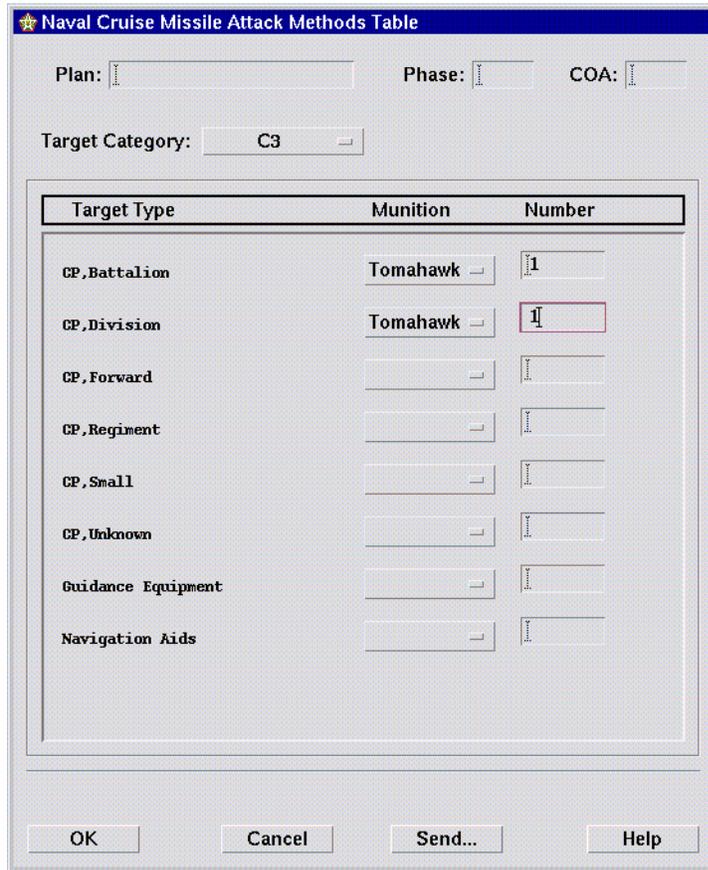


Figure 3.65 Naval Cruise Missile Attack Methods Table Window

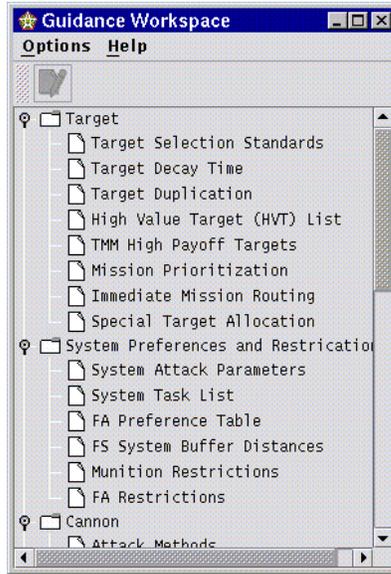
3-37.6 Naval Cruise Missile Attack Methods Procedure.

Naval Cruise Missile Attack Methods Procedure

Step	Action	Response
1.	Select <u>Guidances\Workspace...</u>	Guidance Workspace window opens.

Naval Cruise Missile Attack Methods Procedure - CONT

Step	Action	Response
------	--------	----------



2.	<u>Select Naval Surface Fire Support\Naval Cruise Msl Attack Methods</u> guidance type.	
3.	<u>Select Options>Edit</u> or double-click selection.	Naval Cruise Missile Attack Methods Table window opens.
4.	<u>Select Target Category:</u> .	Target Type list updates.
5.	<u>Select Munition</u> for Target Type.	
6.	Enter Number of munitions for Target Type.	
7.	<u>Repeat steps 5 and 6</u> to complete each Target Type .	
8.	<u>Repeat steps 4 thru 7</u> to complete each Target Category: .	
9.	<u>Select OK.</u>	

3-37.7 Naval Restrictions Guidance.

The **Naval Restrictions** guidance window contains a list of all units with mortar restrictions and provides access to the **Edit Mortar Restrictions** window where restrictions are set.

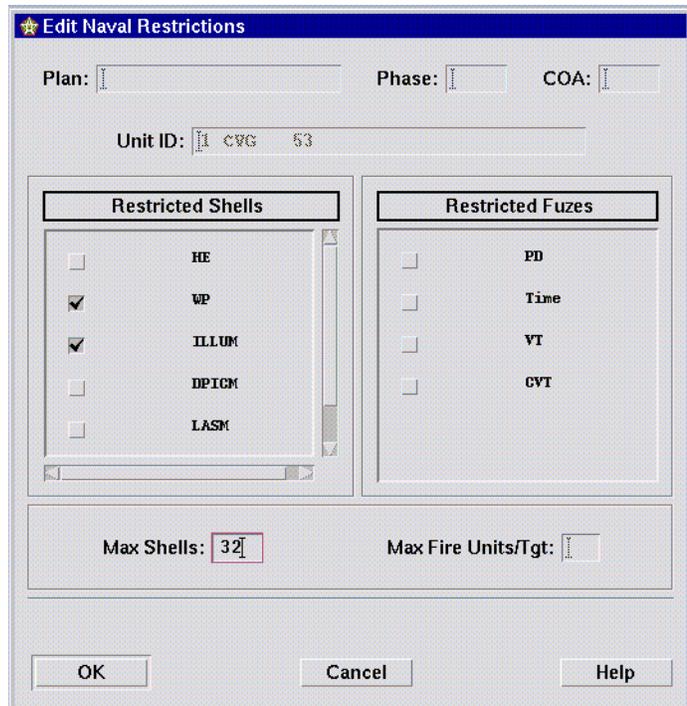
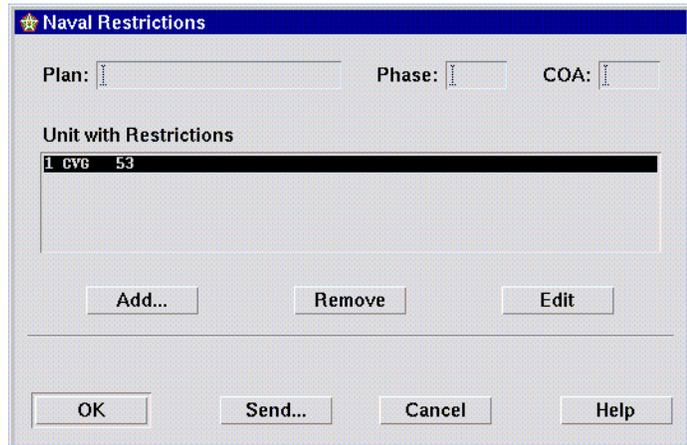
Add... opens the **Select Unit** window for selecting a Unit ID to be added to the **Unit with Restrictions** list. Selecting a unit and **OK** on the **Select Unit** window opens the **Edit Naval Restrictions** window with no initial restrictions associated with the unit.

The user selects the check boxes for **Restricted Shells** and **Restricted Fuzes** which the unit is restricted from using to attack any target. **Max Volleys:** is the maximum number of volleys which a mortar unit can fire at a single target. The legal entry is 0-200. **Max Fire Units/Tgt:** is the maximum number of mortar units that can attack any target. The legal entry is 1-20. A blank field indicates no restrictions. **Max Volleys:** is used to determine if more than one fire unit is required to achieve desired damage levels. **Max Fire Units/Tgt:** may be a constraint in developing capable massed unit attack options (when less than the number available).

A unit may be removed from the **Mortar Restrictions** window by selecting the unit and **Remove**.

Selecting a unit and **Edit** opens the **Edit Mortar Restrictions** window for editing.

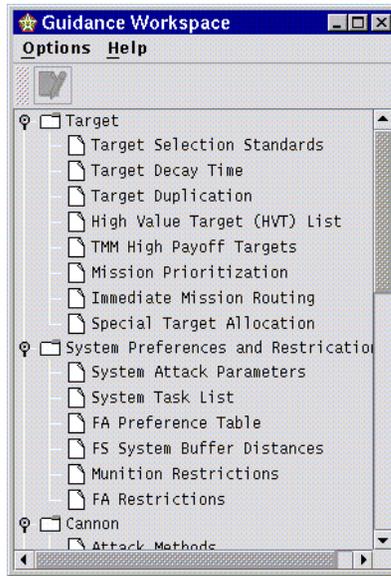
In the Current situation, **Send...** is for sending mortar restriction information to a selected unit(s).



3-37.8 Naval Restrictions Procedure.

Naval Restrictions Procedure

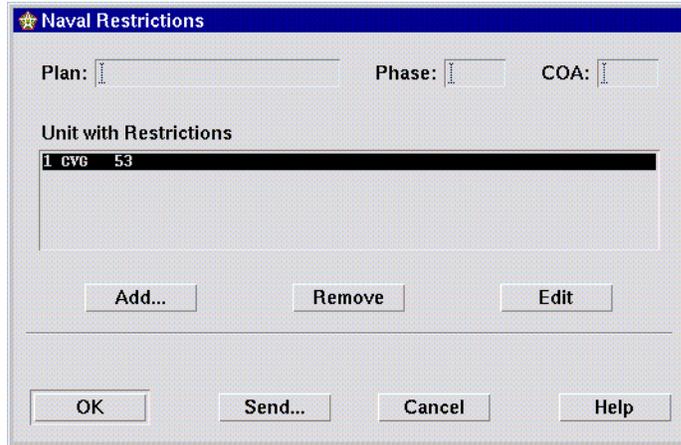
Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



2.	<u>Select Naval Surface Fire Support\Restrictions</u> guidance type.	
3.	<u>Select Options\Edit</u> or double-click selection.	Naval Restrictions window opens.

Naval Restrictions Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes window saving changes made.

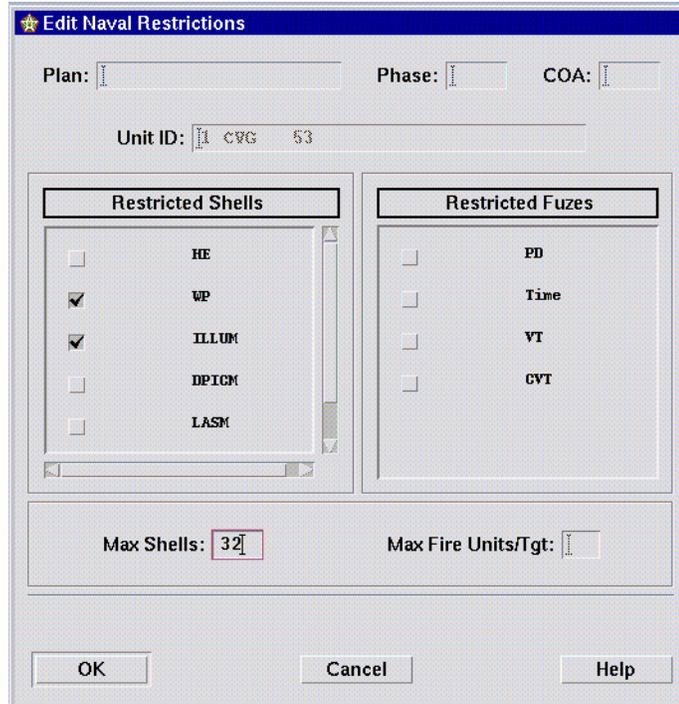
To perform following **Naval Restrictions** functions, proceed to indicated steps.

- Add units and select restrictions step 4
- Remove units step 13
- Edit existing unit restrictions step 16

4.	<u>Select Add...</u>	Select Unit window opens in Select mode.
5.	<u>Select unit</u> to be restricted.	
6.	<u>Select OK</u> .	Edit Naval Restrictions window opens.

Naval Restrictions Procedure - CONT

Step	Action	Response
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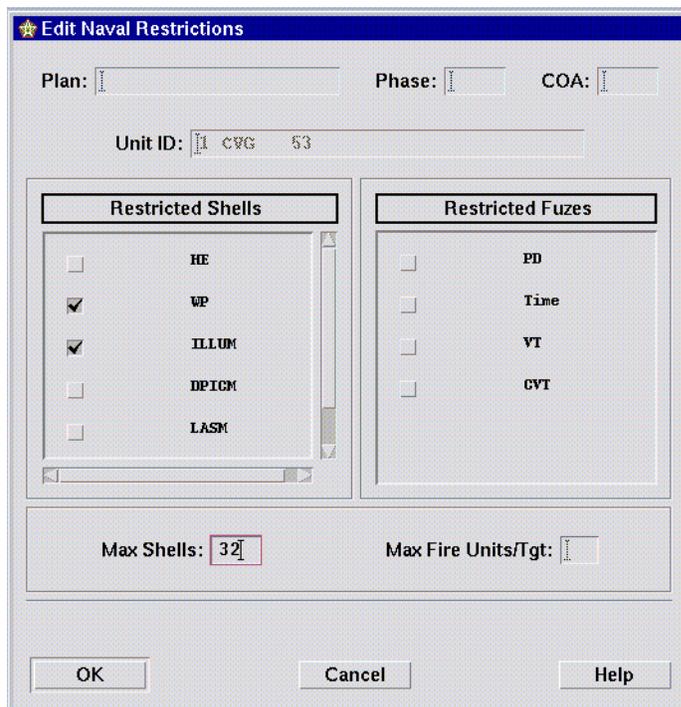
7. Select shells to restrict.
8. Select fuzes to restrict.
9. Enter **Max Volleys:** (0-200 or blank).
10. Enter **Max Fire Units/Tgt:** (1-20 or blank).
11. Select **OK.**
12. Return to note prior to step 4 to perform other functions.
13. Select **unit** to remove.
14. Select **Remove.**

End of **Add...** unit function. **Edit Naval Restrictions** window closes.

Unit is removed from list. End of **Remove** unit function.

Naval Restrictions Procedure - CONT

Step	Action	Response
15.	<u>Return to note prior to step 4</u> to perform other functions.	
16.	Select unit to edit restrictions.	
17.	<u>Select Edit.</u>	Edit Naval Restrictions window opens.



18.	<u>Edit restrictions</u> as in steps 7 thru 10.	
19.	<u>Select OK.</u>	Edit Naval Restrictions window closes.
20.	<u>Return to note prior to step 4</u> to perform other functions.	

3-38 MET AND SURVEY GUIDANCES.

MET and Survey guidances are accessed from the **Guidance Workspace** window accessed via the **Guidances\Workspace...** pull-down menu on the Main Menu bar.

3-38.1 MET Units Window.

The **Met Units** window contains information pertaining to Meteorological (MET) operations. This window maintains a list of all MET Units and provides access to the **Edit MET Guidance** window where MET information is entered for an individual unit. The MET guidance does not affect mission processing, but may be used as a guide for monitoring MET Unit performance.

Add... opens the **Select Unit** window for selecting a unit to be added to the **MET Unit ID** list. Selecting a unit and **OK** on the **Select Unit** window opens the **Edit MET Guidance** window for entering guidance information.

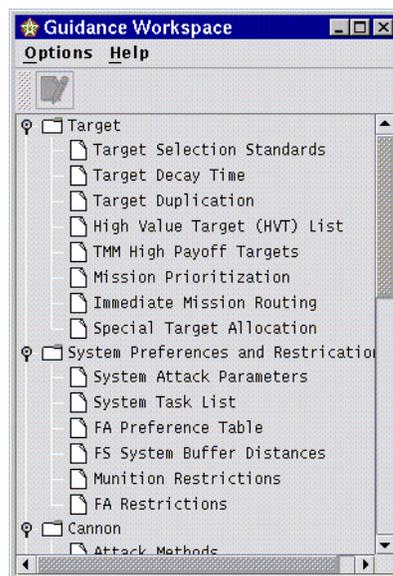
In the Planned situation, the **Edit MET Guidance** window, **Plan:** name, **Phase:** and **COA:** number, and **MET Unit ID:** are filled in. The user enters the **Max Altitude to Fly MET(ft):** and **Frequency to Fly MET(hrs):** to fly the MET balloon. The **For MET Type** is selected to indicate the type of MET message generated by the MET unit. Selection of a MET type updates the list of units receiving the MET message in the **Route To** list. **Add...** and **Remove** buttons maintain the **Route To** list.

Selecting a MET unit and **Edit** opens the **Edit Met Guidance** window for editing existing MET information. The window opens with the appropriate information filled in. A unit may be removed from the guidance by selecting the unit and **Remove**.

In the Current situation, **Send...** is for sending MET information to selected unit(s).

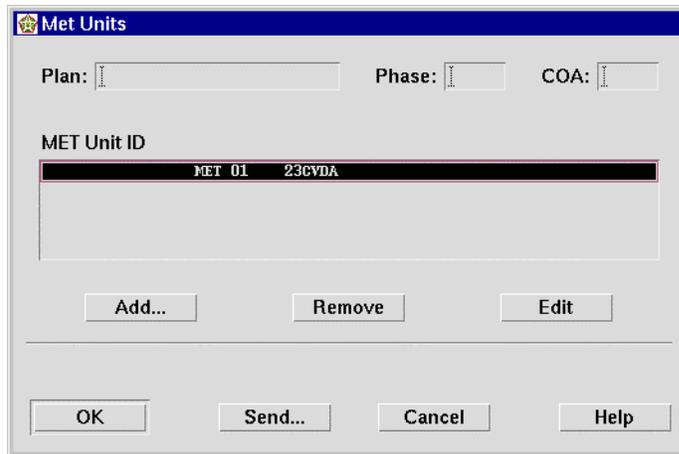
3-38.2 MET Units Procedure.

Met Units Procedure		
Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



Met Units Procedure - CONT

Step	Action	Response
2.	Select MET and Survey\MET Guidance guidance type.	MET Units window opens.
3.	Select Options>Edit or double-click selection.	



NOTE

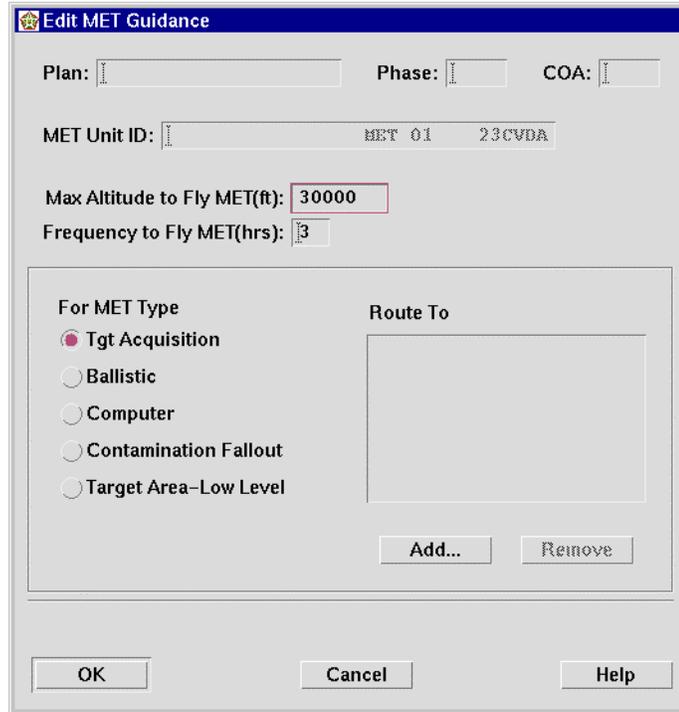
Selecting **OK** at any time closes window saving changes made. To perform following **MET Units** functions, proceed to indicated steps.

- Add MET unit step 4
- Remove MET unit step 19
- Edit MET information..... step 22

4.	Select Add...	Select Unit window opens in Select mode.
5.	Select unit.	
6.	Select OK .	Edit MET Guidance window opens for entering new MET Unit information.

Met Units Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes window saving changes made.

To perform following **MET Guidance** functions, proceed to indicated steps.

- Enter MET information step 7
- Add units to **Route To** list..... step 10
- Remove units from list..... step 15

7.	<u>Enter Max Altitude to Fly MET(ft)</u> (-999+99999 or blank).	
8.	<u>Enter Frequency to Fly MET(hrs)</u> (0-99 or blank).	End of enter MET information function.
9.	<u>Return to note prior to step 7</u> to perform other functions.	

Met Units Procedure - CONT

Step	Action	Response
10.	<u>Select For MET Type</u> indicating type of message generated by MET unit.	
11.	<u>Select Add...</u> .	Select Unit window opens in Select mode.
12.	<u>Select unit</u> to be added to Route To list.	
13.	<u>Select OK</u> .	Unit is returned to Edit MET Guidance window. End of Add... unit to Route To list function.
14.	<u>Return to note prior to step 7</u> to perform other functions.	
15.	<u>Select For MET Type</u> indicating type of message generated by MET unit.	Route To unit list updates.
16.	<u>Select Unit</u> to remove from Route To list.	
17.	<u>Select Remove</u> .	MET Unit is removed from Route To list. End of Remove unit function.
18.	<u>Return to note prior to step 2</u> to perform other functions.	
19.	<u>Select Unit</u> to remove from MET Unit ID list.	
20.	<u>Select Remove</u> .	Unit is removed from list. End of Remove MET Unit function.
21.	<u>Return to note prior to step 4</u> to perform other functions.	
22.	<u>Select MET Unit</u> to edit.	
23.	<u>Select Edit</u> .	Edit MET Guidance window opens as in step 6.
24.	<u>Edit MET information as required.</u> (See note prior to step 7 for functions).	

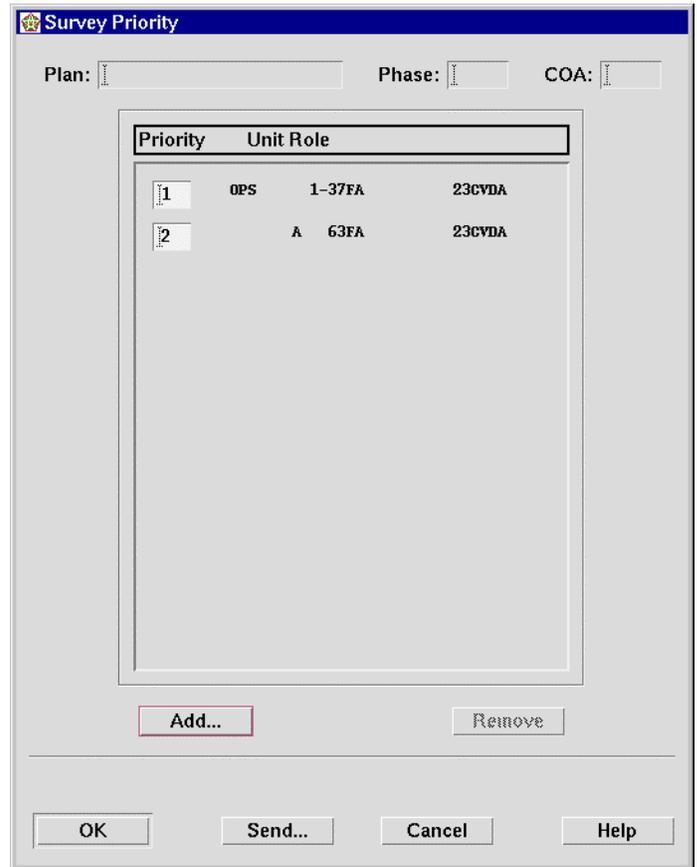
3-38.3 Survey Priority Window.

The **Survey Priority** window lists the units to receive survey support and specifies the priority order of these units. The Survey Guidance, when distributed within the FA support plan, provides information to survey elements, fire units, and sensors as to the priority order of the units to receive survey support. The Survey Guidance does not affect mission processing. Units are ranked by entering the priority value in the field adjacent to each unit in the **Unit Role** list to indicate the priority of the units to receive survey support. When initially displayed, units are sorted by the associated priority in ascending order. Units without priority assigned are placed at the end of the list. Two or more units may be ranked equally and priorities do not have to be entered in continuous order.

Priorities are adjusted to be in continuous order when **OK** or **Send...** is selected. For example, 1, 9, 7, 2 is adjusted to 1, 4, 3, 2. Adjusted values are displayed the next time this window is opened.

Add... opens the **Select Unit** window for selecting a unit to receive survey support. Selecting a unit and **Remove** removes the unit from the list. Up to 15 units may be in the **Unit** list.

In the Current situation, **Send...** is for sending survey priority information to selected unit(s).



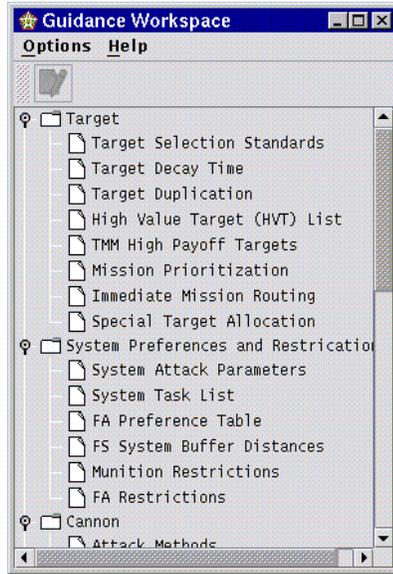
3-38.4 Survey Priority Procedure.

Survey Priority Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.

Survey Priority Procedure - CONT

Step	Action	Response
------	--------	----------



2. Select MET and Survey\Survey Guidance
guidance type.

3. Select Options>Edit

or

double-click selection.

Survey Priority window opens.

NOTE

Selecting **OK** at any time closes window saving changes made.

To perform following **Survey Priority** functions, proceed to indicated steps.

- Add units to unit list..... step 4
- Remove units from list..... step 8
- Rank units step 11

4. Select Add....

Select Unit window opens in Select mode.

Survey Priority Procedure - CONT

Step	Action	Response
5.	<u>Select unit.</u>	
6.	<u>Select OK.</u>	Unit is returned to Survey Priority window. End of Add... unit function.
7.	<u>Return to note prior to step 4</u> to perform other functions.	
8.	<u>Select Unit</u> to remove.	
9.	<u>Select Remove.</u>	Unit is removed from Unit list. End of Remove unit function.
10.	<u>Return to note prior to step 4</u> to perform other functions.	
11.	<u>Enter priority value for each Unit Role</u> (1-99).	End of Rank units function.
12.	<u>Return to note prior to step 4</u> to perform other functions.	

3-39 C3 AND LOGISTICS GUIDANCES NAVIGATION.

C3 and LOGISTICS guidances are accessed from the **Guidance Workspace** window accessed via the **Guidances\Workspace...** pull-down menu on the Main Menu bar.

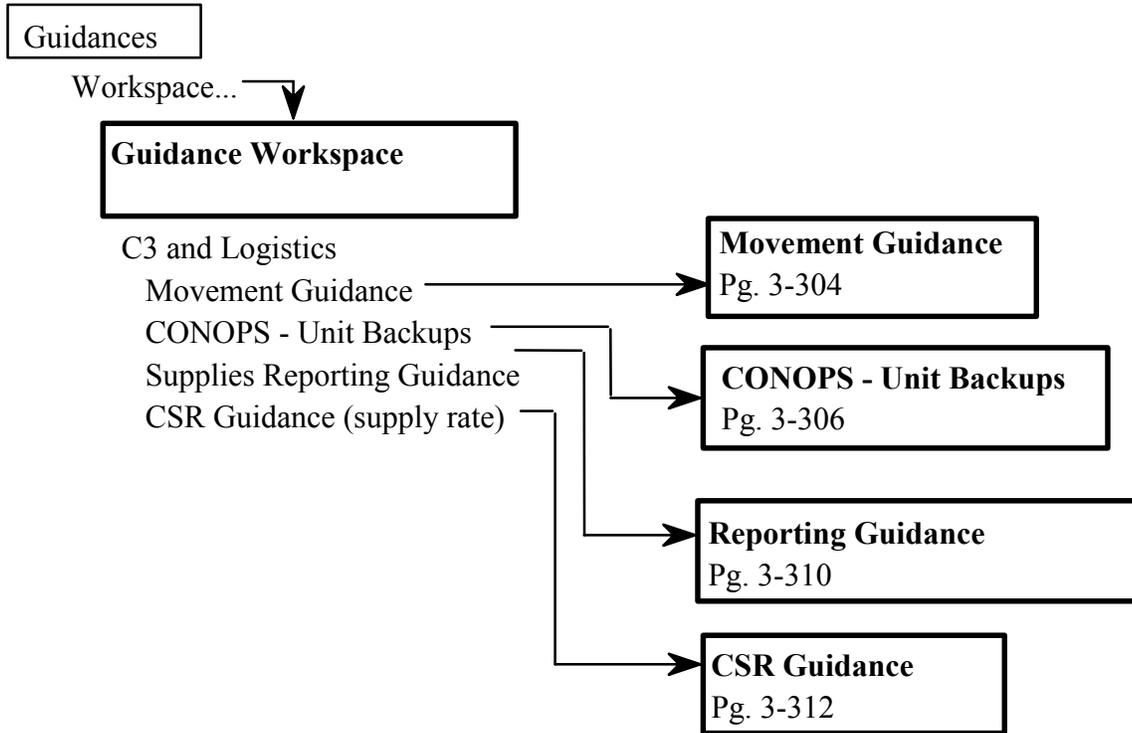


Figure 3.66 C3 And Logistics Guidance Navigation

3-39.1 Movement Guidance Window.

The **Movement Guidance** window specifies information on relative priorities which unit classes (sensors, fire units, Headquarters, etc.) have when competing for use of the same route segment during movement planning at the FA CP/FDC. When a route segment is needed by more than one unit at the same time, this priority ranking assists in the route deconfliction process. The Movement guidance does not affect mission processing, but may be referred to for resolution of unit movement routing conflicts.

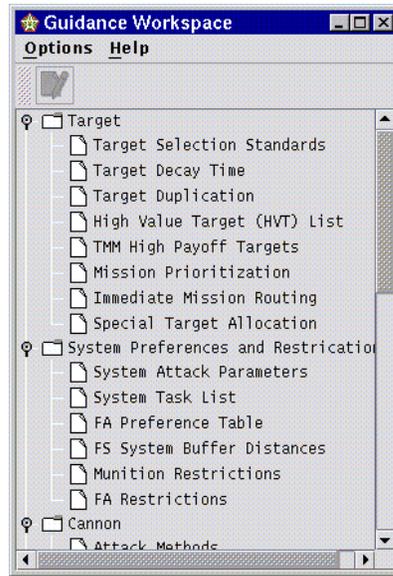
Unit role priority is entered in the **Priority** fields adjacent to each **Unit Role** to indicate the preference of the **Unit Role** to be moved when movement conflicts arise. **Priority** entries are 1-99, or blank to indicate no preference. When initially displayed, unit roles are sorted by the associated **Priority** in ascending order. Unit roles that have no priority assigned are placed at the end of the list. Two or more unit roles may be ranked equally and priorities do not have to be entered in continuous order. Priorities are adjusted to be in continuous order when **OK** or **Send...** is selected. For example, 1, 9, 7, 2 is adjusted to 1, 4, 3, 2. Adjusted values are displayed the next time this window is opened.

In the Current situation, **Send...** is for sending Movement Guidance information to selected unit(s).

3-39.2 Movement Guidance Procedure.

Movement Guidance Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



2. Select **C3 and Logistics\Movement Guidance** guidance type.

3. Select **Options\Edit**

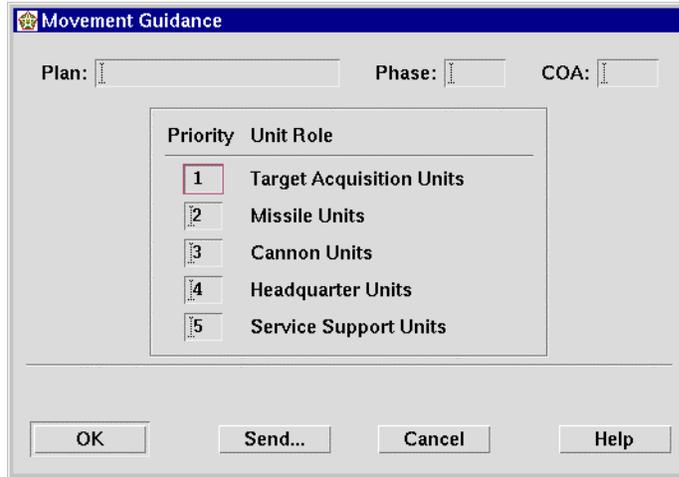
or

double-click selection.

Movement Guidance window opens.

Movement Guidance Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes window saving changes made.

4.	<u>Enter Priority value for each Unit Role (1-99 or blank).</u>	
5.	<u>Select OK.</u>	Movement Guidance window closes.

3-39.3 CONOPS - Unit Backups Window.

The **CONOPS - Unit Backups** window specifies OPFAC's and their primary and secondary backup units by Unit ID. The CONOPS guidance records primary and secondary backup units for planning or notebook purposes. This window does not affect the Unit's CONOPS setup.

Add... opens the **Select Unit** window for selecting OPFAC unit(s) which are added to the **Unit ID** list. A unit in the **Unit ID** list and associated backup units are removed by selecting the unit and **Remove**. **Primary** and **Secondary Backup** units are selected from pop-up menus. The pop-up menu item **Select...** also opens **Select Unit** window.

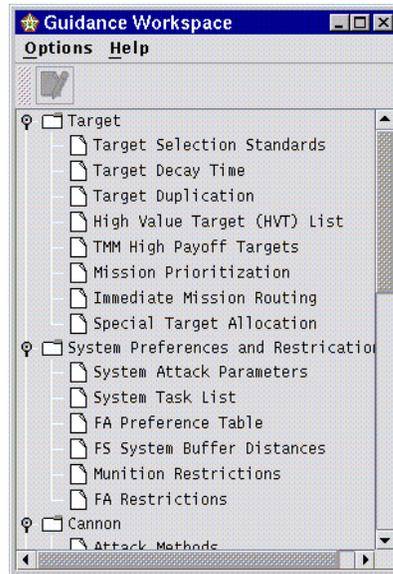
This guidance does not affect mission processing, but may be used to update Unit IDs on **General Unit Information** window. This in turn, impacts automatic data distribution which considers distribution to backup units.

In the Current situation, **Send...** is for sending CONOPS information to selected unit(s).

3-39.4 CONOPS - Unit Backups Procedure.

CONOPS - Unit Backups Procedure

Step	Action	Response
1.	<u>Select Guidances\Workspace...</u>	Guidance Workspace window opens.



2. Select **C3 and Logisitics\CONOPS - Unit Backups** guidance type.

3. Select **Options\Edit**

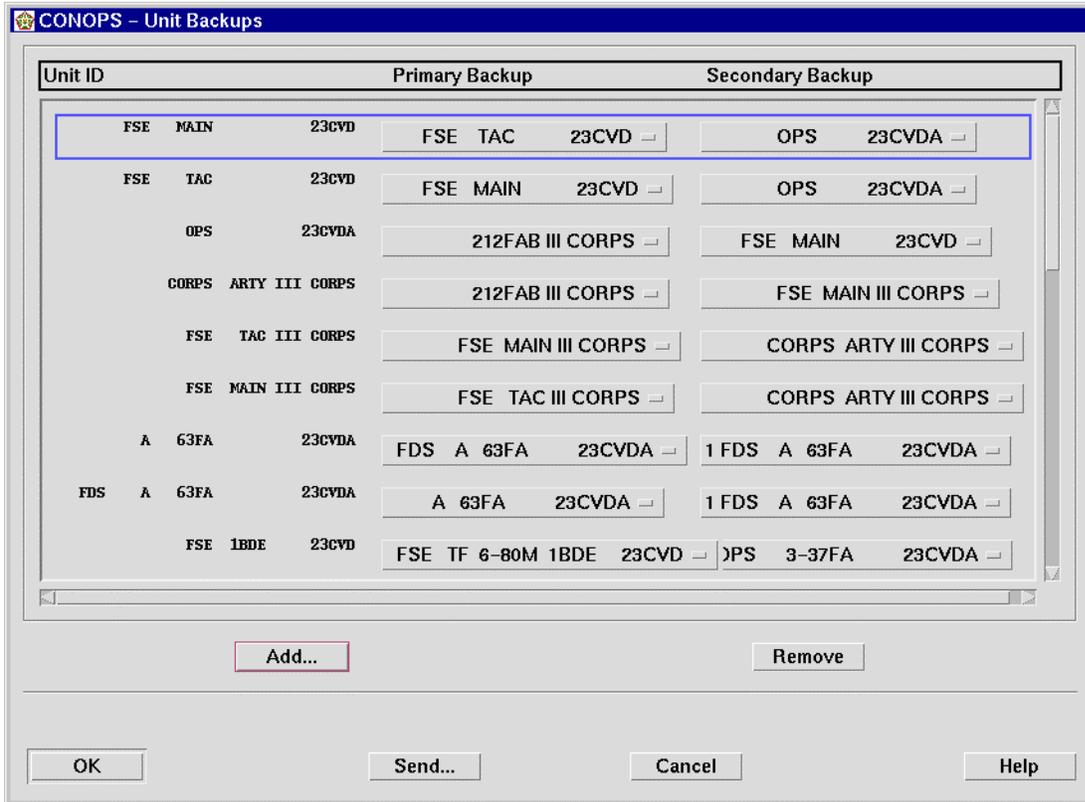
or

double-click selection.

CONOPS - Unit Backups window opens.

CONOPS - Unit Backups Procedure - CONT

Step	Action	Response
------	--------	----------



NOTE

Selecting **OK** at any time closes window saving changes made.

To perform following **CONOPS** functions, proceed to indicated steps.

- Add unit(s) to Unit ID list step 4
- Remove unit(s) from Unit ID list step 8
- Select Primary Backup and Secondary Backup units step 11

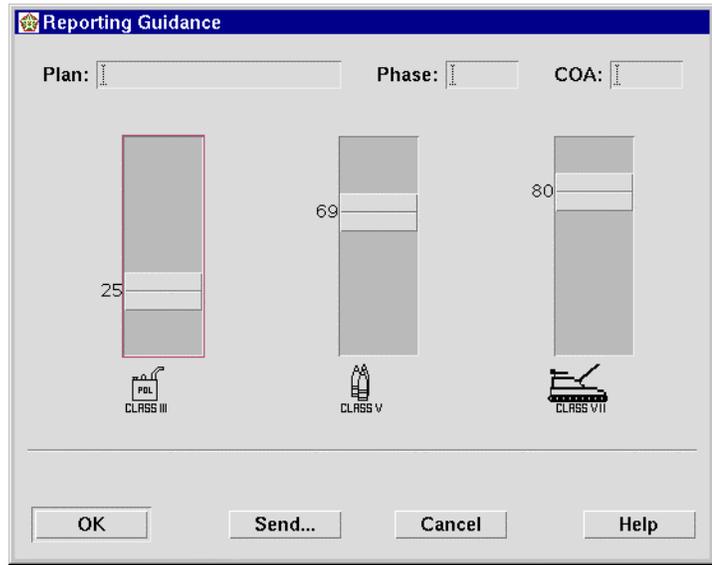
- | | | |
|----|-----------------------------|---|
| 4. | <u>Select Add...</u> | Select Unit window opens in Select mode. |
| 5. | <u>Select unit.</u> | |

CONOPS - Unit Backups Procedure - CONT

Step	Action	Response
6.	<u>Select OK.</u>	Select Unit window closes. Unit appears on CONOPS - Unit Backups window. End of Add... units function.
7.	<u>Return to note prior to step 4</u> to perform other functions.	
8.	<u>Select unit in Unit ID list</u> to remove.	
9.	<u>Select Remove.</u>	Unit ID and backup units are removed. End of Remove function.
10.	<u>Return to note prior to step 4</u> to perform other functions.	
11.	<u>Select Primary Backup Unit</u> for associated Unit ID .	Select Unit window opens.
12.	<u>Select unit.</u>	
13.	<u>Select OK.</u>	Select Unit window closes.
14.	<u>Select Secondary Backup Unit</u> for associated Unit ID .	Select Unit window opens.
15.	<u>Select unit.</u>	
16.	<u>Select OK.</u>	Select Unit window closes.
17.	<u>Repeat steps 11 thru 16 for each Unit ID.</u>	End of Select Primary and Secondary Backup Units function.
18.	<u>Return to note prior to step 4</u> to perform other functions.	

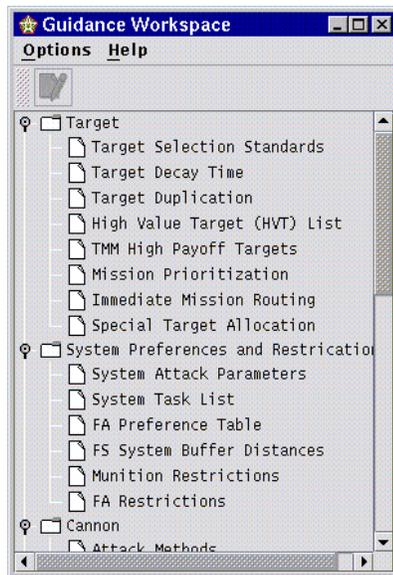
3-39.5 Reporting Guidance Window.

The **Reporting Guidance** window allows the user to edit the guidance for setting percentage levels for Class III, Class V, and Class VII supplies. Reporting guidance may be included in the FS plan as a guideline to be considered by the FA units using that plan. Percentage levels may vary by plan and may be manipulated in both planning and current roles. Reporting level is set by moving the percentage indicator to desired percentage level for each supply class. The indicator can be set by dragging or pressing the up and down arrows. Reporting guidance does not affect mission processing, but may be used as a guide to set threshold reporting criteria for unit status of equipment, POL, and munitions. In the Current situation, **Send...** is for sending Reporting guidance information to selected unit(s).



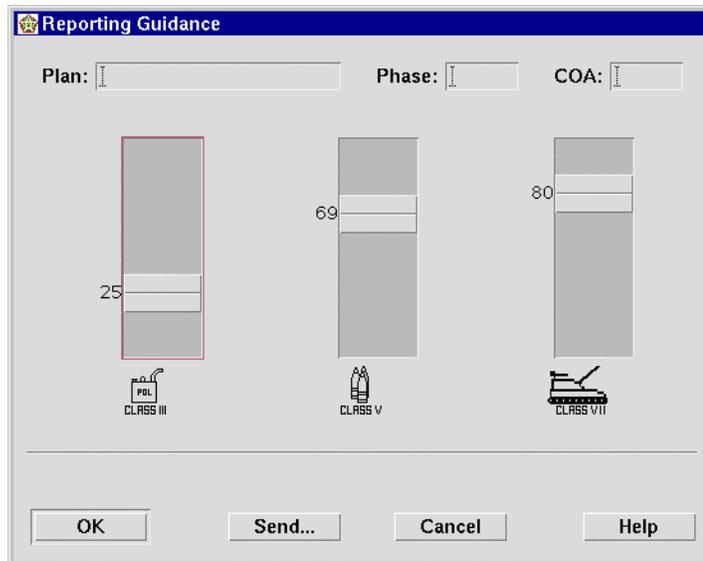
3-39.6 Reporting Guidance Procedure.

Reporting Guidance		
Step	Action	Response
1.	<u>Select Guidances\Workspace....</u>	Guidance Workspace window opens.



Reporting Guidance - CONT

Step	Action	Response
2.	Select C3 and Logistics\Supplies Reporting Guidance guidance type.	
3.	Select Options\Edit or double-click selection.	Reporting Guidance window opens.



NOTE

Selecting **OK** at any time closes window saving changes made. Selecting **Send...** opens the **Send To** window for selection of destination unit(s).

4.	<u>Move CLASS III indicator</u> to desired percentage level.	Percentage displayed for any setting.
5.	<u>Move CLASS V indicator</u> to desired percentage level.	Percentage displayed for any setting.

3-39.7 CSR Guidance Window.

The Controlled Supply Rate (CSR) **Guidance** window specifies levels for Class V supplies. The supply rate lists number of rounds per day based on **Caliber:** type and **Munition.** **D-Day** indicates the rate for the first day of planned operations. **S-Day** indicates the rate for all subsequent days. The **Munition** list is updated when a different **Caliber:** is selected. The CSR guidance does not affect mission processing.

In the Current situation, **Send...** is for sending CSR guidance information to selected unit(s).

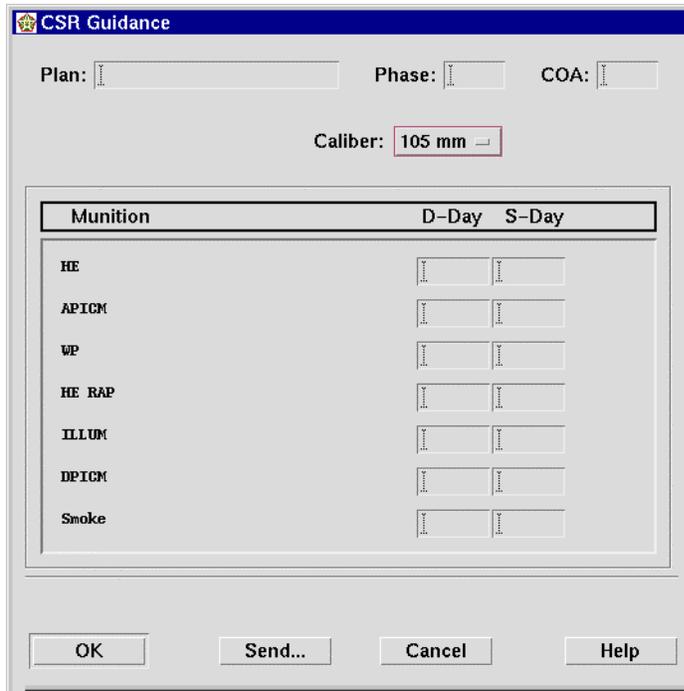


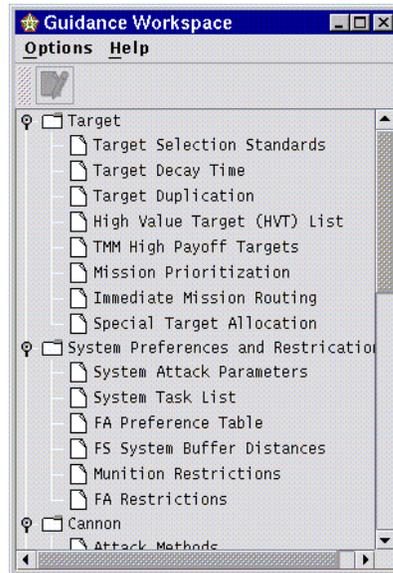
Figure 3.67 CSR Guidance Window

3-39.8 CSR Guidance Procedure.

CSR Guidance Procedure		
Step	Action	Response
1.	Select <u>Guidances\Workspace....</u>	Guidance Workspace window opens.

CSR Guidance Procedure - CONT

Step	Action	Response
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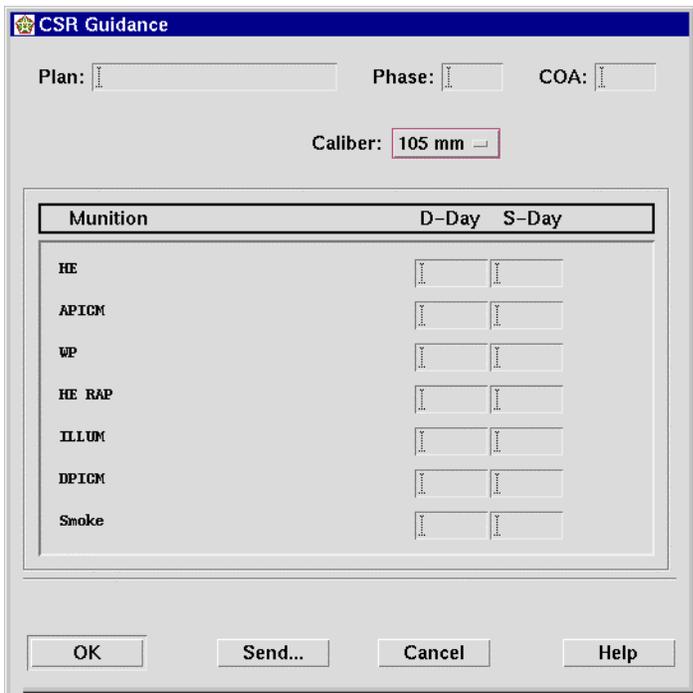
2. Select C3 and Logistics\CSR Guidance (supply rate) guidance type.

3. Select Options>Edit
or
double-click selection.

CSR Guidance window opens.

CSR Guidance Procedure - CONT

Step	Action	Response
------	--------	----------



NOTE

Selecting **OK** at any time closes window saving changes made.

4.	<u>Select Caliber:</u>	Munition list updates.
5.	<u>Enter D-Day and S-Day CSR</u> for each munition (0-99999 or blank).	
6.	<u>Repeat steps 4 and 5</u> to complete each Caliber .	
7.	<u>Select OK.</u>	CSR Guidance window closes.

SECTION 5 GEOMETRIES

3-40 OVERVIEW.

The geometries comprise the line, point, and area symbols that are displayed on the maps. These geometries locate and describe the geometric components of the battlefield. These components include lines, boundaries, points, areas, and tactical maneuver indicators. Appendix F contains a listing and a display description of all geometries.



The **Geometries** functions allow the user to create/edit, and view map geometry data. Both the current and planning situation menus contain the **Geometries** selections described in this paragraph. The **Plan** and **Phase** fields on the geometry information windows contain the identification of the appropriate plan being constructed. These fields are blank in the Current situation. This paragraph describes the selections and functions from the Current situation. The Current situation provides all functions of the geometry windows while some functions (e.g., **Send...** and **Activate**) are not available in planning.

Geometries construction consists of entering a **Name:** and then selecting the **Force/Shape:** and **Geometry Type** on the **New Geometry** window. The type of geometry selected determines which **Geometry Information** window will be used to enter the geometry information. **Geometry Information** windows vary depending on geometry type to allow the entry of information specific to the geometry.

3-41 GEOMETRY FORCE/SHAPE AND TYPE.

The **Force/Shape:** is determined by selecting a combination of force (friendly or enemy) and shape (point, line, or area). The **Geometry Type** list contains the geometries available based on the **Force/Shape:** selection.

3-42 GEOMETRY NAMES.

Each geometry must be identified by a unique name in each **Force/Shape**. The **Name:** is entered on the **New Geometry** window. When the **New Geometry** window is closed via the **OK** button, this data can not be edited and appears on the geometry information windows as view only. The geometry name consists of from one (1) to ten (10) alphanumeric characters for most geometries. Censor zone geometries are the exception. The name for a censor zone geometry must consist of, or end with one (1) numeric character. One (1) to nine (9) alpha characters may precede the numeric character. The censor zone geometries consist of **ATI**, **Call for Fire**, **Censor**, and **Critical Friendly** zones.

3-43 GEOMETRY EFFECTIVE TIME.

The **Effective Time:** and **Expiration Time:** fields are used to enter the time period that a geometry is in effect. In the Current situation, the geometry will be displayed on the map with solid lines during the period between these times and with dashed lines during periods before these times (i.e., similar to planning geometries on the map). The format of the time entries depend on the corresponding selection of **Absolute**, **H-Hour**, or **On Call**.

ARMY TM 11-7025-297-10
MARINE CORPS TM 10690A-10

The **Absolute** selection requires that times be entered in a DTG format. This format displays the actual times that the geometry is active.

The **H-Hour** selection requires that times be entered with reference to H-hour. These times are entered in minutes before or after H-hour. For example, the user enters an **Effective Time:** of -60 and an **Expiration Time:** of +60 to activate and display a geometry during a period 60 minutes before to 60 minutes after H-hour.

H-hour references are not used in the Current situation. Geometries constructed in planning may be referenced to an H-hour for a plan/phase. Implementation of a plan/phase causes the H-hour reference times to be calculated and displayed in the DTG format.

The **On Call** selection requires that times be entered with reference to selection on the **Activate** button, which is only sensitive in the Current situation. These times are entered in minutes after activation. For example, the user enters an **Effective Time:** of +10 and an **Expiration Time:** of +70 to activate and display a geometry for a period of one (1) hour starting 10 minutes after activation. Selection of the **Activate** button causes the **On Call** reference times to be calculated and displayed in the DTG format.

3-44 GEOMETRY WINDOWS NAVIGATION.

The user is afforded multiple navigational paths to access the windows to create and view/edit geometries. The **Geometries/New...** selection opens the **New Geometry** window. This window allows the user to identify a new geometry by **Force/Shape:** and **Geometry Type**. Selecting a **Force/Shape:**, **Geometry Type**, entering a **Name:**, and **OK** opens the appropriate geometry information window.

The **Geometries/Edit...** selection opens the **Select Geometry** window. Selecting **New...** from this window accesses the **New Geometry** window. Selecting a listed geometry and **Edit** opens the appropriate geometry information window. Selecting a listed geometry and **Delete...** opens a delete confirmation window. Selecting **Delete** closed this window and removes the geometry from the list.

The geometry information windows may also be accessed from the geometry map symbol menu via the **Description** and **Edit** selections. The **Description** selection opens the information window in the view only mode.

The **Coordinates** selection from a geometry information window accesses the appropriate **Edit Point**, **Edit Line**, **Edit Area**, **Edit Rectangle**, or **Edit Circle** window. These windows are view only when they are opened from a view only information window.

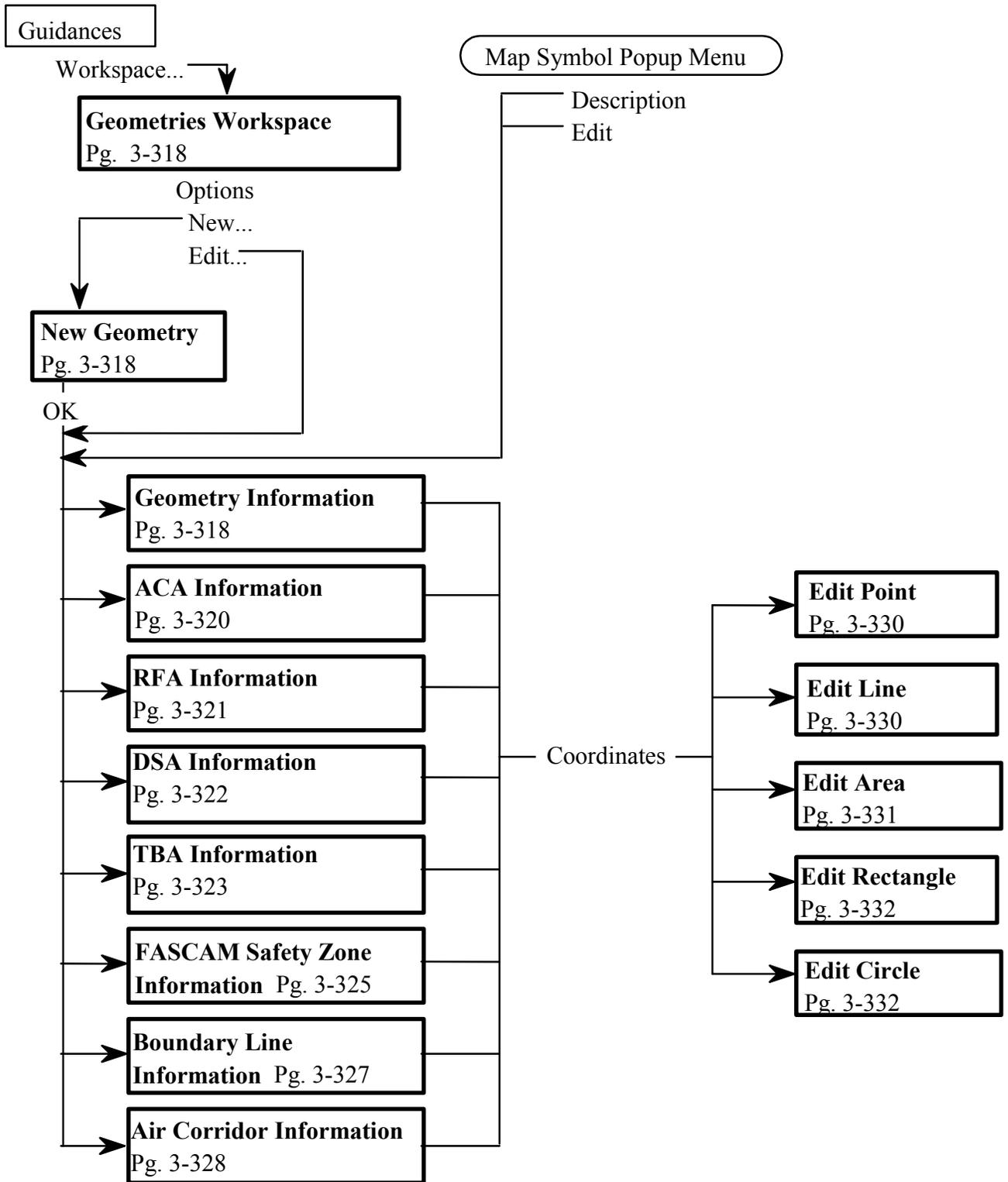


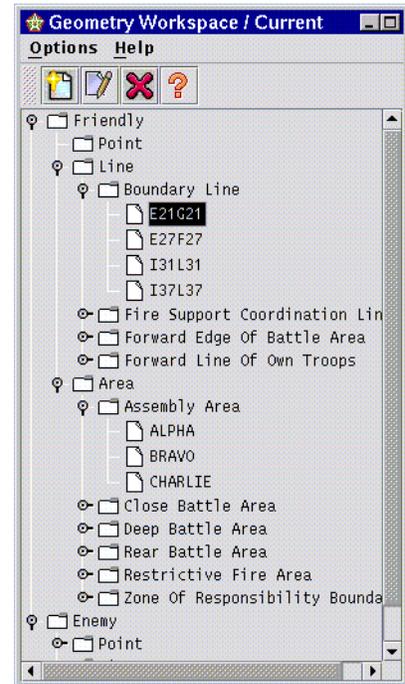
Figure 3.68 Geometries Navigation

3-45 GEOMETRY WORKSPACE WINDOW.

The **GeometriesWorkspace...** selection opens the **Geometry Workspace** window in both the Current and Planning situations. This window is the starting point for the creation, maintenance, and deletion of all geometries. An **Option** menu, icons, and menu-tree popup menus access these functions.

The Menu Tree contains upper-level folders for **Friendly** and **Enemy** geometries. Each of these contain folders for geometry shapes of **Point**, **Line**, and **Area**. Clicking the key icon to the left of the folder or double-clicking the folder will open the folder to display its contents. If the key icon disappears while attempting to open a folder, the folder is empty.

Opening a **Point**, **Line**, and **Area** folder displays folders for geometry types that have an established geometry. Opening these folders displays the individual established geometries by name. Right-clicking a geometry displays a menu the allows selections to **Edit** or **Delete** the geometry.



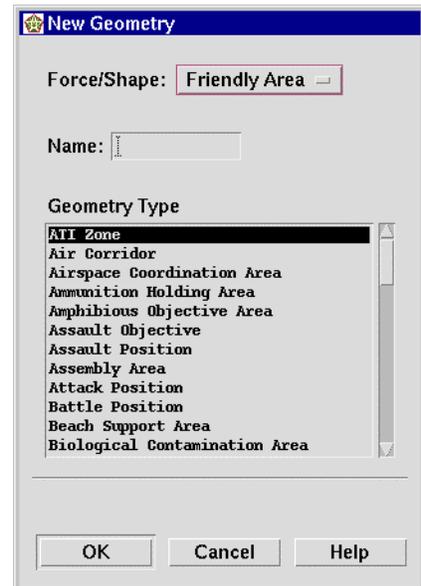
3-46 NEW GEOMETRY WINDOW.

The **New Geometry** window is used to assign a **Name:**, a **Force/Shape:**, and select a **Geometry Type** for a new geometry. This window is accessed via the **Options\New...** selection from the **Geometry Workspace** window.

The **Force/Shape:** field contains a pop-up menu used to select the general category of the geometry. Selection of a **Force/Shape:** is required. These categories define the geometry as a point, line, or area and either friendly or enemy.

Selecting a **Force/Shape:** causes the display of the appropriate **Geometry Type** list. For example, A selection from this list establishes the **Geometry Type** to be created. This selection is required.

The **Name:** field accepts the name selected by the user. This entry may contain up to ten (10) alphanumeric characters and is required.



Selecting **OK** closes this window and causes the appropriate geometry information window to open. The geometry information window opened is dependent on the **Geometry Type** selected.

3-47 GEOMETRY INFORMATION WINDOW.

The **Geometry Information** window displays geometry data other than coordinates. The window containing the coordinates is accessed via the **Coordinates** button. This window is used as the default window for geometry types that do not have specific information windows (e.g., **Boundary Line**, **RFA**, etc.).

The **Plan:** and **Phase:** fields are view only and display the plan and phase information when in the Planning situation. These fields cannot be edited and are blank in the Current situation.

Figure 3.69 Geometry Information Window

The **Circle**, **Rectangle**, and **Irregular** radio buttons are used select the method of construction which is required for area type geometries. These buttons are selectable on established geometries to allow the operator to change shape of area geometries.

The **Name:**, **Type:**, and **Force:** fields contain the data that was entered and selected in the **New Geometry** window. These fields cannot be edited.

The **Establishing Unit ID:** field data defaults to the Unit ID that entered the data for the **New Geometry** window. This field may be edited when creating the geometry to reflect a Unit ID that initiated the geometry from outside the host OPFAC.

Refer to Geometries, Effective time, for a description of the time fields and associated radio buttons.

The **Responsible Unit ID:** field is used to select the Unit ID that is responsible for the management of the geometry. This field is editable only when creating ZOR's.

The **Activate** button assigns a DTG for the **Effective Time** and **Expiration Time** relative to the time the **Activate** button is selected. This button is sensitive only in the Current situation and when **On Call** is selected and coordinates have been entered for the geometry.

The **Coordinates** button opens the appropriate window to enter/edit the coordinates for the selected geometry shape.

The **Send...** button opens the **Send To** window. This window is used to select units and/or distribution lists for the transmittal of the geometry data. This button is sensitive only in the Current situation.

3-48 ACA INFORMATION WINDOW.

An ACA (Airspace Coordination Area) is a three dimensional box through which fires must be coordinated to provide friendly aircraft with a measure of safety from friendly surface fires. The **ACA Information** window displays geometry data, other than coordinates, for ACA's only. The window containing the coordinates is accessed via the **Coordinates** button.

The **Send...** button opens the **Send To** window. This window is used to select units and/or distribution lists for the transmittal of the geometry data. This button is sensitive only in the Current situation.

The screenshot shows the 'Air Geometry Information' dialog box. It has a title bar with a small icon and the text 'Air Geometry Information'. The main area contains several fields and controls:

- Plan:** and **Phase:** are empty text boxes.
- Name:** contains the text 'FAST1'.
- Type:** contains the text 'Airspace Coordination Area'.
- Force:** contains the text 'Friendly'.
- Establishing Unit ID:** contains the text '1 A1-37FA 23CVDA'.
- Effective Time:** contains the text '091200ZJan01'.
- Expiration Time:** contains the text '091400ZJan01'.
- Min Altitude (ft):** contains the text '1500'.
- Max Altitude (ft):** contains the text '3000'.

Radio buttons are arranged in two columns:

- Left column: **Circle** (selected), **Rectangle**, **Irregular**.
- Right column: **Absolute** (selected), **H-Hour**, **On Call**.

At the bottom of the window, there is a row of buttons: **OK**, **Cancel**, **Activate**, **Coordinates**, **Send...**, and **Help**.

Figure 3.70 Air Geometry Information Window

The **Plan:** and **Phase:** fields are view only and display the plan and phase information when in the Planning situation. These fields cannot be edited and are blank in the Current situation.

The **Name:**, **Type:**, and **Force:** fields contain the data that was entered and selected in the **New Geometry** window. These fields cannot be edited.

The **Circle**, **Rectangle**, and **Irregular** radio buttons are used select the method of construction which is required for area type geometries. These buttons are selectable on established geometries to allow the operator to change shape of area geometries.

The **Establishing Unit ID:** field data defaults to the Unit ID that entered the data for the **New Geometry** window. This field may be edited when creating the geometry to reflect a Unit ID that initiated the geometry from outside the host OPFAC.

Refer to Geometries, Effective time, for a description of the time fields and associated radio buttons.

The **Min Altitude (ft)** and **Max Altitude (ft)** fields are used to enter the minimum and maximum altitudes of the area. These fields can be edited only in the create/edit mode and are required entries. The legal entries are from -9999 to +99999 feet.

The **Activate** buttons assign a DTG for the **Effective Time:** and **Expiration Time:** relative to the time the **Activate** button is activated. This button is sensitive only in the Current situation and when **On Call** is selected and coordinates have been entered for the geometry.

The **Coordinates** button opens the appropriate window to enter/edit the coordinates for the selected geometry shape.

3-49 RFA INFORMATION WINDOW.

A RFA (Restricted Fire Area) is an area prohibiting the fire effects of specific FS Systems, weapon caliber, munitions, and/or fuzes without coordination. The particular restrictions are given upon establishment of the area. The **RFA Information** window displays geometry data, other than coordinates, for RFA's only. The window containing the coordinates is accessed via the **Coordinates** button.

The screenshot shows the 'RFA Information' dialog box with the following fields and options:

- Plan:** [Empty text box]
- Phase:** [Empty text box]
- Name:** [RES1]
- Type:** [Restrictive Fire Area]
- Force:** [Friendly]
- Establishing Unit ID:** [1 A 1-37FA 23CVDA]
- Effective Time:** [010000ZJan70]
- Expiration Time:** [010000ZJan70]
- Shape Options:**
 - Circle
 - Rectangle
 - Irregular
- Time Options:**
 - Absolute
 - H-Hour
 - On Call
- Restrictions:**
 - FS Systems:**
 - FA Cannon
 - Rocket/Missile
 - Mortar
 - Air
 - Aviation
 - NSFS
 - Munitions:**
 - HE
 - HE RAP
 - APICM
 - DPICM
 - SARARM
 - Calibers:**
 - 105mm
 - 155mm
 - 203mm
 - 81mm
 - 107mm
 - Fuzes:**
 - PD
 - Time
 - VT
 - Delay
 - CP

Buttons at the bottom: OK, Cancel, Activate, Coordinates, Send..., Help

Figure 3.71 RFA Information Window

The **Plan:** and **Phase:** fields are view only and display the plan and phase information when in the Planning situation. These fields cannot be edited and are blank in the Current situation.

The **Circle**, **Rectangle**, and **Irregular** radio buttons are used select the method of construction which is required for area type geometries. These buttons are selectable on established geometries to allow the operator to change shape of area geometries.

The **Name:**, **Type:**, and **Force:** fields contain the data that was entered and selected in the **New Geometry** window. These fields cannot be edited.

The **Establishing Unit ID:** field data defaults to the Unit ID that entered the data for the **New Geometry** window. This field may be edited when creating the geometry to reflect a Unit ID that initiated the geometry from outside the host OPFAC.

Refer to Geometries, Effective time, for a description of the time fields and associated radio buttons. The **Restrictions** fields allow the user to select **FS Systems**, **Munitions**, **Caliber**, and/or **Fuzes** to be restricted for the RFA. This is done by selecting the check boxes in each of the lists to be restricted.

The **Activate** buttons assign a DTG for the **Effective Time:** and **Expiration Time:** relative to the time the **Activate** button is activated. This button is sensitive only in the Current situation and when **On Call** is selected and coordinates have been entered for the geometry.

The **Coordinates** button opens the appropriate window to enter/edit the coordinates for the selected geometry shape.

The **Send...** button opens the **Send To** window. This window is used to select units and/or distribution lists for the transmittal of the geometry data. This button is sensitive only in the Current situation.

3-50 DSA INFORMATION WINDOW.

A DSA (Dead Space Area) is an area prohibiting the fire effects of specific unit without coordination. The particular restrictions are given upon establishment of the area. The **DSA Information** window displays geometry data, other than coordinates, for DSA's only. The window containing the coordinates is accessed via the **Coordinates** button.

The **Plan:** and **Phase:** fields are view only and display the plan and phase information when in the Planning situation. These fields cannot be edited and are blank in the Current situation. The **Name:**, **Type:**, and **Force:** fields contain the data that was entered and selected in the **New Geometry** window. These fields cannot be edited.

The **Circle**, **Rectangle**, and **Irregular** radio buttons are used select the method of construction which is required for area type geometries. These buttons are selectable on established geometries to allow the operator to change shape of area geometries.

The **Establishing Unit ID:** field data defaults to the Unit ID that entered the data for the **New Geometry** window. This field may be edited when creating the geometry to reflect a Unit ID that initiated the geometry from outside the host OPFAC. Refer to Geometries, Effective time, for a description of the time fields and associated radio buttons. The **Units Restricted from Firing** field displays units to be restricted from firing into the DSA. Units are added to or removed from the list via the **Add...** and **Remove** buttons.

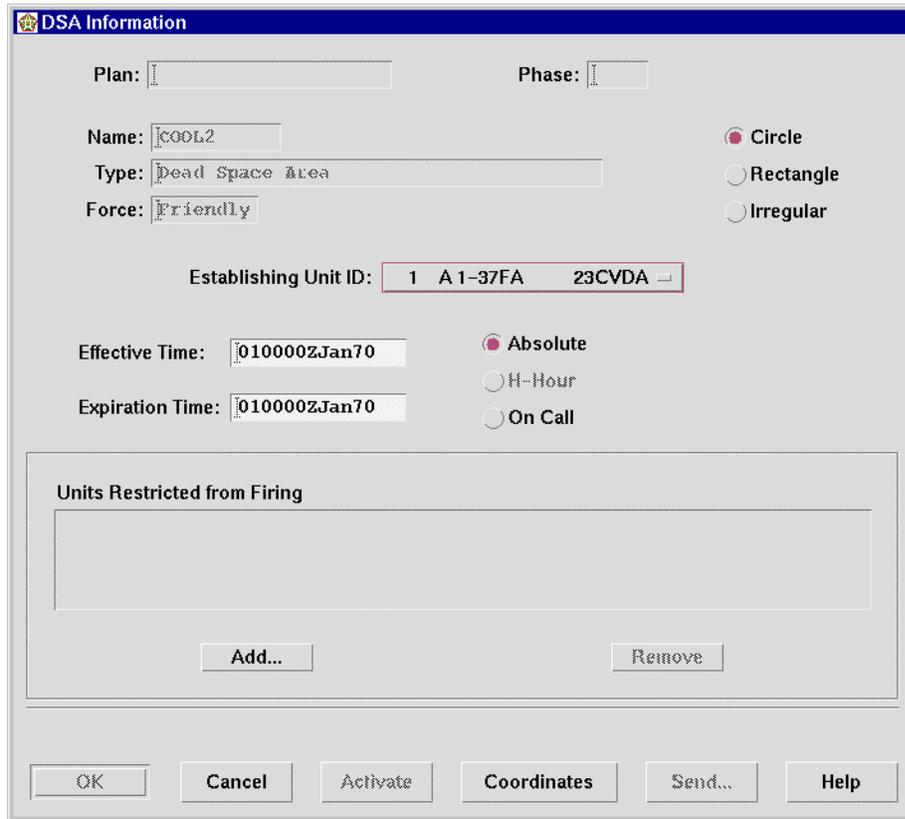


Figure 3.72 DSA Information Window

The **Add...** button opens the **Select Unit** window from which the units to be added to the list are selected. Selecting a unit from the **Units Restricted from Firing** list and the **Remove** button removes the unit from the restricted list. The **Activate** button assigns a DTG for the **Effective Time:** and **Expiration Time:** relative to the time the **Activate** button is activated. This button is sensitive only in the Current situation and when **On Call** is selected and coordinates have been entered for the geometry. The **Coordinates** button opens the appropriate window to enter/edit the coordinates for the selected geometry shape. The **Send...** button opens the **Send To** window. This window is used to select units and/or distribution lists for the transmittal of the geometry data. This button is sensitive only in the Current situation.

3-51 TBA INFORMATION WINDOW.

A TBA (Target Buildup Area) is an area prohibiting the FS engagement of a specific target type within the area until the number of targets reach a specified threshold established for that target type. The **TBA Information** window displays geometry data, other than coordinates, for TBA's only. The window containing the coordinates is accessed via the **Coordinates** button.

The **Plan:** and **Phase:** fields are view only and display the plan and phase information when in the Planning situation. These fields cannot be edited and are blank in the Current situation.

TBA Information

Plan: [] Phase: []

Name: WATCH1 Circle

Type: Target Build-Up Area Rectangle

Force: Friendly Irregular

Establishing Unit ID: 1 A1-37FA 23CVDA ▾

Effective Time: 010000ZJan70 Absolute

Expiration Time: 010000ZJan70 H-Hour

On Call

Target Type	Threshold	Total Reported
-------------	-----------	----------------

Add... Remove

OK Cancel Activate Coordinates Send... Help

Figure 3.73 TBA Information Window

The **Name:**, **Type:**, and **Force:** fields contain the data that was entered and selected in the **New Geometry** window. These fields cannot be edited.

The **Circle**, **Rectangle**, and **Irregular** radio buttons are used select the method of construction which is required for area type geometries. These buttons are selectable on established geometries to allow the operator to change shape of area geometries.

The **Establishing Unit ID:** field data defaults to the Unit ID that entered the data for the **New Geometry** window. This field may be edited when creating the geometry to reflect a Unit ID that initiated the geometry from outside the host OPFAC.

Refer to Geometries, Effective time, for a description of the time fields and associated radio buttons.

The **Target Type** field displays a list of target types to be monitored for that particular TBA geometry. Target types are added to or removed from the list via the **Add...** and **Remove** buttons.

The **Threshold** field is enabled for each displayed **Target Type**. The user enters a number that designates the strength at which the particular target type may be engaged by FS Systems. This entry is required for each **Target Type**. The legal entry for **Threshold** is 1-9999.

The **Total Reported** field displays the number of targets reported within the TBA for each **Target Type**. This field is display only and cannot be edited.

The **Add...** button opens the **Select Target Type** window from which the **Target Type(s)** to be added to the list are selected.

Selecting an entry from the **Target Type** list and the **Remove** button removes the entry from the list.

The **Activate** buttons assign a DTG for the **Effective Time:** and **Expiration Time:** relative to the time the **Activate** button is activated. This button is sensitive only in the current situation and when **On Call** is selected and coordinates have been entered for the geometry.

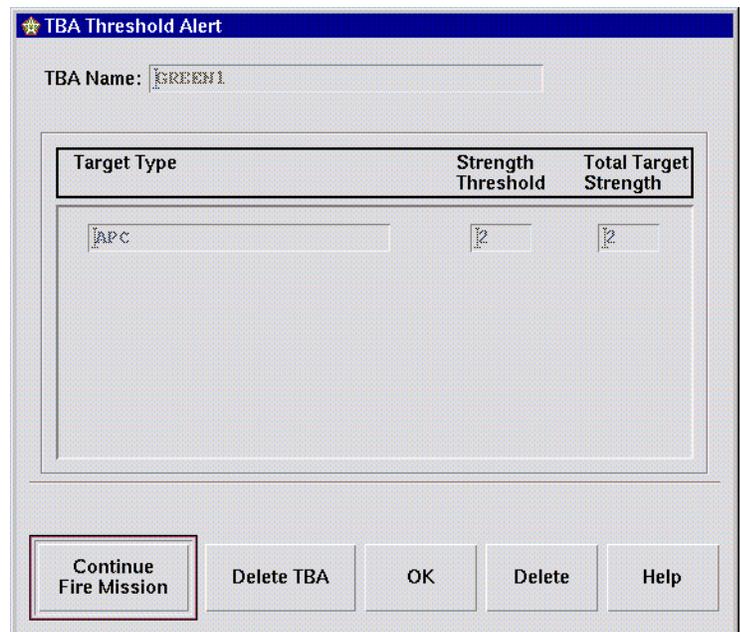
The **Coordinates** button opens the appropriate window to enter/edit the coordinates for the selected geometry shape.

The **Send...** button opens the **Send To** window. This window is used to select units and/or distribution lists for the transmittal of the geometry data. This button is sensitive only in the current situation.

3-52 TBA THRESHOLD ALERT WINDOW.

The **TBA Threshold Alert** window opens as a medium level alert when the number of reported targets in a TBA geometry reaches the threshold value. The operator determines the action to be taken in response to this alert. Selecting **Continue Fire Mission** sends the last target received to mission processing. The **Delete TBA** button deletes the TBA geometry and leaves the contained targets displayed.

The **OK** button closes the window without taking any action. The **Delete** button closes the window and deletes the alert from the alert list.



3-53 FASCAM SAFETY ZONE INFORMATION WINDOW.

A FASCAM Safety Zone geometry encloses an area where scatterable mines have been deployed. The **FASCAM Safety Zone Information** window displays geometry data, other than coordinates, for FASCAM Safety Zones only. The window containing the coordinates is accessed via the **Coordinates** button.

The **Plan:** and **Phase:** fields are view only and display the plan and phase information when in the Planning situation. These fields cannot be edited and are blank in the Current situation.

The **Name:**, **Type:**, and **Force:** fields contain the data that was entered and selected in the **New Geometry** window. These fields cannot be edited.

The **Circle**, **Rectangle**, and **Irregular** radio buttons are disabled as a FASCAM Safety Zone must be rectangular.

The **Establishing Unit ID:** field data defaults to the Unit ID that entered the data for the **New Geometry** window. This field may be edited when creating the geometry to reflect a Unit ID that initiated the geometry from outside the host OPFAC.

Refer to Geometries, Effective time, for a description of the time fields and associated radio buttons.

The fields describing the mine field allow the user to select the **FASCAM Projectile:**, **Duration:**, and **Density:**. Select either Long or Short for the Duration; and High, Medium, or Low for the Density.

The screenshot shows a software window titled "FASCAM Safety Zone Information". The window contains the following elements:

- Plan:** [Empty text box]
- Phase:** [Empty text box]
- Name:** [HOT1]
- Type:** [Fascam Safety Zone]
- Force:** [Friendly]
- Establishing Unit ID:** [1 A 1-37FA 23CVDA]
- Effective Time:** [010000ZJan70]
- Expiration Time:** [010000ZJan70]
- Shape Selection:** Radio buttons for Circle, Rectangle (selected), and Irregular.
- Time Selection:** Radio buttons for Actual (selected), H-Hour, and On Call.
- FASCAM Projectile:** [Empty dropdown menu]
- Duration:** [Empty dropdown menu]
- Density:** [Empty dropdown menu]
- Buttons:** OK, Cancel, Activate, Coordinates, Send..., Help.

Figure 3.74 FASCAM Safety Zone Information Window

The **Activate** buttons assign a DTG for the **Effective Time:** and **Expiration Time:** relative to the time the **Activate** button is activated. This button is sensitive only in the Current situation and when **On Call** is selected and coordinates have been entered for the geometry.

The **Coordinates** button opens the appropriate window to enter/edit the coordinates for the selected geometry shape.

The **Send...** button opens the **Send To** window. This window is used to select units and/or distribution lists for the transmittal of the geometry data. This button is sensitive only in the Current situation.

3-54 BOUNDARY LINE INFORMATION WINDOW.

A Boundary Line geometry defines the boundary between two units of the same echelon and/or units of a higher echelon. The **Boundary Line Information** window displays geometry data, other than coordinates, for Boundary Line geometries only. The window containing the coordinates is accessed via the **Coordinates** button.

Figure 3.75 Boundary Line Information Window

The **Coordinates** button opens the appropriate window to enter/edit the coordinates for the selected geometry shape.

The **Send...** button opens the **Send To** window. This window is used to select units and/or distribution lists for the transmittal of the geometry data. This button is sensitive only in the current situation.

The **Plan:** and **Phase:** fields are view only and display the plan and phase information when in the planning situation. These fields cannot be edited and are blank in the Current situation. The **Name:**, **Type:**, and **Force:** fields contain the data that was entered and selected in the **New Geometry** window. These fields cannot be edited.

The **Establishing Unit ID:** field data defaults to the Unit ID that entered the data for the **New Geometry** window. This field may be edited when creating the geometry to reflect a Unit ID that initiated the geometry from outside the host OPFAC.

Refer to Geometries, Effective time, for a description of the time fields and associated radio buttons.

The **Echelon**: field is used to select the HQ for which the boundaries are constructed. The **Left Unit Id**: and **Right Unit Id**: fields are used to select the units adjacent to the boundary line. The units are identified as left or right when observed from a position facing the FLOT.

The **Activate** button assigns a DTG for the **Effective Time**: and **Expiration Time**: relative to the time the **Activate** button is activated. This button is sensitive only in the Current situation and when **On Call** is selected and coordinates have been entered for the geometry.

3-55 AIR CORRIDOR INFORMATION WINDOW.

The Air Corridor is a three dimensional box through which fires must be coordinated to provide friendly aircraft with a measure of safety from friendly surface fires. The **Air Corridor Information** window displays geometry data, other than coordinates, for Air Corridor's only. The window containing the coordinates is accessed via the **Coordinates** button.



Figure 3.76 Air Corridor Information Window

The Air Corridor is similar to the Airspace Coordination Area. The difference between the two geometries is that the Air Corridor may be segmented. Each segment can be assigned an **Effective Time**: and **Expiration Time**: which are always expressed as offset from the critical time. This reduces the coordination required by allowing unrestricted fire into segments of the Air Corridor instead of requiring coordination for the entire corridor for extended periods. Also, each segment may have a width in meters, and/or maximum and minimum altitudes in feet assigned.

The construction method for a Air Corridor involves the Edit Area window. This window is used to construct an open ended geometry. Each segment (line between two (2) coordinate points) of the geometry will become a Air Corridor segment after the width and altitudes are entered.

The **Plan:** and **Phase:** fields are view only and display the plan and phase information when in the Planning situation. These fields cannot be edited and are blank in the Current situation.

The **Name:**, **Type:**, and **Force:** fields contain the data that was entered and selected in the **New Geometry** window. These fields cannot be edited.

The **Establishing Unit ID:** field data defaults to the Unit ID that entered the data for the **New Geometry** window. This field may be edited when creating the geometry to reflect a Unit ID that initiated the geometry from outside the host OPFAC.

The **Critical Time:**, segment **Effective Time:**, and segment **Expiration Time:** fields are used to enter the time period that a geometry is in effect. In the Current situation, the geometry will be displayed on the map with solid lines after the **Critical Time:** and with dashed lines before the DTG in the **Critical Time:** field (i.e., similar to planning geometries on the map). The format of the **Critical Time:** field depends on the corresponding selection of **Absolute**, **H-Hour**, or **On-Call**. Refer to geometries effective time for description of **Absolute**, **H-Hour**, and **On-Call** as it applies to the **Critical Time:** field.

A segment may be designated as the critical segment which will cause the **Effective Time:** for that segment to be set to 0, and other **Effective** and **Expiration Times:** to be recalculated and displayed. Setting the **No Critical Segment** check box to TRUE will cause all segment **Effective** and **Expiration Times** to be referenced to the **Critical Time:** field entry (**Absolute**, **H-Hour**, or **On-Call**).

The **Min Altitude(ft)** and **Max Altitude(ft)** fields are used to enter the minimum and maximum altitudes of the area. These fields can be edited only in the create/edit mode and are required entries. The legal entries are from 0 to 99999 feet. The **Width(m)** field is used to enter the width of the area. The legal entry is 10-9999.

The **Activate** buttons assign a DTG for the **Effective Time:** and **Expiration Time:** relative to the time the **Activate** button is activated. This button is sensitive only in the Current situation and when **On Call** is selected and coordinates have been entered for the geometry.

The **Coordinates** button opens the appropriate window to enter/edit the coordinates for the selected geometry shape.

The **Send...** button opens the **Send To** window. This window is used to select units and/or distribution lists for the transmittal of the geometry data. This button is sensitive only in the Current situation.

3-56 EDIT POINT WINDOW.

The **Edit Point** window is accessed from the **Geometry Information** window via the **Coordinates** selection for any point type geometry.

The **Plan:** , **Phase:** and **Name:** fields are view only. The **Location:** field is the standard coordinate location and is required.

The screenshot shows the 'Edit Point' dialog box. It features a title bar with a star icon and the text 'Edit Point'. Below the title bar are four input fields: 'Plan:', 'Phase:', 'Name:' (containing the text 'STAR'), and 'Location:'. The 'Location:' field is a standard coordinate input with a red box highlighting the first coordinate field. At the bottom of the dialog are four buttons: 'OK', 'Apply', 'Cancel', and 'Help'.

3-57 EDIT LINE WINDOW.

The **Edit Line** window is accessed from the any line geometry information window via the **Coordinates** selection.

The **Plan:** , **Phase:** and **Name:** fields are view only.

The **Locations:** fields accept the standard coordinate locations and are required. Locations must be entered in the order the line is drawn. As the second and subsequent coordinates are entered, a line will be drawn from that point to the previous point. Apply must be selected after each location is entered in order to proceed to the next entry.

Any point in the location list may be edited by selecting the point and entering new coordinates.

Selecting a location and **Insert Before** causes the selected location and all following locations to move down one (1) position in the listing.

Selecting a location and **Delete** causes the selected location to be removed and all following locations to move up one (1) position in the listing.

The **Reverse Locations** selection causes the order of the listed coordinate to be reversed. This function is used for line geometries that the display is dependent on the order of the points (such as the FLOT).

The screenshot shows the 'Edit Line' dialog box. It features a title bar with a star icon and the text 'Edit Line'. Below the title bar are four input fields: 'Plan:', 'Phase:', 'Name:' (containing the text 'FENCE 1'), and a 'Locations' list. The 'Locations' list has a header 'Locations' and one entry '1:' with a red box around the first coordinate field. Below the list are three buttons: 'Insert Before', 'Delete', and 'Reverse Locations'. At the bottom of the dialog are four buttons: 'OK', 'Apply', 'Cancel', and 'Help'.

3-58 EDIT AREA WINDOW.

The **Edit Area** window is accessed from the any area geometry information window via the **Coordinates** selection.

The **Plan:**, **Phase:**, and **Name:** fields are view only.

The **Locations:** fields accept the standard coordinate locations and are required. Locations must be entered in the order the line is drawn. As the second and subsequent coordinates are entered, a line will be drawn from that point to the previous point.

Any point in the **Locations** list may be edited by selecting the point and entering new coordinates.

Selecting a location and **Insert Before** causes the selected location and all following locations to move down one (1) position in the listing.

Selecting a location and **Delete** causes the selected location to be removed and all following locations to move up one (1) position in the listing.

The **Reverse Locations** selection causes the order of the listed coordinate to be reversed. This function is used for geometries that the display is dependent on the order of the points.

The **Close Area** selection causes a line to be drawn from the last coordinate to the first.

The screenshot shows the 'Edit Area' window with the following fields and controls:

- Plan:** [6] (view only)
- Phase:** [] (view only)
- Name:** TRACK1 (view only)
- Locations Table:**

Locations						
1:	[6]	[02771]	[034]	[49459]	[490]	[14]
2:	[6]	[18917]	[034]	[50235]	[500]	[14]
3:	[6]	[22020]	[034]	[53548]	[530]	[14]
4:	[6]	[25545]	[034]	[59965]	[500]	[14]
5:	[6]	[29917]	[034]	[64125]	[450]	[14]
6:	[]	[]	[]	[]	[]	[]
- Buttons:** Insert Before, Delete, Reverse Locations, Close Area, OK, Apply, Cancel, Help.

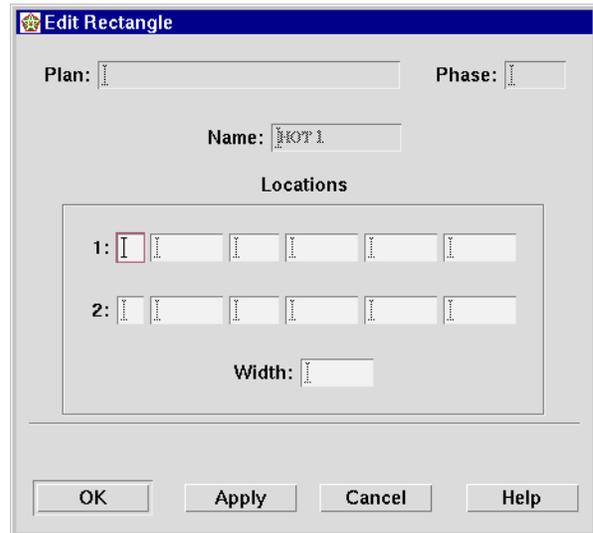
3-59 EDIT RECTANGLE WINDOW.

The **Edit Rectangle** window is accessed from the any rectangular area geometry information window via the **Coordinates** selection.

The **Plan:**, **Phase:**, and **Name:** fields are view only.

The **Locations:** fields accept the standard coordinate locations and are required. Locations are entered as the length of the rectangle. The **Width:** is then entered to establish the area. The legal entry for width is 1-99999.

A point in the **Locations** list may be edited by selecting the point and entering new coordinates.

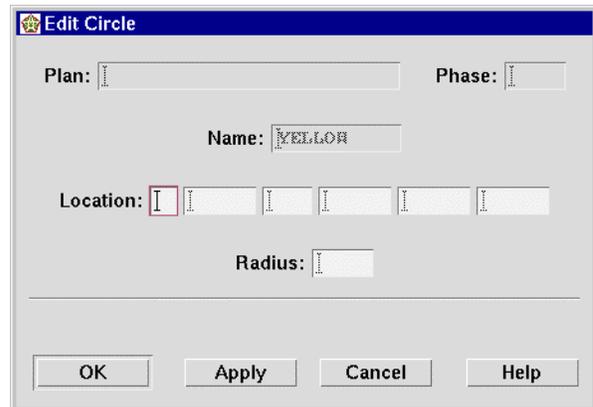


3-60 EDIT CIRCLE WINDOW.

The **Edit Circle** window is accessed from the any circular area geometry information window via the **Coordinates** selection.

The **Plan:**, **Phase:** and **Name:** fields are view only.

The **Location:** field accepts the standard coordinate locations and is required. Location is entered as the center of the circle. The **Radius:** is then entered to establish the area. The legal entry for radius is 1-9999.



3-61 SURVEY CONTROL POINTS.

A Survey Control Point (SCP) is the location of an object that was determined via survey methods to establish a high degree of accuracy.

3-61.1 Survey Control Points Window Navigation.

The **Geometries/Survey Control Points...** selection opens the **SCPs** window. The **Find** and **Request** menus on the **SCPs** window allows the user to access windows used to identify SCP's that are located within rectangles, within thrust lines, within four points, within circles, or by name.

Selecting **New** or a listed SCP and **Edit** from the **SCPs** window accesses the **SCP Information** window.

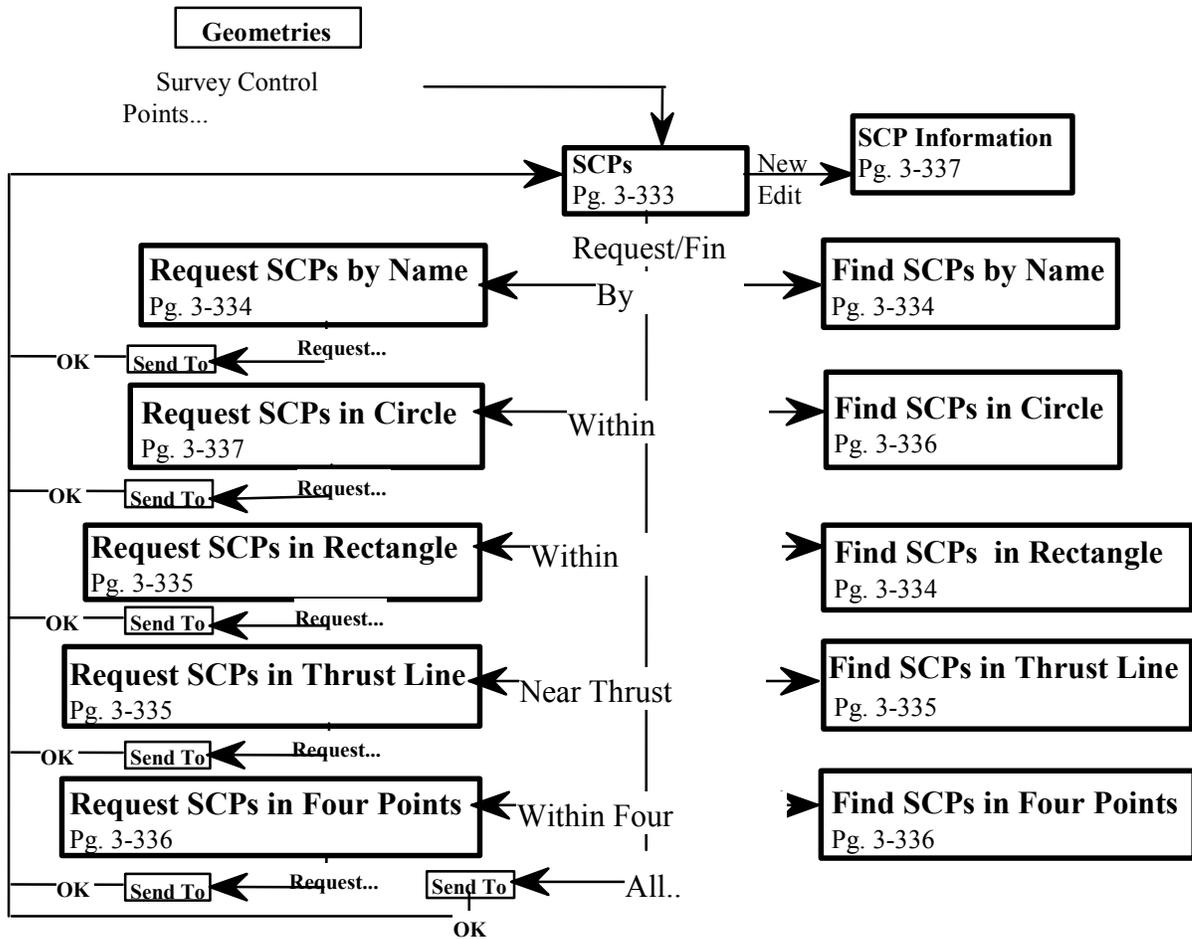


Figure 3.77 SCP Navigation

3-61.2 SCPs Window.

The **SCPs** window is accessed from the **Geometries\Survey Control Points...** selection. This window initially lists all SCP's in the database. The user may select the SCP's to be listed using the criteria of the **Find** menu, or request SCP's from another unit's database using the **Request** menu. The **Find** and **Request** criteria are displayed in the **SCPs:** field.

Selecting a listed SCP and **Edit** or selecting **New** opens the **SCP Information** window. This window is used to then create and/or edit a SCP. Selecting a listed SCP and **Delete...** removes the SCP from the database.

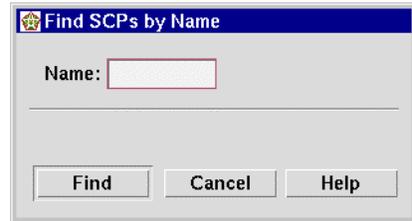
The **Send...** button opens the **Send To** window to select a destination unit(s) or list for transmittal of selected SCP's.

The **Print...** button opens the **Print Settings** window to allow the user to print the list of SCP's as displayed on the **SCPs** window.



3-61.3 Find SCPs by Name Window.

The **Find SCPs by Name** window is accessed from the **SCPs** window via the **Find\By Name...** selection. The **Name:** field accepts 1-8 alphanumeric characters. The **Find** button closes the **Find SCPs by Name** window, and displays the selection in the table on the **SCPs** window.



3-61.4 Request SCPs by Name Window.

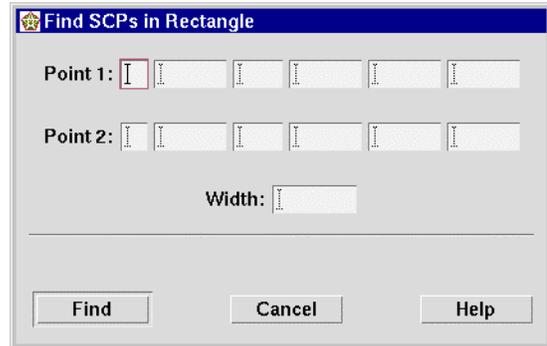
The **Request SCPs by Name** window is accessed from the **SCPs** window via the **Request\By Name...** selection. The **Name:** field accepts 1-8 alphanumeric characters. The **Request...** button opens the **Send To** window to select the unit from which the user wishes to search that database for the designated SCP.



3-61.5 Find SCPs in Rectangle Window.

The **Find SCPs in Rectangle** window is accessed from the **SCPs** window via the **Find\Within Rectangle...** selection.

The **Point 1:** and **Point 2:** fields accept the standard coordinate locations and are required. Locations are entered as the length of the rectangle. The **Width:** is then entered to establish the area. The legal entry for width is 1-99999.



A point in the location list may be edited by selecting the point and entering new coordinates.

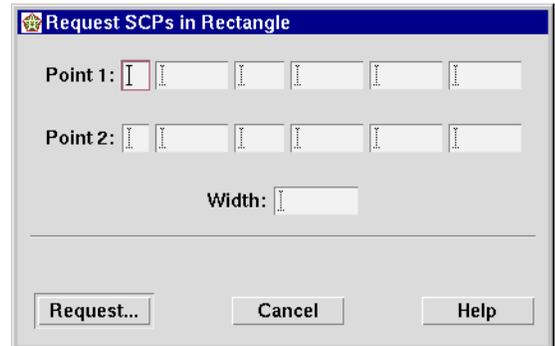
3-61.6 Request SCPs in Rectangle Window.

The **Request SCPs in Rectangle** window is accessed from the **SCPs** window via the **Request\Within Rectangle...** selection.

The **Point 1:** and **Point 2:** fields accept the standard coordinate locations and are required. Locations are entered as the length of the rectangle. The **Width:** is then entered to establish the area. The legal entry for width is 1-99999.

A point in the location list may be edited by selecting the point and entering new coordinates.

The **Request...** button opens the **Send To** window to select the unit from which the user wishes to search that database for the designated SCP.

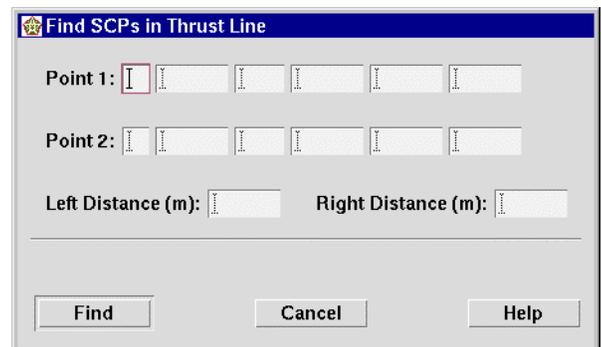


3-61.7 Find SCPs in Thrust Line Window.

The **Find SCPs in Thrust Line** window is accessed from the **SCPs** window via the **Find\Within Thrust Line...** selection.

The **Point 1:** and **Point 2:** fields accept the standard coordinate locations and are required. Locations are entered as the length of the Thrust Line. The **Left Distance (m):** and **Right Distance (m):** is then entered to establish the width of the Thrust Line. The legal entry for the distance fields is 1-99999.

A point in the location list may be edited by selecting the point and entering new coordinates.



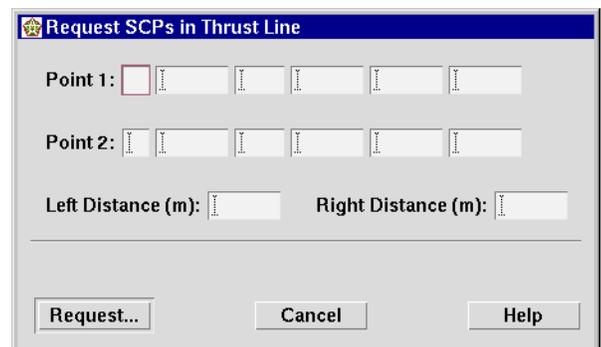
3-61.8 Request SCPs in Thrust Line Window.

The **Request SCPs in Thrust Line** window is accessed from the **SCPs** window via the **Request\Within Thrust Line...** selection.

The **Point 1:** and **Point 2:** fields accept the standard coordinate locations and are required. Locations are entered as the length of the Thrust Line. The **Left Distance (m):** and **Right Distance (m):** is then entered to establish the width of the Thrust Line. The legal entry for the distance fields is 1-99999.

A point in the location list may be edited by selecting the point and entering new coordinates.

The **Request...** button opens the **Send To** window to select the unit from which the user wishes to search that database for the designated SCP.

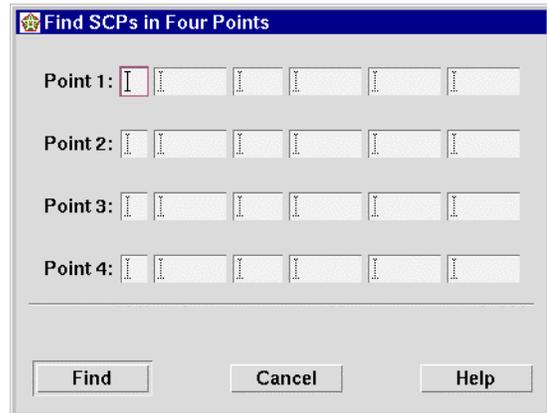


3-61.9 Find SCPs Within Four Points Window.

The **Find SCPs in Four Points** window is accessed from the **Select SCP** window via the **FindWithin Four Points...** selection.

The **Point 1**, **2**, **3**, and **4**: fields accept the standard coordinate locations and are required. Locations are entered as the corners of a four-sided area.

A point in the location list may be edited by selecting the point and entering new coordinates.



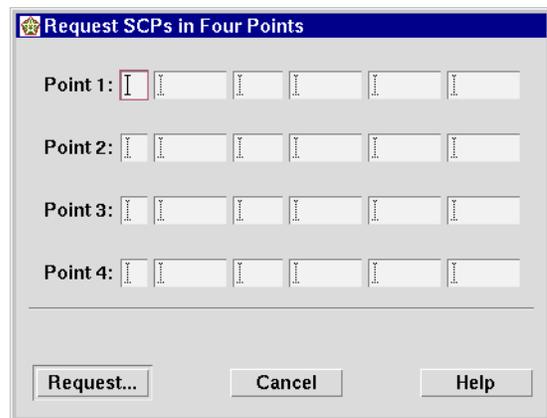
3-61.10 Request SCPs Within Four Points Window.

The **Request SCPs in Four Points** window is accessed from the **Select SCP** window via the **RequestWithin Four Points...** selection.

The **Locations**: fields accept the standard coordinate locations and are required. Locations are entered as the corners of a four-sided area.

A point in the location list may be edited by selecting the point and entering new coordinates.

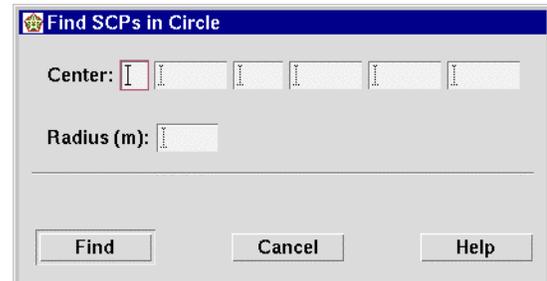
The **Request...** button opens the **Send To** window to select the unit from which the user wishes to search that database for the designated SCP.



3-61.11 Find SCPs Within Circle Window.

The **Find SCPs in Circle** window is accessed from the **SCPs** window via the **FindWithin Circle...** selection.

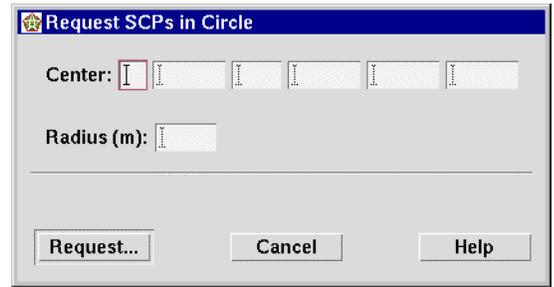
The circle is constructed by entering the **Center**: and **Radius(m)**:. The **Center**: field accepts standard coordinate locations and is required. The **Radius**: legal entry is 1-9999.



3-61.12 Request SCPs Within Circle Window.

The **Request SCPs in Circle** window is accessed from the **SCPs** window via the **Request\Within Circle...** selection.

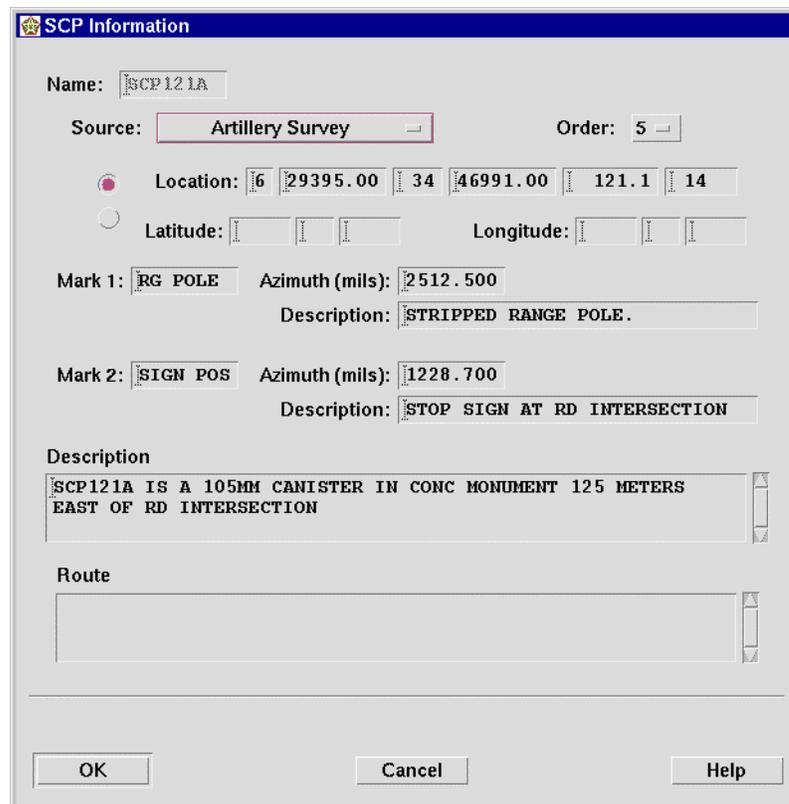
The circle is constructed by entering the **Center:** and **Radius(m):**. The **Center:** field accepts standard coordinate locations and is required. The **Radius:** legal entry is 1-9999.



The **Request...** button opens the **Send To** window to select the unit from which the user wishes to search that database for the designated SCP.

3-61.13 SCP Information Window.

This window is accessed from the **SCPs** window by selecting **New** or selecting the SCP name and selecting **Edit**. It may also be accessed by selecting the SCP map symbol and selecting **Description** or **Edit** from the map pop-up menu.



The **SCP Information** window allows the user to create/edit or view data for an SCP.

The **Name:** field is only editable for a new SCP. The name must be unique and is limited to 8 alphanumeric characters.

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MARINE CORPS TM 10690A-10

The **Source:** field is a pull down menu that allows the user to select the source from which the information is being gathered from.

The level of accuracy of the SCP is determined by the user via selection from the **Order:** selection. The selection choices are 1 through 6.

Selection of the **Location:** radio button requires inputting UTM coordinate information in the associated field.

Selection of the **Latitude: /Longitude:** radio button requires inputting specified latitude and longitude information in the associated fields.

The **Mark 1:** and **2:** fields are used to input the name of the reference points for the SCP. Each mark includes fields for the entry of the **Azimuth (mils):** to the mark from the SCP and a **Description:** of the mark. Legal entries are 1 to 8 alphanumeric characters for **Mark 1:** and **Mark 2:**, 0 to 6399.99 for **Azimuth:** and up to 30 alphanumeric characters of **Description:** text.

The **Description** field displays text description of SCP being established by presented information. Maximum field length is 200 alphanumeric or special characters.

The **Route** field displays text description of route to SCP being established by presented information. Maximum field length is 200 alphanumeric or special characters.

3-62 GEOMETRIES PROCEDURE.

The **GeometriesNew...** selection opens the **New Geometry** window used to establish a new geometry by name and type. The user enters a **Name:** and selects a **Force/Shape:**. The type of geometry is established by selecting **Circle, Rectangle,** or **Irregular** if the shape is an area, and a specific type from the displayed list. Selecting **OK** from this window opens the appropriate Geometry Information window.

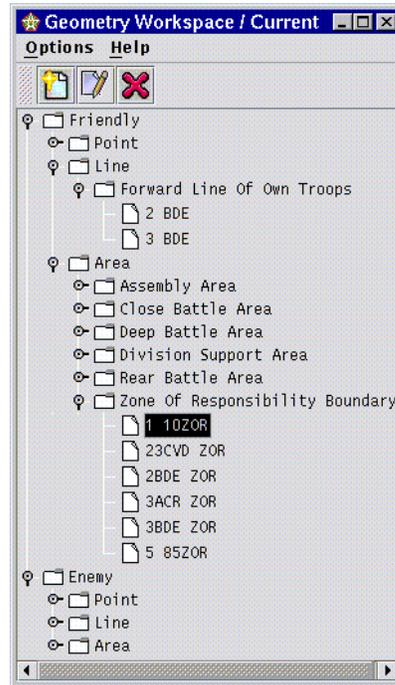
NOTE

To perform the functions for the appropriate window, proceed to the indicated steps.
Selecting **OK** while creating a new geometry closes all windows, and you must return to step 1 to perform additional functions.

To create a new geometry step 1
To edit a geometry step 3
To edit from a geometry symbol..... step 10

New Geometries Procedure

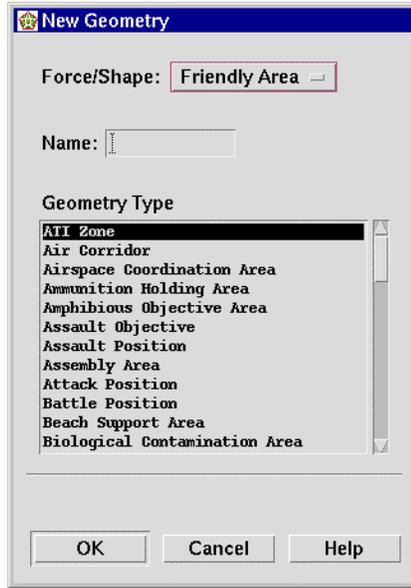
Step	Action	Response
1.	<u>Select GeometriesWorkspace...</u>	Geometry Workspace window opens.



2.	<u>Select Options/New...</u> Proceed to step 6.	New Geometry window opens.
3.	<u>Select GeometriesWorkspace...</u>	Geometry Workspace window opens.
4.	<u>Select geometry</u> to be edited.	
5.	<u>Select Options>Edit...</u> Proceed to note prior to 13.	Geometry Information window opens.

New Geometries Procedure - CONT

Step	Action	Response
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6.	<u>Enter Name</u> . (1-10 alphanumeric characters).	
7.	<u>Select Force/Shape</u> :	Appropriate types for selected geometry appear in Geometry Type field.
8.	<u>Select Geometry Type</u> from list.	
9.	<u>Select OK</u> .	Window closes and appropriate information window opens.
10.	<u>Select Establishing Unit ID</u> . (proceed to note prior to step 13).	Defaults to host unit.
11.	<u>Select map symbol</u> .	
12.	<u>Select Edit</u> from map pop-up menu.	Appropriate information window opens.

New Geometries Procedure - CONT

Step	Action	Response
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NOTE

To perform the functions for the appropriate window, proceed to the indicated steps.

ACA Geometry Information step 13
 Air Corridor Geometry Information step 22
 Boundary Line Geometry Information..... step 33
 DSA Geometry Information step 42
 FASCAM Geometry Information..... step 55
 RFA Geometry Information step 65
 TBA Geometry Information..... step 75
 Geometry Information step 89

- 13. Select **Absolute**, **H-Hour**, or **On Call** radio buttons. (H-Hour not available in the Current situation).
- 14. Select **Circle**, **Rectangle**, or **Irregular** (required for area type geometries).

New Geometries Procedure - CONT

Step	Action	Response
15.	<u>Enter Effective Time:</u>	
16.	<u>Enter Expiration Time:</u>	
17.	<u>Enter Min Altitude (ft):</u> (-9999-+99999).	
18.	<u>Enter Max Altitude (ft):</u> (-9999-+99999).	
19.	<u>Select Coordinates</u> . Refer to Edit Rectangle, Edit Area, or Edit Circle procedure as appropriate.	Window opens for entry of coordinate data.

NOTE

Geometry must be saved to database prior to activation to avoid loss of critical data. Activate is not normally done at time geometry is created.

20.	<u>Select Activate</u> (available for on call geometries in the Current situation only).	
21.	<u>Select OK</u> .	ACA Information window closes. Data is saved in database.

New Geometries Procedure - CONT

Step	Action	Response
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Segment	Critical	Effective Time	Expiration Time	Start Location	Width(m)	Min Alt(ft)	Max Alt(ft)
[1]	<input type="radio"/>	[+0]	[+60]	[6][02771][034][49459][940][14]	[1000]	[3000]	[6000]
[2]	<input type="radio"/>	[-30]	[-30]	[6][18917][034][50235][890][14]	[1000]	[3000]	[6000]
[3]	<input type="radio"/>	[-30]	[-30]	[6][22020][034][53548][910][14]	[1000]	[3000]	[6000]

22. Select **Absolute**, **H-Hour**, or **On Call** radio buttons. (H-Hour not available in the Current situation).
23. Enter **Critical Time**:
24. Select **No Critical Segment** if required.
25. Select **Coordinates**. Refer to Edit Area procedure.
26. Enter **Min Alt (ft.)**: (0-99999).
27. Enter **Max Alt (ft.)**: (0-99999).
28. Enter **Width (m)**: (10-9999).
29. Enter **Effective Time**:
30. Enter **Expiration Time**:

Edit Area window opens for entry of coordinate data.

New Geometries Procedure - CONT

Step	Action	Response
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NOTE

Activate is not normally done at time geometry is created.

31.	Select Activate (available for on call geometries in the Current situation only).	
32.	Select OK .	Air Corridor Information window closes. Data is saved in database.

NOTE

To perform functions of **Coordinates**, select button and refer to paragraph for appropriate Point, Line, Area, Rectangle, or Circle edit window.

New Geometries Procedure - CONT

Step	Action	Response
33.	<u>Select Absolute, H-Hour, or On Call</u> radio buttons. (H-Hour not available in the Current situation).	
34.	<u>Enter Effective Time:</u> .	
35.	<u>Enter Expiration Time:</u> .	
36.	<u>Select Echelon:</u> .	
37.	<u>Select Left Unit Id:</u> .	Select Unit window opens.
38.	<u>Select Right Unit Id:</u> .	Select Unit window opens.
39.	<u>Select Coordinates.</u> Refer to Edit Line procedure.	Edit Line window opens for entry of coordinate data.

NOTE

Activate is not normally done at time geometry is created.

40.	<u>Select Activate.</u> (Available for On Call geometries in the Current situation only).	
41.	<u>Select OK.</u>	Boundary Line Information window closes. Data is saved in database.

New Geometries Procedure - CONT

Step	Action	Response
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DSA Information

Plan: [] Phase: []

Name: [COOL2] Circle

Type: [Dead Space Area] Rectangle

Force: [Friendly] Irregular

Establishing Unit ID: [1 A 1-37FA 23CVDA]

Effective Time: [010000ZJan70] Absolute

Expiration Time: [010000ZJan70] H-Hour

On Call

Units Restricted from Firing

[]

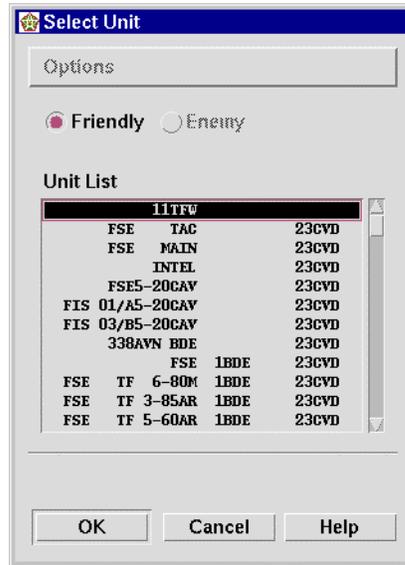
[Add...] [Remove]

[OK] [Cancel] [Activate] [Coordinates] [Send...] [Help]

42. Select **Absolute**, **H-Hour**, or **On Call** radio buttons. (H-Hour not available in the Current situation).
43. Select **Circle**, **Rectangle**, or **Irregular** (required for area type geometries).
44. Enter **Effective Time**:
45. Enter **Expiration Time**:
46. To add a unit, proceed to step 47. To remove a unit, proceed to step 50. To continue, proceed to step 52.

New Geometries Procedure - CONT

Step	Action	Response
47.	<u>Select Add...</u>	Select Unit window opens.



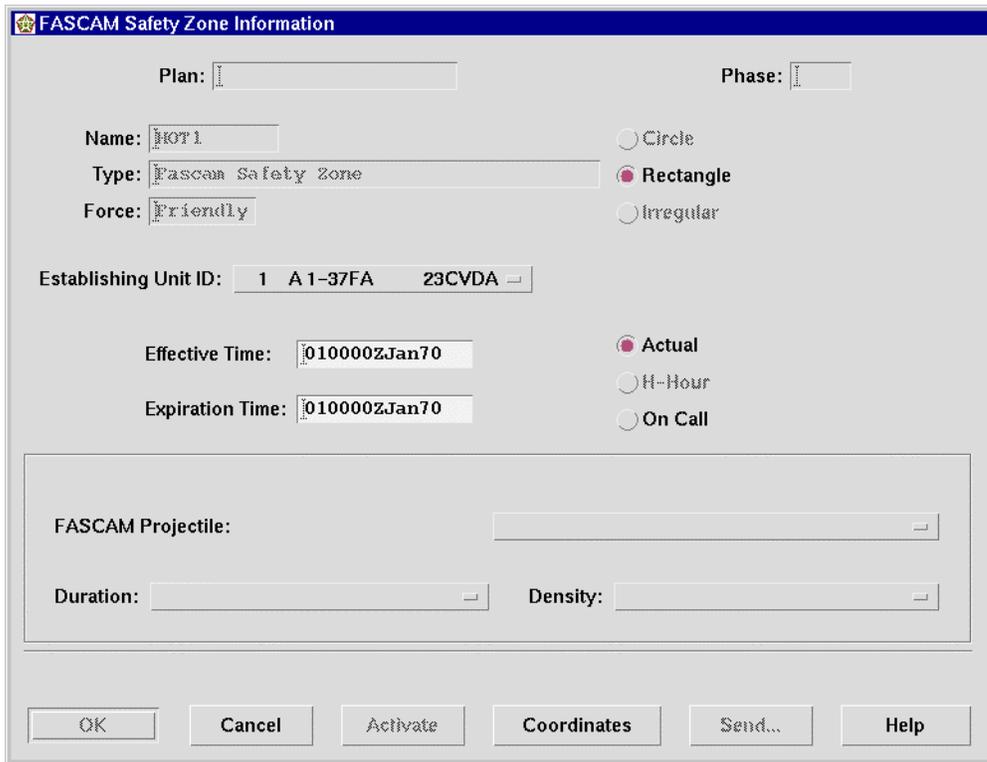
48.	<u>Select unit to be added.</u>	
49.	<u>Select OK.</u>	Select Unit window closes. Return to DSA Information window and selected unit is added to Restricted Fire List.
50.	<u>Select unit to be removed.</u>	
51.	<u>Select Remove.</u>	Unit is removed from the list.
52.	<u>Select Coordinates.</u> (Refer to Edit Area procedure).	Edit Area window opens for entry of coordinate data.

NOTE

Activate is not normally done at time geometry is created.

New Geometries Procedure - CONT

Step	Action	Response
53.	<u>Select Activate</u> . (Available for On Call geometries only).	
54.	<u>Select OK</u> .	DSA Information window closes.



NOTE

To perform functions of **Coordinates** button, select button and refer to paragraph for appropriate Point, Line, Area, or Circle edit window.

55. Select **Circle, Rectangle, or Irregular** (required for area type geometries).

New Geometries Procedure - CONT

Step	Action	Response
56.	<u>Select Actual, H-Hour, or On Call</u> radio buttons. (H-Hour not available in the Current situation).	
57.	<u>Enter Effective Time:</u>	
58.	<u>Enter Expiration Time:</u>	
59.	<u>Select FASCAM Projectile:</u>	
60.	<u>Select Duration:</u>	
61.	<u>Select Density:</u>	
62.	<u>Select Coordinates.</u> Refer to Edit Rectangle, Edit Area, or Edit Circle procedure as appropriate.	

NOTE

Activate is not normally done at time geometry is created.

63.	<u>Select Activate.</u> (Available for On Call geometries in the Current situation only).	
64.	<u>Select OK.</u>	FASCAM Safety Zone Information window closes. Data is saved in database.

New Geometries Procedure - CONT

Step	Action	Response
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NOTE

To perform functions of **Coordinates** button, select button and refer to paragraph for appropriate Point, Line, Area, or Circle edit window.

- 65. Select **Absolute**, **H-Hour**, or **On Call** radio buttons. (H-Hour not available in the Current situation).
- 66. Enter **Effective Time**:
- 67. Enter **Expiration Time**:
- 68. Select **Munitions**.

Selecting a **Munitions** type will add it to the **Restricted Munitions** for the RFA.

New Geometries Procedure - CONT

Step	Action	Response
69.	<u>Select Fuzes.</u>	Selecting a Fuzes type will add it to the Restricted Fuzes for the RFA.
70.	<u>Select FS Systems.</u>	Selecting a FS Systems type will add it to the Restricted FS Systems for the RFA.
71.	<u>Select Calibers.</u>	Selecting a Calibers type will add it to the Restricted Calibers for the RFA.
72.	<u>Select Coordinates.</u> Refer to Edit Rectangle, Edit Area, or Edit Circle procedure as appropriate.	

NOTE

Activate is not normally done at time geometry is created.

73.	<u>Select Activate.</u> (Available for On Call geometries in the Current situation only).	
74.	<u>Select OK.</u>	RFA Information window closes. Data is saved in database.

New Geometries Procedure - CONT

Step	Action	Response
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TBA Information

Plan: [] Phase: []

Name: WATCH1 Circle

Type: Target Build-Up Area Rectangle

Force: Friendly Irregular

Establishing Unit ID: 1 A 1-37FA 23CVDA [v]

Effective Time: 010000ZJan70 Absolute

Expiration Time: 010000ZJan70 H-Hour

On Call

Target Type	Threshold	Total Reported

Add... Remove

OK Cancel Activate Coordinates Send... Help

NOTE

To perform functions of **Coordinates** button, select button and refer to paragraph for appropriate Point, Line, Area, or Circle edit window.

75. Select **Circle, Rectangle, or Irregular** (required for area type geometries).

New Geometries Procedure - CONT

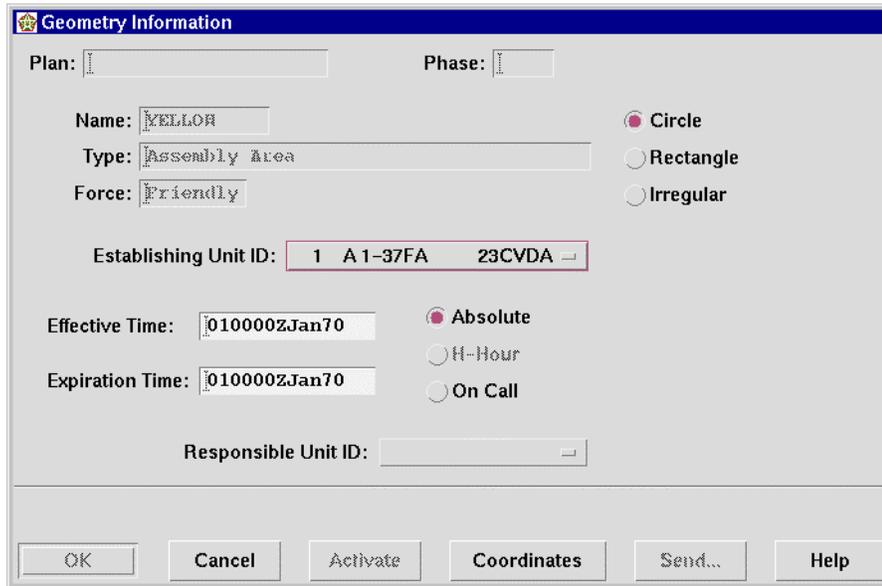
Step	Action	Response
76.	<u>Select Absolute, H-Hour, or On Call</u> radio buttons. (H-Hour is not available in the Current situation).	
77.	<u>Enter Effective Time:</u> .	
78.	<u>Enter Expiration Time:</u> .	
79.	To add target type, proceed to step 80. To remove target type, proceed to step 85. To edit threshold, proceed to step 84. To continue, proceed to step 82.	
80.	<u>Select Add...</u> .	Select Target Type window opens.
81.	<u>Select Target Category and Type.</u>	
82.	<u>Select OK.</u>	Select Target Type window closes, and Target Type is added to list.
83.	<u>Enter Threshold.</u> (1-9999 proceed to note prior to step 75).	
84.	<u>Select Target Type.</u>	
85.	<u>Select Remove.</u> (proceed to note prior to step 75).	Target Type is removed from list.
86.	<u>Select Coordinates.</u> Refer to Edit Circle Procedure.	

NOTE

Activate is not normally done at time geometry is created.

New Geometries Procedure - CONT

Step	Action	Response
87.	<u>Select Activate</u> . (Available for On Call geometries in the Current situation only).	
88.	<u>Select OK</u> .	TBA Information window closes. Data is saved in database.



89.	<u>Select Circle, Rectangle, or Irregular</u> (required for area type geometries).
90.	<u>Select Absolute, H-Hour,</u> or <u>On Call</u> radio buttons. (H-Hour is not available in the Current situation).
91.	<u>Enter Effective Time:</u>
92.	<u>Enter Expiration Time:</u>
93.	<u>Select Responsible Unit ID:</u> (for ZOR geometries only).

New Geometries Procedure - CONT

Step	Action	Response
94.	<u>Select Coordinates</u> . Refer to Edit Rectangle, Edit Area, or Edit Circle procedure as appropriate.	
NOTE		
Activate is not normally done at time geometry is created.		
95.	<u>Select Activate</u> . (Available for On Call geometries in the Current situation only).	
96.	<u>Select OK</u> .	Geometry Information window closes. Data is saved in database.

3-63 POINT GEOMETRY.

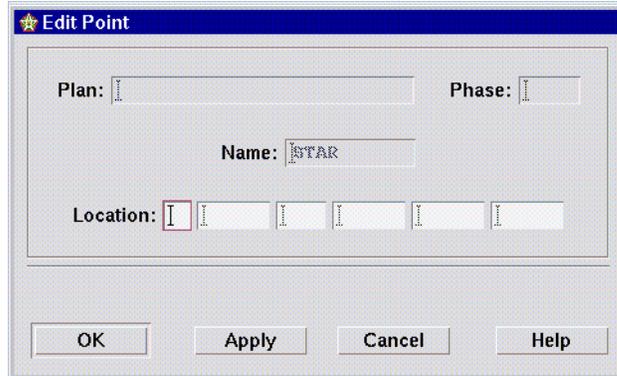
Point Geometries are displayed to indicate a single-coordinate point of interest. The displayed symbol will vary depending on the point type and monitor being used. See appendix G for a description of the symbol display.

3-63.1 Edit Point.

Selecting **Coordinates** from any point **Geometry Information** window opens the **Edit Point** window. The user may then enter a new location for the geometry. Selecting **Apply** will display the geometry without closing the **Edit Point** window.

Point Geometry Procedures

Step	Action	Response
1.	Coordinates selected from geometry information window.	Edit Point window opens.



2.	<u>Enter Location:</u>	
3.	<u>Select OK.</u>	Edit Point window closes.

3-64 **LINE GEOMETRIES.**

Line Geometries are multiple-coordinate geometries used to indicate the location of boundaries, axis of maneuver, etc. The displayed symbol will vary depending on the line type and monitor being used. See appendix G for a description of the symbol display.

3-64.1 Edit Line.

Selecting **Coordinates** from any line **Geometry Information** window opens the **Edit Line** window. The user may then enter multiple coordinates to create the location of the line. The user may also select **Insert Before** to move the entries down one line, **Reverse Locations** to switch the locations by interchanging the start and end points, or **Delete** to remove a location. **Apply** must be selected after each location input. This will display the segments, and allow a space for the next one.

Line Geometry Procedures

Step	Action	Response
1.	Coordinates selected from geometry information window.	Edit Line window opens.



Line Geometry Procedures - CONT

Step	Action	Response
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NOTE

To edit a line symbol, proceed to the step indicated for the edit process to be performed as follows:

Enter Coordinate Point(s)	step 2
Insert Before	step 5
Delete coordinate point	step 9
Reverse Locations	step 12
Change coordinates of point	step 14

NOTE

Apply must be pressed after each location entry. This will display the segments, and allow a space for the next location to be inputted. Selecting **OK** at any time will close the window.

2.	<u>Enter coordinates</u> of first point.	
3.	<u>Enter coordinates</u> of second and subsequent points.	Line is drawn from enter point to previous point.
4.	To perform other functions of Edit Line window, refer to note prior to step 2.	
5.	<u>Select location</u> in list to insert point.	
6.	<u>Select Insert Before</u> .	Inserts a blank location before selected location. Disabled when multiple location selected.
7.	<u>Enter coordinates</u> for inserted point in blank fields.	Line is re-drawn to new coordinates.
8.	To perform other functions of Edit Line window, refer to note prior to step 2.	

Line Geometry Procedures - CONT

Step	Action	Response
9.	<u>Select coordinates</u> to be deleted.	
10.	<u>Select Delete</u> .	Selected coordinates are removed. Line is re-drawn to new coordinates.
11.	To perform other functions of Edit Line window, refer to note prior to step 2.	

NOTE

In **Reverse Locations** the order of the listed points is reversed. This action changes the direction of the line by interchanging the start point (coordinate point 1) and the end point (last listed point).

12.	<u>Select Reverse Locations</u> .	Locations are reversed.
13.	To perform other functions of Edit Line window, refer to note prior to step 2.	
14.	<u>Select coordinates</u> to be changed.	
15.	<u>Enter new coordinates</u> .	
16.	To perform other functions of Edit Line window, refer to note prior to step 2.	

3-65 AREA GEOMETRIES.

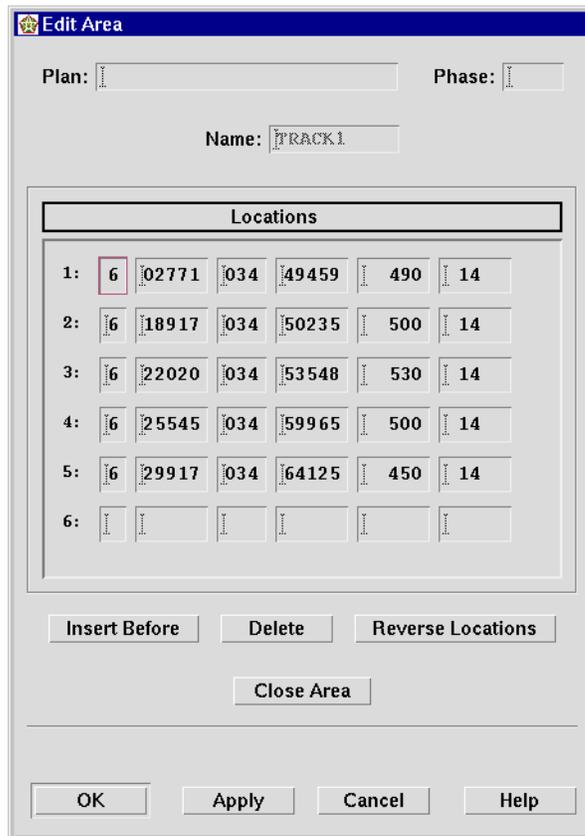
Area Geometries are multiple-coordinate geometries used to indicate the location of areas of interest for the battlefield. The displayed symbol will vary depending on the area type and monitor being used. See appendix G for a description of the symbol display.

3-65.1 Edit Area.

Selecting **Coordinates** from any irregular area **Geometry Information** window opens the **Edit Area** window. The user may then enter multiple coordinates to create the location of the area. The user may also select **Insert Before** to move the entries down one line, **Reverse Locations** to switch the locations by interchanging the start and end points, **Delete** to remove a location, or **Close Area** to connect the first and last points. **Apply** must be selected after each location input. This will display the segments, and allow a space for the next one.

Area Geometry Procedures

Step	Action	Response
1.	Coordinates selected from geometry information window.	Edit Area window opens.



Area Geometry Procedures - CONT

Step	Action	Response
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NOTE

To edit an area symbol, proceed to the step indicated for the edit process to be performed as follows: Selecting **OK** at any time will close the window.

Enter Coordinate(s)	step 2
Insert Before	step 6
Delete coordinate point	step 10
Reverse Locations	step 13
Change coordinates of point	step 15

2.	<u>Enter coordinates</u> of first point.	
3.	<u>Enter coordinates</u> of second and subsequent points.	Line is drawn from enter point to previous point.
4.	<u>Select Close Area.</u>	Line is drawn connecting the first point to the last point.
5.	To perform other functions of Edit Area window, refer to note prior to step 2.	
6.	<u>Select location</u> in list to insert point.	
7.	<u>Select Insert Before.</u>	Inserts a blank location before selected location. Disabled when multiple location selected.
8.	<u>Enter coordinates</u> for inserted point in blank fields.	Line is re-drawn to new coordinates.
9.	To perform other functions of Edit Area window, refer to note prior to step 2.	
10.	<u>Select coordinates</u> to be deleted.	

Area Geometry Procedures - CONT

Step	Action	Response
11.	<u>Select Delete.</u>	Selected coordinates are removed. Line is re-drawn to new coordinates.
12.	To perform other functions of Edit Area window, refer to note prior to step 2.	

NOTE

In **Reverse Locations** the order of the listed points is reversed. This action changes the direction of the line by interchanging the start point (coordinate point 1) and the end point (last listed point).

13.	<u>Select Reverse Locations.</u>	Locations are reversed.
14.	To perform other functions of Edit Area window, refer to note prior to step 2.	
15.	<u>Select coordinates</u> to be changed.	
16.	<u>Enter new coordinate.</u>	
17.	To perform other functions of Edit Area window, refer to note prior to step 2.	

3-66 **RECTANGLE.**

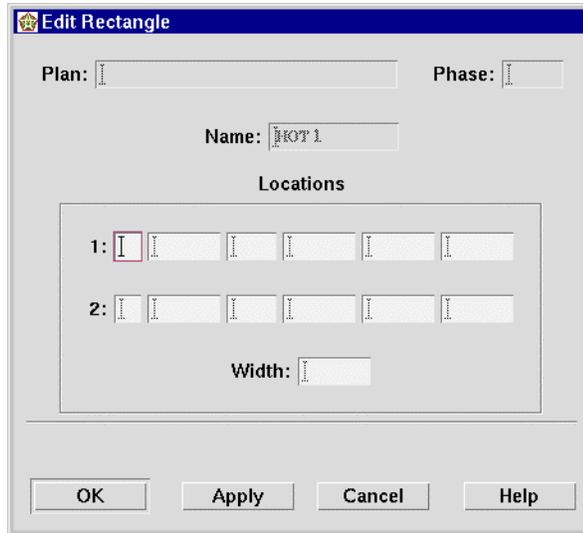
Rectangle Geometries are multiple-coordinate geometries used to indicate the location of areas of interest for the battlefield. The displayed symbol will vary depending on the area type and monitor being used. See appendix G for a description of the symbol display.

3-66.1 Edit Rectangle.

Selecting **Coordinates** from any rectangle area **Geometry Information** window opens the **Edit Rectangle** window. The user may then enter two coordinates and a width for the geometry. Selecting **Apply** will display the geometry without closing the **Edit Rectangle** window.

Rectangle Geometry Procedures

Step	Action	Response
1.	Coordinates selected from geometry information window.	Edit Rectangle window opens.



2.	<u>Enter Location 1:</u>	
3.	<u>Enter Location 2:</u>	
4.	<u>Select Width:</u>	
5.	<u>Select OK.</u>	Edit Rectangle window closes.

3-67 **CIRCLE.**

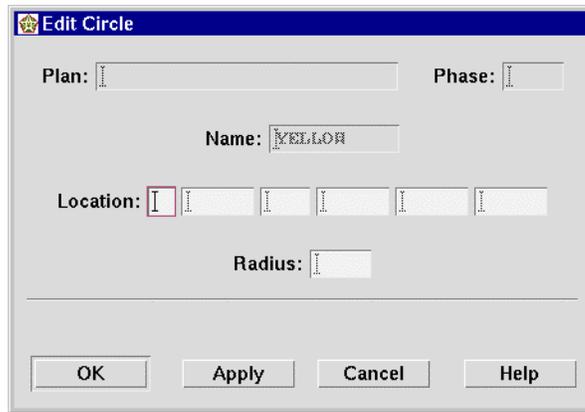
Circle Geometries are single-coordinate geometries used to indicate the location of areas of interest for the battlefield. The displayed symbol will vary depending on the area type and monitor being used. See appendix G for a description of the symbol display.

3-67.1 Edit Circle.

Selecting **Coordinates** from any circle area **Geometry Information** window opens the **Edit Circle** window. The user may then enter a location and a radius for the circle. Selecting **Apply** will display the geometry without closing the **Edit Circle** window.

Circle Geometry Procedures

Step	Action	Response
1.	Coordinates selected from geometry information window.	Edit Circle window opens.



2.	<u>Enter Location:</u>	
3.	<u>Enter Radius:</u>	
4.	<u>Select OK.</u>	Edit Circle window closes.

SECTION 6 MET

The MET data is managed via the **MET** selection from the **Current** window menu. The **View CM**, **CFL**, **TA**, **TALL**, **SO**, and **FO** selections open a window to view MET data. One of the windows is used to view **SO** (surface observation) MET specifically. The other viewing window is used to display all other types of MET data. The type data displayed depends on the selection made.

MET	Units	Ta
View CM		
View CFL		
View TA		
View TALL		
View SO		
View FO		
Request CM...		
Request CFL...		
Request TA...		
Request TALL...		
Request SO...		
Request FO...		

3-68 VIEW MET WINDOW DESCRIPTION.

The **View <type> MET** window is accessed from the **Current\METView CM**, **CFL**, **TA**, **TALL**, or **FO** selections. This window allows the user to view the current, standard, and alternate MET information for the selected type. The type of MET information displayed is selected using the **Category**: option menu. The **MET Station**: field shows the unit ID of the MET station which supplied the information.

The screenshot shows the 'View CM MET' window with the following fields and tables:

Options

MET Station: 000000 Category: CURRENT Name: current

Valid from: 010000ZJan70 to: 010001ZJan70 Enable Alert Alert Hours: 0

Location: [][][][][][]

Latitude (deg/10): 0 Precipitation Type: []

Longitude (deg/10): 0 Precipitation Rate (mm/hr): 0

Altitude (10 m): 0 Refractive Index: 0

Atmospheric Pressure (mb): 999 Cloud Cover: []

Temp Gradient: []

Two Meter Temp (deg F): 0 Cloud Base Indicator (10m): []

Snow Depth (m/10): 0 Cloud Relative Height: []

Forecast Rel Hum (10%): 0 Cloud Base Height (10 m): []

Global Octant: Area Not Indicated

Line Num	Wind Dir (10 mil)	Wind Speed (kn)	Air Temp (deg K)	Rel Hum (%)	Air Press (mb)
0	0	0	288.2	0	1013
1	0	0	287.5	0	1001
2	0	0	285.9	0	972
3	0	0	283.3	0	926

Surface Wd Alt	Surface Wd Dir (10 deg)	Surface Wd Spd (10 kn)
FROM 2M	0	0
FROM 15M	0	0
FROM 50M	0	0
FROM 100M	0	0

Buttons: Make Current Send... Print... Cancel Help

Figure 3.78 View CM MET

The **Name:** field displays the name of the MET file selected (current, standard, or user defined). This field can be edited to create a user defined Alternate MET. To create and save an Alternate MET file, the user enters the **Name:**, the data for the MET, and selects **Options\Make Alternate**. This saves the data and closes the viewing window. The new MET can then be viewed by opening the **View <type> MET** window and selecting **Category:\Select...** to open the **Select MET Name** window. Selecting a MET name and **OK** updates the view MET window. The **Options\Save Alternate** menu selection saves the changes made to a currently displayed Alternate MET file. The **Options\Delete Alternate** menu selection deletes the currently displayed Alternate MET.

The **Valid from:** and **to:** fields specify the time period for which the MET information is valid.

The **Enable Alert** check box enables the **Alert Hours:** field. The **Alert Hours:** field displays the time in which the user expects to receive updated MET information. If updated MET information is not received within the displayed time, an alert is generated notifying the user that the MET information has not been updated.

The **Location:** field is used to input the coordinates of the MET station. This field can be set to UTM, Lat/Long, or MGRS coordinate entries. This field is not used for FO MET.

The **Latitude (deg/10):**, **Longitude (deg/10):**, and **Altitude (10 m):** fields show the position and altitude of the MET station. The **Latitude (deg/10):** and **Longitude (deg/10):** fields are not used for FO MET. The **Altitude:** is in one meter increments for FO MET and 10 meter increments for all others.

The **Atmospheric Pressure (mb):** field shows the atmospheric pressure in millibars at the MET station. This field is not used for FO MET. Legal entries are 0 to 999 (defaults to 0).

The **Temp Gradient:** selection is used to describe the temperature gradient conditions at the MET station. This selection is used for FO MET only.

The **Two Meter Temp (deg F):** field is used to enter the temperature two meters above ground level at the MET station. The legal entry is -100 to 200 degrees.

The **Snow Depth (m/10):** field is used to enter the accumulation of snow at the MET station. Legal entries are 0 to 99 in tenths of meters (0 to 9.9 meters).

The **Forecast Rel Hum (10%):** field is used to enter the forecasted relative humidity at the MET station. Legal entries are 0 to 9 (0 to 90%).

The **Precipitation Type:** selection allows for the selection of a type for any current precipitation at the MET station.

The **Precipitation Rate (mm/hr):** field is used to enter the rate, in millimeters per hour, of the precipitation selected in the **Precipitation Type:** field.

The **Refractive Index:** field displays the surface refractive index value at the MET station. This field is not used for FO MET.

The **Cloud Cover:** selection is used to describe the cloud conditions at the MET station and is used for FO MET only.

The **Cloud Base Height (10 m)**: displays the height of the lowest cloud base above the MET Datum Plane. The MET Datum Plane is the elevation of the MET station.

The **Cloud Base Indicator (10 m)**: selection shows the method used to determine the **Cloud Base Height**.

The **Cloud Relative Height**: selection is used to describe the height of clouds at the MET station.

The **Cloud Base Height (10 m)**: field is used to enter the height above ground level of the lowest cloud.

The **Global Octant**: selection shows the area of the globe for which the MET information applies. This selection is not available for FO MET.

Required entries vary for different type of MET. Each entry/selection is defaulted so the user can elect not to make an entry/selection. Required fields are:

- FO MET - **Precipitation Type**:, **Temp Gradient**:, **Two Meter Temp (deg F)**:, **Snow Depth (m/10)**:, **Forecast Rel Hum (10%)**:, **Cloud Cover**:, and **Cloud Relative Height**:.
- TALL MET - **Precipitation Type: Precipitation Rate (mm/hr)**:, **Refractive Index**:, **Cloud Base Height (10 m)**:, and **Cloud Base Indicator (10 m)**:.
- TA MET - **Refractive Index**:, **Cloud Base Height (10 m)**:, and **Cloud Base Indicator (10 m)**:.

The **Line Num** field shows the altitude zone of the MET information. The **Wind Dir (10 mil)**, **Wind Speed (kn)**, **Air Temp (deg K)**, **Rel Hum (%)**, and **Air Press (mb)** fields detail the atmospheric conditions at the indicated altitude zone. There are 32 lines of data possible.

The **Surface Wd Alt** fields are used to enter the **Surface Wd Dir (10 deg)** and **Surface Wd Spd (10 kn)** at various heights above ground level at the MET station. The legal entry range for **Surface Wd Dir** is 0 to 35 (0 to 350 degrees). The legal entry range for **Surface Wd Spd** is 0 to 99 (0 to 990 knots per hour).

The **Make Current** button replaces the current MET data with the data being displayed.

The **Send...** button opens the **Select Unit** window which allows the user to select a destination unit to send the MET information to.

3-69 VIEW CM, CFL, FO, TA, OR TALL MET PROCEDURE.

The user selects the type of MET data to be displayed from the **MET** menu selections.

View MET Procedure

Step	Action	Response
1.	Select Current\MET\View CM, CFL, FO, TA, or TALL.	The View <selected> MET window opens.

Options

MET Station: 000000 Category: CURRENT Name: Current

Valid from: 010000ZJan70 to: 010001ZJan70 Enable Alert Alert Hours: 0

Location: [][][][][][]

Latitude (deg/10): 0 Precipitation Type: []

Longitude (deg/10): 0 Precipitation Rate (mm/hr): 0

Altitude (10 m): 0 Refractive Index: 0

Atmospheric Pressure (mb): 999 Cloud Cover: []

Temp Gradient: []

Two Meter Temp (deg F): 0 Cloud Base Indicator (10m): []

Snow Depth (m/10): 0 Cloud Relative Height: []

Forecast Rel Hum (10%): 0 Cloud Base Height (10 m): []

Global Octant: Area Not Indicated

Line Num	Wind Dir (10 mil)	Wind Speed (kn)	Air Temp (deg K)	Rel Hum (%)	Air Press (mb)
0	0	0	288.2	0	1013
1	0	0	287.5	0	1001
2	0	0	285.9	0	972
3	0	0	283.3	0	926

Surface Wd Alt	Surface Wd Dir (10 deg)	Surface Wd Spd (10 kn)
FROM 2M	0	0
FROM 15M	0	0
FROM 50M	0	0
FROM 100M	0	0

Make Current Send... Print... Cancel Help

View MET Procedure - CONT

Step	Action	Response
------	--------	----------

NOTE

This window is used to view and edit MET Data; the edit of all fields is included in this procedure. To perform the following functions, proceed to the indicated steps. Selecting **Make Current** or **Cancel** closes this window.

Enter MET data	step 2
Make viewed MET current.....	step 38
Create new Alternate MET file.....	step 41
Save edit of established Alternate MET file	step 44
Delete MET file	step 48
Send MET information to another unit.....	step 51

2.	Enter MET Station ID (optional, legal entry 1 to 6 alphanumeric characters).	
3.	Select Category: of MET to be displayed.	Select Met Name window opens.
4.	Select MET to be displayed.	
5.	Select OK .	Select Met Name window closes. MET type is displayed in Category: field. MET name displayed in Name: field.
6.	Enter Name: (required if creating a new MET file).	
7.	Enter Valid From: DTG (optional).	
8.	Enter To: DTG (optional).	
9.	Select Enable Alert check box to activate alerts (optional).	
10.	Select Alert Hours field and enter the update time in hours. (0-23)	The Alert Hours field indicate the time in hours during which the MET information should be updated.

View MET Procedure - CONT

Step	Action	Response
11.	<u>Enter Location:</u> (required for FO MET).	
12.	<u>Enter Latitude (deg/10):</u> (optional, not used for FO MET).	
13.	<u>Enter Longitude (deg/10):</u> (optional, not used for FO MET).	
14.	<u>Enter Altitude (10 m):</u> (optional, not used for FO MET, legal entry -99 to 999).	
15.	<u>Enter Atmospheric Pressure (mb):</u> (required for CM, TA, and TALL MET's).	
16.	<u>Select Temp Gradient:</u> (for FO MET only, optional).	
17.	<u>Enter Two Meter Temp (deg F):</u> (for FO MET only, optional, legal range -100 to 200).	
18.	<u>Enter Snow Depth (m/10):</u> (for FO MET only, optional, legal range 0 to 99).	
19.	<u>Enter Forecast Rel Hum (10%):</u> (for FO MET only, optional, legal range 0 to 9).	
20.	<u>Select Precipitation Type:</u> (for TALL and FO MET's only, optional).	
21.	<u>Enter Precipitation Rate (mm/hr):</u> (for TALL MET only, optional, legal range 0 to 999).	
22.	<u>Enter Refraction Index:</u> (for TA and TALL MET's only, optional).	
23.	<u>Select Cloud Cover:</u> (for FO MET only, optional).	

View MET Procedure - CONT

Step	Action	Response
24.	<u>Select Cloud Base Indicator (10m)</u> : (for TA and TALL MET's only, optional).	
25.	<u>Select Cloud Relative Height</u> : (for FO MET only, optional).	
26.	<u>Enter Cloud Base Height (10m)</u> : (for TA and TALL MET's only, optional, range 1 to 160).	
27.	<u>Select Global Octant</u> : (optional, not used for FO MET).	
28.	<u>Enter Wind Dir (10 mil)</u> : (optional, range 0 to 35 (0 to 360 deg for FO MET)).	
29.	<u>Enter Wind Speed (kn)</u> : (optional, range 0 to 300 (0 to 1023 for FO MET)).	
30.	<u>Enter Air Temp (deg K)</u> : (for CM, TA, and TALL MET's only, optional, range 0 to 500).	
31.	<u>Enter Relative Hum (%)</u> : (for TA and TALL MET's only, optional, range 0 to 100).	
32.	<u>Enter Air Pressure (mb)</u> : (for CM MET only, optional, range 0 to 1100).	
33.	<u>Repeat steps 28 through 32</u> for each line of MET data as required.	
34.	<u>Enter Surface Wind Dir (10 deg)</u> : for a listed Surface Wd Alt (required for FO MET, legal range 0 to 35).	
35.	<u>Enter Surface Wind Spd (10 kn)</u> : for a listed Surface Wd Alt (required for FO MET, legal range 0 to 99).	

View MET Procedure - CONT

Step	Action	Response
36.	<u>Repeat steps 34 and 35</u> for each line of MET data as required.	
37.	To perform other functions of View MET window, refer to note prior to step 2.	
38.	<u>Display MET</u> that is to become current.	
39.	<u>Select Make Current</u> .	Displayed MET becomes Current MET. View Met window closes.
40.	To perform other functions of View MET window, refer to note prior to step 2.	
41.	<u>Enter Name</u> : of file to be created.	
42.	<u>Enter/select</u> data for file.	
43.	<u>Select Options\Make Alternate</u> .	File is created. View Met window closes.
44.	To perform other functions of View MET window, refer to note prior to step 2.	
45.	<u>Edit existing Alternate MET file</u> .	
46.	<u>Select Options\Save Alternate</u> .	File is saved. View Met window closes.
47.	To perform other functions of View MET window, refer to note prior to step 2.	
48.	<u>Display MET to be deleted</u> .	
49.	<u>Select Options\Delete Alternate</u> .	File is deleted. View Met window closes.
50.	To perform other functions of View MET window, refer to note prior to step 2.	
51.	<u>Display MET to be sent</u> .	
52.	<u>Select Send...</u> .	Select Unit window opens.

View MET Procedure - CONT

Step	Action	Response
------	--------	----------



53.	<u>Select unit ID</u> from displayed list.	Selected unit is highlighted.
54.	<u>Select OK.</u>	Select Unit window closes, View MET window is displayed, and MET information is sent to selected unit.
55.	To perform other functions of View MET window, refer to note prior to step 2.	

3-70 VIEW SO MET WINDOW DESCRIPTION.

The **View MET** window is accessed from the **Current\MET\View SO** selection. This window allows the user to view/edit the current and alternate SO MET information.

The type of MET information displayed is selected using the **Category:** option menu. The **MET Station:** field shows the unit ID of the MET station which supplied the information.

The **Name:** field displays the name of the MET file selected (current, standard, or user defined). This field can be edited to create a user defined Alternate MET. To create and save an Alternate MET file, the user enters the **Name:**, the data for the MET, and selects **Options\Make Alternate**. This saves the data and closes the viewing window. The new MET can then be viewed by opening the **View <type> MET** window and selecting **Category:\Select...** to open the **Select MET Name** window. Selecting a MET name and **OK** updates the view MET window.

The screenshot shows the 'View SO MET' window with the following fields and values:

- Options** (tab selected)
- MET Station:** 000000
- Category:** CURRENT
- Name:** Current
- Valid from:** 010000ZJan70
- to:** 010001ZJan70
- Enable Alert**
- Alert Hours:** 0
- Wind Speed (kn):** 0
- Wind Direction (10 deg):** 1
- Surface Wind Heading:** Calm
- Wind Force:** Calm
- Air Temperature (deg C):** 15
- Atmospheric Pressure (mb):** 999
- Present Weather:** No Significant Weather
- Present Weather Amp:** No Precipitation Occuring
- Latitude (deg/10):** 0
- Longitude (deg/10):** 0
- Surface Pressure (mb/10):** 9999
- Surface Visibility:** More than 50 Km
- Road State:** Dry
- Terrain State:** Dry
- Cloud Amount:** Zero
- Cloud Total Amount:** Clear
- Lowest Cloud Height (m):** Unknown
- Altitude (10m):** 0
- Global Octant:** Area Not Indicated
- Breaker Ave Height:** Unknown
- Breaker Interval:** Unknown
- Water Surf State:** Water Level Normal
- Wave Approach Dir:** Unknown
- Surf Zone Width:** Unknown

Buttons at the bottom: **Make Current**, **Send...**, **Cancel**, **Help**

Figure 3.79 View SO MET

The **Options\Save Alternate** menu selection saves the changes made to a currently displayed Alternate MET file. The **Options>Delete Alternate** menu selection deletes the currently displayed Alternate MET.

The **Valid from:** and **to:** fields specify the time period for which the MET information is valid.

The **Enable Alert** check box enables the **Alert Hours:** field. The **Alert Hours:** field displays the time in which the user expects to receive updated MET information. If updated MET information is not received within the displayed time, an alert is generated notifying the user that the MET information has not been updated.

The **Wind Speed(kn):** field displays the wind speed from 0 to 99 knots per hour. The **Wind Direction (10 deg):** field is the direction in tens of degrees from 10 to 360 (1 to 36) degrees. The **Surface Wind Heading:** field displays the direction from which the wind is coming and is displayed as one of eight compass points (e.g., **North**, **Southwest**, etc.), **Calm**, **Variable**, or **Unknown**. The **Wind Force:** field is the strength of the wind measured in the Beaufort Scale. The display will indicate **Calm**, **Light Breeze**, **Moderate Breeze**, **Strong Breeze**, **Gale**, or **Unknown**.

The **Air Temperature (deg C):** is the temperature of the air (from -49 to +50 degrees Celsius) near the earth's surface. The **Atmospheric Pressure (mb):** field displays the pressure (in millibars) measured at the MET station. The **Surface Pressure (mb/10):** displays the value of the surface pressure (in tenths of millibars) in a range of zero 0 to 9999 (0 to 999.9 mb).

The **Surface Visibility:** displays the range of visibility at the observation point. The display will indicate the range as **Less than 50m**, **50-200m**, **200-500m**, **500-1000m**, **1-2km**, **2-4km**, **4-10km**, **10-20km**, **20-50km**, **50km or more**, or **Unknown**.

The **Road State:** and **Terrain State:** fields indicate the surface condition of roads and terrain in the vicinity of the observation point. These conditions include moisture content, icing, snow depth, and **Unknown**.

The **Cloud Amount:** field indicates the amount of clouds at the lowest reported level. The display will indicate the fractional amount in increments of 1/8's from 0 to 8/8, **Cloud Amount cannot be Estimated**, or **Unknown**. The **Cloud Total Amount:** fields indicate the total of clouds observed and is reported as **Clear**, **Scattered**, **Scattered (Hills in Clouds)**, **Broken**, **Broken (Hills in Clouds)**, **Overcast**, **Overcast (Hills in Clouds)**, or **Unknown**. The **Lowest Cloud Height:** field indicates the height of the lowest clouds and is displayed in ranges from **0-99 Meters** to **900 Meters or more** and **Unknown**.

The **Present Weather:** and **Present Weather Amp:** fields display the general and detailed weather conditions at the observation point, respectively.

The **Latitude (deg/10):** field displays the value of latitude in tenths of degrees. The displayed value is 0 to 840 (0 to 84.0 degrees). The **Longitude (deg/10):** field displays the value of longitude in tenths of degrees. The displayed value is 0 to 999 (0 to 99.9 degrees). The **Altitude (10m):** field displays the value of altitude in tens of meters. The displayed value is -99 to 999 (-990 to 9990 meters). The **Global Octant:** field displays the sector of the globe in which the observation point is located. This sector is defined by the hemisphere and longitude range of its location.

The **Breaker Ave Height:** field indicates the average height in meters of waves breaking on a shoreline. The display will indicate **Less than 1m, 1-2m, 2-3m, More than 3m, or Unknown.** The **Breaker Interval:** field indicates the time required for successive breakers to pass a given point. The display will indicate **0-10 seconds, 10-20 seconds, 20-30 seconds, More than 30 seconds, or Unknown.**

The **Wave Approach Dir:** indicates the direction of a waves approach to the beach with the observers back to the water. The display will indicate **Right, Rear, Left, or Unknown.** The **Surf Zone Width:** field indicates the distance from the edge of the water out to the point where white caps begin to appear. The display will indicate **0-10m, 10-20m, 20-30m, More than 30m, or Unknown.**

The **Water Surf State:** field indicates the conditions of the water surface with regards to water level and/or icing conditions.

The **Make Current** button replaces the current MET data with the data being displayed.

The **Send...** button opens the **Select Unit** window which allows the user to select a destination unit to send the MET information to.

3-71 **VIEW/EDIT SO MET PROCEDURE.**

View/Edit SO Procedure		
Step	Action	Response
1.	<u>Select Current\MET\View SO.</u>	The View SO MET window opens.

View/Edit SO Procedure - CONT

Step	Action	Response
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NOTE

This window is used to view and edit MET Data; the edit of all fields is included in this procedure. To perform the following functions, proceed to the indicated steps. Selecting **Make Current** or **Cancel** closes this window.

Enter MET data	step 2
Make viewed MET current.....	step 38
Create new Alternate MET file.....	step 41
Save edit of established Alternate MET file	step 44
Delete MET file	step 48
Send MET information to another unit.....	step 51

2. Enter MET Station ID (optional, legal entry 1 to 6 alphanumeric characters).	
3. Select Category: of MET to be displayed.	Select Met Name window opens.
4. Select MET to be displayed.	
5. Select OK .	Select Met Name window closes. MET type is displayed in Category: field. MET name displayed in Name: field.
6. Enter Name: (required if creating a new MET file).	
7. Enter Valid From: DTG (optional).	
8. Enter To: DTG (optional).	
9. Select Enable Alert check box to activate alerts (optional).	

View/Edit SO Procedure - CONT

Step	Action	Response
10.	<u>Select Alert Hours</u> field and enter the update time in hours. (0-23)	The Alert Hours field indicate the time in hours during which the MET information should be updated.
11.	<u>Enter Wind Speed (kn):</u>	
12.	<u>Enter Wind Direction (10 deg):</u>	
13.	<u>Select Surface Wind Heading:</u>	
14.	<u>Select Wind Force:</u>	
15.	<u>Enter Air Temperature (deg C):</u>	
16.	<u>Enter Atmospheric Pressure (mb):</u>	
17.	<u>Enter Surface Pressure (mb/10):</u>	
18.	<u>Select Surface Visibility:</u>	
19.	<u>Select Road State:</u>	
20.	<u>Select Terrain State:</u>	
21.	<u>Select Cloud Amount:</u>	
22.	<u>Select Cloud Total Amount:</u>	
23.	<u>Select Lowest Cloud Height (m):</u>	
24.	<u>Select Present Weather:</u>	
25.	<u>Select Present Weather Amp:</u>	
26.	<u>Enter Latitude (deg/10):</u> (optional).	
27.	<u>Enter Longitude (deg/10):</u> (optional).	

View/Edit SO Procedure - CONT

Step	Action	Response
28.	<u>Enter Altitude (10 m)</u> : (optional, legal entry - 99 to 999).	
29.	<u>Select Global Octant</u> : (optional).	
30.	<u>Select Breaker Ave Height</u> :	
31.	<u>Select Breaker Interval</u> :	
32.	<u>Select Water Surf State</u> :	
33.	<u>Select Wave Approach Dir</u> :	
34.	<u>Select Surf Zone Width</u> :	
35.	To perform other functions of View SO MET window, refer to note prior to step 2.	
36.	<u>Display MET</u> that is to become current.	
37.	<u>Select Make Current</u> .	Displayed MET becomes Current MET. View SO Met window closes.
38.	To perform other functions of View SO MET window, refer to note prior to step 2.	
39.	<u>Enter Name</u> : of file to be created.	
40.	<u>Enter/select</u> data for file.	
41.	<u>Select Options\Make Alternate</u> .	File is created. View SO Met window closes.
42.	To perform other functions of View SO MET window, refer to note prior to step 2.	
43.	<u>Edit existing Alternate MET file</u> .	
44.	<u>Select Options\Save Alternate</u> .	File is saved. View SO Met window closes.

View/Edit SO Procedure - CONT

Step	Action	Response
45.	To perform other functions of View SO MET window, refer to note prior to step 2.	
46.	<u>Display MET to be deleted.</u>	
47.	<u>Select Options\Delete Alternate.</u>	File is deleted. View SO Met window closes.
48.	<u>Display MET to be sent.</u>	
49.	<u>Select Send...</u>	Select Unit window opens.



50.	<u>Select unit ID</u> from displayed list.	Selected unit is highlighted.
51.	<u>Select OK.</u>	Select Unit window closes, View SO MET window is displayed, and MET information is sent to selected unit.
52.	To perform other functions of View SO MET window, refer to note prior to step 2.	

CHAPTER 4 MISSION PROCESSING

Section 1 MISSION PROCESSING FUNCTIONS

4-1 AFATDS/IFSAS INTEROPERABILITY.

The following paragraphs describe mission processing differences between the AFATDS and IFSAS systems.

4-1.1 Fire Plans With Phased Targets.

AFATDS will not accept all targets in a fire plan if the plan was constructed by IFSAS using the phase technique. For example, if target AA1234 is sent from IFSAS in a fire plan as a multiple phase target, only one phase (instance) of the target will be scheduled. If the target is received with each instance referenced to H-hour it will be scheduled for each instance.

4-1.2 Quick Smoke Missions.

When AFATDS sends a Quick Smoke mission to IFSAS, the mission is sent with an effects type calculation. IFSAS expects the mission to specify the number of volleys required. In this case, the IFSAS must assume control of the mission and calculate the mission to determine volleys.

4-1.3 Effects/Volleys Differences.

The following target types are processed by AFATDS as effects targets and by IFSAS as volley types. If they are sent to an IFSAS as effects, the mission will not be processed. If the AFATDS OPFAC is supported by an IFSAS, the FA Attack Methods Table guidance should have volleys information entered for these targets types. AFATDS will then send volleys information to the IFSAS. This data must be entered before AFATDS receives and processes the mission.

Ammunition Dump	Ferry, Bridge	Recoilless Rifle
Anti Tank Gun	MG, Hvy (>=50 Cal)	Supply Dump, Class I
Arty, Hvy SP (> 160mm)	MG, Light (less than 50 Cal)	Supply Dump, Class II
Arty, Unknown	Mortar, Hvy (109-150mm)	Supply Dump, Unknown
Bridge, Foot Pontoon	Mortar, Light (less than 61mm)	Weapon, Crewserved
Bridge, Footbridge Raft	Mortar, Unknown	Personnel (DOP=covered & prone)
Bridge, Veh Pontoon	Mortar, Very Hvy (> 150mm)	Personnel (DOP=covered)
Bunker	Petrol Prod Dump	
Chem Prod Complex	Pillbox	

4-1.4 Coordinated Illumination Missions.

IFSAS cannot process a coordinated illumination mission properly. The AFATDS operator should ensure that intervention is set for these missions and direct them to another AFATDS or BCS unit.

4-1.5 Chemical Contamination Area Geometries.

When sending Chemical Contamination Area (CCA) geometries to IFSAS, ensure that the CCA is constructed using five (5) points. IFSAS will not accept CCA's constructed with any other number of points.

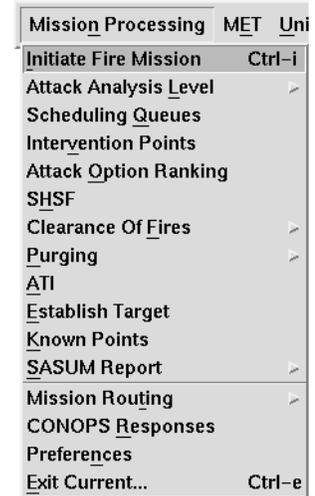
4-2 **MISSION PROCESSING.**

The AFATDS system improves the capability of artillery commands at all echelons to provide optimum fire support. This is done by automating key FS planning and execution functions. AFATDS computes, manages, and distributes mission data.

Target data is received in the form of sensor reports and fire requests.

Missions are also initiated at the OPFAC via the **Mission**

Processing\Initiate Fire Mission selection. The target processing computations check the data to determine if a fire mission should be processed. Target processing runs to completion regardless of results of individual checks within the process. If a target passes the target processing, an attack analysis is initiated to determine attack options. If mission processing cannot determine an attack option, a mission denial will be issued. When attack options are determined, the options are compared to the attack option ranking to select a recommended option.



Mission processing will continue automatically if the user chooses not to intervene. Missions will be sent to firing units, denied, or declared unsupported as appropriate. If a mission is denied, a denial message is routed to the unit that initiated the mission. Missions that are declared unsupported will be routed to the unit designated as the supported unit. Missions are routed between OPFAC's as a fire request (FR), fire order (FO), command post fire order (CP FO), or order to fire (OTF).

A CP FO is normally routed to supporting units by a unit that is to maintain control of the mission. A CP FO will be sent if the mission is sent to two (2) or more supporting units. An OTF is routed to a supporting unit when the supporting unit is to assume control for the mission. The last issued command is a FO to a BCS, MBC, GDU, or FDS.

For a typical mission, a sensor (FO and/or FIST) would route a fire request (FR) to its BN FSE/FSCC. The fire mission is processed by the FSE/FSCC to determine its value to the current situation, determine if it should be attacked at the current time, determine if it violates any FSCM's, and determine possible attack solutions.

These determinations are based on the current situation, unit and organization disposition, mission load, sensor/observer directions, and commander's guidance. This processing will cause the fire mission to be either denied back to the sensor/observer, handed to the FSE/FSCC organic mortar unit, or forwarded to another unit (typically BDE FSE/FSCC). The BDE FSE/FSCC will perform similar determinations to those done by the BN FSE/FSCC, and either deny the mission back to the BN FSE/FSCC, or forward the mission to the Div FSE/FSCC or its supporting DS BN CP/FDC. At each following AFATDS unit that receives the fire mission similar processing is accomplished. If a mission is unsupported at all levels, a mission denial is routed (via the processing route) back to the initiating unit. Once fire has started for a mission, the observer and controlling unit use direct communications to execute the mission. These communications include MTO, Shot, Splash, Rds Complete, Adj, EOM, and Surv.

4-2.1 Fire Mission Control.

Fire mission message routing is determined by the unit that maintains control of the mission. The normal procedure is that the unit that sends a mission to multiple units (massed mission) maintains control. For example, if a FA CP sends a mission to a single FU, the FU would assume control of the mission. If the FA CP sends the mission to multiple units, the FA CP maintains control. The controlling unit is the central unit in message traffic with the mission requester. This is true whether or not a unit chooses to intervene.

4-2.1.1 Fire Unit Controlled Missions.

The following diagram shows a fire mission being created and then controlled by an FU. A FR or CFF is initiated by the mission requester. The FSE/FSCC receives the request and performs mission processing to generate the attack options.

The attack option may include a single FU or it may include multiple units. If the selected attack option is a single FU, an OTF is sent to the unit. The FU performs mission processing and sends fire data to the GDU/FCS(s). The GDU/FCS(s) send MTO data to the FU. The FU compiles this data and sends a MTO to the requesting unit. If the mission is being observed, commands are sent to the observer by the FU. Observer commands, such as Shot, Designate, Rounds Complete, etc., are sent to the requester by the FU as data is received from GDU/FCS(s). If multiple GDU/FCS(s) are used, messages are sent by the FU only after all units have reported. For example, the Rounds Complete message is sent only after all GDU/FCS(s) have reported Rounds Complete to the FU.

Mission adjustments (range correction, method of fire and control, method of engagement, etc.) for observed missions are sent by the observer to the controlling unit (FU) and are relayed to the GDU/FCS(s). Mission adjustments (range correction, method of fire and control, method of engagement, etc.) for observed missions are sent by the observer to the controlling unit (FU) and are relayed to the GDU/FCS(s).

The observer may request additional fire after receiving a rounds complete or issue an End of Mission (EOM) report. The FU receives the EOM and relays it to the GDU/FCS(s). The FU also sends a Mission Fired Report to the units involved in routing the original fire request.

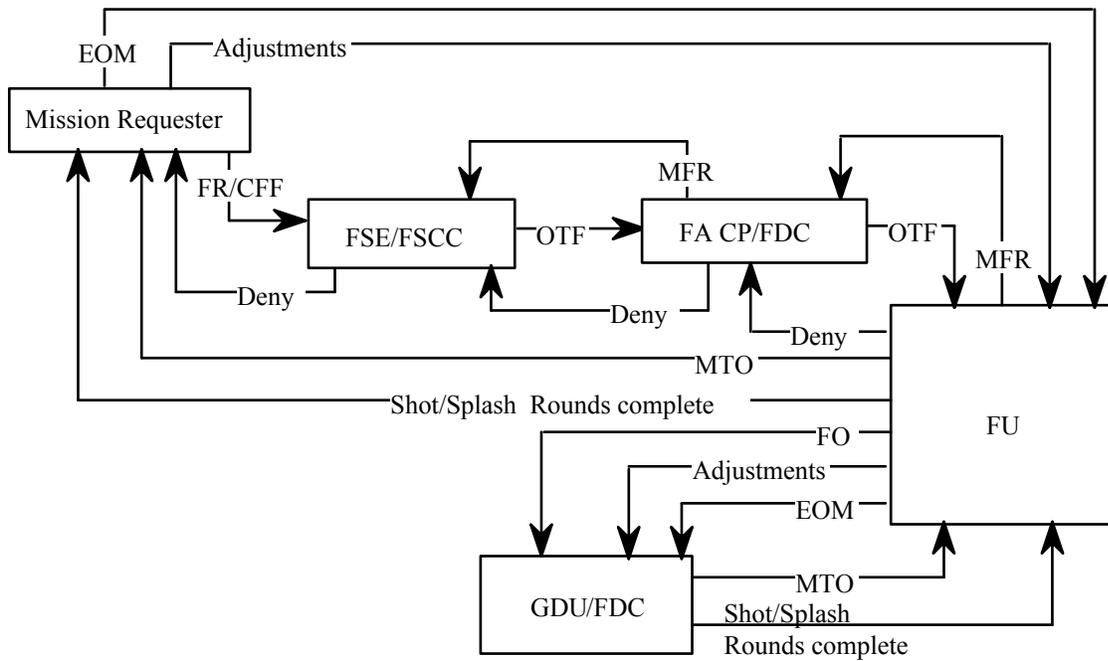


Figure 4.1 FU Controlled Mission

4-2.1.2 FA CP/FDC Controlled Missions.

FA CP/FDC controlled missions are accomplished using the same type message traffic as the FU controlled mission. The main difference is that the FA CP/FDC communicates with the mission requester/observer and relays the data to multiple FU's (only one shown). The FU's function in the same manner except that communications are sent to the FA CP/FDC and relayed to the requester/observer.

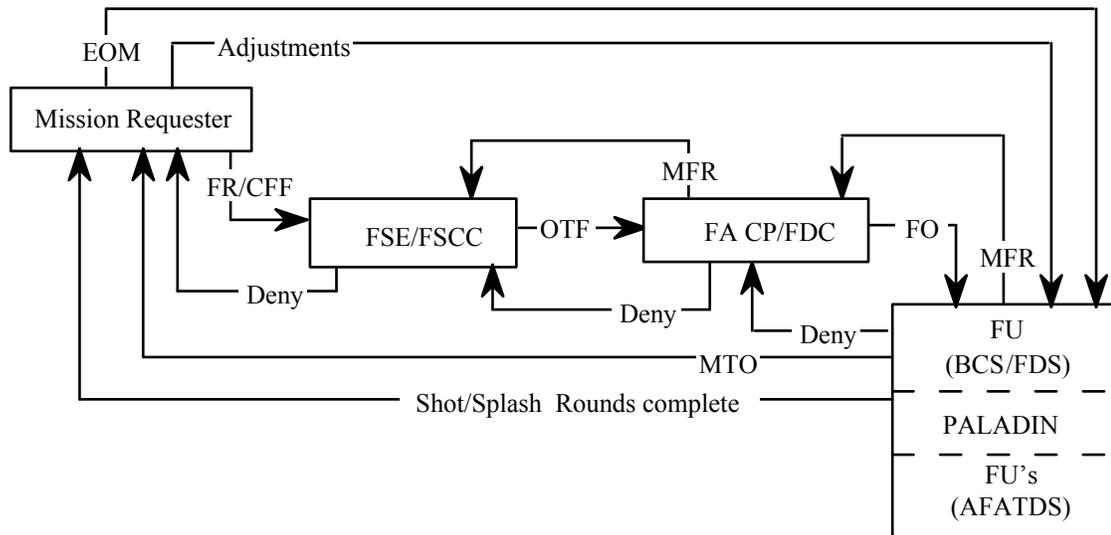


Figure 4.2 FA CP/FDC Controlled Mission

4-2.1.3 FSE/FSCC Controlled Missions.

FSE/FSCC controlled missions are normally used for organic or general support missions. A fire mission would have to be extremely large before the mission would be massed by multiple FA CP/FDC's.

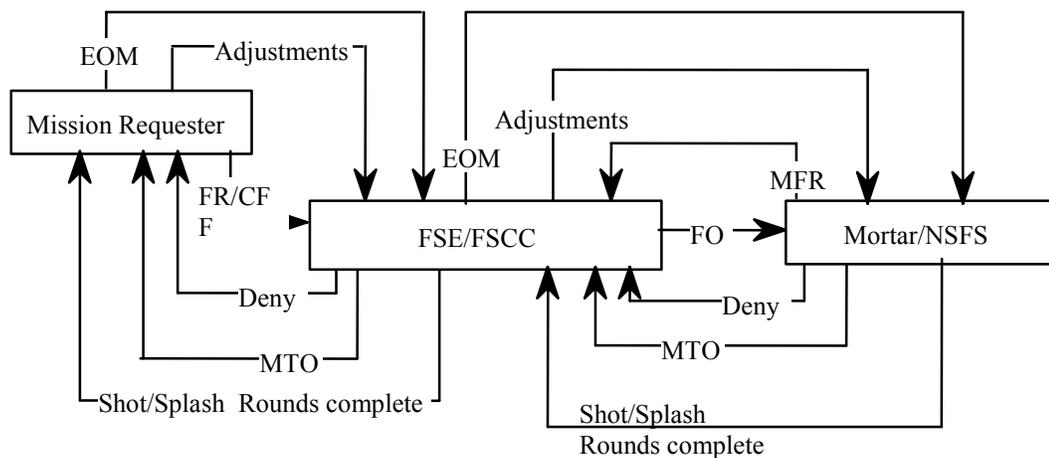


Figure 4.3 FSE/FSCC Controlled Mission

4-2.2 Target Processing.

Target processing begins with the retrieval of mission data from a sensor report or fire request. The following description is for a FSE fire request (FSE FR) message, and illustrates the processing performed for most of the other call for fire type messages. Next, the data is filtered by (compared to) the Target Selection Standards (TSS) guidance. All missions originating as ATI's are subject to TSS filtering.

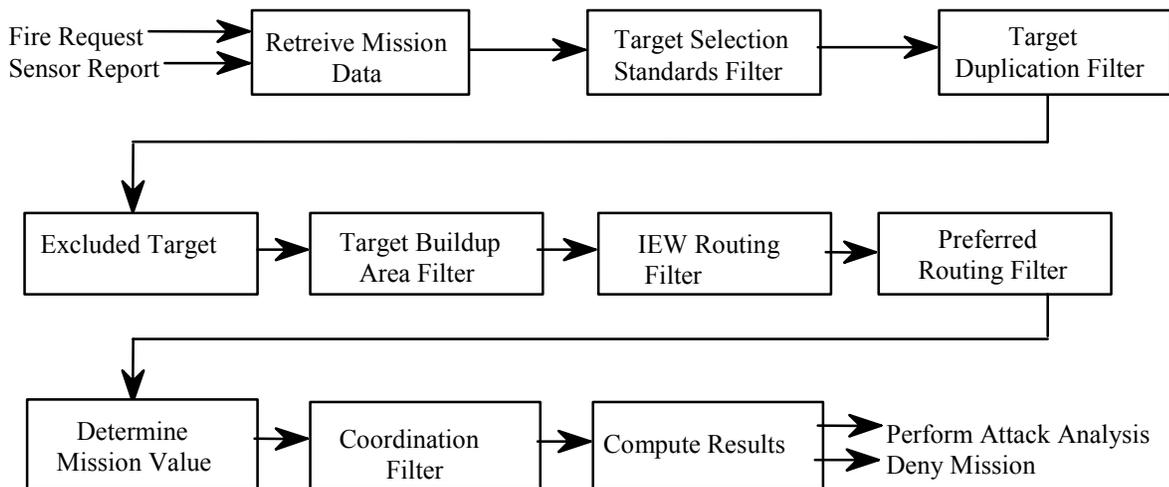


Figure 4.4 Target Processing Flow

Calls for fire missions are only TSS filtered if the **Check Calls for Fire against TSS** is selected on the TSS guidance window. Observer type, Target Location Error (TLE), and reliability of the sensor for the specific target type must be available before the TSS filtering can be accomplished. The mission will fail the TSS filter if the sensor is not reliable for the target type, the sensor TLE exceeds the acceptable TLE, or the age of the report exceeds TSS maximums.

The Target Duplication filter checks the target location and type against other targets on the active target list. If any targets are found to be duplicates, using criteria of Duplicate Target guidance, the mission fails the Target Duplication filter.

Next, the target type is checked against the Excluded Targets list on the Target Management Matrix (TMM) window to see if it is listed. If the target type is listed the mission will fail the Excluded Target filter.

NOTE

The Target Buildup filter checks incoming fire requests only. If the mission is received as a OTF or FO from another OPFAC, the filter is not used.

The Target Buildup filter first checks to see if the target location is within an active Target Buildup Area (TBA). If it is, the number of this target type in the area is checked to see if it meets the requirement to fire the mission. If the number is insufficient and the Start Time/End Time period for the target falls within the Effective Time/Expiration Time period of the TBA, the mission fails the filter.

The IEW Routing filter checks the target type against the TMM guidance to determine if the target type must be coordinated with IEW prior to attack. If the target type is marked for IEW routing, the mission fails the filter.

The Preferred Routing filter checks a mission type of immediate against the Mission Routing guidance. If a unit is specified for a immediate mission, that unit will be recommended as a result of target processing.

The Coordination filter checks to see if coordination is required for a fire mission. If coordination is required and has not been overridden or previously coordinated, the mission fails the filter. This filter first applies the buffer distance to the target for each FS system. Then each FS system is checked to see if a violation will occur. A violation occurs if the fire mission effects area, including buffer distance, extends into an area requiring coordination. Violations occur if:

- The effects area enters any part of an effective Airspace Coordination Area (ACA) or Air Corridor only after a recommended option has been selected.
- The gun-target line intersects the boundary of an ACA or Air Corridor only after a recommended option has been selected.
- The target is located within a Dead Space Area for a specified unit.
- The effects area enters any part of an effective No Fire Area.
- The effects area enters any part of an effective Restricted Fire Area.
- The gun-target line or effects area crosses a Restricted Fire Line only after a recommended option has been selected.
- The effects area for surface-to-surface fire goes beyond a Fire Support Coordination Line (FSCL).
- The effects area enters any part of another units effective ZOR and is not beyond a Coordinated Fire Line (CFL) for that ZOR.

During target processing, AFATDS executes routines to assign a mission value to a received mission request. Mission value is a number between 0 and 100 and serves two (2) purposes. First, the mission value is used to rank order missions waiting to be attacked. Second, the mission value is used to determine which FS systems may be considered for use in attacking the target.

Values are determined for four (4) separate target attributes; Priority of Fires, Targeted Area of Interest (TAI), On-Call Status, and Target Type. The values are then weighted and combined to determine the overall mission value.

4-2.2.1 Priority of Fires Value Determination.

Priority of Fires (POF) guidance is normally issued by the supported maneuver commander. This data is entered into the AFATDS system via the Mission Prioritization window. Units are added to the Priority of Fires field on this window and assigned a relative ranking. The lower the number, the higher that unit's priority for fire support. The Priority of Fires value is computed for both the requesting unit and the supported unit. The higher of the values will be used as the Priority of Fires value for the mission.

The Priority of Fires value is then computed using the formula:

$$\text{Priority of Fires value} = \frac{(\text{Number of POF units} + 1 - \text{POF Rank}) * 100}{\text{Normalization Factor}}$$

In this formula, the Number of POF units is the total of the units listed on the Mission Prioritization window. The POF Rank is the ranking assigned to a unit and the Normalization Factor is the total of all unit rankings. The following units are used in the following example where Unit A is the supported unit and unit D the requester.

<u>Unit</u>	<u>Rank</u>
A	1
B	2
C	3
D	3
E	4
Totals	5
	13

The Priority of Fires value for unit A is $5 (\text{Number of POF units}) + 1 - 1 (\text{POF Rank}) * 100 / 13$ or 38.46. The Priority of Fires value for unit D is $5 (\text{Number of POF units}) + 1 - 3 (\text{POF Rank}) * 100 / 13$ or 23.07.

In this case, the Priority of Fires value used for this mission would be for the supported unit (A).

4-2.2.2 Targeted Areas of Interest Value Determination.

Maneuver commanders use targeted areas of interest (TAI's) to define geographic areas in which enemy activity critical to the current operation is expected. TAI's serve two purposes. The first is focusing target acquisition assets to look for the enemy activity in these areas. The second is focusing responsive fires on the enemy targets found at a place and point in time where they are more vulnerable. TAI data is entered into the AFATDS system via the Mission Prioritization window. Units are added to the Targeted Area of Interest field on this window and assigned a relative ranking. The lower the number, the higher that area's priority for fire support. The TAI value is computed for both the requesting unit and the supported unit. When a request is received, TAI values are retrieved for all TAI's that the target is located within. The higher of the values will be used as the Targeted Area of Interest value for the mission.

The TAI value is computed in the same manner as the Priority of Fires value.

$$\text{TAI value} = \frac{(\text{Number of TAI's} + 1 - \text{TAI Rank}) * 100}{\text{Normalization Factor}}$$

4-2.2.3 Target Value Determination.

The target value for a mission is the combination of two other values; the high value target (HVT) value assigned to a target's category (e.g. fire support, maneuver, etc.), and the high payoff target (HPT) value. Some targets on the battlefield are more valuable to the enemy's operation than others. These are termed high value targets. The relative value, 0 to 100, is set for each target category via the HVT guidance window.

High payoff targets are targets whose effective engagement provides the highest payoff toward the success of our own operation. As such, these targets should have a higher priority for engagement (either by fire support or some other asset). The relative value, 0 to 100, is set for each target type via the TMM guidance window.

If the target is a HPT, the maximum HVT value for all target categories is added to the HPT value for the target. The sum of these values is divided by two (2) in order to place the target value in the range of 0 - 100, and the resulting number becomes the target value for this mission.

If the target is not a HPT, the HVT value for the target category of this target type divided by two (2) becomes the target value for this mission.

4-2.2.4 On-Call Value Determination.

On-call targets are often established by fire support agencies to allow rapid, on-call engagement of suspected enemy positions which are influencing the conduct of the battle. To accommodate this, on-call targets are given higher priority than other targets by selecting **On-Call Targets have higher priority** check box on the Mission Prioritization window. If On-Call targets are given higher priority, the mission value routines in AFATDS will assign a value of 100 to on-call value and zero (0) to the on-call value for all other missions.

4-2.2.5 Combined Mission Value Determination.

Each item discussed above allows the valuing of a specific component of a mission within the range of 0 to 100. The final step in mission prioritization is to combine these component values into a single mission value. A relative importance (or weight) of each component within the overall mission priority is established. AFATDS then uses this weighting to combine the component values and normalize the resulting mission value within the range of 0 to 100.

The user, via the Mission Prioritization window, either ranks (by entering a ranking number) or weights (by entering a specific weighting value using the slider bars) each component of mission value (Target Type, On-Call Targets, Priority of Fires, and TAI's). This sets the relative contribution of each component to the final mission value.

4-2.3 Attack Analysis.

AFATDS begins attack analysis processing by retrieving necessary data for a mission that is ready for analysis. Attack options are calculated based upon the mission requirements, guidances, and attack unit capabilities. A recommended option is then formulated if possible.

There are three (3) levels of attack analysis available. These levels are **FS System, Unit, and Detailed** and are accessed via the **Mission Processing\Attack Analysis Level** menu.

The **FS System** level of analysis, which is normally used at the FSE/FSCC, performs detailed analysis on fire units that are in direct support of the OPFAC. If no supporting fire unit is available or units are incapable of firing the mission, the FSE/FSCC performs system level analysis. This analysis is only deep enough to identify a FS system that can effect the mission. After a FS system is selected, the **FS System Attack Parameters** guidance is used to determine the destination unit for the mission.

The **Unit** level of analysis is normally used at a higher level FA CP/FDC. Fire units directly supporting or commanded by the OPFAC performing the analysis are analyzed in detail. If these units are not available or capable, supporting FA CP/FDC's data is analyzed to determine a subordinate FA CP/FDC to which the mission will be sent. The FA CP/FDC selected is based on the units capability taking into consideration the fire unit data that has been rolled-up to the OPFAC.

The **Detailed** level of analysis evaluates all available fire units to determine attack options, including massing, for the mission.

Comparisons between the recommended attack option (if any) and the violations or intervention criteria determine whether intervention, coordination, or forwarding of the mission occurs. If user intervention criteria is applicable for a mission, then the user is notified. If an attack option cannot be recommended, and no intervention is specified, a Deny message is transmitted to the mission originator. If an attack option is recommended, then checks for coordination requirements are made and, if required, appropriate coordination requests are initiated. If coordination is not required then an appropriate order/request is prepared and transmitted to the unit(s) receiving the mission.

If the target was reported as an ATI, a determination is made to see if the target is a High Priority Target (HPT) and is planned. If so, the target is added to the planned target list. If an ATI is a HPT with an As-Acquired precedence it is processed as a fire mission originated by the processing unit. A detailed description of Perform Attack Analysis processing follows.

4-2.3.1 Attack Options Determination.

The first step in performing AFATDS Attack Analysis is to retrieve a Mission ID for a mission that is ready for analysis from the mission queue. Using this ID, the rest of the mission data is retrieved. The mission is checked to see if an End of Mission (EOM) message has already been received for this mission ID. If the EOM has been received then this mission will be deleted from the mission queue. This is done because it is possible for the EOM to be received before the system has processed the call for fire for a mission. Receipt of an EOM also causes the procedure to conclude without any abnormal effects. If the EOM has not been received, Attack Options (potential engagement solutions for a mission) are generated for this mission by calling a procedure appropriate for this mission type. The description here follows the processing for a FSE Fire Request (FSE FR) message and illustrates the processing performed for most of the other call for fire type messages.

4-2.3.1.1 Retrieve Available Units.

This step creates a list of all the attack units that are considered available to the processing unit for attack analysis. This list will include the following:

- Any units specified by the mission observer.
- Any units specified in the system preference table (FS Attack Systems Guidance - System Preference Table).

- All attack units commanded by the processing unit, all units supporting the processing unit, and any units that they command or are supported by.

If an available unit list cannot be created then the recommendation is set to Deny Mission, No Available Units/Systems. Control is returned to the user if the mission meets intervention criteria. Otherwise, a Deny message is sent to the mission originator. This problem should only occur when there are no units commanded by or supporting the processing unit.

4-2.3.1.2 Build Caliber-Munitions List.

Once the list of available units is created, the next step in creating attack options is to develop a list of possible caliber-munitions pairings that could be used to attack the target. Possible caliber-munitions pairs are obtained from the following sources:

- Observer specified caliber-munitions pairings (if present)
- Special mission munitions tables (FA Immediate Attack Methods, Mortar Immediate Attack Methods) (if the mission calls for a special munitions)
- FA Attack Methods (if FA units are available and the table is filled in)
- Mortar Attack Methods (if Mortar units are available and the table is filled in)
- Naval Surface Fire System (if NSFS units are available and the table is filled in)
- Air Attack Methods (if Air assets are available and the table is filled in)
- Characteristics Table

If the observer specifies munitions to use for target engagement, and entries have not already been created for these munitions from the Attack Methods Table (AMT), then each available caliber of each fire support system is checked to see if it supports those munitions. If any available caliber associated with an available fire support system can support the specified munitions then an entry is created in the caliber-munitions list for that caliber and the observer specified munitions.

If the type of mission is immediate smoke or immediate suppression then the FA Immediate AMT (and/or Mortar Immediate AMT) is checked to determine if types of munitions, volleys, and fire unit size are specified for these types of missions. Again, each available caliber of each fire support system is checked to see if it supports those munitions. If any available caliber associated with an available fire support system can support the munitions specified in the mission then an entry is created in the caliber-munitions list for that caliber and the mission specified munitions.

This process also looks up the desired effects level (Suppress, Neutralize, or Destroy) based on the target type of the mission. If a percentage effects (e.g., 5%) rather than an effects level (e.g., Neutralize) has been entered for the target type then that percentage will be converted to an effects level as follows:

- If percentage effects is less than or equal to 3% then effects level = Suppress.

ARMY TM 11-7025-297-10
MARINE CORPS TM 10690A-10

- If percentage effects is greater than 3% but less than or equal to 10% then effects level = Neutralize.
- If percentage effects is greater than 10% then effects level = Destroy.

Caliber-munitions pairings are grouped into sets according to their source; Air, NSFS, Mortar, or FA Attack Method Tables (AMT), FA Immediate AMT, Mortar Immediate AMT, or Observer Specified. For each fire support system (available to the processing unit) the appropriate AMT is retrieved. The target type is used to index into the AMT to extract, if present, the Shell, fuze, and number of volleys information that comprises an attack method. Fire unit size is also extracted and multiplied by the number of volleys to compute the number of rounds to be used in the engagement.

Using this information, each caliber of this FS system is checked to see if it supports the munitions specified in the AMT. For example, if the munitions specified for field artillery is DPICM then 155mm, 203mm, and MLRS can support the munitions but 105mm cannot. If any available caliber associated with a fire support system can support the specified munitions then an entry is created in the caliber-munitions list for that caliber and the specified AMT munitions.

A caliber-munitions pair entry is placed on the list for each caliber that supports the munitions specified in the source tables (Observer specified, Special Mission Munitions Table, FA Attack Methods Table (AMT), Mortar AMT, NSFS AMT, Air AMT, and the Characteristics Table). Caliber-munitions pairs are checked against previous entries to eliminate duplications, and are added to the list so that it is ordered as follows.

- Observer specified caliber-munitions pairings (if present)
- Caliber-munitions pairings from the Special Mission Munitions Table (if present)
- Caliber-munitions pairings from the FA AMT (if present)
- Caliber-munitions pairings from the Mortar AMT (if present)
- Caliber-munitions pairings from the Naval Gunfire AMT (if present)
- Caliber-munitions pairings from the Air AMT (if present)
- Caliber-munitions pairings from the Characteristics Table

The ordering of the list determines the order in which caliber-munitions pairs are examined later when attack options are developed.

4-2.3.1.3 Perform Device Type Exclusions.

After the caliber-munitions list has been created, a working list of units for this mission is created as a starting point for the rest of attack analysis. This list is built by stepping through the list of available units and removing those units that are not capable of supporting the specified method of attack, method of control, and/or method of fire for the mission. For example, Air units would be removed from Time-On-Target missions, and MLRS units would be removed from Adjust Fire missions.

4-2.3.1.4 Build Attack Options.

The next step in mission processing uses the working unit list and the list of caliber-munitions pairs to build sets of attack options for the current mission. The basic procedure is to take each caliber-munitions pair and identify all the units of that caliber, on the working unit list, which are capable of firing the specified munitions. When capable units are found, then one or more attack options are built for this caliber and added to the list of attack options for this mission.

4-3 **COORDINATION CHECKS.**

After target processing and attack analysis has been completed, coordination checks are performed to determine if any coordination is required prior to sending an OTF/FO. Coordination is required when a fire mission is requested on a target that the fire effects would violate the boundaries of a Fire Support Coordination Measures (FSCM) geometry that is the responsibility of another unit, or permission (clearance of fires) from another agency is required.

4-3.1 FSCM Coordination.

FSCM geometries are used to establish criteria for the control of friendly fires at specified locations. During construction of a FSCM geometry, a **Responsible Unit ID** is established. This unit is responsible for approval/denial of coordination requests for the geometry. The different types of FSCM geometries are:

- Air Corridor
- Airspace Coordination Area
- Coordinated Fire Line
- Fire Support Coordination Line
- Free Fire Area
- No Fire Area
- Restricted Fire Line
- Restrictive Fire Area
- Zone of Responsibility

When a fire mission is initiated, the target coordinates and effects buffer distances are used to compute the effects area. Coordination checks will continue if any effects area violates a FSCM geometry during the effective time of the geometry. Coordination checks may find a single or multiple violations. As example, a fire mission may violate a ZOR of another unit only or a ZOR and a contained RFA. In the case of multiple violations, all violations must be resolved (coordinated) prior to sending an OTF/FO.

One of the coordination checks compares the ID of the unit processing the fire mission with the unit responsible for the geometry. If the unit processing the mission is the same as, or is a supporting unit of, the responsible unit no violation occurs.

The criteria for each of the FSCM geometries are described in the following paragraphs.

4-3.1.1 Airspace Coordination Area.

An Airspace Coordination Area (ACA) is an enclosed area geometry that locates and defines an area used by air-support aircraft. Fire missions may not be fired into or through this geometry without coordination. This geometry is defined by length, width, and minimum and maximum altitudes.

4-3.1.2 Air Corridor.

An Air Corridor is similar to an Airspace Coordination Area in application except that fire missions may not be fired into or through this geometry during its effective time. The main difference is that an Air Corridor is segmented to minimize the restrictions on fire missions at any given time. (Each segment is defined by unique effective time, attitude, length, width, and minimum and maximum altitudes. This allows a segment to be restricted while the remainder of the geometry does not hamper fire mission activity.)

4-3.1.3 Coordinated Fire Line.

A Coordinated Fire Line (CFL) is a line geometry that defines the area within a ZOR that beyond which uncoordinated fire missions may be fired without violating the ZOR. CFL's are constructed and effective for specific ZOR's. The same unit that has ZOR is responsible for the CFL. The user must construct the CFL so that the area to the right, with respect to the direction of construction, contains the friendly units.

4-3.1.4 Fire Support Coordination Line.

FSCL is not associated with any single ZOR. Any fire beyond a FSCL is exempt from ZOR coordination measures. Any surface-to-surface effects falling beyond the FSCL requires coordination with Air. To qualify for the permissive effect of the FSCL, all effects must be beyond the FSCL and the FSCL must be effective throughout the Target Effective time.

4-3.1.5 Free Fire Area.

A Free Fire Area (FFA) is a permissive type FSCM geometry. This means that, during the effective time of the geometry, no restrictions are placed on the fire mission as long as the fire effects are fully contained in the FFA. If fire effects fall outside the FFA boundary or the effective time, the mission is subject coordination requirements of other FSCM geometries.

4-3.1.6 No Fire Area.

A No Fire Area (NFA) is an enclosed area type geometry that prohibits any fire mission unless coordinated.

4-3.1.7 Restricted Fire Line.

A Restricted Fire Line (RFL) is a line type geometry requiring coordination if the fire effects area or gun-target line intersects the RFL. The user must construct the RFL left to right as he faces the enemy or the unit that is restricted. Coordination is required with all ZOR's lying beyond the RFL relative to the fire unit and impacted by effects area. The CFL permissive measure has no effect on this violation.

4-3.1.8 Restrictive Fire Area.

A Restrictive Fire Area (RFA) is an enclosed area type that requires coordination based on the type of fire. Restrictions apply to munitions types, fire systems, and caliber of weapons.

4-3.1.9 Zone of Responsibility.

A Zone of Responsibility (ZOR) is an enclosed area (sector) of the battlefield that is controlled by a specific unit, usually a maneuver FSE. A ZOR may exist within another ZOR. In the example shown, a division ZOR has three (3) brigade ZOR's contained within. Each brigade ZOR contains three (3) battalion ZOR's.

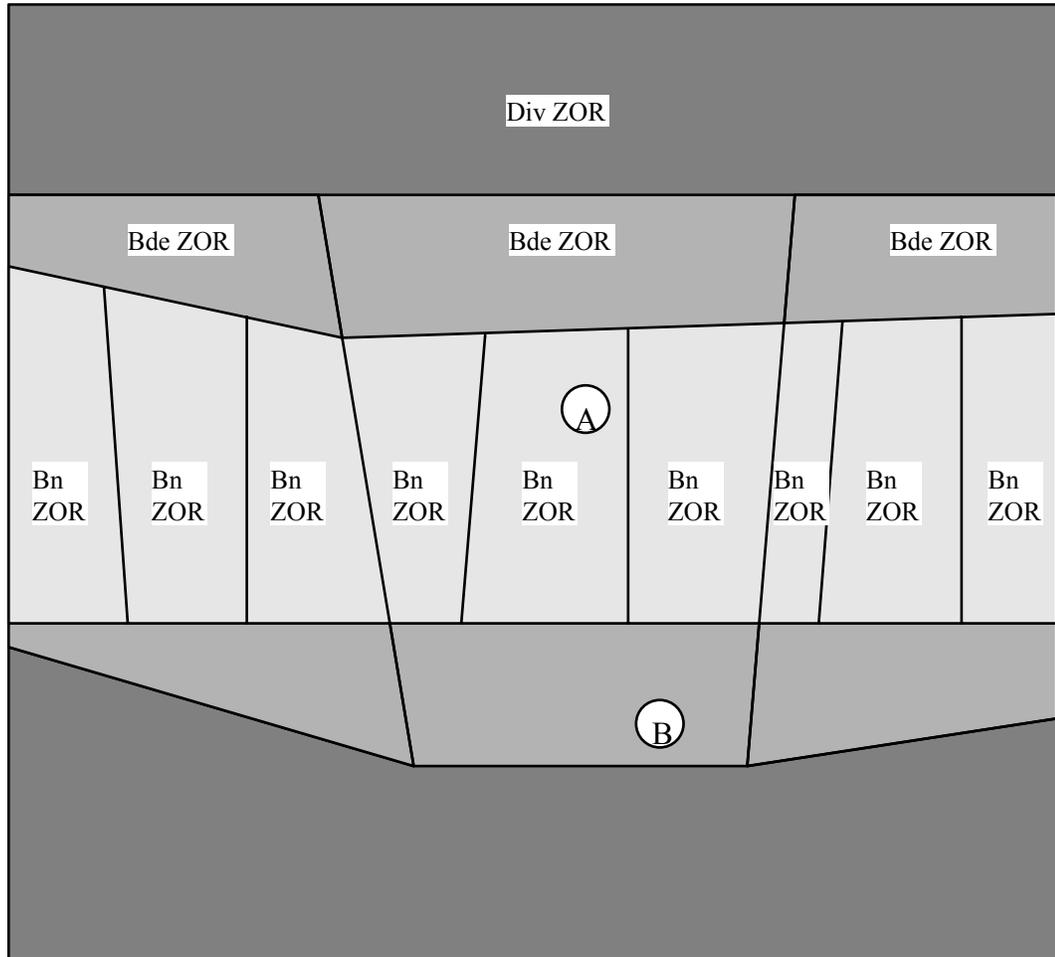


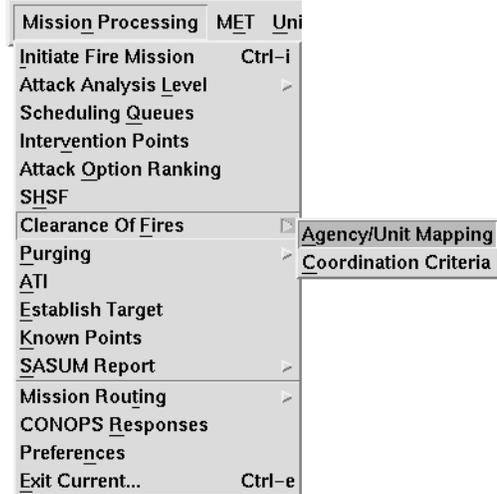
Figure 4.5 Zones Of Responsibility

Coordination checks and requests are performed using the lowest level ZOR applicable. For example, point A is within a division, brigade, and battalion ZOR. The responsible unit is the battalion in this case. Point B is the responsibility of the brigade using the same criteria.

4-3.2 Clearance Of Fires Coordination.

Clearance of Fires (COF) coordination is used to coordinate with other agencies to inform them of pending fires and to obtain approval for these fires. The operator must assign the appropriate unit for each agency, establish the coordination criteria, and ensure that the agency unit is in the communications configuration.

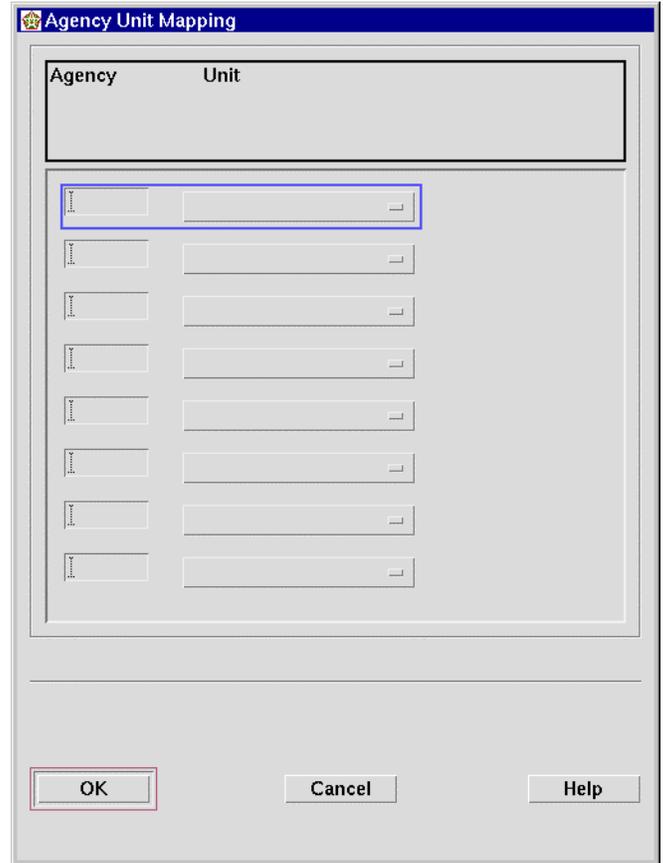
The coordination agency is mapped to a unit ID via the **Agency Unit Mapping** window. This window is opened by the **Mission Processing\Clearance Of Fires\Agency/Unit Mapping** selection from the **Current** map window. The operator enters identifiers for up to nine agencies to be used for COF coordination. A unit ID to be the responsible unit for each agency is then selected.



The coordination criteria is established via the **Coordination Criteria** window. This window is opened by the **Mission Processing\Clearance Of Fires\Coordination Criteria** selection from the **Current** map window. On this window, the operator selects the agencies that will be coordinated with based on fire mission criteria. The criteria includes **Target Category/Type**, **Geometry** involvement, **FS System** to be used, and **Munition** to be fired. Any or all agencies can be selected for coordination with set of criteria. Agencies are selectable only if a unit ID has been assigned for that agency.

4-3.2.1 Agency Unit Mapping Window.

The **Agency Unit Mapping** window is opened via the **Mission Processing\Clearance Of Fires\ Agency/Unit Mapping** selection. This window has direct entry for up to nine agencies that are used in COF coordination. The operator enters an identifier for each agency (e.g., A2C2 for Army Airspace Command and Control) appropriate to the local OPFAC. Each agency has an associated selection field to assign the responsible unit ID for that agency. Each of these fields contain a pop-up menu that allows the operator to select the currently displayed unit, a blank field, or a unit ID via **Select....**



4-3.2.2 Coordination Criteria Window.

This **Coordination Criteria** is opened by the **Mission Processing\Clearance Of Fires\ Coordination Criteria** selection. This window is used to select the agencies that will provide coordination for a fire mission based on selected criteria. Each line contains the criteria that requires coordination and the coordination agencies. Each agency has an associated check box. If the check box is selected, that agency is to coordinate based on the criteria.

The criteria includes **Target Category/Type**, **Reported**, **Geometry** (by name), **FS System** to be used, and **Munition** to be fired. The **New** button adds a new set of criteria to the window which is then edited by the operator.

The **Target Category/Type** selection allows selection for **Any** target, a specific target category, or **Select....** The **Select...** selection opens the **Select Target Type** window to select a specific target type.

The **Reported** selections allow the selection of a target position referenced to a geometry. The selections include <blank>, **In**, **Forward of**, and **Behind**. A selection other than <blank> enables the **Geometry** menu. Selecting **In** allows the operator to select an area type geometry via the **Geometry** menu. Selecting **Forward of** or **Behind** allows the selection of a line type geometry. A geometry selection is required if a selection other than <blank> is made from the **Reported** menu.

The **FS System** menu allows the selection of a specific or **Any** FS System. The **Munition** menu allows the selection of a specific or **Any** munition.

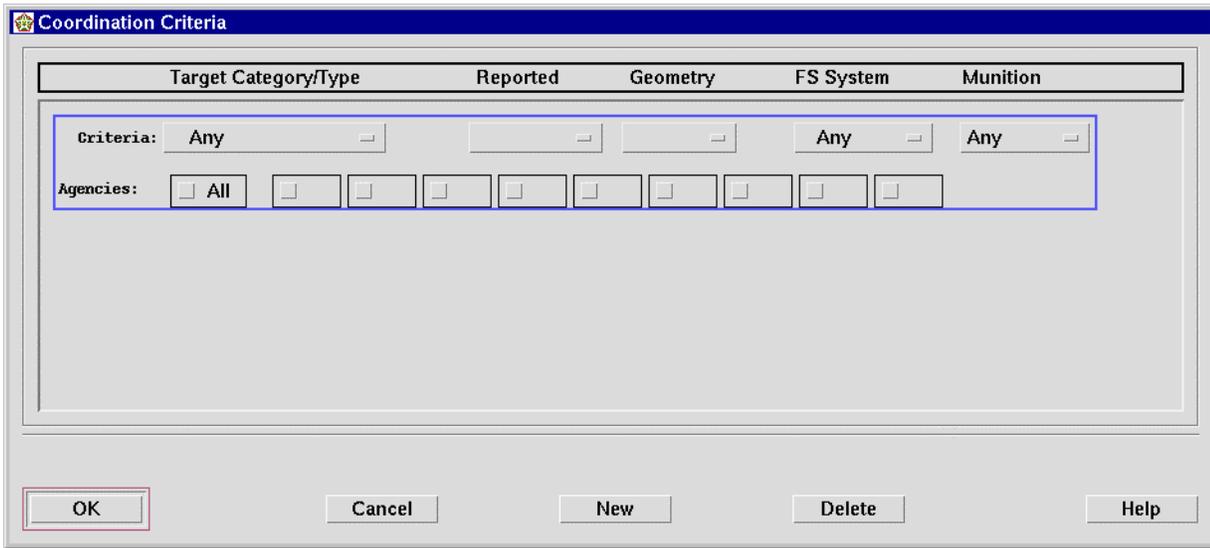


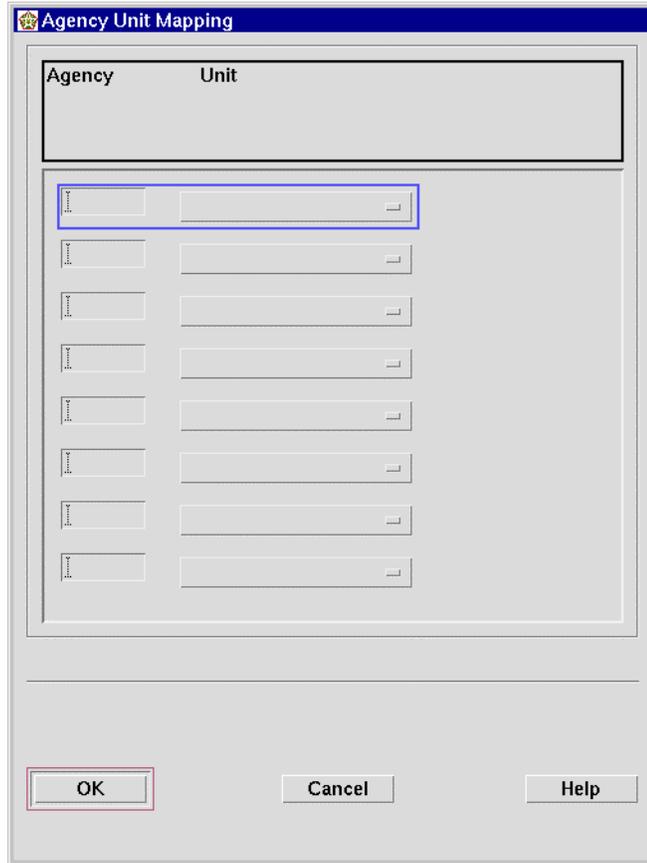
Figure 4.6 Coordination Criteria Window

4-3.2.3 Clearance Of Fires Coordination Setup.
 The following procedure is used to setup the COF criteria.

Clearance Of Fires Coordination Setup		
Step	Action	Response
1.	Select Mission Processing\Clearance Of Fires\Agency/Unit Mapping.	Agency Unit Mapping window opens.

Clearance Of Fires Coordination Setup - CONT

Step	Action	Response
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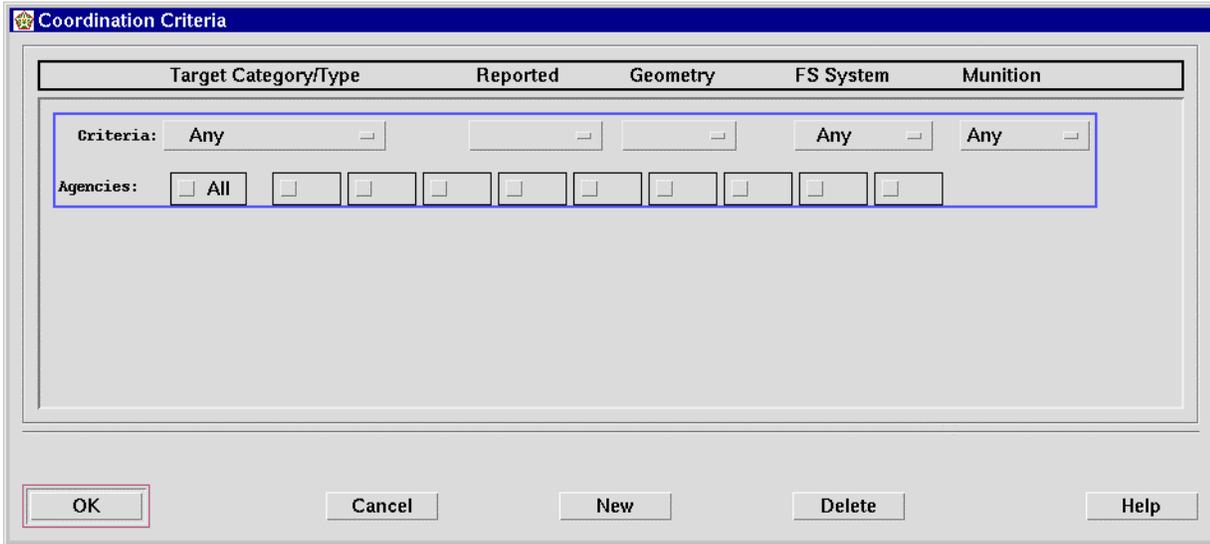
2. Enter an **Agency** identifier (1 to 6 alphanumeric or special characters).
3. Select a unit ID from the associated **Unit** pop-up menu.
4. Repeat steps 2 and 3 for each agency (up to 9).
5. Select **OK** to close window and save changes.
6. Select **Mission Processing\Clearance Of Fires\Coordination Criteria**.

Agency Unit Mapping window closes.

Coordination Criteria window opens.

Clearance Of Fires Coordination Setup - CONT

Step	Action	Response
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NOTE

Selecting **Cancel** will close this window without saving or implementing any data entries, selections, or changes made to the window.

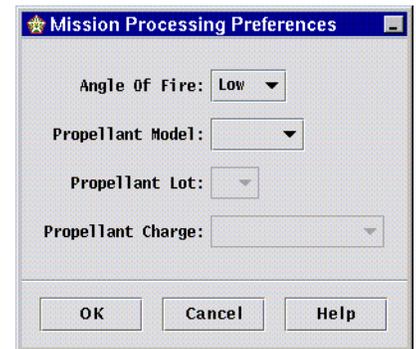
7. Select **Any**, a target category, or target type from the **Target Category/Type** menu.
8. Select a reference position to a geometry from the **Reported** menu.
9. Select **Any**, or a geometry name from the **Geometry** menu (required if selection made for **Reported**).
10. Select **Any**, or a FS system from the **FS System** menu.
11. Select **Any**, or a munition type from the **Munition** menu.

Clearance Of Fires Coordination Setup - CONT

Step	Action	Response
12.	Select All , or a specific agency name(s) from the Agency list.	
13.	Select New and repeat steps 7 thru 12 for a new criteria, as required.	
14.	Select OK to close window and save changes.	Coordination Criteria window closes.

4-4 MISSION PROCESSING PREFERENCES.

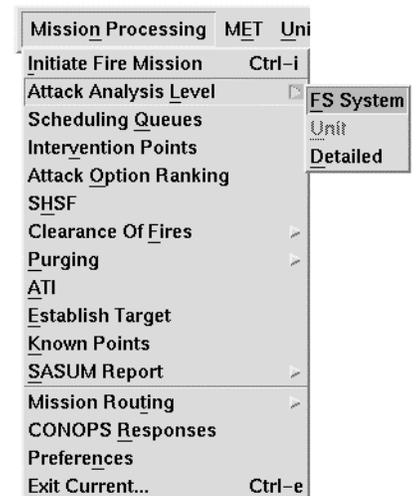
The **Mission Processing Preference** window is accessed via the **Mission Processing\Preferences** selection. This window allows the user to enter **Angle of Fire:**, **Propellant Model:**, **Propellant Lot:**, and **Propellant Charge:** to be used for a fire mission. These preferences are useful when a number of similar missions are to be fired, such as training. Acceptable propellant data is entered and will be used for each fire.



If propellant data is entered for a fire mission, the preferences data will not be used. Preferences should be removed for normal processing during operation fires to allow selection of other propellant data during attack analysis.

4-5 ATTACK ANALYSIS LEVEL.

The **Mission Processing\Attack Analysis Level** selection allows the user to specify the level at which an attack analysis is performed at an OPFAC, and only is selectable by a user with Mission Monitor duty. The selections are **FS System**, **Unit**, and **Detailed**. If the OPFAC has fire units in direct support, or directly subordinate, AFATDS always performs detailed attack analysis for these units, regardless of the attack analysis level selected.



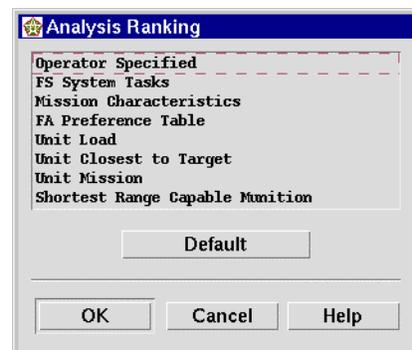
FS System Attack Analysis allows an FSE/FSCC to perform attack analysis only to the level of detail necessary to select a FS system. When performing FS system attack analysis, detailed unit information is not required. The comprehensive analysis is performed by the tasked FS system. An FSE/FSCC uses FS System Attack Analysis and selects a system, the mission is given to the unit that is specified to process missions assigned to that system for further analysis and execution. The FS attack guidance's are used to support this analysis.

Unit Attack Analysis allows an OPFAC to conduct attack analysis using unit information that has been rolled-up from supporting units. This level of analysis would normally be used in higher level FA CP's/FDC's. Fire units directly supporting or commanded by the OPFAC performing the analysis are analyzed using unit data to determine if they can attack the target and achieve the specified defeat criteria. Fire units that have an intermediate FA CP/FDC between them and the OPFAC performing the analysis are not analyzed in detail. When an intermediate FA CP/FDC exists, AFATDS determines if the unit can attack the target. For example, a DIVARTY CP having an MLRS fire unit directly subordinate and also having three subordinate FA Battalions performing unit attack analysis would analyze the MLRS unit in detail (using that unit's location, munitions status, response time, etc.) to determine its capability to attack a given target. The subordinate FA battalions are analyzed based on the capabilities of the battalion's fire units. This data is maintained and sent with the BN CP's unit data. The detailed analysis would then be handled by the FA battalion to which the mission was assigned. The DIVARTY would not analyze all 18 fire units individually, only to have the mission re-analyzed at the FA battalion that was ultimately tasked.

Detailed Attack Analysis allows an OPFAC to determine and evaluate all available individual fire units against a given target. This level of analysis is expected to be used in lower level FA CP's/FDC's. The operator should consider the tradeoffs (advantages and disadvantages) when electing to run this level of attack analysis at an FSE/FSCC or higher level FA CP/FDC. This method of attack analysis takes all available fire units and uses each unit's status information to determine attack options. The advantage of this technique is that the possibility of unsupportable missions being returned by a tasked unit is minimized. The major disadvantage is increased processing time required as well as the increased need to distribute data between OPFAC's.

4-6 ANALYSIS RANKING.

The **Analysis Ranking** window allows the user to specify the order of preference in which attack options are to be ranked. Selecting a list item and then the list position where the item is to be inserted moves the selected item. List items below the insertion point will move down one (1) line. The **Default** selection re-establishes the list to default ranking.



4-7 INITIATE FIRE MISSION.

The **Mission Processing\Initiate Fire Mission** selection opens the **Initiate Fire Mission** window. This window is available only in the current situation and allows the user to enter information to initiate a fire mission. The user can initiate a fire mission by entering a target location only. AFATDS will supply default values to allow the mission to process.

Tabs on the **Initiate Fire Mission** window allow the user to open additional displays for the entry of more specific information. This additional information includes **More Target Data**, **Munitions**, **More Mission Data**, **Attack Summary**, **Shift**, and **Polar**.

4-7.1 Initiate Fire Mission Windows Navigation.

The **Initiate Fire Mission** window opens via the **Mission Processing\Initiate Fire Mission** selection or the **Target\Initiate Fire Mission** selection on a **Target List** window or **Initiate Fire Mission** selection on a target pop-up menu.

The **Send...** button on the **Initiate Fire Mission** window opens the **Select Unit** window in the Select mode.

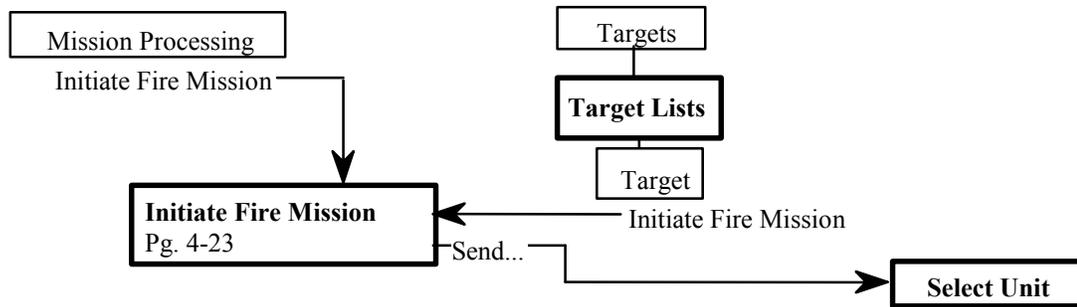


Figure 4.7 Initiate Fire Mission Navigation

4-7.2 Initiate Fire Mission/Basic Target Information Window.

The **Mission Processing\Initiate Fire Mission** selection opens the **Initiate Fire Mission** window (Figure 4.8). This window also serves as the **Basic Target Information** window when not initiating a fire mission

The minimum required entry to initiate a fire mission is the **Target Location:**. The **Observer:**, **Mission Type:**, **Target Type:**, and **Target Shape:** fields have defaults assigned. The **Target Number:** is required and will be entered by the system if the user has entered a block of target numbers for the host unit. This block of numbers is entered via the **Targets\Numbering** selection. When entered, automatic target numbering is in effect.

The **ABCA** (American, British, Canadian, Australian) **Number:** is a standard system for numbering targets that is recognized by all four armies (optional, AAA0000 to ZZZ9999, second and third positions can not be **O** or **P**).

The **BE** (Basic Encyclopedia) **Number:**, and **O-Suffix:** are assigned and used by the Theater Battle Management Core System (TBMCS) to identify and track facility and installation type targets. Entries are optional and will be extracted from the Modernized Integrated Database (MIDB) if available.

The **Originator:** is the unit that established the target. This field will default to the first AFATDS unit that receives the target for ATACMS missions. This field can be edited.

The **Observer:** fields contain a pop-up menu that allows the user to select the default unit or **Select...** Selecting **Select...** opens the **Select Unit** window. Selecting a unit from the list and **OK** enters the selected unit in the **Observer:** field.

Figure 4.8 Initiate Fire Mission Window

The **Mission Type:** field is a pop-up menu displaying the available selections. These selections are **Immediate Smoke, Immediate Suppression, Continuous Illumination, Coordinated Illumination, Assign, Adjust,** and **Fire for Effect.**

The **FS System:** field is a pop-up menu displaying a selection for each of the FS System types. The selections include **FA Cannon, Rocket/Missile, Mortar, Air, Aviation, Naval Gun,** and **Naval Land Attack Msl.** This selection is optional. The **Air** selection is enabled only for a **Fire for Effect** mission type. If an FS system is selected and an attack option exists for that system, AFATDS will process the mission using that system.

Method of Fire: selections allow the user to specify the number and spread of guns for the fire mission. Selections are **One Gun, Two Guns, Two Guns Lateral Spread, Two Guns Range Spread, Four Guns Range & Lateral Spread, Platoon Right,** and **Platoon Left.** The selections available depend on the mission and adjustment types selected.

The **Fire Unit Size:** field is a pop-up menu displaying the selections for the echelons of fire units. This selection is enabled for **FA Cannon, Rocket/Missile, and Mortar** systems. The selections include **Section, Platoon, Battery, Battalion, Divarty, and All Available**. **Section** and **Platoon** are the only selections enabled if **Mortars** is selected as the fire unit. This selection is optional. If a unit size is selected and an attack option exists for that system, AFATDS will process the mission using that unit size. If **All Available** is selected, all units that are in the ready state, have at least one operational tube, and can range the target are massed to fire the mission.

Method of Control: selections allow the user to specify the actions of the firing unit. Selections are **Do Not Load, When Ready, AMC, By Shell AMC, On Call, TOT, Cease Loading, Check Firing, Continuous Fire, Repeat, Cancel AMC, and Warning Order**. Do not select **Cease Loading, Check Firing, Repeat, or Cancel AMC** when initiating a fire mission.

The **Time On Target:** field is used to enter the time on target for the mission. The entry is the standard DTG and is enabled and required for missions with a **Method of Control:** of **Time On Target** only.

The **Location:** fields accept the standard coordinate locations. The coordinates may be entered directly from the keyboard, selected from the map, or entered via the tab selections **Shift** and **Polar**. These tabs are completed to calculate the **Target Location:** coordinates.

The **Category:** field is used to select the target category. The **Type:** field contains a pop-up menu that allows the user to select the target type from the list.

The **Degree of Prot:** selection is enabled only for personnel type targets and describes the posture of the enemy personnel at the time of fire mission initialization. Selections are **Standing & Prone, Prone, Dug In & Prone, Covered & Prone, Dug In, and Cover**.

The **Shape:** menu contains selections for **Point, Circular, Rectangular, and Linear** shapes. These selections interact with the **Length(m):, Width(m):, Radius(m), and Attitude(mils):** fields. Selecting a shape of **Point** disables all of the dimensioning fields.

A **Circular** shape selection enables and displays the **Radius(m):** field. A **Rectangular** shape selection enables and displays all dimensioning fields. The attitude of a rectangular shape is reference to the long side of the rectangle. A **Linear** shape selection enables the **Length(m):** and **Attitude(mils):** fields.

The **Strength:** field allows the user to enter the number of units as described by the **Type:** selection.

The **Activity:** field is used to select the current activity of the target as **Moving, Stationary, or Dug In**.

The **Target Formation:** field contains selections to describe the enemy formation as **On Road, Off Road:, or Dispersed:**.

The **MIDB Category:, Enemy Unit ID:, MIDB Enemy Unit ID:, and Facility:** fields are assigned and used by TBMCS to identify and track unit type targets. Entries will be extracted from the MIDB if available.

The **Analyze Target** button is available for use on all of the tabs. This button closes the window and starts mission processing of the target. The **Send** button opens the **Select Unit** window for the selection of destination unit. Selecting **OK** on the **Send Unit** window closes the windows and initiates transmission of the target data.

4-7.2.1 Munitions Tab.

The **Munitions** tab is used to enter information concerning the munitions engagement of the target.



Figure 4.9 Munitions Tab

Adjust Shell: option menu displays Adjust Shell munitions. Selectable only for mission types of Adjust or Coordinated Illumination.

FFE Shell #1: or **FFE Shell #2:** option menus display, depending upon selection, munitions type for **FFE Shell #1:** or **FFE Shell #2:**. Selection lists are dependent on Fire Support System specified.

Fuze: option menus display, depending upon selection, fuze type for **Adjust Shell:**, **FFE Shell #1:** and **FFE Shell #2:**. Selectable only if corresponding shell is specified and is not Copperhead, Air Shell, SADARM, or TGW.

#Vlys: option menus display, depending upon selection, number of volleys for **FFE Shell #1** and **FFE Shell #2**. **#Vlys:** legal entries are 0 to 200.

Sheaf Distribution: option menu displays type of fire distribution in target area. Selections are **Parallel**, **Open**, **Converged**, **Special**, and **BCS**.

FASCAM Density: is used to select the density of the distribution of mines at the target site. Selections are **High**, **Medium**, and **Low**.

Distance Between Bursts(m): field displays distance in meters between bursts. Applicable only if **Special** sheaf distribution is selected. **Distance Between Bursts(m):** legal entries are 0 to 999.

Time Between Copperhead Rds(sec): field displays time in seconds between Copperhead rounds. Legal entries are 0 to 999. This field is applicable only if Copperhead shell is specified.

The **Time Between Illum Rds (sec):** is an optional entry for the requested time (in seconds) between the firing of illumination rounds. The legal entry is 0 to 999.

The **Quick Smoke** area of the window allows the user to input weather information for a Quick Smoke Mission by making selections from available option menus and entering data in available fields. Data entry is not required.

Duration of Smoke(min): field displays, in minutes, how long smoke is to last. **Duration of Smoke(min):** legal entries are 0 to 15.

Wind Speed(knots): field displays wind speed in miles per hour. **Wind Speed(knots):** legal entries are 0 to 300.

Wind Direction: option menu displays direction of wind. The wind direction is reference to the observer/target line. Selections are **Head**, **Tail**, and **Cross**.

Conditions: option menu displays weather conditions. Selections are **Inversion**, **Neutral**, and **Lapse**.

4-7.2.2 More Tgt Data Tab.

The **More Tgt Data** tab allows the user to specify up to three target elements, three target countermeasures, and three target environments. **ATF**, **Moving Target**, and **More** areas are available for the addition of information. Also, there is a free text field. Data entry is not required.

Countermeasures 1:, 2:, 3: option menus display up to three target countermeasures.

Elements 1:, 2:, 3: option menus display up to three target element types. **Elements 1:, 2:, 3: Num:** fields display number of target elements for corresponding element types. Required if corresponding element type is specified. **Elements 1:, 2:, 3: Num:** fields legal entries are 0 to 100.

Environment 1:, 2:, 3: option menus display up to three target environments.

Classification:, Priority:, Part Number:, Status Code:, and **%** fields are used to select and enter data for missions conducted by an Amphibious Task Force (ATF). For more information on the description of the entries, see page 2-383 paragraph 2-27.2.4, Amphibious Task Force Target List.

The **Classification:** field is used to indicate the threat that the target poses to the ATF. Legal entries are A to E and defaulted to A.

The **Status Code:** is used to determine the required effects on the target. Selections are **Specified %**, **Destroyed**, and **Cancelled**. If **Specified %** is selected, the **%** field is enabled. The legal entry for this field is 0 to 100.

The screenshot shows the 'Initiate Fire Mission' window with the 'More Tgt Data' tab selected. The window contains several input fields and dropdown menus organized into sections: 'Countermeasures' (1, 2, 3), 'Elements' (1, 2, 3), 'Environment' (1, 2, 3), 'ATF' (Classification: A, Status Code, Priority, Part Number, %), 'Moving Target' (Speed (Kph), Direction (mils), Time), and 'More' (Tgt Terrain, TLE: 0, Location Source, Reliability, Acq Agency, Impact Location, Comments). At the bottom, there are buttons for 'Analyze Tgt', 'Fire, WR', 'Send', 'Cancel', and 'Help'.

Figure 4.10 More Tgt Data Tab

The **Priority:** is based on the enemy capability to affect friendly force operations. The legal entry is I to IV.

The **Part Number**: is used to identify, during planning, the action to be taken on a target. The part number is only used prior to D-Day. The legal entry for this field is 1 to 7 with 1 being the default.

The **Moving Target** area of the window allows the user to specify the movements of the target. This data is used to calculate intercepts and aim points for engagement.

Speed(kph): field indicates target speed. **Speed(kph)**: legal entries are 0 to 99.

Direction(mils): field indicates target direction. **Direction(mils)**: legal entries are 0 to 6400.

The target location **Time**: field displays time target was located at the coordinates given on the **Initiate Fire Mission** window. This field defaults to the current system time.

The **Target Terrain**: selection is used to describe the vegetation at the target site. The selections are **Bare**, **Shrub**, and **Woods**.

The **TLE**: field is used to input the TLE of the unit observing the target. If left blank, the default value for the acquisition method will be used.

The **Location Source**: field contains selections that allow the user to select the type of report issued by the acquisition agency. The selections include **Single Azimuth Report**, **Constituent Azimuth Report**; **Single Coordinate Report**, **Constituent Coordinate Report**; **Solution Coordinate Report**. **Shell Report**; **Single Mission Fired Report**, **Constituent Mission Fired Report**, **Solution Mission Fired Report**, and **Moving Target**.

The **Reliability**: field contains selections that indicate the reliability of the **Location Source**:

The **Acq Agency**: field contains selections used to identify the type of sensor used to acquire the target.

The **Impact Location**: field displays the coordinates of the impact location of enemy fire for SHSF processing. This is an optional entry.

Comments: text window is used for entering additional information text.

4-7.2.3 More Mission Data Tab.

The **More Mission Data** tab is used to enter and display information used in the engagement of the target.

The **Precedence**: , **Value**:, **Status**:, and **Operational Until**: fields are view only and will display the appropriate data after the mission has been processed.

Type of Adjustment: option menu displays method to attack target. Selectable only for mission types of Adjust or Coordinated Illumination. Selections are **Area** and **Destruction**.

Effects Desired: option menu displays level of effects desired for target. If selection is **Specified %**, the user enters percentage level in corresponding % field. Legal entries are 0-100. Default values are entered in % field for other selections.

The **Height of Burst(m)**: field is used to enter the height (in meters) above the target that the shell is to detonate. The legal entry is 0 to 9999.

The **NET** (Not Earlier Than) **Time**: and **NLT** (Not Later Than) **Time**: fields are used to establish the period of time that the mission can be fired. These entries are in the DTG format.

Trajectory: option menu displays angle of attack. Selections are **High** and **Low**.



Figure 4.11 More Mission Data Tab

The **Time Acquired**: field is the DTG that the target was reported.

The **Permanence**: field is used to input the time (0 to 9999 minutes) that a target is expected to remain valid.

The **Cannot Observe**, **Splash**, and **Time of Flight** check boxes are used to select the types of reports to be issued by the firing unit.

Danger Close check box indicates, when checked, when target location is expected to be within **Danger Close** distance to friendly personnel.

Mark check box, when checked, indicates observer is calling rounds to orient himself in zone of operations and/or indicating targets to ground forces, air, or fire support systems. **Mark** is not needed for processing and simply provides additional information.

The **Fire Units** field lists units selected to fire the mission. The **Adjusting Units** field lists units used to fir the adjustments for the mission. Units are added to or removed from to these lists using the **Add...** and **Remove** buttons. The **Add...** button opens the **Select Unit** window to allow the user to select a firing unit. Selecting **OK** from this window adds the selected unit to the list. Units are removed from the list by selecting the unit and **Remove**.

4-7.2.4 Attack Summary Tab.

The **Attack Summary** tab is available only for the **Basic Target Information** form of this window and only after an attack option has been selected. This tab shows the **Source:** unit of the mission and the unit selected to attack the target.

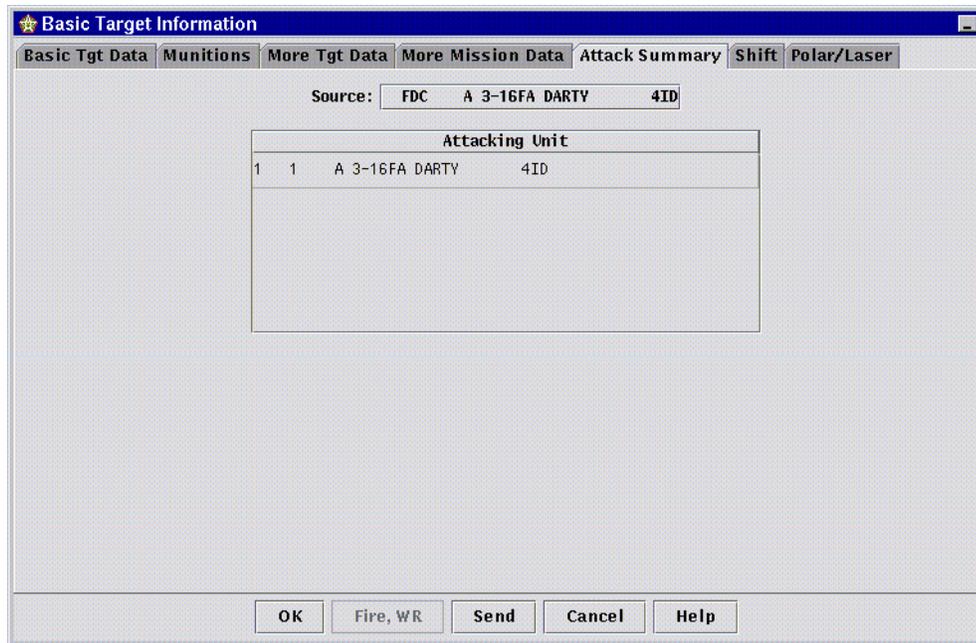


Figure 4.12 Attack Summary Tab

4-7.2.5 Shift Tab.

The **Shift** tab is used to establish a target location with reference to an existing target or known point. This tab is used when initiating a mission at the host workstation if target data is received from other than normal processing (e.g., voice message).

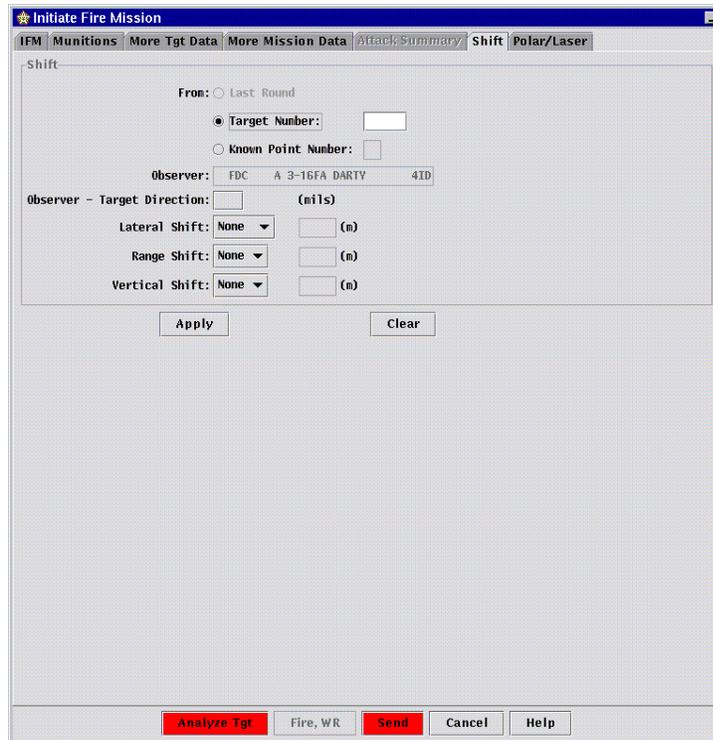


Figure 4.13 Shift Tab

From: indicates shift from location of **Known Point Number:** or **Target Number:** depending on which radio button is selected. The **Last Round:** radio button is disabled except for use in subsequent adjust type missions.

Target Number: radio button, when selected, indicates a shift from the location of a stored target number. **Target Number:** field is used to enter target number. Required when **Target Number:** radio button is selected.

Known Point Number: radio button when selected, indicates shift from known point. **Known Point Number:** field is used to enter known point number. Required when **Known Point Number:** radio button is selected. The legal entry is 0-99.

The **Observer:** field displays the unit ID of the observer. The **Observer-Target Direction:** field is used to enter the azimuth of the target with reference to the observer in mils. Legal entries for this field are 0 to 6400.

Lateral Shift:, **Range Shift:**, and **Vertical Shift:** entries locate the target from the reference point. All fields require an entry. When properly completed, selection of **Apply** closes this window and enters the computed location on the parent window.

Lateral Shift: option menu displays **Left**, **Right**, or **[blank]** for shift direction. The **(m)** field is used to enter amount of shift, left or right, in meters from the reference point along the **Observer - Target Direction:**. The legal entry is 0-9999.

Range Shift: option menu displays **Add**, **Drop**, or **[blank]** for range. The **(m)** field is used to enter the range in meters from the reference point to the target location. The legal entry is 0-9999. **Vertical Shift:** option menu displays **Up**, **Down**, or **[blank]** for vertical shift. The **(m)** field is used to enter the vertical shift in meters. Legal entries for this field are 0 to 9999.

4-7.2.6 Polar/Laser Tab.

The **Polar/Laser** tab is used to establish a target location. This tab is used when initiating a mission at the host workstation if target data is received from other than normal processing (e.g., voice message).

The user specifies the **Distance(m):**, **Vertical Angle(mils):**, and **Azimuth:** of the target with reference to the observer location. When properly completed, selection of **OK** closes this window and enters the computed location on the parent window. **Distance(m):** field is used to enter the distance from the observer to the target in meters (0 to 9999). **Vertical Angle(mils):** field is used to enter the elevation angle from the observer to the target in mils. The legal entry is +1600 to -1600.

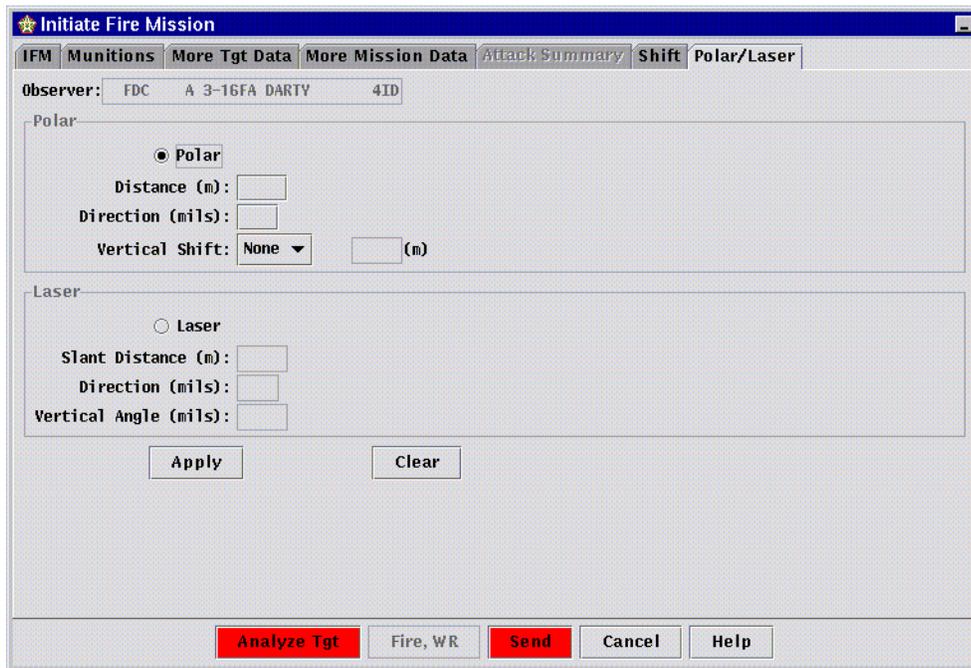


Figure 4.14 Polar/Laser Tab

4-8 **INITIATE FIRE MISSION PROCEDURE.**

The **Initiate Fire Mission** window can be accessed from the **Mission Processing/Initiate Fire Mission** selection or from any of the Target List windows. When the window is opened from a Target List, any data that was previously entered for a selected target will be displayed. The following procedure opens the window via the menu selection.

Initiate Fire Mission Procedure

Step	Action	Response
1.	Select <u>Mission Processing</u>Initiate Fire <u>Mission</u>.	Initiate Fire Mission window opens.

Initiate Fire Mission

IFM | Munitions | More Tgt Data | More Mission Data | Attack Summary | Shift | Polar/Laser

ID Info

Tgt Number: Plan: Phase:

ABCA Number: BE Number: 0-Suffix:

Originator: FDC A 3-16FA DARTY 4ID

Observer: FDC A 3-16FA DARTY 4ID Observer 2:

Warning Order

Mission Type: Fire For Effect FS System:

Type of Adjustment: Unspecified Fire Unit Size:

Method of Fire:

Method of Control: When Ready Time On Target:

Target Description

Location: 5 95993 034 46202 900 14

Category: LOC Type: Terrain Feature

Shape: Point Length:

Strength: 0 Radius:

Activity: Attitude:

Formation: Time Sensed:

MIDE Category: 0 Enemy Unit ID:

MIDE Enemy Unit ID:

Facility Name:

Analyze Tgt Fire, WR Send Cancel Help

Initiate Fire Mission - CONT

Step	Action	Response
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NOTE

Selecting **Analyze Tgt** at any time after entering the basic fire mission data closes this window and initiates the fire mission. To perform the following functions of the **Initiate Fire Mission** window, proceed to the indicated steps.

- Enter **Initiate Fire Mission** tab information..... step 2
- Enter **Munitions** tab information step 27
- Enter **More Tgt Data** tab information step 58
- Enter **More Mission Data** tab information step 87
- Enter location via **Shift** step 110
- Enter location via **Polar/Laser** step 124
- Send a fire mission step 137

- | | |
|-----|--|
| 2. | <u>Enter Target Number:</u> (optional if target numbers assigned via Target Numbers window) (AA0000-ZZ9999). |
| 3. | <u>Enter ABCA Number:</u> . (optional, AAA0000 to ZZZ9999, second and third positions can not be O or P). |
| 4. | <u>Enter BE Number:</u> . (optional, legal format - ANNNXAAAAANN where A is an alpha character, N is a numeric character, and X is any character.) |
| 5. | <u>Enter O-Suffix.</u> |
| 6. | <u>Select Observer:</u> (optional, defaults to host unit). |
| 7. | <u>Select Mission Type:</u> (required, defaults to Fire For Effect). |
| 8. | <u>Select Observer 2:</u> (HB and MPI registration missions only). |
| 9. | <u>Select Method Of Fire</u> (optional). |
| 10. | <u>Select Method Of Control</u> (required, defaults to When Ready). |

Initiate Fire Mission - CONT

Step	Action	Response
11.	<u>Select FS System</u> : (optional).	
12.	<u>Select Fire Unit Size</u> : (FA, Rocket/missile, and mortar systems only, optional).	
13.	<u>Enter Time On Target</u> (DTG format, required for Method Of Control of Time On Target only).	
14.	<u>Enter Target Location</u> : (required).	
15.	<u>Select target Category</u> : (optional, defaults to Loc).	
16.	<u>Select target Type</u> : optional, defaults to Terrain Feature).	
17.	<u>Select Degree of Prot</u> : (optional, enabled for personnel type targets only).	
18.	<u>Select target Shape</u> : (optional, defaults to point).	
19.	<u>Enter target Length(m)</u> : (0-99999 required for Line and Rectangular shapes).	
20.	<u>Enter target Width(m)</u> : or <u>Radius(m)</u> : as applicable (0-99999, required for Rectangular or Circular shapes).	
21.	<u>Enter target Attitude(mils)</u> : (0-6399 required for Line and Rectangular shapes).	
22.	<u>Enter target Strength</u> : (0-9999, optional).	

NOTE

The **Radius(m)**: field will replace the **Width(m)**: field if a **Target Shape**: of **Circular** is selected. All three fields will be disabled if a **Target Shape**: of **Point** is selected.

23.	<u>Select target Activity</u> : (optional).	
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Initiate Fire Mission - CONT

Step	Action	Response
24.	<u>Select Formation:</u> (optional).	
25.	<u>Enter Time Sensed:</u> (optional).	
26.	To perform other functions of Initiate Fire Mission window, refer to note prior to step 2.	
27.	<u>Select Munitions</u> tab.	

The screenshot shows the 'Initiate Fire Mission' window with the following components:

- Window Title:** Initiate Fire Mission
- Tabs:** IFM, Munitions (selected), More Tgt Data, More Mission Data, Attack Summary, Shift, Polar/Laser
- Adjust Section:**
 - Shell: [dropdown] [dropdown] [dropdown]
 - Fuze: [dropdown] [dropdown] [dropdown]
- FFE#1 Section:**
 - Shell: [dropdown] [dropdown] [dropdown] [input] [input]
 - Fuze: [dropdown] [dropdown] [dropdown]
- FFE#2 Section:**
 - Shell: [dropdown] [dropdown] [dropdown] [input] [input]
 - Fuze: [dropdown] [dropdown] [dropdown]
- Propellant Section:**
 - Propellant: [input] Model: [dropdown] Lot: [dropdown] Charge: [dropdown]
- Timing and Distribution Section:**
 - Sheaf Distribution: [dropdown] Distance Between Burst(m): [input: 0]
 - FASCAM Density: [dropdown] Time Between Copperhead Rounds(sec): [input: 0]
 - Dispersal Pattern: [dropdown] Time Between Illum Rounds (sec): [input: 0]
 - Time Between Adjust Rounds(sec): [input] Time Between Rockets/Missiles(sec): [input: 5]
- Quick Smoke Section:**
 - Duration of Smoke(min): [input: 0] Conditions: [dropdown: Neutral]
 - Wind Speed(knots): [input: 0] Wind Direction: [dropdown: Cross]
- Buttons:** Analyze Tgt, Fire, WR, Send, Cancel, Help

Initiate Fire Mission - CONT

Step	Action	Response
28.	<u>Select Adjust Shell</u> (adjust type missions only).	
29.	<u>Select Model</u> for adjust shell (adjust type missions only).	
30.	<u>Select Lot</u> for adjust shell model (adjust type missions only).	
31.	<u>Select Fz:</u> for Adjust: Shell (adjust type missions only).	
32.	<u>Select Model</u> for adjust fuze (adjust type missions only).	
33.	<u>Select Lot</u> for adjust fuze model (adjust type missions only).	
34.	<u>Select Shell</u> for FFE #1: .	
35.	<u>Select Model</u> for FFE#1 shell.	
36.	<u>Select Lot</u> for FFE#1 shell.	
37.	Enter Rounds for FFE#1 shell.	
38.	Enter Volleys for FFE#1 shell.	
39.	<u>Select Fuze:</u> for FFE #1: .	
40.	<u>Select Model</u> for FFE#1 fuze.	
41.	<u>Select Lot</u> for FFE#1 fuze.	
42.	Repeat steps 34 thru 41 for FFE#2 .	
43.	<u>Select Propellant</u> .	
44.	<u>Select Model</u> for propellant.	
45.	<u>Select Lot</u> for propellant.	
46.	<u>Select Sheaf Distribution:</u> .	

Initiate Fire Mission - CONT

Step	Action	Response
47.	<u>Select FASCAM Density:</u> (FASCAM shells only).	
48.	<u>Select Dispersion Pattern:</u> code (A to Z) for shell types ATACMS-BAT or ATACMS-APAM.	
49.	<u>Enter Time Between Adjust Rounds (sec)</u> (optional, 0 to 999).	
50.	<u>Enter Distance Between Bursts(m):</u> (0-999). (special sheaf only)	
51.	<u>Enter Time Between Copperhead Rounds (sec):</u> (0-999). (Copperhead shells only).	
52.	<u>Enter Time Between Illum Rounds (sec):</u> (0-999). (Illumination shells only).	
53.	<u>Enter Duration of Smoke(min):</u> (0-15).	
54.	<u>Enter Wind Speed:</u> (0-300).	
55.	<u>Select Conditions:</u> .	
56.	<u>Select Wind Direction:</u> .	
57.	To perform other functions of Initiate Fire Mission window, refer to note prior to step 2.	<u>Select OK.</u>
58.	<u>Select More Tgt Data</u> tab.	

Initiate Fire Mission - CONT

Step	Action	Response
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- | | | |
|---|--|--|
| <p>59.</p> <p>60.</p> <p>61.</p> <p>62.</p> <p>63.</p> <p>64.</p> <p>65.</p> <p>66.</p> <p>67.</p> <p>68.</p> | <p><u>Select Countermeasures 1:</u> (optional).</p> <p><u>Select Countermeasures 2:</u> (optional).</p> <p><u>Select Countermeasures 3:</u> (optional).</p> <p><u>Select Elements 1:</u> (optional).</p> <p><u>Enter Num:</u> for Elements 1: (required if Elements 1: selected, 0-100).</p> <p><u>Select Elements</u> number 2: (optional).</p> <p><u>Enter Num:</u> for Elements 2: (required if Elements 2: selected, 0-100).</p> <p><u>Select Elements</u> number 3: (optional).</p> <p><u>Enter Num:</u> for Elements 3: (required if Elements 3: selected, 0-100).</p> <p><u>Select Environment</u> number 1: (optional).</p> | |
|---|--|--|

Initiate Fire Mission - CONT

Step	Action	Response
69.	<u>Select Environment</u> number 2 : (optional).	
70.	<u>Select Environment</u> number 3 : (optional).	
71.	<u>Select Classification</u> : code (A to E, optional).	
72.	<u>Select Status Code</u> : (optional).	
73.	<u>Enter %</u> value if Specified % selected for Status Code (0 to 100, optional).	
74.	<u>Select Priority</u> : (optional).	
75.	<u>Enter Part Number</u> : (1 to 7, optional).	
76.	<u>Enter Speed(kph)</u> : (0-99).	
77.	<u>Enter Direction(mils)</u> : (0-6400).	
78.	<u>Enter Time</u> : (standard DTG).	
79.	<u>Select Tgt Terrain</u> : (optional).	
80.	<u>Enter TLE</u> : (optional, 0 to 9999).	
81.	<u>Select Location Source</u> : (optional).	
82.	<u>Select Reliability</u> : (optional).	
83.	<u>Select Acq Agency</u> : (optional).	
84.	<u>Enter Impact Location</u> : (optional).	
85.	<u>Enter Comments</u> : as applicable.	
86.	To perform other functions of Initiate Fire Mission window, refer to note prior to step 2.	
87.	<u>Select More Mission Data</u> tab.	

Initiate Fire Mission - CONT

Step	Action	Response
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- | | |
|--|---|
| <p>88. <u>Select Effects Desired:</u></p> <p>89. <u>Enter %</u> (for specified % of effects desired, (0-100).</p> <p>90. <u>Enter NET Time:</u> (standard DTG).</p> <p>91. <u>Enter NLT Time:</u> (standard DTG).</p> <p>92. <u>Enter Time Acquired:</u> (standard DTG).</p> <p>93. <u>Enter Permanence:</u> optional, 0-9999, default is 9999).</p> <p>94. <u>Enter Height of Burst(m):</u> (0-9999).</p> | <p>If selection is Specified %, then user enters percentage level in corresponding % field. Default values are entered in % field for other selections.</p> |
|--|---|

Initiate Fire Mission - CONT

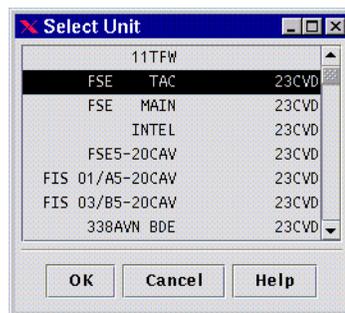
Step	Action	Response
95.	<u>Select Trajectory:</u>	
96.	<u>Select Cannot Observe</u> if applicable.	
97.	<u>Select Splash</u> if applicable.	
98.	<u>Select Time of Flight</u> if applicable.	
99.	<u>Select Danger Close</u> if applicable.	
100.	<u>Select Rocket/Missile Unit:</u> (optional).	
101.	<u>Select Fire From ID:</u> (optional).	
102.	<u>Select Next Point Type:</u> (optional).	
103.	<u>Select Next Point ID:</u> (optional).	

NOTE

To perform the following functions of the **More Mission Data** tab, proceed to the indicated steps.

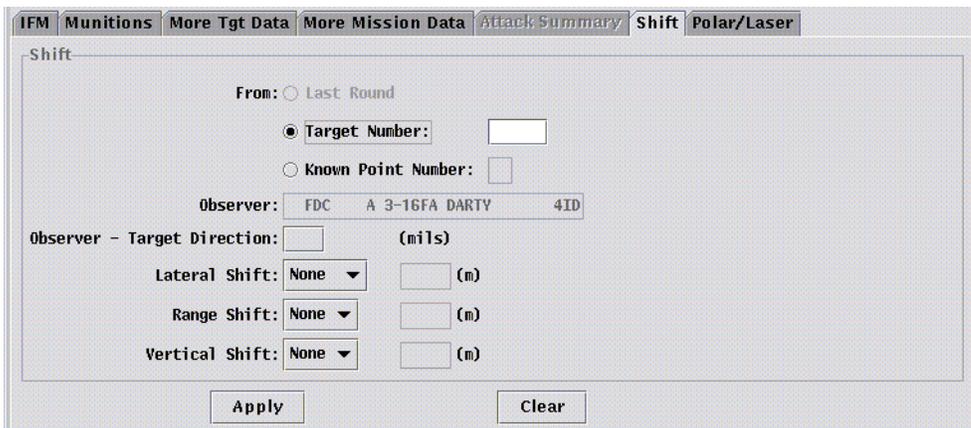
- Add a Fire or Adjusting Unit step 104
- Remove a Fire or Adjusting Unit step 107

104.	<u>Select Add...</u> for the proper list.	Select Unit window opens.
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Initiate Fire Mission - CONT

Step	Action	Response
105.	<u>Select unit(s).</u>	
106.	<u>Select OK.</u>	Select Unit window closes. Selected unit(s) is added to Fire Units list.
107.	<u>Select unit</u> to be removed.	
108.	<u>Select Remove.</u>	
109.	To perform other functions of Initiate Fire Mission window, refer to note prior to step 2.	
110.	<u>Select Shift tab.</u>	Shift tab is displayed.



NOTE

To perform the following functions, proceed to the indicated steps.

- Shift from target number step 111
- Shift from known point number step 113

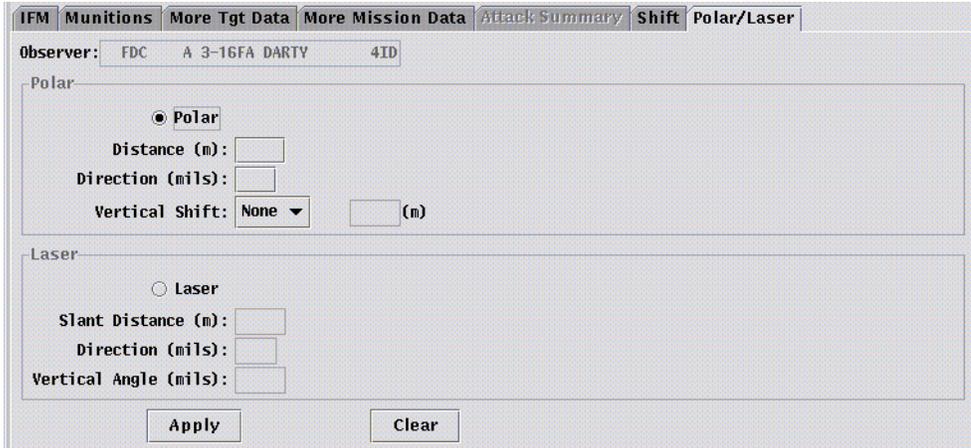
111.	<u>Select Target Number:.</u>	
112.	<u>Enter Target Number:, proceed to step 115 (AA0000-ZZ9999).</u>	

Initiate Fire Mission - CONT

Step	Action	Response
113.	<u>Select Known Point Number:</u>	
114.	<u>Enter Known Point Number:</u> (0-99).	
115.	<u>Enter Observer-Target Direction:</u> (0-6400 mils).	
116.	<u>Select Lateral Shift:</u>	
117.	<u>Enter Lateral Shift (m):</u> (0-9999).	
118.	<u>Select Range Shift:</u>	
119.	<u>Enter Range Shift (m):</u> (0-9999).	
120.	<u>Select Vertical Shift:</u>	
121.	<u>Enter Vertical Shift:</u> (0-9999).	
122.	<u>Select Apply.</u>	IFM tab is displayed with calculated Location: .
123.	To perform other functions of Initiate Fire Mission window, refer to note prior to step 2.	
124.	<u>Select Polar/Laser tab.</u>	Polar/Laser tab is displayed.

Initiate Fire Mission - CONT

Step	Action	Response
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NOTE

To perform following functions, proceed to indicated steps.

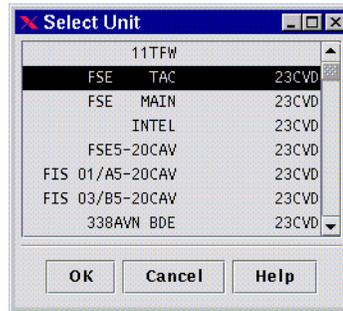
Enter Polar data step 125
 Enter Laser data step 131

- | | |
|------|--|
| 125. | <u>Select Polar</u> radio button. |
| 126. | <u>Enter Distance(m)</u> : (0-9999). |
| 127. | <u>Enter Direction (mils)</u> : (0-6400). |
| 128. | <u>Select HOB</u> : direction. |
| 129. | <u>Enter (m)</u> for HOB correction. |
| 130. | <u>Select Apply</u> . |
| 131. | <u>Select Laser</u> radio button. |
| 132. | <u>Enter Slant Distance</u> (0 - 99999). |
| 133. | <u>Enter Direction (mils)</u> : (0-6400). |

IFM tab is displayed with calculated **Location**.

Initiate Fire Mission - CONT

Step	Action	Response
134.	<u>Enter Vertical Angle(mils)</u> : (-1599 to 1599).	
135.	<u>Select Apply</u> .	IFM tab is displayed with calculated Location :
136.	To perform other functions of Initiate Fire Mission window, refer to note prior to step 2.	
137.	<u>Select Send...</u> .	Select Unit window opens.



138.	<u>Select unit</u> for destination.	
139.	<u>Select OK</u> .	Select Unit window closes. Initiate Fire Mission window closes. Fire mission is sent to selected unit.
140.	To perform other functions of Initiate Fire Mission window, refer to note prior to step 2.	

4-9 TECHNICAL FIRE DIRECTION.

AFATDS 99 provides battery and platoon level control of MLRS units and computes firing data for the control of cannon units. In this chapter, these processes are referred to as technical fire direction (TFD). AFATDS 99, utilizing its TFD capability, replaces the Battery Computer System (BCS) and Fire Direction System (FDS). The following paragraphs divide the TFD processes into those associated with non-Paladin cannon units, Paladin cannon units, and MLRS units.

4-9.1 Non-Paladin Cannon Units.

In non-Paladin cannon units, AFATDS replaces the BCS and communicates directly with the gun display unit (GDU) at each weapon. AFATDS assumes the duties of the BCS and uses mission, registration, muzzle velocity variation, MET, and other data inputs to compute firing data for the weapons.

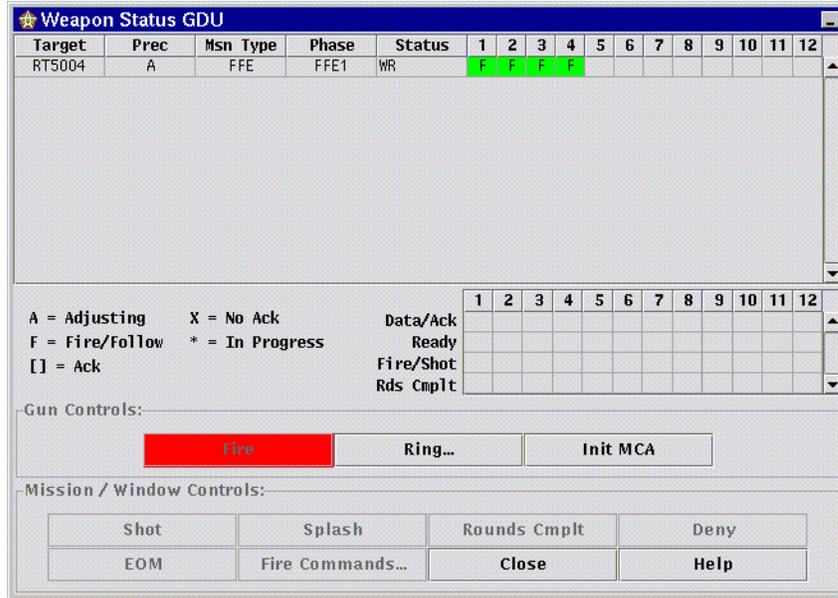
Prior to activation of the AFATDS software, the Role FU is established on the Unit Configuration window at the battery/platoon FDC. The unit symbol should be that of an FDC or Unit. Refer to the units section for additional information concerning basic unit information.

The guns of a non-Paladin fire unit are not added to the master unit list (MUL) by the operator. These are automatically added to the MUL at activation of AFATDS and the GDU.

AFATDS uses wire or radio communications with the GDU. As with all communications in AFATDS, firing battery communications are established by building the network. The network must be part of the current communications configuration. The network will use the GDU protocol and does not require destination units to be assigned; but must be assigned to a channel and be enabled. The GDU's are automatically identified when they enter the net by initializing the section chief's assembly of the GDU at the gun. The most common media for intra-battery communications is two wire. AFATDS provides the ability to use AN/PRC-68 or AN/PRC-126 radio (Local Radio) or a mix (TWO-WIRE-AND-RADIO).

Setup GDU Fire Unit

Step	Action	Response
1.	<u>Ensure unit has a symbol of FDC or Unit.</u>	
2.	<u>Activate unit</u> with a role of FU.	
3.	<u>Ensure all weapons are identified and located.</u>	
4.	<u>Remove any BCS</u> from communications destinations units.	
5.	<u>Establish and activate a communications network</u> with a protocol of GDU	
6.	<u>Select Weapon Status GDU</u> icon from toolbar.	Weapon Status GDU window opens.

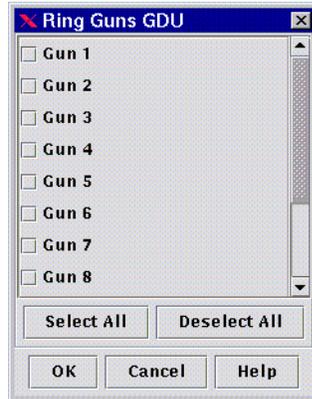


7. | Select Ring...

| Ring Guns GDU window opens.

Setup GDU Fire Unit - CONT

Step	Action	Response
------	--------	----------



8.	<u>Select unit's guns.</u>	
9.	<u>Select OK.</u>	Window closes, gun communications are tested.
10.	<u>Select Init MCA.</u>	The MCA configuration is refreshed and ammunition on hand data sent to MCA devices.
11.	<u>Select Close.</u>	Weapon Status GDU window closes.

4-9.2 Paladin Cannon Units.

Prior to activation of the AFATDS software, the unit role for the platoon FDC is set to FA CP. This is a departure from the method used for a non-Paladin fire unit. This is necessary because each howitzer in a Paladin unit is constructed as a separate fire unit controlled by the FDC. AFATDS views this relationship much in the same manner as a cannon battalion FDC controlling multiple fire units.

The gun is constructed in the database as a cannon type unit with a unit symbol of unit and an echelon of section. A single gun is added to the Weapons folder of the unit.

Each gun of the Paladin unit must be established in the AFATDS Master Unit List. The device type Package 11 Paladin must be selected.

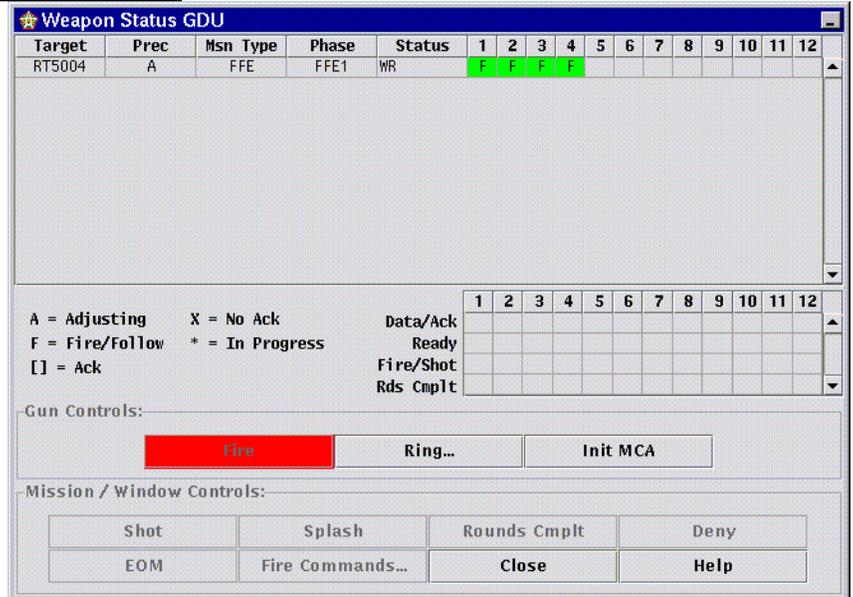
Setup Paladin Fire Unit

Step	Action	Response
1.	<u>Create or edit the platoon FDC</u> and activate as a FA CP.	
2.	<u>Remove any weapons</u> assigned to the FDC.	
3.	<u>Create a Cannon Unit</u> with device type of Package 11 Paladin in the Master Unit List for each Paladin assigned.	
4.	<u>Create and activate each Paladin unit as a Fire Unit in the Current situation</u> (commanded by and supporting the FDC).	
5.	<u>Assign one Paladin</u> to each FU.	
6.	<u>Construct an IP network</u> using 188-220A protocol to include the FDC and all Paladin units.	

4-9.3 Cannon Mission Processing.

4-9.3.1 Weapon Status GDU and Paladin Windows.

The **Weapon Status GDU** and **Weapon Status Paladin** windows allow the operator to view the state of assigned missions and weapons (cannon/ mortar). These windows are accessed from the mission toolbar icons. Target numbers are displayed with the current status. Weapon information is displayed with the current state and the progress of the mission for each weapon. The operator can also manually send commands to the weapons.



Each row of the upper display represents a fire mission. The **Target** column displays the assigned targets in the order they are to be fired. The **Prec** column displays the precedence for the mission. The **Msn Type** column displays the type mission for each target. The **Phase** column displays the current phase of the mission (e.g., FFE, ADJ, etc.). The **Status** column displays the current status of the mission (e.g., WR, DNL, time until fire, etc.).

The weapon state (matrix) displays the current state of the weapons (1 to 12) for each target. Display is **A** for adjusting or **F** for fire/follow. Blank indicates no current activity for the weapon.

The mission progress (matrix) displays the current state of message traffic/actions for the selected mission. When a mission row is highlighted, the specific status of that mission is shown in the lower display: The actions monitored include **Data/Ack**, **Ready**, **Fire/Shot**, and **Rnds Cmplt**. As an action is initiated, an asterisk (*) will appear in the column for the action/weapon number. When the action message is acknowledged, a box will replace the asterisk. If the action message is not acknowledged, a **X** will appear. The matrix cells are color coded for operator identification depending on the condition of the action. For an **ACK** condition the cells are displayed in Green. For non-ACK, the cells will be displayed Red. For the asterisk conditions, the cells will be Yellow.

DATA/ACK (Weapon Status GDU window only) shows an * when fire commands are transmitted to the weapon and changes to **X** if no ack is received. A box is displayed indicating an ack from the gun.

READY shows an * when fire commands that require a ready response from the gun, such as TOT or AMC missions, are transmitted. If ready is not received, this column displays **X**. The column displays a box when the ready report is received. For WR missions, this symbol changes when the **DATA/ACK** entry changes and polling for shot begins.

FIRE/SHOT shows an * while waiting for a shot report from the gun. This changes to **X** if no report is received. A box is displayed indicating reception of shot from the GDU. Receiving shot causes the display to poll for rounds complete in a multiple volley mission.

RDS COMPLT shows an * while waiting for a rounds complete report from the gun. This changes to **X** if no report is received. A box is displayed indicating reception of rounds complete from the gun.

The **Fire**, **Shot**, **Splash**, **Rnds Cmplt**, and **Deny** buttons manually send the appropriate message for the selected mission.

FIRE is activated for the selected mission if the method of control requires the FDC to command firing and the ready reports have been received from the guns.

The **Ring...** button opens the **Ring Guns** window to allow the operator to test communications with the GDU's.

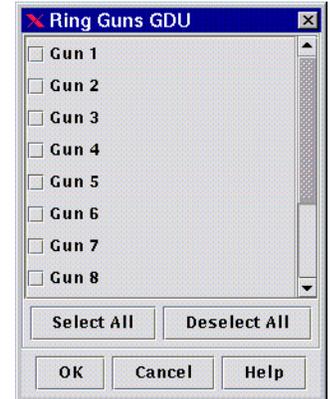
The **Init MCA** button refreshes the MCA configuration and sends ammunition on hand data to MCA devices.

The **EOM** button manually sends the EOM message for the selected mission and removes the mission data from this window. The **Fire Commands** button opens the **Fire Commands** window for the selected mission.

The **Close** button closes this window.

4-9.3.2 Ring Guns Window.

The **Ring Guns** window is used to test the communications between AFATDS and the GDU. Individual guns are selected and **OK** pressed to initiate the test and close the window. **Select All** and **Deselect All** buttons are available for fast selection/de-selection of guns. The operator will be notified of failures via an alert message.



4-9.3.3 Fire Commands Window.

The **Fire Commands** window displays the firing data that is sent to the individual guns. This window is opened by selecting a mission in the **Weapon Status GDU** or **Weapon Statue Paladin** window and selecting the **Fire Commands** button. The data displayed is for the selected mission.

The **TOF:** field displays the time of flight in seconds.

Fire Commands RT5004																
																TOF: 57
FFE 1																
Wpn	Cap	MOC	# Rnds	Shell Category	Shell Model	Shell Lot	Prop Color	Prop Lot	Prop Charge	Fuze Category	Fuze Model	Fuze Lot	Fuze Time	DF	QE	
1	Y	WR	5	APICM	M449a1	E	RB	R	Seven	Time	M577	B	47.6	3903	523	
2	Y	WR	5	APICM	M449a1	E	RB	R	Seven	Time	M577	B	47.8	3907	526	
3	Y	WR	5	APICM	M449a1	E	RB	R	Seven	Time	M577	B	48.1	3913	530	
4	Y	WR	5	APICM	M449a1	E	RB	R	Seven	Time	M577	B	48.5	3919	535	
FFE 2																
Wpn	Cap	MOC	# Rnds	Shell Category	Shell Model	Shell Lot	Prop Color	Prop Lot	Prop Charge	Fuze Category	Fuze Model	Fuze Lot	Fuze Time	DF	QE	

Figure 4.15 Fire Commands Window

FFE1 table always displays data for the fire for effect shell/propellant/fuze combination. During the adjustment phase of an adjust fire mission, the firing data displayed is that of the adjusting piece.

The **Wpn** column displays the gun number for that row of data. The **Cap** column indicates the capability of the gun as **Y** (yes) or **N** (no) and uses the same color code as the Attack Options on the Intervention tab.

The **MOC** column provides the method of control. DNL or Do Not Load, is displayed for pieces to follow during an adjustment. The **# RND**S is the number of rounds assigned to this weapon. A zero (0) is displayed for pieces to follow during an adjustment.

The **Shell Category** is the type of projectile. The **Shell Model** refines the category to a specific model. The **Shell Lot** is a single alphabetic character assigned to the munition lot.

The **Prop Color** indicates the charge type as GB, WB or RB (green bag, white bag or red bag, respectively). The **Prop Lot** is a single alphabetic character assigned as the propellant lot. The **Prop Charge** indicates the propellant charge increment to fire.

The **Fuze Category** is the type of fuze to fire. The **Fuze Model** refines the category to a specific model nomenclature. **Fuze Lot** is a single alphabetic character assigned as the fuse lot. **Fuze Time** is the fuze setting in increments of time. If the fuze does not require a setting (e.g., PD) the time is displayed as 0.0.

DF is the deflection to fire. **QE** is the quadrant elevation to fire.

FFE2 repeats this information for a second shell if the mission requires a second fire for effect shell.

4-9.3.4 Registration Missions.

AFATDS processes registration missions, then determines and stores registration corrections for these missions. The AFATDS OPFAC must be a non-Paladin fire unit with weapons stored in the unit's weapon folder or a Paladin FDC established in the AFATDS workstation as an FA CP controlling individual, one-gun fire units. The registration must be initiated at the AFATDS OPFAC. An external system (such as observer with a forward entry device) cannot initiate the mission with a call for fire.

AFATDS applies the registration corrections based on a preferential matching. The parameters used are the following.

1. Angle of fire in the registration must match the angle of fire selected for the mission.
2. If current MET is in use, registrations fired using standard MET will not be applied.
3. Registration that incorporated MET is preferred over one that does not.
4. Projectile:
 - a. Lot matches fire mission
 - b. Family match.
 - c. For 155mm, registration corrections may be transferred from 155mm HE registrations to DPICM family projectiles.
5. Propellant:
 - a. Lot matches current fire mission.
 - b. Model matches.

- 6. Charge:
 - a. Matches, or
 - b. Matches within 3 charge increments, higher being preferred over lower.
- 7. Transfer Limits.
 - a. Transfer limits apply when MET used in the registration and the MET used for the mission is standard are the same.
 - b. Firing weapon and registered weapon must be within 2000 meters.
 - c. Range to target and registration range must be within 2000 meters.
 - d. Azimuth to target must be within 500 mils of the azimuth to the registration point.
 - e. Altitude difference must be within 1000 meters.

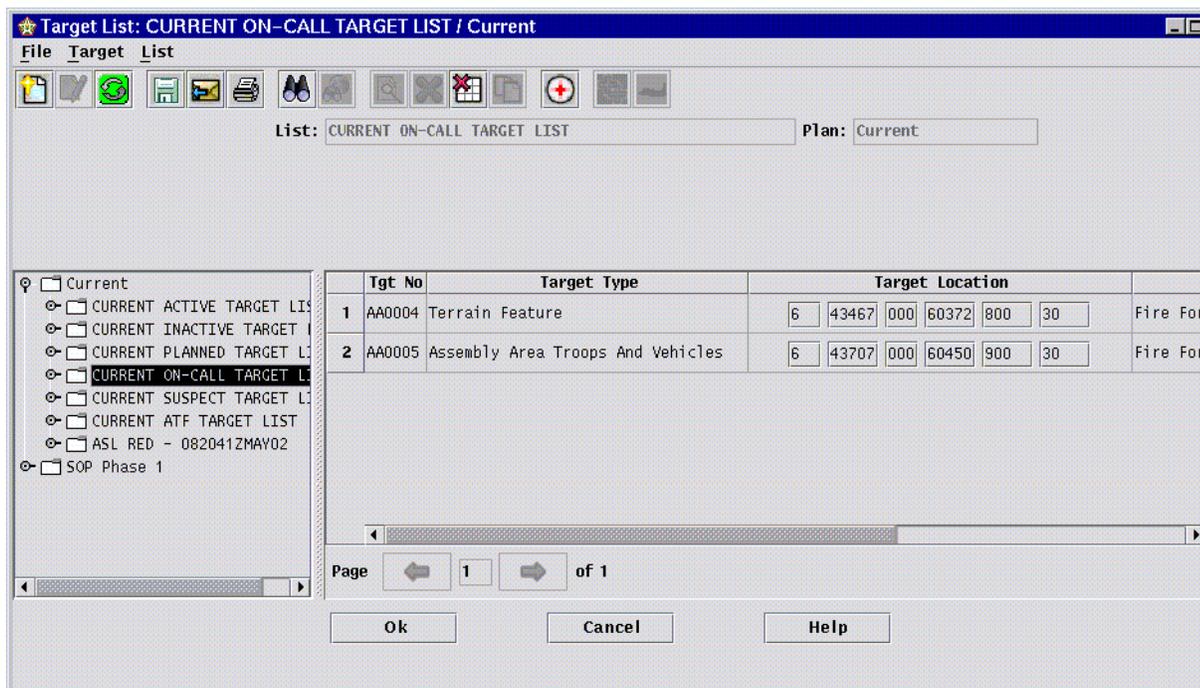
NOTE

Start a step 1 to initiate a fire mission as a registration. Start at step 2 to build a target list for registration targets.

Registration Procedure		
Step	Action	Response
1.	Select <u>Mission Processing\Initiate Fire Mission</u> , proceed to step 7.	Initiate Fire Mission window opens.
2.	Select <u>Targets\Workspace...</u> .	Target List window opens.

Registration Procedure - CONT

Step	Action	Response
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3. Select List\New Target List.

List: field enabled.

4. Enter List: name.

5. Select Create.

Window title displays list name.

6. Select Target\New.

Basic Target Information window opens.

Registration Procedure - CONT

Step	Action	Response
------	--------	----------

7. Enter Tgt Number: (optional).

8. Select Observer:.

9. Select Mission Type:.

Observer 2: selection enabled for **HB** and **MPI Registration**.

Registration Procedure - CONT

Step	Action	Response
10.	<u>Select Observer 2:</u> as required.	
11.	<u>Select FS System:</u>	
12.	<u>Enter Location:</u>	
13.	<u>Select Munitions tab.</u>	Munitions tab is displayed.

The screenshot shows the 'Basic Target Information' window with the 'Munitions' tab selected. The interface includes the following sections and controls:

- Adjust:** Fields for Shell, Fuze, Model, and Lot.
- FFE#1:** Fields for Shell, Fuze, Model, Lot, Rounds, and Volleys.
- FFE#2:** Fields for Shell, Fuze, Model, Lot, Rounds, and Volleys.
- Propellant:** A text input field.
- Model:** A dropdown menu.
- Lot:** A dropdown menu.
- Charge:** A dropdown menu.
- Sheaf Distribution:** A dropdown menu.
- Distance Between Burst(m):** A numeric input field set to 0.
- FASCAM Density:** A dropdown menu.
- Time Between Copperhead Rounds(sec):** A numeric input field set to 0.
- Dispersal Pattern:** A dropdown menu.
- Time Between Illum Rounds (sec):** A numeric input field set to 0.
- Time Between Adjust Rounds(sec):** A numeric input field.
- Time Between Rockets/Missiles(sec):** A numeric input field set to 5.
- Quick Smoke:**
 - Duration of Smoke(min):** A numeric input field set to 0.
 - Conditions:** A dropdown menu set to 'Neutral'.
 - Wind Speed(knots):** A numeric input field set to 0.
 - Wind Direction:** A dropdown menu set to 'Cross'.

At the bottom of the window, there are buttons for 'OK', 'Fire, WR', 'Send', 'Cancel', and 'Help'.

Registration Procedure - CONT

Step	Action	Response
14.	<u>Select Shell</u> for FFE#1.	
15.	<u>Select Model</u> for FFE#1 Shell .	
16.	<u>Select Lot</u> for FFE#1 Shell .	
17.	<u>Select Fuze</u> for FFE#1.	
18.	<u>Select Model</u> for FFE#1 Fuze .	
19.	<u>Select Lot</u> for FFE#1 Fuze .	
20.	<u>Select Model</u> for Propellant .	
21.	<u>Select Lot</u> for Propellant .	
22.	<u>Select Charge</u> for Propellant .	
23.	<u>Select More Mission Data tab.</u>	More Mission Data tab displayed.

Registration Procedure - CONT

Step	Action	Response
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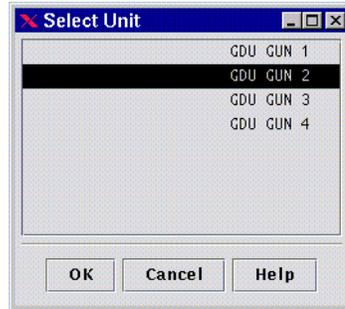


24. Select Fire Units\Add.

Select Unit window opens.

Registration Procedure - CONT

Step	Action	Response
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25.	<u>Select gun</u> to fire.	
26.	<u>Select OK</u> .	Select Unit window closes.
27.	<u>Select OK</u> if creating target for target list.	
	or	
	Proceed to step 31 if initiating a fire mission.	
28.	<u>Repeat steps 4 thru 27</u> to create other targets.	
29.	<u>Select target from list</u> to fire registration mission.	
30.	<u>Select Target\Initiate Fire Mission</u> .	Initiate Fire Mission window opens.
31.	<u>Select Analyze Target</u> .	Registration Mission Information window opens.

Registration Procedure - CONT

Step	Action	Response
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Registration Mission Information

Tgt Number: Reg Type: Reg Phase:

Reg Point Location: Coordination Required:

Unit: Model Lot Charge

Time Of Flight: Projectile:

GT Azimuth: Propellant:

Angle T: Fuze:

Range To Tgt: Weapon Number: Num Of Rounds:

MVV: Deflection: Time Setting:

PE Range: Quadrant Elev: PE Height:

PE Deflection:

Observer Orientation Data

ID	Location	Azimuth VA	Ready To Observe
1:	<input type="text" value="1"/> <input type="text" value="A 1-37FA"/> <input type="text" value="23CVDA"/> <input type="text" value="6"/> <input type="text" value="25510"/> <input type="text" value="034"/> <input type="text" value="44202"/> <input type="text" value="400"/> <input type="text" value="14"/>	<input type="text" value="5540"/> <input type="text" value="-16"/>	<input type="checkbox"/>
2:	<input type="text"/>	<input type="text"/> <input type="text"/>	<input type="checkbox"/>

Sensings

Rnd	Observer	Aimpoint Loc	HOB Correction

Corrections

Range Correction: Time Setting: Record as Reg Point:

Deflection Correction: Time Correction: Record as Time Reg Point:

NOTE

When the observers associated with the mission have reported Ready to observe, and after any coordination has been resolved, the **Send Fire Cmds** button is enabled on the **Registration Mission Information** window.

Registration Procedure - CONT

Step	Action	Response
32.	<u>Select Send Fire Cmds.</u>	Fire command sent to weapon. Shot and Splash reports are sent to observer(s).

NOTE

To process automated sensings, perform steps 33 thru 35. To manually enter sensing reports, perform steps 36 thru 46.

33.	<u>Evaluate reports</u> from observers or sensors as displayed in Sensings list.	
34.	<u>Select Comp Corrections.</u>	
35.	<u>Repeat steps 32 thru 34</u> as required.	
36.	<u>Select Enter Sensings...</u>	Adjust window opens.

Registration Procedure - CONT

Step	Action	Response
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Adjust

Options

Target Number:

Mission Type:

Target Location:

Target Type:

Observer:

Originator:

Azimuth: (mils)

Deviation Correction: (m)

Range Correction: (m)

HOB Correction: (m)

Method of Control: TOT Time:

Registration Control

Registration Commands: Time Repeat

- 37. Select Azimuth.
- 38. Enter azimuth value in mils.
- 39. Select Deviation Correction:
- 40. Enter deviation value in meters.

Registration Procedure - CONT

Step	Action	Response
41.	<u>Select Range Correction:</u>	
42.	<u>Enter range value</u> in meters.	
43.	<u>Select HOB Correction:</u>	
44.	<u>Enter HOB value</u> in meters.	
45.	<u>Select Registration Commands:</u>	
46.	<u>Select Apply.</u>	Adjust window closes. Adjustments are applied to mission.
47.	<u>Repeat steps 32 thru 45</u> as required.	
48.	<u>Select Store Corrections.</u>	
49.	<u>Select End of Mission.</u>	Registration Mission Information window closes. Final registration data is stored.

The operator can update current unit, MET, and/or target data to reflect conditions concurrent with the registration. This may include updated MVV data for the registering gun, updated location for the registering gun, new MET, updated registration point location (precision registrations only).

Update Registration Procedure

Step	Action	Response
1.	<u>Edit unit</u> containing registration to be updated.	Unit information window opens.
2.	<u>Select Detail\Registration</u> from menu tree.	Registration frame displayed.
3.	<u>Select registration</u> to be updated.	
4.	<u>Select Edit.</u>	
5.	<u>Select Update.</u>	
6.	<u>Select OK.</u>	
7.	<u>Repeat steps 3 thru 6</u> as required.	

4-9.4 Multiple Launch Rocket System (MLRS).

AFATDS 99 provides battery and platoon level control of MLRS units. Technical Fire Direction (TFD) computes and supplies aimpoints for the MLRS units. Based upon operator manual selection of targets and MLRS munitions or predetermined guidance selection of targets and selected MLRS munitions, TFD will determine the best solutions for the MLRS fire mission.

Prior to activation of the AFATDS software, the Unit Role for the Battery or Platoon FDC is set to FA CP. Each SPLL is represented as a separate fire unit controlled by the FDC. AFATDS views this relationship much in the same manner as a cannon battalion FDC controlling multiple fire units. The actual setup of MLRS units is similar to that of the Paladin Cannon units.

MLRS/TFD mission data is supported in AFATDS from the **Intervention** window. The initial **Intervention** window selected from the IP Icon allows the operator to view the MLRS Attack Option gumball. If the Rocket/Missile gumball is Green (good to go) then the initial Opt. 1 line will display data and any additional options will also be displayed. If desired the operator can click on any of the available options and then select the Rkt/Msl Soln tab. The Rkt/Msl Soln window will then display data associated with that selected option unit. The operator can scroll between these two menus until all the Rkt/Msl Soln unit data has been reviewed for the various unit Options.

Should the MLRS attack option be Red the operator can view the attack options and see which check the Icon indicates failed. In addition to viewing the MLRS attack options when the Gumball is Red the operator also has an option to view the **Missile Information** tab. This tab is only available and populated when the option selected contained a munition with ATACMS –BAT. This window specifies a NoGo Reason for the option not to produce a Rocket/Missile solution.

Minimum requirement for MLRS mission processing involves one Battery or Platoon FDC and one SPLL. Each Battery or Platoon FDC has the capability of controlling 3 SPLL's. The SPLL's must be listed in the FDC Command structure.

Create MLRS Units For TFD Functionally

Step	Action	Response
------	--------	----------

NOTE

The unit data for a Battery or Platoon FDC is as follows:

- Unit Type: Other
- Role: Command Post
- Echelon: Battery
- Function: Field Artillery MLRS

1.	<u>Create a MLRS FDC</u> using normal unit procedures.
----	--

Create MLRS Units For TFD Functionally - CONT

Step	Action	Response
NOTE		
<p>The unit data for a SPLL is as follows:</p> <p>Unit Type: Rocket Role: Unit Echelon: Section Function: Field Artillery MLRS</p> <p>Each SPLL can have a maximum of 3 supporting Points for Firing, Hiding, and Reloading.</p>		
2.	<u>Create one to three FCS SPLL</u> using normal unit procedures.	
3.	<u>Create Communications Network</u> using FCS Protocol and assign FCS units.	

4-9.4.1 FCS Weapons Status Window.

The FCS Weapon Status window (Figure 4.16) is accessed from the FCS Weapon Status icon on the Current window tool bar. The **FCS Weapon Status** window allows the operator to view the status of all MLRS rockets/missiles weapons and missions including assigned missions. The upper portion of the window displays the status of all launchers. The lower portion of the window displays target information when a launcher listed in the upper display is selected by clicking that launcher's row and back-lighting it.

Unit ID displays the Unit ID of an assigned rocket/missile unit. The first three characters of the launcher name (AFATDS Unit ID in the MUL) with a slash between each character. **WPN Model** and **OP Status** are determined from the launcher's weapon data in the unit's detailed unit information.

Mun Model, **Mun Type**, and **Mun Qty** display the current configuration of the launcher. **Pri Msn** displays the target number of the primary mission assigned to the unit. **# Msns Asgnd**: displays the number of missions currently assigned to the unit.

Point Type displays the point type that the unit currently occupies. **Point ID** displays the ID of the Point that the unit currently occupies.

Target is a list of active missions assigned to the selected launcher. **MOC** is the mission's method of control. **NET/TOT** is the Not Early Than or Time on Target DTG. **NLT** is the No Later Than Time DTG.

Unit ID	Wpn Model	Op Status	Mun Model	Mun Type	Mun Qty	Pri Msn	# Msns Asgnd	Point Type	Point ID
3/A/A	M270	Ready	Mjeg	JEG	0		0		
2/A/A	M270	Ready	Mjeg	JEG	0		0		

Target	MOC	NET/TOT	NLT	Status	# Rnds	Next Point Type	Next Point ID	Launcher Response
RT5004	When ...				0	Other		

Buttons: Close, Edit..., Aiming Data..., SPL Commands..., Request Status..., Help

Figure 4.16 FCS Weapon Status Window

Status provides the current mission status as Firing, Ready, etc. **Next Point Type** and **Next Point ID** display the type and identity of the next point or position to which the launcher is directed to move after completing this mission.

The **Close** button closes the window without performing any actions. The **Aiming Data...** button opens the **Launcher Aiming Data** window. The **Edit...** button opens the basic unit data window for the selected unit to allow editing.

The **SPLL Commands...** button opens the **SPLL Commands** window to allow the user to enter commands and information to be sent to the SPLL. The **Request Status...** selection opens the **FCS Request Message** window.

4-9.4.2 Launcher Aiming Data Window.

This window displays aiming data that is produced by the launcher and sent, prior to firing the mission, to the AFATDS equipped FDC. These values are viewed at the FDC to ensure the launcher aiming data is safe. This window is display and print only.

Launcher Aiming Data					
Launcher ID: 1 1 A 65FA 23CVDA					
Target Number: ML1001	Azimuth(mils): 0		Time Fuze Settings: 0		
Command Type: Ready	Elevation(mils): 0		Time of First Fire:		
Close Print... Help					

Figure 4.17 Launcher Aiming Data Window

4-9.4.3 SPLL Commands Window.

The **SPLL Commands** window is used to send movement and status commands, reload and munitions data, point locations, and time data to a SPLL.

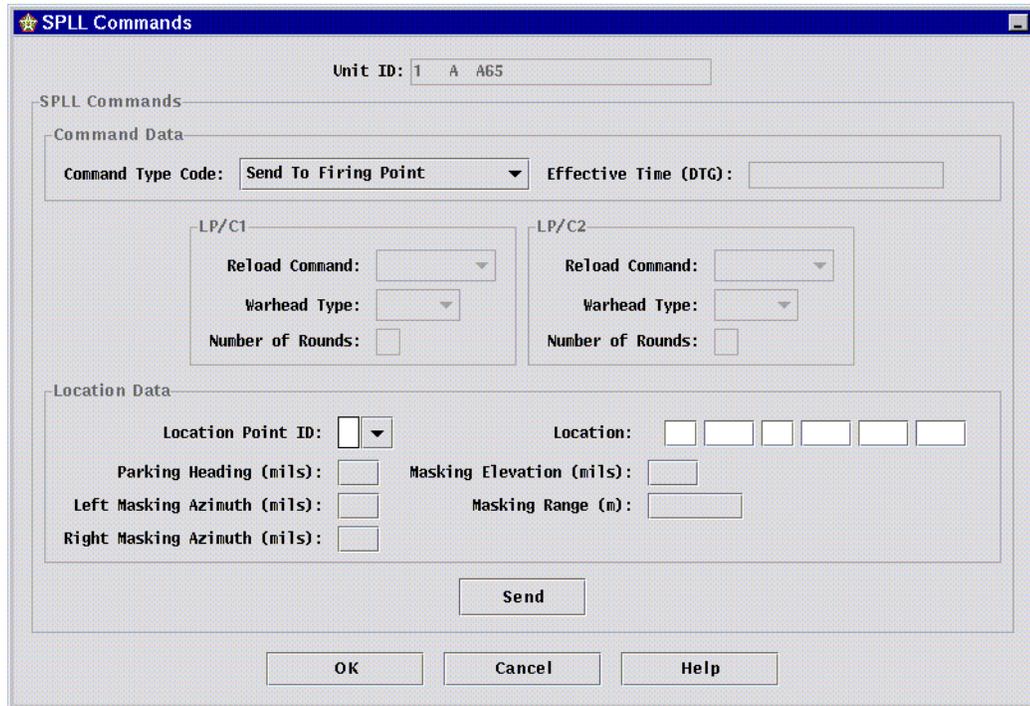


Figure 4.18 SPLL Commands Window

The **Command Type Code**: is used to select movement or weapon status commands. The **Effective Time (DTG)**: field entry is the time for a Move or Rendezvous point action.

Two areas are displayed (**LP/C1** and **LP/C2**) for load commands. The **Reload Command**: is used to select an action if the SPLL is commanded to a Reload point. The **Warhead Type**: is used to select the munition and is required if the **Reload Command**: is **Reload**. The **Number of Rounds**: is the quantity of rounds to be loaded for the pod.

The **Location Point ID**: is selected from the pop-up menu for Fire, Reload, Hide, Rendezvous, or Survey Control point and is required. The field is optional for Move points. The **Location**: field will display the coordinates of the point based on the **Command Type Code**: and **Location Point ID**:. The user must enter the **Location**: for Move points and manually entered **Location Point ID**:.

The **Parking Heading (mils)**:, **Left Masking Azimuth (mils)**:, and **Right Masking Azimuth (mils)**: fields have a legal entry range of 0 - 6400 and are required for **Move To Firing Point** commands. The **Masking Elevation (mils)**: (0 to 1600) and **Masking Range (m)**: (0 to 9999) are also required for **Move To Firing Point** commands.

The **Send** button transmits the SPLL commands to the unit that was selected from the **FCS Weapon Status** window and that is displayed at the top of this window in the **Unit ID**: field.

4-9.4.4 FCS Request Message.

This window is used to request status and location data from a selected SPLL. The **Data Requested:** is selected from the menu. Point **ID:** can be entered as available. The **Send** button initiates transmission of the request.

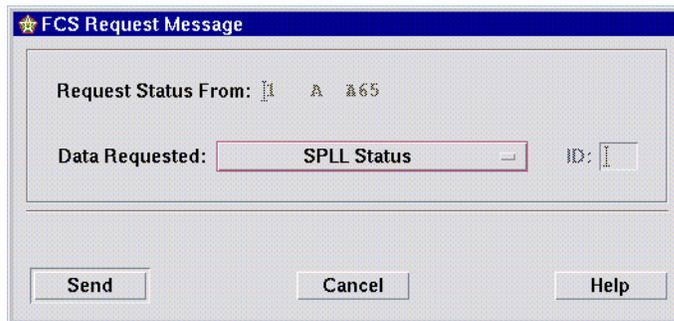


Figure 4.19 FCS Request Message Window

4-10 MONITORING ACTIVE MISSIONS.

The monitoring of active missions is accomplished by viewing and/or actioning messages pertaining to the fire missions. These messages, depending on type, are available to be viewed at the originating unit, first unit to process or controlling unit, and the fire unit. These messages are accessed directly (single message) or from the **Active Missions List** window (multiple messages) via the tool bar messages icon.

4-10.1 Active Mission Monitoring Navigation.

The Messages tool bar selection navigates depending upon the number of events that have been monitored. If only one event has occurred, the Messages selection opens the proper window displaying the event data. If two (2) or more events have occurred, the **Active Mission List** window is opened. The user selects the event to be viewed from the list and **View** to view the data window.



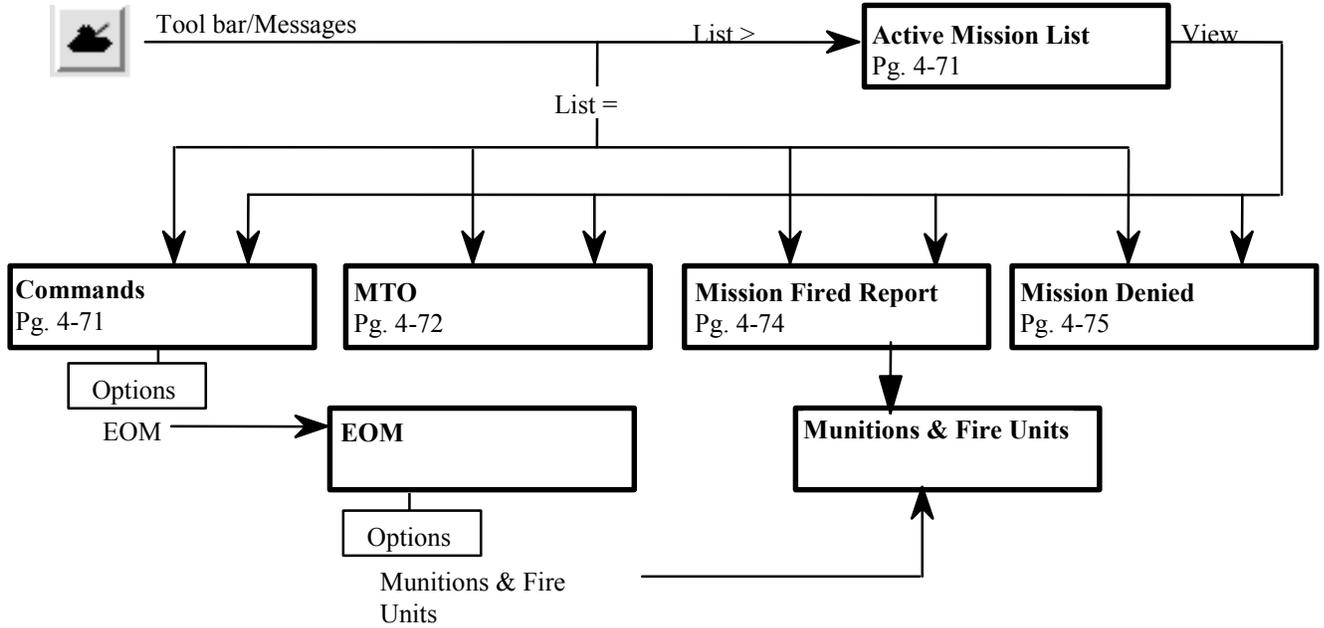
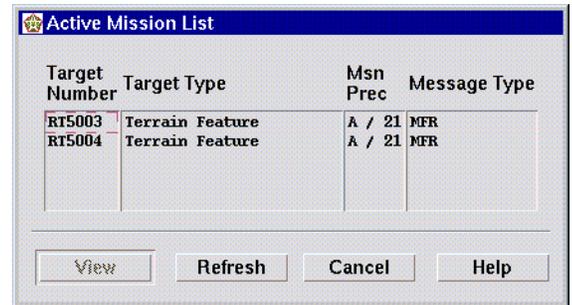


Figure 4.20 Active Mission Monitoring Navigation

4-10.2 Active Mission List Window.

The **Active Mission List** window displays the messages received concerning active missions initiated at the host OPFAC. This window is accessed via the message button (icon) selection on the tool bar when the number of messages is greater than one (1). Information displayed includes the **Target Number**, **Target Type**, **Msn Prec** (mission precedence), and **Message Type**. The user selects the listed message and **View** to open the appropriate message window.



4-10.2.1 Commands Window.

The **Commands** window (Figure 4.21) allows the user to create a Commands request or view a received Commands request. The **Commands** window is used to compose a **Fire Request**, **Repeat FFE**, or **Check Firing...** command which is automatically sent to the designated unit when the corresponding buttons are selected. The Commands message is created by selecting the desired options from the displayed option menus and then selecting the appropriate **Fire**, **Repeat FFE**, or **Check Firing...** button. The Command can also be sent to another unit using the **Send...** button.

The **Options** menu contains the **Adjust** and **End of Mission** selections. The **Adjust** selection opens the **Adjust** window for adjusting the target location. The **End of Mission** selection opens the **End of Mission** window for recording the results of the mission.

The **Target Number:**, **Fire Status:**, and **Observer:** fields are used to identify the target and observer for the fire command.

The **Adjust Shell:**, **Fz:**, and **#Vlys:/#Shell:** fields are used to specify the shell type, fuze type, and number of volleys/shells for the **Adjust Shell:**, **FFE #1:**, and **FFE#2:** shells.

The **Fire** button sends the fire Command to the appropriate unit. The **Repeat FFE** button sends the Adjust message with the Method of Control set to **Repeat** to the appropriate fire unit. The **Check Firing...** button opens the **Check Firing** window for creating a check fire command.

The **Send..** button opens the **Select Unit** window for selection of the destination unit.

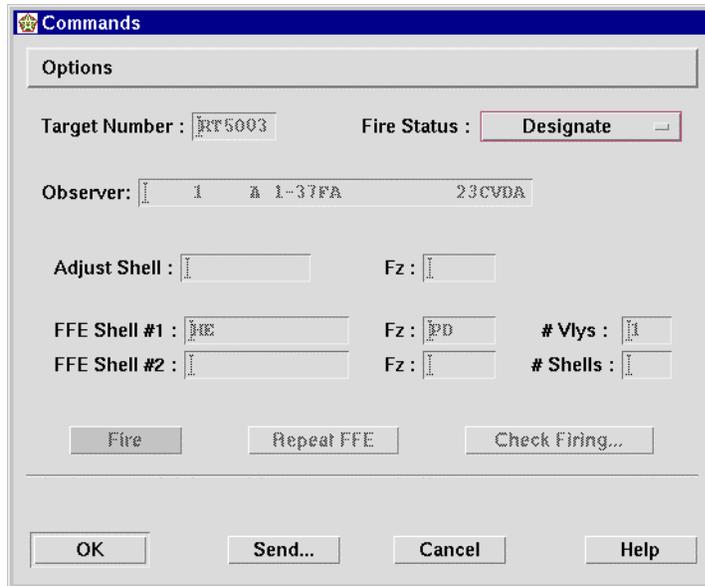


Figure 4.21 Commands Window

4-10.2.2 MTO Window.

The **Message to Observer (MTO)** window (Figure 4.22) is used to send mission data from the controlling unit to the mission originator. The MTO is created by AFATDS at the controlling unit and sent automatically.

The **Target Number:** and **Controlling Unit:** fields identify the target number and controlling unit to which the message applies.

The **Danger Close** and **Mark** check boxes are selected to indicate the type of mission.

The **Type of Adjustment:**, **Trajectory:**, and **Angle T(mils):** specify the type of adjustment to be made. The **Adjust Shell:**, **Fz:**, and **#Vlys:/Shell:** fields are used to specify the shell type, fuze type, and number of volleys/shells for the **Adjust Shell**, **FFE #1**, and **FFE #2** shells.

The **Method of Fire:** and **Method of Control:** option menus display the method of firing and control of the adjust fire command.

The **Time of Flight:** field shows the length of time the rounds are in the air.

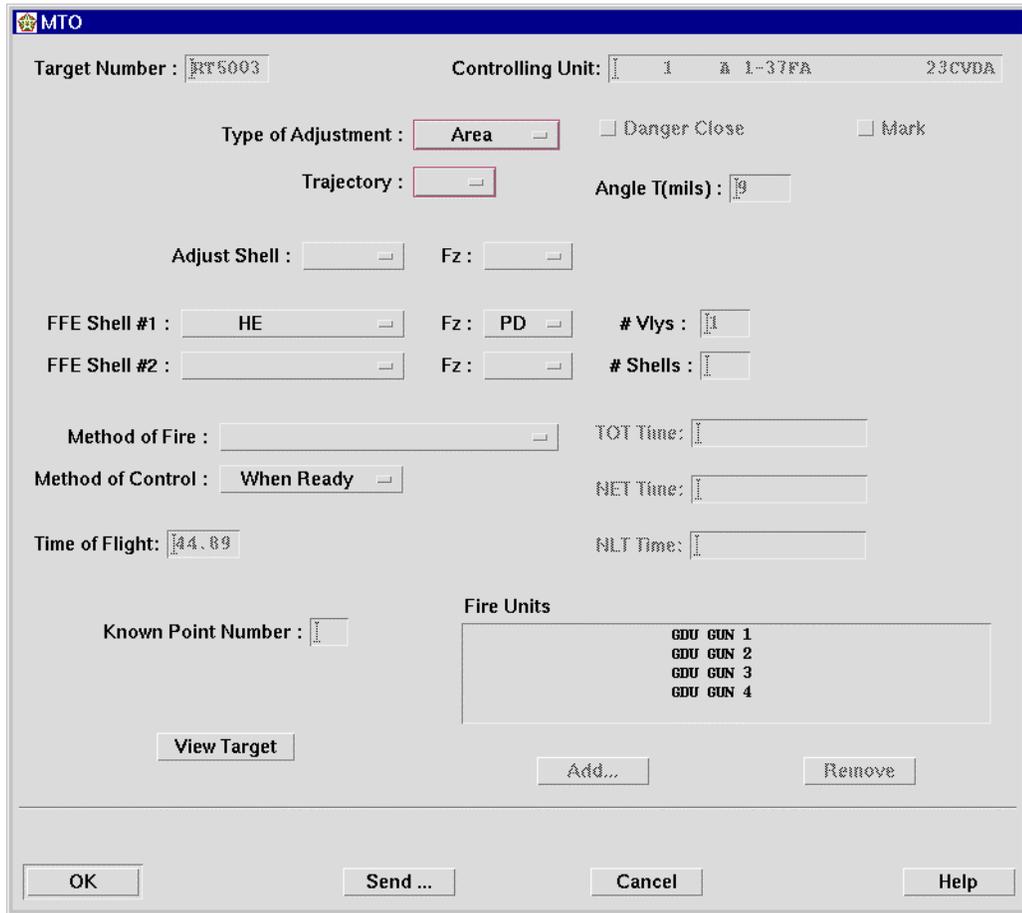


Figure 4.22 MTO Window

The **TOT Time:** field shows the time on target. The **NET Time:** and **NLT Time:** fields show the earliest and latest time for the adjust fire mission.

The **Known Point Number:** field displays the number assigned to the known point.

The **Fire Units** field displays the fire units available. The **Add...** button opens the **Select Unit** window. Selecting a unit and **OK** closes the window and adds the unit to the **Fire Units** field. Selecting a fire unit and **Remove** removes the unit from the list.

The **View Target** button opens the **Basic Target Information** window for viewing information on the target.

The **Send...** button opens the **Select Unit** window for selecting the destination unit.

4-10.2.3 Mission Fired Report Window.

The **Mission Fired Report (MFR)** window is used to create a mission fired report message.

The **Target Number:** identifies the target the **MFR** applies to. The **Observer:** field identifies the unit ID of the observer, while the **Mission Originator:** field identifies the unit that initiated the mission data into the system. The **Message Originator:** identifies the unit that initially sent the mission message.

The **Location:** field shows the target location. The **Target Type:** field shows the type of target the fire mission was against.

The **Shape:**, **Strength:**, **Degree of Protection:**, **Length(m):**, **Width(m):**, and **Attitude(mils):** are all fields which describe the target. The **Desired Effects:** displays the expected effects of the fire on the target.

The **Launcher Aiming Data** fields display the aiming data (azimuth and elevation), fuze setting, and the time the first munition was fired for the mission. These fields are view only and are not required.

The **Results Data** fields are used to enter data resulting from the mission. The **Disposition:**, **Casualties:**, and **Time Completed:** fields are optional entries and are used to described the effects of the fire mission.

The **Munitions & Fire Units** button opens the **Munitions & Fire Units** window.

The screenshot shows the 'Mission Fired Report' dialog box. At the top, the title bar reads 'Mission Fired Report'. Below the title bar, there are several input fields:

- Target Number:** AS1011
- Observer:** OPS 1-37FA 23CVDA
- Mission Originator:** OPS 1-37FA 23CVDA
- Message Originator:** OPS 1-37FA 23CVDA

The 'Target Data' section contains the following fields:

- Location:** 6 15076 034 55128 550 14
- Target Type:** AA, Troops and Vehs
- Degree of Protection:** [empty]
- Shape:** CIRCULAR
- Strength:** 40
- Length(m):** [empty]
- Width(m):** 100
- Attitude(mils):** [empty]
- Desired Effects:** SUPPRESS 9 %

The 'Launcher Aiming Data' section contains:

- Aim Azimuth (mils):** [empty]
- Aim Elevation (mils):** [empty]
- Fuze Setting (sec):** [empty]
- Time First Munition Fired:** [empty]

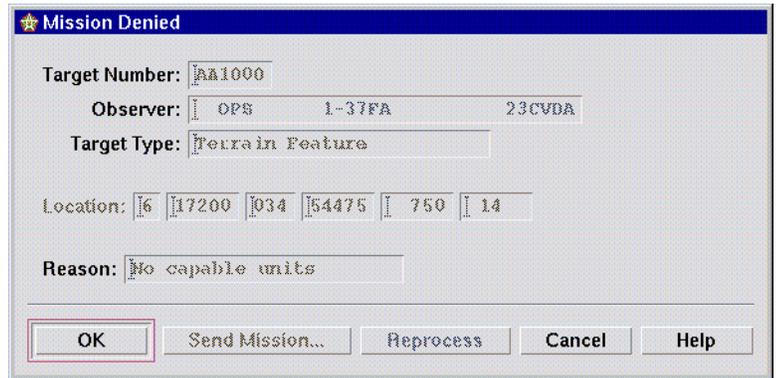
The 'Results Data' section contains:

- Disposition:** [empty]
- Time Completed:** [empty]
- Casualties:** [empty]

At the bottom of the dialog, there is a button labeled 'Munitions & Fire Units' and three buttons: 'OK', 'Cancel', and 'Help'.

4-10.2.4 Mission Denied Window.

The **Mission Denied** window allows the user to view a mission denied message and provides the option of reprocessing or routing the mission to another unit.



The **Target Number:** displays the number assigned to the target. The **Observer:** field identifies the unit ID of the observer unit and the **Target Type:** field displays the type of target. The **Location:** field displays the grid location of the target. The **Reason:** field described the reason the mission was denied.

The **Send Mission...** button opens the **Select Unit** window for selecting a unit to receive the mission.

The **Reprocess** button initiates a retry of the mission at the local OPFAC.

4-10.3 Order To Fire.

The **Order to Fire** selection opens the **Initiate Fire Mission** window. Refer to Initiate Fire Mission paragraphs.

4-10.4 Fire Order.

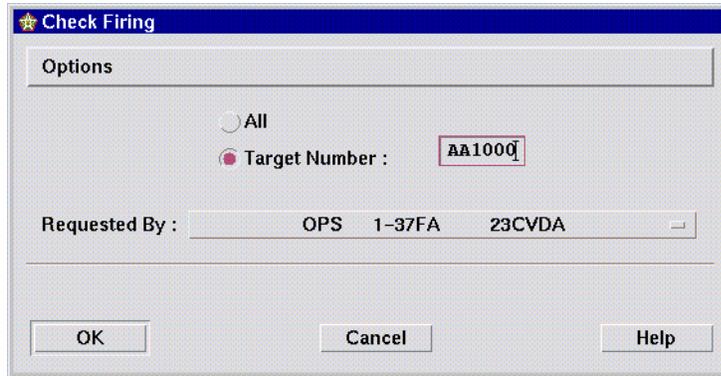
The **Fire Order** selection opens the **Initiate Fire Mission** window. Refer to Initiate Fire Mission paragraphs.

4-10.5 Check Firing Window.

The **Check Firing** window message is used to create a check fire message to request stop firing on a selected target or on all targets. The **All** radio button requests firing to be stopped on all targets. The **Target Number:** radio button requests that firing be stopped on the target entered in the **Target Number:** field. The **Requested By:** option menu is used to identify the requesting unit. **Options\Send...** opens the **Select Unit** window for selecting the destination unit. **OK** closes this window and sends the **Check Firing** message to all default units in the command structure. The default units consist of all supporting units, subordinate units, and any unit(s) that is conducting a mission for the host unit.

Check Firing Procedure

Step	Action	Response
1.	Select Check Firing from Main Menu.	Check Firing message window opens.



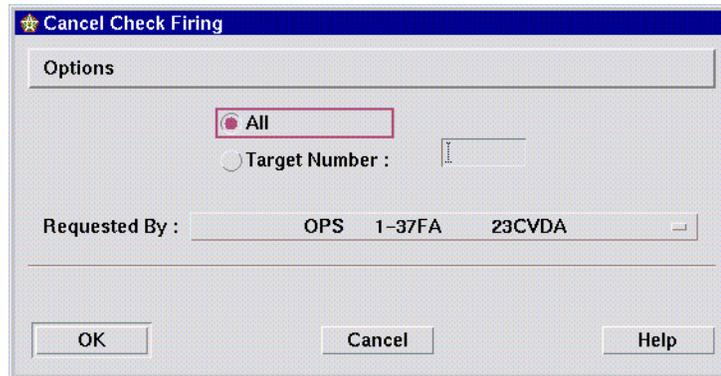
2.	Select All or Target Number: radio button.	
3.	If Target Number: radio button is selected, <u>enter target number.</u>	
4.	Select Requested By:	Select Unit window opens.
5.	Select <u>desired unit.</u>	
6.	Select OK.	Select Unit window closes.
7.	Select OK to send message to default units in data distribution criteria	Check Firing window closes and message is sent. End of message procedure.
	or	
	Select Options\Send... to send message to specific firing unit.	Select Unit window opens.
8.	Select <u>desired unit.</u>	
9.	Select OK.	Select Unit and Check Firing windows close and message is sent to selected unit. End of message procedure.

4-10.6 Cancel Check Firing Window.

The **Cancel Check Firing** window message is used to create a Cancel Check Firing message to request that a previous Check Firing request be canceled. The **All** radio button requests that the check firing request on All targets be canceled. The **Target Number:** radio button requests that a cancel Check Firing message be sent on the target entered in the **Target Number:** field. The **Requested By:** option menu is used to identify the requesting unit. **Options\Send...** opens the **Select Unit** window for selecting the destination unit. **OK** closes this window and sends the **Cancel Check Firing** message to all default units in the command structure.

Cancel Check Firing Procedure

Step	Action	Response
1.	<u>Select Cancel Check Firing</u> from the Main Menu Bar .	Cancel Check Firing message window opens.



2. Select **All** or **Target Number:** radio button.
3. If **Target Number:** radio button is selected, enter target number.
4. Select **Requested By:**
5. Select desired unit.
6. Select **OK.**

Select Unit window opens.

Select Unit window closes.

Cancel Check Firing - CONT

Step	Action	Response
7.	<p><u>Select OK</u> to send message to default units in data distribution criteria</p> <p>or</p> <p><u>Select Options\Send...</u> to send message to specific firing unit.</p>	<p>Cancel Check Firing window closes and message is sent. End of message procedure.</p> <p>Select Unit window opens.</p>
8.	<u>Select desired unit.</u>	
9.	<u>Select OK.</u>	Select Unit and Cancel Check Firing windows close and message is sent to selected unit. End of message procedure.

4-11 INTERVENTION POINTS.

The **Mission Processing\Intervention Points** selection opens the **Intervention Criteria** window. This window displays the different intervention points that have been established. Intervention is the interruption of automatic message routing for active missions. Intervention can occur at any point (FS, FA, and/or FU) along the message route.

Rule criteria is the combination of conditions selected by the user AND logic of each criteria within an intervention rule. Active mission message traffic will be intervened on only when the message meets all conditions of the established rule criteria OR logic of multiple rules.

4-11.1 Intervention Criteria Window.

The **Intervention Criteria** window displays a line entry for each established rule criteria. Conditions are displayed for **Msn Prec** (Mission precedence), **Battle Area**, **Mission Type**, **Target Type**, **Target Filter**, **Analysis Result**, **Attack Option**, and **Munitions Category** for each rule criteria.

Selecting **New** or a list item and **Edit** or **Copy** opens the **Rule Criteria** window used to enter and/or edit data for the rule criteria.

Selecting a listed criteria and **Delete...** opens the **Delete Confirm** window for user confirmation of the deletion of the selected item. Selecting **Delete** removes it from the list.

Selecting **Clear...** opens the **Delete Confirm** window for user confirmation of the deletion of all intervention criteria. Selecting **Delete** clears the criteria. This window is only available to a user with Mission Monitor duty.

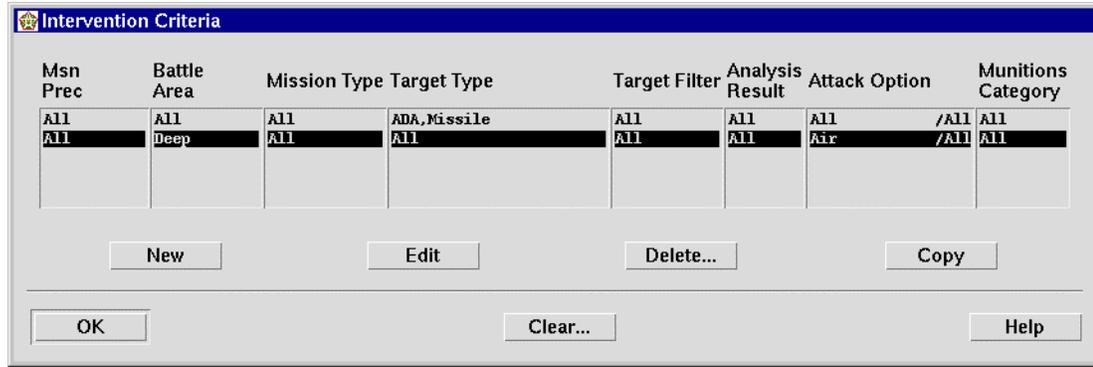
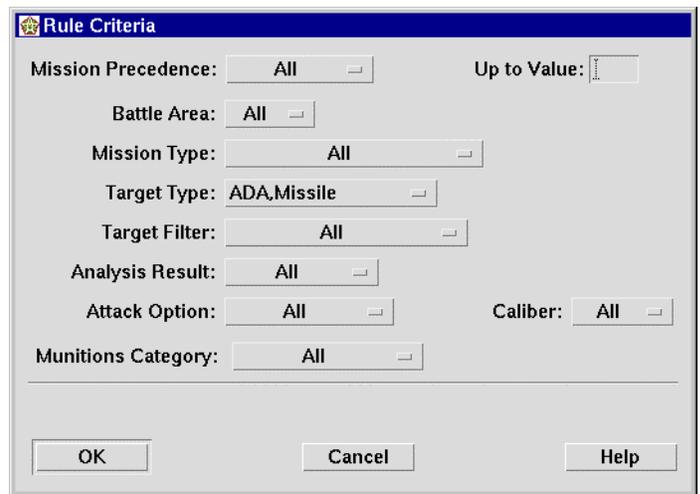


Figure 4.23 Intervention Criteria Window

4-11.2 Rule Criteria Window.

The **Rule Criteria** window allows the user to create or edit a criteria. All the selections are required and defaulted with the exception of **Up to Value:** Selecting **New** from the **Intervention Criteria** window opens this window with the default of **All** displayed for all selections. Editing the data and selecting **OK** closes the **Rule Criteria** window and adds a new criteria to the list.



Selecting an established criteria and **Edit** or **Copy** from the **Intervention Criteria** window opens this window with the data of the selected criteria displayed.

Editing the data and selecting **OK** in the **Edit** mode closes the **Rule Criteria** window and displays the edited criteria in the list. Editing the data and selecting **OK** in the **Copy** mode closes the **Rule Criteria** window and adds a new criteria to the list.

All selection fields on the window include the **All** selection. The **Mission Precedence:** field includes selections **Priority**, **Immediate**, and **As Acquired**. The selection of **Immediate** or **As Acquired** enables the **Up to Value:** field which is a required entry for these selections. The legal entry is 0-100.

The **Battle Area:** selections include **Close**, **Deep**, and **Rear**. The **Mission Type:** selections include **Immediate Smoke**, **Immediate Suppression**, **Adjust**, **Fire for Effect**, **Assign FPF**, **Assign Priority Tgt**, **Continuous Illumination**, and **Coordinated Illumination**.

The **Target Type:** selections are **All** and **Select...** **Select...** opens the **Select Target Type** window in the **Select** mode. A target type is selected via this window. The **Target Filter:** selections include **TSS**, **Duplication**, **Exclusion**, **IEW Routing**, **Buildup**, and **Coordination Required**.

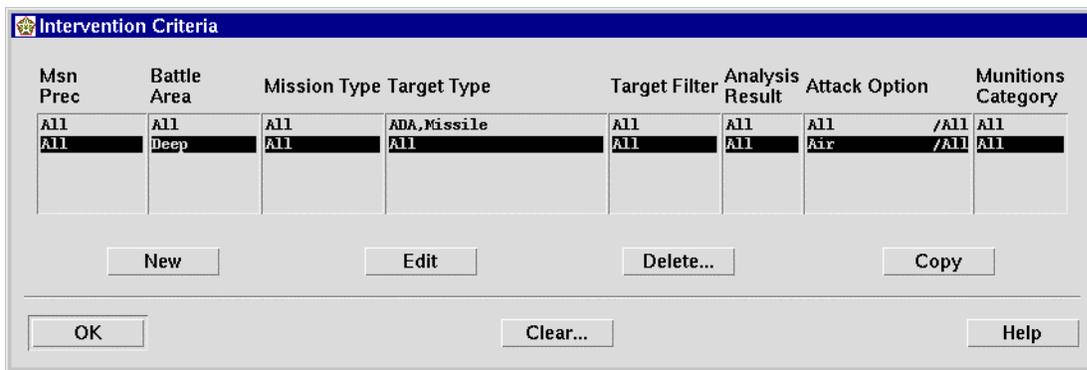
The **Analysis Result:** selections include **Fire Request**, **Fire Order**, **Order to Fire**, and **Deny**. The **Attack Option:** selections include **FA Canon**, **Rocket/Missile**, **Mortar**, **Air**, **Aviation**, and **NSFS**.

The **Munitions Category**: selections include the munitions from all of the FA Systems. The **Caliber**: selections include all of the available calibers and is only available for FA and NSFS attack options.

4-11.3 Intervention Criteria Procedure.

Intervention Criteria Procedure

Step	Action	Response
1.	<u>Select Mission Processing</u> <u>Intervention Points.</u>	Intervention Criteria window opens.



NOTE

The **Rule Criteria** window is accessed via three (3) methods. To edit an intervention point, select the list item and **Edit**. This opens the window with the selected intervention point data displayed.

Creating a new intervention point is accomplished by selecting **New** or a list item and **Copy**. Selecting **New** opens the **Rule Criteria** window with default intervention data. Selecting **Copy** opens the window with the data of the selected intervention point. Selecting **OK** at any time closes the **Rule Criteria** window.

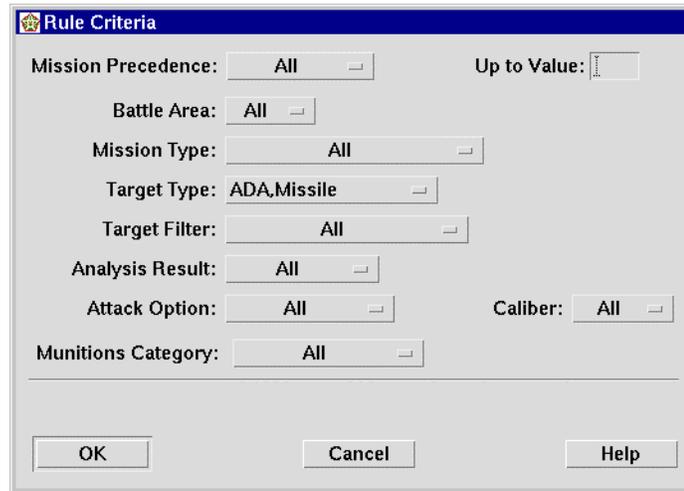
To perform the following functions, proceed to the indicated steps.

- Edit or add intervention point step 2
- Delete an intervention point step 16
- Clear all intervention points step 21

2.	<u>Select New</u> or a list item and <u>Edit or Copy.</u>	Rule Criteria window opens.
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Intervention Criteria Procedure - CONT

Step	Action	Response
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3. Select **Mission Precedence:**
4. Enter **Up to Value:** (Immediate and As Acquired precedence only, 0-100).
5. Select **Battle Area:**
6. Select **Mission Type:**
7. Select **Target Type:**
8. Select **Target Filter:**
9. Select **Analysis Result:**
10. Select **Attack Option:**
11. Select **Caliber:** (FA and NSFS attack options only).
12. Select **Munitions Category:**
13. Select **OK.**

Rule Criteria window closes.

Intervention Criteria Procedure - CONT

Step	Action	Response
14.	Repeat steps 2 thru 13 for each intervention point.	
15.	To perform other functions of Intervention Criteria window, refer to note prior to step 2.	
16.	<u>Select item</u> to be deleted from list.	
17.	<u>Select Delete...</u>	Delete Confirm window opens.
18.	<u>Select Delete.</u>	Delete Confirm window closes.
19.	Repeat steps 16 thru 18 for each intervention point to be deleted.	
20.	To perform other functions of Intervention Criteria window, refer to note prior to step 2.	
21.	<u>Select Clear...</u>	Delete Confirm window opens.
22.	<u>Select Delete.</u>	Delete Confirm window closes.
23.	To perform other functions of Intervention Criteria window, refer to note prior to step 2.	

4-12 **SCHEDULING QUEUES.**

The **Mission Processing\Scheduling Queues** selection opens the **Scheduling Queues** window. This window displays those missions sent to and/or scheduled for a weapon control system type unit (i.e., Air, NSFS, MBC, BCS, and FDS).

4-12.1 Scheduling Queues Window.

The **Plan:** and **Phase:** fields are disabled in the current situation. The **Fire Plan:** and **Start Time:** fields display the fire plan name and scheduled start time. These fields are view only.

The larger fields in the center of the window contain the units and the time graph for the schedule. When the window is initially opened for a fire plan, all available units will be listed in the left field. The user adds or removes units via the **Options** menu until the list contains those units to be considered in the schedule calculation. The right field is blank until a calculation has been made. After calculation, this field displays the targets next to the firing unit selected and under the appropriate time interval of the time bar.

The **Targets** field displays the target numbers that are contained in a line on the graph when that line is selected. The **Unscheduled Targets:** field displays the number of targets in the fire plan that are not scheduled.

The **Total Rounds:** field displays the number of rounds required for all of the scheduled targets.

Selecting **OK** closes the window. Selecting **Refresh** will refresh the display with the latest information.

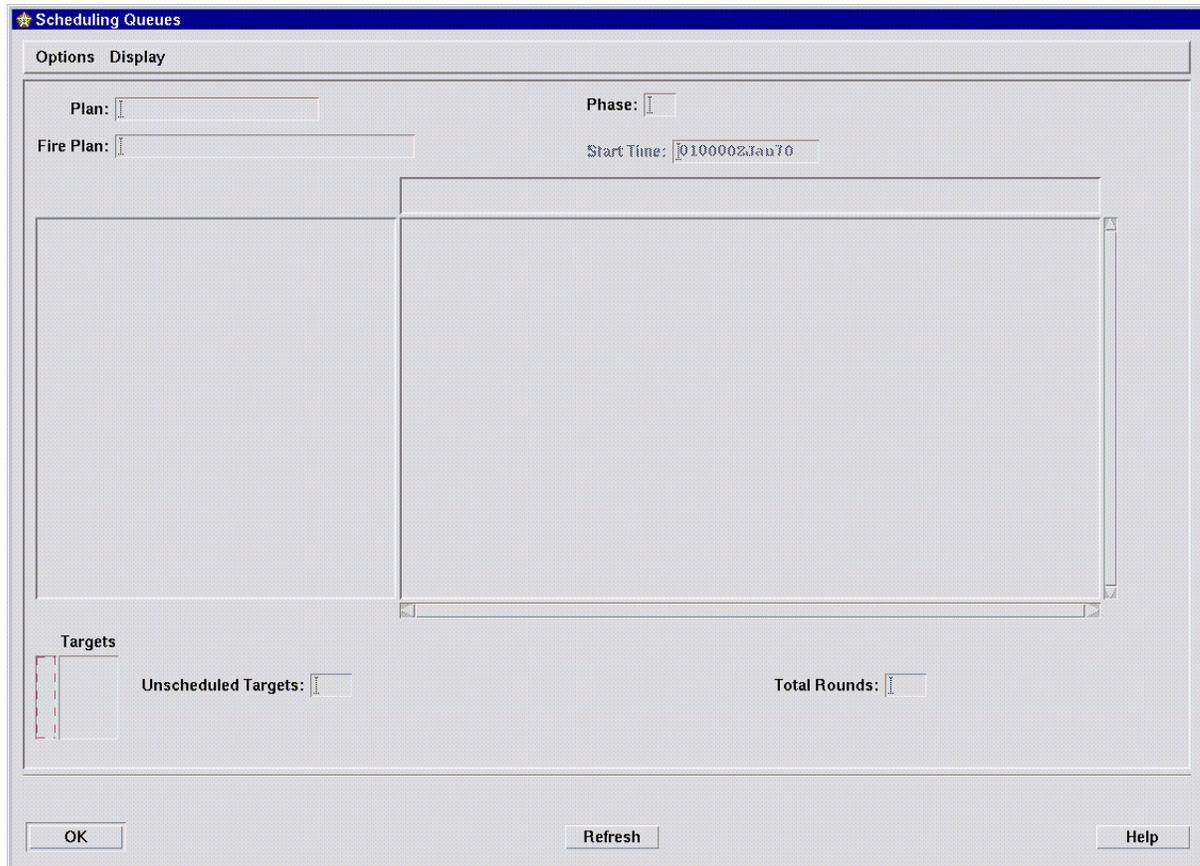


Figure 4.24 Scheduling Queues Window

4-13 STAY HOT SHOOT FAST.

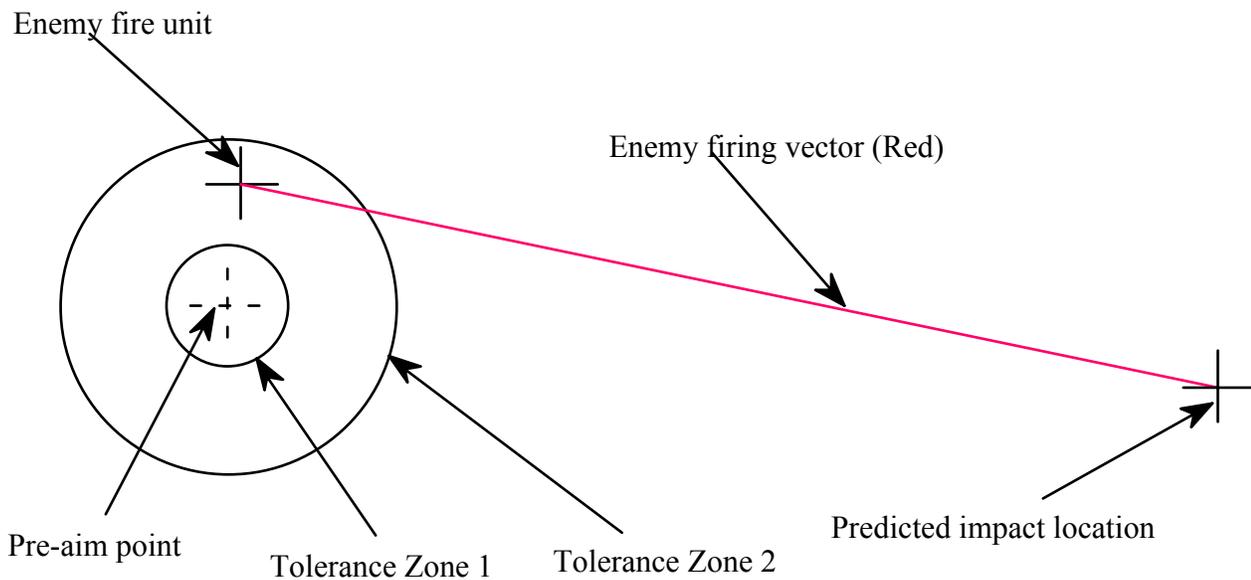
SHSF provides a rapid-fire capability to hit mobile, fleeting enemy targets. The approach for accomplishing this task is to load and pre-aim weapon systems at aim points where the enemy is expected to be. The mission is fired whenever a sensor reports that a corresponding target has been detected near the location of the preplanned mission.

To accomplish this, selected fire units are assigned Warning Order missions with predetermined aim-points. Two tolerance zones (**Tolerance Zone 1** and **Tolerance Zone 2**) are entered around the aim-point for each unit. When enemy fire is detected, the target type is checked against the SHSF processing criteria. If the target type has been selected and SHSF processing is enabled, SHSF processing will continue. The detected location of the target and the predicted impact location of enemy fire are used to establish the enemy firing vector. The length of this vector must be equal to or exceed the **Minimum Distance** for the FS target types as entered in the SHSF criteria. If the vector is less than the required distance, the target data will be processed using standard ATI procedures. If the target is not an FS system, the requirement for a minimum distance is ignored.

Continued processing includes the forming of a list of warning order missions that contain the same target type, that have a status of ready, and that the target location falls within the **Tolerance Zone 2** value. If multiple missions are found, the closest mission is selected to fire. If no missions are found, the target is processed using standard ATI procedures.

The location is then checked against the **Tolerance Zone 1** and **Tolerance Zone 2** entries to see if it falls within these distances for a pre-aimed mission. A fire order will be immediately sent if the target is detected within a **Tolerance Zone 1** value. Adjustments will be made to the pre-aim coordinates and a fire order sent if the target is within the **Tolerance Zone 2** value.

An enemy firing vector will be calculated from the firing point to the predicted impact point. This will be displayed as a Red line if the operator has selected these items for display. To display this vector the operator must have selected the target type and enemy vector via an overlay setting.



4-13.1 Stay Hot Shoot Fast Processing Window.

The **Stay Hot Shoot Fast (SHSF) Processing** window is used to input the distance criteria for selected targets and to enable/disable SHSF processing. Each target category is selectable from the **Target Category:** menu. The targets for a selected category are displayed in the **Target Type** list. With distance values entered, the target type becomes a candidate for SHSF processing.

The **Minimum Distance (m)** field is the minimum length that the enemy firing vector must be in order for SHSF processing. The legal range for this field is 0 to 99999 meters and the default is 25000 meters.

The **Tolerance Zone 1** and **Tolerance Zone 2** entries have a legal range of 0 to 9999 meters. The **Tolerance Zone 2** entry must be equal to or greater than the **Tolerance Zone 1** value.

The **SHSF Processing Enabled** check box, when selected, enables SHSF processing at the OPFAC.

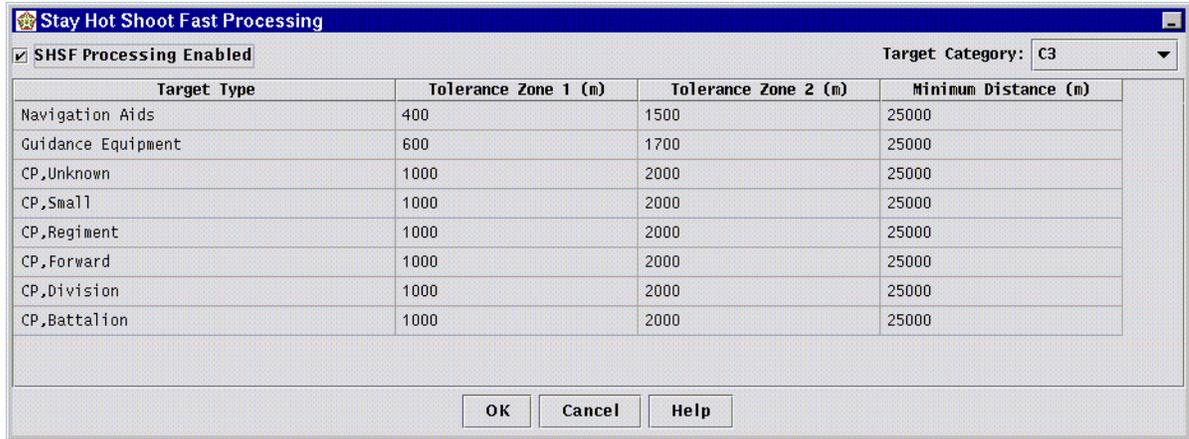


Figure 4.25 Stay Hot Shoot Fast Processing Window

4-13.2 Stay Hot Shoot Fast Procedure.

Stay Hot Shoot Fast Procedure		
Step	Action	Response
1.	<u>Select Mission Processing\SFSH.</u>	Stay Hot Shoot Fast Processing window opens.
2.	<u>Select category</u> from Target Category: menu.	Target Type list displays target types for selected category.
3.	<u>Enter Tolerance Zone 1(m)</u> for a target type (required, 0 to 9999 meters).	
4.	<u>Enter Tolerance Zone 2(m)</u> for a target type (required, 0 to 9999 meters, must be equal to or exceed Distance 1 value).	

Stay Hot Shoot Fast Procedure - CONT

Step	Action	Response
5.	<u>Enter Minimum Distance(m)</u> for a target type (required for FS type targets, 0 to 99999 meters, default 25000).	
6.	<u>Repeat steps 3 thru 5</u> for each target type (optional).	
7.	<u>Repeat steps 3 thru 5</u> for each target category (optional).	
8.	<u>Select SHSF Processing Enabled</u> check box (optional, default is not selected).	
9.	<u>Select OK</u> .	Stay Hot Shoot Fast Processing window closes.

4-14 **COUNTERFIRE.**

The purpose of Counterfire functions is to display counterfire targets as they are acquired, counterfire missions as they are fired, and provide target/mission information to selected units.

This is accomplished by tracking firing point location(s) for each mission. The firing point data is determined at the conclusion of attack analysis, as the current unit location associated with the fire unit recommended as the attack option. The firing point data (location) will then be maintained with the mission data.

At the conclusion of attack analysis, the target location and firing point location(s) data will generate a blue vector, originating at the firing point location(s) and ending at the target location. The blue vector will inherit the characteristics (e.g., target number, bold for active, etc.) of the target symbol for display purposes. Display of blue vectors will be controlled by operator selection. This control will be an extension of the map overlay window. If the operator selects to display targets on the map, an additional selection will be provided to configure (on/off) display of blue vectors. If there are multiple firing point locations (for massed missions), multiple blue vectors will be displayed.

When a Mission Fired Report (MFR) is received for the mission, the firing point location(s) for the mission will be updated if they differ from the location determined at the conclusion of attack analysis. This will provide a more accurate view of the actual firing point location. If the firing point location(s) have changed, the map graphic will be updated to reflect the change(s).

To provide management information to the Commanders and FSCOORDS, AFATDS will provide the capability to route mission/target informational messages on targets received at the local OPFAC to selected AFATDS destinations. The purpose of this routing is to keep those destination units aware of the current targeting and mission information being executed by the local OPFAC. For example, an FA Battalion receives ATI inputs from a Firefinder radar, ATI's are processed to determine their disposition (Suspect target, initiate a fire mission, etc.). The FA Battalion routes target information on these ATI's to the Division Artillery CP so the counterfire cell at the Divarty can be aware of the missions and target data being processed by his subordinates.

This capability requires that the operator at the local OPFAC specify which units should receive mission and target information. The units receiving the data are determined by the entries on the **Mission Info Routing** window. Units that display **Info Copy** in the **Routing Type** list will be the destination units.

After AFATDS processes received target data (e.g. from an ATI or CFF) and determines the disposition of the target (e.g., add to planned target list), an information copy of that data (indicating the disposition) will be provided to the specified AFATDS OPFAC's.

The OPFAC's receiving information copies of active mission will add the targets to the active target list, but will not analyze the target for attack (no mission processing will be performed). OPFAC's that receive the routed target data will be able to see the targets on their maps and add the targets to their corresponding target lists (e.g., planned target information is added to the receiving OPFAC's planned target list).

4-15 MISSION MONITOR ACTIONS.

The Tool Bar is the navigation start point for all of the monitor functions. The Tool Bar displays the number of monitored events in each of the categories. Icons and an associated number box indicate the category and number of monitored events requiring user action. The categories represented by icons are Coordination (handshake), Intervention Point (stop sign), Denial (thumbs down), and More Info Required (? Data).

Navigation from the Tool Bar is dependent upon the number of events displayed for the selected category. If the number of events is one (1) (List = 1), the window for that event is opened. If there are multiple events displayed (List greater than (>) 1), a list window is opened for that category (e.g. **Coordination List** window). Selecting an event from a list window and **View** then opens the event window.

The Coordination selection from the Tool Bar accesses both the **Request Coordination** and **Coordination Requested** windows. The More Info Required selection accesses both the **Quick Smoke Mission** and **TOT Necessary** windows.

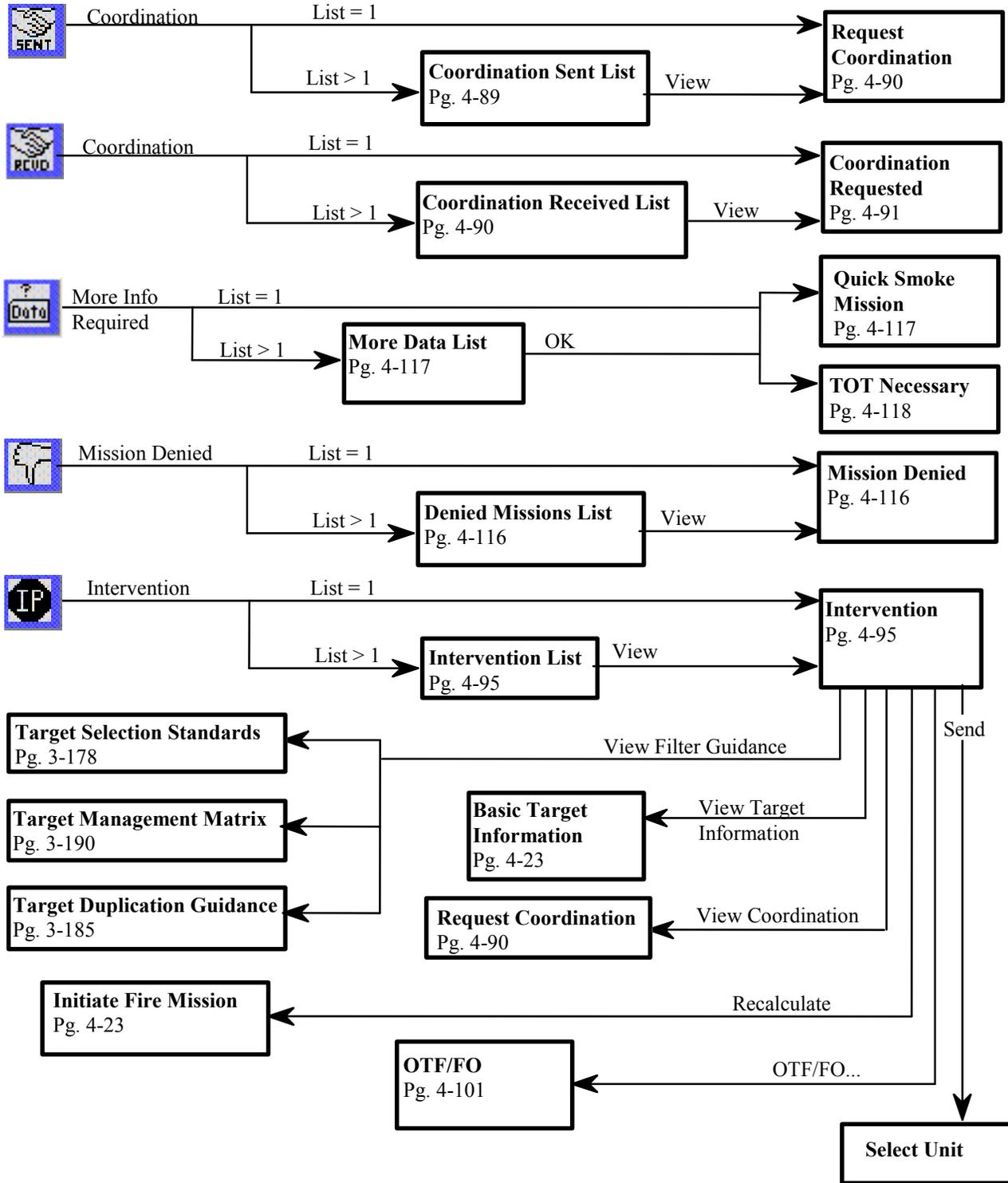


Figure 4.26 Mission Monitor Navigation

4-15.1 Coordination Events.

A coordination event occurs when a fire mission is requested on a target that the fire effects would fall within the boundaries of a Fire Support Coordination Measures (FSCM) geometry that is the responsibility of another unit or Clearance Of Fires (COF) coordination has been established. This event exists in two (2) forms, a coordination request and a request coordination. A request coordination is sent from the host unit that has processed a fire mission that requires coordination. A coordination request is received by the host from a unit that has sent a request coordination.

NOTE

The operator cannot ignore coordination requests. They must be processed as they arrive or soon after. If a coordination request sits more than 10 minutes, it automatically gets denied.

A request coordination remains as a monitored event until action (approval/denial) is taken by the unit responsible for the geometry or the request is overridden at the host unit. If that unit sends back a denial, the deny field will indicate the event. A coordination request remains as a monitored event until the user approves or denies the request, or, until 10 minutes has elapsed.

4-15.1.1 Coordination List Windows.

The Coordination List windows open when a coordination icon is selected on the Tool Bar and more than one (1) coordination event is pending. This window lists all of the coordination events pending. The user selects a listed event and **View** to open the appropriate **Request Coordination** or **Coordination Requested** window.

4-15.1.1.1 Coordination Sent List Window.

This window lists the requests for coordination that have been sent by the host OPFAC and are still pending action. Selecting an event and **View** opens the **Request Coordination** window for the selected event. The user can deny or override the request from the **Request Coordination** window. The **Refresh** button updates the list to reflect changes due to user action (deny or override), new requests, or actions by the coordinating authority.

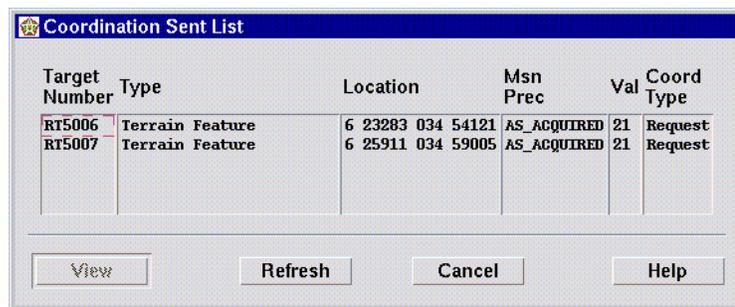


Figure 4.27 Coordination Sent List Window

4-15.1.1.2 Coordination Received List Window.

This window lists the requests for coordination that have been received by the host OPFAC and are still pending action. Selecting an event and **View** opens the **Coordination Requested** window for the selected event. The user can deny or approve the request from the **Coordination Requested** window. The **Refresh** button updates the list to reflect changes due to user action (deny or approve) or new requests.

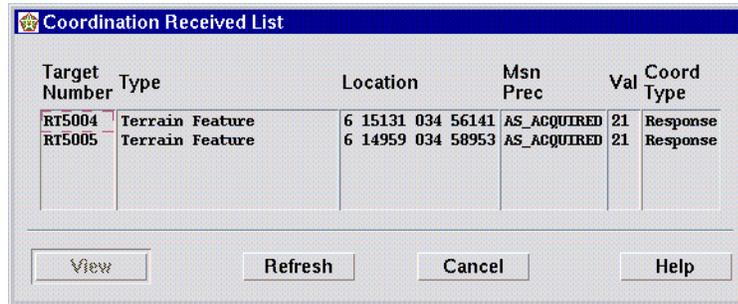


Figure 4.28 Coordination Received List Window

4-15.1.2 Request Coordination Window.

The **Request Coordination** window lists the information for a specific **Target Number** that the host OPFAC is requesting coordination to conduct a fire mission. The **Send** button initiates transmission of the request to the **Responsible Unit ID**. The **Geometry Info** button opens the geometry information window to allow viewing of geometry data.

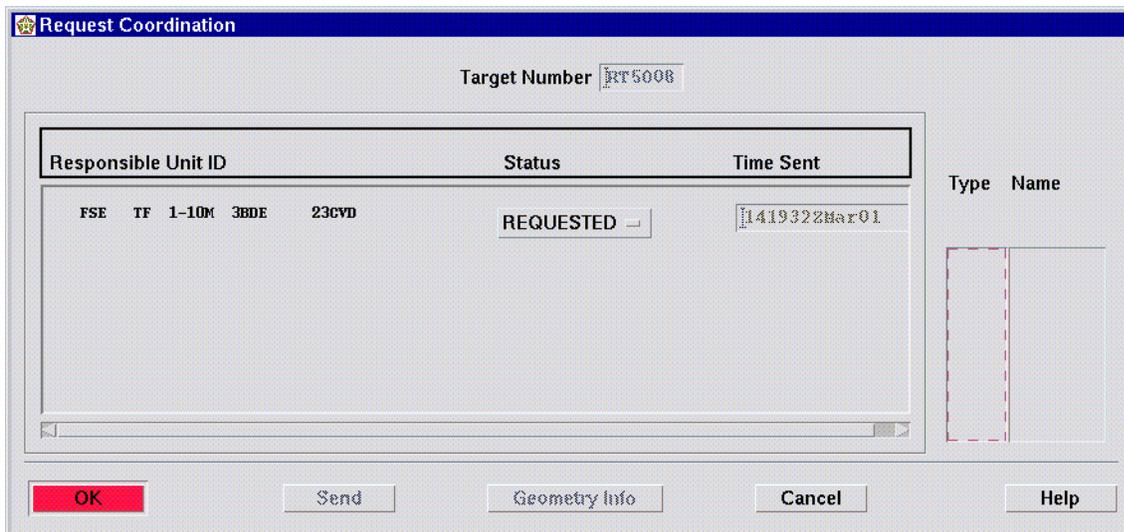


Figure 4.29 Request Coordination Window

4-15.1.3 Coordination Requested Window.

The **Coordination Requested** window lists information for a target that the responsibility for coordination is with the host OPFAC. The user may grant limited or unlimited approval or deny the mission via this window. Selecting **Approve** or **Deny** sends the appropriate message to the requesting unit.

The screenshot shows a software window titled "Coordination Requested". It is divided into several sections:

- View:** A header section.
- Requesting Unit:** A text field containing "1 A 1-37FA 23CVDA".
- Target Information:**
 - Target Number: RT5005
 - Duplicate: False
 - Target Type: Terrain Feature
 - Target Location: 6 14959 034 58953 950 14
- Geometry/Clearance of Fires:** A table with columns Type, Name, Start, and End.

Type	Name	Start	End
ZOR	RED	010000ZJan00	010000ZJan02
- Mission:**
 - Precedence: A
 - Value: 21
 - Type: Fire for Effect
 - Requested Start: 141456ZMar01
 - Requested End: 142255ZMar01
 - FS System: FA
 - Weapon/Caliber: 155mm
- Munitions:**
 - Shell: Adjusting, 1st Volley: DPICH, 2nd Volley: []
 - Fuze: [], Fine, []
- Other Fields:**
 - Granted NET: []
 - Granted NLT: []
 - Remarks: []
- Buttons:** Approve, Deny, Cancel, Help

Figure 4.30 Coordination Requested Window

4-15.1.4 Coordination Status Window.

The **Coordination Status** window is accessed via the current Tool Bar **Cof** selection. This window displays the current status of IEW, FSCM, and COF coordination for each active target. The window will display a color-coded indicator for each target/ coordination requirement. A Yellow code indicates that coordination is still required or pending. Green indicates that the request was approved or overridden and Red indicates the request was denied.

A target **Location**: field displays the coordinates of a selected target. A field also displays the **Agency**, **NET**, **NLT**, and **Remarks** data. The **Agency(s)** listed are the responsible agencies for coordinating the selected target. The not earlier than (**NET**), not later than (**NLT**), and **Remarks** data is supplied by the agency via the **Coordination Requested** window.

The **View Coordination** button opens the **Request Coordination** window if only one target pending coordination is being monitored. If two or more targets are monitored, the **Coordination List** window is opened for selection of a target.

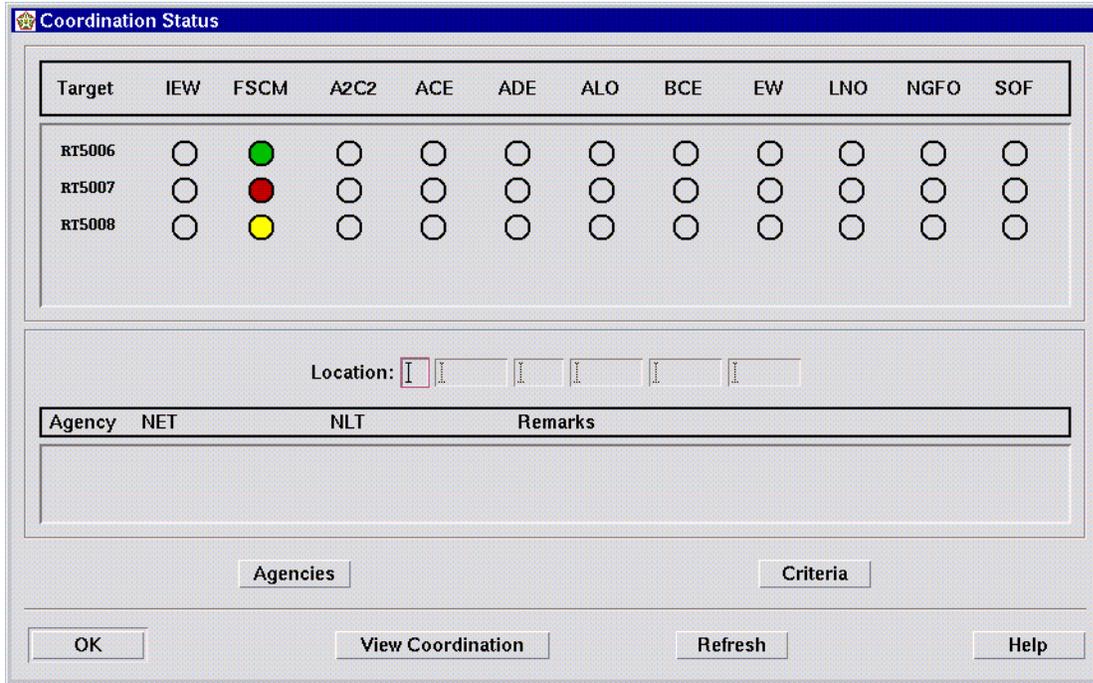


Figure 4.31 Coordination Status Window

4-15.1.5 Coordination Events Procedure.

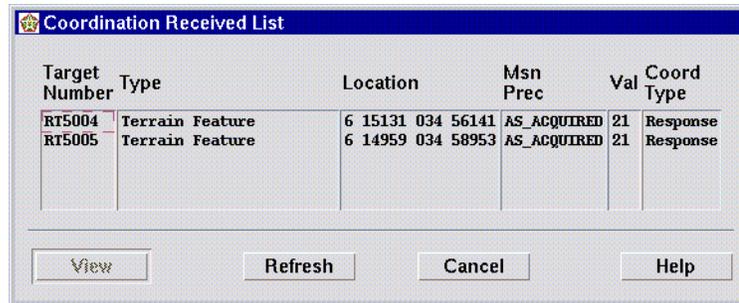
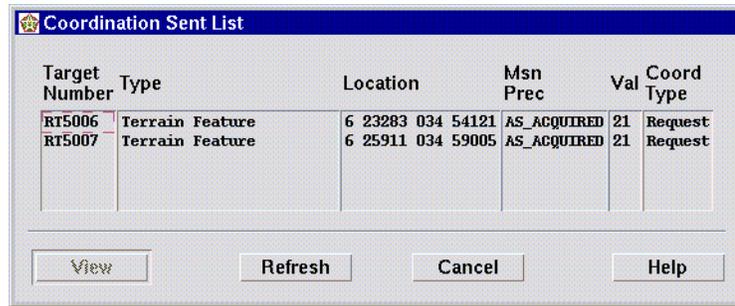
Selecting one of the coordination (hand shake) icons opens the **Coordination List** window. This window contains a listing of coordination requests from the host OPFAC that are still pending and requests for coordination from other units.

Coordination Events

Step	Action	Response
1.	<u>Select Coordination</u> (hand shake) icon.	Coordination List window opens.

NOTE

If only (1) coordination event is indicated, the Coordination List window will not be opened. Instead, the data window for the event will be displayed.



2.	<u>Select event</u> to be viewed from list.	Observe that the View button is activated.
3.	<u>Select View</u> .	Request Coordination window opens corresponding to event selected.

4-15.2 Intervention Events.

Intervention events occur when a fire request is received at the OPFAC that meets criteria for intervention established by the user. As example, a fire request that requires coordination or more data will be checked for intervention prior to either of these events. Coordination and/or data requirements may be resolved at the intervention. If they are not resolved, the request will appear as a coordination or required data event upon completion of the intervention event.

4-15.2.1 Intervention Windows Navigation.

Intervention may be set to occur at any level. The **Intervention** window is opened via the **IP** icon on the tool bar. If more than one intervention event has occurred, the **Intervention List** window will open to select a specific event.

The **View Target Information** button opens the **Basic Target Information** window. This window displays the information specific to the fire mission target.

The **OTF/FO** selection opens the **OTF/FO** window. The **Air OTF/FO** window is only available at the FS level. The **OTF/FO - NSFS** or **FA** (artillery or mortar) is available at all levels.

The **View Coordination** button opens the **Request Coordination** window. This window displays coordination data for the fire mission target. Only selectable when selected option has a non-granted or non-overridden FSCM violation. Selecting a **Filter** from the **Intervention** window and the **View Filter Guidance** button opens the appropriate guidance window.

Selecting **Recalculate** opens the **Initiate Fire Mission** window to allow the operator to make changes for the target.

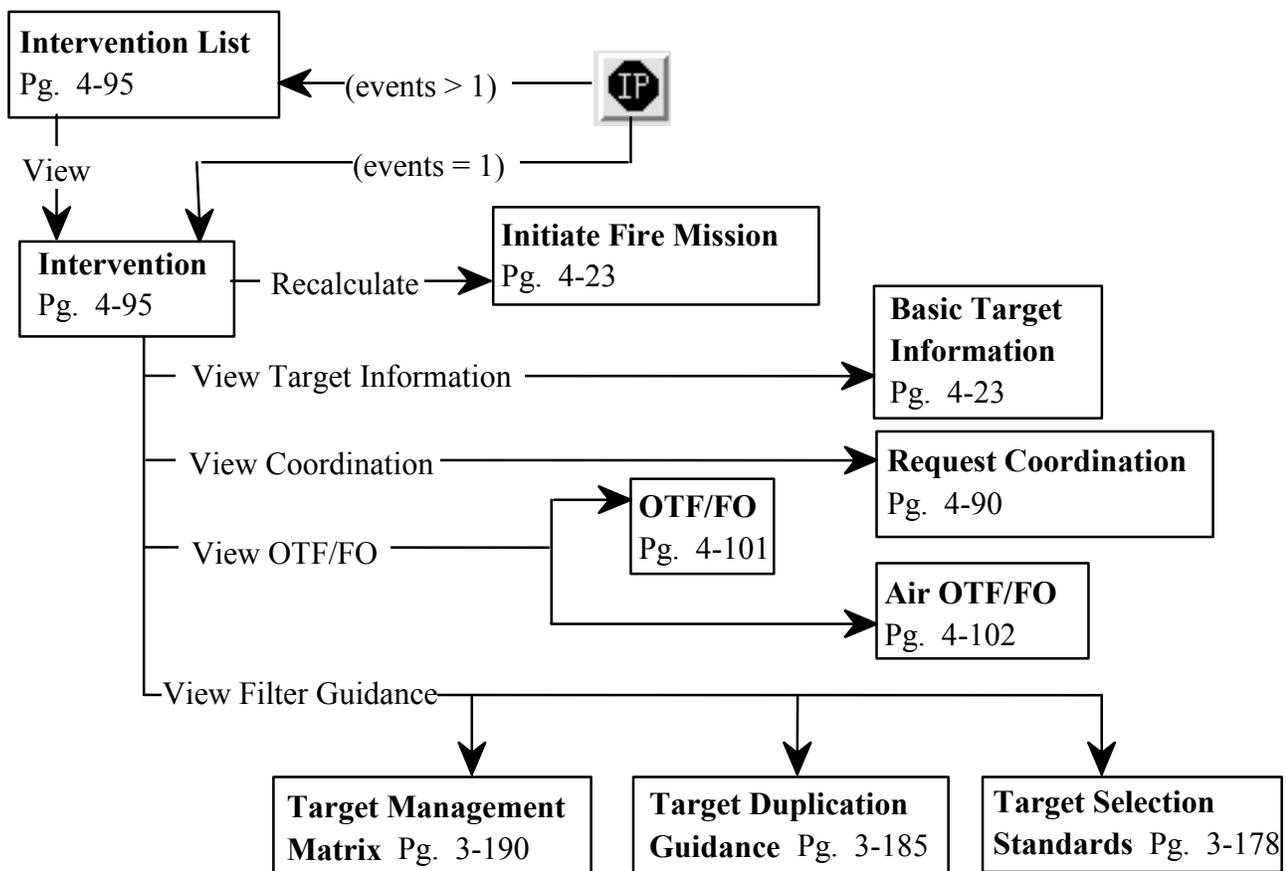


Figure 4.32 Intervention Windows Navigation

4-15.2.2 Intervention List Window.

The **Intervention List** window is accessed from the Tool Bar via the **IP** selection when the number of events is greater than one (1). This window lists the events monitored that were intervened on by the user. The list includes **Target Number**, **Target Type**, **Target Location**, **Msn Prec** (Mission Precedence), and **Msn Val** (Mission Value). These fields are not editable. The user selects the event from the list and **View** (default) to open the window containing the event information.

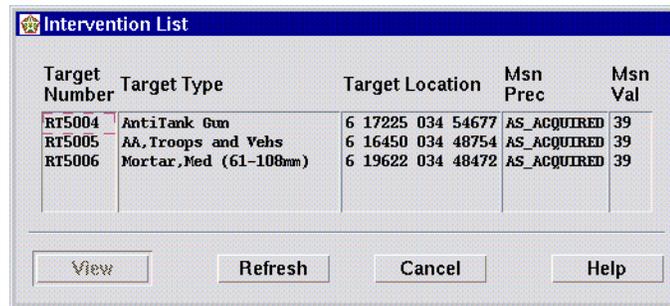


Figure 4.33 Intervention List Window

4-15.2.3 Intervention Window.

The **Intervention** window displays information, options, and a **Recommendation**: for a fire mission. The information is contained on five (5) tabs that display the different categories of data. Tab categories are **Intervention**, **Attack Options**, **Cannon Tech** (technical) **Soln** (solution), **Missile Information**, and **Rkt/Msl Soln**. The **Send Selected...** button, **Recommendation** field, and the bottom row of buttons are available on all tabs.

Selecting **Accept Recommendation** button will close this window and follow the **Recommendation** no matter what option is selected. For example, if the **Recommendation**: is **Send OTF to 1-41 FA**, this action will take place when **Accept Recommendation** is selected. The user must select **Cancel** to close the window without any action being taken. The user can also elect to select another option and press **Send Selected...**, **Recalculate** the fire mission, **Deny** the mission, or declare the mission **Unsupportable**. Selecting **Send Selected...** will implement the selected option and forward the fire mission.

The **Deny** selection sends a denial message to the originator of the mission and an ATI to IEW. Selecting **Unsupportable** sends the fire request to the supported unit unless the supported unit is the originator, then a deny is sent. The **Recalculate** button opens the **Initiate Fire Mission** window to allow the operator to edit target data and reprocess the mission.

4-15.2.4 Intervention Tab Data.

The **Intervention** tab displays general mission data and an overall view of FS options. The **Target Number**:, **Target Type**:, and **Mission Type**: fields are view only and display the target and mission type data. The user can edit the **NLT** (Not Later Than), **Mission Value**, and **Precedence**. If user changes precedence to Planned (i.e., **P**), then if the user selects **Accept Recommendation** or **Send Selected**, the mission will be placed on the planned target list and a deny will be sent to the originator of the fire mission.

The **View Target Information** selection opens the **Basic Target Information** window. This window displays the information specific to the fire mission target.

The **Filter** field displays the guidance filters used during system processing of the fire mission. The **Result** field indicates the status of the filter process. Selecting a **Filter** from the list and **View Filter Guidance** opens the appropriate guidance window.

The **Attack Options** area of the window lists the options available to the user. The radio buttons are used to select the FS system for which the options are displayed. Attack Options column headings for all FS systems except Rocket/Missile are **Opt**, **Unit ID**, **Munition 1**, **Qty**, **Munition 2**, **Qty**, and **Crd**. The **Opt** fields displays the ranking of the option. The fire unit recommended is displayed in the **Unit ID** field. The **Opt** number will be repeated if multiple weapons or units are assigned to the option. **Munition** data, quantity (**Qty**), and coordination (**Crd**) requirements are displayed for each option.

The overall capabilities of a FS system are indicated by color-coded radio buttons. The color definitions are:

- Green - At least one (1) attack option available that requires no coordination.
- Yellow - At least one (1) attack option available but coordination is required.
- Red - System available but no attack options were found.
- Black - System not available.



When the Rocket/Missile FS system radio button is selected the Attack Options column headings are as shown below.

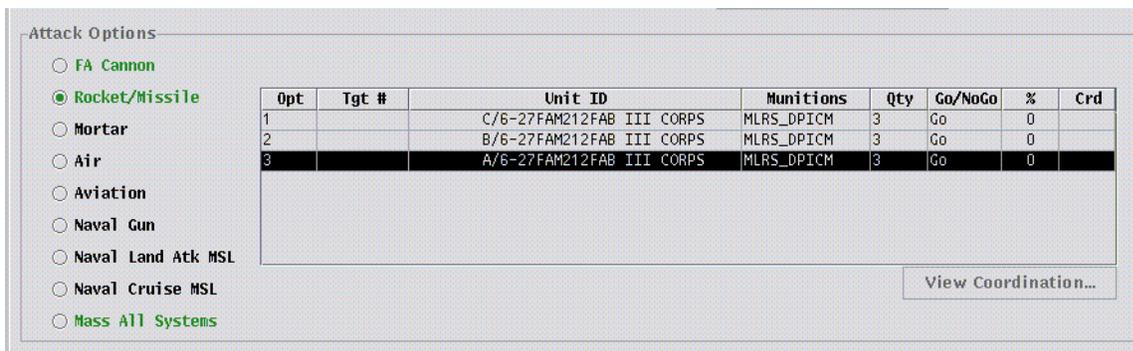


Figure 4.34 Rocket/Missile Attack Options Display

Tgt # displays target numbers for a target that has been segmented. **Go/No Go** displays Go or No Go for mission status and **%** displays the percent of coverage.

4-15.2.5 Attack Options Tab.

The **Attack Options** tab allows the user to view the capabilities of each unit within a FS system.

The **Meets Mission Cutoff:** field indicates whether the target value meets the established criteria for the selected FS system. This field is color coded Green for Yes and Red for No. The **Number of Active Missions:** and **% of Missions with Lower Priority:** field is view only and displays values calculated by the system.

Data is listed for each FS System option and includes detailed capabilities for each. The data includes, from left to right across the fields, **Opt** (option number), **Seg?** (target segmentation), **Unit ID**, **Caliber**, and a series of icons for firing parameters. Selecting an option causes the munitions data and **Unit Data** fields to display the appropriate data.

Icon representation is shown in the following view.

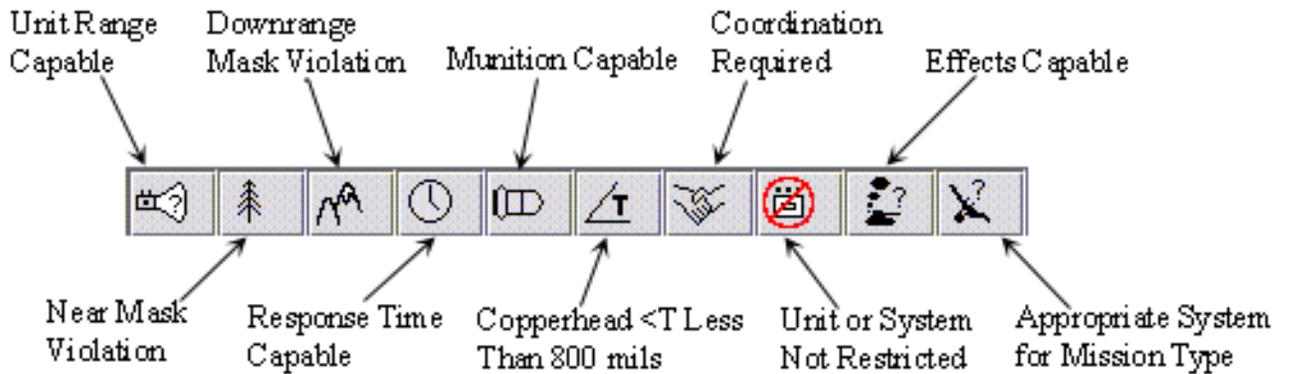


Figure 4.35 Attack Options Status Icons

Criteria	Mission Capable If:
Unit Range Capable	Y
Near Mask Violation	N
Downrange Mask Violation	N
Response Time Capable	Y
Munition Capable	Y
Copperhead <T Less Than 800 mils	Y
Coordination Required	N
Unit or System Not Restricted	Y
Effects Capable	Y
Appropriate System for Mission Type	Y

The **OTF/FO** selection opens either the **OTF/FO** or **Air OTF/FO** window, depending on which FS system is selected. The **Air OTF/FO** window is opened for air and aviation units.

4-15.2.6 Cannon Technical Solutions Tab.

The **Intervention** window differs at a unit the communicates directly with a weapon in that the Cannon Tech Soln tab is activated. Selecting the Cannon Tech Soln tab displays the firing data computed for the mission. This data is displayed in the following format.

The **TOF:** field displays the time of flight in seconds.

FFE1 table always displays data for the fire for effect shell/propellant/fuze combination. During the adjustment phase of an adjust fire mission, the firing data displayed is that of the adjusting piece.

The **Wpn** column displays the gun number for that row of data. The **Cap** column indicates the capability of the gun as **Y** (yes) or **N** (no) and uses the same color code as the Attack Options on the Intervention tab. The **MOC** column provides the method of control. DNL or Do Not Load, is displayed for pieces to follow during an adjustment. The **# Rnds** is the number of rounds assigned to this weapon. A zero (0) is displayed for pieces to follow during an adjustment.

The **Shell Category** is the type of projectile. The **Shell Model** refines the category to a specific model. The **Shell Lot** is a single alphabetic character assigned to the munition lot.

The **Prop Color** indicates the charge type as GB, WB or RB (green bag, white bag or red bag, respectively). The **Prop Lot** is a single alphabetic character assigned as the propellant lot. The **Prop Charge** indicates the propellant charge increment to fire.

The **Fuze Category** is the type of fuze to fire. The **Fuze Model** refines the category to a specific model nomenclature. **Fuze Lot** is a single alphabetic character assigned as the fuse lot. **Fuze Time** is the fuze setting in increments of time. If the fuze does not require a setting (e.g., PD) the time is displayed as 0.0. **DF** is the deflection to fire. **QE** is the quadrant elevation to fire.

FFE2 repeats this information for a second shell if the mission requires a second fire for effect shell.

Intervention Attack Options Cannon Tech Soln Missile Information Rkt/MSI Soln															
TOF: 51															
FFE 1															
Wpn	Cap	MOC	# Rnds	Shell Category	Shell Model	Shell Lot	Prop Color	Prop Lot	Prop Charge	Fuze Category	Fuze Model	Fuze Lot	Fuze Time	DF	QE
1	Y	WR	5	DPICM	M483A1	F	WB	W	Seven	Time	M577	B	45.1	3881	575
2	Y	WR	5	DPICM	M483A1	F	WB	W	Seven	Time	M577	B	46.3	3892	587
3	Y	WR	5	DPICM	M483A1	F	WB	W	Seven	Time	M577	B	46.5	3905	600
4	Y	WR	5	DPICM	M483A1	F	WB	W	Seven	Time	M577	B	48.5	3918	617
FFE 2															
Wpn	Cap	MOC	# Rnds	Shell Category	Shell Model	Shell Lot	Prop Color	Prop Lot	Prop Charge	Fuze Category	Fuze Model	Fuze Lot	Fuze Time	DF	QE

Figure 4.36 Cannon Technical Solutions Tab

4-15.2.7 Missile Information Tab.

The **Missile Information** tab is activated at MLRS fire units for ATACMS missions. Selecting the **Missile Information** tab displays **Go/No Go** data for the mission and any associated subtargets that resulted from segmentation. This data is displayed in the following format.

Tgt Number field displays target number associated with the mission. **Unit ID** displays the ID of a launcher assigned to the mission and highlighted on the **Intervention** tab.

Go/No Go indicates whether the target can be successfully engaged using the missile for which the mission was computed. This status is based on LMM computations. A **No Go Reason** field is populated with a statement indicating why a capable option could not be determined when the mission has a **No Go** status.

Subtarget data is displayed for each segment of the target. As with the mission overall, a **Go/No Go** status and reason field is provided for each segment.

The **Go/No Go** menu allows the operator to override a **No Go** condition by selecting **Override**. Selecting **Override** enables the **Accept Override** button. Selecting **Accept Override** causes the Fire Order to be sent to all fire units that have a **Go** status. Units with a **No Go** status will be sent a Deny for the mission. The **Intervention** window will be closed with the selection of the **Accept Override** button.

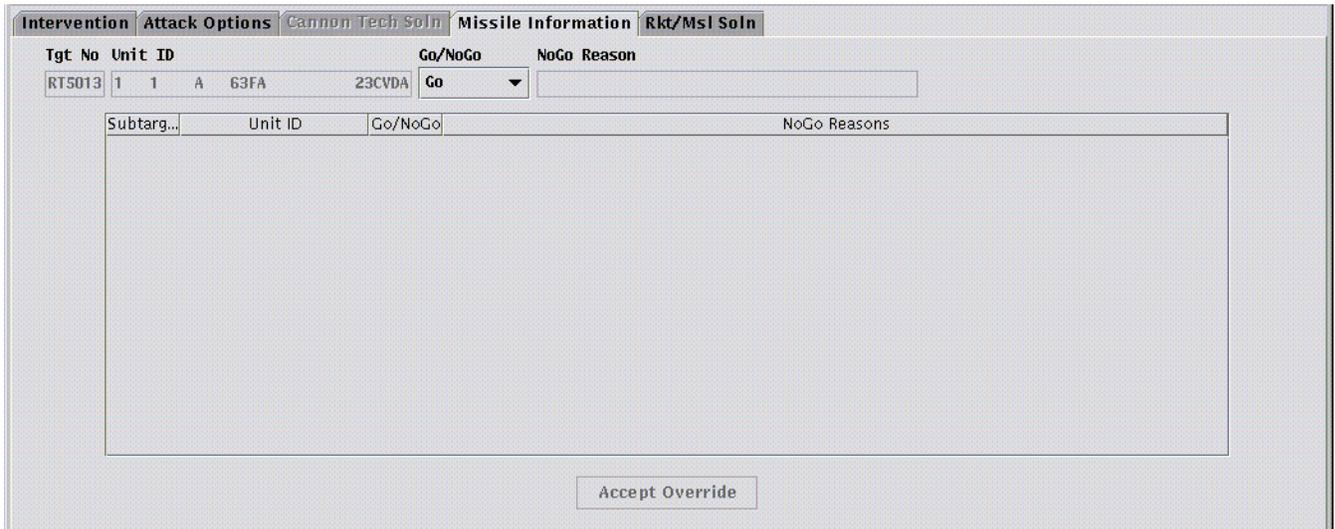


Figure 4.37 Missile Information Tab

4-15.2.8 Rkt/Msl Solution Tab.

The **Intervention** form differs at an MLRS unit from that displayed at CP's and FSE/FSCC's in that the **Rkt/Msl Soln** tab is activated. Selecting the **Rkt/Msl Soln** tab displays data computed for the mission. This data is displayed in the following format.

The **Tgt Number** field displays target number associated with the mission. The **Location** field displays the center location of the reported target. The **Unit ID** displays the ID of a launcher assigned to the mission and that was selected on the **Intervention** tab.

Attack Option indicates, by number, which of the attack options from the **Intervention** tab is displayed. The **Aimpoint** is the aimpoint for the displayed launcher.

Munition Model displays the nomenclature of the rocket to fire. **Munition Type** is the type of rocket expressed as a J-code. **QTY** displays the number of rockets to fire. **MOC** is the method of control assigned for the mission. **DP** is the dispersal pattern indicated by a letter and is only displayed for missile missions. **NET/TOT** contains the Not Earlier Than time or the Time on Target time for these type missions. Otherwise, this column is blank. **NLT** indicates the Not Later Than time.

Firing Point indicates the firing point assigned to the launcher for this mission. The **Next Point Type** and **Next Point ID** describe the next point data. If any point column is blank, no point has assigned. **TOF** displays the time of flight for the launcher in this mission.

The screenshot shows the 'Rkt/Msl Soln' tab in a software interface. At the top, there are tabs for 'Intervention', 'Attack Options', 'Cannon Tech Soln', 'Missile Information', and 'Rkt/Msl Soln'. Below the tabs, there are input fields for 'Tgt Number: AS1002', 'Location: 6 13194 034 58793 0 14'. A table displays mission data with columns: Unit ID, Attack Option, Aimpoint, Munition Model, Munition Type, Qty, MOC, DP, NET/TOT, NLT, Firing Point, Next Point Type, and Next I. The table contains one row with values: A///6, 1, 6 13194 034, M26, JED, 3 When Ready, and several empty cells. Below the table is a scrollable area with a table header: Aimpoint #, Easting Shift, Northing Shift, Altitude, # Rounds.

Figure 4.38 Rkt/Msl Solution Tab

Aimpoint # is provided for multiple aimpoint missions. Each aimpoint is sequentially numbered. **Easting Shift** is the change in easting from the target center easting to the aimpoint easting coordinate. **Northing Shift** is the change in northing from the target center northing to the aimpoint northing coordinate. **Altitude** is altitude of the aimpoint. **# Rounds** displays the quantity of rockets to fire at the aimpoint.

4-15.2.9 Order to Fire Window (FA and NSFS).

The **Order to Fire - NSFS, Mortar, or FA** window allows the user to make last minute changes in the munitions to be used prior to sending an OTF on a mission that has been intervened on. The **Observer:**, **Target Number:**, **Target Type:**, and **Time on Target:** fields are view only. The **Target Location:** field can be edited on this window to update target location.

Figure 4.39 Order to Fire Window

The **Send To:** establishes the destination for the fire mission.

The **Method of Control:**, **Fire Unit Echelon:**, and **Mission Type:** are view only. The **Fire Unit Echelon:** selection is only for FA and Mortar missions.

The **Adjust Shell:** and corresponding **Fz:** field is enabled for a **Mission Type:** of **Adjust** or **Coordinated Illumination.** These are required selections.

The **FFE Shell #1** and **#2** fields provide three (3) selectable items. The selections are the original field entry, blank, and **Select...**. The **Select...** selection opens the **Select FFE Shell** window for selecting FFE shell. Selection of a shell from **Select FFE Shell** window followed by **OK** causes selected FFE Shell to replace original selection.

The **Fz:** fields corresponding to the FFE shells are enabled when a shell is selected. Selection of a fuze that is compatible with the shell, enables the **# Vlys:** or **#Shells** fields (depending upon the type of shell selected). The **Fz:** and **# Vlys:** fields are required if a shell is selected. The legal entries for **# Vlys:** is 0-200, and **# Shells** is 0-99999.

The **Rocket/Missile Model:** selection opens the **Rocket/Missile Projectile Model** window for selection of the munition model. This selection is enabled if the **FFE Shell#1** is a MLRS type shell. The **Dispersal Pattern:** field is used to enter a code (A to Z) for the dispersal pattern, determined by burst height, for ATACMS-BAT and ATACMS-APAM.

The operator can also specify the **Fire From ID:** (firing point), the **Next Point Type:**, and the **Next Point ID:** for MLRS type missions.

The **Remarks:** field is a text field used by the user to enter any additional information concerning the mission. The **Send** button transmits the fire mission to the unit selected in the **Send To:** field. The **Print...** button opens the **Print Settings** window. Selecting **OK** sends the **OTF/FO** information to the default printer.

4-15.2.10 Air/Aviation OTF/FO Window.

The **Air/Aviation OTF/FO** window allows the user to view and change the order to fire information which will be sent from an intervention point window. The OTF/FO is specified by making selections from the available option menus and entering information in available fields.

The **Target Type:** is view only. The **Time on Target:** is the time (DTG) that the air strike is to be effected. This field is editable but not required.

The **Target Location:** field contains the standard coordinate location. This field is editable and required.

The **Initial Point:** field contains the name (up to 6 alphanumeric characters) of the point at which the aircraft begins the target run. This field is editable but not required. The **IP to Target Heading(mils):** and **Distance to Target(NM):** fields are used to input the direction and distance to the target from the **Initial Point:**. The legal entries for these fields are 0 to 6399 mils and 0 to 9999 nautical miles (NM).

The **Laser Code:** (up to 6 alphanumeric characters) is used to identify the laser device used for the mission by matching the code of the device.

The **Munition Type:** and **Munition Quantity:** fields are editable but not required. The legal entry for **Munition Quantity:** is 0 to 999.

The **Remarks:** field is a text field used by the user to enter any additional information concerning the mission. The **Send...** button opens the **Select Unit** window to select a destination unit for the mission. The **Print...** button opens the **Print Settings** window. Selecting **OK** sends the **Air OTF/FO** information to the default printer.

Figure 4.40 Air/Aviation OTF/FO Window

4-15.2.11 Intervention Event Processing Procedure.

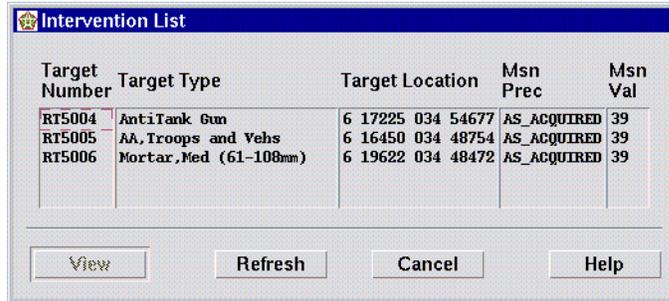
NOTE

If only (1) intervention event is indicated, the **Intervention List** window will not be opened. Instead, the data window for the event will be displayed. In this case go to step 4.

Intervention Event Processing		
Step	Action	Response
1.	<u>Select Intervention</u> (stop sign) icon from Tool Bar.	Intervention List window opens.

Intervention Event Processing - CONT

Step	Action	Response
------	--------	----------



NOTE

Target Numbers should be checked against any active Schedule of Fires to ensure that they are considered IAW the schedule times and not overlooked. Operator should be reminded that target numbers are listed in this window alphabetically, not necessarily by mission.

- | | | |
|----|---|-----------------------------------|
| 2. | <u>Select event</u> to be viewed from list. | |
| 3. | <u>Select View</u> . | Intervention window opens. |

Intervention Event Processing - CONT

Step	Action	Response
------	--------	----------

The screenshot shows the 'Intervention' window with the following details:

- Tgt Number:** RT5011
- NLT:** 212248ZMAR01
- Tgt Type:** Terrain Feature
- Msn Value:** 21
- Msn Type:** Fire For Effect
- Precedence:** As Acquired

Filter Results:

Filter	Result
Duplication	Pass
BuildUp	Pass
Tss	Pass
Exclusion	Pass
Route to IEW	Pass

Attack Options:

- FA Cannon
- Rocket/Missile
- Mortar
- Air
- Aviation
- Naval Gun
- Naval Land Atk MSL
- Naval Cruise MSL
- Mass All Systems

Munition Table:

Opt	Unit ID	Munition 1	Qty	Munition 2	Qty	Crd
1	A 1-37FA	23CVDA	HE PD	1		
2	B 1-37FA	23CVDA	HE PD	1		
3	B 1-37FA	23CVDA	HE PD	1		
4	C 1-37FA	23CVDA	HE PD	1		
5	C 1-37FA	23CVDA	HE PD	1		
6	1 BCS B 2-37FA	23CVDA	HE PD	1		
7	2 A 1-37FA	23CVDA	HE PD	1		
8	2 BCS B 2-37FA	23CVDA	HE PD	1		

Recommendation: Send F0 to 1 A 1-37FA 23CVDA

Buttons: Send Selected, Accept Recommendation, Recalculate, Deny, Unsupportable, Cancel, Help

NOTE

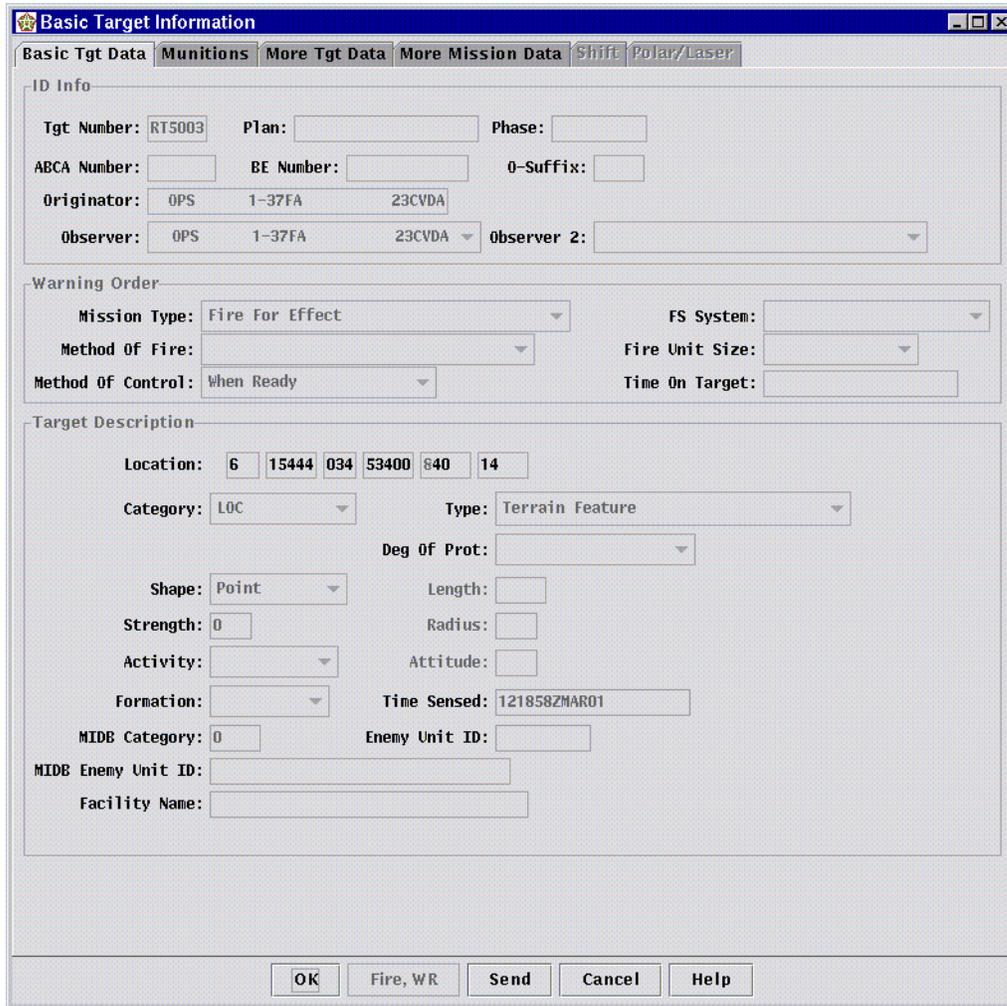
The data of this window is view only with the exception of **Mission Precedence:**, **NLT:**, and **Mission Value:**. To edit any of these, proceed to step 4.

The **Deny** button will send a mission denial to the unit requesting the fire mission. Selecting **Unsupportable** sends the mission to HHQ for processing. To perform the following functions of the Intervention window, proceed to the indicated steps.

- View target information step 4
- View coordination step 8
- View filter guidances step 19
- View attack options step 23
- View Cannon Tech Solu step 52
- View missile information step 55
- View Rkt/Msl Solu step 59

Intervention Event Processing - CONT

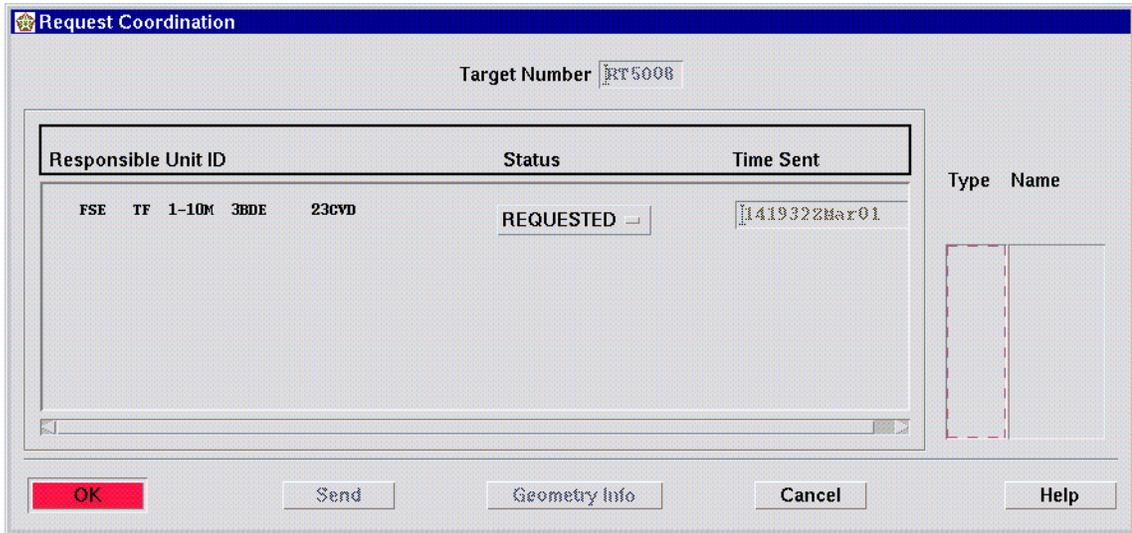
Step	Action	Response
4.	<u>Select View Target Information....</u>	Basic Target Information window opens.



5.	Perform functions of Basic Target Information window in accordance with Initiate Fire Mission paragraph.	
6.	<u>Select OK.</u>	Basic Target Information window closes.
7.	To perform other functions of Intervention window, refer to note prior to step 4.	

Intervention Event Processing - CONT

Step	Action	Response
8.	<u>Select View Coordination...</u>	Request Coordination window opens.



NOTE

To perform the following functions of the **Request Coordination** window, proceed to the indicated steps. Selecting **OK** at any time closes this window and activates the **Intervention** window.

- View geometry information step 9
- Send request step 15

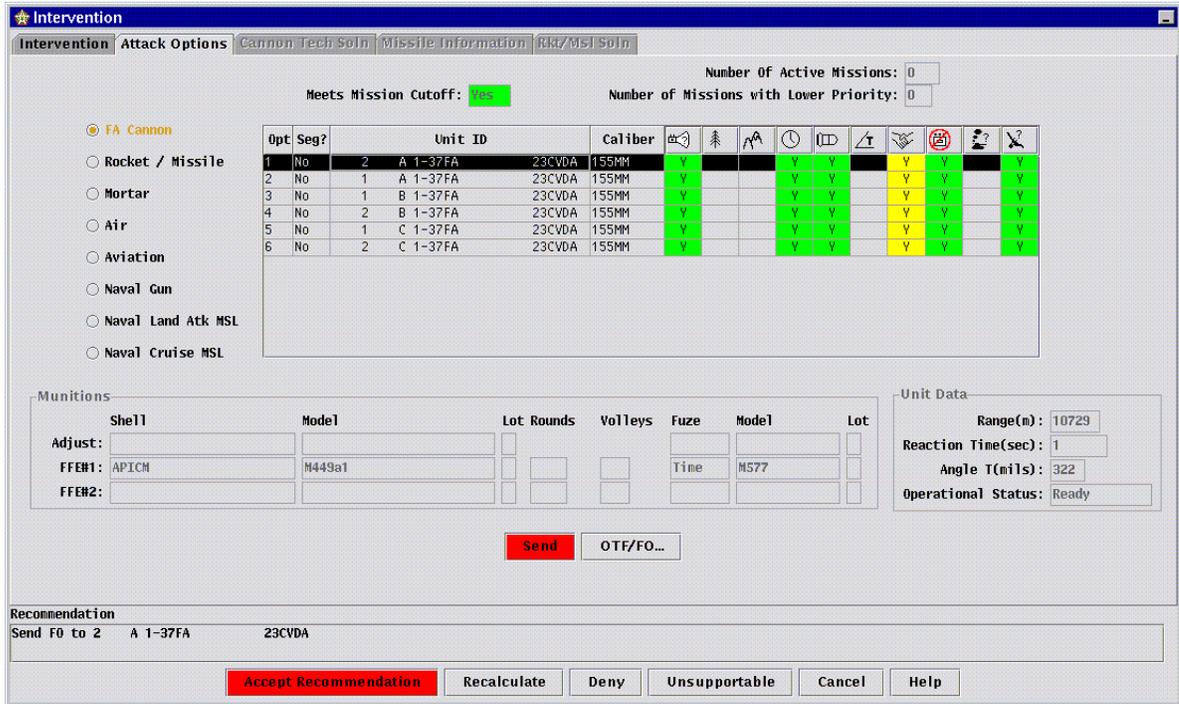
9.	<u>Select Responsible Unit ID.</u>	
10.	<u>Select geometry</u> from Type or Name list.	
11.	<u>Select Geometry Info.</u>	Geometry Information window opens in View mode for selected geometry type.
12.	Perform functions of geometry window in accordance with Geometries paragraph.	
13.	<u>Select OK.</u>	Geometry Information window closes.

Intervention Event Processing - CONT

Step	Action	Response
14.	To perform other functions of Request Coordination window, refer to note prior to step 9.	
15.	<u>Select Responsible Unit ID.</u>	
16.	<u>Select geometry</u> from Type or Name list.	
17.	<u>Select Send.</u>	Request is sent to Responsible Unit ID for selected geometry(s).
18.	To perform other functions of Request Coordination window, refer to note prior to step 9.	
19.	<u>Select a guidance</u> from Filter list.	
20.	<u>Select View Filter Guidance...</u>	Appropriate guidance window opens.
21.	Perform functions of guidance window in accordance with Guidances paragraph.	
22.	To perform other functions of Intervention window, refer to note prior to step 4.	
23.	<u>Select Attack Options</u> tab.	Attack Options tab is displayed.

Intervention Event Processing - CONT

Step	Action	Response
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NOTE

This window is view only. The user selects the FS system to view data for from the radio buttons. Selecting an option from the list causes the munitions and **Unit Data** for that option to be displayed. To perform the following functions of the Attack Options tab, proceed to the indicated steps.

- Send Fire Mission step 24
- Send OTF/FO - FA or NSFS step 27
- Send Air/Aviation OTF/FO step 42

- | | | |
|-----|---|---|
| 24. | <u>Select option.</u> | Fire mission is sent to selected Unit ID . Option Review and Intervention windows close. |
| 25. | <u>Select Send.</u> | |
| 26. | Refer to Mission Monitor procedures to perform other functions. | |

Intervention Event Processing - CONT

Step	Action	Response
27.	<u>Select OTF/FO.</u>	OTF/FO window opens.

28.	<u>Select Send To:</u>	Select Unit window opens.
29.	<u>Select destination unit.</u>	
30.	<u>Select OK.</u>	Select Unit window closes.
31.	<u>Select Adjust Shell:</u> (required for Adjust and Coordinated Illumination missions).	

Intervention Event Processing - CONT

Step	Action	Response
32.	<u>Select Fz</u> : (required if Adjust Shell : selected).	
33.	<u>Select FFE Shell #1</u> :	The legend for #Vlys/#Shells will change accordingly by the type of shell selected.
34.	<u>Select Fz</u> : (required if FFE Shell #1 : selected).	
35.	<u>Enter #Vlys: /#Shells</u> : (required if FFE Shell #1 : selected except for Continuous Illumination).	
36.	Repeat steps 34 thru 36 for FFE Shell #2 :	
37.	<u>Enter Dispersal Pattern</u> : code (A to Z). Required for ATACMS-BAT and ATACMS-APAM.	
38.	<u>Enter Remarks</u> :	
39.	<u>Select Send</u> .	OTF/FO sent to selected unit. OTF/FO , Option Review , and Intervention windows close.
40.	Refer to Mission Monitor procedures to perform other functions.	
41.	<u>Select OTF/FO</u> with Air or Aviation selected as attack option. Proceed to step 45.	Air OTF/FO window opens.

Intervention Event Processing - CONT

Step	Action	Response
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Air/Aviation OTF/FO

Target Number : AS1000

Target Type : Landing Strip Time on Target :

Target Location : 16 08227 034 77715 715 14

Initial Point : Laser Code :

IP to Target Heading(mils): Munition Type : Rockets

Distance to Target(NM): Munition Quantity : 0

Remarks :

OK Send... Print... Cancel Help

42. Enter **Target Location:** (optional).
43. Enter **Initial Point:** (1-6 alphanumeric characters).
44. Enter **IP to Target Heading(mils):** (0-6399).
45. Enter **Distance to Target(NM):** (0-9999).
46. Enter **Laser Code:** (1-6 characters).
47. Select **Munition Type:**
48. Enter **Munition Quantity:** (0-999).
49. Enter **Remarks:**

Intervention Event Processing - CONT

Step	Action	Response
50.	<u>Select Send.</u>	Air/Aviation OTF/FO sent to selected unit. Air/Aviation OTF/FO and Intervention windows close.
51.	Refer to Mission Monitor procedures to perform other functions.	
52.	<u>Select Cannon Tech Solu</u> tab.	Cannon Tech Solu tab is displayed.

Intervention Attack Options Cannon Tech Soln **Missile Information** fsk/MSI Soln

TOF: 51

FFE 1

Wpn	Cap	MOC	# Rnds	Shell Category	Shell Model	Shell Lot	Prop Color	Prop Lot	Prop Charge	Fuze Category	Fuze Model	Fuze Lot	Fuze Time	DF	QE
1	Y	WR	5	DPICM	M483A1	F	WB	W	Seven	Time	M577	B	45.1	3881	575
2	Y	WR	5	DPICM	M483A1	F	WB	W	Seven	Time	M577	B	46.3	3892	587
3	Y	WR	5	DPICM	M483A1	F	WB	W	Seven	Time	M577	B	46.5	3905	600
4	Y	WR	5	DPICM	M483A1	F	WB	W	Seven	Time	M577	B	48.5	3918	617

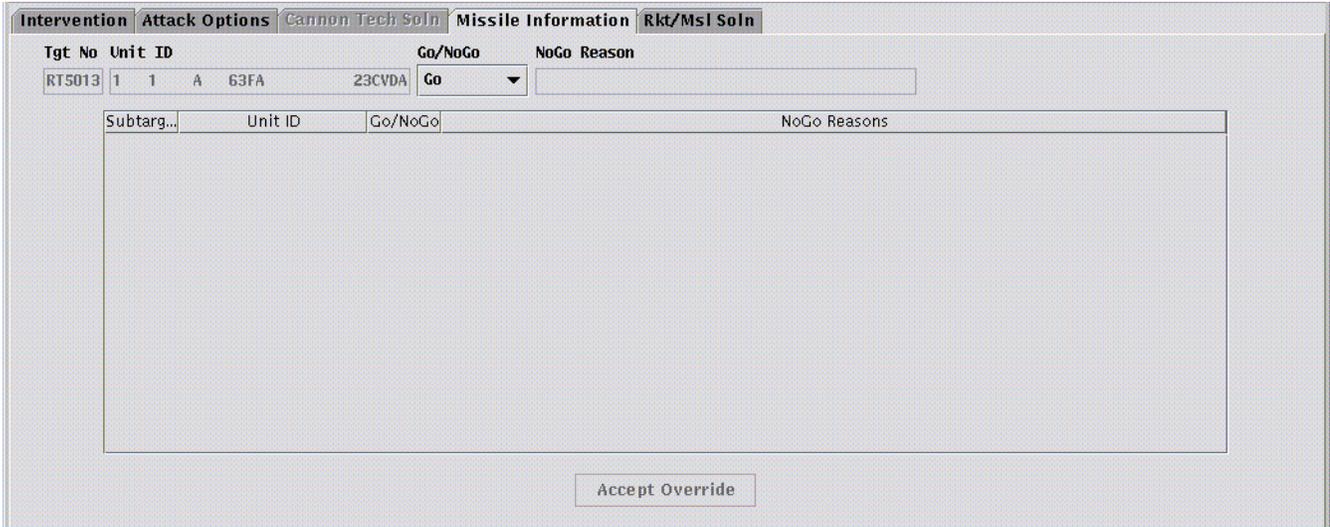
FFE 2

Wpn	Cap	MOC	# Rnds	Shell Category	Shell Model	Shell Lot	Prop Color	Prop Lot	Prop Charge	Fuze Category	Fuze Model	Fuze Lot	Fuze Time	DF	QE
-----	-----	-----	--------	----------------	-------------	-----------	------------	----------	-------------	---------------	------------	----------	-----------	----	----

53.	View and/or evaluate technical solution.	
54.	To perform other functions of Intervention window, refer to note prior to step 4.	
55.	<u>Select Missile Information</u> tab.	Missile Information tab is displayed.

Intervention Event Processing - CONT

Step	Action	Response
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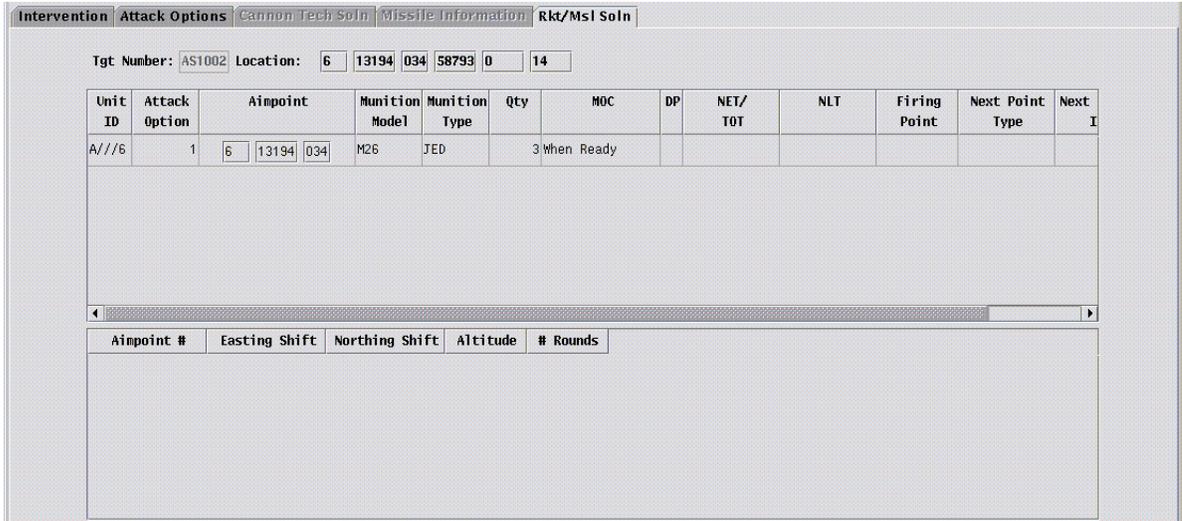
NOTE

The data of this window is view only with the exception of the **Go/No Go** mission status.

- | | | |
|-----|--|--|
| 56. | <u>Select Override as Go/No Go status</u> or view and/or evaluate and refer to note prior to step 4. | |
| 57. | <u>Select Accept Override.</u> | Fire Order sent to units with Go status. Deny sent to units with No Go status. Missile Information and Intervention window closes. |
| 58. | To perform other functions of Intervention window, refer to note prior to step 4. | |
| 59. | <u>Select Rkt/Msl Solu tab.</u> | Rkt/Msl Solu tab is displayed. |

Intervention Event Processing - CONT

Step	Action	Response
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60. View and/or evaluate technical solution.

61. To perform other functions of Intervention window, refer to note prior to step 4.

4-15.3 Denial Event.

A denial event occurs when a fire request or request coordination is sent to another unit and that unit denies the request.

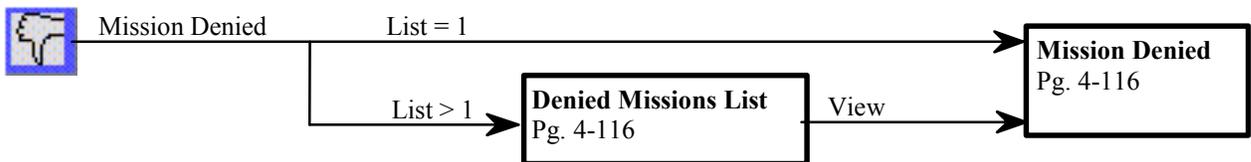


Figure 4.41 Denial Event Navigation

4-15.3.1 Denied Missions List Window.

The **Denied Missions List** window opens when the denied icon is selected on the Tool Bar and more than one (1) denial event is pending. This window lists all of the denial events pending. The user selects a listed event and **View** to open the **Mission Denied** window.

Target Number	Target Type	Location	Msn Prec	Val
AA1002	AA, Troops and Vehs	6 16645 034 53554	AS_ACQUIRED	41
AA1004	AA, Troops and Vehs	6 13240 034 48801	AS_ACQUIRED	41

Buttons: View, Refresh, Cancel, Help

4-15.3.2 Mission Denied Window.

The **Mission Denied** window displays the basic data for a mission that was denied following a request for coordination. The user has the options to **Reprocess** the request for coordination or to **Send Mission...** to another unit.

Mission Denied

Target Number: AA1000

Observer: OPS 1-37FA 23CVDA

Target Type: Terrain Feature

Location: 6 17200 034 54475 750 14

Reason: No capable units

Buttons: OK, Send Mission..., Reprocess, Cancel, Help

4-15.3.3 Denial Function Procedure.

Selecting the denial (thumbs down) icon opens a dialog window displaying target data and the reason mission was denied. The user may choose to **Reprocess** the mission using the same data or **Send Mission...** to another unit.

Mission Denied

Target Number: AA1000

Observer: OPS 1-37FA 23CVDA

Target Type: Terrain Feature

Location: 6 17200 034 54475 750 14

Reason: No capable units

Buttons: OK, Send Mission..., Reprocess, Cancel, Help

4-15.4 Data Required Event.

This monitor event is displayed when a fire request is received that requires additional data for processing. These requests will be either a smoke or time on target mission. The user inputs either the MET data (smoke mission) or the time on target and closes the window to process the mission.

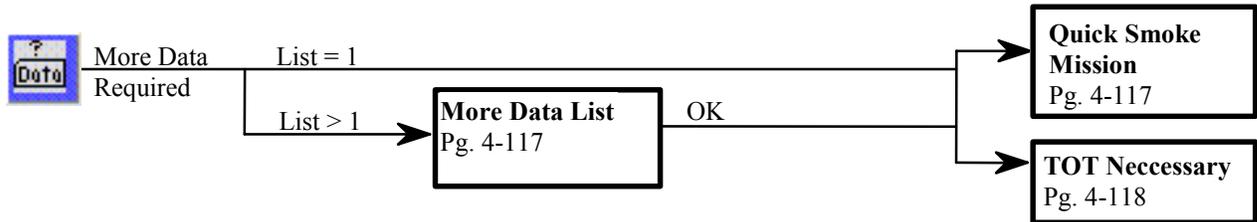


Figure 4.42 Data Required Event Navigation

4-15.4.1 More Data List Window.

The **More Data List** window is accessed from the Tool Bar via the **More Info Required** selection when the number of events is greater than one (1).

Target Number	Target Type	Target Location	Msn Prec	Msn Val	Data Needed
AA1022	Infantry	6 14868 034 29975	AS_ACQUIRED	39	TOT
AA1023	Terrain Feature	6 15468 034 29005	AS_ACQUIRED	21	Quick Smoke

Buttons: View, Refresh, Cancel, Help

Figure 4.43 More Data List Window

This window lists the events monitored that require additional data from the user. The list includes **Target Number**, **Target Type**, **Target Location**, **Msn Prec** (Mission Precedence), **Msn Val** (Mission Value), and **Data Needed**. These fields are not editable. The user selects the event from the list and **View** to open the window containing the event information.

4-15.4.2 Quick Smoke Mission Window.

The **Quick Smoke Mission** window is opened for user input of weather information to support a call for quick smoke. This window opens from the Tool Bar More Info Required selection or from the **More Data List** window depending on the number of monitored events in the category.

The **Plan:** and **Phase:** fields are used to display the planning information and are grayed-out in the Current situation. The **Target Number:** field contains the assigned target number for the mission. The **Observer:** field contains the observer ID for the mission. The **Target Number:** and **Observer:** fields are not editable in the current situation.

The user enters information for the remainder of the fields (all required) to complete the mission data. The **Duration of Smoke(min):** entry is the length of time (0 to 15 minutes) that the smoke is to be effective at the target. The **Wind Speed:** is entered as the speed (0 to 300 miles per hour) of the wind at the target. The **Wind Direction:** is selected from a pop-up menu and indicates the wind direction at the target. The **Conditions:** at the target is also selected from a pop-up menu.

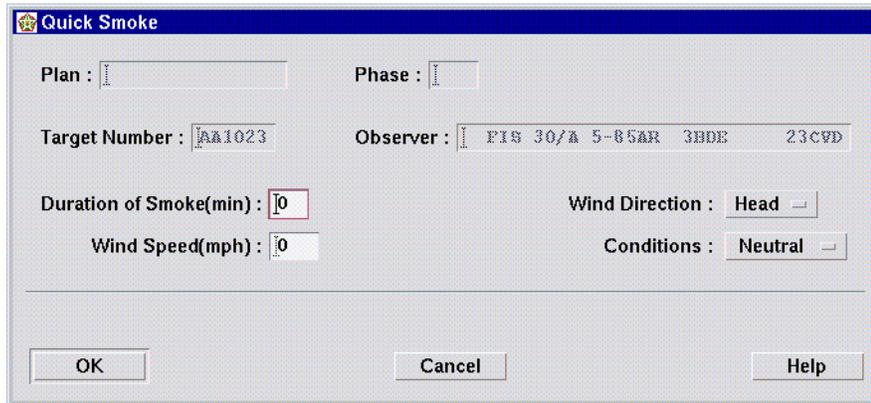
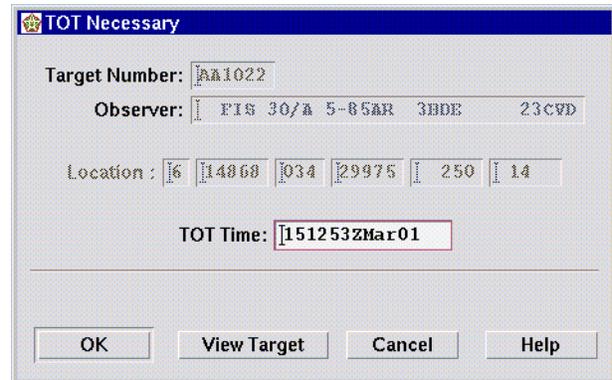


Figure 4.44 Quick Smoke Mission Window

4-15.4.3 TOT Necessary Window.

The **TOT Necessary** window is opened for user input of Time On Target information required to support a mission. This window opens from the Tool Bar More Info Required selection or from the **More Data List** window depending on the number of monitored events in the category.

The **Target Number:**, **Observer:**, and **Location:** fields indicate target data and are not editable in the current situation. The **TOT Time:** is entered in the DTG format. The **View Target** opens the **Basic Target Information** window to allow the user to view the target data.

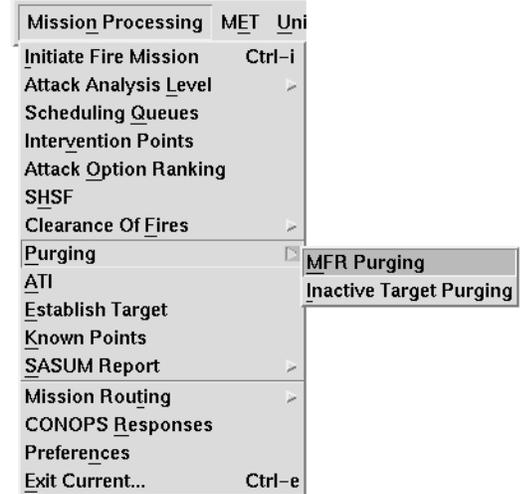


4-15.4.4 Additional Information Procedure.

This field logs events that cannot be completed with currently available data. The user makes entries to complete the data for implementation. Refer to the applicable window to perform required entries.

4-16 PURGING.

The **Mission Processing\Purging** menu cascades to selections to allow access to MFR and Inactive Target Purging windows. These windows contain the same information fields for both menu selections. The window title will change to reflect the menu selection.



4-16.1 MFR/Inactive Target Purging Window.

The **Mission Processing\Purging** selection cascades to selections of **MFR Purging** and **Inactive Target Purging**. These selections open the purging window which allows the user to **Purge All** or to enter criteria for a **Purge As Indicated** selection. The user may select targets or MFR's to be purged by target number range, completion time, **Target Type**, and/or location. Purging targets will delete all data associated with a mission. MFR purging will delete disposition, number of casualties, completion time, and analysis data.

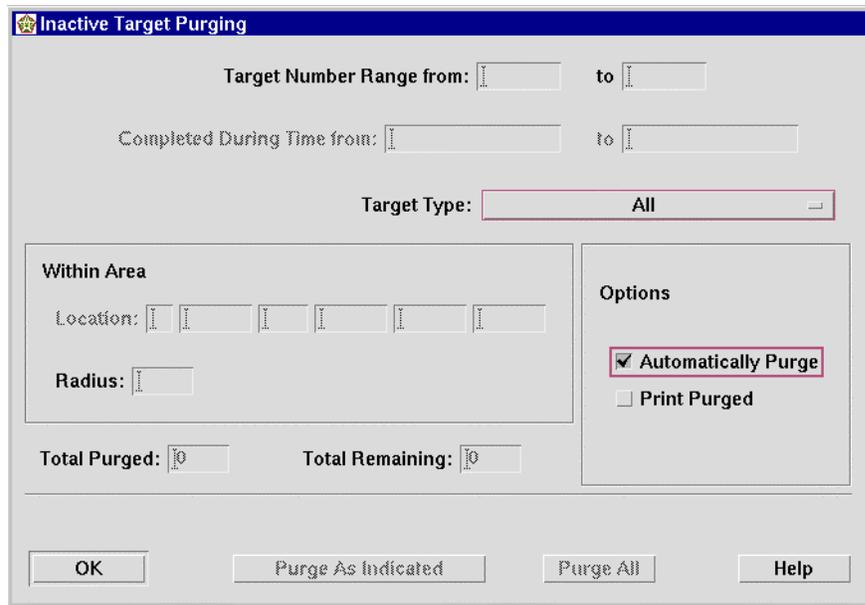


Figure 4.45 MFR/Inactive Target Purging Window

All entries are optional. All data meeting the an established criteria will be purged regardless of any other entries. If multiple criteria are entered (e.g., Completion Time Range and target type) only those targets meeting both criteria will be purged. As example, if an area is entered, all data will be purged for targets within the area if the target number falls within the entered target number range. The **Target Number Range from:** and **to-**fields are used to input the first and last target numbers to be purged. All target numbers within the range will be deleted.

The **Completed During Time from:** and **to** fields are used to input the start and end time to be purged. All missions completed in the time range will be deleted.

The **Target Type:** selection allows the user to select a purge based on target types.

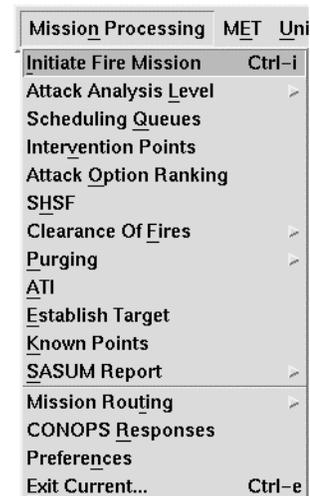
The **Within Area** fields allow the user to establish a circular area to include the targets and MFR's to purge. The area is defined by the center **Location:** and **Radius:**.

The **Total Purged:** and **Total Remaining:** fields will display system calculated values each time a purge is accomplished.

The **Options** selections allow the user to **Automatically Purge** and/or **Print Purged** data. If **Automatically Purge** is selected, mission data will be purged at a regular time interval after the MFR has been received. If **Print Purged** is selected, the mission data will be sent to the default printer on any type of purge. The **Purge As Indicated** button initiates the purge using the displayed criteria. **Purge All** initiates a purge of all inactive targets and MFR's.

4-17 MISSION PROCESSING MESSAGES.

The **Mission Processing** selections of **ATI**, **Establish Target**, and **Known Points** open appropriate message templates. The **SASUM Report** selection cascades to selection of **New** and **Edit...** to create or edit SASUM reports.



4-17.1 SASUM Report Window.

The Supporting Arms Summary (SASUM) is a report that provides information that applies to USMC fire support. This report can be modified for use by other services as necessary. Systems included in the report are Artillery, Naval Surface Fire Support (NSFS), Air (fixed wing), and Aviation (helicopters) unit types. The report extracts limited information from the current database when the report is displayed. This information includes the number of Artillery firing units ashore, Navel Surface Fire Support Vessels on station, Air missions flown, Aviation missions flown, and ammunition by caliber and type that has been expended. All other entries in the report are free text.

When creating a new SASUM Report, a blank message entry window is displayed. Selecting the **Refresh** button causes the current SASUM report to be displayed. Any part of the report can be edited. When editing a saved report, the **Refresh** button is disabled.

The **Options** menu includes selections to **Edit Header**, **Print Message...**, and **Delete Message**.

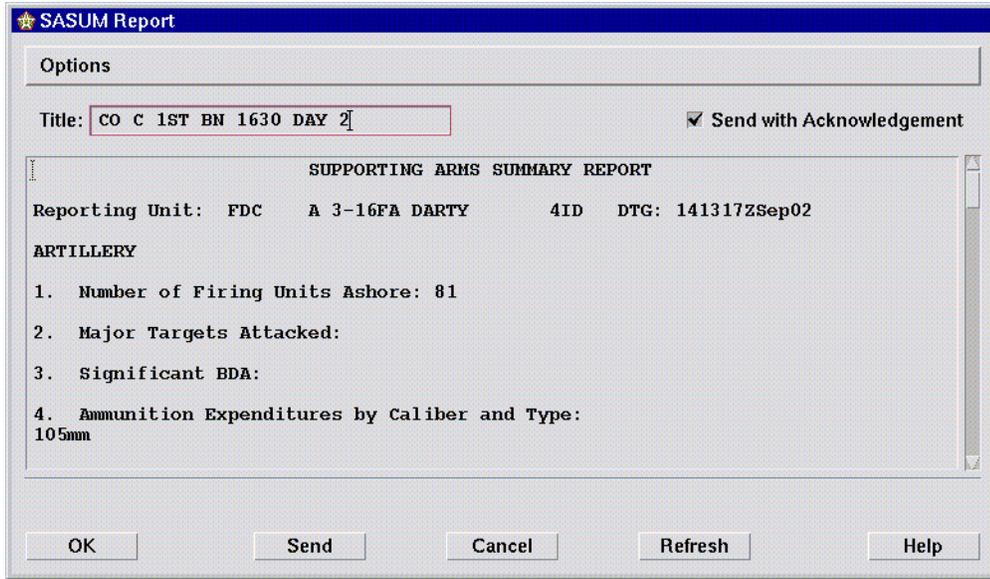


Figure 4.46 SASUM Report Window

NOTE

Selecting **OK** at any time closes this window and saves the report to the message library. Selecting **Cancel** closes the window without saving the report. Selecting **Send** initiates transmission of the report to unit(s) listed in header. Selecting **Options\Delete Message** removes the report from the message library. To perform the following functions of the **SASUM Report** window, proceed to the indicated steps.

- Create new report..... step 1
- Edit report step 7
- Edit header step 12

SASUM Report		
Step	Action	Response
1.	Select Mission Processing\SASUMNew...	SASUM Report window opens.
2.	Enter Title: (required if saving message, 1-30 alphanumeric characters).	
3.	If acknowledgment required, select Send with Acknowledgment .	

SASUM Report - CONT

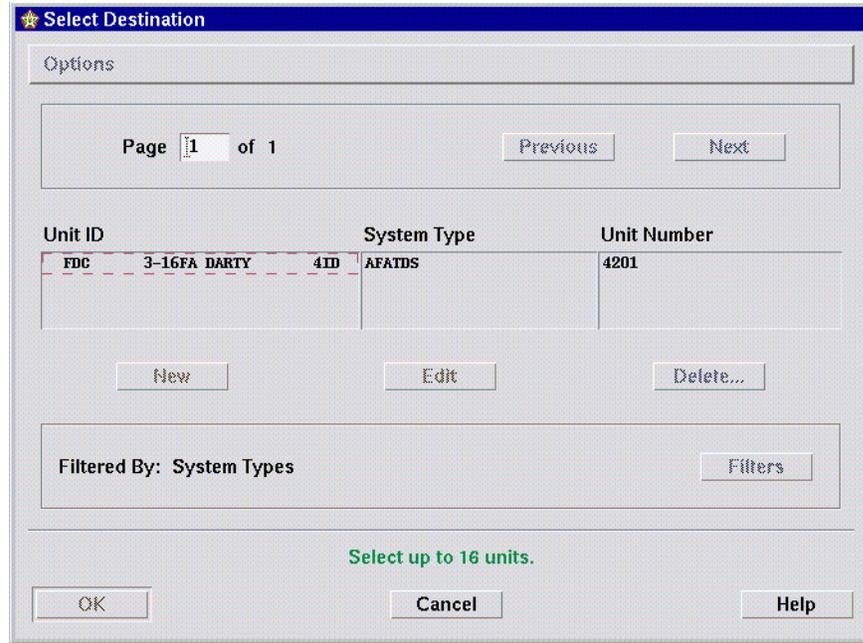
Step	Action	Response
4.	<u>Select Refresh button</u> if creating a new report.	Report fills in from database.
5.	<u>Edit report</u> as required.	
6.	To perform other functions of SASUM Report window, refer to note prior to step 1.	
7.	<u>Select Mission Processing\SASUM>Edit.</u>	Message Library window opens.
8.	<u>Select report</u> to edit.	
9.	<u>Select Options Edit.</u>	SASUM Report window opens.
10.	<u>Edit report</u> as required.	
11.	To perform other functions of SASUM Report window, refer to note prior to step 1.	
12.	<u>Select Options>Edit Header</u> (required to send message).	Edit Message Header window opens for specifying destination unit(s).



13. | Select **Add...** to add destination unit(s) to list. | **Select Destination** window opens.

SASUM Report - CONT

Step	Action	Response
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14.	<u>Select unit(s).</u>	
15.	<u>Select OK.</u>	Select Destination window closes. Unit(s) is placed in Send to: list.
16.	<u>Select Send</u> on message window.	Message is sent to destination(s).
17.	To perform other functions of SASUM Report window, refer to note prior to step 1.	

4-18 **MUNITIONS CALCULATOR.**

The munitions calculator is used to enter target data for the calculation of the rounds required or coverage expected for a fire mission. The user may perform calculations on established targets, planned targets, or data that is not associated with a specified target. The data for the target (e.g., type, shape, and size) and firing data (e.g., weapon type, number of tubes, and shell) are entered in the **Munitions Calculator** window. The **Conventional Munitions**, **Smart Munitions**, and **Abat Munitions** windows are opened via the **Next** button. The specific window opened is dependent on the **Shell:** selection. The calculations are performed in these child windows.

4-18.1 Munitions Calculator Window.

The **Munitions Calculator** window is opened via the keypad icon on the Current or Planning Tool Bar. This window is used to enter target data (e.g., target type, shape, and size) and firing data (weapon type, number of tubes, and shell).



The **Target Number:** field accepts the standard target number format (AA0000 to ZZ9999). This field is editable but not required. If a target number is entered, available data for the target will be entered automatically.

The **Target Type:** is a required entry. The selections are the previous entry, blank, and **Select...**

The **Degree of Protection:** is enabled only for personnel target types and is an optional entry.

The **TLE(m):** field is an optional entry. The Target Location Error (TLE) entry range is 0 to 9999 meters.

The **Location:** fields accept the standard coordinates via keyboard or map selection entry methods. These fields may be edited and are optional entries.

The **Shape:** menu contains selections for **Point**, **Circular**, **Rectangular**, and **Linear** shapes. These selections interact with the **Length(m):**, **Width(m):**, and **Attitude(mils):** fields. When enabled, the dimensioning fields are required entries. Selecting a shape of **Point** disables all dimensioning fields.

A screenshot of the 'Munitions Calculator' window. The window has a blue title bar with the text 'Munitions Calculator'. The main area contains several input fields and dropdown menus. 'Target Number:' is an empty text box. 'Target Type:' is a dropdown menu showing 'Terrain Feature'. 'Degree of Protection:' is an empty dropdown menu. 'TLE(m):' is an empty text box. 'Location:' consists of six small text boxes for coordinates. 'Shape:' is a dropdown menu showing 'Point'. 'Length(m):', 'Width(m):', and 'Attitude(mils):' are empty text boxes. 'Strength:' is an empty text box. 'Fire Unit:' is an empty dropdown menu. 'Weapon Type:' is a dropdown menu showing '105mm'. 'Tubes:' is an empty text box. 'Shell:' is an empty dropdown menu. 'Fz:' is an empty dropdown menu. At the bottom, there are three buttons: 'Next', 'Cancel', and 'Help'.

Figure 4.47 Munitions Calculator Window

A **Circular** shape selection disables the **Length(m):** and **Attitude(mils):** fields and enables a **Radius(m):** fields in place of **Width(m):**. The legal entry for the **Radius(m):** field is 0 to 9999.

A **Rectangular** shape selection enables all dimensioning fields. The legal entry for the **Length(m):** field is 0 to 99999. The legal entry for **Width(m):** field is 0 to 99999. The legal entry for **Attitude(mils):** field is 0 to 3199. The attitude of a rectangular shape is reference to the long side of the rectangle. A **Linear** shape selection enables the **Length(m):** and **Attitude(mils):** fields. The legal entries for these fields is the same as for a rectangle.

The **Strength:** field allows the user to enter the number of units as described by the **Target Type:** selection. The legal entry for the **Strength:** field is 0 to 9999. This is an optional entry.

The **Fire Unit:** is a optional entry. The selections are the previous entry, blank, and **Select....** If a unit is selected, the **Weapon Type:** and **Tubes:** fields will be displayed using the data from the selected unit.

The **Weapon Type:**, **Tubes:**, **Shell:**, and **Fz:** are required entries for all calculations. **Shell:** is not enabled until the **Weapon Type:** is selected. **Fz:** is not enabled until the **Shell:** is selected.

The **Next** button opens the calculator window for the selected shell.

4-18.2 Conventional Munitions Window.

The **Conventional Munitions** window is used to input weapon and conventional munitions information required to calculate coverage or munitions requirements.

The **Effects Desired:** selections allow the user to choose the desired fire mission effects. The selections include **Suppress**, **Neutralize**, **Destroy**, and **Specify %**. If **Specify %** is selected, the % field is enabled. The % field entry range is 0 to 100 and is optional.

To calculate the **Expected Coverage(%)**:, the **Weapon Type:**, **Tubes**, **Shell:**, **Fz:**, **Rounds:**, and **Volleys:** fields must be completed. Selecting **Calculate Coverage** with these values entered will calculate and display the **Expected Coverage(%)**:.

To calculate the **Rounds:** and **Volleys:** required, the **Weapon Type:**, **Tubes**, **Shell:**, **Fz:**, and **Expected Coverage(%)**: fields must be completed. Selecting **Calculate Quantity** with these values entered will calculate and display the **Rounds:** and **Volleys:**.

If target and firing unit locations have been entered, a **Time Of Flight:** value will be displayed.

The screenshot shows a software window titled "Conventional Munitions". Inside, there is a section for "APAM Information" with a "Firing Point:" field consisting of six small input boxes. Below that is a "Dispersal Pattern:" field and a "Munition Model:" dropdown menu currently set to "M39". The "Effects Desired:" field has a dropdown menu set to "Suppress" and a percentage field set to "0%". There are "Rounds:" and "Volleys:" input fields. Below these are "Time Of Flight:" and "Expected Coverage(%):" input fields. At the bottom, there are two main buttons: "Calculate Coverage" and "Calculate Quantity". At the very bottom of the window are four smaller buttons: "Store", "Cancel", "PAH/TAH", and "Help".

4-18.3 Smart Munitions Window.

The **Smart Munitions** window is used to input weapon and SMART munitions information required to calculate coverage or munitions requirements.

To calculate the **Expected Coverage(%)**:, the **Weapon Type**:, **Shell**:, **Target Elements**, **Number**, **Expected Killed**, and **Rounds**: fields must be completed. Selecting **Calculate Coverage** with these values entered will calculate and display the **Expected Coverage(%)**:.

To calculate the **Rounds**: required, the **Weapon Type**:, **Shell**:, **Target Elements**, **Number**, **Expected Killed**, and **Expected Coverage(%)**: fields must be completed. Selecting **Calculate Quantity** with these values entered will calculate and display the **Rounds**: and **Volleys**:.

The **Fire Unit**: is a optional entry. The selections are the previous entry, blank, and **Select...**. If a unit is selected, the **Weapon Type**: field will be displayed using the data from the selected unit.

The **Weapon Type**:, and **Shell**: are required entries for either calculation. **Shell**: is not enabled until the **Weapon Type**: is selected.

The screenshot shows the 'Smart Munitions' dialog box. It features a table with four columns: 'Target Elements', 'Qty', 'Expected Killed', and 'Expected Killed(%)'. There are three rows for data entry, labeled '1:', '2:', and '3:'. Below the table, there are input fields for 'Strength:' (with a percentage sign), 'Effects Desired:' (with a dropdown menu set to 'Suppress'), 'Rounds:', and 'Expected Coverage(%)'. At the bottom, there are five buttons: 'Calculate Coverage', 'Calculate Quantity', 'Store', 'Cancel', and 'Help'.

Figure 4.48 Smart Munitions Window

4-18.4 Army TACMS BAT/BAT-P3 Munitions Window.

The **Army TACMS BAT/BAT P-3 Munitions** window is used to input munition and **ATACMS-BAT** information required to calculate the expected coverage and/or volume of fire needed to achieve the desired effects for an ATACMS-BAT mission.

Target Number	Fire Unit / Firing Point	Exp Cov	Qty	Go Status	Time of Flight	NoGo Reasons

Figure 4.49 Army TACMS BAT/BAT-P3 Munitions Window

This window also provides the capability to calculate Platoon Area Hazard (PAH) and Target Area Hazard (TAH) geometries and to store the target information and geometries for a specified non-active mission.

After calculating the coverage or quantity, the spreadsheet will display target information including the **Target Number(s)**, **Fire Unit/Firing Point**, **Expected Coverage**, **Qty**, **Go Status**, **Time of Flight**, and all **No Go Reasons** for each target in the list. The **Firing Point** location fields are displayed below the **Fire Unit** selection menu.

Expected Coverage (percentage value), **Qty**, **Go Status** (Go or No Go), and **No Go Reasons** fields are the outputs of the calculations. Only one row of information is displayed for a non-segmented target. Two or more rows of sub-target information are displayed for a segmented target as determined by the calculation. Initially, the **Fire Unit/Firing Point** fields are blank and at least one of these fields for each target listed must be specified to enable the **Calculate PAH/TAH** button. When both are entered, the **Firing Point** is used for PAH/TAH calculations. When **Calculate PAH/TAH** is pressed, temporary PAH/TAH geometries are calculated and drawn on the map and are removed when the window is closed.

The **Store Targets** button is only enabled for specified non-active missions that are either on the On-call or Planned target lists and after the **Calculate Coverage** or **Calculate Qty** and **Calculate PAH/TAH** are performed. **Store Targets** stores all information for targets with **Go Status** of **Go** and closes the window.

To **Calculate Coverage**, **Total Qty**: (0-99) must be entered. **Calculate Qty** calculates the outputs based on the **Effects Desired**: entered on the **Munitions Calculator** window.

Other mission parameters that may be specified for the calculations are: **Munition Category**:, **Munition Model**:, **Target Activity**:, **Target Formation**:, **Countermeasures**, target **Elements**, and **Number**: of elements.

Munition Category: default is **ATACMS-BAT** and **ATACMS-BATP3** is selectable. **Munition Model**: default is M39E3 (JTC) for ATACMS-BAT and M39E4 (JTH) and M39E5 (JTG) are options for ATACMS-BATP3.

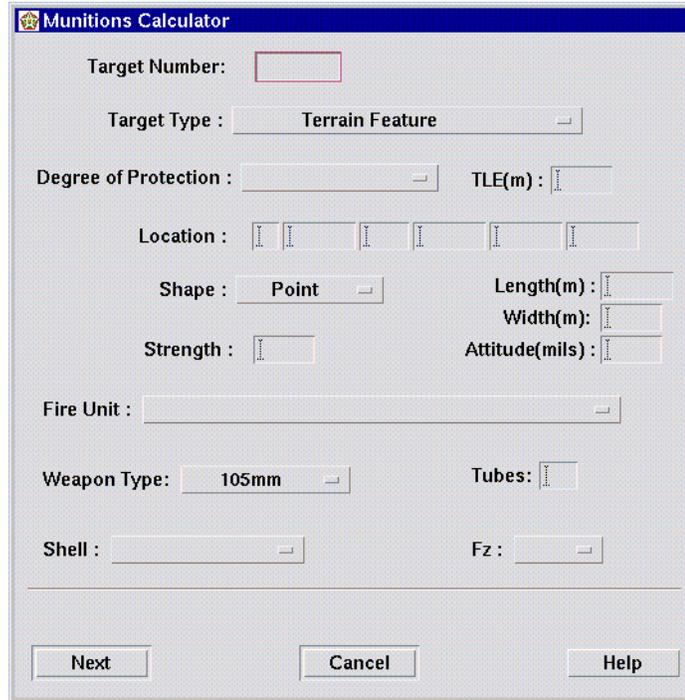
Target Activity selections are: **Moving**, **Stationary**, and **Dug In**. **Target Formation** selections are: **On Road**, **Off Road**, and **Dispersed**.

Countermeasures 1 through 3 selections are: **Decoys**, **Hot Spots**, **Foliage**, **Corner Reflectors**, **Chaff**, **Fires**, **Explosions**, **Ruses**, **Rope**, **Smoke**, and **RAM**. Target **Elements** are selected from the **Select Target Element** window and **Number** of elements must be entered for each selected **Element**.

4-18.5 Munitions Calculator Procedure.

Munitions Calculator Procedure

Step	Action	Response
1.	<u>Select Munition Calculator</u> icon from Tool Bar.	Munitions Calculator window opens.



- | | |
|---|--|
| 2. <u>Enter Target Number:</u> (optional). | If entered, all target available data will be entered by the system. |
| 3. <u>Select Target Type:</u> . | |
| 4. <u>Select Degree of Protection:</u> (personnel type targets only). | |
| 5. <u>Enter TLE(m):</u> (0-9999). | |
| 6. <u>Enter Location:</u> . | |

Munitions Calculator Procedure - CONT

Step	Action	Response
7.	<u>Select Shape:</u>	Required dimensioning fields enabled.
8.	<u>Enter Length(m):</u> (required for shapes other than point and circle) (0-99999).	
9.	<u>Enter Width(m):</u> (required for shapes other than point and circle) (0-9999).	
10.	<u>Enter Radius(m):</u> (required for circular) (0 to 99999).	
11.	<u>Enter Attitude(mils):</u> (required for shapes line and rectangle) (0-3199).	
12.	<u>Enter Strength:</u> (0-9999).	
13.	<u>Select Fire Unit:</u> (optional).	If fire unit selected, data for that unit will be entered automatically.
14.	<u>Select Weapon Type:</u>	
15.	<u>Enter Tubes:</u> (0-99).	
16.	<u>Select Shell:</u>	
17.	<u>Select Fz:</u>	

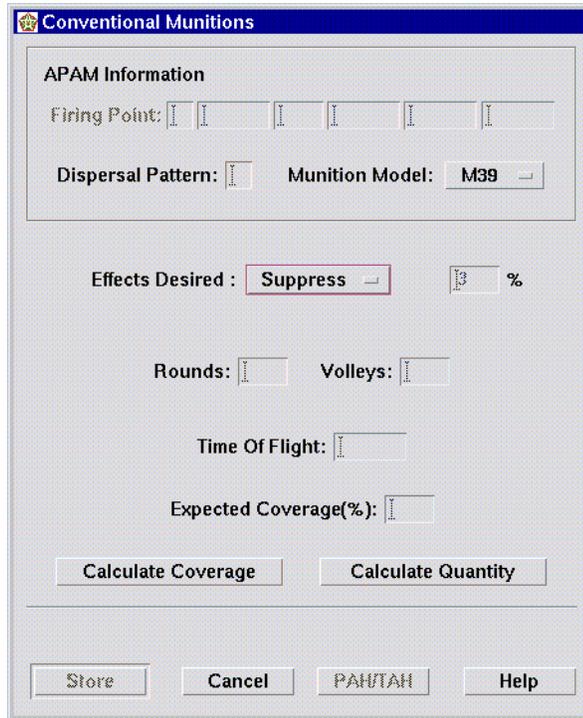
NOTE

To perform the calculations for a munitions type, proceed to the indicated steps. Selecting **OK** closes the **Munitions Calculator** window.

- Conventional munitions step 18
- SMART munitions step 36
- Abat munitions step 40

Munitions Calculator Procedure - CONT

Step	Action	Response
18.	<u>Select Next.</u>	Conventional Munitions window opens.



NOTE

To perform the following functions, proceed to the indicated steps.

- Calculate coverage step 19
- Calculate quantity step 28

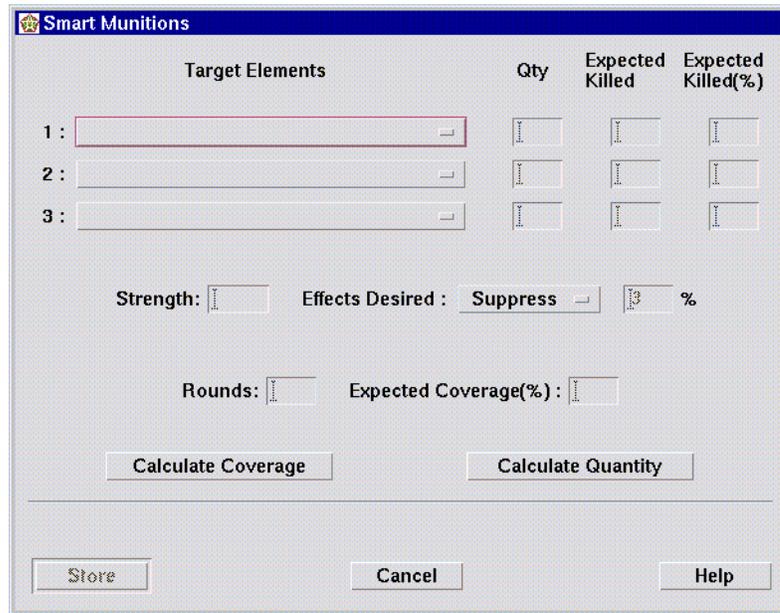
19.	<u>Enter Firing Point:</u> (APAM only).
20.	<u>Enter Dispersal Pattern:</u> (APAM only).
21.	<u>Select Munition Model:</u> (APAM only).

Munitions Calculator Procedure - CONT

Step	Action	Response
22.	<u>Select Effects Desired:</u>	% field enabled if Specify % selected.
23.	<u>Enter %</u> if Specify % selected (0 to 100).	
24.	<u>Enter Rounds:</u> for NSFS munitions only (0-200).	
25.	<u>Enter Volleys:</u> for all but NSFS munitions (0-200).	
26.	<u>Select Calculate Coverage.</u>	Calculated value is displayed in Expected Coverage (%): field.
27.	<u>Return to step prior to 19</u> to perform other conventional munitions calculations as required. or <u>Select OK</u> to close Conventional Munitions window. Proceed to note prior to step 18.	
28.	<u>Enter Firing Point:</u> (APAM only).	
29.	<u>Enter Dispersal Pattern:</u> (APAM only).	
30.	<u>Select Munition Model:</u> (APAM only).	
31.	<u>Select Effects Desired:</u>	% field enabled if Specify % selected.
32.	<u>Enter %</u> if Specify % selected (0 to 100).	
33.	<u>Enter Expected Coverage (%):</u> .	
34.	<u>Select Calculate Quantity.</u>	Calculated values are displayed in Rounds: or Volleys: fields.

Munitions Calculator Procedure - CONT

Step	Action	Response
35.	<p><u>Return to step prior to 19</u> to perform other conventional munitions calculations as required.</p> <p>or</p> <p>Select OK to close Conventional Munitions window. Proceed to note prior to step 18.</p>	
36.	<p>Select Next.</p>	<p>Smart Munitions window opens.</p>



NOTE

To perform the following functions, proceed to the indicated steps.

- Calculate coverage step 37
- Calculate quantity step 46

Munitions Calculator Procedure - CONT

Step	Action	Response
37.	<u>Select Target Elements 1:</u> (optional).	
38.	<u>Enter Number</u> (required if Target Element selected, 0-100).	
39.	<u>Repeat steps 37 thru 38</u> for each Target Elements as required.	
40.	<u>Enter Strength:</u> (required unless Number entered for elements).	
41.	<u>Select Effects Desired:</u>	% field enabled if Specify % selected.
42.	<u>Enter %</u> if Specify % selected (0 to 100).	
43.	<u>Enter number of Rounds:</u> (0-99999).	
44.	<u>Select Calculate Coverage.</u>	Calculated value is displayed in Expected Coverage (%) : field.
45.	<u>Return to note prior to step 37</u> to perform other SMART munitions calculations as required.	
	or	
	<u>Select OK</u> to close Smart Munitions window. Proceed to note prior to step 18.	
46.	<u>Select Target Elements 1:</u> (optional).	
47.	<u>Enter Number</u> (required if Target Element selected, 0-100).	
48.	<u>Repeat steps 46 and 47</u> for each Target Elements as required.	
49.	<u>Enter Strength:</u> (required unless Number entered for elements).	

Munitions Calculator Procedure - CONT

Step	Action	Response
50.	<u>Select Effects Desired:</u> .	% field enabled if Specify % selected.
51.	<u>Enter %</u> if Specify % selected (0 to 100).	
52.	<u>Select Calculate Quantity.</u>	Calculated values are displayed in Rounds: field.
53.	<u>Return to note prior to step 37</u> to perform other SMART munitions calculations as required. or <u>Select OK</u> to close Smart Munitions window. Proceed to note prior to step 18.	
54.	<u>Select Next.</u>	Abat Munitions window opens.

Army TACMS BAT / BAT-P3 Munitions

Target Number:

Munition Model:

Target Activity:

Target Formation:

Countermeasures

1:

2:

3:

Elements

1:

2:

3:

Number

Total Qty: Strength:

Effects Desired : %

Target Number	Fire Unit / Firing Point	Exp Cov	Qty	Go Status	Time of Flight	NoGo Reasons

Calculate PAHTAH Calculate Coverage Calculate Qty

Store Cancel Help

Munitions Calculator Procedure - CONT

Step	Action	Response
------	--------	----------

NOTE

To perform the following functions, proceed to the indicated steps.

Calculate coverage step 55
 Calculate quantity step 66

55.	<u>Select Munition Model:</u>	
56.	<u>Select Target Activity:</u>	
57.	<u>Select Target Formation:</u>	
58.	<u>Select Countermeasures 1:</u>	
59.	<u>Repeat step 45 for each Countermeasures as required.</u>	
60.	<u>Select target Elements 1:</u>	Select Target Element Window opens. Select target element and select OK .
61.	<u>Enter Number (0-100).</u>	
62.	<u>Repeat steps 60 and 61 for each Target Elements as required.</u>	
63.	<u>Enter Total Qty:: (0-100).</u>	
64.	<u>Select Calculate Coverage.</u>	At least one row of target information is displayed. Two or more rows displayed if target is segmented.

Munitions Calculator Procedure - CONT

Step	Action	Response
65.	<p><u>Return to note prior to step 55</u> to perform other Abat Munitions calculations as required.</p> <p>or</p> <p>Select Cancel to close Abat Munitions window. Proceed to note prior to step 18.</p> <p>or</p> <p>Proceed to step 79 to calculate PAH/TAH geometries.</p>	
66.	<p>Select Munition Model:</p>	
67.	<p>Select Target Activity:</p>	
68.	<p>Select Target Formation:</p>	
69.	<p>Select Countermeasures 1:</p>	
70.	<p>Repeat step 69 for each Countermeasures as required.</p>	
71.	<p>Select target Elements 1:</p>	<p>Select Target Element Window opens. Select target element and select OK.</p>
72.	<p>Enter Number (0-100).</p>	
73.	<p>Repeat steps 71 and 72 for each Target Elements as required.</p>	
74.	<p>Enter Strength: (required unless Number entered for elements).</p>	
75.	<p>Select Effects Desired:</p>	<p>% field enabled if Specify % selected.</p>
76.	<p>Enter % if Specify % selected (0 to 100).</p>	

Munitions Calculator Procedure - CONT

Step	Action	Response
77.	<u>Select Calculate Qty.</u>	Calculated quantity is displayed.
78.	<u>Return to note prior to step 55</u> to perform other Abat Munitions calculations as required.	
	or <u>Select Cancel</u> to close Abat Munitions window. Proceed to note prior to step 18.	
	or Proceed to step 79 to calculate PAH/TAH geometries.	

NOTE

The target location must be entered and a Fire Unit must be selected or a Firing Point must be entered for each target to enable the **Calculate PAH/TAH** button.

79.	<u>Select Calculate PAH/TAH.</u>	Temporary geometries are drawn on the map.
80.	If specified non-active mission, <u>proceed to step 81 to store target information, otherwise proceed to note prior to step 55.</u>	
81.	<u>Select Store Targets.</u>	All target information and geometries with Go Status of Go are stored and Abat Munitions window closes.
82.	Proceed to note prior to step 18.	

4-19 RADAR DEPLOYMENT ORDER PROCEDURE.

The radar deployment order (RDO) is used to establish the location and/or coverage area of a radar unit. The normal method used to send a RDO is to open the radar unit icon menu and select **RDO**. The user then selects the **Current Location:** or **Next Location:** radio button to determine the unit location to be sent for the deployment. The **Next Location:** field can be edited to the deployment location required. The **Effective Time:** time is the time that the unit is operational at the new location or capable of a new coverage area. The range fan is then determined by entering the **Direction Of Search(mils):**, **Right Azimuth(mils):**, and **Left Azimuth(mils):**. **Radar Zones** are added or removed from the list as required. The **Send** button then saves the data to the database and transmits the RDO.

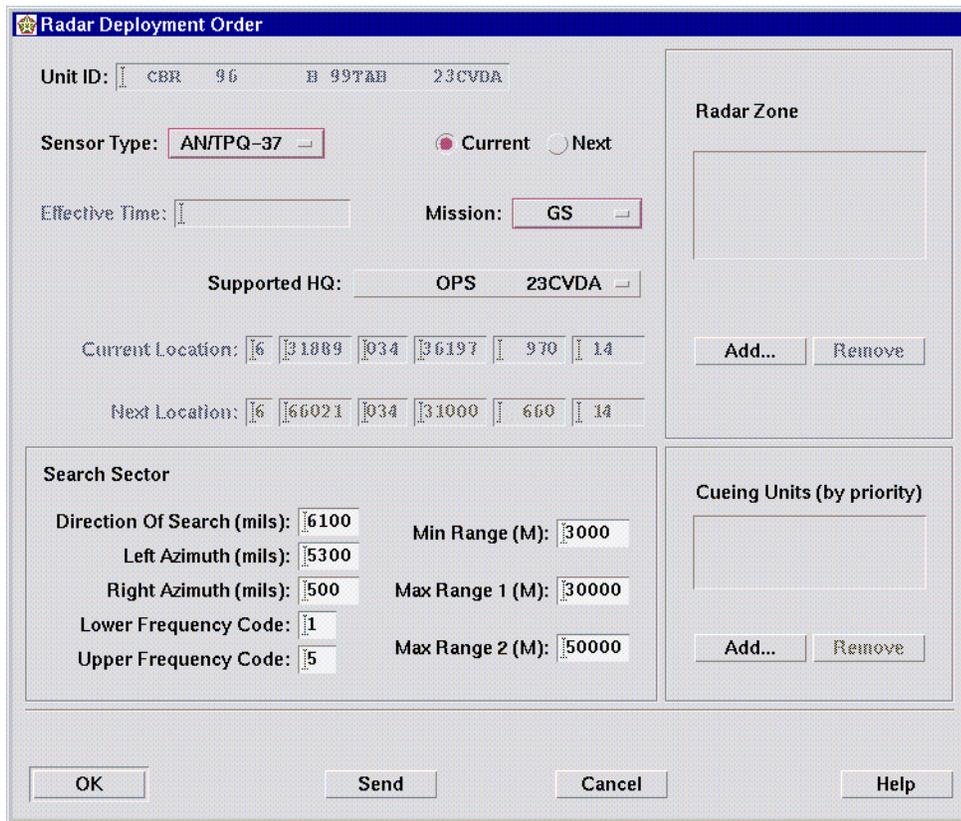


Figure 4.50 Radar Deployment Order Window

Radar Deployment Order Procedure		
Step	Action	Response
1.	Select RDO from the applicable radar unit map symbol.	Radar Deployment Order window opens.

NOTE

Selecting **Send** at any time closes this window, saves the data, and transmits the RDO. To perform the following functions of the **Radar Deployment Order** window, proceed to the indicated steps.

- Enter deployment data step 2
- Add Radar Zone step 8
- Remove Radar Zone step 12
- Add Cueing Unit step 15
- Remove Cueing Unit step 19

Radar Deployment Order Procedure - CONT

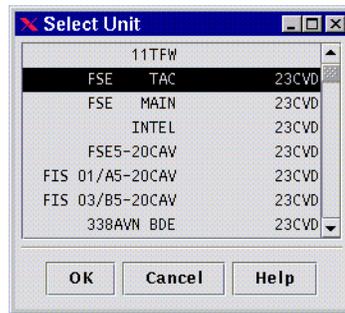
Step	Action	Response
2.	Enter <u>Next Location:</u> as required.	
3.	Select <u>Current Location:</u> or <u>Next Location:</u> radio button.	
4.	Enter <u>Direction Of Search(mils):</u> .	
5.	Enter <u>Right Azimuth(mils):</u> .	
6.	Enter <u>Left Azimuth(mils):</u> .	
7.	To perform other functions of Radar Deployment Order window, refer to note prior to step 2.	
8.	Select <u>Add...</u> under Radar Zone field.	Select Fire Finder Zone window opens.



9.	Select <u>FFZ.</u>	
10.	Select <u>OK.</u>	Select Fire Finder Zone window closes. FFZ is added to list.
11.	To perform other functions of Radar Deployment Order window, refer to note prior to step 2.	
12.	Select <u>zone</u> to be removed from list.	
13.	Select <u>Remove</u> under Radar Zone field.	Zone is removed from list.

Radar Deployment Order Procedure - CONT

Step	Action	Response
14.	To perform other functions of Radar Deployment Order window, refer to note prior to step 2.	
15.	<u>Select Add...</u> under Cueing Units field.	Select Unit window opens.

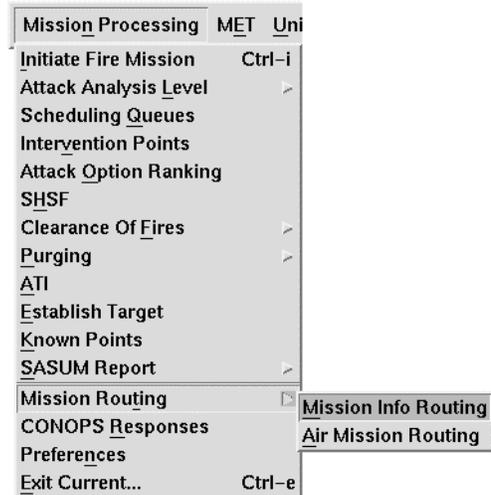


16.	<u>Select unit.</u>	
17.	<u>Select OK.</u>	Select Unit window closes. Unit is added to list.
18.	To perform other functions of Radar Deployment Order window, refer to note prior to step 2.	
19.	<u>Select unit</u> to be removed from list.	
20.	<u>Select Remove</u> under Cueing Units field.	Unit is removed from list.
21.	To perform other functions of Radar Deployment Order window, refer to note prior to step 2.	

4-20 MISSION ROUTING.

The **Mission Processing\Mission Routing** selections are used to determine the routing of MFR, All Source Analysis System (ASAS), target/mission information, and air mission data. This menu cascades to selections of **Mission Info Routing** and **Air Mission Routing**.

The **Mission Processing\Mission Routing\Mission Info Routing** selection opens the **Mission Info Routing** window. This window displays those units that will receive fire mission data. There are three (3) types of data that can be routed through the use of this window; MFR data, ASAS data, and target/mission information. Selecting **Add...** from this window opens the **Add Destination Unit** window to select a unit, select type of data, and enter **Since Time**:



The **Mission Processing\Mission Routing\Air Mission Routing** selection opens the **Air Mission Routing** window. This window is used to establish the destination units for the routing of air mission requests.

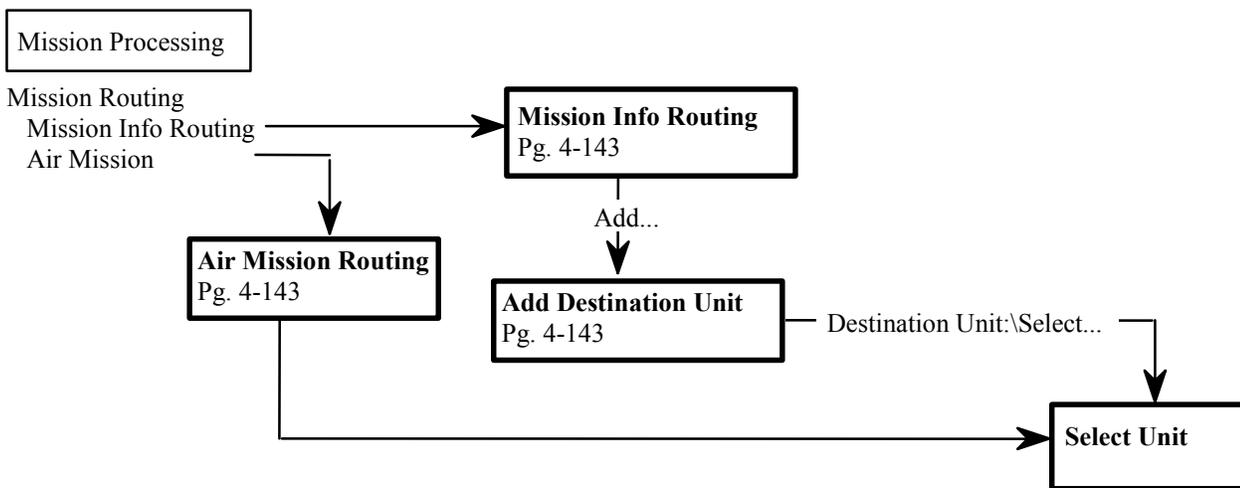
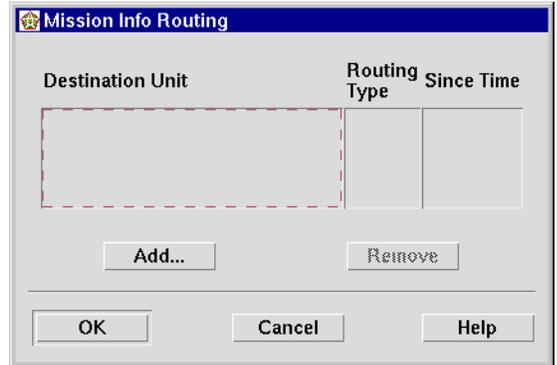


Figure 4.51 Mission Routing Navigation

4-20.1 Mission Info Routing Window.

The **Mission Info Routing** window lists the units that have been selected to receive MFR, target/mission, and/or ASAS data. The window displays a line entry for each unit entered. The **Routing Type** field displays **MFR**, **ASAS**, or **Info Copy** depending the type of data to be sent to the unit. A **Since Time:** is displayed for each unit entered for routing of MFR data. This time is used to determine the start time to be used to update a unit that had not been receiving MFR's (e.g., CONOPS).

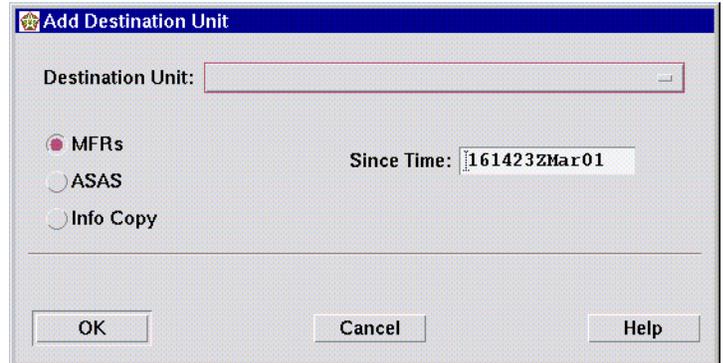


Selecting a unit ID and **Remove...** deletes the unit from the list stops the routing of mission data to that unit.

Selecting **Add...** opens the **Add Destination Unit** window to add a unit to the listing.

4-20.2 Add Destination Unit Window.

The **Add Destination Unit** window allows the user to add a unit, select the type of data to be routed, and enter **Since Time:** (only for routing of MFR data). The **Since Time:** is used to send MFR data on all fire missions that were completed after the **Since Time:**.



Selecting **Destination Unit** opens the **Select Unit** window. Selecting the **MFR**, **ASAS**, or **Info Copy** radio button determines the type of data that is to be routed.

Entering **Since Time** for MFR data will cause all MFR's for fire missions that have completed after that time, as well as all future fire missions, to be routed to the selected destination unit.

4-20.3 Air Mission Routing Window.

The **Air Mission Routing** window is opened via the **Mission Processing\Mission Routing\Air Mission Routing** selection. This window is used to establish the routing of pre-planned and immediate air requests. A destination is selected for **Preplanned Request(s):** and each category of immediate requests. The selected units become the default destinations and will be used unless the operator selects a specific destination.

The operator can also select an **Information Address** for CAS and AI requests and set intervention for any of the immediate requests.

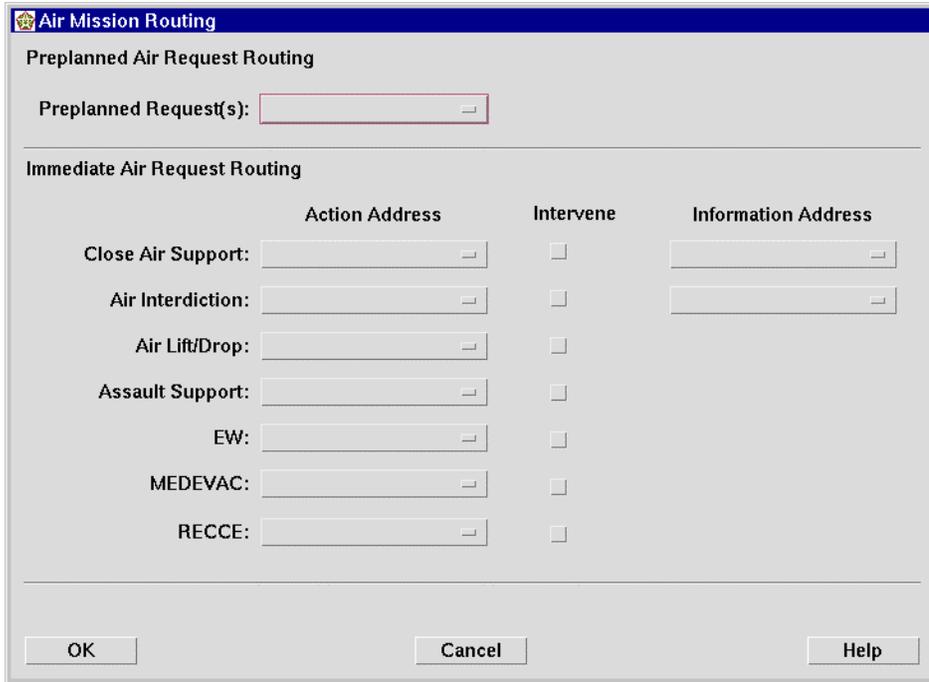


Figure 4.52 Air Mission Routing Window

4-21 TARGET GENERATION.

The target generation function gives the operator the capability to generate targets by comparing and combining suspect targets (TSS failures) and target indicators (direction and/or range information from shelling, flash, and jamming reports). The target generation function consists of two (2) stages. The first stage collects the suspect target (ST) or target indicator (TI) information. The second stage compares and combines the collected data to generate new targets and/or refine a suspected targets location and TLE. The **Target Indicator Processing** and **Suspect Target Processing** selections from the **Current\Targets** menu are used to turn the processing of TI's and ST's on and off. When processing is turned off, only the first stage occurs.

NOTE

When TI or ST processing is turned on after being off, only newly received TI's and ST's will be processed. TI's and ST's that were received while processing was off will not be compared for target generation. If the operator feels that a TI or ST on the list should be processed, opening the edit window and closing via **OK** will cause the TI or ST to be submitted for processing.

4-21.1 Target Indicators.

Target Indicators are input to AFATDS by a SHELREP message from a FIST DMD, DMD, DCT, ATHS, or FED or by an ATI-SHR message from TACFIRE, FDS, or BCS. Target Indicators can also be entered locally by selecting **Indicator\New** from the **Target Indicator List** window.

AFATDS maintains the target indicator list at an OPFAC by adding or deleting target indicators. When a new target indicator is received, and processing is off or a target is not generated, it is added to the list. When target indicators are combined to produce a generated target the combined indicators are deleted from the file. The user is allowed access to the file to add, delete, or edit target indicators. An option to purge target indicators that have exceeded their decay time is also available. The user can also display the indicator ray on the map.

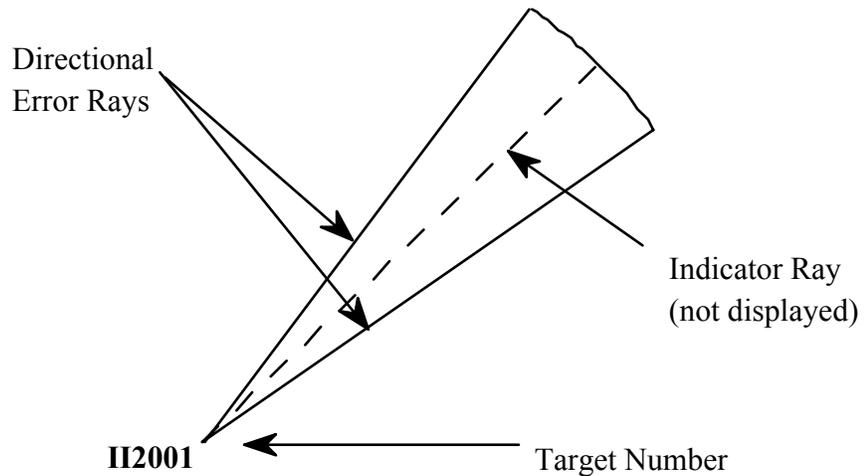
4-21.1.1 Target Indicator Data Collection.

The collection of TI data includes the extraction of data from the TI report and the application of default and guidance data. A TI list is created upon receipt of the first TI and updated with each subsequent report. The collection process consists of the following:

1. Assign target number. The next available number, starting with 0001, is assigned with a prefix of II.
2. Determine decay DTG. If a decay DTG is not received with the TI report, the decay time is determined by adding the Target Decay Time guidance to the DTG of the acquisition/report.
3. Assign target type. If a target type is not received with the TI report, the target type is assigned as follows:
 - a. If weapon type is artillery, Artillery, Unknown is used.
 - b. If weapon type is mortar, the target type is based on the reported caliber. If no caliber is reported, Mortar, Unknown is used.
 - c. If weapon type is rockets or missile, Rocket/Missile, Unknown is used.
 - d. If weapon type is electronic emissions (or any other electronic target), Electronic Warfare Equipment is used.
4. Determine sensor directional error. If a sensor directional error is not received with the TI report, the directional error is based on the default value for the reporting sensor or unit type.
5. Establish sensor location. If a sensor location is not received with the TI report, the unit's most current location is used. If no location is available, the target indicator report is discarded.
6. Determine target indicator ray. The TI ray is the direction and distance from the sensor or shell impact to the indicated target. The direction is measured in mils and the distance in meters. The direction is required in the TI report. If the distance is not included in the report, it is determined as follows:
 - a. If flash-to-bang time is reported, the distance in meters is determined to be the time in seconds multiplied by 350.
 - b. If flash-to-bang time is not reported, the distance is based on a default for the target type.
7. Add data to TI list. The collected data is added to the TI list. If the list does not exist, it will be created.

4-21.1.2 Target Indicator Fan.

A Target Indicator Fan is constructed for each TI. The fan is constructed by first determining the direction and length of the Indicator Ray. This is a line from the sensor/impact location to the indicated target. Next, lines are drawn from the sensor/impact location at an angle from the Indicator Ray equal to the sensor directional error and to the same length as the Indicator Ray. The ends of the three rays are connected by an arc, with a radius equal to the ray lengths, to complete the fan.



The Target Number is displayed at the sensor/impact location on the fan. Fans are color coded to indicate target type. Artillery fans are red for heavy, green for medium, and blue for light. Mortar fans are yellow, rocket/missile are orange, and all other types are black.

4-21.1.3 Target Indicator Processing and Navigation.

When a TI is entered or received, the first action is to check if processing is turned on. If target processing is off, the indicator is added to the Target Indicator List and no further actions occur.

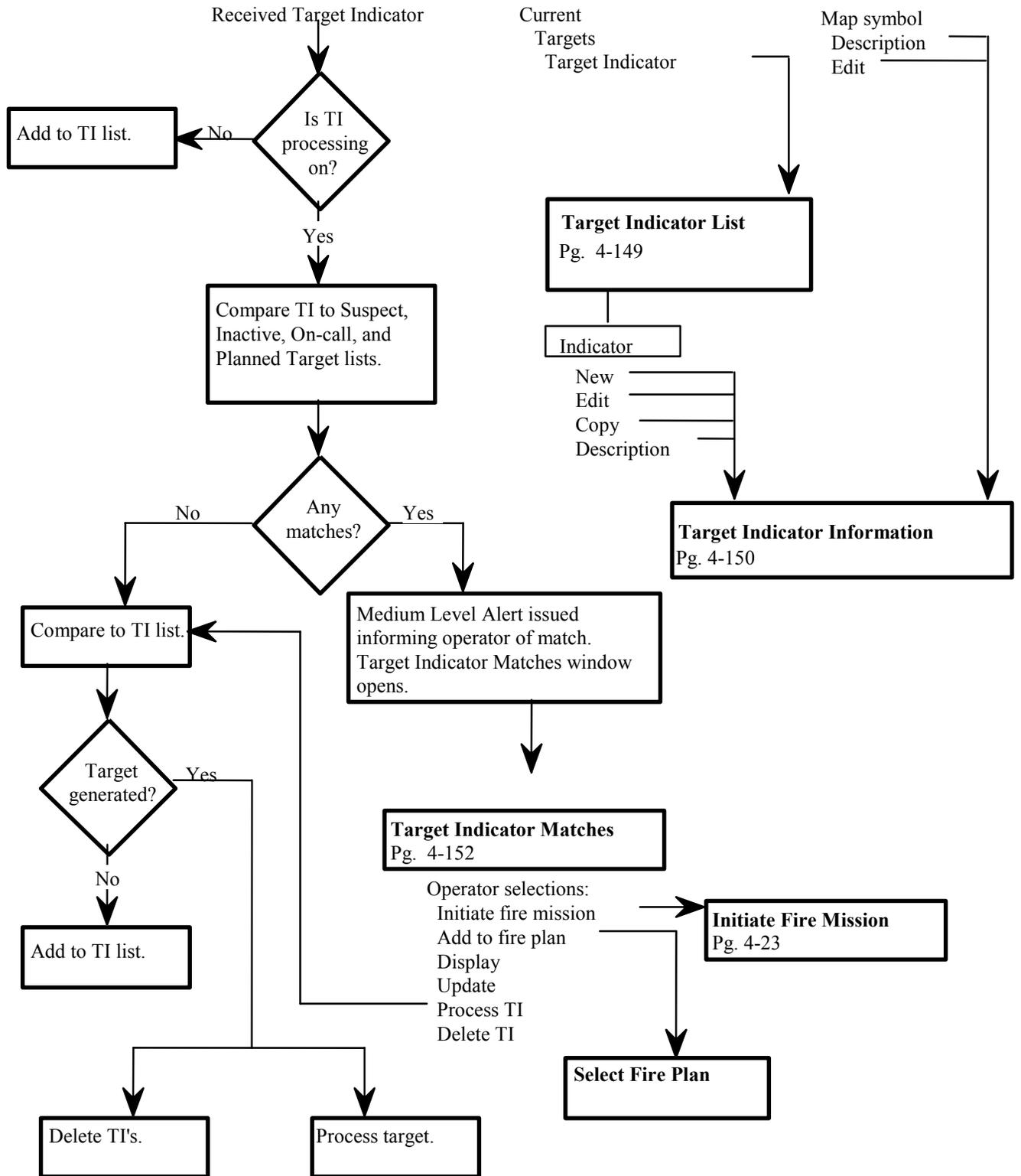
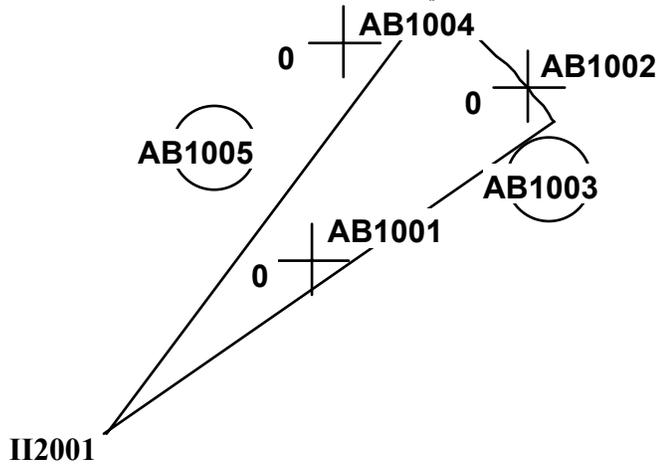


Figure 4.53 Target Indicator Processing and Navigation

If target processing is on, the TI will be compared to the target lists (except active). A Medium Level Alert will be generated informing the operator of a match(s) and the **Target Indicator Matches** window will open if any matches are found. The **Target Indicator Matches** window will display the information of the TI and list all targets the meet match criteria.

To be a match, a target must be similar to the indicated target and be within or tangent to the Indicator Fan. Also, for inactive targets, the end-of-mission time must be earlier than the acquisition DTG of the target indicator or no match is possible. For all other targets, the updated time of the target must be earlier than the acquisition DTG of the target indicator or no match is possible. As shown, targets AB1001, AB1002, and AB1003 will be matches if target type and time criteria are met. Targets AB1004 and AB1005 will not be matches under any criteria.



The **Target Indicator Matches** window

allows the operator to perform functions on the matched target. A fire mission can be initiated on the target or it may be added to an existing fire plan. The TI can also be used to update the DTG of a matched target(s), deleted, or processed for target generation purposes.

If no match is found for a TI or the operator selects **Process TI** from the **Target Indicator Matches** window, the TI is then compared to the Target Indicator List. A target is generated if the Indicator Rays from three similar TI's meet to form a triangle with all sides less than 400 meters in length.

If a target is generated, the TI's used will be deleted from the list and the generated target is processed as any other target would be. The generated target will be constructed as a circular target that contains the same area as the triangle and will be assigned a number from the allocated target numbers at the OPFAC where it was generated.

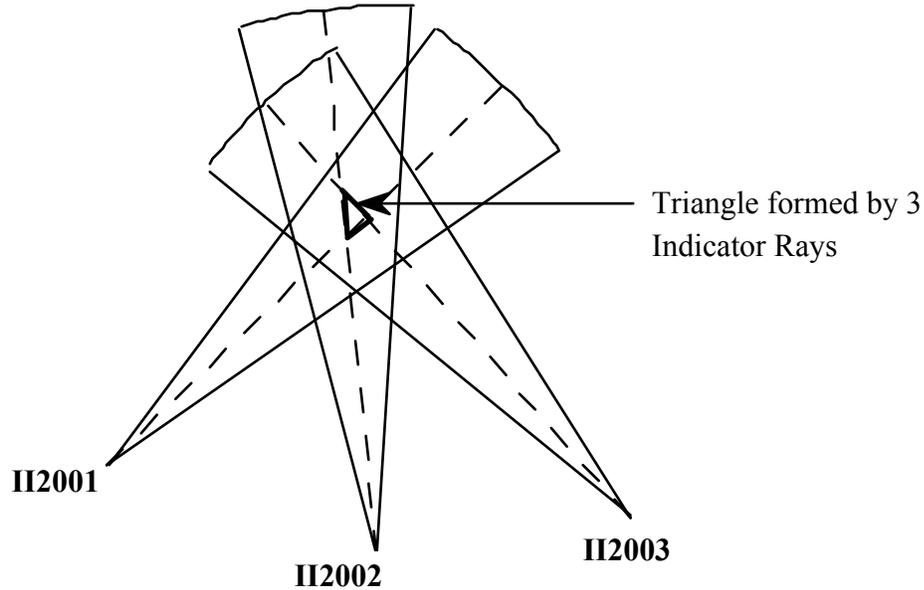


Figure 4.54 Target Indicator Ray Intersections

4-21.1.4 Target Indicator List Window.

The **Target Indicator List** window displays the listing of Target Indicators being maintained at the OPFAC. The indicators are listed by **Target Indicator** number, **Target Type**, **Originator**, and **Decay Time**. Two window menus (**Indicator** and **Sort**), a **Automatically Purge** check box, and a **Refresh** button allow the operator access to functions to maintain the listing.

The **Indicator** menu selections are used to find, create, edit, display, and delete TI's. The **Indicator\Find...** selection opens a window for operator entry of a TI number. Entry of the number and activation of the **OK** button closes the window and causes the selected TI to be displayed and highlighted on the **Target Indicator List** window.

The **Indicator\New** selection opens the **Target Indicator Information** window to allow the operator to create a new TI locally.

Selecting an existing TI and **Indicator\Copy** opens the **Target Indicator Information** window to allow the operator to create a new TI using the data from the selected TI.

The **Indicator\Edit** and **Indicator\Description** selections also open the **Target Indicator Information** window for a selected TI. In the edit mode data can be changed. In the description mode data is view only.

The **Indicator\Find On Map** selection causes the map to center on a selected TI. The TI fan will be displayed for the selected TI.

The **Sort** menu allows the operator to sort the displayed data by each of the four columns.

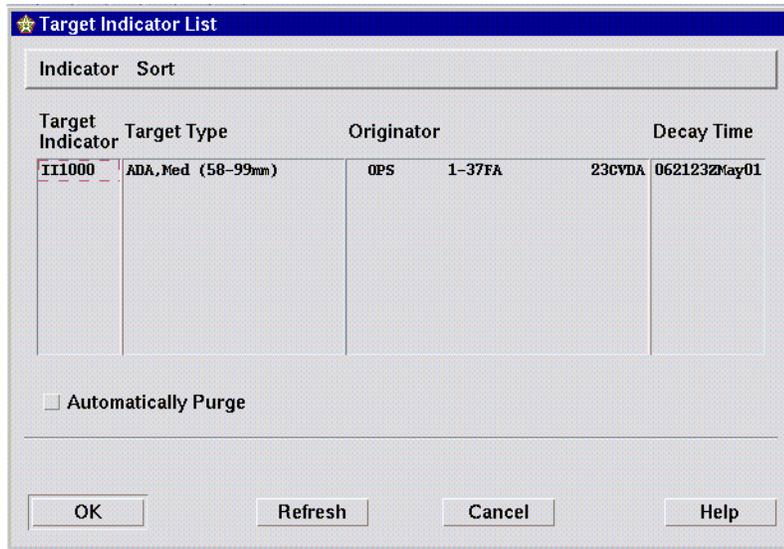


Figure 4.55 Target Indicator List Window

NOTE

Targets that have been purged will remain on the list until the list is refreshed or the window closed and re-opened. No data will be available for the purged targets. Therefore, if a selected target displays no data during functions (edit, copy, etc.), the operator should refresh the list to ensure the target has not been purged.

The **Automatically Purge** check box, when selected causes TI's to be deleted from the list upon expiration of their decay times.

The **Refresh** button, when activated, causes the display of any TI's that were received or created since the window was initially opened or the last refresh. Also any targets that were purged during the time the window was open will be removed from the list. The **OK** button closes the window.

4-21.1.5 Target Indicator Information Window.

The **Target Indicator Information** window is used to display, enter, and edit data for a Target Indicator. This window is opened via the **New**, **Copy**, **Edit**, or **Description** selections from the **Indicator** menu on the **Target Indicator List** window. It can also be opened from the TI fan symbol pop-up menu **Description** and **Edit** selections. Default values will be entered, as applicable, to blank fields when the window is closed via the **OK** button.

All entries are view only if the window is opened in the description mode. The **Target Indicator Number:** is view only in the edit mode. In the new or copy mode, only the target number prefix is displayed. The operator can enter the numeric portion of the number or a number will be assigned when the window is closed via **OK** if a target number block is assigned to the OPFAC.

The **Target Type:** is an optional selection. If **Target Type:** is not entered, the **Weapon/Signal Type:** is required.

Figure 4.56 Target Indicator Information Window

The **Sensor/Impact Location:** is also an optional entry. If not entered, the location of the **Reporting Sensor:** will be used. The TI will be discarded if this data is not available.

The **Direction (mils):** field is a required entry. This is the direction from the **Sensor/Impact Location:** to the indicated target. The legal entry is 0 to 6399 mils.

The **Length (m):** entry is the distance from the **Sensor/Impact Location:** to the indicated target. This is an optional entry. If not entered, the **Flash to Bang Time (sec):** (if available) or a default for the target type will be used.

The **Directional Error (mils):** is an optional entry. If it is not entered, a default value will be entered based on the sensor/unit type.

The **Flash to Bang Time (sec):** is the time between an indicated launch (flash) and the moment the observer hears the report (bang). This entry is used only when the direction and location entries are based on the origination of a projectile. This is an optional entry.

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The **Decay Time:** is an optional entry. This is the time that a target is expected to remain at the current location. The operator can enter the time or a time will be entered based on the **Report Time:** plus the Target Decay Time guidance when the window is closed via **OK**. The format of this field is standard DTG.

The **Report Time:** is the time (standard DTG) that an indicated target was observed. This is an optional entry. If no time is entered, the time will default to current time when the window is closed via **OK**.

The **Reporting Sensor:** selection is required only if the **Sensor/Impact Location:** is not entered. The default for this selection is the local OPFAC.

The **Reporting Sensor Kind:** selection defines the kind of sensor that acquired the indicated target. This is an optional selection.

The **Weapon/Signal Type:** selection is required only if no **Target Type:** is entered. This selection defines the source type (FS system or electronic emitter) of the indicated target.

The **Location Source:** selection describes the type of report used to input the TI. This is an optional selection.

The **Reliability:** selection describes the reliability of the TI based on the location source and reporting unit. This is an optional selection.

The **Caliber:**, **Rounds:**, and **Shelling Duration (min):** entries describe the shelling activity and are optional entries.

4-21.1.6 Target Indicator Matches Window.

The **Target Indicator Matches** window opens if a received Target Indicator matches a target(s) on a target list(s) (other than active).

NOTE

The **Target Indicator Matches** window is a child window of the **Medium Level Alert List** and is therefore contained in the root focus. Performing activities on the map window can cause the **Target Indicator Matches** window to become hidden due to a change in focus. To re-display the window, click on the main menu or status bar. If the **Target Indicator Matches** window is closed via the **OK** button, it can be opened by selecting the alert from the **Medium Level Alert List** and **View**.

The top portion of the **Target Indicator Matches** window displays the information of the TI. This portion is view only. The **Matching Targets** portion of the window lists the target(s) that are matched by the received TI. The columns list the **Target Number**, **Target Type**, **Location**, and time of **Last Update**.

The **Target** menu is used to manage the matched target(s). Selecting a target and **Target\Initiate Fire Mission...** opens the **Initiate Fire Mission** window for the selected target.

Selecting a target or targets and **Target\Add to Fire Plan...** opens the **Select Fire Plan** window for selection of a fire plan to add the selected target(s).

Selecting a target or targets and **Target\Update** causes the time of **Last Update** to be updated to the time of the TI for the selected target(s).

Selecting a target and **Target\Display** caused the selected target to be centered on the map and displayed.

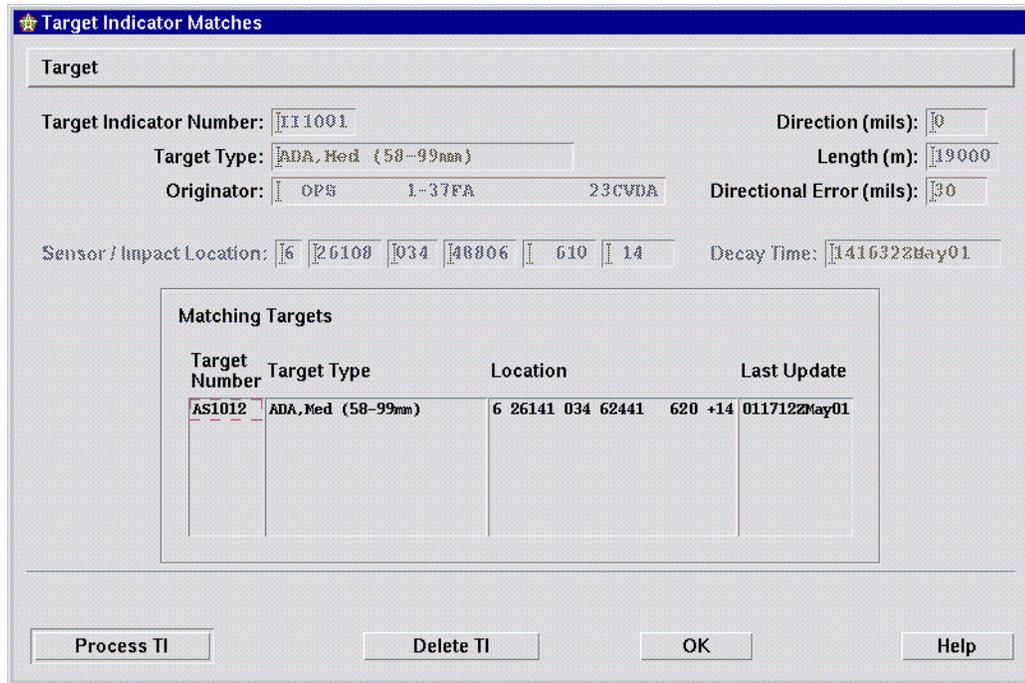


Figure 4.57 Target Indicator Matches Window

4-21.1.7 Target Indicator Procedure.

The TI procedures are used to create, edit, view, and/or delete TI's. A TI can be viewed, edited, and deleted from the map symbol. Creation of a TI can only be performed via the **New** and **Copy** selections from the **Target Indicator List** window **Indicator** menu.

NOTE

To perform the following functions, proceed to the indicated steps.

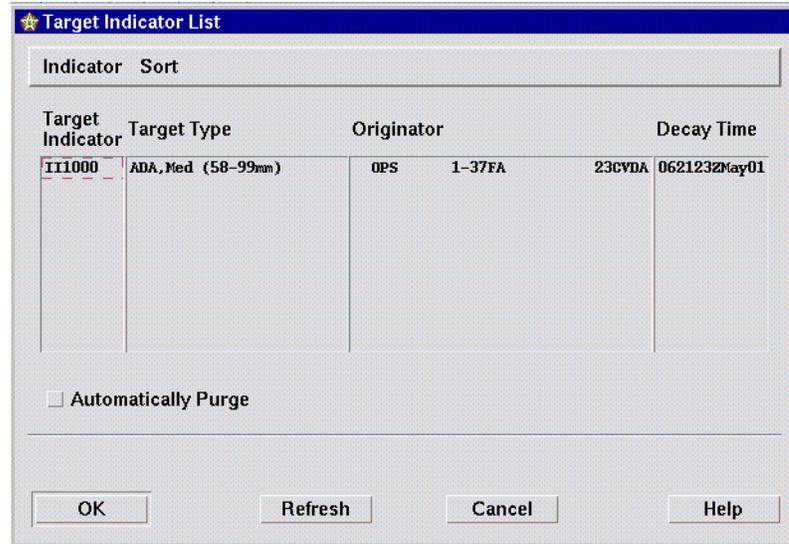
- View a TI description step 1
- Edit a TI step 2
- Create or copy TI step 3
- Delete a TI step 4

Target Indicator Procedure

Step	Action	Response
1.	<p><u>Select Targets\Target Indicator List</u>. Go to step 5</p> <p>or</p> <p><u>Select TI symbol</u> from map and Description from pop-up menu.</p>	<p>Target Indicator List window opens.</p> <p>Target Indicator Information window opens.</p>
2.	<p><u>Select Targets\Target Indicator List</u>. Go to step 5</p> <p>or</p> <p><u>Select TI symbol</u> from map and Edit from pop-up menu. Go to step 26.</p>	<p>Target Indicator List window opens.</p> <p>Target Indicator Information window opens.</p>
3.	<p><u>Select Targets\Target Indicator List</u>. Go to step 5</p>	<p>Target Indicator List window opens.</p>
4.	<p><u>Select Targets\Target Indicator List</u>. Go to step 5</p> <p>or</p> <p><u>Select TI symbol</u> from map and Delete... from pop-up menu. Go to step 20.</p>	<p>Target Indicator List window opens.</p> <p>Confirm TI Delete window opens.</p>

Target Indicator Procedure - CONT

Step	Action	Response
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NOTE

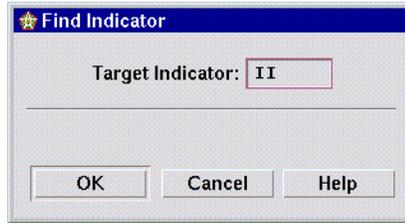
Selecting **OK** at any time closes this window. Selection of the **Automatically Purge** check box will cause TI's to be deleted as their decay time expires. To perform the following functions of the **Target Indicator List** window, proceed to the indicated steps.

- Find TI in list step 5
- Create new TI step 9
- Copy a TI step 10
- Edit a TI step 12
- View TI information..... step 14
- Delete a TI step 18
- Find a TI on map step 22

5. | Select Indicator\Find... | **Find Indicator** window opens.

Target Indicator Procedure - CONT

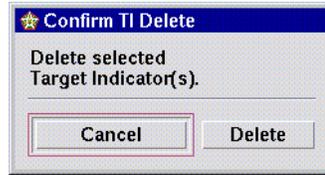
Step	Action	Response
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6.	Enter Target Indicator: number to be found.	
7.	Select OK .	Find Indicator window closes. Target is highlighted in Target Indicator List window.
8.	To perform other functions of Target Indicator List window, refer to note prior to step 5.	
9.	Select Indicator\New . Proceed to step 25.	Target Indicator Information window opens.
10.	Select TI to be copied.	
11.	Select Indicator\Copy . Proceed to step 25.	Target Indicator Information window opens.
12.	Select TI to be edited.	
13.	Select Indicator\Edit . Proceed to step 26.	Target Indicator Information window opens.
14.	Select TI to be viewed.	
15.	Select Indicator\Description .	Target Indicator Information window opens.
16.	Select OK when viewing complete.	Target Indicator Information window closes.
17.	To perform other functions of Target Indicator List window, refer to note prior to step 5.	
18.	Select TI to be deleted.	
19.	Select Indicator\Delete....	Confirm TI Delete window opens.

Target Indicator Procedure - CONT

Step	Action	Response
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20.	<u>Select Delete.</u>	Confirm TI Delete window closes. Selected TI is deleted.
21.	To perform other functions of Target Indicator List window, refer to note prior to step 5.	
22.	<u>Select TI to find.</u>	
23.	<u>Select Indicator\Find on Map.</u>	Indicator is displayed at center of map.
24.	To perform other functions of Target Indicator List window, refer to note prior to step 5.	

Target Indicator Procedure - CONT

Step	Action	Response
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- 25. Enter **Target Indicator Number:** (optional if target number block assigned).
- 26. Select **Target Type:**. Required unless **Weapon/Signal Type:** is indicated.
- 27. Enter **Sensor/Impact Location:**. Required if impact location reported. Optional if sensor location reported and sensors current location in database.
- 28. Enter **Direction (mils):**. Required, 0 to 6399 mils.
- 29. Enter **Length (m):**. Optional.
- 30. Enter **Directional Error (mils):**. Optional.

Target Indicator Procedure - CONT

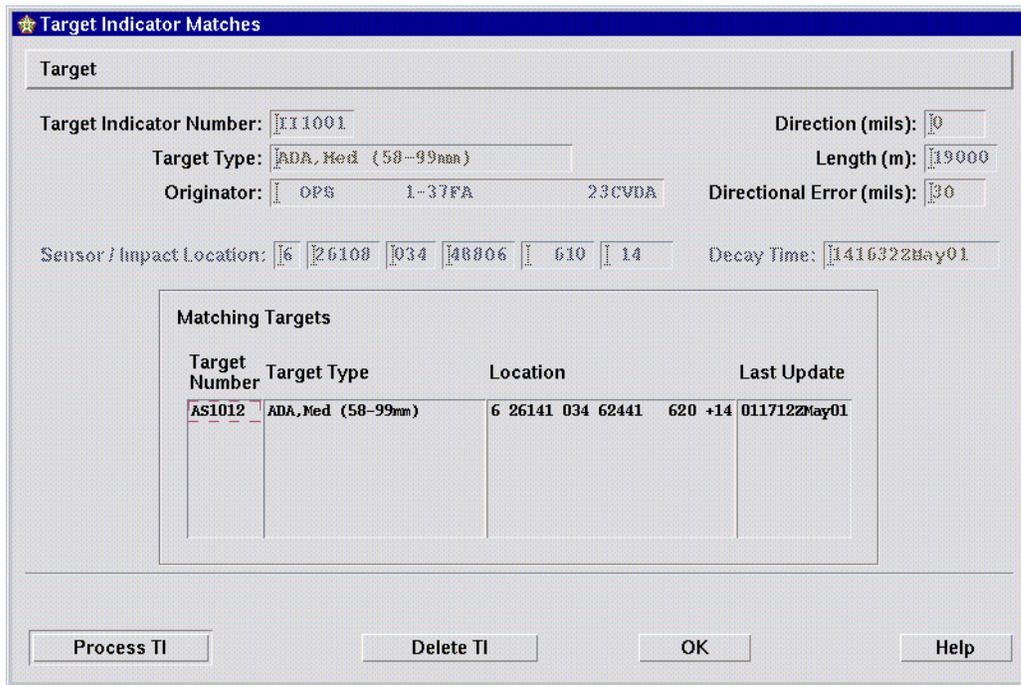
Step	Action	Response
31.	<u>Enter Flash to Bang Time:</u> . Optional.	
32.	<u>Enter Decay Time:</u> . Optional.	
33.	<u>Enter Report Time:</u> . Optional.	
34.	<u>Select Reporting Sensor:</u> . Required if <u>Sensor /Impact Location:</u> not entered.	
35.	<u>Select Reporting Sensor Kind:</u> . Optional.	
36.	<u>Select Weapon/Signal Type:</u> . Required unless Target Type: is indicated.	
37.	<u>Select Location Source:</u> . Optional.	
38.	<u>Select Reliability:</u> . Optional.	
39.	<u>Enter Caliber:</u> . Optional.	
40.	<u>Enter Rounds:</u> . Optional.	
41.	<u>Enter Shelling Duration (min):</u> . Optional.	
42.	<u>Select OK.</u>	Target Indicator Information window closes.
43.	To perform other functions of Target Indicator List window, refer to note prior to step 5.	

4-21.1.8 Target Indicator to Target List Match Procedure.

The **Target Indicator Matches** window opens as a child window of the **Medium Level Alert List**. If it is closed via the **OK** button, it can only be re-opened from the **Medium Level Alert List** via the **View** function.

Target Indicator to Target List Match Procedure

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **Target Indicator Matches** window, proceed to the indicated steps.

- Initiate a fire mission step 1
- Add matched target(s) to a fire plan step 5
- Update matched target(s) step 10
- Display matched target step 13
- Process TI step 16
- Delete TI step 17

Target Indicator to Target List Match Procedure - CONT

Step	Action	Response
1.	<u>Select a target</u> from Matching Targets list.	
2.	<u>Select Target\Initiate Fire Mission...</u>	Initiate Fire Mission window opens.
3.	<u>Perform functions of Initiate Fire Mission window</u> as described in section 5 of this chapter.	
4.	To perform other functions of Target Indicator Matches window, refer to note prior to step 1.	
5.	<u>Select a target(s)</u> from Matching Targets list to be added to fire plan.	
6.	<u>Select Target\Add to Fire Plan...</u>	Select Fire Plan window opens.
7.	<u>Select a fire plan</u> from list.	
8.	<u>Select OK</u> .	Select Fire Plan window closes. Target(s) are added to fire plan.
9.	To perform other functions of Target Indicator Matches window, refer to note prior to step 1.	
10.	<u>Select a target(s)</u> from Matching Targets list to be updated.	
11.	<u>Select Target\Update</u> .	Time of Last Update is changed to TI time for selected target(s).
12.	To perform other functions of Target Indicator Matches window, refer to note prior to step 1.	
13.	<u>Select a target</u> from Matching Targets list to be displayed.	

Target Indicator to Target List Match Procedure - CONT

Step	Action	Response
14.	<u>Select Target\Display.</u>	Target is displayed at center of map.
15.	To perform other functions of Target Indicator Matches window, refer to note prior to step 1.	
16.	<u>Select Process TI.</u>	Target Indicator Matches window closes. TI is compared to TI list. Medium level alert notification is deleted.
17.	<u>Select Delete TI.</u>	Target Indicator Matches window closes. TI is deleted. Medium level alert notification is deleted.

4-21.2 Suspect Targets.

Suspect targets are those targets that fail the Target Selection Standards (TSS) checks during initial processing.

NOTE

Fire requests will always pass TSS checks unless the **Check Calls for Fire against TSS** check box on the **Target Selection Standards** window is checked. When the check box is selected, FR's are checked for TLE, Decay Time, and unit reliability for the target type.

4-21.2.1 Suspect Target Processing.

The basic functionality of ST processing is that if a FR/ATI is received that fails TSS checks and is denied by an operator action or a system recommendation, it will be processed as a ST.

If the target is an ATI and the TSS checks fail, the target is submitted for ST processing. Otherwise the ATI is processed normally.

FR processing is dependent on whether intervention is on or off. If intervention is on, the target will be submitted for attack analysis even if an initial filter check fails. With intervention off, AFATDS will deny the FR if a filter check fails. If the failure is TSS, the target is sent to ST processing; otherwise the target is placed on the Inactive Target List.

Since attack analysis is performed on a target that fails filter checks only when intervention is on, all denials will be as a result of an operator action at the **Intervention** window. When a denial is issued, the target is checked for TSS failure. If the failure is TSS, the target is sent to ST processing; otherwise the target is placed on the Inactive Target List.

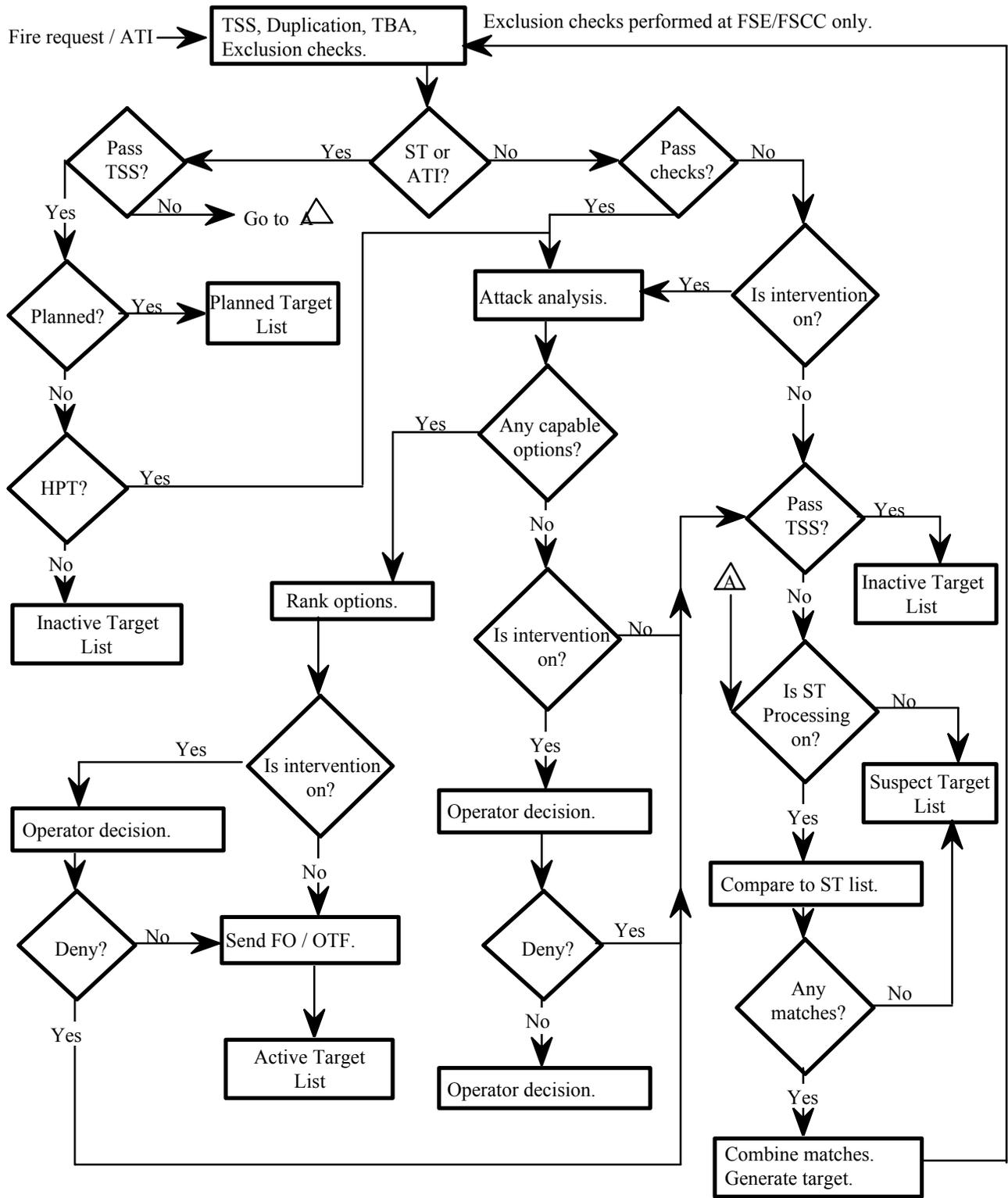


Figure 4.58 Suspect Target Processing

Actual processing of a ST begins with a check to determine if ST processing is turned on. If processing is not on, the ST is placed on the Suspect Target List and no further actions occur. If processing is on, the ST is compared with other targets on the Suspect Target List. If a target match is found, the ST's are combined and the created ST is submitted for processing as explained above. If the combined ST fails TSS checks and is denied, it will then be added to the Suspect Target List.

4-21.2.2 Suspect Target Matching.

ST matches that result in a target generation occur when the area of two or more ST's of a similar target type overlap. The area of the target is the reported target size expanded by the TLE of the target. Shown are the four target shapes with the TLE added. The shaded area is the area added by the TLE to the target. For point targets, the area is a circle with a radius equal to the TLE. The targets are shown on the map as actual size (without TLE). TLE expansion is shown here for matching purposes only.

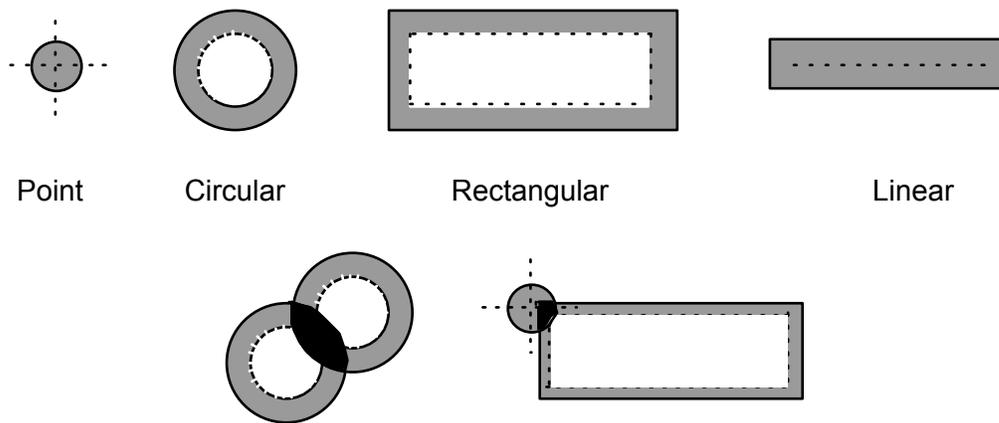


Figure 4.59 Suspect Target Matching

Targets are matched first by similarity of target type. If the received ST matches a ST on the list, the targets are then checked for area overlap. The darker areas at the right indicate the area of overlap for two circular targets and a point/rectangular target overlap. If either target is overlapped by the value entered in the **Minimum Overlap (%)**: field on the **Suspect Target List** window, the targets are combined and a target is generated. The overlap percentage is computed by dividing the area of overlap by the area of the suspect target. As example, a circular target with a radius of 50 meters contains approximately 7854 square meters. With an overlap of 1600 square meters, the overlap would be 20% (1600 divided by 7854).

4-21.2.3 Combining Suspect Target Matches.

The type, size, TLE, and location of the individual targets are used to determine those values for the combined target. The target type of the ST with the smallest TLE is used as the combined target type. If the TLE's are equal, the ST with the most recent DTG is used as the target type. The combined target will be circular and contain the same area as the larger of the two ST's being combined. The TLE of the combined target will be the same as the smaller of the two TLE's of the combining targets.

The location of the combined target is determined by the distance between the center points of the ST's and the ratio of their TLE's. The location of the combined target will be on a line drawn between the centers of the combining targets. To establish the point on the line, a ratio of the target TLE to the total of the TLE's is used. As example, if the TLE's are equal (30 each for a total of 60) the ratio would be 1/2 (30/60). The combined target center would then be half way between the two targets. In the diagram shown, the total TLE is 100 (75 + 25). The ratio for the point target is 3/4 (75/100) so the center of the combined target would be 3/4 of the distance between the targets from the point target. Using the rectangular target in the same manner locates the combined target 1/4 of the distance from the target (the same location).

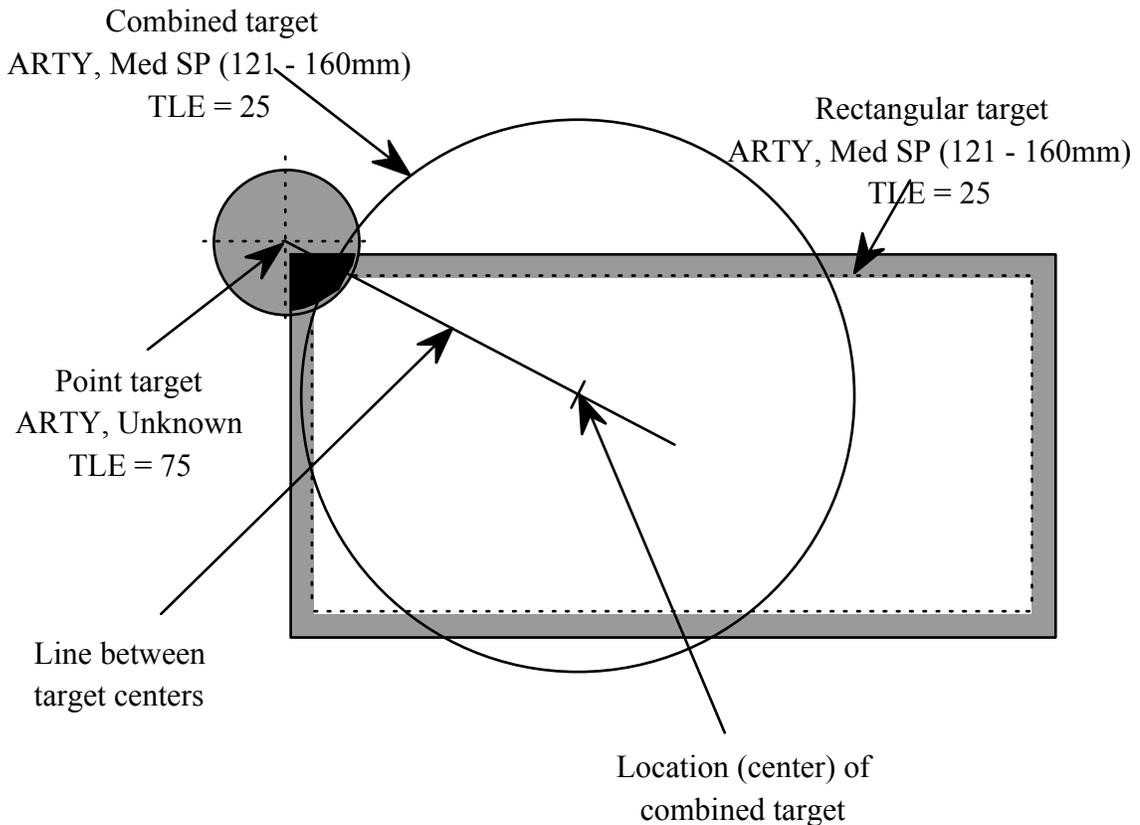


Figure 4.60 Combining Suspect Target Matches

The target strength of the combined target will be the same as the larger of the two targets strengths of the combining targets. The degree of protection of the combined target will be the same as the higher level of the combining targets.

The combined target will use the target elements, countermeasures, and environment of the combining target with the smallest TLE or most recent DTG, as applicable. If less than three are available, data elements from the second combining target will be used as a supplement.

ST's are combined two at a time. If multiple matches occur for a received ST, the targets with the most similarity are combined. If the similarity is equal, the targets with the most overlap are combined. There is a high probability that, if the combined target fails TSS upon processing, the combined target will again match the previously matched (uncombined) target and a combination will occur.

When two ST's are combined, the data for the targets (parents of combined target) is saved in the event the operator elects to uncombine the targets. If a combined target and another ST are combined, the combined target becomes one of the parents and its parent data (i.e., grandparent data of the newly combined target) is deleted from the database.

4-21.2.4 Suspect Target Generation.

When two ST's are combined, the combined target is submitted for processing. The target is processed in the same manner as a received ATI. The combined target is not added to the **Suspect Target List** window until it has failed mission processing. If a combined target was constructed from two ST's that failed TSS for the same reason, the combined target will also fail for this reason. As example, two ST's that failed TLE checks are combined to form a target that has a TLE of the ST with the smallest TLE. This TLE is still in excess of TSS limits and will fail.

4-21.2.5 Suspect Target List Window.

The **Suspect Target List** window displays the listing of ST's being maintained at the OPFAC. The ST's are listed by **Target Number**, **Target Type**, **Originator**, and whether it is a **Combined** target. Two window menus (**Target** and **List**), an **Automatically Purge** check box, a **Minimum Overlap %:** field, and **Send All...**, **Send Selected...**, and **Refresh** buttons allow the operator access to functions to maintain the listing.

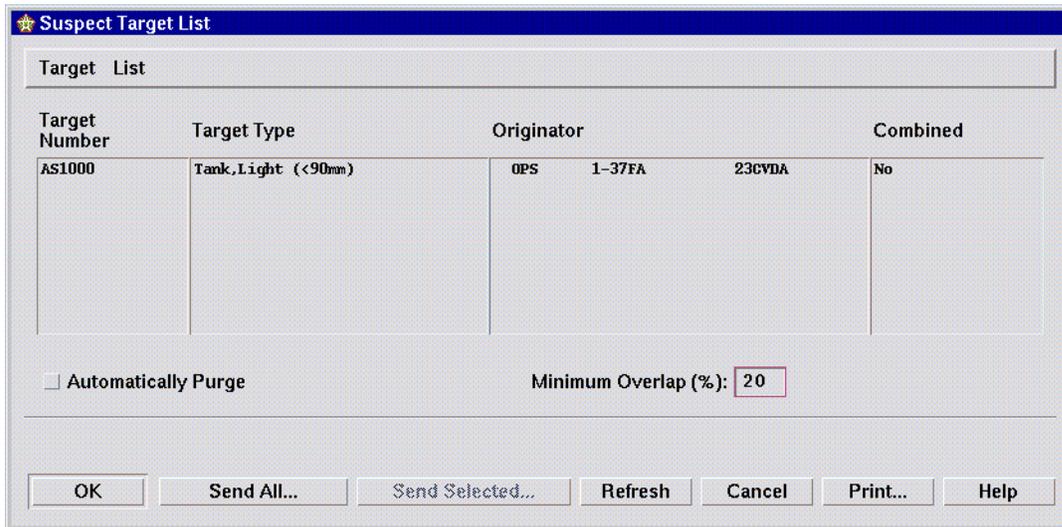


Figure 4.61 Suspect Target List Window

The **Target** menu selections are used to find, create, edit, display, and delete ST's. The **Target\Find...** selection opens a window for operator entry of a target number. Entry of the number and activation of the **OK** button closes the window and causes the selected ST to be displayed and highlighted on the **Suspect Target List** window.

The **Target/Initiate Fire Mission** selection is available at all times. If a target is selected from the list, the **Initiate Fire Mission** window opens containing the data for the selected target. If a target is not selected, the window opens without target data.

The **Target Uncombine** selection is available when a target that has been combined is selected. This selection causes the combined target to be removed from the list and the parents of that target to be displayed.

The **Target\New** selection opens the **Basic Target Information** window to allow the operator to create a new ST locally.

Selecting an existing ST and **Target\Copy** opens the **Basic Target Information** window to allow the operator to create a new ST using the data from the selected ST.

The **Target>Edit** and **Target>Description** selections also open the **Basic Target Information** window for a selected ST. In the edit mode data can be changed. In the description mode data is view only.

The **Target\Find On Map** selection causes the map to center on a selected ST. The target symbol will be displayed for the selected ST.

The **List** menu allows the operator to sort the displayed data by each of the four columns and to check for duplicate targets on the list using duplication guidance.

NOTE

Targets that have been purged will remain on the list until the list is refreshed or the window closed and re-opened. No data will be available for the purged targets. Therefore, if a selected target displays no data during functions (edit, copy, etc.), the operator should refresh the list to ensure the target has not been purged.

The **Automatically Purge** check box, when selected causes ST's to be deleted upon expiration of their decay times.

NOTE

When entering a new value of **Minimum Overlap (%)**:, the **Suspect Target List** window must be closed via **OK** and re-opened for the new value to be in effect.

The **Minimum Overlap (%)**: field is a required entry with a legal range of 1 to 100. This establishes the minimum overlap required to combine two targets. Only one of the targets must meet the requirement.

The **Send All...** and **Send Selected...** buttons allow the operator to send the entire ST list or selected ST's to another destination. Both selections open the **Send To** window for selection of the destination(s).

The **Refresh** button, when activated, causes the display of any ST's that were received or created since the window was initially opened or the last refresh. Also any targets that were purged during the time the window was open will be removed from the list.

The **OK** button closes the window.

4-21.2.6 Suspect Target Procedure.

The ST procedures are used to create, edit, view, and/or delete ST's. A ST can be sent, viewed, edited, deleted, and be initiated as a fire mission from the map symbol. Creation of a ST can only be performed via the **New** and **Copy** selections from the **Suspect Target List** window **Target** menu.

NOTE

To perform the following functions, proceed to the indicated steps.

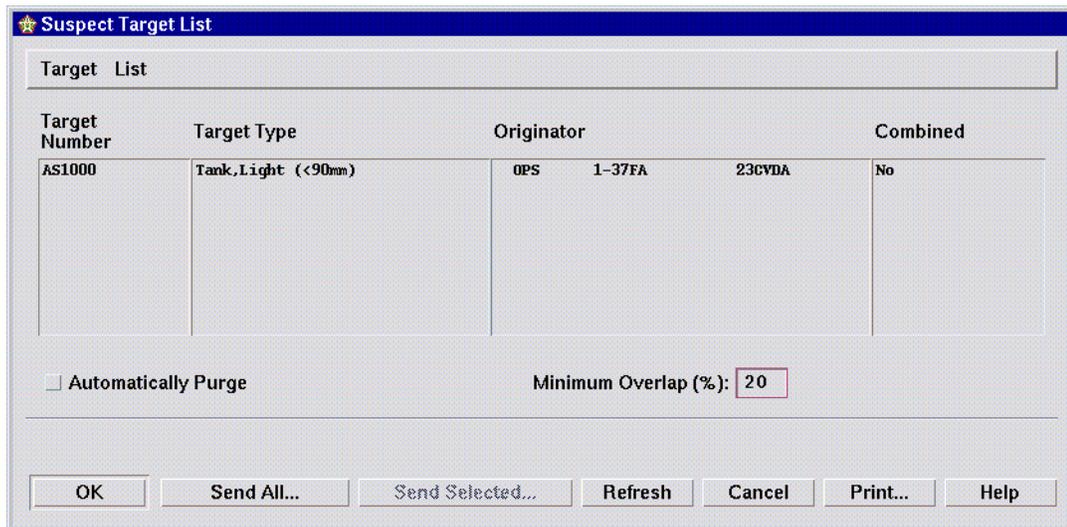
- View a ST description step 1
- Edit a ST step 2
- Create or copy ST step 3
- Delete a ST step 4
- Send a ST step 5
- Initiate fire mission on ST step 6

Suspect Target Procedure

Step	Action	Response
1.	<u>Select Targets\Target Lists\Suspect</u> . Go to step 7.	Suspect Target List window opens.
	or <u>Select ST symbol</u> from map and Description from pop-up menu.	Basic Target Information window opens.
2.	<u>Select Targets\Target Lists\Suspect</u> . Go to step 7.	Suspect Target List window opens.
	or <u>Select ST symbol</u> from map and Edit from pop-up menu. Go to step 13.	Basic Target Information window opens.

Suspect Target Procedure - CONT

Step	Action	Response
3.	<u>Select Targets\Target Lists\Suspect</u> . Go to step 7.	Suspect Target List window opens.
4.	<u>Select Targets\Target Lists\Suspect</u> . Go to step 7. or <u>Select ST symbol</u> from map and Delete... from pop-up menu. Go to step 27.	Suspect Target List window opens. Confirm ST Delete window opens.
5.	<u>Select Targets\Target Lists\Suspect</u> . Go to step 7. or <u>Select ST symbol</u> from map and Send from pop-up menu. Go to step 61.	Suspect Target List window opens. Send To window opens.
6.	<u>Select Targets\Target Lists\Suspect</u> . Go to step 7. or <u>Select ST symbol</u> from map and Initiate Fire Mission from pop-up menu. Go to step 42.	Suspect Target List window opens. Initiate Fire Mission window opens.



Suspect Target Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. Selection of the **Automatically Purge** check box will cause ST's to be deleted as their decay time expires. To perform the following functions of the **Suspect Target List** window, proceed to the indicated steps.

View ST description	step 7
Edit ST	step 11
Copy a ST	step 16
Create new ST	step 21
Delete a ST	step 25
Find ST in list	step 29
Find ST on map	step 33
Uncombine ST	step 36
Initiate fire mission on ST	step 40
Sort ST list	step 44
Check ST list for duplicate targets	step 46
Send ST list	step 58
Send selected ST's	step 59
Edit minimum overlap	step 64

7.	<u>Select ST to view.</u>	
8.	<u>Select Target\Description.</u>	Basic Target Information window opens.
9.	<u>Select OK</u> after viewing information.	Basic Target Information window closes.
10.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	
11.	<u>Select ST to edit.</u>	
12.	<u>Select Target>Edit.</u>	Basic Target Information window opens.
13.	<u>Edit data</u> as described in procedures for Basic Target Information window.	
14.	<u>Select OK.</u>	Basic Target Information window closes.
15.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	

Suspect Target Procedure - CONT

Step	Action	Response
16.	<u>Select ST to copy.</u>	
17.	<u>Select Target\Copy.</u>	Basic Target Information window opens.
18.	<u>Edit data</u> as described in procedures for Basic Target Information window.	
19.	<u>Select OK.</u>	Basic Target Information window closes.
20.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	
21.	<u>Select Target\New.</u>	Basic Target Information window opens.
22.	<u>Edit data</u> as described in procedures for Basic Target Information window.	
23.	<u>Select OK.</u>	Basic Target Information window closes.
24.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	
25.	<u>Select ST(s) to be deleted.</u>	
26.	<u>Select Target\Delete....</u>	Confirm Suspect Target Delete window opens.



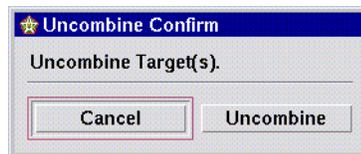
27.	<u>Select Delete.</u>	Confirm Suspect Target Delete window closes. Selected target(s) is deleted.
28.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	
29.	<u>Select Target\Find....</u>	Find Target window opens.

Suspect Target Procedure - CONT

Step	Action	Response
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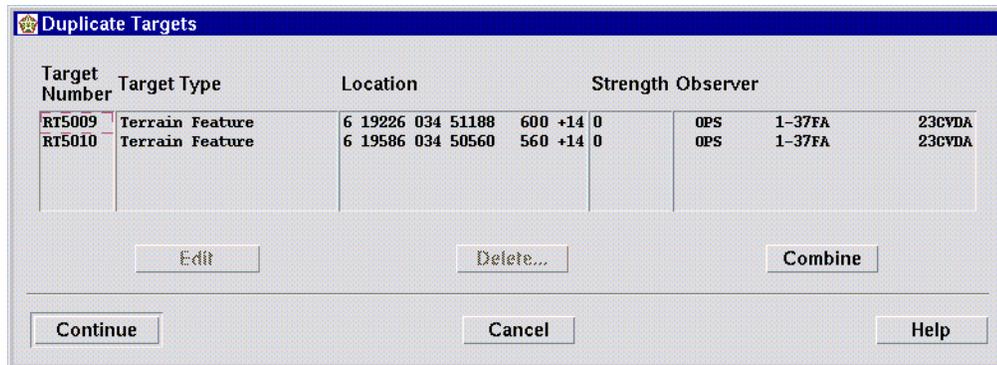
30.	<u>Enter Target Number:</u> of ST to be found.	
31.	<u>Select OK.</u>	Find Target window closes. Selected target is highlighted in list.
32.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	
33.	<u>Select ST</u> to be found.	
34.	<u>Select Target\Find on Map.</u>	Selected target is displayed at center of map.
35.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	
36.	<u>Select ST</u> to be uncombined.	
37.	<u>Select Target\Uncombine...</u>	Uncombine Confirm window opens.



38.	<u>Select Uncombine.</u>	Uncombine Confirm window closes. Targets are uncombined.
39.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	
40.	<u>Select ST</u> for fire mission.	

Suspect Target Procedure - CONT

Step	Action	Response
41.	Select <u>Target\Initiate Fire Mission</u> .	Initiate Fire Mission window opens.
42.	Perform functions of <u>Initiate Fire Mission</u> window as described in section 5 of this chapter.	
43.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	
44.	Select <u>List\Sort</u> and column for sort.	List is sorted by selected column.
45.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	
46.	Select <u>List\Check for Duplicates</u> . If Duplicate Targets window opens, proceed to step 47. Otherwise refer to note prior to step 7.	Duplicate Targets window opens if targets are found to be duplicated using criteria of Duplication guidance.



NOTE

Selecting **Continue** initiates a search for the next set of duplicate targets, if none are found the window closes. To perform the following functions of the **Duplicate Targets** window, proceed to the indicated steps.

- Edit a target step 47
- Delete a target step 52
- Combine targets step 56

Suspect Target Procedure - CONT

Step	Action	Response
47.	<u>Select target to edit.</u>	
48.	<u>Select Edit.</u>	Basic Target Information window opens.
49.	<u>Edit data</u> as described in procedures for Basic Target Information window.	
50.	<u>Select OK.</u>	Basic Target Information window closes.
51.	To perform other functions of Duplicate Targets window, refer to note prior to step 47.	
52.	<u>Select target to delete.</u>	
53.	<u>Select Delete...</u>	Remove Target Confirm window opens.



54.	<u>Select Delete.</u>	Remove Target Confirm window closes. Target is removed from list.
55.	To perform other functions of Duplicate Targets window, refer to note prior to step 47.	
56.	<u>Select Combine.</u>	Targets are combine using target number of newest target.
57.	To perform other functions of Duplicate Targets window, refer to note prior to step 47.	
58.	<u>Select Send All...</u> Proceed to step 61.	Select Unit window opens.
59.	<u>Select ST(s)</u> to send.	
60.	<u>Select Send Selected...</u>	Select Unit window opens.

Suspect Target Procedure - CONT

Step	Action	Response
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61.	Select <u>destination unit</u> .	
62.	Select <u>OK</u> .	Select Unit window closes. Target(s) is sent to destination.
63.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	

NOTE

If the **Minimum Overlap %:** is changed, the **Suspect Target List** window must be closed (via **OK**) and reopened to enter new value in database.

64.	Enter <u>Minimum Overlap %:</u> . Required entry (1 to 100).	
65.	Select <u>OK</u> .	Suspect Target List closes.
66.	Select <u>Targets\Target Lists\Suspect</u> .	Suspect Target List opens.
67.	To perform other functions of Suspect Target List window, refer to note prior to step 7.	

4-22 ATACMS MISSIONS.

Due to the characteristics of ATACMS munitions, special considerations are required prior to the actual firing of the mission. These considerations include the additional coordination required for deep cell operations, additional response time, and the time to create and distribute FSCM (platoon area hazard (PAH) and target area hazard (TAH)) geometries. For this reason, the initial CFF for an ATACMS mission will default to Warning Order as the Method of Control (MOC). Intervention is set to on for all missions with a MOC of Warning Order.

OPFAC's that generate or receive an ATACMS mission (fire request or ATI report) from an external source become the controlling agency for the mission. The originator of the mission is allowed to provide target updates to the controlling agency which will be sent to the firing unit with a new MOC after coordination is complete.

The ATACMS-APAM is a DPICM munition and the ATACMS-BAT is a terminal guided weapon (TGW). They are similar to the rocket munitions of the same type except for the size and range. If the operator specifies DPICM or TGW for the munition, the appropriate ATACMS will be considered. If ATACMS is selected as the munition and is not capable, no other attack options will be considered.

Platoon Area Hazard (PAH) and Target Area Hazard (TAH) are geometries automatically created by AFATDS for ATACMS missions. They are created only after an attack option is selected to establish the unit that receives the OTF/FO. Distribution of PAH and TAH geometries is automatic. Creation, deletion, and any edit of the geometry is sent via distribution criteria to the appropriate units. These geometries are created, edited, and distributed as Airspace Coordination Area (ACA) geometries. They are intended to alert aircraft to areas of danger due to the launch (PAH) and impact (TAH) of ATACMS munitions.

Upon completion of coordination requirements and distribution of appropriate geometries, the MOC is changed to at-my-command (AMC), time-on-target (TOT), or when ready. The fire command is then sent via the **Fire Mission** button on the **Basic Target Information** window.

4-22.1 Platoon Area Hazard Geometry.

The PAH geometry is drawn with respect to the platoon operating location and the gun-target line. The sides of the area are drawn parallel to the gun-target line at a distance equal to XDIST (m) plus 1500 m from the gun-target line. When editing the area, this value is the width of the geometry as indicated on the **Edit Rectangle** window.

The ends of the area are drawn perpendicular to the gun-target line from side-to-side. The length of the area is the sum of two values. The first value is the distance from the center of the platoon operating location to the point where the gun-target line (extended) intersects the rear of the platoon operating location. This value equals the XDIST. The second value is the lateral distance from the center of the platoon operating area to the point on the gun-target line where the munition intersects the zone altitude (ZALT + unit altitude). For example, if the unit altitude is 1400 m and the ZALT is 5000 m, the PAH geometry would extend down the gun-target line to the point that the munition passes through 6400 m.

The XDIST and ZALT values are entered via the **Loadable Munitions Manager** window.

The geometry name will be the target number with a prefix of PAH.

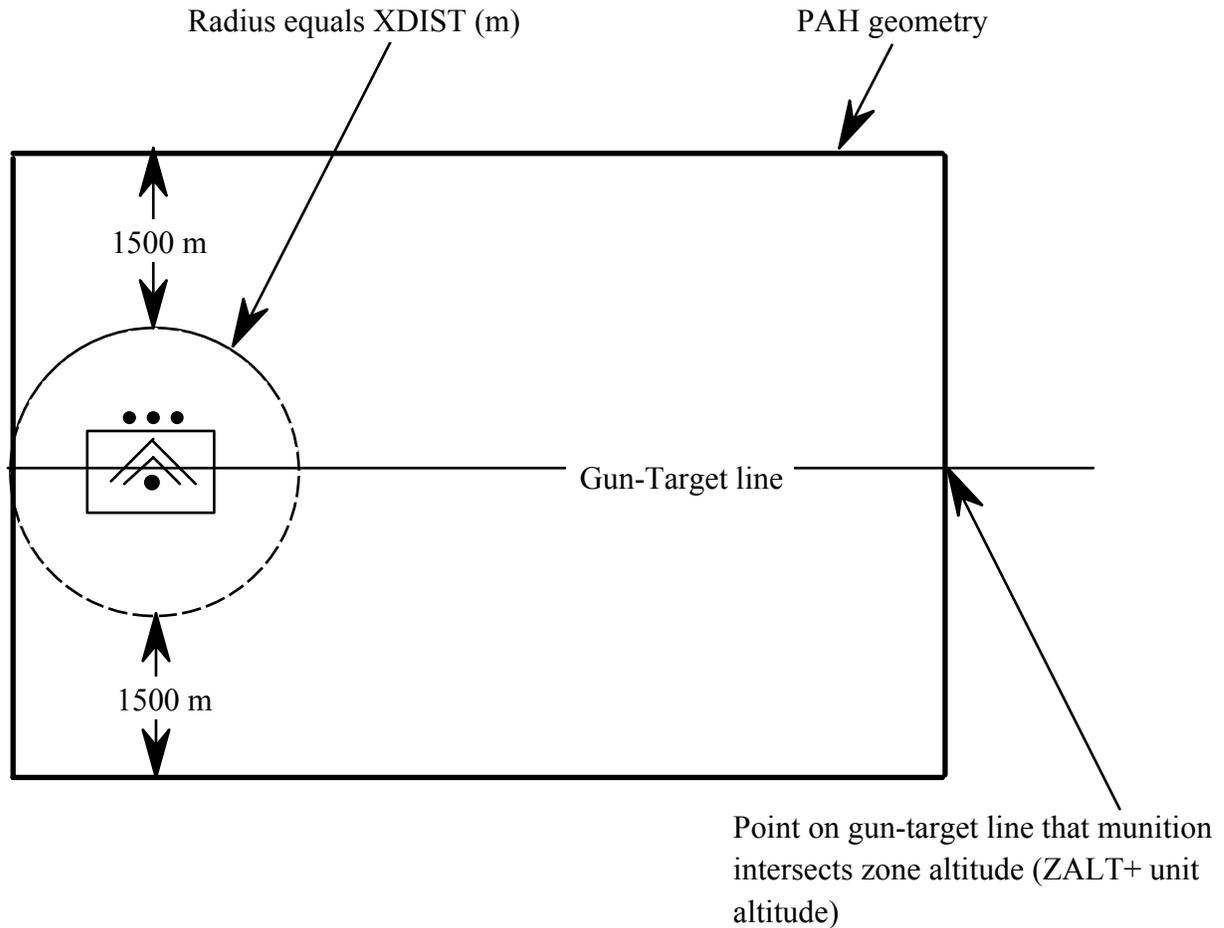


Figure 4.62 Platoon Area Hazard Geometry

4-22.2 Target Area Hazard Geometry.

The APAM TAH geometry is drawn with respect to the Gun-Target line. The sides of the area are drawn parallel to the Gun-Target line at a distance of 1000 meters from the gun-target line. The length of the TAH will be the distance along the Gun-Target line from the point the munition intersects the zone altitude to a point 1000 meters beyond the center of the target.

The geometry name will be the target number with a prefix of TAH.

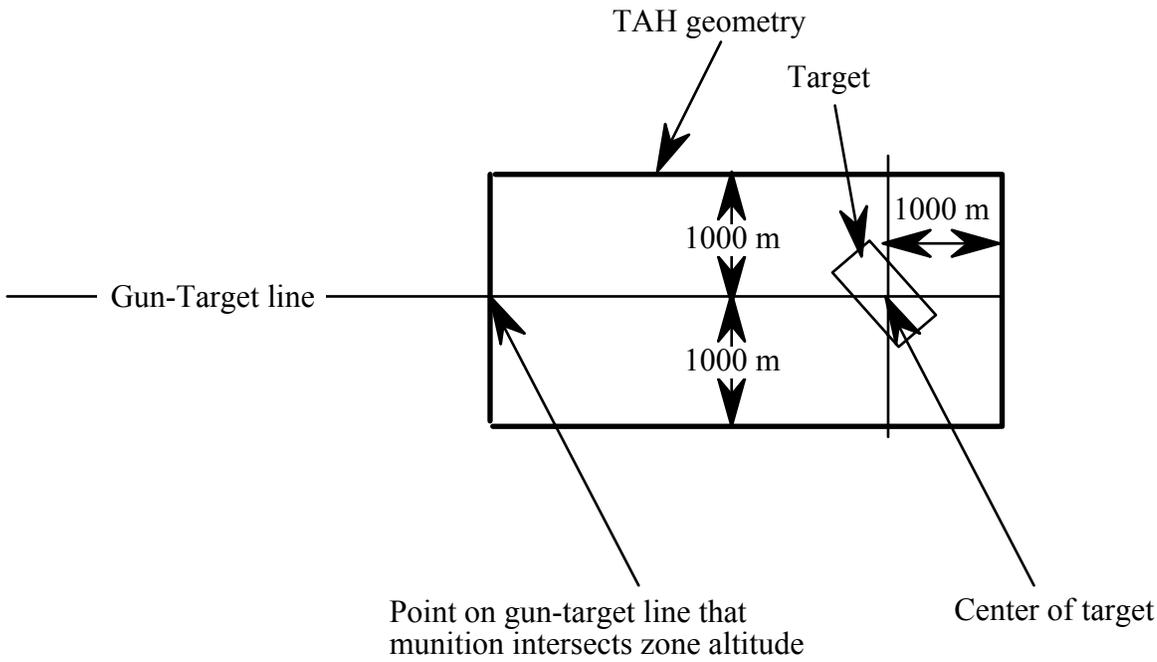


Figure 4.63 Target Area Hazard Geometry

The ABAT TAH geometry is drawn with respect to the aimpoint and consists of a lower and upper TAH. Both TAH's are circular and are centered on the aimpoint. The lower TAH has a radius of 9999 meters and extends to an altitude of the aimpoint altitude plus 2600 meters. The upper TAH has a radius of 2500 meters and extends to an altitude of the aimpoint altitude plus 4600 meters.

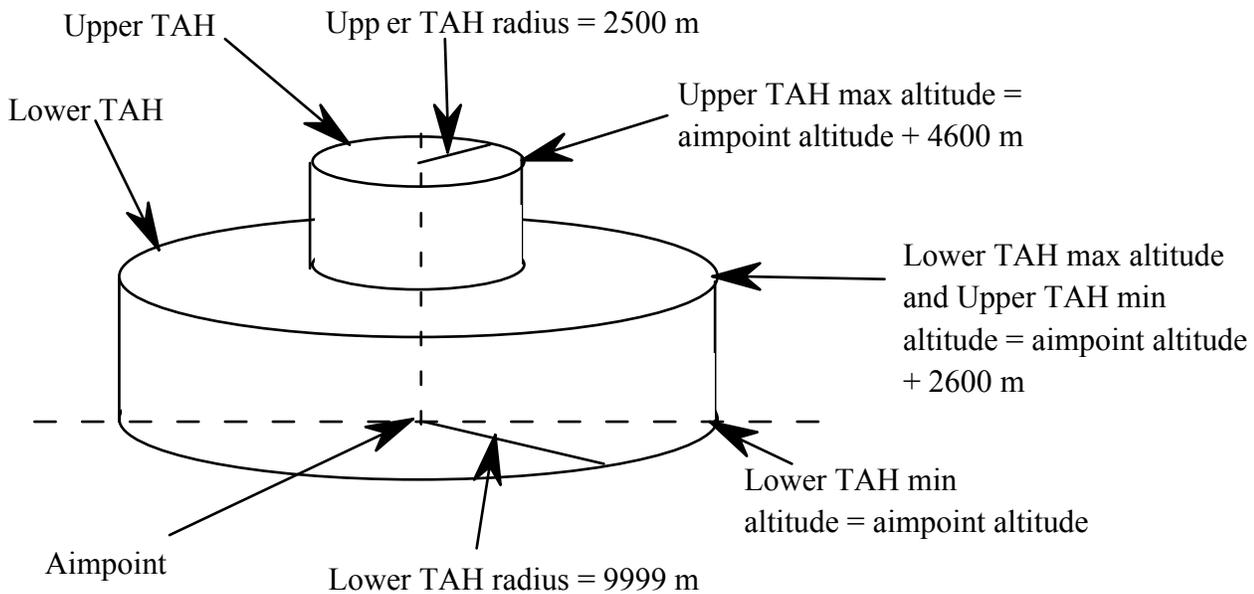


Figure 4.64 Abat Target Area Hazard Geometry

CHAPTER 5 PLANNING FUNCTIONS

SECTION 1 FIRE SUPPORT PLANNING

5-1 FS PLANNING.

AFATDS provides the functional processes for Fire Support (FS) and Field Artillery (FA) planning to support a maneuver course of action (MCOA). Plans for military operations often involve multiple phases in which changes in friendly unit command and control relationships and activities will occur in response to anticipated events. Fire support planning provides capabilities to describe and review, from a FS point of view, the support of the MCOA(s).

MCOA(s) received for the maneuver operation will normally consist of the maneuver commanders plan for conducting the operation. This information may include the objectives, timing, type and quantity of assets to be used, targets, guidances, geometries, and any special instructions unique to the operation. Maneuver information is entered into AFATDS for development into a FS plan. Up to three (3) separate plans can be compared at one time.

In AFATDS a Fire Support (FS) Plan will always consist of one or more phases. Planned units, friendly and enemy situations, plan text, map mod, map setup, and guidances are established and maintained for each phase of a plan.

A FS course of action (FSCOA) is developed by establishing an organization for combat using the planned units. Only those units that have weapons assigned are entered in the organization for combat matrix. The organization for combat is based on the friendly situation and the assignment of tactical missions to the units. Up to three (3) FSCOA's may be developed for each phase of a plan. The method of engagement statistics are calculated for each FSCOA and the COA's compared via the **MOE Comparison** window. The most efficient COA is selected as the phase and more phases, up to 99, are constructed as required.

An organization for combat can be developed at any echelon from Corps to Battalion. At each echelon, the battlefield is divided into sectors. These sectors are assigned to units that become responsible for activities within that sector. These sectors are also called, and are drawn on the map as, a zone of responsibility (ZOR). These ZOR's are normally assigned to units of the next lower echelon and are identified by unit ID. As example, a Corps organization for combat can establish ZOR's for assigned Divisions; a division can then divide its ZOR into ZOR's for each assigned brigade. The Corps assigns a tactical mission to each unit. These assignments determine the availability of units to each division. The divisions then develop COA's assigning unit missions for use by each brigade. At each level, planned units are assigned a tactical mission.

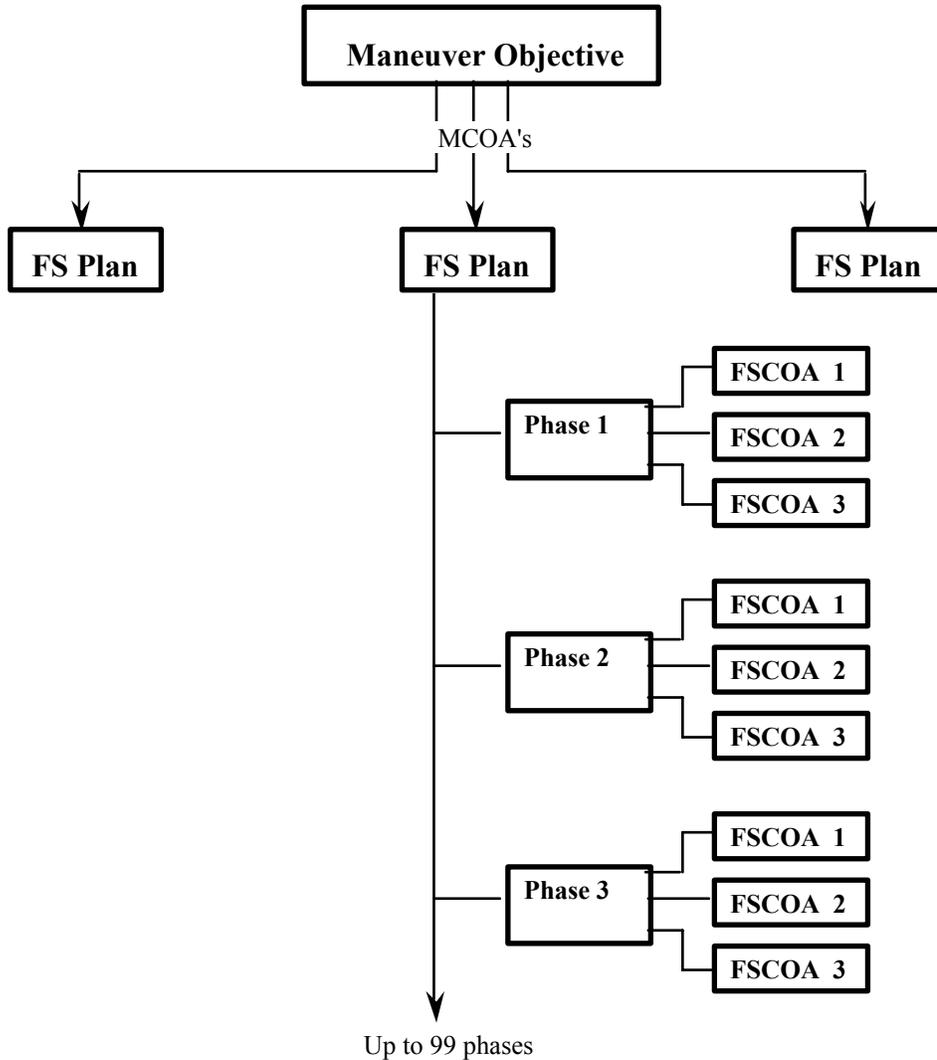


Figure 5.1 FSCOA/Phase Construction

The plan and phase data is then provided to the FA planner for analysis from the Field Artillery view. The FA planner positions planned units, both fire and sensor, to acquire and attack enemy targets. The units are positioned and planned targets are entered. The user then performs a **FA Estimate** to calculate the effectiveness of the FA plan. Units can be repositioned, guidances modified, and the effectiveness recalculated to optimize the FA planning.

Up to three (3) FS plans based on a maneuver operation may be compared and the text prepared to select and finalize a plan.

5-1.1 Planning Overview.

The planning functions of AFATDS allow the user to automate much of the planning process. This automation speeds the return of accurate data to the user and allows for comparison of results based on changes made to input data. The ability to make changes to a plan under construction and to then view and/or compare the effects of the change is one of the major advantages of AFATDS.

The FS planner receives the MCOA from the maneuver command. Multiple MCOA's may be received for the same objective. The FS planner may receive the MCOA(s) via radio, removable media (e.g., optical disk), or in hard copy. Each MCOA is input into AFATDS as a plan. If specific data is not received for all elements of the plan, the remaining plan will be obtained from SOP.

A new plan is opened as phase 1 COA 1. Two additional FSCOA's may be added for comparison purposes. The planning process is a two-way street; the amount and accuracy of the data input by the user is reflected in the amount and accuracy of the data returned to the user. As example, the accuracy of the data on enemy units and targets affects the accuracy of the rounds required estimate. The data in a plan must be as complete as possible prior to calculating the measure of effectiveness (MOE) statistics. The factors used to calculate MOE statistics are the organization for combat, guidances, and type and location of enemy units/targets.

The FS planner must analyze the battlefield and determine the impact of the major factors such as available units, friendly and enemy situations, objectives, and probable tasking of units.

The available units may be provided to the planner as a list of unit ID's or they may be allocated via an organization for combat from a higher echelon unit. In either case, the planner needs to know the type and number of available fire units.

When viewing or establishing the friendly situation, the planner determines the relative effort required for the sectors and establishes the sector of main effort. The effort required has an impact on the placement of units within the organization for combat. This placement determines the available in-sector and massing capabilities of the firing units. As example, the sector units are placed in determines the normal support for that sector; the mission tasking (DS, R, GSR, or GS) determines the massing capability for the sectors.

The enemy situation (posture, size, and locations) impacts the organization for combat in that it dictates the type and number of tasks that firing units must perform. The FS tasks AFATDS considers are close support, counterfire, SEAD, and interdiction. Close support tasks include the engagement of all target types (except fire support and ADA) in the close-in and rear-battle areas. Counterfire tasks include the engagement of all fire support targets in all battle areas. SEAD tasks include the engagement of all ADA targets in all battle areas. Interdiction tasks include the engagement of all target types (except fire support and ADA) in the deep-battle area. Close support and counterfire tasks are normally best supported by DS and R units. SEAD and interdiction tasks are normally best supported by GSR and GS units.

As example, the planner would normally place more firing units in GSR and GS mission assignments if a large number of interdiction or SEAD tasks were expected. If close support and counter fire missions are expected to be high, units would be placed more in the DS and R mission assignments.

The MOE Statistics window displays values for Tubes in Sector:, Massing Capabilities (Tubes):, Rounds Required:, Tasks Supportable (%):, Simplicity:, and System Utilization (%):. These are the values that are weighted and compared to determine relative effectiveness of the FSCOA's. Detailed data for supportable tasks and system utilization is available via windows opened from the MOE Statistics window.

After calculating the effectiveness of a FSCOA, the planner can make changes and re-calculate, create another FSCOA for comparison, or select the FSCOA as the plan phase. Selecting a FSCOA as the plan phase removes any other FSCOA(s) for that phase from the database. Additional phases are then constructed as required. After all phases for the plan are completed, the plan is compared with plans that were developed for other MCOA's and a plan selected for the maneuver operation.

The selected plan is given to the FA Planner. The FA Planners function is to optimize the plan by positioning fire units and sensors, modifying guidances and attack methods, and performing estimates of effectiveness.

5-1.1.1 Planning Map.

The planning map is used to create and display battlefield situations for planning purposes. The user can create, delete, display, edit, and define the elements which determine a battlefield environment.

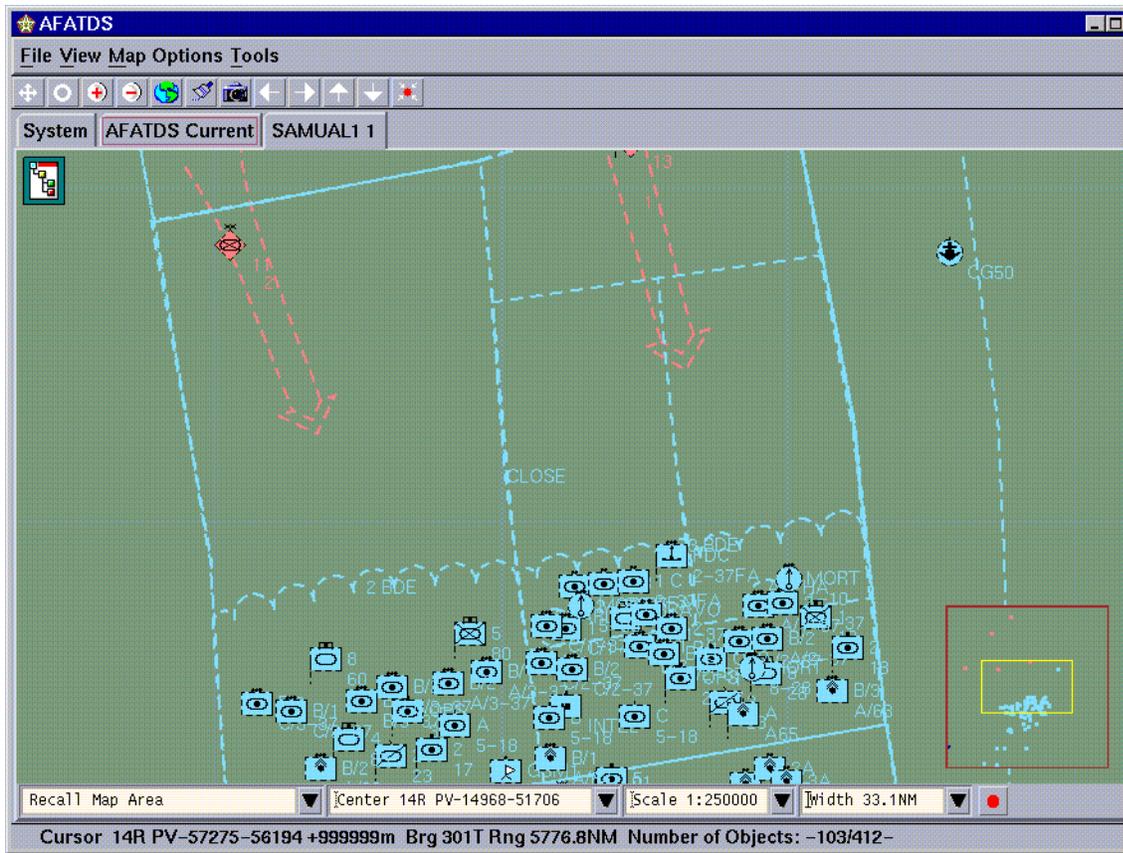
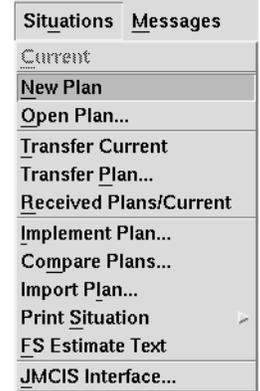


Figure 5.2 Planning Map

5-1.1.2 Planning Navigation.

The Planning Map window is opened via the **Situations** menu selections. The **Situations\New Plan** selection opens the **Basic Plan Information** window. Information is entered identifying the plan and **OK** selected to establish the plan in the database. When a new plan or phase is created, a low level alert is generated to inform the user. The user can then open the plan via the **Situations\Open Plan...** selection and enter data.



The **Situations\Open Plan...** selection opens the **Select Plan and Phase** window. From this window, the user can select **New Plan...** or **New Phase...** to access the **Basic Plan Information** window. Selecting an established plan and phase and **OK** opens the planning map window. The user then selects **Map\Display Map** to display the selected plan and phase map information.

The planning map menu contains selections used to enter plan data. The **Planning\COAs\Edit COA** selection allows the user to add a COA or select a COA to edit. The **Planning\COAs>Select COA** selection allows the user to select a COA as a phase of a plan.

The **Planning\New Phase** and **Planning\Basic Plan Info** selections open the **Basic Plan Information** window. The **New Phase** selection opens a default window for the creation of new data. The **Basic Plan Info** selection opens the window to view/edit the phase currently being viewed.

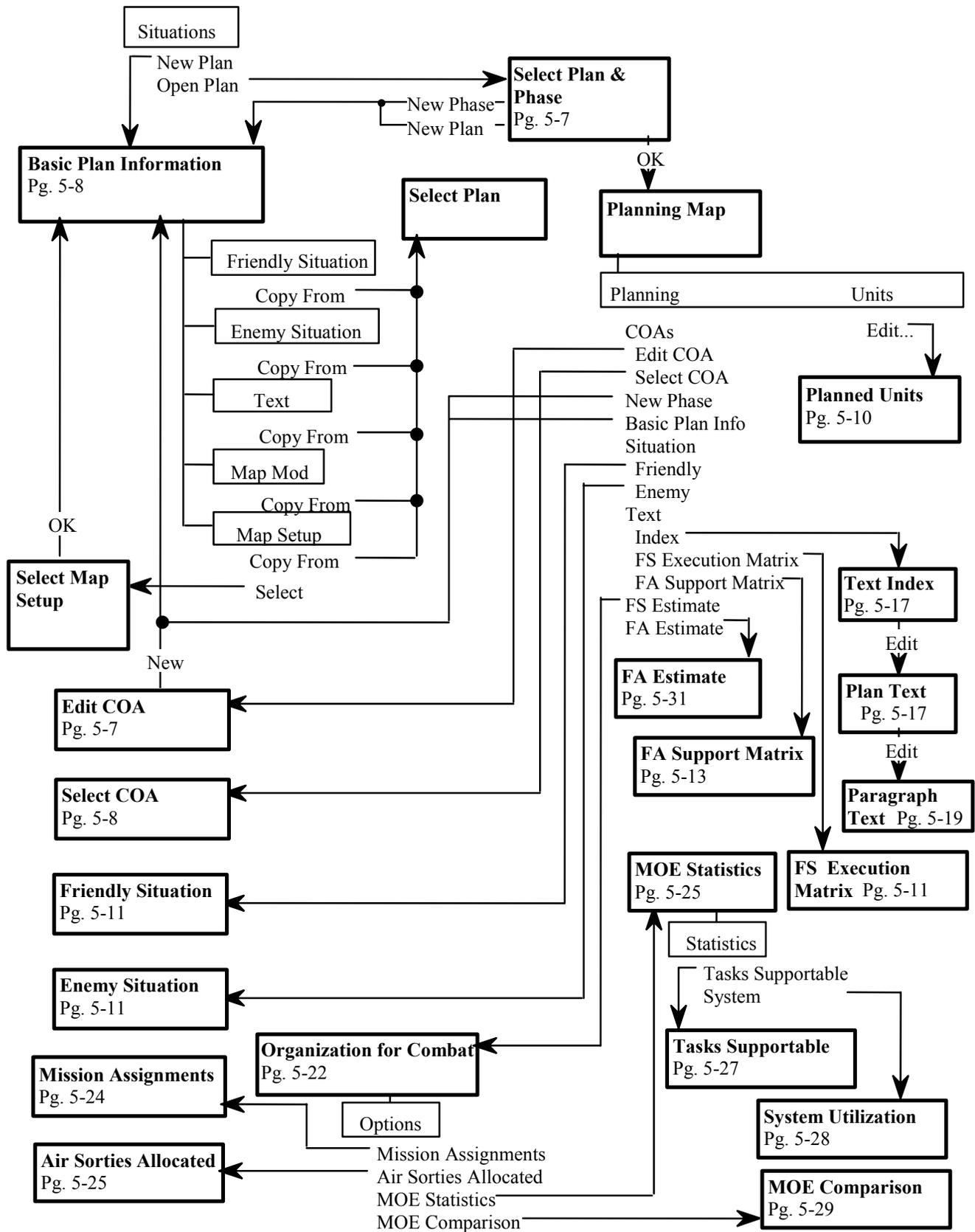
The **Planning\Situation** selections of **Friendly** and **Enemy** open windows to enter the respective situations. The **Planning\Text\Index** selection opens the **Plan Text** window. This window allows entry of the plan text via the **Paragraph Text** window.

The **Planning\Text** selections of **FS Execution Matrix** and **FA Support Matrix** open windows used to enter the text specific to a unit/phase for both FS and FA systems.

The **Planning\FS Estimate** selection opens the **Organization For Combat** window. This window is used to assign mission tasks to the plan units. From the **Options** menu on this window, access is made to the **Mission Assignments** and **Air Sorties Allocated** windows. The **Options\MOE Statistics** selection opens the **MOE Statistics** window. This window calculates the effectiveness of the COA and establishes data used in the MOE Comparison. From the **MOE Statistics** window the user can view the **Tasks Supportable** and **System Utilization** windows.

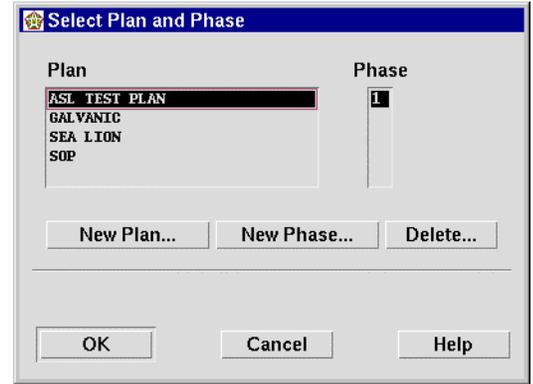
The **Options\MOE Comparison** selection from the **Organization For Combat** window opens the **MOE Comparison** window. This window is used to weigh and compare COA's.

The **Planning\FA Estimate** selection opens the **FA Estimate** window. This window is used by the FA planner to estimate the number of attackable and acquirable targets and the number and type of munitions required.



5-1.1.3 Select Plan and Phase Window.

The **Select Plan and Phase** window opens via the **Situations\Open Plan...** selection for the purpose of selecting a plan and phase to be displayed. This window is also opened in the select mode from other windows to select a plan/phase database. In the select mode, the **New Plan...**, **New Phase...**, and **Delete...** buttons are disabled.



The **Plan** field lists established plans by name. With a plan selected, the **Phase** field will display phases of the selected plan. The highest numbered phase of a plan may contain up to three (3) COA's if the phase is still under construction. All other numbered phases must have been established (construction completed) by selecting a COA.

Selecting a plan, phase, and **OK** opens the planning map containing the plan/phase information.

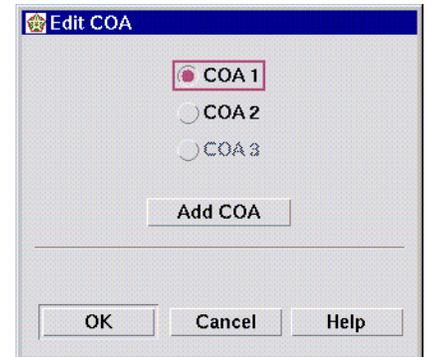
The **New Plan...** button is always enabled when the window is opened via **Situations\Open Plan...** selection. Selecting **New Plan...** opens the **Basic Plan Information** window in create mode.

The **New Phase...** button is enabled when a plan has been selected. Selecting **New Phase...** opens the **Basic Plan Information** window in the Edit mode. Information of the previous phase is displayed. This information is edited to create a COA for the new phase.

The **Delete...** button is enabled when a plan or a plan and phase has been selected. When deleting a plan or phase the **Confirm Delete** window opens. To delete a phase, select the plan, phase, and **Delete...** The user can only delete the last phase of a plan.

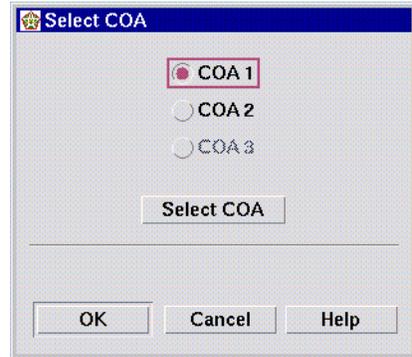
5-1.1.4 Edit COA Window.

The **Edit COA** window allows the user to select a COA to be edited and to add a COA to the phase being constructed. This window is accessed via the **Planning\COAs\Edit COA** selection. **COA 1** will be enabled on the window if last the phase was selected when the plan was opened. Selecting **Add COA** enables the selection of the next COA.



5-1.1.5 Select COA Window.

The **Select COA** allows the user to choose the COA to be used as the phase of the plan being constructed. This window is accessed via the **Planning\COAs>Select COA** selection. A selection is enabled for each COA that exists in the phase under construction. Selecting a COA and **Select COA** establishes that COA as the phase; non-selected COA's are removed/deleted from the database.



5-1.1.6 Basic Plan Information Window.

The **Basic Plan Information** window is used to view, create, or edit a plans information. This window is opened initially when creating a new plan. The **Plan:** field is editable and required when in the create mode. Legal entries for this field are 1 to 20 alphanumeric characters. The **Basic Plan Information** window is also opened for each new phase and/or FSCOA.

The **Time Zone:** field is an optional entry that displays the reference time zone for times entered for the plan. The legal entries are A to Z (except J). The default for this field is Z (Zulu).

The **Created By:** field displays the unit ID that created the plan. This field is supplied by the AFATDS system and is view only.

The **Map Series:** field is a text field for entering information about maps used in creation of the plan and is optional.

The **Phase:** field is a view only field that displays the phase number for which information is being viewed.

The **Plan Alias:** is an optional entry used to enter a secondary name for the plan. This alias is used for other systems that will not accept a plan name in excess of 6 characters. The legal entry for this field is one (1) to six (6) alphanumeric characters.

The **Time Created:** is view only display of the time of plan creation. The effective and expiration times of the plan are entered in **Time Effective:** (DTG) and **H-Hour:** (reference) fields and are mandatory.

The **Friendly Situation:** and **Enemy Situation:** menus are for selecting information sources to describe the situations of the forces. Selections include **SOP**, **Current**, **New**, and **Copy From....** The **SOP** selection enters information contained in the database that describes a standard operating procedure. The **Current** selection enters information from the current battlefield situation.

The **Friendly Situation** menu **New** selection causes no friendly situation information (units, geometries, etc.) to be copied to the plan database. This is not critical when creating the first phase of a plan as the database contains no information at this point. Selecting **New** for the second and subsequent phases is not an option since the selection will be grayed out. The default situation for a subsequent phase is that of the previous phase and is normally not changed.

If a new friendly situation is selected, the user must access the **Planned Units** window and assign units to the plan after closing the **Basic Plan Information** window. The **Planned Units** window is accessed via the **Units>Edit...** selection from the planning map menu.

Figure 5.3 Basic Plan Information Window

For the **Enemy Situation** menu, the **New** selection uses blank data for Echelon and Situation. The **Copy From...** selection opens the **Select Plan** window. The user selects the plan and phase and **OK** on this window to enter a situation database. The plan name and phase number will be displayed in the situation fields.

The **Text:**, **Map Mod:**, and **Map Setup:** fields function in the same manner as the situation fields. Selections available for **Text:** are **SOP**, **New** and **Copy From...**. The **Text:** field defaults to **SOP**.

The **Map Setup:** and **Map Mod:** selections include **SOP**, **Current**, **New...**, and **Copy From...**. **Map ModNew** opens **Map Mod Guidance** window for map display orientation. The **Map Setup:** field also includes a **Select...** choice. This selection opens the **Select Map Setup** window. The **Map Setup:** and **Map Mod:** fields default to **Current**.

The **COA:** field is a view only field that displays the FS COA for which information is being viewed or edited.

The **Guidance Set:** field allows the user to select each of the guidance sets. The guidances for the selected set will be displayed in the **Guidance** list. Each **Guidance** will display an associated pop-up menu for the selection of the **Guidance Source**. The **Guidance Source** selections include **SOP**, **Current**, **New**, and **Copy From...**. These fields default to **SOP**.

5-1.1.7 Planned Units Window.

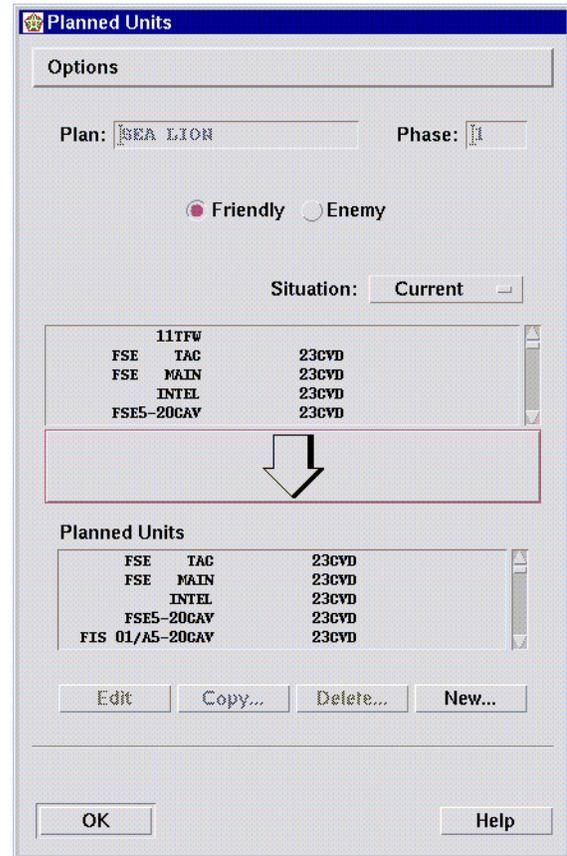
The **Units\Edit...** selection opens the **Planned Units** window. This window is for specifying planned units for a plan and phase and also allows for creating, editing, and deleting units.

Planned units are specified by selecting desired units from the top list and selecting the down arrow which copies the units to the **Planned Units** list. Units in the **Planned Units** list are those selected for the plan and phase being developed.

The top list contains units from Current or a plan as determined by the **Situation:** selection. This list may also be filled with friendly or enemy units depending on the radio button selection. When **Enemy** is selected, the **Options** menu item **Add to Target List** is enabled which allows an enemy unit to be selected and added to a planned target list.

Selecting a **Planned Unit** enables the functions; **Edit**, **Copy...**, and **Delete...**. Selecting **Edit** opens the **Basic Unit Info** window for editing unit information. **Copy...** is useful for creating a new unit from a similar planned unit. Selecting a planned unit and **Copy...** opens the **Copy Unit** window where the Unit ID is selected which receives the copied information. Selecting a unit and **OK** opens the **Basic Unit Info** window with information completed and only requires minor editing to create a new unit. **New...** opens the **Create New Unit** window where the Unit ID is selected for the new unit.

Selecting a unit and **OK** opens the **Basic Unit Info** window for creating a new unit. Selecting a planned unit and **Delete...** opens the **Confirm Unit Delete** window. Selecting **Delete** deletes the unit from the list.

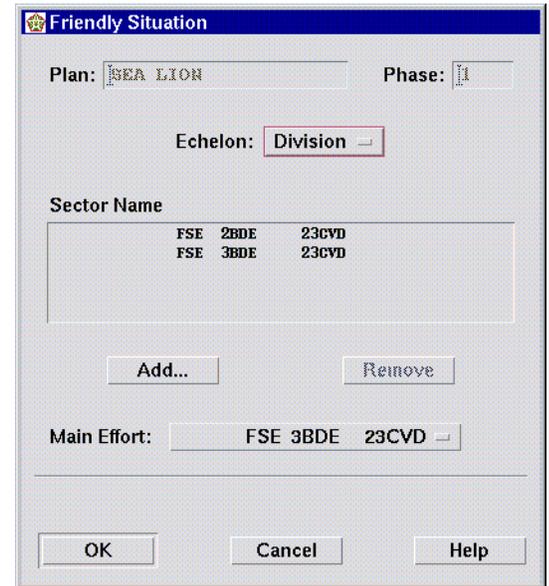


5-1.1.8 Friendly Situation Window.

The **Planning\Situation\Friendly** selection opens the **Friendly Situation** window. This window displays the plan and phase, echelon, and sectors that were setup when the fire support plan was created. The sectors are displayed in the order left-to-right facing the enemy. The sector for **Main Effort:** and **Echelon:** are selected from pop-up menus. Sectors may be added or removed from the list. Sectors are ordered in the list by selecting a unit from the **Sector Name** list and then selecting the position in the list the unit is to occupy.

Add... opens the **Select Unit** window for selecting planned units to add to the **Sector Name** list. Selecting a unit and **OK** moves the unit to the **Friendly Situation** window.

Remove removes selected sectors from **Sector Name** list.



5-1.1.9 Enemy Situation Window.

The **Planning\Situation\Enemy** selection opens the **Enemy Situation** window. This window displays the enemy echelon and situation for the fire support plan. Both fields may be changed by selecting the pop-up menus.

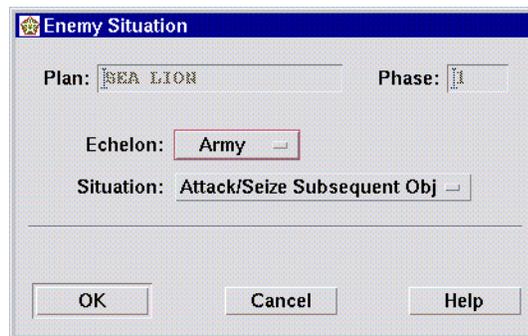


Figure 5.4 Enemy Situation Window

5-1.1.10 FS Execution Matrix Window.

The window is accessed via the **Planning\Text\FS Execution Matrix** selection. The matrix contains a row for each unit and a column for each phase. This window allows the user to enter/edit text that contains information for each FS unit by plan/phase. When initially opened, this window displays the units that were contained in the friendly situation.

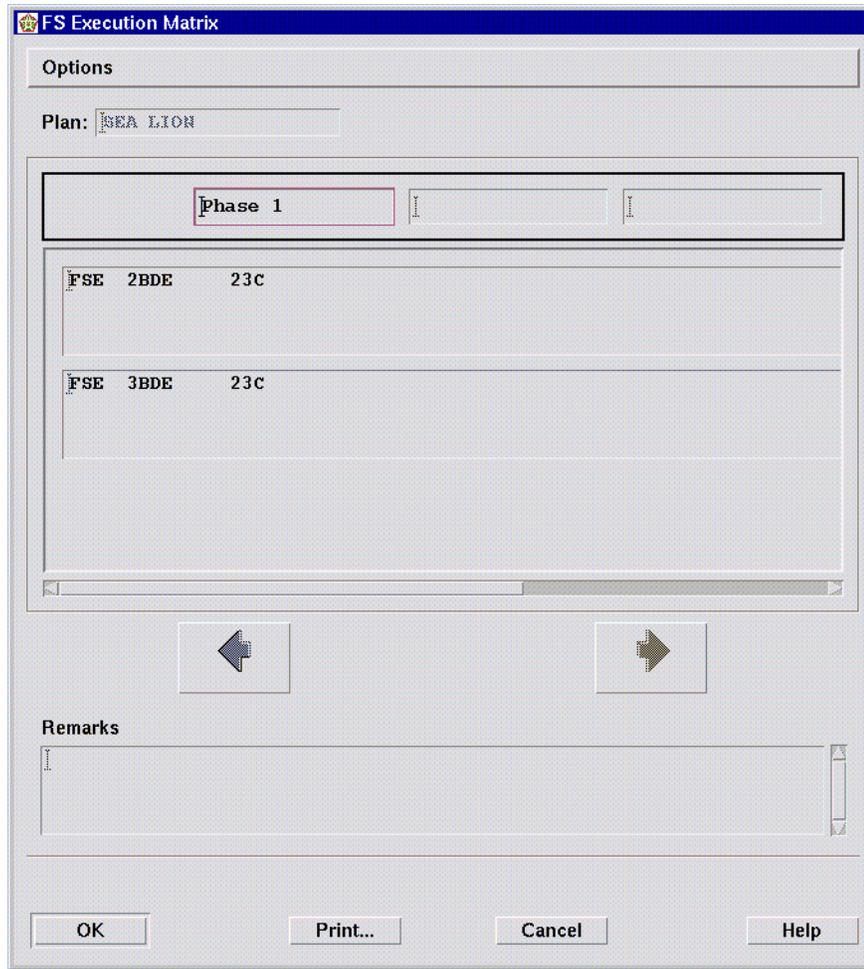
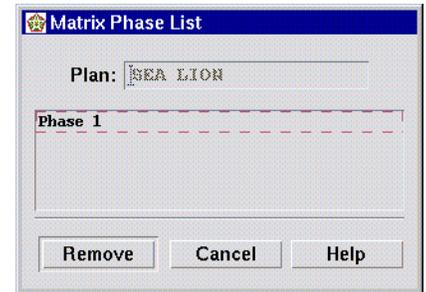


Figure 5.5 FS Execution Matrix Window

The **Options\Add Unit** selection adds a new row (up to 9 rows maximum) in the matrix. This row is added to the bottom of the existing matrix. The user enters the new unit ID (17 alphanumeric or special characters maximum) in the first column of the new row. Data for that unit is then entered in the remaining columns for each phase. The maximum number of characters in each text cell is 64 (4 rows at 16 characters per row). The **Options\Remove Unit** selection removes a selected unit row from the matrix.

The **Options\Add Phase** selection adds a new column (up to a maximum of 99) to the right side of the matrix. The user types the phase ID (16 alphanumeric or special characters maximum) in the top field of the new column and then enters phase information for each unit.

The **Options\Remove Phase...** selection opens the **Matrix Phase List** window to select which phase is to be removed. Selecting a phase ID and **Remove** deletes the phase from both the list and the matrix. The **Remarks** field is used to enter information applicable to the entire FS Execution Matrix. A maximum of 600 alphanumeric or special characters can be entered in this field.



The **Print...** button sends the matrix information to a printer via the **Print Settings** window. The **OK** button closes the window and saves the data to the database. The **Cancel** button closes the window without saving changes to the data.

5-1.1.11 FA Support Matrix Window.

The window is accessed via the **Planning\Text\FA Support Matrix** selection. The matrix contains a row for each unit and a column for each phase. This window allows the user to enter/edit text that contains information for each FA unit by plan/phase. When initially opened, this window displays the FA units (up to a maximum of 20) that were contained in the planned unit list.

The **Options\Add Unit** selection adds a new row (up to 20 rows maximum) in the matrix. This row is added to the bottom of the existing matrix. The user enters the new unit ID (17 alphanumeric or special characters maximum) in the first column of the new row. Data for that unit is then entered in the remaining columns for each phase. The maximum number of characters in each text cell is 64 (4 rows at 16 characters per row). The **Options\Remove Unit** selection removes a selected unit row from the matrix.

The **Options\Add Phase** selection adds a new column (up to a maximum of 99) to the right side of the matrix. The user types the phase ID (16 alphanumeric or special characters maximum) in the top field of the new column and then enters phase information for each unit.

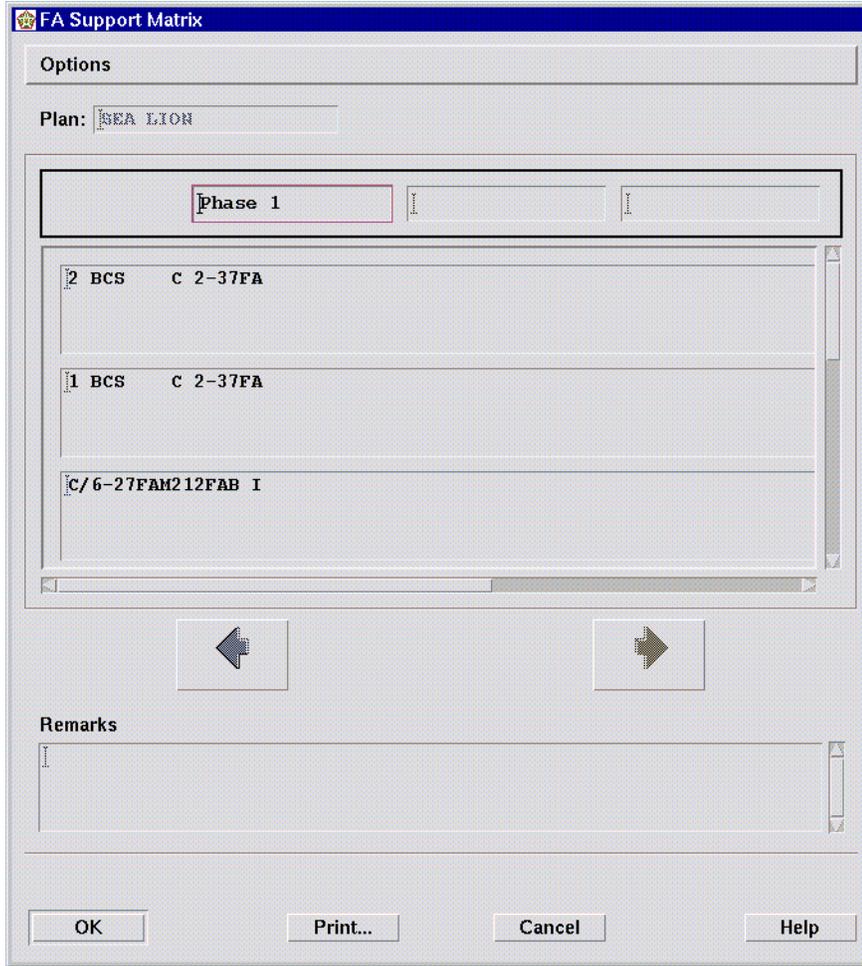


Figure 5.6 FA Support Matrix Window

The **Options\Remove Phase...** selection opens the **Matrix Phase List** window to select which phase is to be removed. Selecting a phase ID and **Remove** deletes the phase from both the list and the matrix.

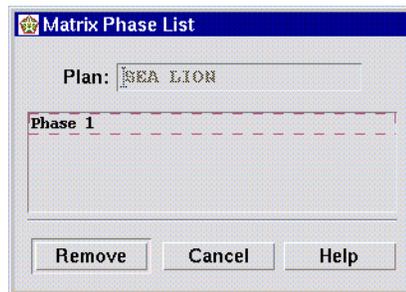


Figure 5.7 Matrix Phase List Window

The **Remarks** field on the **Organization For Combat** window is used to enter information applicable to the entire FA Support Matrix. A maximum of 600 alphanumeric or special characters can be entered in this field.

The **Print...** button sends the matrix information to a printer via the **Print Settings** window.

The **OK** button closes the window and saves the data to the database. The **Cancel** button closes the window without saving changes to the data.

5-1.2 FSCOA Construction.

Closing the **Basic Plan Information** window establishes the plan name and appropriate data. The user must then open the plan via the **Situations\Open Plan...** selection. This selection opens the **Select Plan and Phase** window. The user selects the plan and phase to be opened from the displayed list and **OK**. This opens the planning (map) window. If the plan is new or a COA has not been determined for the selected phase, the plan will open with COA 1 displayed. The user then enters and/or edits information for the COA.

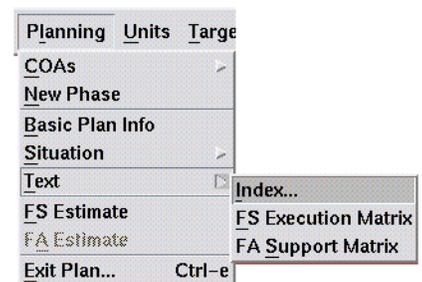
The purpose of COA's is to allow the user to plan and to compare unit organizations. A plan phase may contain up to three (3) COA's. Each COA contains the same units, map setup, and situations of forces. These items are maintained at the phase level and will not vary between COA's. Changing other items, such as organization for combat and guidances, will have the most effect on the measure of effectiveness of the COA.

When constructing a COA, the planned unit list must be created and/or edited prior to entering the friendly situation. After entering the friendly situation, the user enters the organization for combat. The **Options** menu on the **Organization For Combat** window displays selections to display the organization in textual form, allocate air sorties, view MOE statistics, and compare the MOE's if more than one (1) COA exists.

Selecting a COA as the phase then allows the user to proceed to the FA portion of the plan.

5-1.3 Planning Text.

The **Text** selection from the **Planning** menu opens selections that allows the user to create, print, and/or edit the textual information for a plan. The **Planning\Text\Index...** selection opens the **Text Index** window. This window lists the **Operation Order, Fire Support Annex, Field Artillery Appendix** and any established appendices, tabs, and enclosures. The user may create appendices for the annex, tabs for the appendices, and enclosures for the tabs to structure the plan document.



The **FS Execution Matrix** and **FA Support Matrix** selections open windows that are titled the same as the selection. The **FS Execution Matrix** window is used to enter textual information for FS units by phase. The **FA Support Matrix** window is used to enter textual information for FA units by phase.

5-1.3.1 Text Window Navigation.

The **Planning\Text\Index...** selection opens the **Text Index** window. The **Options\Print...** selection on this window opens the **Print Settings** window to print a selected portion of the plan text. Both the **Options\New** and **Options\Edit** selections open the **Plan Text** window.

The **Plan Text** window is used to enter header and footer data for the plan and to access the individual paragraphs within a section of the plan. Selecting a paragraph and **Edit** opens the **Paragraph Text** window to allow editing and/or creation of text. A **Copy From...** selection allows the user to copy text from another plan/phase. Selecting a paragraph and **Copy From...** opens the **Select Plan and Phase** window. A plan and phase is selected to copy text from and **OK** selected to open the **Text Index** window. The section to be copied from is selected and the window closed via **OK** to activate the **Plan Text** window and copy the selected text into the selected paragraph. The **Paragraph Text** window is then accessed via **Edit** to view/edit the copied text.

The **FS Execution Matrix** and **FA Support Matrix** windows are opened via selections that match the window name from the **Text** menu. These windows allow the user to enter textual information for each FS and FA unit by phase. Units are added to each matrix via the **Options\Add Unit** selection which adds a blank row to the matrix. The Unit ID must then be entered. The **Print...** selection on these windows open the **Print Settings** window.

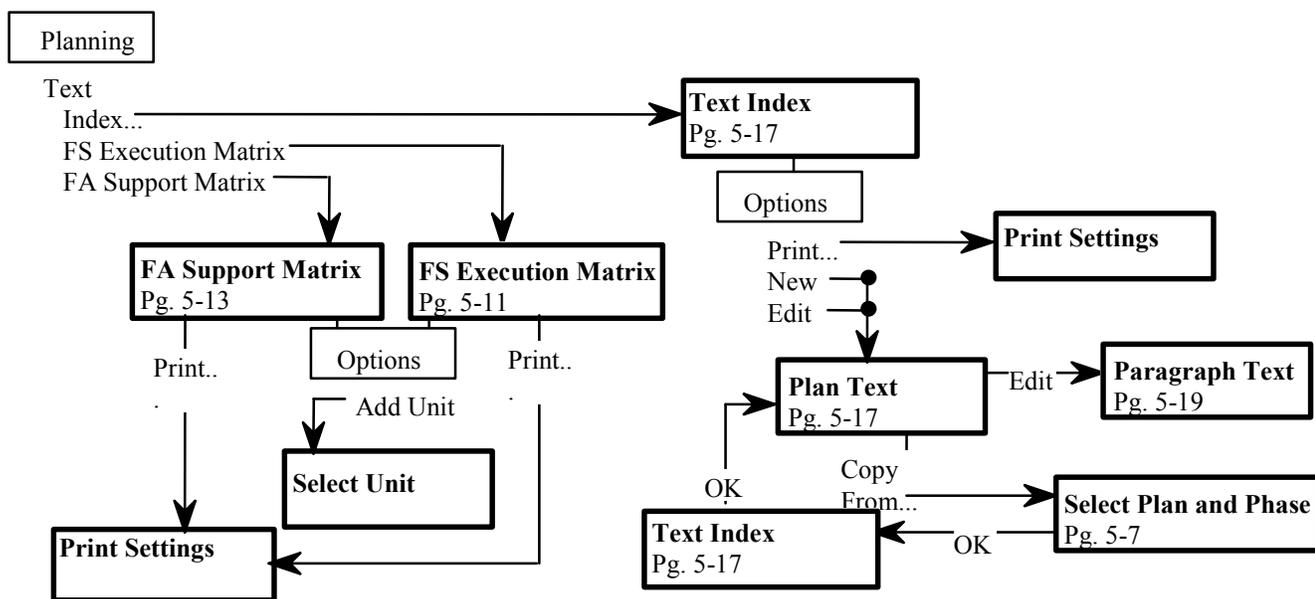


Figure 5.8 Text Window Navigation

5-1.3.2 Text Index Window.

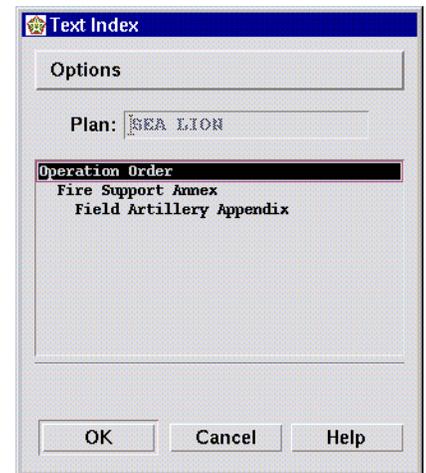
The **Planning\Text\Index...** selection opens the **Text Index** window. This window displays the **Plan:** name and established sections of the plan text. Default sections are established if **New** was selected on the **Basic Plan Information** window for the plan text. These defaults are the **Operational Order**, **Fire Support Annex**, and **Field Artillery Appendix**. The user adds other appendices, tabs, and enclosures as required to comply with established procedures for the text structure. Names for additional sections are supplied by the user. A typical structure may appear as:

Operation Order
Fire Support Annex
Field Artillery Appendix
 Tab A
 Enclosure A
 Enclosure B
Appendix A
 Tab A
 Tab B
 Enclosure A
 Tab C

A new appendix is created by selecting the annex and **Options\New** from the **Text Index** window. This opens the **Plan Text** window. The same procedure is used to create tabs for appendices, (i.e., select an appendix and **Options\New**); and enclosures for tabs. The newly created section is then selected and **Options\Edit** selected to edit the section.

Selecting a section from the **Text Index** window and **Options\Print...** sends the selected section and all subordinate sections to a printer via the **Print Settings** window.

The **Options\Clear...** selection is used to delete or clear sections of text. The default sections cannot be deleted from the index. If a default section is selected with **Options\Clear...**, the section is reset to default data from the plan information. All subordinate sections will be deleted. If the selected section is not one of the defaults, the selected section and all subordinate sections will be deleted. A confirmation window exists for both of these actions.



5-1.3.3 Plan Text Window.

The **Plan Text** window opens as a result of selecting a section of text and **Options\Edit** on the **Text Index** window. The **Text:** field displays the name of the section as it appears on the **Text Index** window and is editable. This field may contain up to 30 alphanumeric or special characters.

The **Plan:** field displays the plan name for which the text is being constructed. This field is display only.

The screenshot shows the 'Plan Text' window with the following fields and values:

- Text:** Operation Order
- Plan:** SEA LION
- Heading Title:** I WOULD NOT FOLLOW THIS PLAN IF I WERE YOU.
- Map Series:** LLMF
- Issuing HQ:** OPS 1-37FA 23C
- Place of Issue:** NO PLACE
- Classification:** Unclassified
- DTG:** 191604Zoct98
- Time Zone Used:** Z

Paragraphs

- Situation
- Mission
- Execution
- Service Support
- Command and Signal

Buttons: Edit, Copy From...

Footing

Loose and uneven.

Bottom Buttons: OK, Send..., Print..., Revert..., Cancel, Help

Figure 5.9 Plan Text Window

The fields at the top of the window are used to enter information that is printed as the header. This information appears at the top of the first page. Entry of data in these fields is optional.

The **Heading Title:** field is used to enter the heading information that describes the contents of the section. This field may contain up to 100 alphanumeric or special characters.

The **Map Series:** field contains the map data that was entered on the **Basic Plan Information** window. This field may be edited and may contain up to 100 alphanumeric or special characters.

The **Issuing HQ:** field defaults to the local OPFAC and may be edited. The legal entry for this field is 1 to 20 alphanumeric or special characters.

The **Place of Issue:** is the physical location of the issuing HQ. This field may contain up to 40 alphanumeric or special characters.

The **Classification:** field is used to enter the highest security classification of any data included in the text. This field may contain up to 20 alpha characters.

The **DTG:** and **Time Zone Used:** fields accept the standard entries. Defaults are the current DTG and Z (zulu) time zone.

The **Footing** field is used to enter data that appears at the bottom of the last page of text. The printed footing is normally used as a signature block.

The **Paragraphs** field lists the default paragraph titles for the OPORD, FS Annex, and appendices. There are five (5) default titles; **Situation**, **Mission**, **Execution**, **Service Support** (Army only), **Administration and Logistics** (USMC only), and **Command and Signal**. Tabs and enclosures do not have established paragraphs titles.

The user can select a **Paragraph** from the list and **Edit** to open the **Paragraph Text** window to create and/or edit the text. Text can also be copied from another plan/phase into a selected paragraph and then edited to create the text for a plan.

To copy text from another plan/phase, the user selects the paragraph that is to contain the copied text. The **Copy From...** button is then selected which opens the **Select Plan and Phase** window. Selecting a plan/phase and **OK** on the **Select Plan and Phase** window closes the window and opens the **Text Index** window. The section of the plan to be copied from and **OK** is then selected to close the window and copy the text to the plan text being constructed.

The copy function copies only text for the selected paragraph. For example, if the text is to be copied in to an **Execution** paragraph, the section from which the text is copied must contain an **Execution** paragraph. This means that since the OPORD, FS Annex, and appendices have the same paragraph format, copies can be made between the sections in any combination. Tabs and enclosures, which have no paragraph format, are copied in their entirety.

The **OK** button is used to close the window and save any changes to the database.

The **Send...** button is not used for the plan text function of this window.

The **Print...** button allows the user to send the text of this section to be sent to a printer via the **Print Settings** window.

The **Revert...** button allows the user to discard any changes made to the entries of this window and any changes to paragraph text. Data will revert to the data present when this window was opened. This button is enabled only after a change is made to a paragraph text. The **Cancel** button is used if the user wants to close the window and save changes to paragraph text but not changes to this window.

5-1.3.4 Paragraph Text Window.

The **Paragraph Text** window is accessed from the **Plan Text** window via the **Edit** selection and allows the user to enter, insert, and/or edit the plan text. For the sections that contain formatted paragraphs, all paragraphs except **Mission** contain formatted headings. These headings can be edited, re-labeled, or deleted as required.

The **Text:** field displays the section of the plan text that contains the paragraph that is being viewed. The **Plan:** field contains the plan name for which the text is being constructed. The **Paragraph:** field contains the paragraph name of the paragraph being edited. These fields are view only.

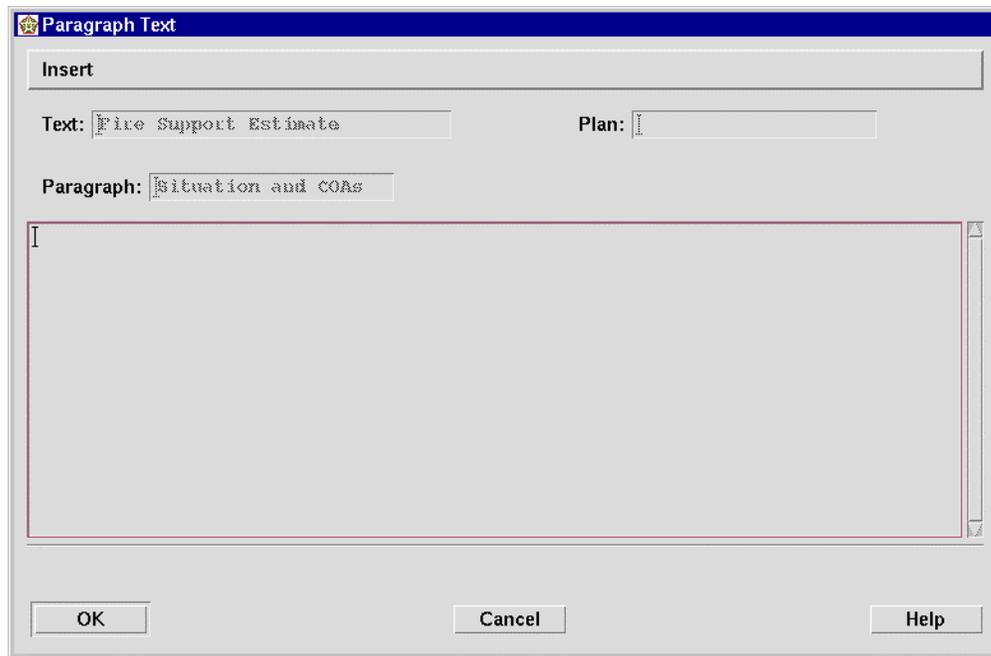


Figure 5.10 Paragraph Text Window

The user enters or edits the text in the field provided. Text can be entered directly from the keyboard or inserted via selections from the **Insert** menu. The **Insert** menu allows the user to insert specified guidances, the **Organization For Combat**, **Target Lists**, **Fire Plans**, and **Schedules** in a textual format. The **Plan Comparison** and **Decision Matrix** selections are used only for the FS Estimate functions of the window and are disabled. The user inserts data in the paragraph by placing the cursor at the point the data is to be inserted and making the menu selection.

The **OK** button saves the information of this window to the database and closes the window. The **Cancel** button closes the window without saving any entries or changes to the window information.

Section Contents

Paragraph	Section		
	OPORD	FS Annex	FA Appendix
Situation	a. Enemy Forces b. Friendly Forces c. Attachments and Detachments	a. Enemy Forces b. Friendly Forces c. Attachments and Detachments	a. Enemy Forces b. Friendly Forces c. Attachments and Detachments
Mission			
Execution	a. Concept of Operation b. Fire Support c. Air Defense d. Engineering Support e. Coordinating Instructions	a. Concept of Operation b. Air Support c. Chemical Support d. FA Support e. Naval Gunfire Support f. Nuclear Support g. Coordinating Instructions	a. Concept of Operation b. Organization for Combat c. Coordinating Instructions
Service Support (Army) Administration and Logistics (USMC)	a. General b. Material and Services c. Civil - Military Cooperation	a. General b. ASP locations c. CSR	
Command and Signal	a. Command b. Signal	a. Command b. Signal	a. Command b. Signal

5-1.4 FS Estimate Processing and Window Navigation.

The Fire Support (FS) Estimate is an appraisal of the effort required to support a Maneuver Course of Action (MCOA) and serves as a basis for identifying fire support requirements. FS Estimate window navigation is shown in the following diagram. Window descriptions and the FS Estimate procedure steps are in following paragraphs.

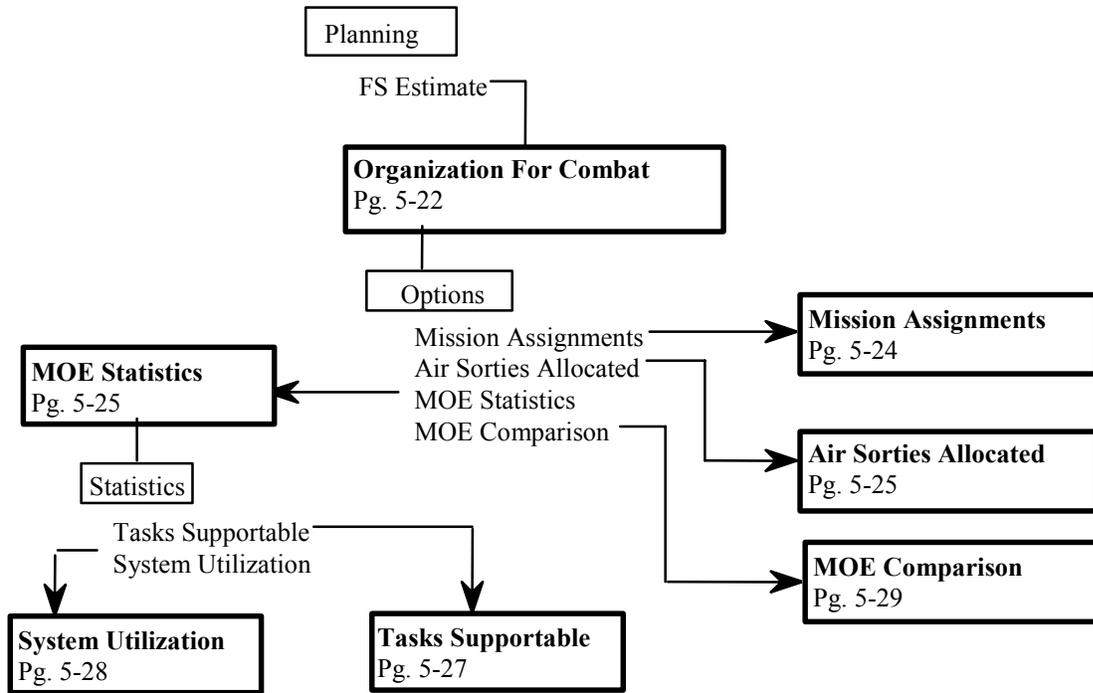


Figure 5.11 FS Estimate Processing and Window Navigation

5-1.4.1 Organization For Combat Window.

The **Planning\FS Estimate** menu selection opens the **Organization For Combat** window. This window is used to assign command relationships and tactical mission assignments for units contained in the plan. The user can enter these assignments for up to three (3) different Courses of Action (FSCOA's) and then calculate and compare the estimated effectiveness of each COA. The nine-column four-row matrix allows the user to organize the combat structure for a plan, phase, and COA. The tactical mission assignments are indicated by labels on the right side of the matrix. For this example, mission assignments for units in a division are DS (Direct Support), R (Reinforcing), GSR (General Support Reinforcing), and GS (General Support). These labels depend on the **Echelon** selection from the **Friendly Situation** window. The column headings (Unit ID's) are derived from the sector names that were entered for the friendly situation. The sector for main effort is indicated by the double arrow next to the sector name.

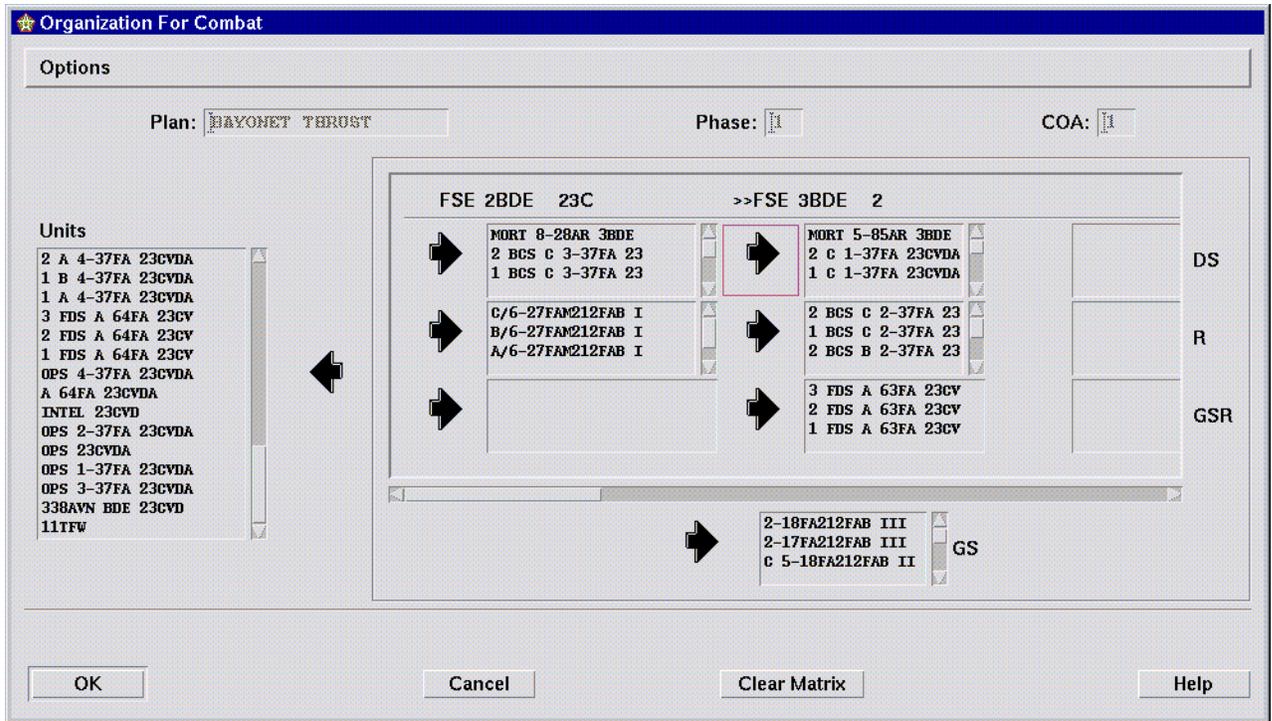


Figure 5.12 Organization For Combat Window

The mission assignments for each echelon selection are:

Echelon	Mission Assignments			
Corps	Organic	OPCON or Atch	GSR	GS
Division	DS	R	GSR	GS
Brigade	Organic	Sprt Bn-TF	XXXX	Sprt
Battalion	Organic	Sprt CO-TF	XXX	Sprt

The matrix is filled by selecting planned units from the **Units** list and clicking on appropriate matrix cell arrows until each sector is organized with the proper unit structure. Units that do not have weapons assigned are not entered in the **Organization For Combat** matrix. Units in the matrix may be selectively moved back into the **Units** list. Units may also be moved from cell to cell by selecting a unit in a cell and a destination cell.

The **Clear Matrix** button removes positioned units from all matrix cells and places them back into the **Units** list which allows the user to start over.

The user must close the **Organization For Combat** window using the **OK** button prior to attempting the **MOE Statistics** function from the **Options** menu. This establishes the organization in the database so that calculations may be accomplished. After the **MOE Statistics** is performed for two or three FSCOA's, the **MOE Comparison** function from the **Options** menu may be accomplished.

Other **Options** menu items are **Mission Assignments**, **Air Sorties Allocated**, **MOE Statistics**, and **MOE Comparison**.

Options\Mission Assignments opens the **Mission Assignments** window. This window displays the organization for combat in a text format when the COA is selected.

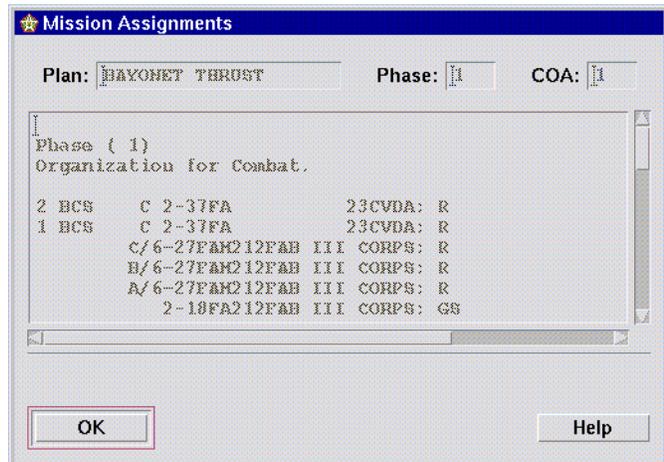
For air missions, **Options\Air Sorties Allocated** opens the **Air Sorties Allocated** window displaying the number of air sorties allocated for maneuver units.

Options\MOE Statistics opens the **MOE Statistics** window which displays the results of the FS Estimate. The results will be valid when entering this window, if the calculation was performed previously on this window and no other data has been modified to obsolete the calculation.

Options\MOE Comparison opens the **MOE Comparison** window used to compare two or three COA's within the phase of a plan to determine their relative effectiveness.

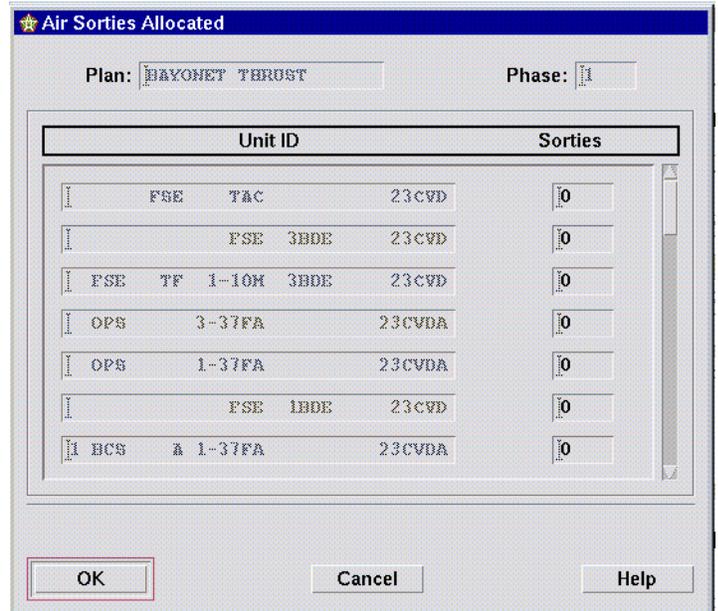
5-1.4.2 Mission Assignments Window.

The **Mission Assignments** window displays a textual representation of the organization for combat assignments. This window is view only. A COA must have previously been selected for the plan/phase to display valid information.



5-1.4.3 Air Sorties Allocated Window.

The **Air Sorties Allocated** window is accessed from the **Options** menu on the **Organization For Combat** window. This window is for entering the number of air sorties for units of type Other within a given plan and phase. Units in the **Unit ID** list are selected from the **Select Unit** window.



5-1.4.4 MOE Statistics Window.

The **MOE Statistics** window is accessed from the **Options** menu on the **Organization For Combat** window. This window allows the user to view results of the FS Estimate. The **Calculate** button is selected to update the calculated values.

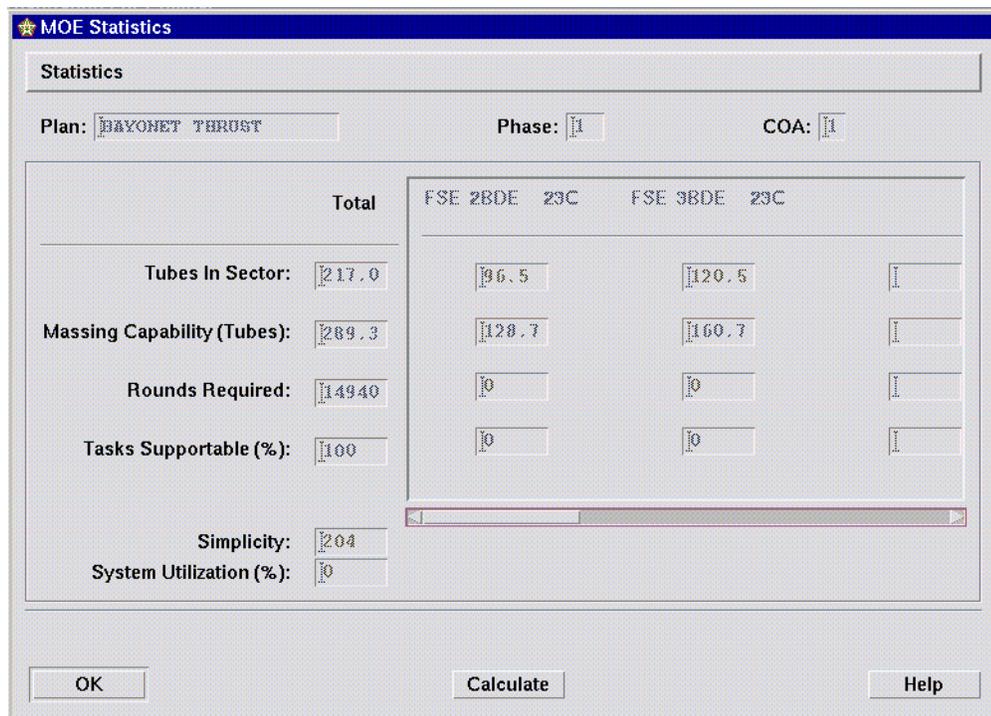


Figure 5.13 MOE Statistics Window

It must be remembered that to change the organization for combat and MOE statistics, the **MOE Statistics** window must be closed and changes made to the organization for combat. The **Organization For Combat** window is changed and then closed via the **OK** button to save changes to the database. The **Organization For Combat** and **MOE Statistics** windows are then reopened and **Calculate** selected to display the new values.

Each sector contains a field displaying **Tubes in Sector**, **Massing Capability**, **Rounds Required**, and **Tasks Supportable %** for the sector. A **Total** field is also displayed for each of these categories. **Simplicity** and **System Utilization** effectiveness are also displayed.

The **Tubes in Sector** value is an equivalent number rather than an actual count of tubes. This is done to compensate for the differences in tube effectiveness. The relative value for the different tubes are shown. As example, a unit containing eight (8) 120mm mortars would be computed as 6.4 (8 x 0.8) equivalent tubes.

Caliber	Relative value
81mm	0.5
105mm	0.5
107mm	0.7
120mm	0.8
155mm	1.0
203mm	2.0
MLRS	2.0

The mission assignment also determines in which sector the tubes are counted. Tubes that equate to mission assignments of DS, R, and GSR for a division assignment are counted for the sector of assignment. Tubes that equate to GS assignments are equally divided between the sectors.

The **Massing Capability (Tubes):** value is the total of the **Tubes in Sector:** and the tube equivalents in adjacent sectors that are available for massing. The availability of tubes for massing depends on the assigned mission within the sector and whether or not the sector is the main effort. The guidelines established to determine massing potential are shown in the following table.

Echelon	Mission	Massing potential (portion of sector units)	
		Main effort sector	Non-Main effort sector
Corps	Organic	0	2/3
	OPCON or Attached	1/3	2/3
	GSR	1/2	2/3
	GS	2/3	2/3
Division	DS	0	2/3
	R	1/3	2/3
	GSR	1/2	2/3
	GS	2/3	2/3
Brigade	Organic	0	2/3
	Supporting Bn or Task Force	1/3	2/3
	Supporting Bde	2/3	2/3
Battalion	Organic	0	2/3
	Supporting Co or Team	1/3	2/3
	Supporting Bn or Task Force	2/3	2/3

NOTE

If there is only one sector, GS is massed as 1 instead of 2/3.

The **Tasks Supportable (%)**: fields display the percentage of enemy unit array that is considered attackable considering mission assignments of available FS assets. Supportable tasks are computed for each maneuver sector and for the entire COA. As example, a Brigade FSE would be provided the tasks supportable values for each of the Battalion and/or task force sectors, as well as an overall value for the Brigade itself.

The FS tasks AFATDS considers are close support, counterfire, SEAD, and interdiction. Close support tasks include the engagement of all target types (except fire support and ADA) in the close-in and rear-battle areas. Counterfire tasks include the engagement of all fire support targets in all battle areas. SEAD tasks include the engagement of all ADA targets in all battle areas. Interdiction tasks include the engagement of all target types (except fire support and ADA) in the deep-battle area.

Each enemy unit described in the plan/phase equates to one or more tasks (based on the number of platoon sized elements in that unit). For example, the following enemy unit is contained in the enemy unit list for the FSCOA. This unit will equate to 15 close support tasks provided the enemy unit is located in the close battle area for the sector.

Unit: 123 MRB
Target Type: APC
Location: 6 45690 043 50100 1200 14
Number of Platoon size elements: 15

The number of supportable tasks is based on the number, type, and tactical missions of FS systems assigned to the sector. A FS attack unit is normally capable of fire on a certain number of platoon-size targets over a given time period. This is based on the unit caliber and mission. As shown in the following table, a 105mm unit in a GS mission is considered to be capable of firing 70 tasks per day. This unit is also considered as being capable of firing 20% of these fires as interdiction tasks. The sector this unit is assigned to therefore would, at a minimum, be capable of firing 14 (70 x .20) interdiction tasks.

5-1.4.5 Tasks Supportable Window.

The **Tasks Supportable** window is accessed from the MOE Statistics window by selecting **Statistics\Tasks Supportable**. This view-only window displays results from the calculation. Sectors shown are those previously defined for the friendly situation and shown on the Organization For Combat matrix. The **Sector** list displays names of units responsible for a particular sector for which supportable task information is displayed. This window displays number of **Targets, Rounds Required**, and **Tasks Supportable (%)**, for each role that a sector may assume which may be; **Close Support, Counter Fire, SEAD**, and **Interdiction**. **Total** for **Targets** displays the total target count in a given sector. **Total** for **Rounds Required** displays estimate of rounds required to address supportable tasks in a given sector. **Total** for **Tasks Supportable (%)** displays total in percent of supportable tasks in a given sector.

Tasks Supportable

Plan: Phase: COA:

Sector	Close Support	Counter Fire	SEAD	Interdiction	Total
FSE 2BDE 23C	Targets: <input type="text" value="350"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="350"/>				
	Rounds Required: <input type="text" value="9800"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="9800"/>				
	Tasks Supportable (%): <input type="text" value="100"/>				
FSE 3BDE 23C	Targets: <input type="text" value="3"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="3"/>				
	Rounds Required: <input type="text" value="94"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="94"/>				
	Tasks Supportable (%): <input type="text" value="100"/>				

OK Help

Figure 5.14 Tasks Supportable Window

5-1.4.6 System Utilization Window.

The **System Utilization** window is accessed from the **MOE Statistics** window by selecting **Statistics\System Utilization**. This view-only window allows the user to view system utilization information for **FA**, **Mortar**, and **NSFS** systems for the COA. The statistics shown are derived from the latest MOE calculations. The bar graph reflects the numbers shown below it, and each bar represents the over or under utilization for each system. At 100 percent, the systems relative percentage of tubes and relative percentage of targets to the totals across all systems are equal. The chart shows number of targets assigned, number of tubes, and percentages and totals, for the systems.

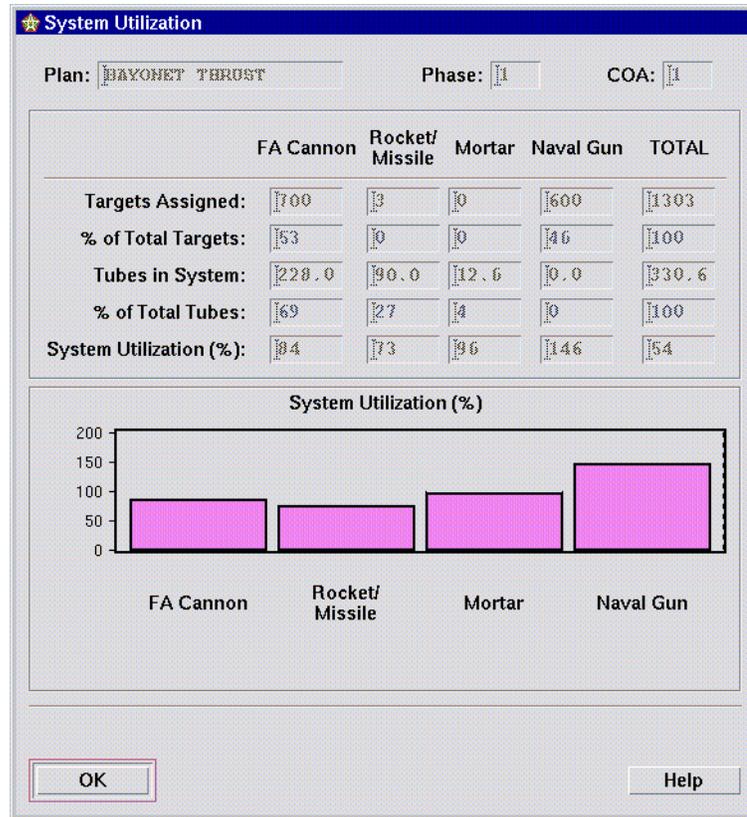


Figure 5.15 System Utilization Window

5-1.4.7 MOE Comparison Window.

The **MOE Comparison** window is accessed from the **Organization For Combat** window by selecting **Options\MOE Comparison**. This window that is used to compare two or three COA's within the phase of a plan to each other in order to determine their relative effectiveness. It is also used to compare two or three plans (maneuver COA's) with each other to find their relative effectiveness. This window is also accessed via **Situations\Compare Plans** from the main menu after selecting two or three plans to compare. The **MOE Statistics** for each COA are displayed in the upper portion of this window. Statistics include the **Tubes in Sector**, **Massing Capability (Tubes)**, **Rounds Required**, **Tasks Supportable** **Simplicity**, and **System Utilization**.

The user may adjust the **Weighting Factors** by dragging the weight indicators to desired positions and selecting **Calculate** in order for the results to reflect relative importance of the weighting factors.

When comparing COA's of a phase of a plan, the user can select the COA to keep via the **Select COA** window, select **OK**, and the other one or two COA's will be deleted, allowing a new phase to be created. In order to create a new phase, only one COA may exist in the previous plan. Only the last (uncompleted) phase of a plan can have more than one COA.

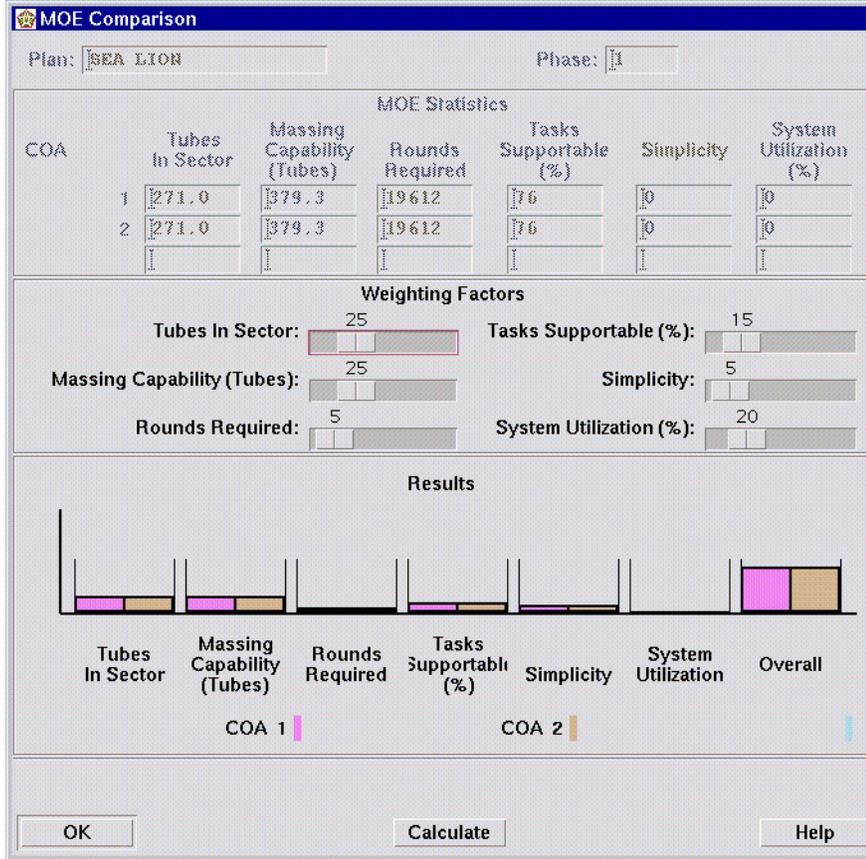


Figure 5.16 MOE Comparison Window

5-1.4.8 FA Estimate Window.

The **FA Estimate** window displays an estimate of the capabilities and munitions requirements based on plan data. An estimate cannot be performed for a COA; a phase must be established for estimate selection. Results of the estimate are determined by the units selected for the estimate, weapon caliber, type and position of targets, type and position of sensor units, and FA guidance criteria. Units to be used in the estimate are selected via the **Units** button. This selection opens the **FA Estimate Units** window. This window lists the fire units in the plan. Units to be considered in the estimate are selected by check box.

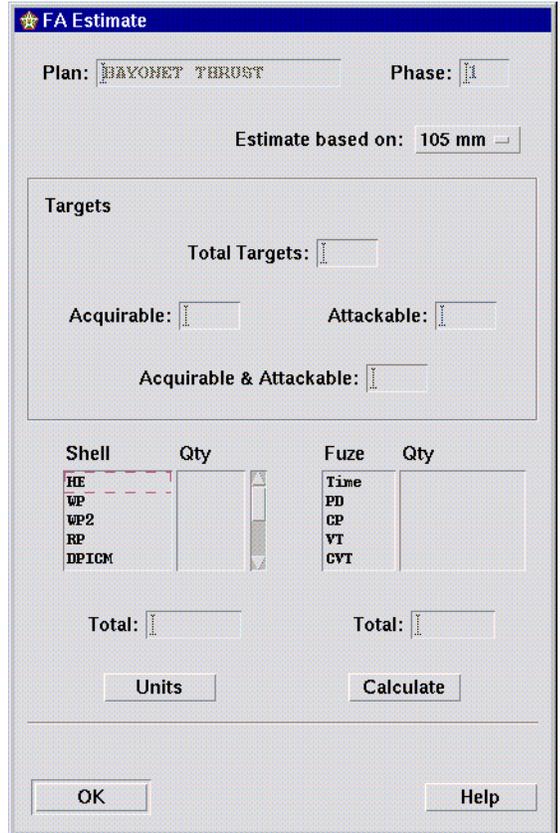
The **Estimate based on:** selection is used to select the weapon caliber for the estimate. With units and caliber selected, the **Calculate** button is selected to display the estimate results.

The **Total Targets:** field displays the number of targets in the phase target list. The **Acquirable:** field displays the number of targets that are within the range fan of a sensor unit (radar or observer). Observer units are considered to be able to acquire any type target. Radar units are considered to be able to acquire fire units only. The number of targets that are within the range fan of a fire unit is displayed in the **Attackable:** field. The number of targets that are both acquirable and attackable is also displayed.

The **Qty** fields list the **Shell** and **Fuze** quantities required based on the number and type of **Acquirable & Attackable:** targets based on FA guidance criteria. **Total:** fields are displayed for both **Qty** lists.

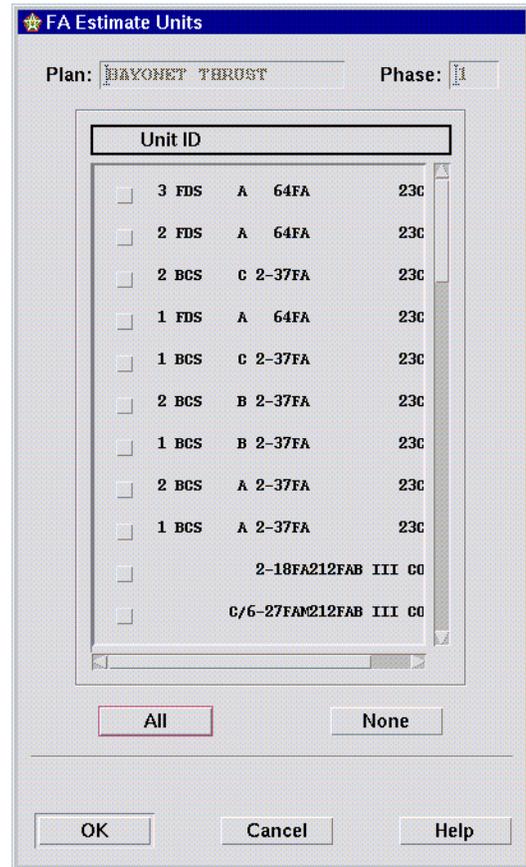
The number of **Acquirable & Attackable:** targets can be changed by positioning sensor and fire units and their range fans. The shell and fuze quantities are affected by changes to the FA Attack Methods and FA Restrictions guidances.

Each time a criteria is changed, the **Calculate** button must be selected.



5-1.4.9 FA Estimate Units Window.

The **FA Estimate Units** window opens via the **Units** selection on the **FA Estimate** window. This window lists each fire unit in the plan. Each unit has an adjacent check box. Selecting a check box includes the associated unit in the estimate calculation.



5-1.4.10 Create/Maintain Basic Plan Information Procedure.

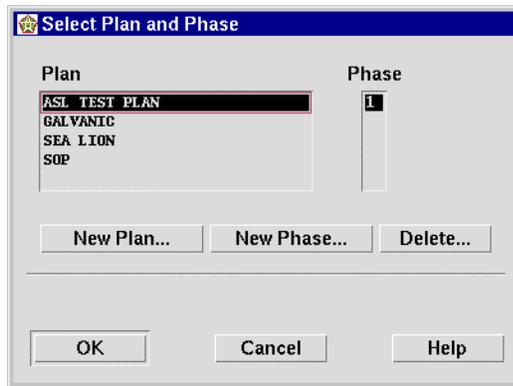
FS Plans are created for each maneuver COA. The normal procedure is to create a plan and construct one (1) to three (3) FS COA's for the first phase. FS COA's are then compared and one is selected as the phase. Additional phases are constructed in the same manner. Each plan may include up to 99 phases. Up to three (3) plans may be created and compared for each maneuver COA.

A **Basic Plan Information** window is completed for each plan, phase, and COA. Default data is carried over from the previous phase and COA.

The following procedure is designed to give the user an overall sequence to build a plan. The functions listed in the note prior to step 29 are in an order that ensures the data required to perform a function is present. Some functions made be omitted if the user has knowledge that the required data is present and correct. As example, if the current situation is copied as the friendly situation, the planned units list will contain the current units and may not require change. If **New** is selected as the friendly situation, no units will be present in the planned units list. The friendly situation and organization for combat functions cannot be performed without planned units.

Create/Maintain Basic Plan Information Procedure

Step	Action	Response
1.	<p><u>Select Situations\New Plan</u> proceed to step 12.</p> <p>or</p> <p><u>Select Situations\Open Plan...</u></p>	<p>Basic Plan Information window opens.</p> <p>Select Plan and Phase window opens.</p>



NOTE

To perform following functions, proceed to indicated steps:

- Open a plan/phase step 2
- Delete a plan/phase step 5
- Add a new plan step 9
- Add a new phase step 10

2.	<u>Select Plan</u> to open.	Established Phase(s) for selected plan are listed.
3.	<u>Select Phase</u> to open.	
4.	<u>Select OK</u> . Proceed to note prior to step 29.	Planning map opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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NOTE

Phases can be deleted only one at a time and only the last phase of a plan can be deleted.

5.	<u>Select Plan/Phase</u> to be deleted.	
6.	<u>Select Delete...</u>	Confirm Delete windows opens.
7.	<u>Select Delete.</u>	Confirm Delete window closes.
8.	To perform other functions of Select Plan and Phase window, refer to note prior to step 2.	
9.	<u>Select New Plan....</u> Proceed to step 12.	Basic Plan Information window opens.

NOTE

Phases can be deleted only one at a time and only the last phase of a plan can be deleted.

10.	<u>Select Plan</u> for which to add new phase.	
11.	<u>Select New Phase....</u> Proceed to step 13.	Basic Plan Information window opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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12. Enter **Plan:** name (1-20 alphanumeric or special characters).
13. Enter **Time Zone:** (1 alpha character A- Z).
14. Enter **Map Series:** (1-400 alphanumeric or special characters).
15. Enter **Plan Alias:** (1-6 alphanumeric or special characters).
16. Enter **Time Effective:** (standard DTG).
17. Enter **H-Hour:** (standard DTG).

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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NOTE

Selecting **SOP** or copying from a plan/phase enters all available data from the selected source. Selecting **New** blanks out all friendly situation data. Selecting current copies friendly unit list and friendly geometry data only.

- | | | |
|-----|---|--|
| 18. | <u>Select Friendly Situation:</u> (defaults to Current). | |
|-----|---|--|

NOTE

Selecting **SOP** or copying from a plan/phase enters all available data from the selected source. Selecting **New** blanks out all enemy situation data. Selecting current copies enemy unit list and enemy geometry data only.

- | | | |
|-----|--|--|
| 19. | <u>Select Enemy Situation:</u> (defaults to Current). | |
| 20. | <u>Select Text:</u> (defaults to SOP). | |
| 21. | <u>Select Map Mod:</u> (defaults to Current). | |
| 22. | <u>Select Map Setup:</u> (defaults to Current). | |

NOTE

The guidances are defaulted to SOP when creating the first phase of a plan. For the second and subsequent phases, the defaults will be the guidances of the previous phase. The user need only to select the **Guidance Set:** and individual **Guidance** selections that are to be edited.

The **Copy From...** selection for a **Guidance Source** opens the **Select Plan and Phase** window. Selecting a plan/phase and **OK** enters the guidance from that plan/phase into the phase being created/edited.

- | | | |
|-----|--------------------------------------|--|
| 23. | <u>Select Guidance Set:</u> . | |
|-----|--------------------------------------|--|

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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NOTE

The operator can elect to display the map at any time during this procedure. To perform the following functions, proceed to the indicated steps.

Enter/Edit planned units list	step 29
Enter/Edit friendly situation	step 61
Enter/Edit enemy situation	step 76
FS Estimate calculation	step 80
Add/Edit COA	step 113
Select COA as phase	step 118
Add a phase to a plan	step 123
Compare plans	step 124
Prepare FS Estimate text	step 133
Prepare FS Execution Matrix	step 157
Prepare plan for FA planner	step 175
FA Estimate calculations	step 179
Prepare plan text	step 190
Transfer plan	step 251

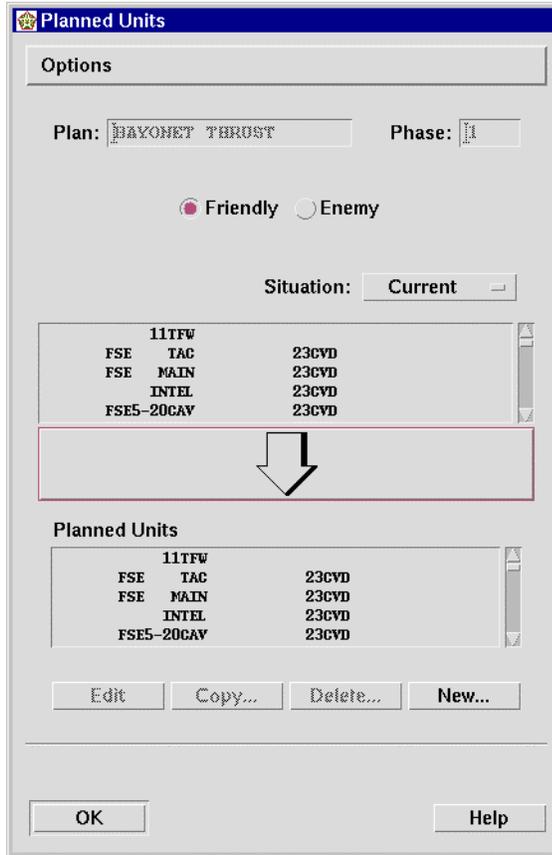
NOTE

Friendly and enemy units will appear in the listing as determined by the friendly and enemy situation selections made on the **Basic Plan Information** window. If these selections copied the current, SOP, or a plan/phase situation, the units will be as contained in the copied situation. If new was selected for a friendly or enemy situation, the units list will be blank for that situation.

29.	<u>Select Units\Edit...</u>	Planned Units window opens.
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Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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NOTE

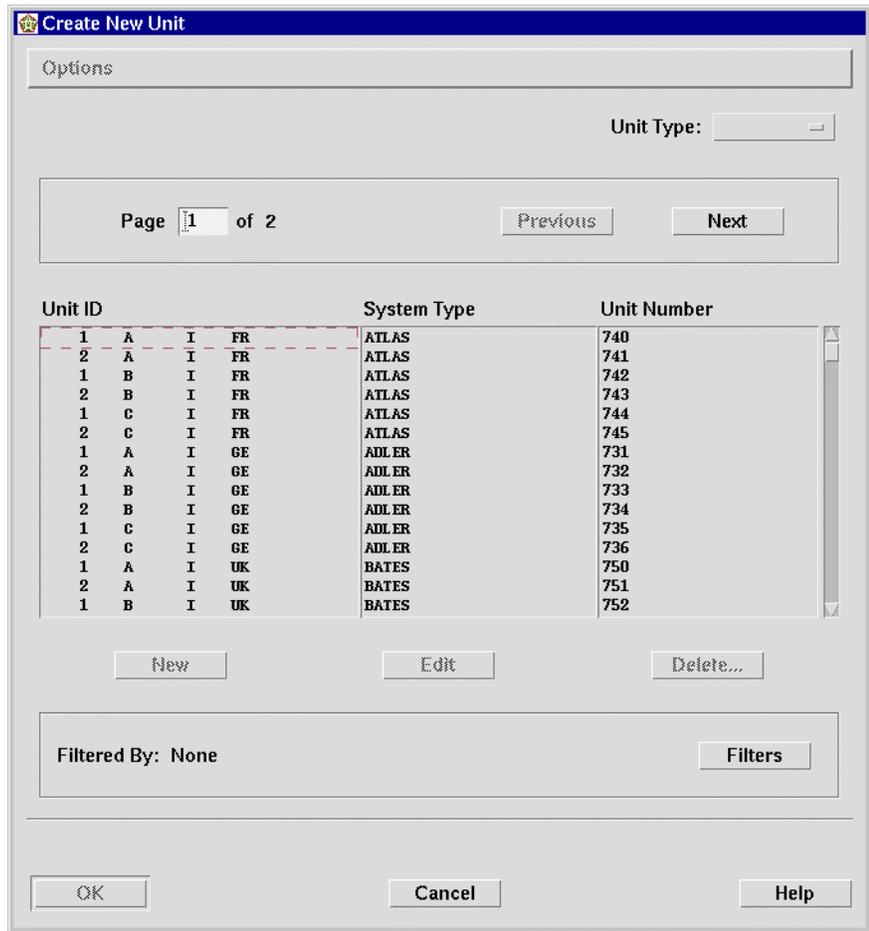
Selecting **OK** at any time closes **Planned Units** window. Window opens with friendly units by default. To create/edit enemy units or add enemy unit to target list, ensure **Enemy** radio button is selected, otherwise ensure **Friendly** radio button is selected.

To perform following functions, proceed to indicated steps.

- Transfer selected units to planned units list step 30
- Create new unit step 35
- Create new unit from existing unit via copy step 36
- Edit a planned unit..... step 40
- Add enemy template step 44
- Delete a planned unit step 53
- Add enemy unit to Planned Targets list..... step 57

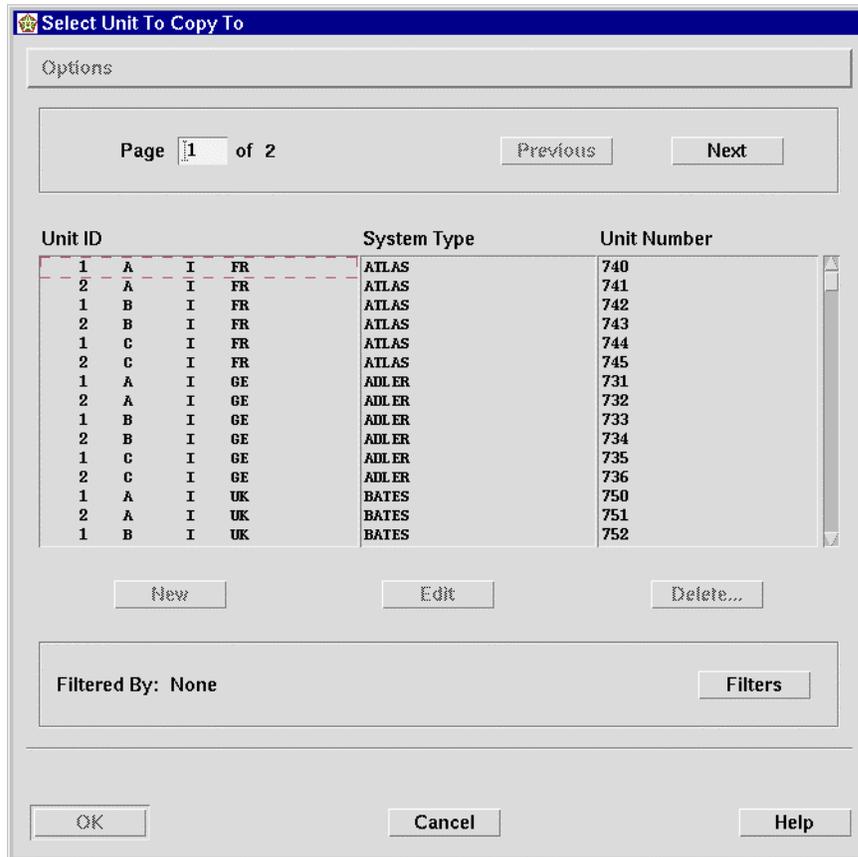
Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
30.	<u>Select Situation</u> : for list to select units from.	
31.	<u>Select unit(s) from top list</u> to be used in plan.	
32.	<u>Select down arrow</u> .	Selected units are moved to the Planned Units list.
33.	<u>Repeat steps 30 thru 32</u> as required.	
34.	Return to note prior to step 30 to perform other Planned Units functions.	
35.	<u>Select New....</u> Proceed to step 38.	Create New Unit window opens with list of unit IDs to select from when creating a new unit.



Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
36.	<p><u>Select unit</u> from Planned Units list from which to copy information to a new unit.</p> <p>or</p> <p>Select unit map symbol with left trackball button and open menu with right button.</p>	
37.	<p><u>Select Copy...</u> from Planned Units window or map symbol menu.</p>	<p>Select Unit To Copy To window opens.</p>



38. Select new unit from **Unit ID** list.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
39.	<u>Select OK</u> . Proceed to step 42.	Basic Unit Info window opens for entering or editing new unit information.
40.	<u>Select unit</u> from Planned Units list to edit. or Select unit map symbol with left trackball button and open menu with right button.	
41.	<u>Select Edit</u> from Planned Units window or map symbol menu.	Basic Unit Info window opens.

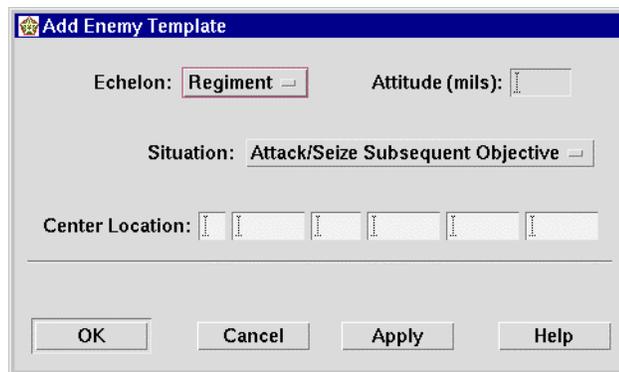
The screenshot shows a software window titled "Unit ID: 1 A 1-37FA 23CVDA / Plan: BAYONET THRUST Phase 1 / Last Update: 132026ZFEB01". The window is divided into three main sections:

- Identification:**
 - Last Update: 132026ZFEB01
 - Service: US Army (dropdown)
 - Reinf/Det: Normal (dropdown)
 - Unit Type: Cannon
 - Role: Unit (dropdown)
 - Echelon: Platoon (dropdown)
 - Function: Self Propelled Artillery (dropdown)
 - Lower Echelon ID: 1
 - Higher Echelon ID: A/1-37
 - Radio Call Sign: (empty field)
- Current Location:**
 - Current Location: 6 25695 034 44001 200 14
 - Current Position Area: (dropdown)
 - Time Operational: 010000ZJAN70
 - Current Location Type: (dropdown)
 - Datum: North America 1927 (dropdown)
- Next Location:**
 - Next Location: (empty fields)
 - Next Position Area: (dropdown)
 - Time of Next Move: 010000ZJAN70

At the bottom of the window are buttons for OK, Apply, Cancel, Send Status..., Print, and Help.

Create/Maintain Basic Plan Information Procedure - CONT

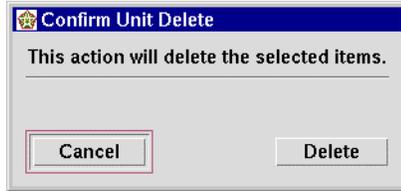
Step	Action	Response
42.	Reference Section VIII for procedures on entering or editing new unit information.	
43.	Return to note prior to step 30 to perform other Planned Units functions.	
44.	<u>Select Units\Add Enemy Template.</u>	Add Enemy Template window opens.



45.	<u>Select Echelon:</u>	
46.	<u>Enter Attitude(mils): (0 - 6400).</u>	
47.	<u>Select Situation:</u>	
48.	<u>Enter Center Location:</u>	
49.	<u>Select Apply.</u>	Red box appears on display indicating location and attitude of enemy force.
50.	<u>Select OK.</u>	Add Enemy Template window closes. Enemy units are displayed and added to planned units list.
51.	Repeat steps 44 thru 50 to add enemy templates as required.	
52.	Return to note prior to step 30 to perform other Planned Units functions.	

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
53.	<u>Select unit</u> from Planned Units list to delete.	
54.	<u>Select Delete...</u>	Confirm Unit Delete window opens.



55.	<u>Select Delete</u> .	Unit(s) are deleted from list. Confirm Unit Delete window closes.
56.	Return to note prior to step 30 to perform other Planned Units functions.	
57.	<u>Ensure Enemy radio button is selected.</u>	
58.	<u>Select unit</u> to add to Planned Targets list.	
59.	<u>Select Options\Add to Target List</u> .	Unit is added to Planned Target list.
60.	Return to note prior to step 30 to perform other Planned Units functions.	

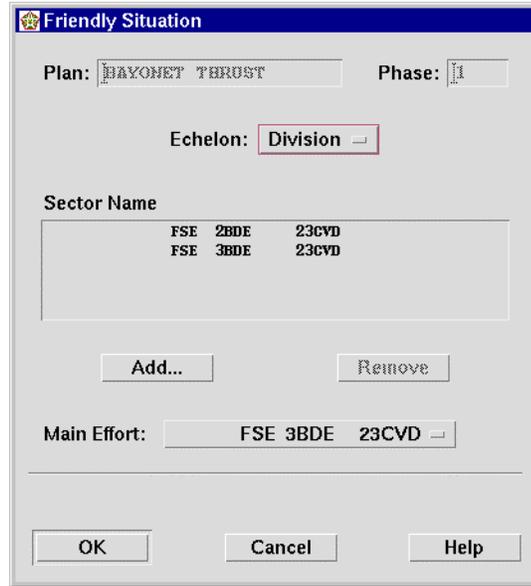
CAUTION

Making changes to the friendly situation will cause any FS Estimate, FA Estimate, and ZOR information to be incorrect. Closing the **Friendly Situation** window via **OK** after making changes will cause a confirmation window to open stating that COA will become obsolete.

61.	<u>Select Planning\Situation\Friendly</u> .	Friendly Situation window opens.
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Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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62. | Select Echelon: of maneuver plan. |

NOTE

Selecting **OK** at any time closes this window. To perform other functions of planning, refer to note prior to step 29. To perform the following functions of the **Friendly Situation** window, proceed to the indicated steps.

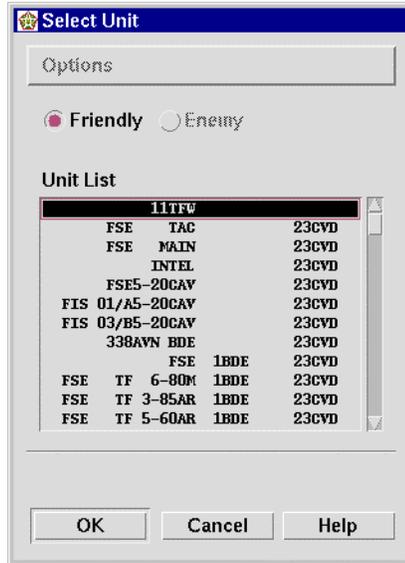
- Add a sector step 63
- Remove a sector step 69
- Change position of unit in list step 73

63. | Select Add.... |

Select Unit window opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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64.	<u>Select unit responsible</u> for sector.	
65.	<u>Select OK.</u>	Select Unit window closes. Selected unit appears in Sector Name list on Friendly Situation window.
66.	Repeat steps 63 thru 65 for each sector.	Addition of sectors is complete.
67.	<u>Select Main Effort:</u> sector.	
68.	To perform other functions of Friendly Situation window, refer to note prior to step 63.	
69.	<u>Select sector</u> to remove.	
70.	<u>Select Remove.</u>	Sector is removed from list.
71.	Repeat steps 69 and 70 for each sector to be removed.	
72.	To perform other functions of Friendly Situation window, refer to note prior to step 63.	

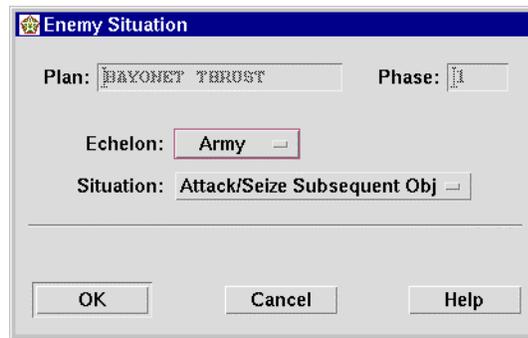
Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
73.	<u>Select unit ID</u> to be moved.	
74.	<u>Select new position</u> in list.	Unit moves to selected location. Units below selection point move down.
75.	To perform other functions of Friendly Situation window, refer to note prior to step 63.	

CAUTION

Making changes to the enemy situation will cause any FS and FA Estimate information to be incorrect. Closing the **Enemy Situation** window via **OK** after making changes will cause a confirmation window to open stating that COA will become obsolete.

76.	<u>Select Planning\Situation\Enemy</u> .	Enemy Situation window opens.
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77.	<u>Select Echelon:</u> .	Enemy Situation window closes.
78.	<u>Select Situation:</u> .	
79.	<u>Select OK</u> .	

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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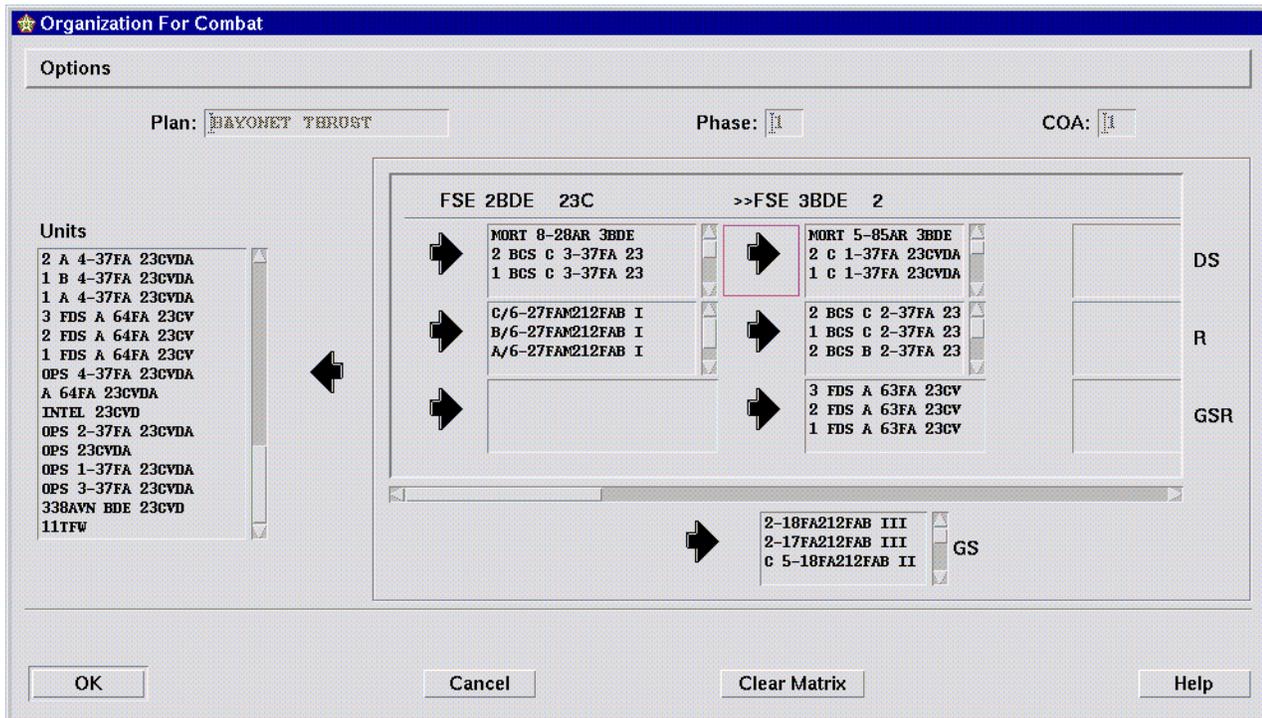
NOTE

The FS Estimate is not required as part of plan data. The estimate allows the user to view an estimate of FS capabilities using criteria established by the assigning of mission tasks to units and the FS System Task List. Only units that have weapons assigned are entered in the **Organization For Combat** window matrix.

The user can perform an estimate of a COA and adjust the criteria to obtain desired results. The user can also construct additional COA's (up to a total of 3) and compare them via the **MOE Comparison** window. The **Organization For Combat** window must be closed each time changes are made to save data prior to making any calculations. The window is re-opened and calculations made on the **MOE Statistics** window. This calculation must be made for all COA's that are to be compared.

ZOR and Battle Area geometries are constructed prior to doing a FS Estimate to insure accuracy of the estimate.

80. | Select **Planning\FS Estimate**. | **Organization For Combat** window opens.



Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **Organization For Combat** window, proceed to the indicated steps.

Assign unit(s) to sector/role	step 81
Remove unit(s) from sector/role	step 85
View mission assignments	step 89
Enter air sortie information	step 93
View MOE Statistics	step 97
View MOE Comparison	step 106

NOTE

The **Units** list is a multiple selection list. Units may be selected individually or by groups to be assigned to a sector/role. Units assigned to a sector/role can also be selected for transfer to another sector/role. To clear all unit sector/role assignments, select the **Clear Matrix** button.

81.	<u>Select unit(s)</u> from Units list.	
82.	<u>Select arrow symbol</u> to left of appropriate sector/role.	Selected units are assigned to sector/role.
83.	<u>Repeat</u> steps 81 and 82 as required to assign units.	
84.	To perform other functions of Organization For Combat window, refer to note prior to step 81.	
85.	<u>Select unit(s)</u> from sector/role.	
86.	<u>Select arrow symbol</u> to right of Units list or to the left of a sector/role if units are to be directly assigned to another sector/role.	Selected units are removed from sector/role and added to Units list or another sector/role.
87.	<u>Repeat</u> steps 85 and 86 as required.	
88.	To perform other functions of Organization For Combat window, refer to note prior to step 81.	

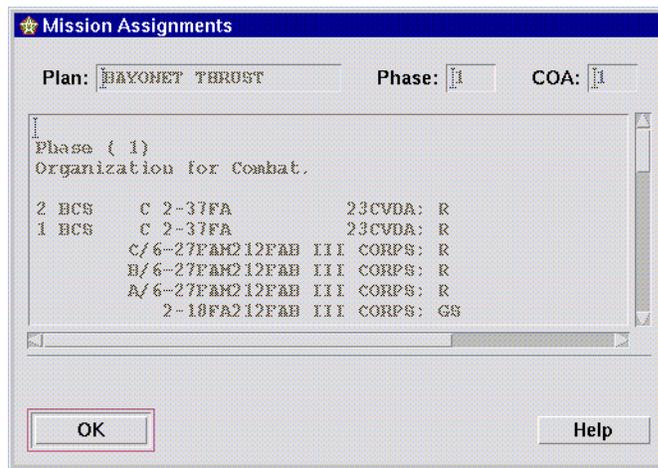
Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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NOTE

To view mission assignments, a COA must be selected as the phase of the plan.

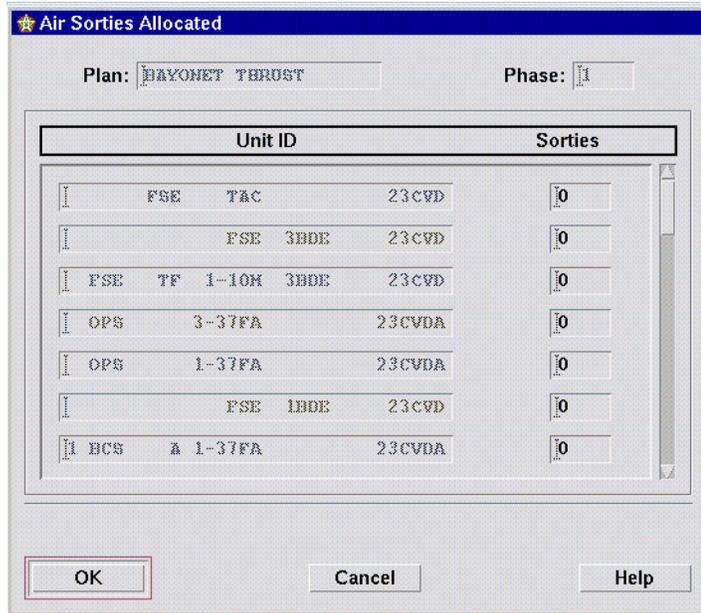
- | | | |
|-----|--|--|
| 89. | <u>Select Options\Mission Assignments.</u> | Mission Assignments window opens. A COA must have been previously selected. |
|-----|--|--|



- | | | |
|-----|--|--|
| 90. | <u>View</u> textual display of mission assignments. | |
| 91. | <u>Select OK.</u> | Mission Assignments window closes. |
| 92. | To perform other functions of Organization For Combat window, refer to note prior to step 81. | |
| 93. | <u>Select Options\Air Sorties Allocated.</u> | Air Sorties Allocated window opens. |

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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- 94. Enter number of sorties allocated to each unit (0-9999).
- 95. Select OK.
- 96. To perform other functions of **Organization For Combat** window, refer to note prior to step 81.

Air Sorties Allocated window closes.

NOTE

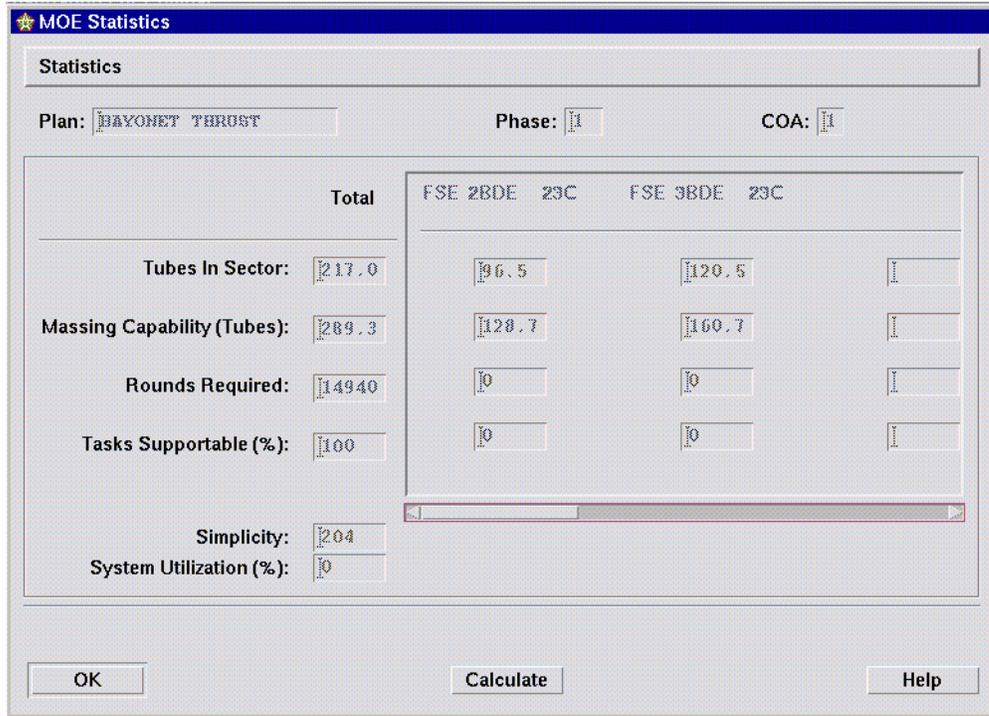
If changes were made to the **Organization For Combat** window since the window was last opened, the window must be closed via **OK** and re-opened to save the changes prior to selecting **Options\MOE Statistics**.

- 97. Select Options\MOE Statistics.

MOE Statistics window opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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NOTE

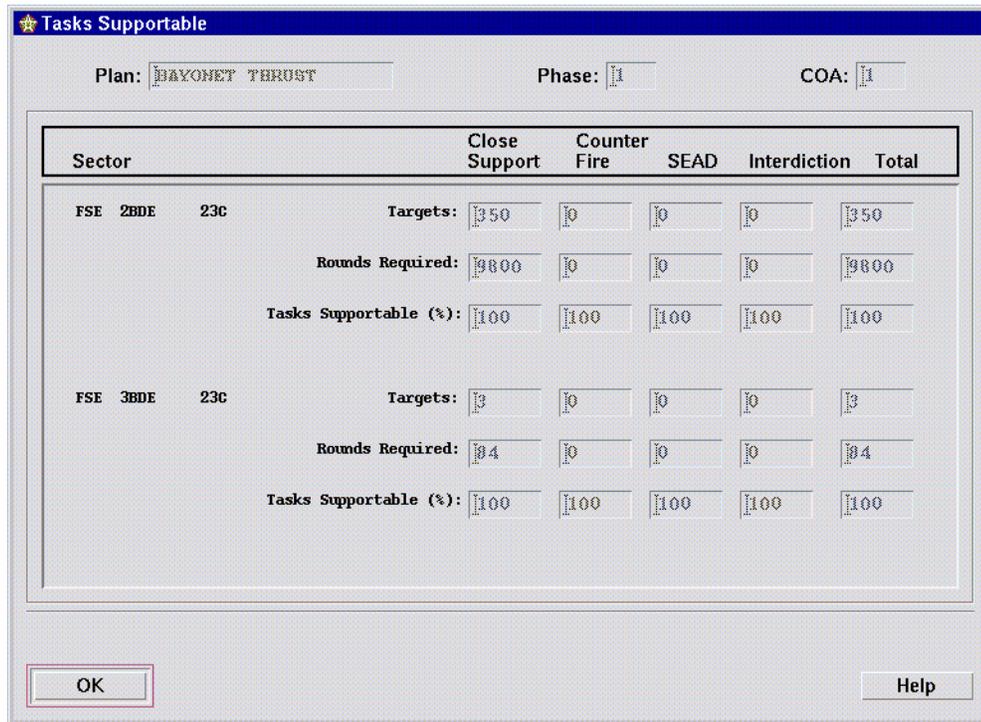
Selecting **OK** at any time closes this window and activates the **Organization For Combat** window. To perform other functions of **Organization For Combat** window after closing this window, refer to note prior to step 81. To perform the following functions of the **MOE Statistics** window, proceed to the indicated steps.

- Calculate values step 98
- View tasks supportable step 100
- View system utilization step 103

98.	<u>Select Calculate.</u>	Window values are calculated.
99.	To perform other functions of MOE Statistics window, refer to note prior to step 98.	

Create/Maintain Basic Plan Information Procedure - CONT

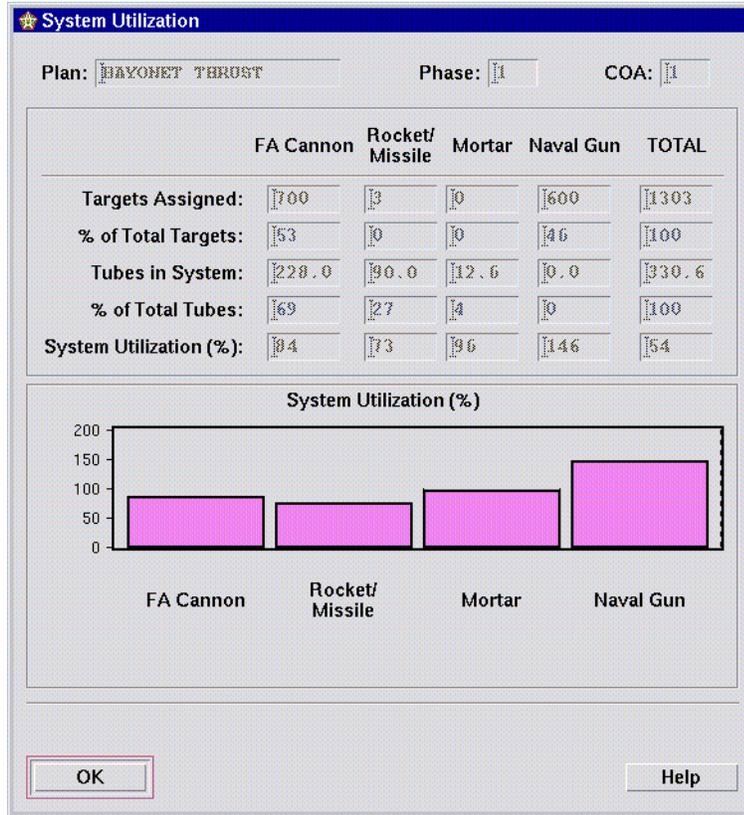
Step	Action	Response
100.	<u>Select Statistics\Tasks Supportable.</u>	Tasks Supportable window opens. This window displays support information for each battlefield sector derived from the latest MOE calculation for the COA.



101.	<u>Select OK.</u>	Tasks Supportable window closes.
102.	To perform other functions of MOE Statistics window, refer to note prior to step 98.	
103.	<u>Select Statistics\System Utilization.</u>	System Utilization window opens. Statistics shown are derived from latest MOE calculations for the COA.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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104. Select **OK**.

System Utilization window closes.

105. To perform other functions of **MOE Statistics** window, refer to note prior to step 98.

NOTE

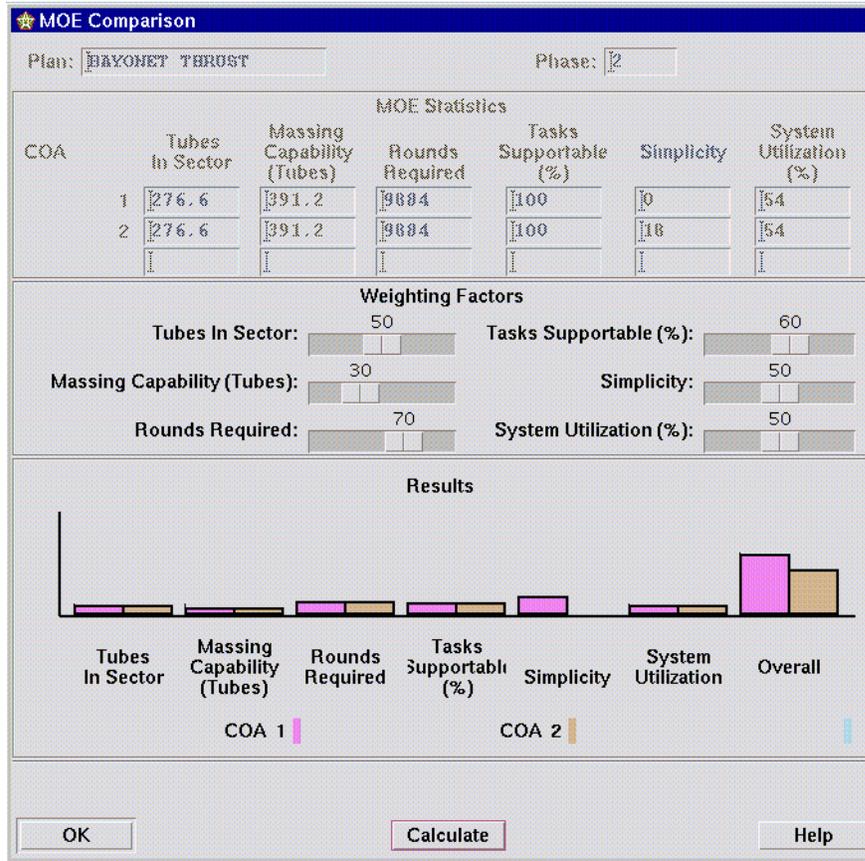
The following steps are not applicable unless at least two COA's have been constructed and the MOE statistics calculated.

106. Select **Options\MOE Comparison**.

MOE Comparison window opens. This window is used to calculate and compare effectiveness of planned COA's.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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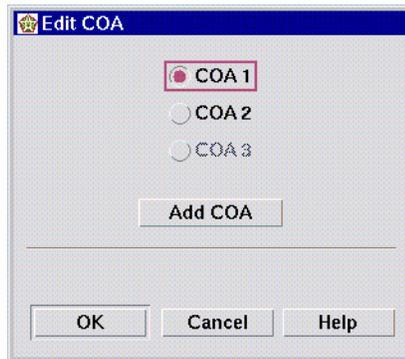
NOTE

The relative weights for **Measure of Effectiveness** bar graph is used to set the desired weighting for each category. Weighting is adjusted by dragging the weight indicator left or right, as required. The weighting applies to all COA's. After setting weights, a calculation is performed and the results are displayed graphically for each COA for comparison. The most effective COA will show the highest ranking on the MOE Ranking by COA bar graph. After experimenting with the weighting, the best COA is assigned to a plan and phase. The best COA is selected from the Planning Menu by selecting **Planning\COAs\Select COA** to open the **Select COA** window. Select the best COA number and **Select COA** button.

107.	Select relative weights for each MOE item as required.	Numerical value is indicated on the bar graph.
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Create/Maintain Basic Plan Information Procedure - CONT

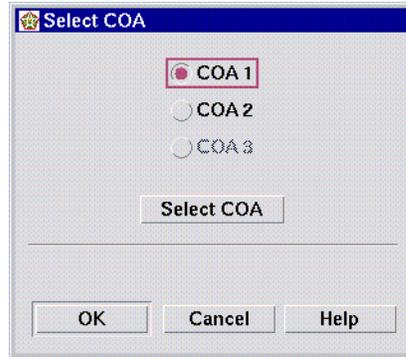
Step	Action	Response
108.	<u>Select Calculate.</u>	MOE Results update to relative weighting selection.
109.	<u>Compare MOE Results and MOE ranking for each COA.</u>	
110.	<u>Repeat steps 107 thru 109, as required.</u>	
111.	<u>Select OK.</u>	MOE Comparison window closes.
112.	To perform other functions of Organization For Combat window, refer to note prior to step 81.	
113.	<u>Select Planning\COAs\Edit COA.</u>	Edit COA window opens.



114.	<u>Select Add COA.</u>	Next COA in sequence is enabled.
115.	<u>Select COA to be edited.</u>	
116.	<u>Select OK.</u>	
117.	To perform other functions of map window, refer to note prior to step 29.	
118.	<u>Select Planning\COAs>Select COA.</u>	Select COA window opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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119.	<u>Select COA</u> to be used as phase of plan.	
120.	<u>Select Select COA.</u>	Confirm Select COA window opens.
121.	<u>Select Select COA.</u>	Selected COA is assigned to plan phase and Select COA window closes.
122.	To perform other functions of map window, refer to note prior to step 29.	
123.	<u>Select Planning\New Phase.</u>	Basic Plan Information window opens. Enter data starting with step 13.

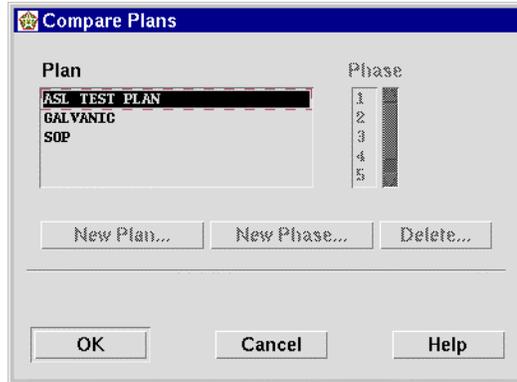
NOTE

Plans constructed for MCOA's are compared to evaluate and recommend a MCOA based on FS capabilities. FS Estimate text is prepared, targeting information added, and plan text prepared for the selected plan. The plan is then passed to the FA planner. The FA planner evaluates and modifies unit positions and FA guidances to best effect the FS plan.

124.	<u>Select Situations\Compare Plans....</u>	Compare Plans window opens.
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Create/Maintain Basic Plan Information Procedure - CONT

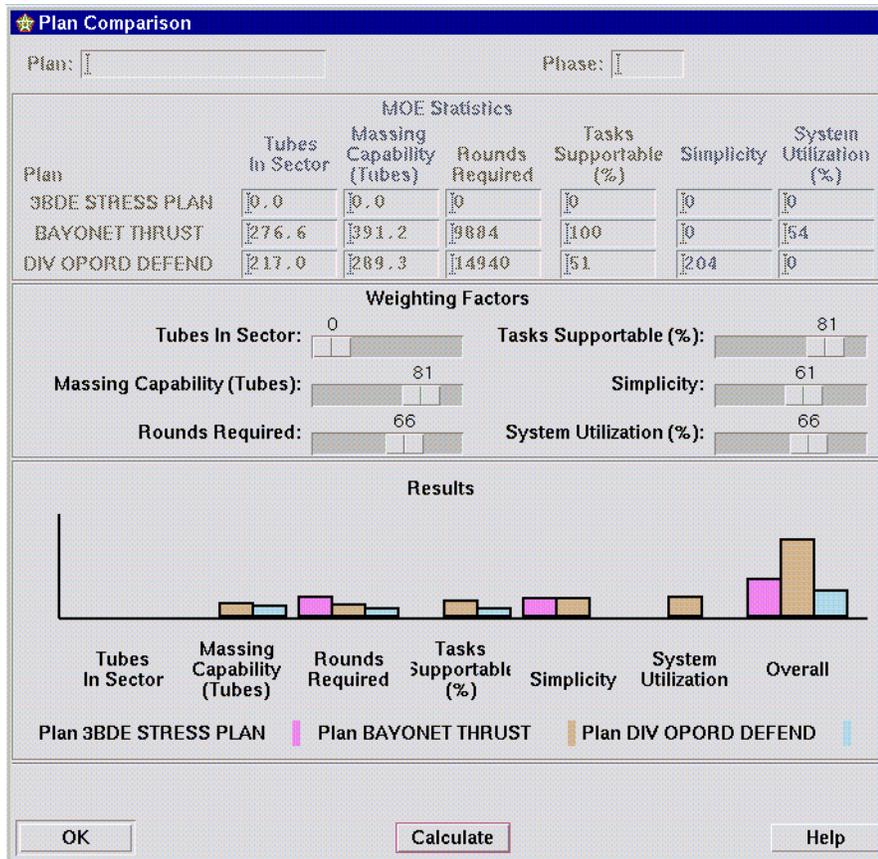
Step	Action	Response
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125. Select plans to compare.

126. Select OK.

Plan Comparison window opens.



Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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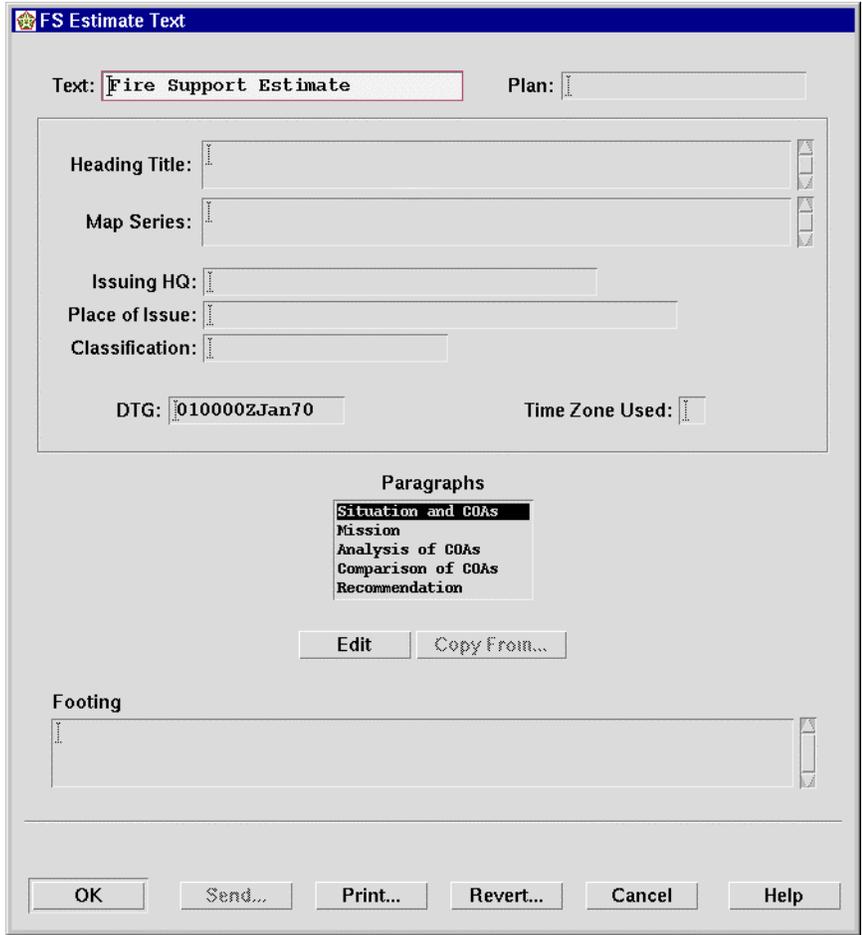
NOTE

The relative weights for bar graph is used to set the desired weighting for each category. Weighting is adjusted by dragging the weight indicator left or right, as required. The weighting applies to all plans. After setting weights, a calculation is performed and the results are displayed graphically for each plan for comparison.

127.	<u>Select relative weights</u> for each MOE item as required.	Numerical value is indicated on the bar graph.
128.	<u>Select Calculate</u> .	Results update to relative weighting selection.
129.	<u>Compare Results</u> and ranking for each plan.	
130.	<u>Repeat steps 127 thru 129</u> , as required.	
131.	<u>Select OK</u> .	Plan Comparison window closes.
132.	To perform other functions of map window, refer to note prior to step 29.	
133.	<u>Select Situations\FS Estimate Text</u> .	FS Estimate Text window opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. To perform other planning functions after closing this window, refer to note prior to step 29. To perform the following functions of the **FS Estimate Text** window, proceed to the indicated steps.

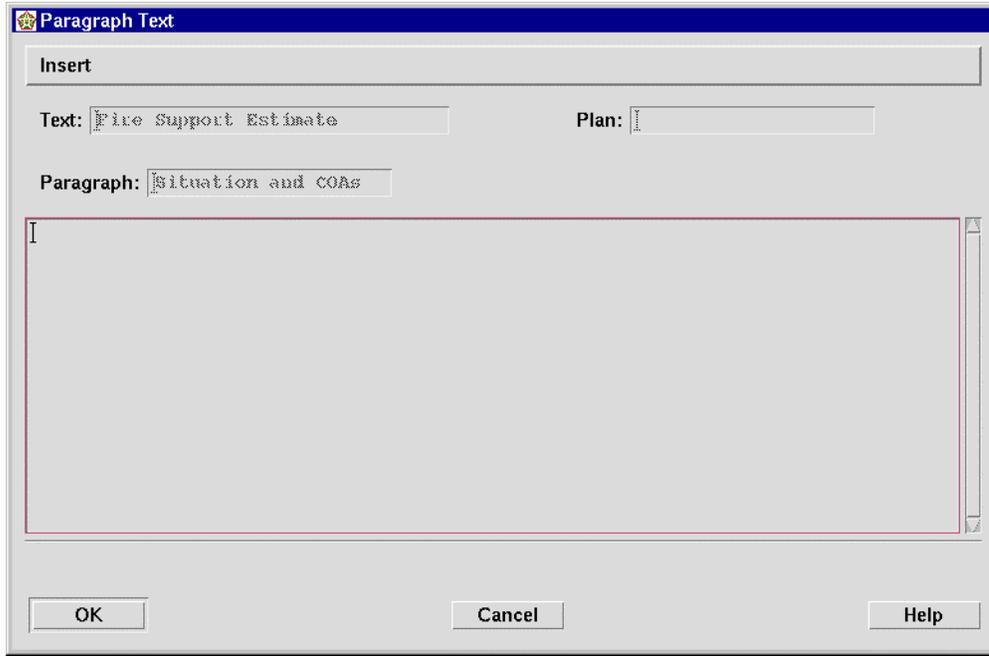
- Enter document data step 134
- Enter/Edit paragraph text step 144
- Revert to original text step 150
- Print FS Estimate text step 153

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
134.	<u>Edit Text:</u> field as required (1 - 30 alphanumeric or special characters).	
135.	<u>Enter Heading Title:</u> .	
136.	<u>Enter Map Series:</u> .	
137.	<u>Enter Issuing HQ:</u> (1 - 30 alphanumeric or special characters).	
138.	<u>Enter Place of Issue:</u> (1 - 40 alphanumeric or special characters).	
139.	<u>Enter Classification:</u> (1 - 20 alpha characters).	
140.	<u>Enter DTG:</u> .	
141.	<u>Enter Time Zone Used:</u> .	
142.	<u>Enter Footing.</u>	
143.	To perform other functions of FS Estimate Text window, refer to note prior to step 134.	
144.	<u>Select paragraph</u> from list.	
145.	<u>Select Edit.</u>	Paragraph Text window opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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NOTE

Plan Comparison and **Decision Matrix** data can be inserted in any paragraph. Select the data from the **Insert** menu. Selection will be inserted at the current cursor location.

146.	<u>Enter or edit text</u> in direct-entry field.	
147.	<u>Select OK.</u>	Paragraph Text window closes.
148.	Repeat steps 144 thru 147 for each paragraph as required.	
149.	To perform other functions of FS Estimate Text window, refer to note prior to step 134.	
150.	<u>Select Revert...</u>	Confirm Revert window opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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151.	<u>Select Revert.</u>	Confirm Revert window closes. All data for FS Estimate window reverts to the data present when window was opened.
152.	To perform other functions of FS Estimate Text window, refer to note prior to step 134.	

NOTE

Prior to printing, the **FS Estimate Text** window must be closed via **OK** and re-opened to save data to the database. Data not saved will not be printed.

153.	<u>Select Print...</u>	Print Settings window opens.
154.	<u>Select printer</u> and print parameters.	
155.	<u>Select OK.</u>	Print Settings window closes. Data is sent to selected printer.
156.	To perform other functions of FS Estimate Text window, refer to note prior to step 134.	
157.	<u>Select Planning\Text\FS Execution Matrix.</u>	FS Execution Matrix window opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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Options

Plan: SEA LION

Phase 1		
FSE	2BDE	23C
FSE	3BDE	23C

Remarks

OK Print... Cancel Help

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. To perform other functions of planning map window after closing this window, refer to note prior to step 29.

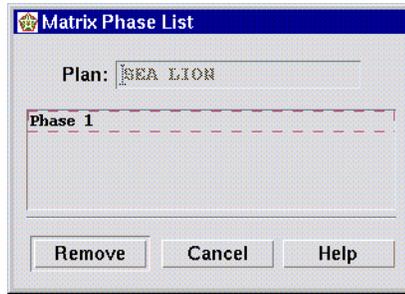
The **FS Execution Matrix** window is used to enter textual information for each FS unit and phase. This information is entered for each unit under the appropriate phase column, Adding or removing units and phases affects only this window. Plan data is not affected. To perform the following functions of the **FS Execution Matrix** window, proceed to the indicated steps.

- Add a unit step 158
- Remove a unit step 161
- Add a phase step 164
- Remove a phase step 167
- Print matrix step 171

158.	<u>Select Options\Add Unit.</u>	An additional row is added to end of list for added unit.
159.	<u>Enter unit ID</u> in left column of added row.	
160.	To perform other functions of FS Execution Matrix window, refer to note prior to step 158.	
161.	<u>Select unit</u> to remove.	
162.	<u>Select Options\Remove Unit.</u>	Selected unit is removed from matrix.
163.	To perform other functions of FS Execution Matrix window, refer to note prior to step 158.	
164.	<u>Select Options\Add Phase.</u>	An additional column is enabled end of list for added phase.
165.	<u>Enter phase ID</u> in top row of added column.	
166.	To perform other functions of FS Execution Matrix window, refer to note prior to step 158.	

Create/Maintain Basic Plan Information Procedure - CONT

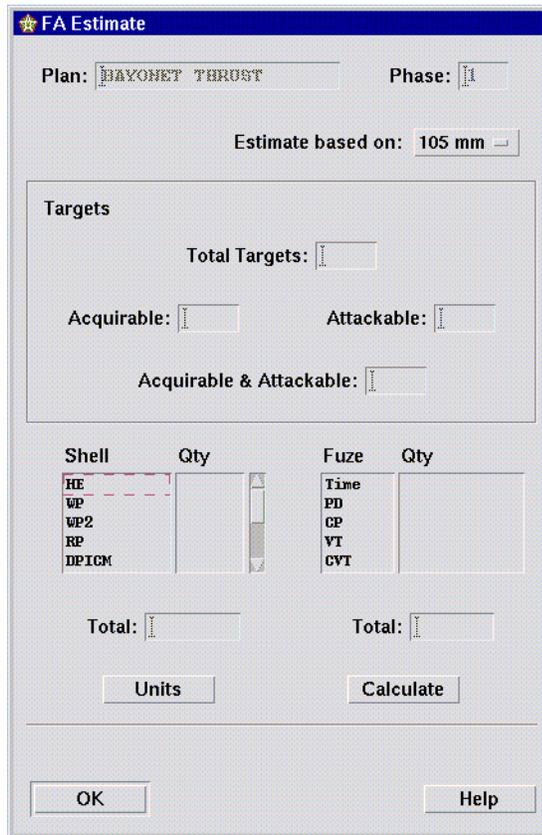
Step	Action	Response
167.	<u>Select Options\Remove Phase.</u>	Matrix Phase List window opens.



168.	<u>Select phase to remove.</u>	
169.	<u>Select Remove.</u>	Matrix Phase List window closes. Selected phase is removed from matrix.
170.	To perform other functions of FS Execution Matrix window, refer to note prior to step 158.	
171.	<u>Select Print...</u>	Print Settings window opens.
172.	<u>Select printer</u> and print parameters.	
173.	<u>Select OK.</u>	Print Settings window closes. Data is sent to selected printer.
174.	To perform other functions of FS Execution Matrix window, refer to note prior to step 158.	
175.	Ensure Fire Support Coordination Measures (FSCM) geometries have been entered in plan.	
176.	Create known targets.	
177.	Enter targets into lists, groups, series, fire plans, and schedules as required.	

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
178.	Return to note prior to step 29 and prepare plan text.	
179.	<u>Select Planning\FA Estimate.</u>	FA Estimate window opens.



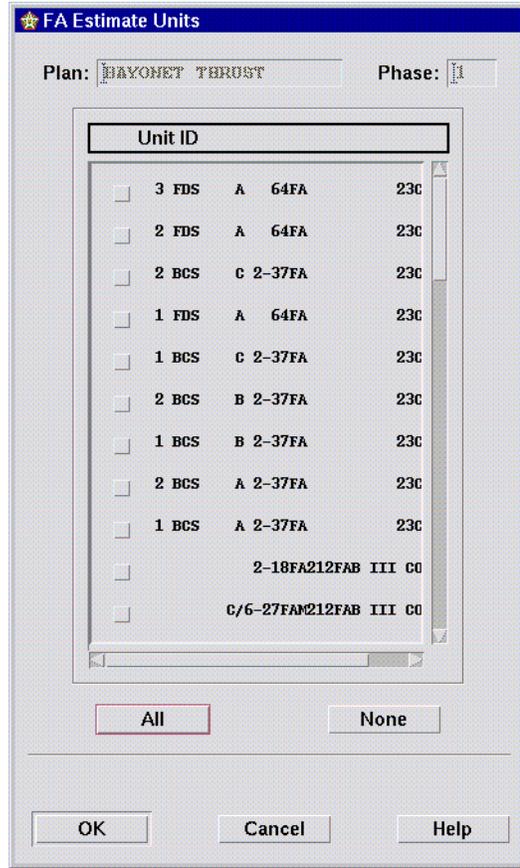
NOTE

Selecting **OK** at any time closes this window. To perform other functions of planning map window after closing this window, refer to note prior to step 29.

180.	<u>Select Units.</u>	FA Estimate Units window opens.
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Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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181. Select check boxes for units to be considered in estimate.

182. Select **OK**.

183. Select **Estimate based on:** by weapon caliber.

184. Select **Calculate**.

185. Position FA and sensor units to optimize estimate.

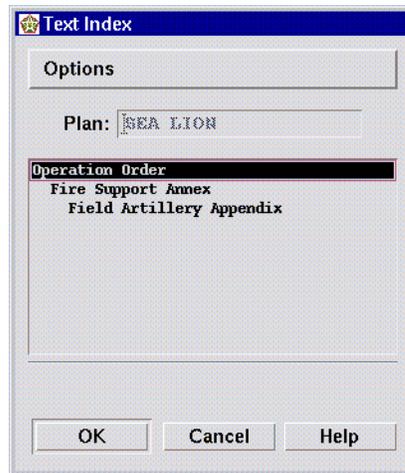
186. Repeat steps 184 and 185 as required.

FA Estimate Units window closes.

Targets in each category, shell, and fuze quantities are displayed.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
187.	<u>Repeat steps 183 thru 186</u> as required for each weapon caliber.	
188.	<u>Prepare FA Support Matrix</u> using procedures for FS Execution Matrix.	
189.	To perform other functions of FA Estimate Units window, refer to note prior to step 180.	
190.	<u>Select Planning\Text\Index...</u>	Text Index window opens.



NOTE

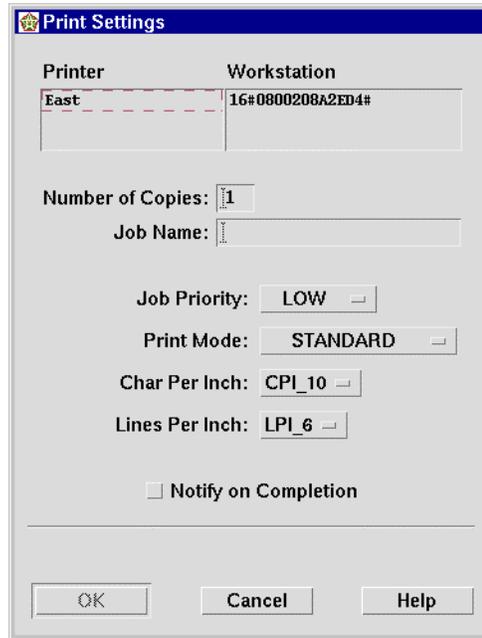
Selecting **OK** at any time closes this window. To perform the following functions of the **Text Index** window, proceed to the indicated steps.

- Print index selection step 191
- Clear an index selection step 203
- Create new section step 207
- Edit a section step 209

191.	<u>Select section</u> to be printed.	
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Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
192.	<u>Select Options\Print...</u>	Print Settings window opens.



193.	<u>Select Printer.</u>	
194.	<u>Enter Number of Copies:</u>	
195.	<u>Enter Job Name:</u>	
196.	<u>Select Job Priority:</u>	
197.	<u>Select Print Mode:</u>	
198.	<u>Select Char Per Inch:</u>	
199.	<u>Select Lines Per Inch:</u>	
200.	<u>Select Notify on Completion</u> if desired.	
201.	<u>Select OK.</u>	Print job is sent to selected printed. Print Settings window closes.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
202.	To perform other functions of Text Index window, refer to note prior to step 191.	

NOTE

Clearing a default section (**Operation Order**, **Fire Support Annex**, or **Field Artillery Appendix**) does not remove the section from the index. The section will be cleared and default data inserted, and all subordinate sections will be deleted. Clearing a section other than default removes the section and all subordinate sections from the index.

203.	<u>Select section</u> to be cleared.	
204.	<u>Select Options\Clear...</u>	Confirm Delete window opens.
205.	<u>Select Clear.</u>	Confirm Delete window closes. Selected sections are cleared.
206.	To perform other functions of Text Index window, refer to note prior to step 191.	

NOTE

New sections are created by selecting the section that the new section is to be subordinate. Selecting the **Fire Support Annex** in order to create and appendix is the highest level of **Options\New** functionally.

207.	<u>Select the section</u> for which a subordinate section is to be created.	
208.	<u>Select Options\New.</u> Proceed to note prior to step 211.	Plan Text window opens.
209.	<u>Select section</u> to be edited.	
210.	<u>Select Options>Edit.</u>	Plan Text window opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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The screenshot shows a window titled "Plan Text" with the following fields and content:

- Text:** Operation Order
- Plan:** SEA LION
- Heading Title:** I WOULD NOT FOLLOW THIS PLAN IF I WERE YOU.
- Map Series:** LLMF
- Issuing HQ:** OPS 1-37FA 23C
- Place of Issue:** NO PLACE
- Classification:** Unclassified
- DTG:** 191604ZOct98
- Time Zone Used:** Z

Below these fields is a "Paragraphs" section with a list box containing:

- Situation (highlighted)
- Mission
- Execution
- Service Support
- Command and Signal

Buttons "Edit" and "Copy From..." are located below the list box.

At the bottom is a "Footing" field containing the text: "Loose and uneven."

At the very bottom are buttons: OK, Send..., Print..., Revert..., Cancel, and Help.

NOTE

Selecting **OK** at any time closes this window and activates the **Text Index** window. To perform other functions of **Text Index** window after closing this window, refer to note prior to step 191. To perform the following functions of the **Plan Text** window, proceed to the indicated steps.

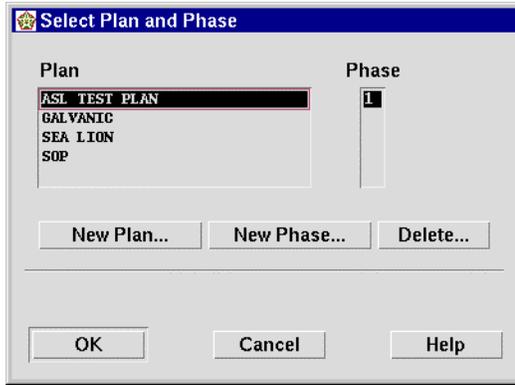
- Enter/edit header and footing data step 211
- Copy paragraph data step 220
- Edit paragraph step 229
- Print this section step 237
- Revert to original text step 248

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
211.	<u>Enter Text</u> : name. Name as it will appear in index. (1-30 alphanumeric or special characters).	
212.	<u>Enter Heading Title</u> : (1-100 alphanumeric or special characters).	
213.	<u>Enter Map Series</u> : (1-100 alphanumeric or special characters, defaults to data entered as basic plan info).	
214.	<u>Enter Place of Issue</u> : (1-40 alphanumeric or special characters).	
215.	<u>Enter Classification</u> : (1-20 alpha characters).	
216.	<u>Enter DTG</u> : (standard DTG format).	
217.	<u>Enter Time Zone Used</u> :	
218.	<u>Enter Footing</u> :	
219.	To perform other functions of Plan Text window, refer to note prior to step 211.	
220.	<u>Select paragraph</u> to receive copied text.	
221.	<u>Select Copy From...</u>	Select Plan and Phase window opens.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
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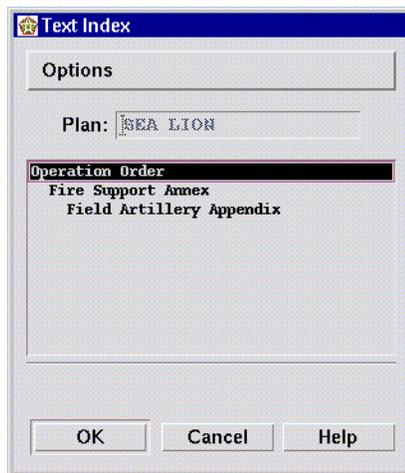


222. Select plan to copy.

223. Select phase to copy.

224. Select OK.

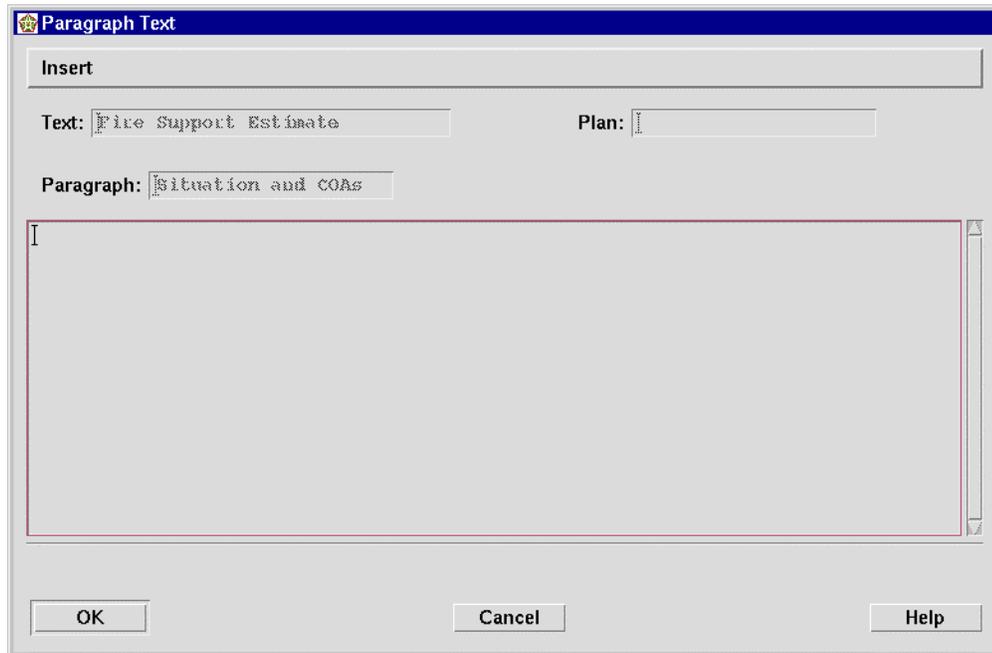
Select Plan and Phase window closes. Text Index window for select plan/phase opens.



225. Select section to copy.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
226.	<u>Select OK</u> .	Text Index window closes. Text is copied into selected paragraph.
227.	Repeat steps 225 and 226 as required.	
228.	To perform other functions of Plan Text window, refer to note prior to step 211.	
229.	<u>Select paragraph</u> to edit.	
230.	<u>Select Edit</u> .	Paragraph Text window opens.



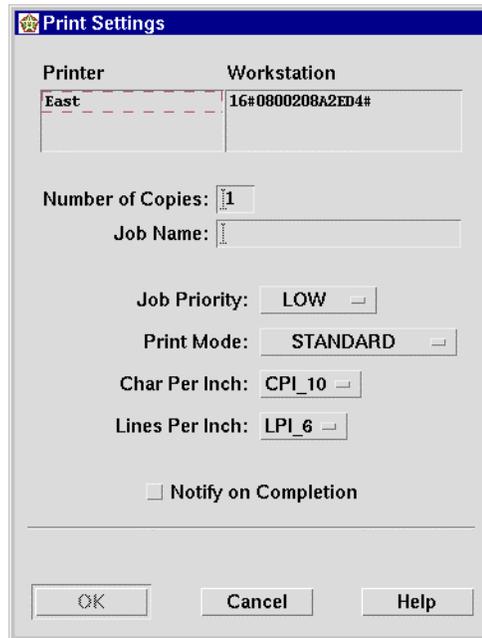
NOTE

Selecting **OK** at any time saves the text to the database, closes this window, and activates the **Plan Text** window. To perform other functions of **Plan Text** window after closing this window, refer to note prior to step 211. To perform the following functions of the **Paragraph Text** window, proceed to the indicated steps.

- Insert data step 231
- Edit data step 235

Create/Maintain Basic Plan Information Procedure - CONT

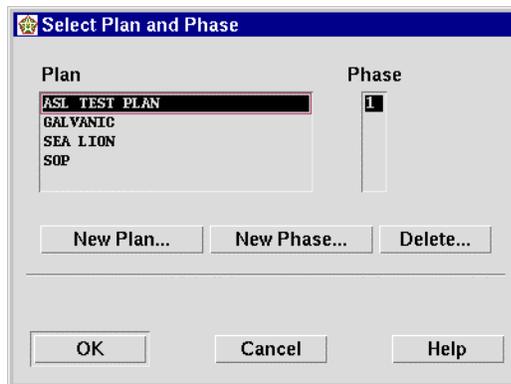
Step	Action	Response
231.	<u>Position cursor</u> at point data is to be inserted.	
232.	<u>Select data type</u> from Insert menu.	
233.	Repeat steps 231 and 232 as required.	
234.	To perform other functions of Paragraph Text window, refer to note prior to step 231.	
235.	<u>Edit data</u> using procedure described in direct-entry fields paragraph.	
236.	To perform other functions of Paragraph Text window, refer to note prior to step 231.	
237.	<u>Select Print...</u>	Print Settings window opens.



238.	<u>Select Printer</u> .	
239.	<u>Enter Number of Copies:</u>	

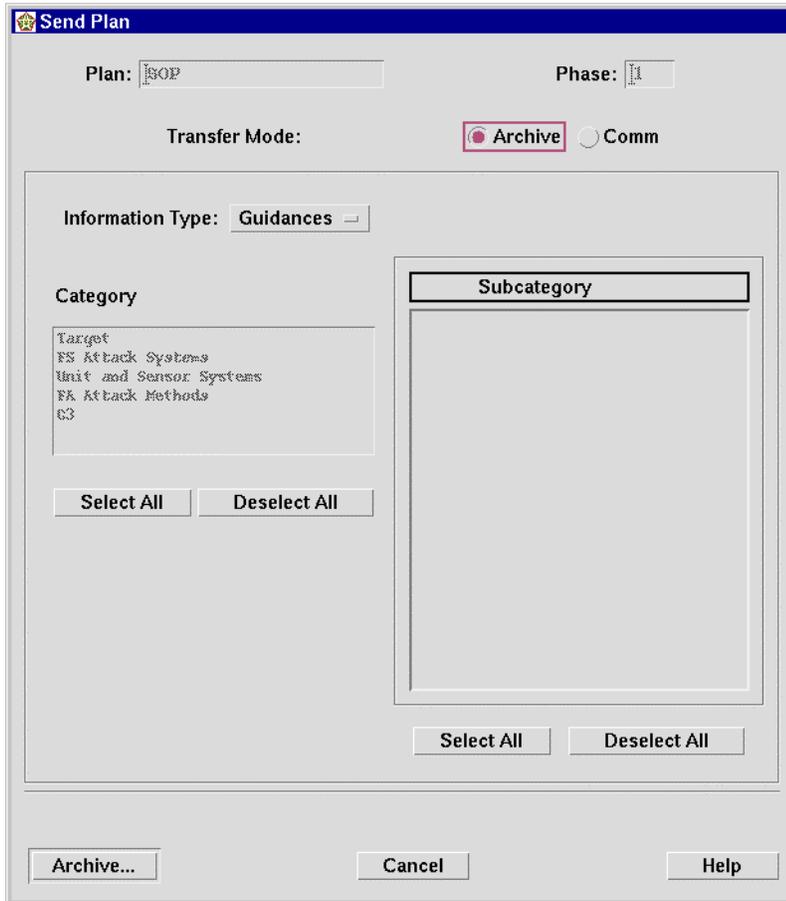
Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
240.	<u>Enter Job Name:</u>	
241.	<u>Select Job Priority:</u>	
242.	<u>Select Print Mode:</u>	
243.	<u>Select Char Per Inch:</u>	
244.	<u>Select Lines Per Inch:</u>	
245.	<u>Select Notify on Completion</u> if desired.	
246.	<u>Select OK.</u>	Print job is sent to selected printed. Print Settings window closes.
247.	To perform other functions of Paragraph Text window, refer to note prior to step 211.	
248.	<u>Select Revert...</u>	Confirm Revert window opens.
249.	<u>Select Revert.</u>	Confirm Revert window closes. Changes made to Plan Text window and all paragraphs are discarded.
250.	To perform other functions of Paragraph Text window, refer to note prior to step 211.	
251.	<u>Select Situations\Transfer Plan...</u>	Select Plan and Phase window opens.



Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
252.	<u>Select Plan and Phase</u> to transfer.	
253.	<u>Select OK</u> .	Select Plan and Phase window closes. Send Plan window opens.



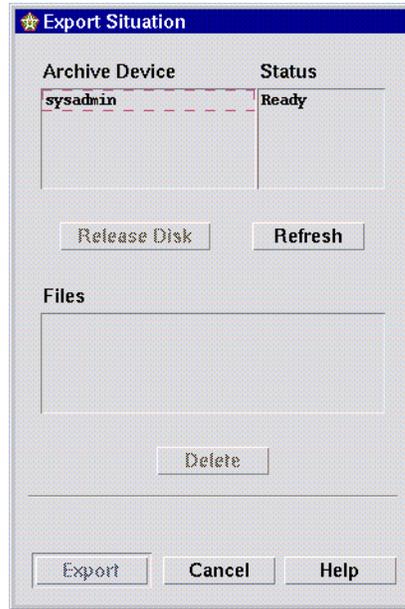
NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **Send Plan** window, proceed to the indicated steps.

- Copy (archive) plan to optical disk step 254
- Transfer plan via communications step 259

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
254.	Select Archive radio button.	
255.	Select Archive...	Export Situation window opens.



256.	Select Archive Device .	
257.	Select Export .	Export Situation window closes. Low-level alert generated to notify user of export results.
258.	To perform other functions of planning map window, refer to note prior to step 29.	
259.	Select Comm radio button.	

NOTE

If **All Data** is selected as the **Information Type**:, all data for each **Category** and **Subcategory** will be selected. Selecting **Select All** or **Deselect All** for the **Category** field performs the appropriate function on each **Subcategory**.

Create/Maintain Basic Plan Information Procedure - CONT

Step	Action	Response
260.	<u>Select Information Type:</u>	Category list displays selections for selected information.
261.	<u>Select Category.</u>	Subcategory list displays selections for selected category.
262.	<u>Select Subcategory</u> items.	
263.	Repeat steps 260 thru 262 for each Information Type : as required.	
264.	<u>Select Send...</u>	Send Plan window closes. Send To window opens.
265.	<u>Select Units and/or Distribution Lists</u> as required.	
266.	<u>Select OK.</u>	Send To window closes.
267.	To perform other functions of planning map window, refer to note prior to step 29.	

SECTION 2 FIRE PLANNING

5-2 OVERVIEW.

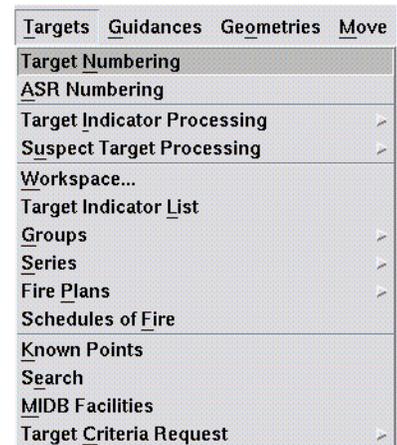
The **Targets** selection is used to access windows for the management of the target data within AFATDS. The **Targets\Workspace...** selection is available from both the current and planning situations. This selection opens the **Target List** window. This window allows access to all target lists via a menu tree. In the current situation, target lists are divided into **Active, Inactive, On Call, ATF, Planned,** and **Suspect**. The operator can also create and name up to four (4) target lists for the maintenance of specific or categorized targets. These lists, as well as ASL's, are accessed via the **Target List** window.

In the planning situation, all targets are of the planned type. Target list functions are not available for COA's. A phase must be completed before target functions can be used. The user creates and edits targets lists for plans and phases. The system creates a master target list for each plan/phase. All targets from all target lists are entered in this list as they are created. This list is displayed using the plan alias followed by the phase number.

Planned targets in the master list are added to the **On Call** list when a phase is implemented to the current situation.

Targets can be associated into **Groups** and/or **Series**. A group of targets consist of a number of targets that fire missions are initiated on at the same time. A series of targets is a number of targets that are fired upon in a specified order and time interval. A group of targets can be included in a series. In this case the grouped targets will be fired at the same time but within series with other targets.

Fire Plans consist of individual targets, groups, and series. These plans allow a number of targets to be scheduled for firing by specified units. The **Schedule of Fires** window is accessed from the **Fire Plan** window **Options\Schedule** menu. Units are selected to fire the targets of the fire plan and the schedule calculated.



5-3 TARGET MANAGEMENT FUNCTIONS.

5-3.1 Target List Windows Navigation.

The **Target List** window is accessed via the **Targets\Workspace...** menu selection or the **Tgt** icon on the Tool Bar.

A list field on the right of the window is used to display established target lists by name and individual targets within the list. This window is used to select targets from other lists to be included in the list currently being viewed. Selecting a list and the transfer arrow moves all targets in the list to the **Target Type** window. Selecting a target list and **Open** displays the targets in the list and enables **Previous**. Selecting specific targets and the transfer arrow moves the targets to the **Target Type** window. Selecting **Previous**, when enabled, displays the previous window.

The **Target List** window contains a **Mission Prioritization** button and **Target** and **List** menu selections. The **Mission Prioritization** selection opens a window of the same name that is used to set mission priorities.

The **List\Check for Duplicates** selection uses the target duplication guidance to determine if targets in the list are considered duplicates. If duplicate targets are found, the **Duplicate Targets** window is opened.

The **Target\Find...** selection opens the **Find Target** window. Entering a target number in this window and selecting **OK** closes the window and enables the **Target List** window with the selected target number displayed and selected.

The **New**, **Copy**, **Edit**, and **Description** selections from the **Target List** window **Target** menu all open the **Basic Target Information** window. The mode that the window is opened in depends on the selection made. The different modes are described in the paragraph on the **Basic Target Information** window.

The **Target\Delete...** selection opens the **Remove Target Confirm** window. Confirmation of the deletion removes the target from the target list but does not remove the target data from the database.

The **Target\Status** selection opens the **Target Status** window. This window displays the data for a selected target.

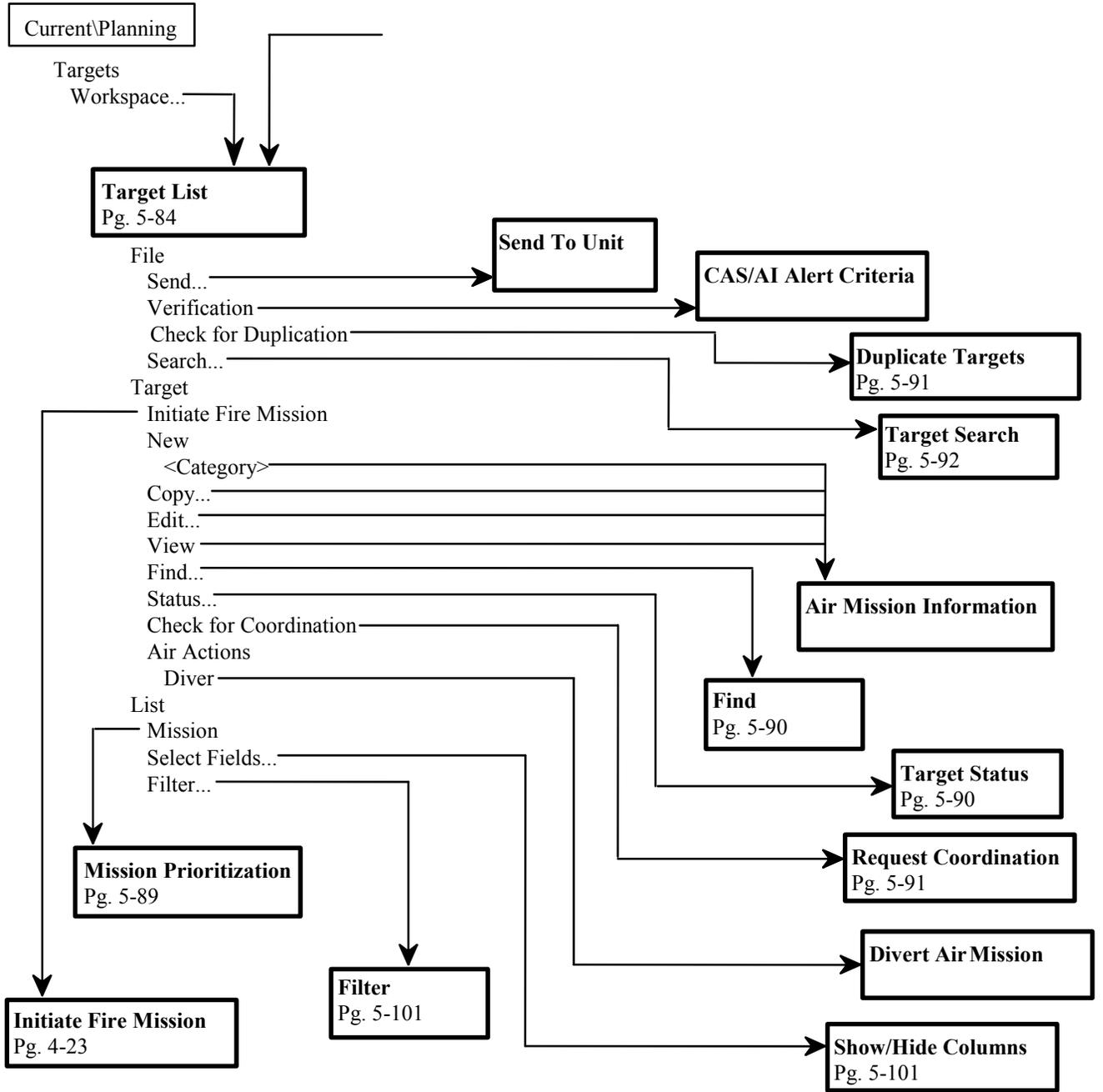


Figure 5.17 Targets Navigation

5-3.2 Target List Window.

The **Target List** window is used to display all of the target and ASL lists in AFATDS. The top of the window contains the menu bar, icon tool bar, field identifying the **List:** being displayed, and the **Plan:** name. A menu tree is used to select the target list to be displayed in the working list (the area to the right of the menu tree). The working list displays various user-selected data columns, e.g., **Target Number, Target Type, Prec,** and **Val.** The **List>Select data fields** selection opens the **Select Target List Fields** window. This window allows the user to select and order the displayed fields for the target list. A field below the target descriptions indicates the number of pages contained in the viewed target list and the page number being viewed. Arrows are used to move forward and backward through the pages.

The bottom portion of the window contains two scrollable fields. The size of these fields can be changed by increasing the size of the window or by dragging the bar that separates them to the right or left. The width of the columns in the right field can also be changed by dragging the bars between the column headings to the left or right.

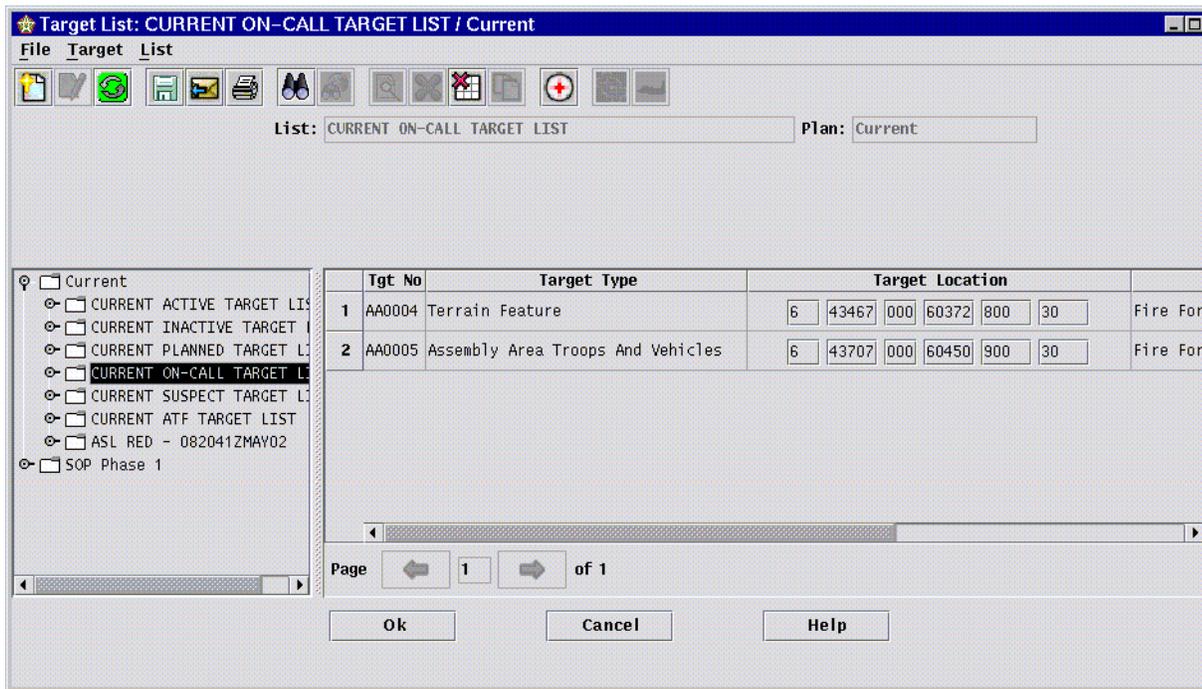


Figure 5.18 Target List Window

The left field contains listings for the Current situation and any plans that are in the database. These items have a folder and switch icon to the left of the situation name. Selecting the switch icon or double clicking the name or folder icon will cause the folder to open and display any folders or targets that are contained inside. For example, opening the **Current** folder will display a folder for each target list (including ASL's) contained in the current situation. Opening a target list folder will display the targets within that list. Folders are closed in the same manner as the opening.

The right field is used to display the targets and ASR's of the lists. The operator can choose the fields to be displayed and the order that they are displayed. Display data is selected using the **Hide/Show Columns** window. This window is opened via the **List>Select Fields...** menu selection.

Four of the fields (columns) are color-coded. These indicate the state of the air mission and will change as the mission progresses. The fields include **Req** (request), **Apr** (approval), **Fwn** (flown), and **BDA** (battlefield damage assessment).

The colors used are:

White	No state
Yellow	Pending
Green	Complete/Approved
Red	Denied

When an ASR is created or received, the **Req** field will be Yellow and all other fields White. Sending the ASL changes the state of the ASR to requested. The **Req** field will become Green and the **Apr** field changes to Yellow. If the approval authority denies the mission, the **Apr** field will change to Red. If the mission is approved, the **Apr** field will change to Green and the **Fwn** field to Yellow.

When the mission is flown and the state changed to completed, the **Fwn** field changes to Green. The **BDA** field will change to Yellow or Green depending on whether an entry has been made in the **Mission Results** field on the **Air Mission Information** window. With no data in this field, the **BDA** field will be Yellow. If an entry is made, the field will be Green.

New ASL's are created by selecting the current or a plan folder from the menu tree and right-clicking. **New ASL** is selected from the menu. This selection opens a ASL window for the situation being viewed (e.g., Current Phase 1, Yankee Phase 2, etc.). Entering a **List:** name and **Start:** and **End:** times enables the **Create ASL** button. Selecting this button creates the ASL. This button is not available in the edit mode.

The **Target\Find...** selection opens the **Find** window. The data to be found is entered and **Apply** or **OK** selected. The ASL list will display all ASR's that contain the find criteria.

The **List\Approved ASL** and **List\Denied ASL** selections apply a filter to the ASL. Selecting approved or denied filters the list to display only the selected ASR's. The **List\Remove All Filters** selection removes all filters from the display criteria. This includes any filters set by the **List\Filter...** selection and filters set by **Approved ASL** and **Denied ASL** functions.

The **File** menu selections are used to manage the data of the ASL in the display and the database. The **File\Save** function saves any changes to the database without closing the window.

The **File\Refresh** selection updates the window to display any changes in status or ASR's received since the window was opened. The **File\Clear** selection removes any ASR's created since the last save action.

The **File\Send...** and **File\Print...** selections open the **Sent To** and **Print Settings** windows respectively. Entering window data and selecting **OK** then sends the ASL to a selected unit or printer.

The **File\Export to Floppy** selection copies a selected ASL to a floppy disk and changes the state of the ASR's from Created to Requested.

The **Target\Add From Map** selection takes a target that has been selected from the map and adds it to the ASL list. An ASR number is also assigned. The **File\Check For Duplication** initiates a check of the target list for targets that are considered duplicates using criteria established by the Target Duplication guidance. The **Duplicate Targets** window opens if a duplication is detected.

The **List\Mission Prioritization** selection opens a window of the same name that is used to set mission priorities. The **File\Verification** selection opens the **CAS\AI Alert Criteria** window. This window is used to set the timing of notifications issued prior to a mission start time.

The **Target\Initiate Fire Mission** selection opens the **Initiate Fire Mission** window. This window is available only in the current situation and allows the user to enter information to initiate a fire mission. If air is selected as the fire system, an ASR will be created and added to the appropriate ASL.

The **Target\New** selection cascades to selections that allow the operator to select a ASR type. After selection, the **Air Mission Information** for the selected type is opened.

The **Target\Copy...**, **Edit...**, and **View...** selections all open the **Air Mission Information** window. The **Copy...** function opens the window with the data of the selected ASR displayed and a new ASR number. The operator then edits the data to create a new ASR. The **Edit...** function opens the window with the data of the selected ASR displayed and allows the data to be edited. The **View...** selection opens the window in a view only mode.

The **Target\Target Actions\Execute** selection is enabled if a selected mission is in a confirmed status and is an on-call type mission. Selecting **Target\Execute** sends the mission to the mission processing function.

The **Target\Target Actions\Divert** selection is used to change a mission that is confirmed but has not yet been flown to another target number. This selection opens the **Divert Air Mission** window for entry of the new target number.

The **Target\Target Actions\Complete** selection is enabled for all missions that have a confirmed status. This selection allows the operator to manually complete a mission that has been flown.

The **Target\Target Actions\Approve** and **Deny** selections allow those who have the authority to approve or deny ASR's that are in the Created state.

The **Target\Status...** selection opens the **Target Status** window for a selected target. This window displays a history of actions taken on the target as well as the current status.

Selecting a mission from the list and **Target\Find On Map** causes the map display to be centered on the target symbol.

The **Target\Check For Coordination** selection opens the **Request Coordination** window that displays any coordination requirements for the selected mission.

5-3.2.1 Menu Tree.

NOTE

When attempting to open a folder in the following paragraph, the key icon will disappear if the selected folder is empty.

The menu tree contains a top level folder for the Current situation and each established Plan/Phase. Each folder contains sub-folders for each list which then contain the targets of that list. Each folder has a key icon displayed to the left of the folder. Left-clicking the key icon or left double-clicking the folder icon opens the folder to display its contents. For example, opening the Current folder causes the display of the target lists of the Current situation. Opening a target list folder displays the actual contained targets by number. The opening of a folder in the menu tree by this method only expands the tree itself; the working list fields will not change. The target data displayed will be that of the Current Active Target List when this window is initially opened.

Pop-up menus are contained within the menu tree to allow the user to maintain the lists. The pop-ups are opened by first selecting (left-click) a folder or target and then a right-click. The menu selections enabled are dependant on the folder, list, or target. Selecting a Situation folder (Current or Plan) displays selections of **New** or **New ASL**. These selections allow the creation of a new target list or ASL within the selected situation. The window will be modified to display fields required for the selected function.

To display the working list data for a target list or ASL, select the list and right-click **Open**. The list name will be displayed along with the situation at the top of the window. Other functions available for target lists include **Copy to List**, **Merge**, and **Delete....**

The **Copy to List** function is used to copy all targets from a list to another list. For example, to copy targets from the Planned list to the On-call list, would first open the On-call list. Then the Planned list is selected but not opened. A right-click **Copy to List** copies all targets from the Planned list to the On-call list.

Individual targets can also be copied to a list using the **Copy to List** function. A target list is expanded in the menu tree to display the targets. Targets are then selected using multiple-selection list procedures and a right-click **Copy to List** copies selected targets to displayed target list.

The right-click **Merge** function is similar to the **Copy to List** function. Both the working list and the menu tree selected list must be ASL's. When **Merge** is selected, the list from the menu tree will be merged into the working list and the selected list will be deleted.

A right-click **Delete...** will delete, after confirmation, a selected list unless the list is one of the default lists.

5-3.2.2 Targets Working List.

The Working List contains data on all of the targets for a selected target list. The user can select the data (columns) that are to be displayed and the order of display using the **List\Select Fields...** menu selection. The displayed targets can also be filtered to show targets that contain specific data in specified columns. This function is accessed via the **List\Filter...** selection.

Tgt No	Target Type	Target Location	Fire For
1	AA0004	Terrain Feature	Fire For
2	AA0005	Assembly Area Troops And Vehicles	Fire For

Figure 5.19 Targets Working List

The Working List also contains a right-click popup menu. Menu selections include **Initiate Fire Mission**, **New** or **New ASR** (dependant on list type), **Copy...**, **Edit...**, **Delete...**, and **View...**

The **Initiate Fire Mission** selection opens the **Initiate Fire Mission** window for a selected target from the list. If a target is not selected, the **Initiate Fire Mission** window opens to initiate a new mission.

The **Copy...**, **Edit...**, and **View...** selections open the **Basic Target Information** window to allow completion of the selected function. A right-click**Delete...** will delete, after confirmation, a selected target(s) from the list.

The **Automatically Purge** check box, when selected causes ST's to be deleted upon expiration of their decay times.

NOTE

When entering a new value of **Minimum Overlap (%)**:, the **Suspect Target List** window must be closed via **OK** and re-opened for the new value to be in effect.

The **Minimum Overlap (%)**: field is a required entry with a legal range of 1 to 100. This establishes the minimum overlap required to combine two targets. Only one of the targets must meet the requirement.

5-3.3 Mission Prioritization Window.

The **Mission Prioritization** window is used to view or edit FS guidances related to mission prioritization. The related guidances are Assigned Value Matrix, Fire Mission Cutoff Value, On-Call Precedence, Priority Of Fires, and the Targeted Area Of Interest (TAI). These guidances may vary by plan and may be manipulated in both the planning and current roles. For further description and functionality of this window, refer to the Mission Prioritization portion of the Guidances paragraph.

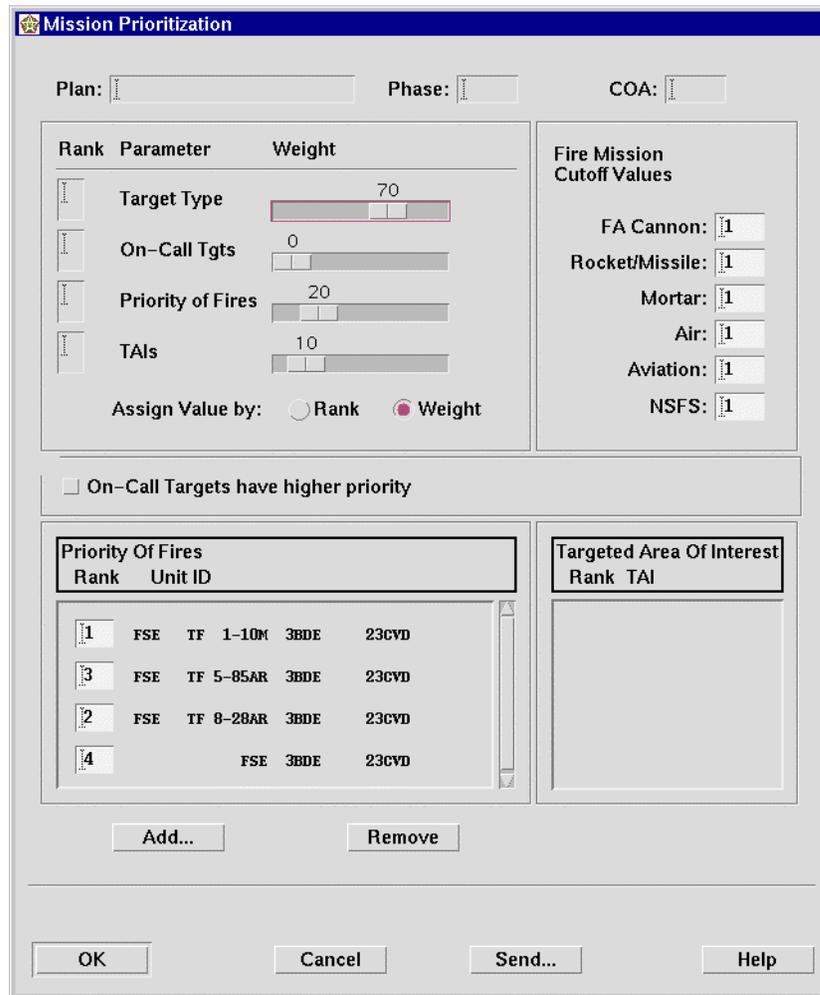
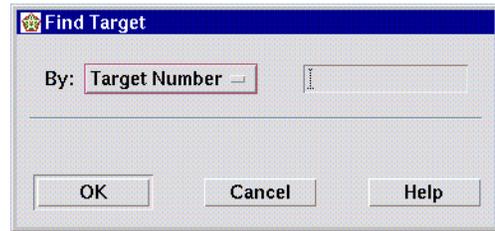


Figure 5.20 Mission Prioritization Window

5-3.4 Find Window.

The **Target\Find...** selection on the **Target List** window locates a target number within the list. The selection opens the **Find Target** window. The user enters the **Target Number:** and selects **OK** to close the window and highlight the target in the list.



5-3.5 Target Status Window.

The **Target Status** window is opened by selecting a target from the target list and **Target\Status** on the **Target List** window. This window lists status reports for the selected target number. Statuses are listed with the last received at the top of the list.

The **Target Number:** field is view only and displays the selected target number. The **Enable Alert** check box, when selected, enables the generation of an alert signaling the user when a status report is received. This selection is optional.

The **Last Status From** fields displays the unit ID of the last reporting unit. This field is view only.

The status entries display the **Action**, **Unit**, **Type**, and **Time** information. The **Action** field will display **Rcvd** (received) or **Xmtd** (transmitted). The **Unit** field displays the unit associated with the **Action**. The type of request is displayed in the **Type** field. The **Time** of the **Action** is displayed in DTG format. These fields are view only.

The **Request Status From** field is used to input a unit ID that is used with the **Request Status** and **Trace** functions. The **Request Status** button sends a status request to the unit entered in the **Request Status From** field. The **Trace** button sends a status request to the unit entered in the **Request Status From** field and to each unit that has received the target mission.

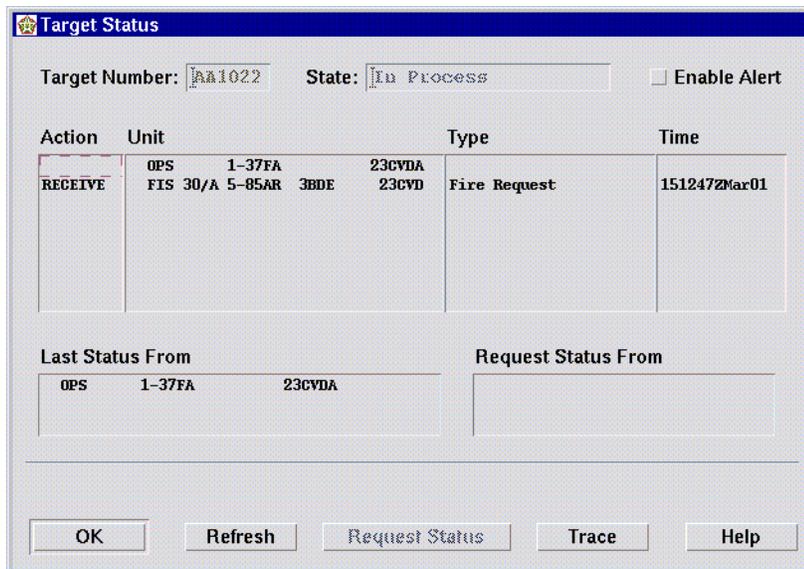


Figure 5.21 Target Status Window

5-3.6 Request Coordination Window.

This window is accessed from the **Target List** window via the **List\Check for Coordination** selection. The **Request Coordination** window lists the information for a specific **Target Number**: that the host OPFAC is requesting coordination to conduct a fire mission. This window opens only if coordination will be required.

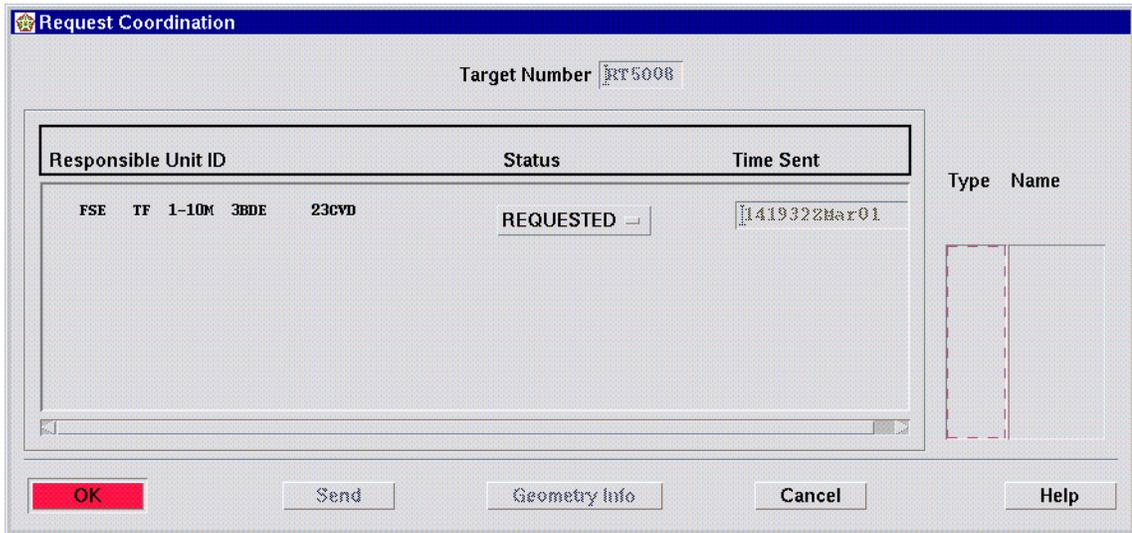


Figure 5.22 Request Coordination Window

5-3.7 Duplicate Targets Window.

The **List\Check for Duplicates** selection on the **Target List** window initiates a check of the target list for targets that are considered duplicates using criteria established by the Target Duplication guidance. The **Duplicate Targets** window opens if a duplication is detected. **Target Number**, **Target Type**, **Location**, **Strength**, and **Observer** data for each target is displayed. This data is view only.

The user may select a target to edit or delete to resolve the duplication, or the targets may be combined under the target number of the most current target. **Continue** restarts the search for more duplications.

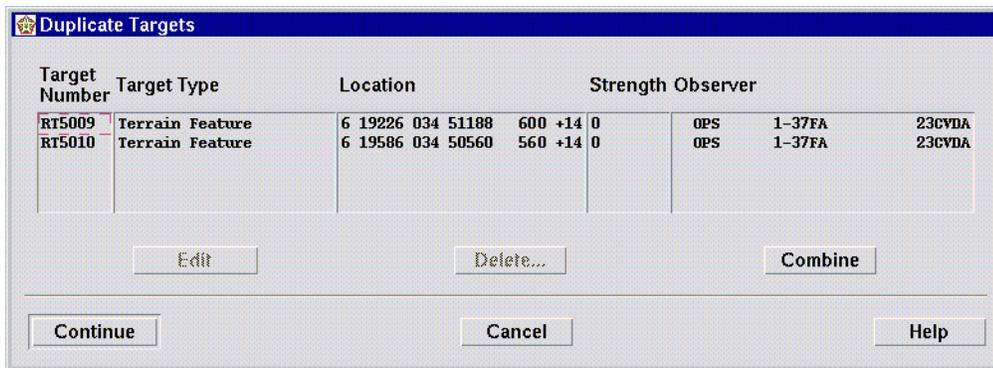


Figure 5.23 Duplicate Targets Window

5-3.8 Target Search.

The Target Search function is used by the operator to locate established targets on local or other OPFAC target lists. The **Target Search** window is opened via the **Targets\Search** selection from the situation menu bar or the **File\Search...** selection from the **Target List** window. The operator establishes the search criteria on this window and activates the search locally or sends search criteria to another OPFAC. The search is activated locally by selecting the **Search** button. Target lists at other OPFAC's are searched by selecting the **Send Query...** button. This opens the **Select Unit** window for selection of a destination unit. The search results are displayed on the bottom portion of the window.

5-3.8.1 Target Search Window.

The **Target Search** window is opened via the **Targets\Search** selection. The top portion of the window is used to establish the search criteria. **Target Lists**, **Target Categories**, and **Target Types** can be selected for search criteria using check boxes. Each of these also has an **All** check box for selection of all entries within the category. The **Target Lists** also contains a **Current** button that is used to select all lists in the current situation.

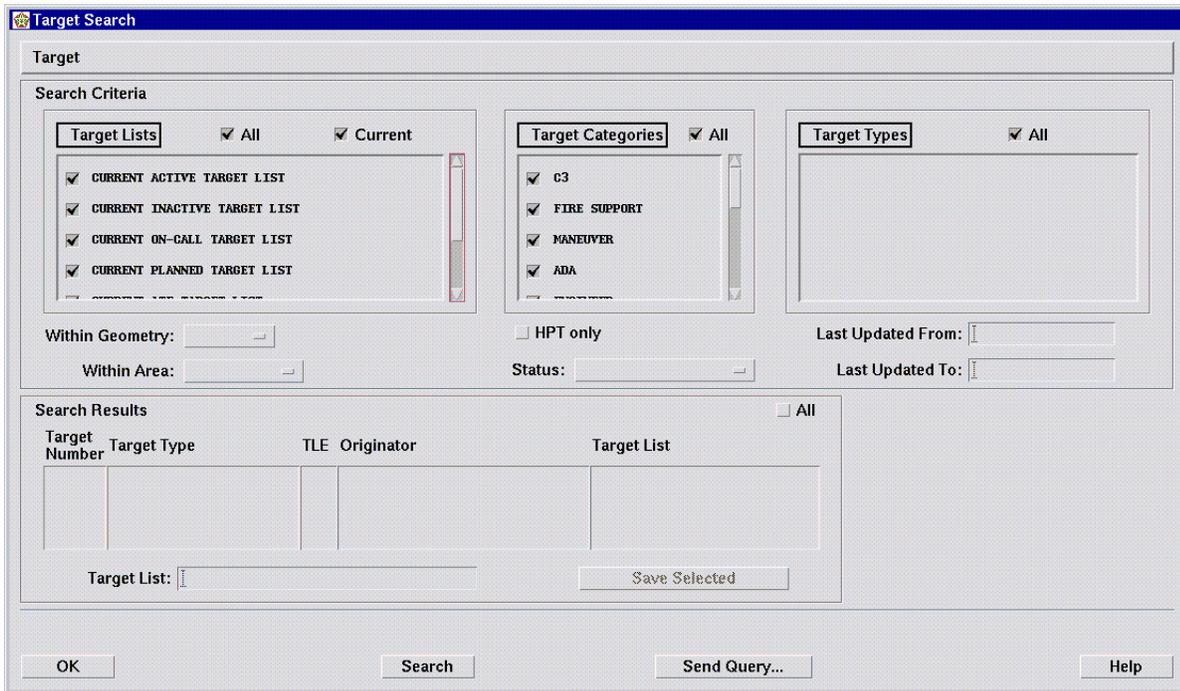


Figure 5.24 Target Search Window

The **Within Geometry:** selection allows the operator to select an area geometry that the target must be inside in order to be returned as a search result. The **Within Area:** selections allows the operator to specify a circle, rectangle, or an area bounded by four points in the same manner as the **Within Geometry:** selection.

The **HPT only** check box allows the operator to specify that only those targets that meet other criteria and are High Payoff targets are returned by the search. The **Status:** field is used to select the status (e.g., In Process, Ready Sent, FO Sent, etc.) of the targets returned.

Targets can also be selected by a time period based on the time of last update. The start of the period to be searched is entered in the **Last Updated From:** field. The end of the period is entered in the **Last Updated To:** field. Entering a time in only one of the fields leaves the period open-ended. As example, entering the **Last Updated From:** field will return targets from that time to the present time.

The **Search** button is activated to search target lists at the local OPFAC. To search target lists at another unit, select the **Send Query...** button to open the **Select Unit** window. The unit is selected and **OK** activated to start the search. The **Search Results** list will display the targets found upon completion of the search for local targets. If the search is of another OPFAC, the results will be displayed after viewing a Query Result alert message.

The **Search Results** list is a multi-selection list with an associated **All** check box. The **Target** window menu is used to perform functions on selected targets. The **Target\Description** selection is enabled when only one (1) target is selected. This selection opens the **Basic Target Information** window.

The **Target\Add To Target List...** selection opens the **Select Target List For Add** window. Selecting a target list and **OK** closes the selection window and adds the target to the list.

NOTE

Active, Inactive, and Planned targets can not be deleted from target lists via the **Target Search** window.

The **Target\Delete From Target Lists...** selection removes selected targets, after confirmation, from the selected target lists. This function is enabled only for targets found as a result of a local search.

The **Target\Add To Fire Plan...** selection opens the **Select Fire Plan For Add** window. Selecting a fire plan and **OK** closes the selection window and adds the target to the fire plan.

The **Target\Delete From Fire Plans...** selection removes selected targets, after confirmation, from all fire plans.

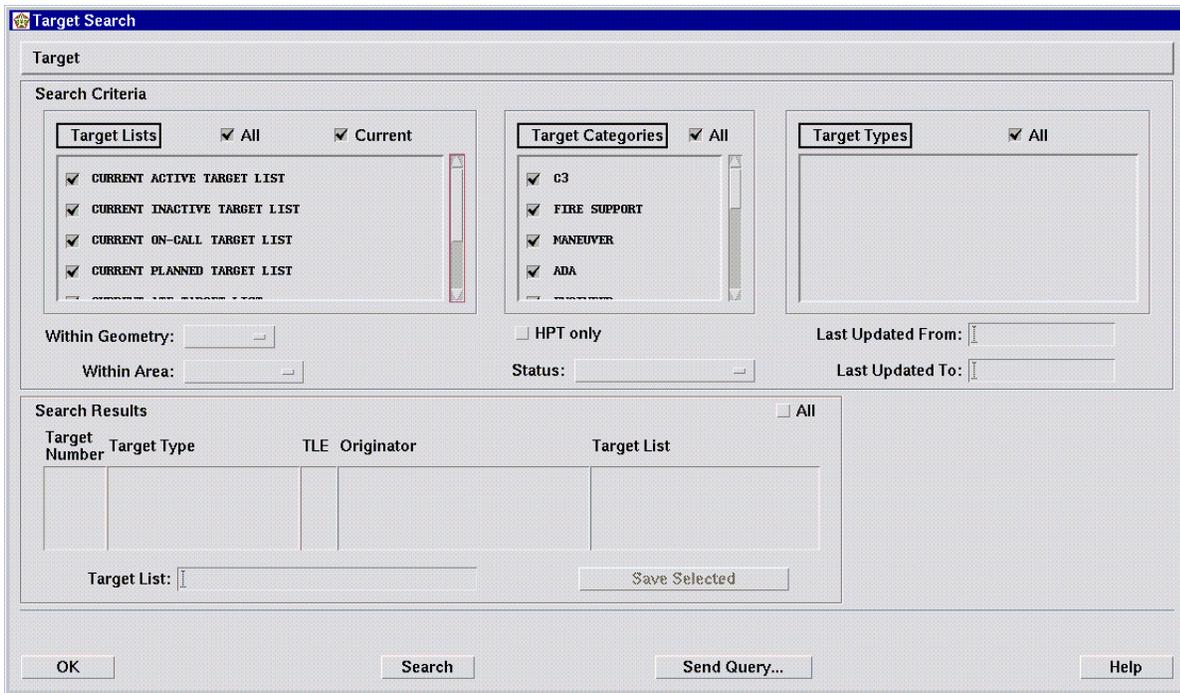
The **Target List:** field is used to enter a new target list using targets found during a search. The targets are selected from the list, a **Target List:** name entered, and **Save Selected** button activated to create the target list.

5-3.8.2 Target Search Procedures.

The following procedure describes the search for and management of targets using the **Target Search** window.

Target Search Procedure

Step	Action	Response
1.	Select Target\Search from the current or planning map menu.	Target Search window opens.



Target Search Procedure - CONT

Step	Action	Response
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NOTE

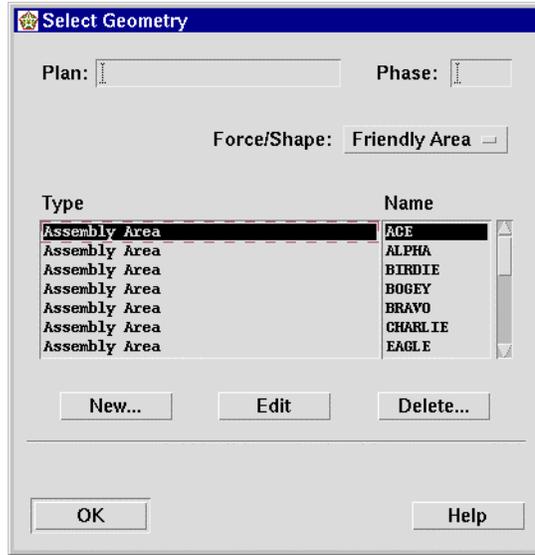
Selecting **OK** at any time closes the **Target Search** window and ends the search functionally. To perform the following functions, proceed to the indicated step.

Enter search criteria	step 2
Search local database	step 26
Search other unit database	step 28
View description of found target	step 33
Add found target to target list	step 38
Delete a target from target list	step 43
Add a target to a fire plan	step 47
Delete target from fire plans	step 52
Create target list from found targets	step 56

2.	<u>Select the Target Lists</u> to be searched (required).	
3.	<u>Select the Target Categories</u> to be searched (required).	
4.	<u>Select the Target Types</u> (required).	
5.	<u>Select Within Geometry</u> : (optional). Proceed to step 8 if not locating by geometry.	Select Geometry window opens.

Target Search Procedure - CONT

Step	Action	Response
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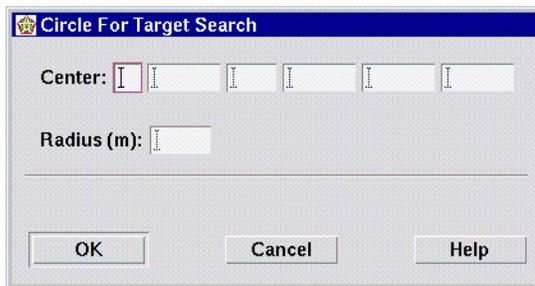


6. Select area geometry from list.
7. Select OK.
8. Select Circle, Rectangle, or 4 Points from the **Within Area:** field (optional).

 If not using area criteria, proceed to step 21
 For **Circle**, proceed with step 9.
 For **Rectangle**, proceed to step 12.
 For **4 Points**, proceed to step 16.

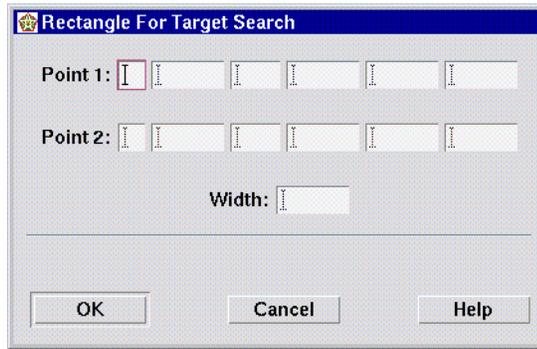
Select Geometry window closes. Selected geometry appears in **Within Geometry:** field.

Appropriate window opens.

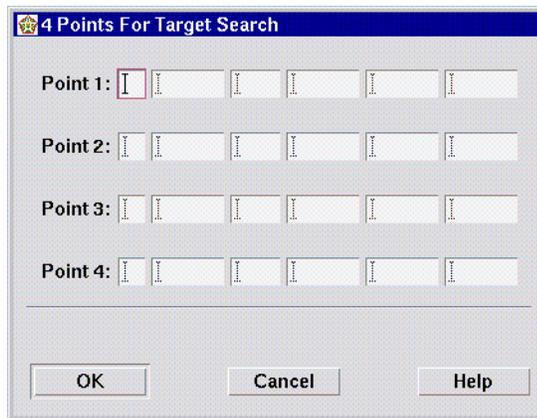


Target Search Procedure - CONT

Step	Action	Response
9.	<u>Enter Center: coordinates.</u>	
10.	<u>Enter Radius (m):.</u>	
11.	<u>Select OK.</u> Proceed to step 21.	Circle For Target Search window closes.



12.	<u>Enter coordinates</u> for Point 1: .	
13.	<u>Enter coordinates</u> for Point 2: .	
14.	<u>Enter Width:</u> of rectangle.	
15.	<u>Select OK.</u> Proceed to step 21	Rectangle For Target Search window closes.

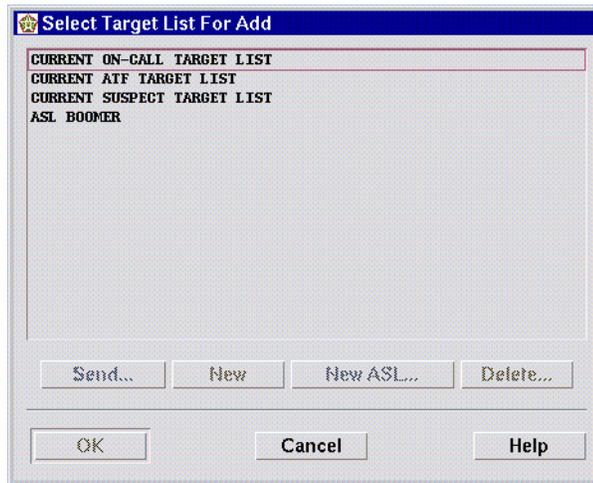


Target Search Procedure - CONT

Step	Action	Response
16.	<u>Enter coordinates</u> for Point 1: .	
17.	<u>Enter coordinates</u> for Point 2: .	
18.	<u>Enter coordinates</u> for Point 3: .	
19.	<u>Enter coordinates</u> for Point 4: .	
20.	<u>Select OK.</u>	4 Points For Target Search window closes.
21.	<u>Select HPT only</u> (optional).	
22.	<u>Select Status:</u> (optional).	
23.	<u>Enter Last Updated From:</u> time (optional).	
24.	<u>Enter Last Updated To:</u> time (optional).	
25.	To perform other functions of Target Search window, refer to note prior to step 2.	
26.	<u>Select Search.</u>	Search Results fields display found targets.
27.	To perform other functions of Target Search window, refer to note prior to step 2.	
28.	<u>Select Send Query...</u>	Select Unit window opens.
29.	<u>Select unit</u> from list.	
30.	<u>Select OK.</u>	Select Unit window closes. Query is sent. Wait for Query Result alert message.
31.	<u>Select View</u> on Query Result alert message.	Target Search window displayed with search results.
32.	To perform other functions of Target Search window, refer to note prior to step 2.	

Target Search Procedure - CONT

Step	Action	Response
33.	<u>Select target</u> from list.	
34.	<u>Select Target\Description.</u>	Basic Target Information window opens.
35.	Refer to paragraph for Basic Target Information to perform functions.	
36.	<u>Select OK.</u>	Basic Target Information window closes.
37.	To perform other functions of Target Search window, refer to note prior to step 2.	
38.	<u>Select target(s)</u> from list.	
39.	<u>Select Target\Add To Target List...</u>	Select Target List For Add window opens.



40.	<u>Select target list.</u>	
41.	<u>Select OK.</u>	Select Target List For Add window closes. Targets are added to selected target list.
42.	To perform other functions of Target Search window, refer to note prior to step 2.	

Target Search Procedure - CONT

Step	Action	Response
43.	<u>Select target(s).</u>	
44.	<u>Select Target\Delete From Target Lists...</u>	Delete confirmation window opens.
45.	<u>Select Delete.</u>	Delete confirmation window closes. Targets are removed from search results target lists.
46.	To perform other functions of Target Search window, refer to note prior to step 2.	
47.	<u>Select target(s).</u>	
48.	<u>Select Target\Add To Fire Plan...</u>	Select Fire Plan For Add window opens.



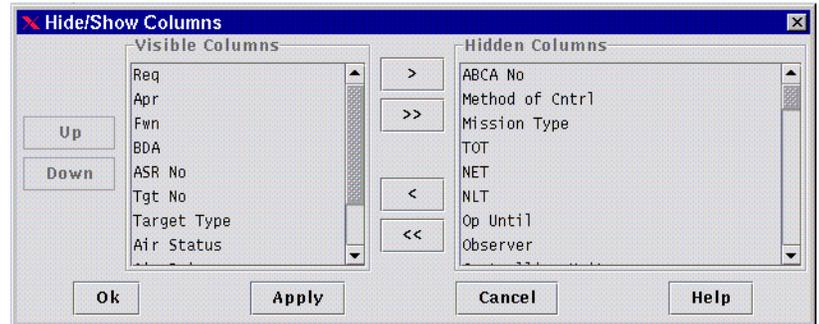
49.	<u>Select fire plan.</u>	
50.	<u>Select OK.</u>	Select Fire Plan For Add window closes. Targets are added to selected fire plan.
51.	To perform other functions of Target Search window, refer to note prior to step 2.	
52.	<u>Select target(s).</u>	

Target Search Procedure - CONT

Step	Action	Response
53.	<u>Select Target\Delete From Fire Plans...</u>	Delete confirmation window opens.
54.	<u>Select Delete</u> .	Delete confirmation window closes. Targets are removed from search results target lists.
55.	To perform other functions of Target Search window, refer to note prior to step 2.	
56.	<u>Select target(s)</u> .	
57.	<u>Enter Target List: name.</u>	
58.	<u>Select Save Selected</u> .	Target list is created using Target List: name and selected targets.

4-1.1 Hide/Show Columns Window.

The **Hide/Show Columns** window is used to determine which columns are displayed on the Working List and the order of display. This window contains two columns; the first is **Visible Columns** (columns currently displayed on the ASL) and the second is the **Hidden Columns** (columns not currently displayed on the ASL). The operator moves



column heading(s) from one list to the other by selecting a column heading(s) in a list and then the appropriate arrow button. The single arrow buttons cause any selected columns to be moved to the other list. The double arrow buttons cause the entire list to be moved to the other list.

The headings of the **Visible Columns** field are ordered by selecting a heading and the **Up** or **Down** button which moves the selected heading one position in the selected direction.

The **Ok** and **Apply** buttons cause the ASL to display the selected headings; the **Ok** button closes the window and the **Apply** allows the window to remain open.

4-1.2 Filter Window.

The **List\Filter...** selection from the ASL opens the **Filter** window. This window is used to set specific criteria for the display of missions on the ASL. Each line on the window is a separate filter.

The criteria is set for a column on the ASL. The first field on each filter is the column selection. The second field is used to determine if the entered data is to be contained in the column or exactly matches the column data. Selection for this field are **Contains** and **Matches**. The text is entered in the third field.

If **Contains** was selected, missions that have the entered text within the column will be displayed. If **Matches** was selected, missions where the column data exactly matches the entered text will be displayed.

A **Remove Filter** button is provided for each line. Selecting this button removes (deletes) the filter for that line. The **Add New Filter** adds a line to the display to allow for the entry of new criteria. The **Clear All** button removes all filters.

The **ALL of the above** and **ANY of the above** radio button are used to set how the filters are used. If **ALL of the above** is selected, the mission must pass all filters to be displayed. If **ANY of the above** is selected, missions that pass any of the filters will be displayed.

The **OK** button applies the filter(s) and closes the window. The **Apply** button applies the filter(s) but leaves the **Filters** window open.

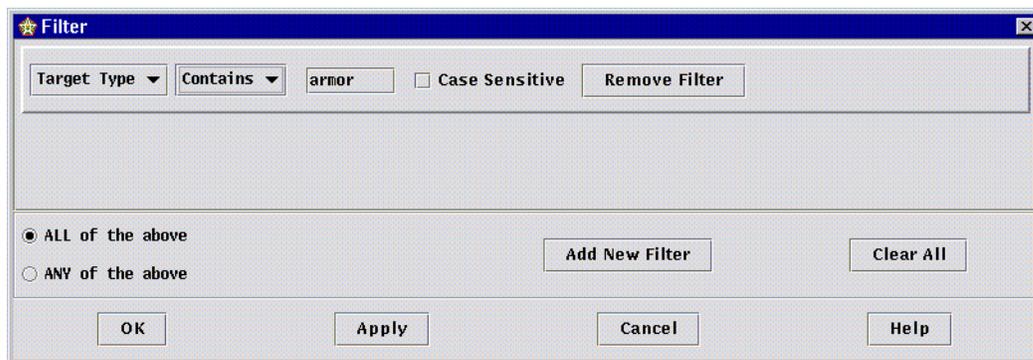
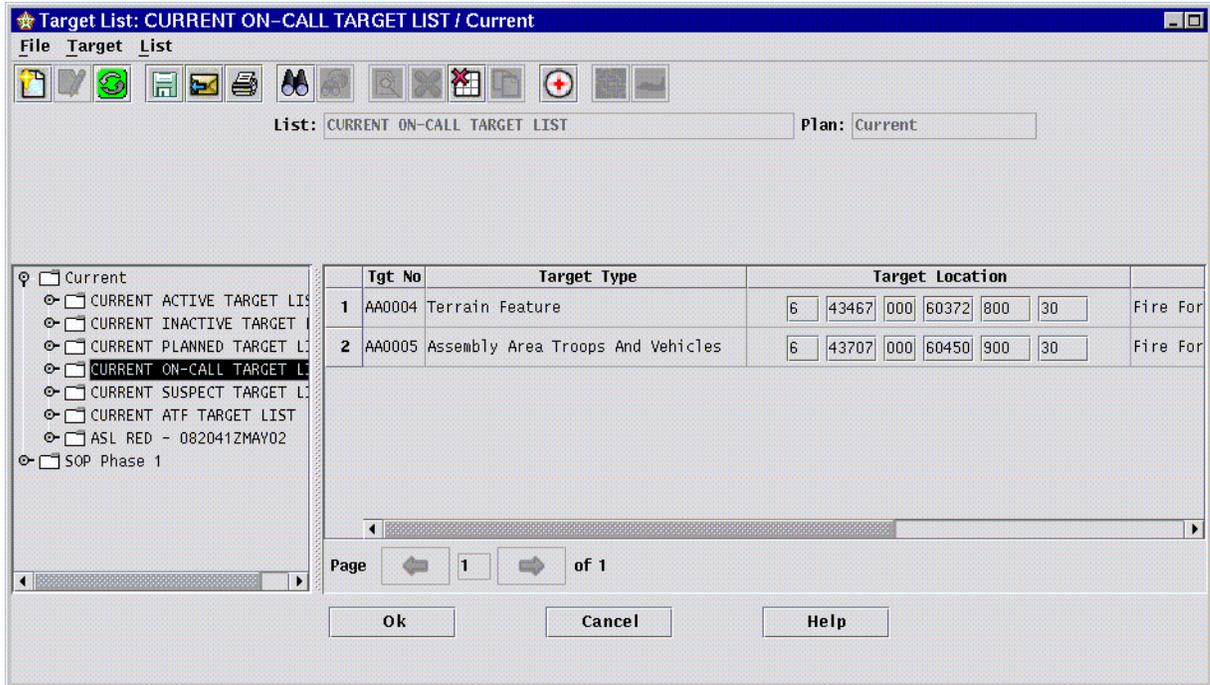


Figure 5.25 Filter Window

5-3.9 Target Lists Procedure.

Target Lists Procedure

Step	Action	Response
1.	<u>Select Targets\Workspace...</u>	Target List window opens.



Target Lists Procedure - CONT

Step	Action	Response
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NOTE

To perform following functions, proceed to indicated steps.

Create a new target list	step 1
Create a new ASL	step 7
Copy a target list to another list	step 15
Merge ASL's	step 20
Copy a target to another list	step 25
Delete a target list or ASL	step 30
Edit a target list	step 34
Edit an ASL	step 148
View Mission Prioritization Guidance	step 321
Select Working List fields	step 325
Filter Working List	step 334

- | | |
|-----|---|
| 2. | <u>Select situation folder</u> (Current or Plan) from menu tree. |
| 3. | <u>Right-Click\New</u> . |
| 4. | Enter List: name. |
| 5. | <u>Select Create</u> . |
| 6. | To perform other functions of Target List window, refer to note prior to step 2. |
| 7. | <u>Select situation folder</u> (Current or Plan) from menu tree. |
| 8. | <u>Right-Click\New ASL</u> . |
| 9. | Enter ASL: name. |
| 10. | Enter Start: DTG. |
| 11. | Enter End: DTG. |
| 12. | Enter Ato Day: (2 alphanumeric characters) |

Target Lists Procedure - CONT

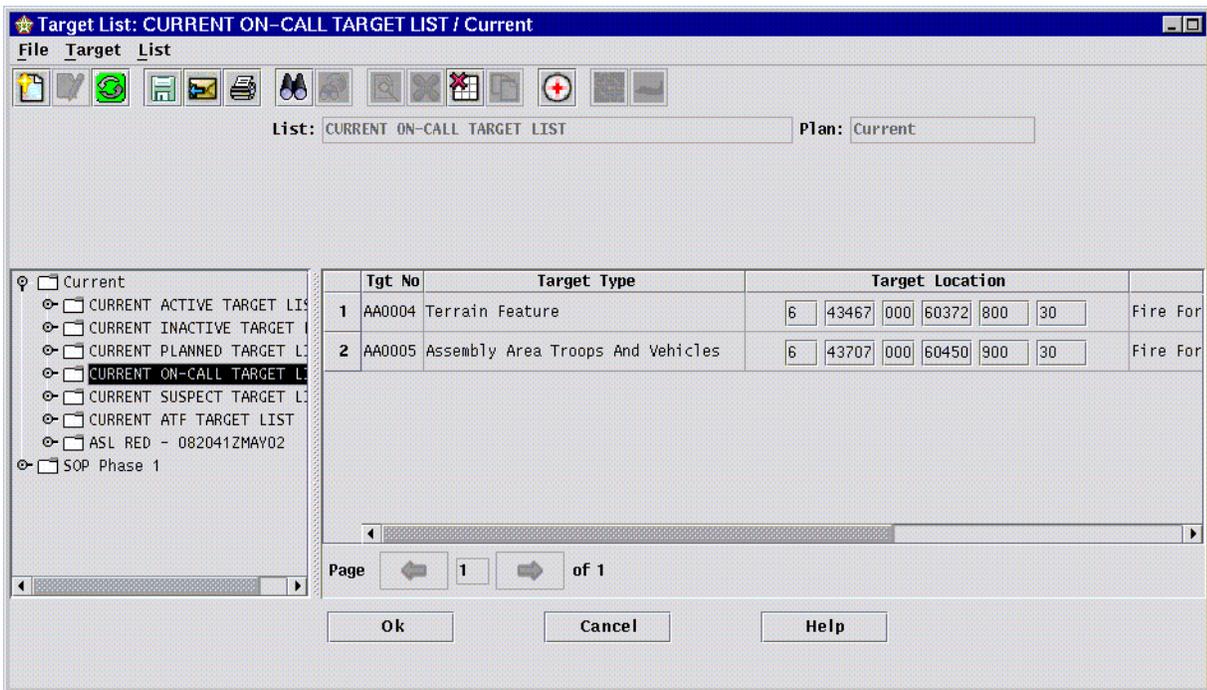
Step	Action	Response
13.	<u>Select Create.</u>	
14.	To perform other functions of Target List window, refer to note prior to step 2.	
15.	<u>Select list to receive</u> copied list.	
16.	<u>Right-click\Open.</u>	Selected target list is displayed in working list.
17.	<u>Select list to copy.</u>	
18.	<u>Right-click\Copy to List.</u>	Selected target list is copied to working list.
19.	To perform other functions of Target List window, refer to note prior to step 2.	
20.	<u>Select ASL to receive</u> merged list.	
21.	<u>Right-click\Open.</u>	Selected ASL is displayed in working list.
22.	<u>Select ASL to merge.</u>	
23.	<u>Right-click\Merge.</u>	Selected ASL is merged with working list.
24.	To perform other functions of Target List window, refer to note prior to step 2.	
25.	<u>Select list to receive</u> copied target.	
26.	<u>Right-click\Open.</u>	
27.	<u>Select target to copy.</u>	
28.	<u>Right-click\Copy to List.</u>	
29.	To perform other functions of Target List window, refer to note prior to step 2.	

NOTE

Only ASL's and operator created target lists can be deleted.

Target Lists Procedure - CONT

Step	Action	Response
30.	<u>Select list to be deleted.</u>	
31.	<u>Right-click\Delete.</u>	Confirm Delete List window opens.
32.	<u>Select Yes.</u>	Confirm Delete List window closes. List is deleted.
33.	To perform other functions of Target List window, refer to note prior to step 2.	
34.	<u>Select list to be edited.</u>	
35.	<u>Right-click\Open.</u>	Selected target list is displayed in working list.



Target Lists Procedure - CONT

Step	Action	Response
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NOTE

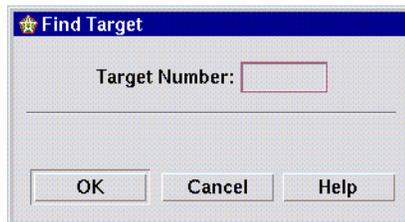
To perform following edit functions, proceed to indicated steps.

Create new target (On-Call and operator created lists only)	step 36
Copy a target	step 40
Edit a target	step 45
Delete a target	step 50
Find a target	step 54
View target status	step 58
Find target on map	step 64
Add target from map	step 67
Check for duplicate targets	step 70
Search for a target(s)	step 84
Initiate a fire mission	step 85
Check for coordination	step 89
View message to observer (active mission only)	step 104
Nominate target as Air Target	step 108
Send a Command	step 113
Send a Fire Command	step 120
Send an End Of Mission	step 126
View/Edit a Mission Fired Report	step 134
Cancel Record as Target	step 139
Reassign a target	step 145

36.	<u>Select Target\New</u> .	Basic Target Information window opens.
37.	<u>Enter target information</u> in accordance with Basic Target Information procedures.	
38.	<u>Select OK</u> .	Basic Target Information window closes. Target is added to list.
39.	To perform other functions of Target Lists window, refer to note prior to step 36.	
40.	<u>Select target</u> to be copied.	
41.	<u>Select Target\Copy</u> .	Basic Target Information window opens.
42.	<u>Edit target information</u> in accordance with Basic Target Information procedures.	

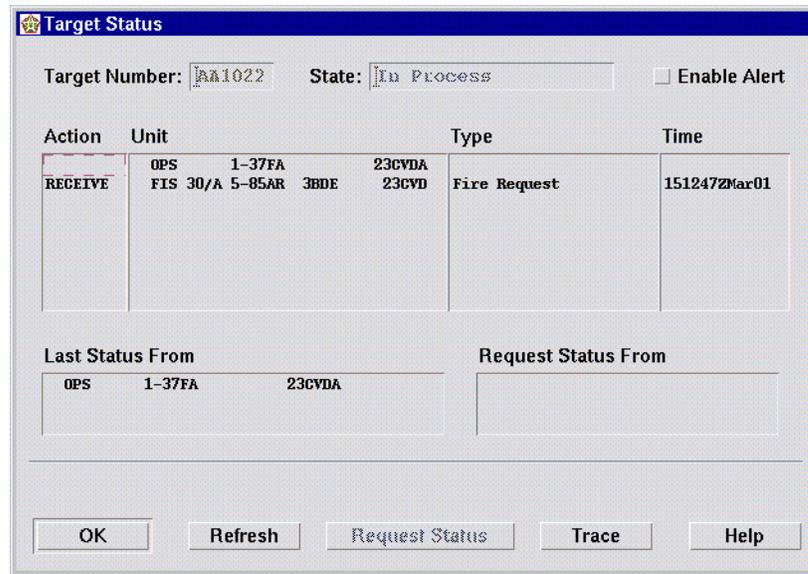
Target Lists Procedure - CONT

Step	Action	Response
43.	<u>Select OK</u> .	Basic Target Information window closes. Target is added to list.
44.	To perform other functions of Target Lists window, refer to note prior to step 36.	
45.	<u>Select target</u> to be edited.	
46.	<u>Select Target\Edit</u> .	Basic Target Information window opens.
47.	<u>Edit target information</u> in accordance with Basic Target Information procedures.	
48.	<u>Select OK</u> .	Basic Target Information window closes.
49.	To perform other functions of Target Lists window, refer to note prior to step 36.	
50.	<u>Select target</u> to be deleted.	
51.	<u>Select Target\Delete...</u>	Confirmation window opens.
52.	<u>Select Delete</u> .	Confirmation window closes. Target is deleted from list.
53.	To perform other functions of Target Lists window, refer to note prior to step 36.	
54.	<u>Select Target\Find...</u>	Find Target window opens for entry of Target Number .



Target Lists Procedure - CONT

Step	Action	Response
55.	<u>Enter Target Number:</u>	
56.	<u>Select OK.</u>	Target is located and highlighted in list. End of Find a target by number function.
57.	To perform other functions of Target Lists window, refer to note prior to step 36.	
58.	<u>Select target</u> from list.	
59.	<u>Select Target\Status...</u>	Target Status window opens.



60.	<u>Select Request Status</u> or <u>Select Trace.</u>	Status request is sent to unit in Request From field. Status request is sent to unit in Request From field and each unit which has received this mission.
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Target Lists Procedure - CONT

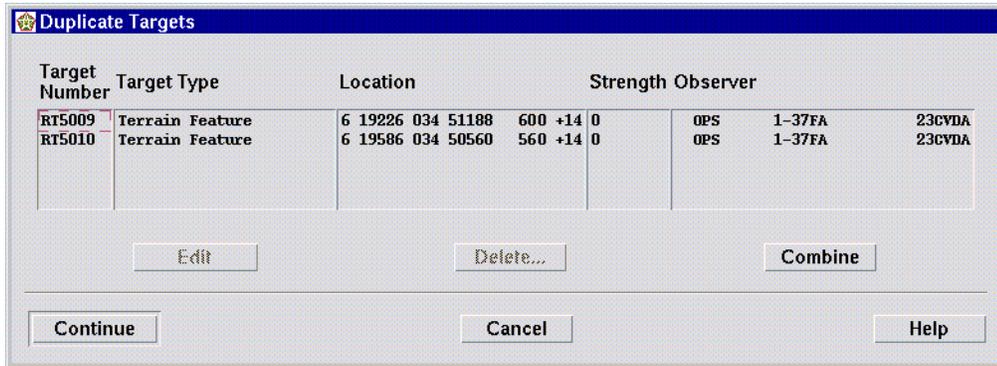
Step	Action	Response
61.	To be alerted when status report is received, select Enable Alert .	
62.	<u>Select OK</u> when finished with Target Status window.	Target Status window closes.
63.	To perform other functions of Target Lists window, refer to note prior to step 36.	
64.	<u>Select target</u> from list.	
65.	<u>Select Target\Find On Map</u> .	Map is centered on selected target.
66.	To perform other functions of Target Lists window, refer to note prior to step 36.	
67.	<u>Select target from map</u> .	
68.	<u>Select Target\Add From Map</u> .	Selected target is added to list.
69.	To perform other functions of Target Lists window, refer to note prior to step 36.	

NOTE

The **Check for Duplicates** compares targets in the list using criteria established by the Target Duplication Guidance. If no duplication is detected, a message stating Duplicate Check Complete will be displayed. If a duplication of target geometry or type is found, the **Duplicate Targets** window opens. This window identifies all targets that may be considered duplicates of the first target listed. Duplicate targets are displayed in sets. Selecting a target and **Edit** opens the **Basic Target Info** window for viewing or editing. Selecting one or more targets and **Delete** will delete the selected targets from the original target list. Selecting **Combine** algorithmically combines all targets in a set to one target. Selecting **Continue** initiates the duplication check on the next target in the original target list. **Cancel** closes the window without continuing the duplication check.

Target Lists Procedure - CONT

Step	Action	Response
70.	<u>Select File</u> Check for Duplicates.	If duplication exists, Duplicate Targets window opens.



NOTE

Selecting **Cancel** at any time closes this window and activates the **Target List** window. To perform other functions of **Target List** window after closing this window, refer to note prior to step 36. To perform the following functions of the **Duplicate Targets** window, proceed to the indicated steps.

- View or edit basic target information step 71
- Delete a target..... step 76
- Combine a set of targets into one target step 80
- Continue to the next set of duplicate targets step 82

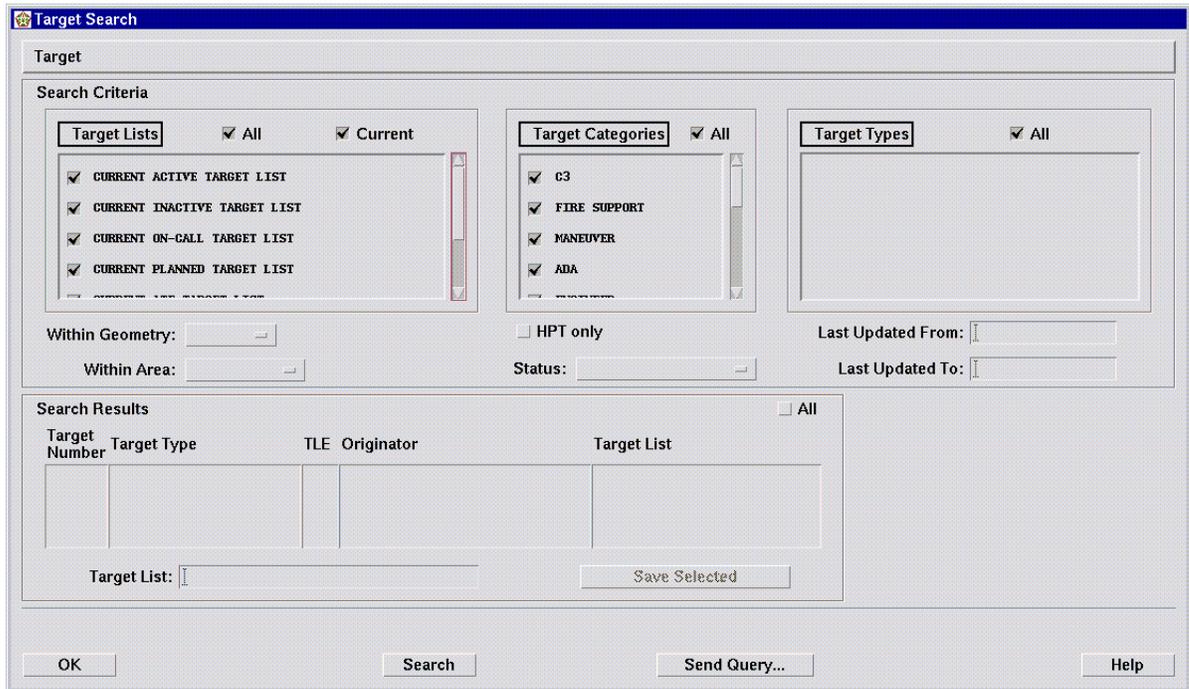
71.	<u>Select target</u> to <u>view</u> or <u>edit</u> .	
72.	<u>Select Edit</u> .	Basic Target Information window opens.
73.	<u>Edit target information</u> in accordance with Basic Target Information procedures.	
74.	<u>Select OK</u> .	Basic Target Information window closes.
75.	To perform other functions of Duplicate Targets window, refer to note prior to step 71.	

Target Lists Procedure - CONT

Step	Action	Response
76.	<u>Select target</u> to delete.	
77.	<u>Select Delete...</u>	Delete confirmation window opens.
78.	<u>Select Delete.</u>	Delete confirmation window closes and the target number is deleted from the target list.
79.	To perform other functions of Duplicate Targets window, refer to note prior to step 71.	
80.	<u>Select Combine</u> when applicable.	Duplicate targets are combined into one target.
81.	To perform other functions of Duplicate Targets window, refer to note prior to step 71.	
82.	<u>Select Continue.</u>	When applicable, the next set of duplicate targets are displayed. Dialog window will indicate completion of duplication checks.
83.	To perform other functions of Duplicate Targets window, refer to note prior to step 71.	
84.	<u>Select FileSearch...</u>	Target Search window opens.

Target Lists Procedure - CONT

Step	Action	Response
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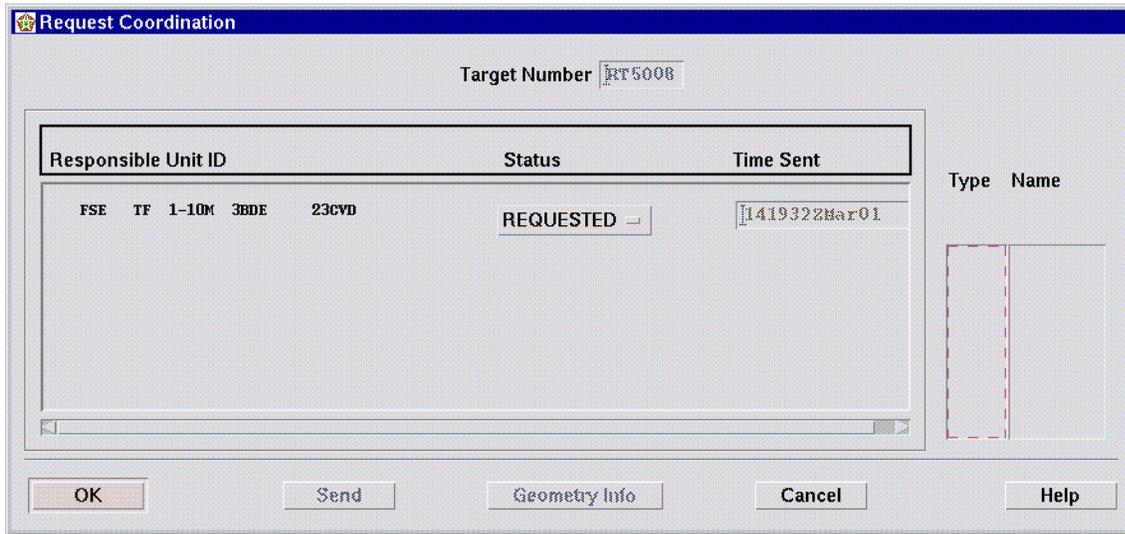
NOTE

Selecting **Cancel** at any time closes this window and activates the **Target List** window. To perform other functions of **Target List** window after closing this window, refer to note prior to step 36. To perform functions of the **Target Search** window, refer to the Target Search Procedure in this section.

85.	<u>Select target to initiate fire mission.</u>	
86.	<u>Select Target\Initiate Fire Mission.</u>	Initiate Fire Mission window opens.
87.	To initiate a fire mission, refer to Initiate Fire Mission procedure in Mission Processing section.	
88.	To perform other functions of Target Lists window, refer to note prior to step 36.	

Target Lists Procedure - CONT

Step	Action	Response
89.	<u>Select target</u> from working list.	
90.	<u>Select Target\Check for Coordination.</u>	Request Coordination window opens. Any pending coordination requests are listed.



NOTE

To perform the following functions of the **Request Coordination** window, proceed to the indicated steps. Selecting **OK** at any time closes this window and activates the **Target List** window.

- View geometry information step 91
- Send request step 97
- Change status of coordination request step 101

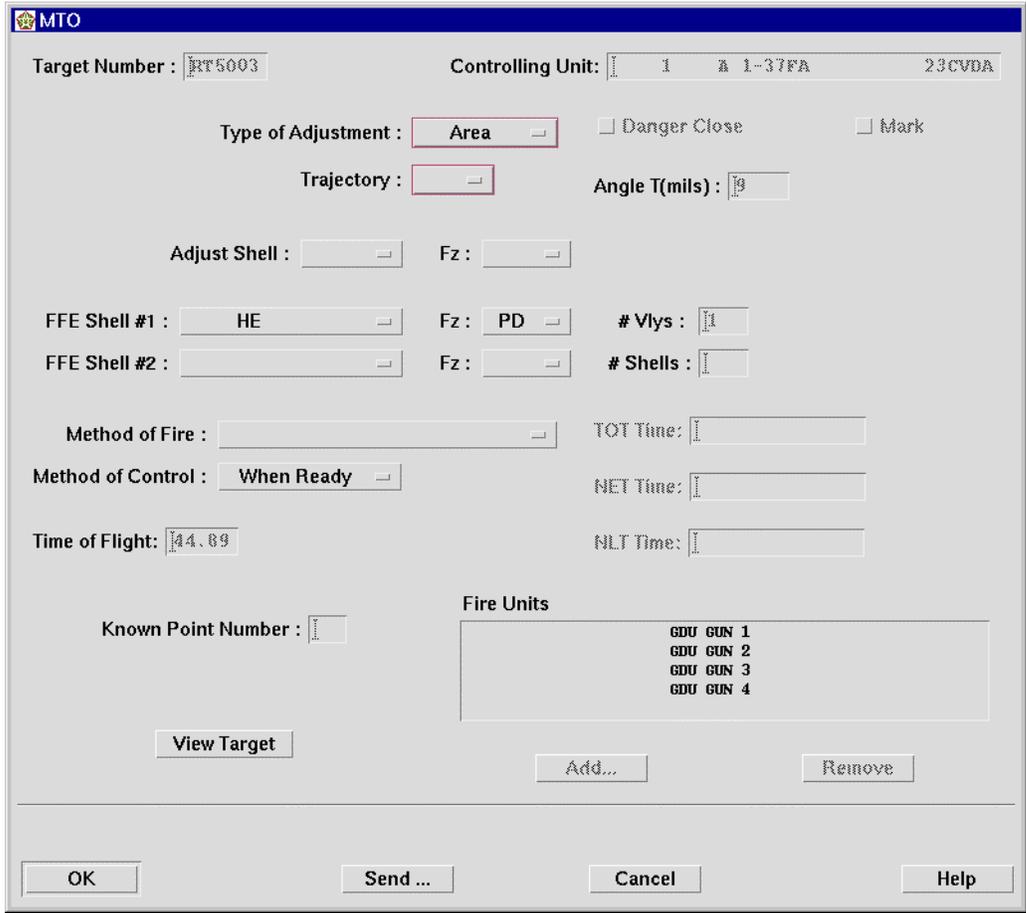
91.	<u>Select Responsible Unit ID.</u>	
92.	<u>Select geometry</u> from Type or Name list.	
93.	<u>Select Geometry Info.</u>	Geometry Information window opens in View mode for selected geometry type.

Target Lists Procedure - CONT

Step	Action	Response
94.	Perform functions of geometry window in accordance with Geometries paragraph.	
95.	<u>Select OK.</u>	Geometry Information window closes.
96.	To perform other functions of Request Coordination window, refer to note prior to step 91.	
97.	<u>Select Responsible Unit ID.</u>	
98.	<u>Select geometry</u> from Type or Name list.	
99.	<u>Select Send.</u>	Request is sent to Responsible Unit ID for selected geometry(s). Status is changed to Requested .
100.	To perform other functions of Request Coordination window, refer to note prior to step 91.	
101.	<u>Select Status button.</u>	Pop-up menu displayed.
102.	<u>Select Deny or Override.</u>	Status is changed.
103.	To perform other functions of Request Coordination window, refer to note prior to step 91.	
104.	<u>Select an active mission</u> from the Active Target List .	
105.	<u>Select Target\Message To Observer.</u>	MTO window opens.

Target Lists Procedure - CONT

Step	Action	Response
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- | | | |
|------|---|--------------------------|
| 106. | <u>View MTO</u> data using MTO window description as a guide. | |
| 107. | To perform other functions of Target Lists window, refer to note prior to step 36. | |
| 108. | <u>Select target</u> to be nominated. | |
| 109. | <u>Select Target\Target Actions\Nominate as Air Target.</u> | Select ASL window opens. |

Target Lists Procedure - CONT

Step	Action	Response
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- 110. Select ASL to which target will be added.
- 111. Select OK.
- 112. Proceed to step 153.

Select ASL window closes. **Air Mission Information** window opens containing target data.

NOTE

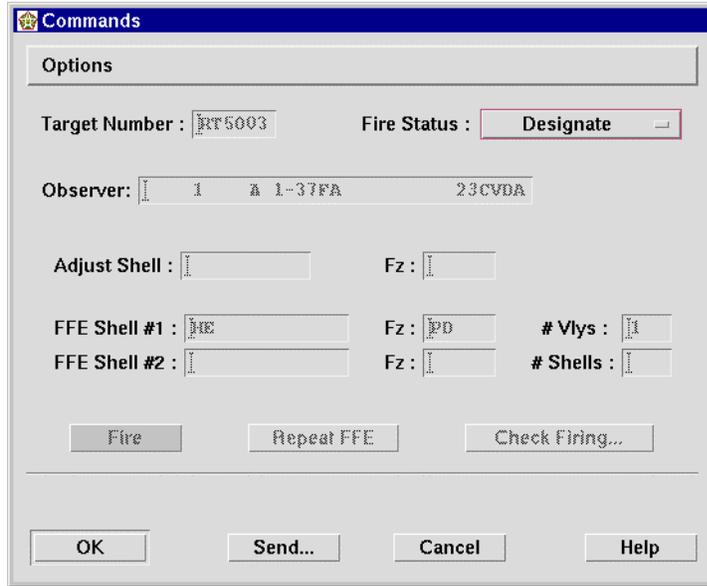
Normally the **Commands** window is opened from the Messages icon (tank) in response to a received command. These commands are generated automatically by AFATDS as a normal flow of mission processing. Use the following procedure if a Command must be manually generated.

- 113. Select an active mission from the **Active Target List**.
- 114. Select Target\Target Actions\Commands....

Commands window opens.

Target Lists Procedure - CONT

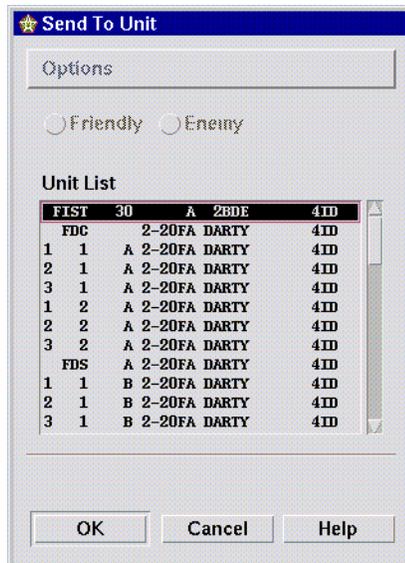
Step	Action	Response
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115. Select Fire Status:

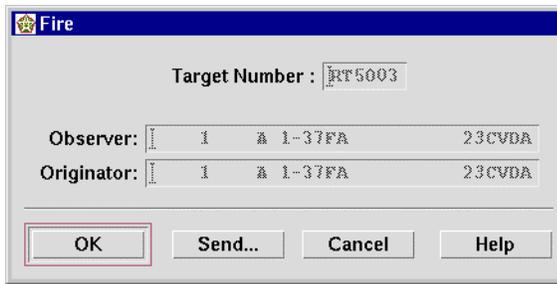
116. Select Send...

Send To Unit window opens.



Target Lists Procedure - CONT

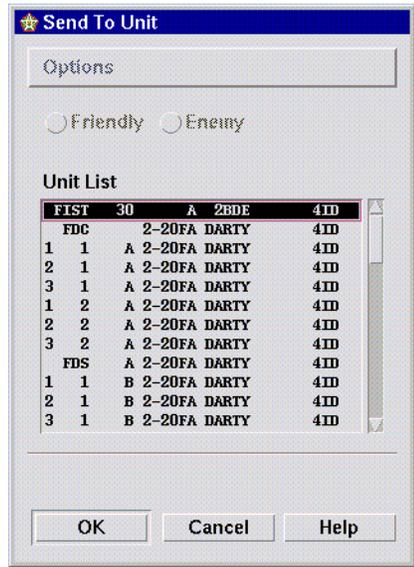
Step	Action	Response
117.	<u>Select destination unit.</u>	
118.	<u>Select OK.</u>	Send To Unit and Commands windows close. Command is sent to destination.
119.	To perform other functions of Target Lists window, refer to note prior to step 36.	
120.	<u>Select a mission</u> from the Active Target List or On-Call Target List .	
121.	<u>Select Target\Target Actions\Fire...</u>	Fire window opens.



122.	<u>Select OK</u> to process mission locally or <u>Select Send...</u> to send mission to another unit.	Fire window closes and mission processing begins. Send To Unit window opens.
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Target Lists Procedure - CONT

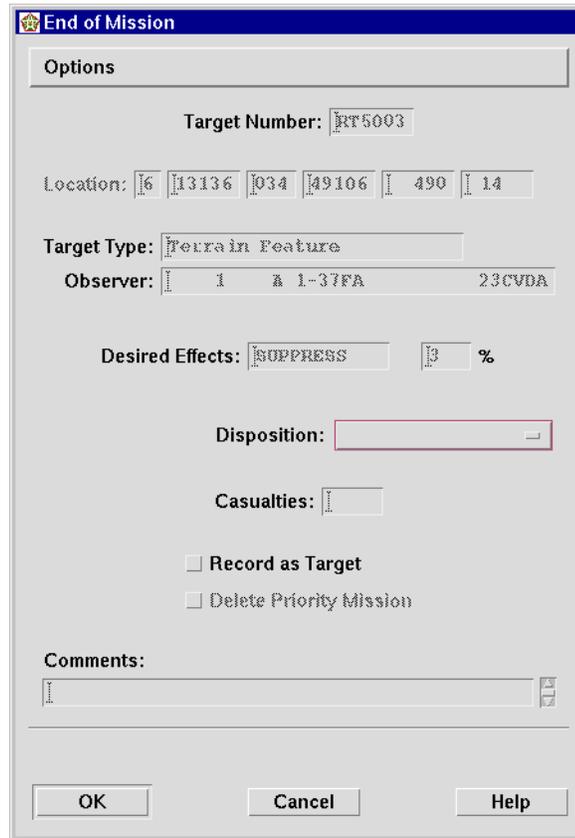
Step	Action	Response
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123.	<u>Select destination unit.</u>	
124.	<u>Select OK.</u>	Send To Unit and Fire windows close. Command is sent to destination.
125.	To perform other functions of Target Lists window, refer to note prior to step 36.	
126.	<u>Select an active mission</u> from the Active Target List .	
127.	<u>Select Target\Target Actions\End of Mission...</u>	End of Mission window opens.

Target Lists Procedure - CONT

Step	Action	Response
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- 128. Enter **Disposition:** (optional).
- 129. Enter **Casualties:** (optional).
- 130. Select **Record as Target** (optional).
- 131. Enter **Comments:** (optional).
- 132. Select **OK**.
- 133. To perform other functions of **Target Lists** window, refer to note prior to step 36.
- 134. Select an active mission from the **Active Target List**.

End of Mission window closes.

Target Lists Procedure - CONT

Step	Action	Response
135.	<u>Select Target\Target Actions\Mission Fired Report...</u>	Mission Fired Report window opens.

Mission Fired Report

Target Number: AS1011

Observer: OPS 1-37FA 23CVDA
 Mission Originator: OPS 1-37FA 23CVDA
 Message Originator: OPS 1-37FA 23CVDA

Target Data
 Location: 6 15076 034 55128 550 14
 Target Type: AA, Troops and Vehs Length(m):
 Degree of Protection: Width(m): 100
 Shape: CIRCULAR Attitude(mils):
 Strength: 40
 Desired Effects: SUPPRESS 9 %

Launcher Aiming Data
 Aim Azimuth (mils): Aim Elevation (mils):
 Fuze Setting (sec): Time First Munition Fired:

Results Data
 Disposition: Time Completed:
 Casualties:

Munitions & Fire Units

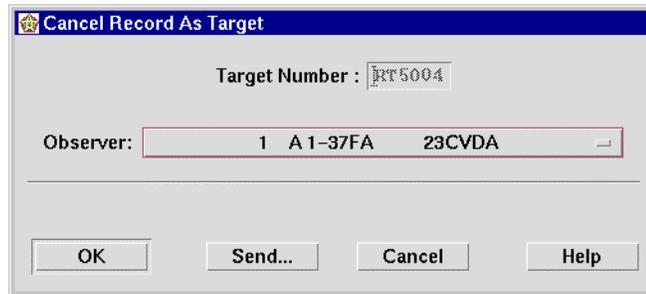
OK Cancel Help

NOTE

The data displayed is that of the locally stored MFR. **Location:**, **Time Completed:**, **Casualties:**, and **Munitions & Fire Units** data can be edited and stored in the local database. Selecting **OK** saves and stores the data.

Target Lists Procedure - CONT

Step	Action	Response
136.	<u>View and edit</u> data as required.	
137.	<u>Select OK</u> .	Mission Fired Report window closes.
138.	To perform other functions of Target Lists window, refer to note prior to step 36.	
139.	<u>Select the target</u> from On-Call list.	
140.	<u>Select Target\Target Actions\Cancel RAT...</u>	Cancel Record As Target window opens.



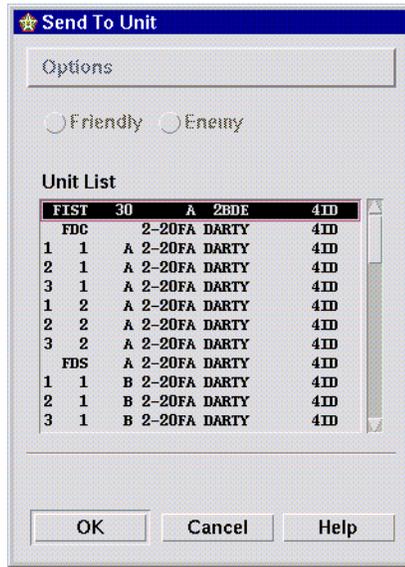
NOTE

Closing this window using the **OK** button removes the selected target from the On-Call list. The **Cancel** button closes this window without performing any action. To send the Cancel RAT to another OPFAC, proceed with step 141.

141.	<u>Select Send...</u>	Send To Unit window opens.
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Target Lists Procedure - CONT

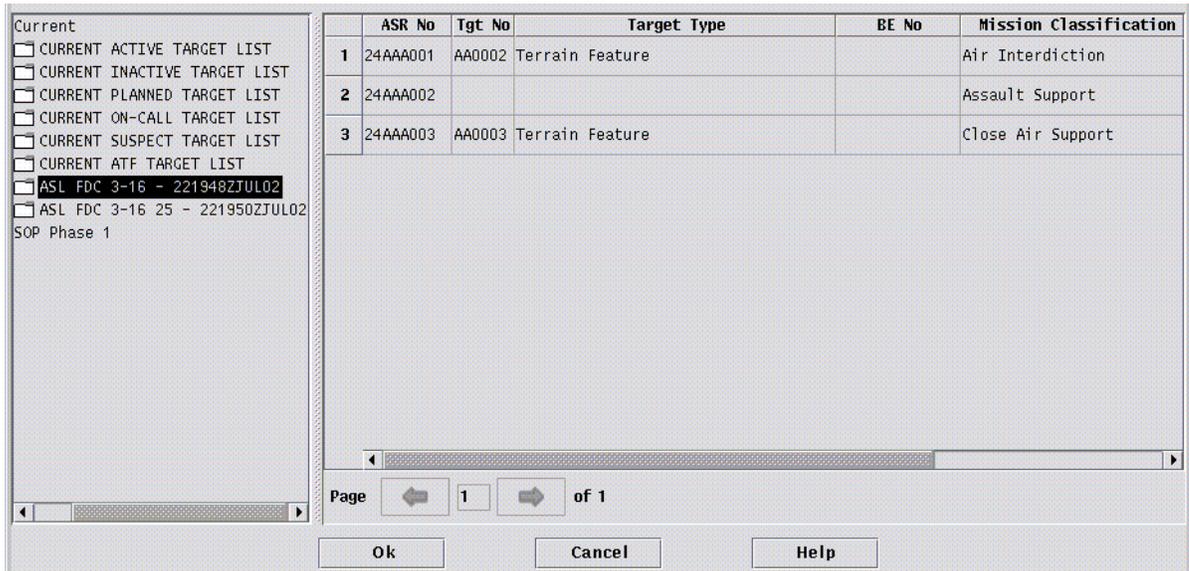
Step	Action	Response
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142.	Select destination unit.	
143.	Select OK .	Send To Unit and Fire windows close. Command is sent to destination.
144.	To perform other functions of Target Lists window, refer to note prior to step 36.	
145.	Select target to be reassigned.	
146.	Select Target\Target Actions\Reassign .	A denial is sent to last unit to process mission. Mission will be removed from local intervention when that unit actions denial.
147.	To perform other functions of Target Lists window, refer to note prior to step 36.	
148.	Select ASL to be edited.	
149.	Right-click\Open.	Selected ASL is displayed in working list.

Target Lists Procedure - CONT

Step	Action	Response
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NOTE

To perform the following functions of the ASL Working List, proceed to the indicated steps.

- Edit ASR step 150
- Create ASR step 152
- Enter Recce data step 205
- Enter EW data step 226
- Enter Friendly Position data step 240
- Enter Drop Zones data step 253
- Enter Landing Zones data step 268
- Enter Passenger Cargo data step 285

150.	Select <u>ASR</u> to edit.	
151.	Right-click Edit... in working list. Proceed to step 154.	Selected Air Mission Information frame displayed.
152.	Select Target\New\Mission class.	Air Mission Information frame displayed.

Target Lists Procedure - CONT

Step	Action	Response
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- 153. Enter **ASR Number:** (optional).
- 154. Select **Msn Class:**.
- 155. Select **Msn Type:**.
- 156. Enter **Start Time:**.
- 157. Enter **End Time:**.
- 158. Select **Priority:**.
- 159. Select **Precedence:**.

Target Lists Procedure - CONT

Step	Action	Response
160.	<u>Enter Rank:</u>	
161.	<u>Select Req Unit</u> (optional, will default to host unit).	
162.	<u>Proceed to step 186 for all Msn Class: except CAS and AI.</u>	
163.	<u>Enter Target Number:</u> (optional).	Available target data will be entered in appropriate fields if Target Number: is entered.
164.	<u>Enter Target Location:</u> (required).	
165.	<u>Select Target Category:</u>	
166.	<u>Select Target Type:</u>	
167.	<u>Select Target Air Defenses:</u>	
168.	<u>Select Intensity</u> of Air Defense.	
169.	<u>Select Degree Of Protection:</u>	
170.	<u>Enter BE Number:</u>	
171.	<u>Enter MIDB Enemy Unit ID:</u>	
172.	<u>Enter Facility Name:</u>	
173.	<u>Enter Rationale:</u>	
174.	<u>Enter Desired Effects:</u>	
175.	<u>Enter Facility Name:</u>	
176.	<u>Select Shape:</u>	
177.	<u>Enter Length:</u>	
178.	<u>Enter Width: or Radius:</u>	
179.	<u>Enter Attitude:</u>	

Target Lists Procedure - CONT

Step	Action	Response
180.	<u>Enter O-Suffix:</u>	
181.	<u>Enter MIDB Category:</u>	
182.	<u>Enter Laser Code:</u> (CAS only).	
183.	<u>Select Designator or Guidance Frequency.</u>	
184.	<u>Enter Guidance Frequency (Mhz).</u>	
185.	<u>Select More Air Info</u> from menu tree.	Mission Info, Air Control Information, and
186.	<u>Select Desired Result:</u>	Comments frames are displayed.
187.	<u>Select Alert Status:</u>	
188.	<u>Enter Alert Status Time:</u>	
189.	<u>Enter Package Id:</u>	
190.	<u>Select Aircraft Type:</u>	
191.	<u>Enter Aircraft Callsign:</u>	
192.	<u>Enter Number Of Sorties:</u>	
193.	<u>Select Ordnance:</u>	
194.	<u>Enter Ingress Direction (deg):</u>	
195.	<u>Select Egress Direction:</u>	
196.	<u>Enter Mission Location:</u> (defaults to Target Location:).	
197.	<u>Select Type:</u> for Mission Location:	
198.	<u>Select Type:</u> for Air Control Information.	
199.	<u>Enter Callsign:</u>	
200.	<u>Enter Primary Frequency (MHz).</u>	

Target Lists Procedure - CONT

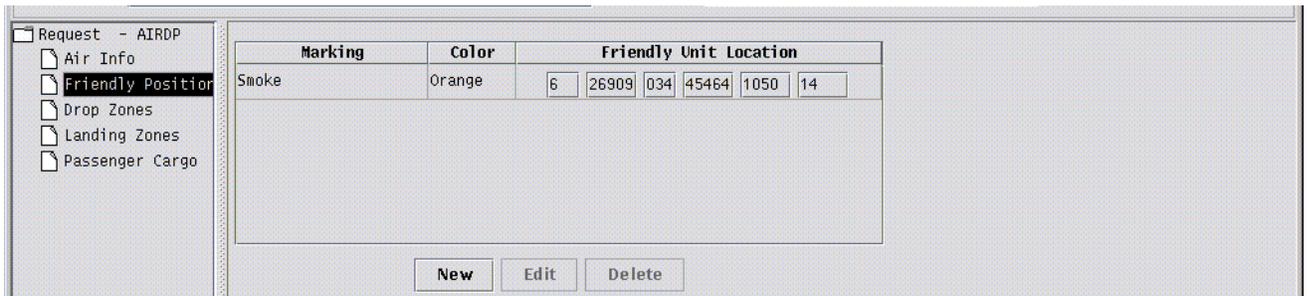
Step	Action	Response
201.	<u>Enter Secondary Frequency (MHz).</u>	
202.	<u>Enter Report In Point:</u>	
203.	<u>Enter Results: or Comments: (optional).</u>	
204.	To perform other functions of ASL Lists window, refer to note prior to step 150.	
205.	<u>Select Recce</u> from menu tree.	Reconnaissance frame displayed.
206.	<u>Select Coverage Mode:</u>	
207.	<u>Select Imagery Type:</u>	
208.	<u>Select Qualifier:</u>	
209.	<u>Select Type:</u>	
210.	<u>Select Product Code:</u>	
211.	<u>Select Report Type:</u>	
212.	<u>Enter Number of Products: (required, 0 to 9999 if multiplier x1, 0 to 999 if multiplier K or M).</u>	
213.	<u>Select multiplier (required, field to right of Number of Products: field).</u>	
214.	<u>Enter Addressee: (required, 1 to 24 alphanumeric or special characters).</u>	
215.	<u>Enter Print Scale: (optional, 0 to 1000000).</u>	
216.	<u>Enter Max Days Prior: (optional, 0 to 99).</u>	
217.	<u>Enter Last Time Required: (optional).</u>	
218.	<u>Select Absolute or H-Hour as time reference (required if time entered).</u>	

Target Lists Procedure - CONT

Step	Action	Response
219.	<u>Select Target Information</u> , proceed with step 220	
	or	
	<u>Select Request Information</u> , proceed to step 223.	
220.	<u>Select Code</u> :	
221.	Enter <u>Essential Elements</u> : (1 to 10 alphanumeric or special characters). Proceed to step 225.	
222.	Enter <u>Item</u> : (0 to 999999999).	
223.	<u>Select Category</u> :	
224.	<u>Select Purpose</u> :	
225.	To perform other functions of ASL Lists window, refer to note prior to step 150.	
226.	<u>Select EW</u> from the menu tree.	Electronic Warfare frame displayed.
227.	<u>Select Emitter or Emitter Type</u> radio button.	
228.	Enter name for <u>Emitter</u> (optional, 10 alphanumeric or special characters). Proceed to step 230.	
	or	
	<u>select Emitter Type</u> (optional).	Radio/Radar Function field is enabled.
229.	<u>Select Radio/Radar Function</u> :	
230.	<u>Select ECM Technique</u> : (optional).	
231.	<u>Select Emitter Frequencies or ECM Frequencies</u> radio button.	

Target Lists Procedure - CONT

Step	Action	Response
232.	<u>Enter Lower Frequency</u> : (optional, 0.000000 to 99999999.0).	
233.	<u>Select unit of measure</u> for frequency (field to right of frequency field, required if frequency entered).	
234.	<u>Enter Upper Frequency</u> : (optional, 0.000000 to 99999999.0).	
235.	<u>Select unit of measure</u> for frequency (field to right of frequency field, required if frequency entered).	
236.	<u>Enter Protected Frequency</u> : (optional, 0.000000 to 99999999.0).	
237.	<u>Select unit of measure</u> for frequency (field to right of frequency field, required if frequency entered).	
238.	<u>Select the Type</u> : of Protected Frequency .	
239.	To perform other functions of ASL Lists window, refer to note prior to step 150.	
240.	<u>Select Friendly Position</u> from menu tree.	Friendly Position frame displayed.



Target Lists Procedure - CONT

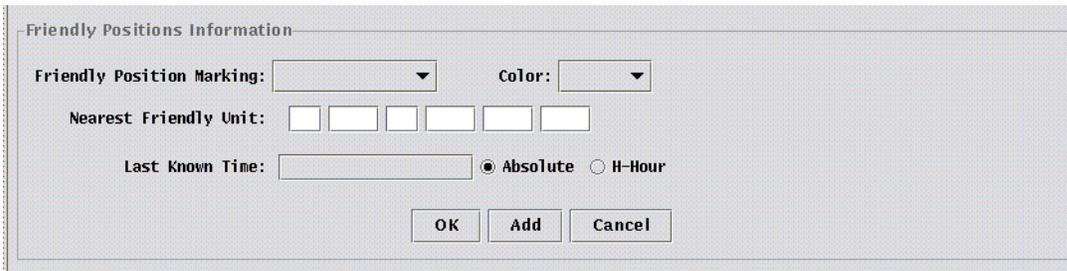
Step	Action	Response
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NOTE

To perform following functions, proceed to indicated steps.

Edit friendly position step 241
 Create new friendly position step 243

241.	<u>Select position</u> to be edited.	
242.	<u>Right-click Edit...</u> in working list. Proceed to step 244.	Friendly Positions Information area displayed in frame.
243.	<u>Select New</u> .	Friendly Positions Information area displayed in frame.



244.	<u>Select Friendly Position Marking</u> :	
245.	<u>Select Color</u> :	
246.	<u>Enter Nearest Friendly Unit</u> location.	
247.	<u>Select Absolute or H-Hour</u> time reference.	

NOTE

The **Last Known Time**: entry is the standard DTG for **Absolute** and the number of minutes from **H-Hour** (-9999 to 9999).

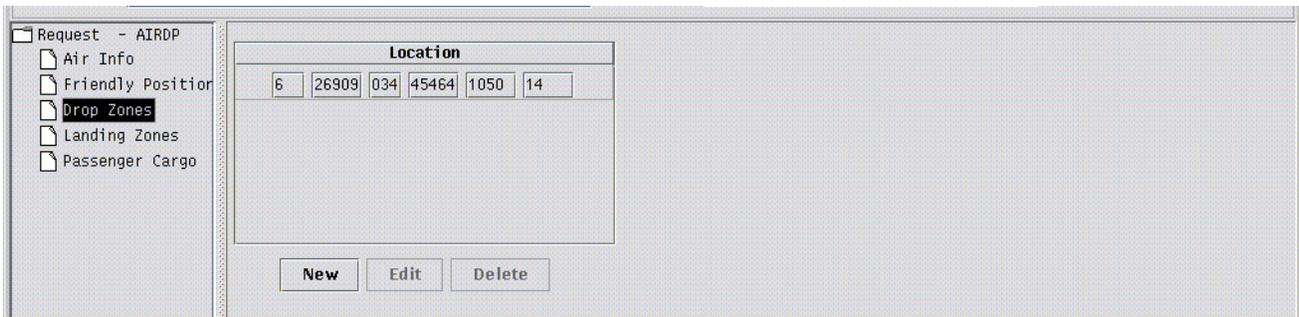
Target Lists Procedure - CONT

Step	Action	Response
248.	<u>Enter Last Known Time:</u>	

NOTE

Selecting **Add** will save data for the position to the list and leave the **Friendly Positions Information** area open for more entries. Selecting **OK** saves the data and closes the **Friendly Positions Information** area. If **OK** is selected after **Add** without changing any data, the position will be duplicated in the list. Select **Cancel** to close the **Friendly Positions Information** area without saving data. **Add** is not enabled for a position edit.

249.	<u>Select Add.</u>	Position is added to positions list.
250.	<u>Repeat steps 244 thru 249</u> for each position.	
251.	<u>Select OK</u> after entering data for last position.	Friendly Positions Information area closes.
252.	To perform other functions of ASL Lists window, refer to note prior to step 150.	
253.	<u>Select Drop Zones</u> from menu tree.	Drop Zones frame displayed.



NOTE

To perform following functions, proceed to indicated steps.

- Edit drop zone step 254
- Create new drop zone step 256

Target Lists Procedure - CONT

Step	Action	Response
254.	<u>Select zone</u> to be edited.	
255.	<u>Right-click Edit...</u> in working list. Proceed to step 257.	Drop Zone Information area displayed in frame.
256.	<u>Select New.</u>	Drop Zone Information area displayed in frame.

Drop Zone Information

Location:

Length (m): Run-In Heading (deg):

Width (m): Leading Edge Distance (m):

Friendly Position Marking: Color:

OK Add Cancel

257.	<u>Enter Location:</u>	
258.	<u>Enter Length (m):</u>	
259.	<u>Enter Width (m):</u>	
260.	<u>Enter Run-In Heading (deg):</u>	
261.	<u>Enter Leading Edge Distance (m):</u>	
262.	<u>Select Friendly Position Marking:</u>	
263.	<u>Select Color:</u>	

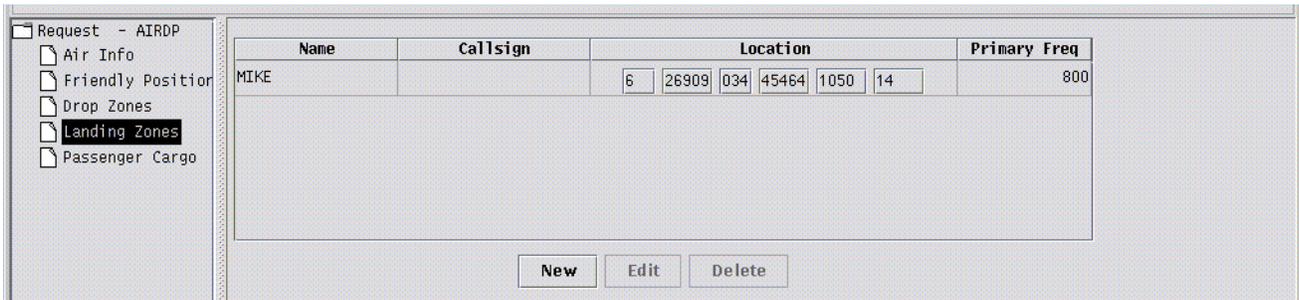
Target Lists Procedure - CONT

Step	Action	Response
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NOTE

Selecting **Add** will save data for the zone to the list and leave the **Drop Zone Information** area open for more entries. Selecting **OK** saves the data and closes the **Drop Zone Information** area. If **OK** is selected after **Add** without changing any data, the zone will be duplicated in the list. Select **Cancel** to close the **Drop Zone Information** area without saving data. **Add** is not enabled for a zone edit.

264.	<u>Select Add.</u>	Zone is added to zones list.
265.	<u>Repeat steps 257 thru 264</u> for each zone.	
266.	<u>Select OK</u> after entering data for last zone.	Drop Zone Information area closes.
267.	To perform other functions of ASL Lists window, refer to note prior to step 150.	
268.	<u>Select Landing Zones</u> from menu tree.	Landing Zones frame displayed.



NOTE

To perform following functions, proceed to indicated steps.

- Edit landing zone step 269
- Create new landing zone step 271

Target Lists Procedure - CONT

Step	Action	Response
269.	<u>Select zone</u> to be edited.	
270.	<u>Right-click Edit...</u> in working list. Proceed to step 272.	Landing Zone Information area displayed in frame.
271.	<u>Select New.</u>	Landing Zone Information area displayed in frame.

The screenshot shows a dialog box titled "Landing Zone Information". At the top, there are two radio buttons: "Name" (which is selected) and "Callsign". To the right of these is a text input field. Below this, there are two dropdown menus: "Position Marking" and "Color". Underneath, there are five small square input boxes for "Location". Further down, there are two text input fields for "Primary Freq(MHz)" and "Secondary Freq(MHz)". Below those are two more dropdown menus: "Enemy Action" and "Last Known Time". At the bottom of the dialog, there are three buttons: "OK", "Add", and "Cancel".

272.	<u>Select Name or Callsign.</u>	
273.	<u>Enter Name or Callsign.</u>	
274.	<u>Select Position Marking:</u>	
275.	<u>Select Color:</u>	
276.	<u>Enter Location:</u>	
277.	<u>Enter Primary Freq (MHz):</u>	
278.	<u>Enter Secondary Freq (MHz):</u>	
279.	<u>Select Enemy Action:</u>	
280.	<u>Enter Last Known Time:</u>	

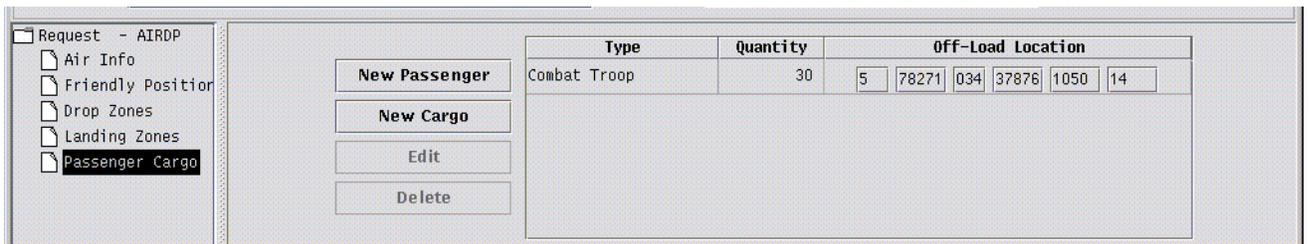
Target Lists Procedure - CONT

Step	Action	Response
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NOTE

Selecting **Add** will save data for the zone to the list and leave the **Landing Zone Information** area open for more entries. Selecting **OK** saves the data and closes the **Landing Zone Information** area. Select **Cancel** to close the **Landing Zone Information** area without saving data. **Add** is not enabled for a zone edit.

281.	<u>Select Add.</u>	Zone is added to zones list.
282.	<u>Repeat steps 272 thru 281</u> for each zone.	
283.	<u>Select OK</u> after entering data for last zone.	Drop Zone Information area closes.
284.	To perform other functions of ASL Lists window, refer to note prior to step 150.	
285.	<u>Select Passenger Cargo</u> from menu tree.	Passenger Cargo frame displayed.



NOTE

To perform following functions, proceed to indicated steps.

Edit Passenger/Cargo task..... step 286
 Create Passenger/Cargo task step 288

286.	<u>Select task</u> to be edited.	
------	----------------------------------	--

Target Lists Procedure - CONT

Step	Action	Response
287.	Right-click Edit... in working list. Proceed to step 289.	Passenger Cargo Information area displayed in frame.
288.	Select New .	Passenger Cargo Information area displayed in frame.

NOTE

Only **Common Information** is entered for passenger type tasks. Both **Common Information** and **Cargo Information** is enter for cargo tasks.

289.	Select Type :
290.	Enter Quantity :
291.	Select multiplier for Quantity :
292.	Select Hoist Required :
293.	Enter On-Load Location :

Target Lists Procedure - CONT

Step	Action	Response
294.	<u>Enter Time:</u> for On-Load.	To perform other functions of ASL Lists window, refer to note prior to step 150.
295.	<u>Enter Off-Load Location:</u> .	
296.	<u>Enter Time:</u> for Off-Load.	
297.	<u>Enter Support Equipment:</u> required.	
298.	Proceed to step 319 if creating/editing passenger task. Proceed with step 299 for cargo task.	
299.	<u>Select Classification:</u> .	
300.	<u>Select Helo Load:</u> .	
301.	<u>Select Single Dagger Required:</u> .	
302.	<u>Enter Size:</u> .	
303.	<u>Select multiplier</u> for Size: .	
304.	<u>Select unit</u> for Size: .	
305.	<u>Enter Width:</u> .	
306.	<u>Select unit</u> for Width: .	
307.	<u>Enter Weight:</u> .	
308.	<u>Select multiplier</u> for Weight: .	
309.	<u>Select unit</u> for Weight: .	
310.	<u>Enter Length:</u> .	
311.	<u>Select unit</u> for Length: .	
312.	<u>Enter Net Explosive Weight:</u> .	
313.	<u>Select unit</u> for Net Explosive Weight: .	

Target Lists Procedure - CONT

Step	Action	Response
314.	<u>Enter Height:</u>	
315.	<u>Select unit for Height:</u>	
316.	<u>Enter Hazardous Cargo Designator:</u>	

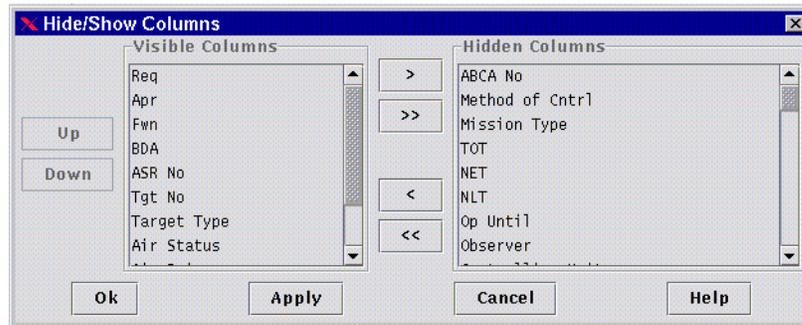
NOTE

Selecting **Add** will save data for the task to the list and leave the **Passenger Cargo Information** area open for more entries. Selecting **OK** saves the data and closes the **Passenger Cargo Information** area. Select **Cancel** to close the **Passenger Cargo Information** area without saving data. **Add** is not enabled for a task edit.

317.	<u>Select Add.</u>	Task is added to tasks list.
318.	<u>Repeat steps 289 thru 317</u> for each task.	
319.	<u>Select OK</u> after entering data for last task.	Passenger Cargo Information area closes.
320.	To perform other functions of ASL Lists window, refer to note prior to step 150.	
321.	<u>Select List\Mission Prioritization.</u>	Mission Prioritization window opens.
322.	Refer to Mission Prioritization procedure in Guidance, Target section.	
323.	<u>Select OK.</u>	Mission Prioritization window closes.
324.	To perform other functions of Target List window, refer to note prior to step 2.	
325.	<u>Select List>Select Fields...</u>	Hide/Show Columns window opens.

Target Lists Procedure - CONT

Step	Action	Response
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NOTE

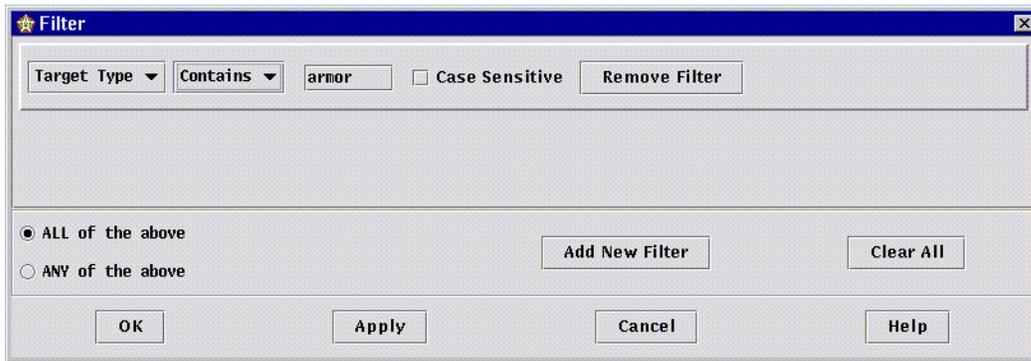
To perform the following functions of the **Hide/Show Columns** window, proceed to the indicated step. After functions are complete, select **OK** to close **Hide/Show Columns** window and refer to note prior to step 2 for other functions of **Target List** window.

- Transfer item(s) between lists step 326
- Transfer all items from list step 329
- Re-order list step 331

326.	<u>Select item(s)</u> to transfer.	
327.	<u>Select arrowhead</u> (> <) pointing to destination list.	Items are transferred to destination list.
328.	To perform other functions of Hide/Show Columns window, refer to note prior to step 326.	
329.	<u>Select double-arrowheads</u> (>> <<) pointing to destination list.	Items are transferred to destination list.
330.	To perform other functions of Hide/Show Columns window, refer to note prior to step 326.	
331.	<u>Select item</u> to move in list.	

Target Lists Procedure - CONT

Step	Action	Response
332.	<u>Select Up or Down.</u>	Selected item moves up or down in list, respectively.
333.	To perform other functions of Hide/Show Columns window, refer to note prior to step 326.	
334.	<u>Select List\Filter...</u>	Filter window opens.



335.	<u>Select Add New Filter.</u>	Filter criteria row appears.
336.	<u>Select column</u> to filter (first field).	
337.	<u>Select filter criteria</u> (second field).	
338.	<u>Enter text</u> to filter (third field).	
339.	<u>Select Case Sensitive</u> (optional).	
340.	Repeat steps 335 thru 339 for each filter.	
341.	<u>Select filter action</u> (All of the above or None of the above).	

Target Lists Procedure - CONT

Step	Action	Response
NOTE		
<p>If the window is closed using the OK button, the user can not change any filter criteria. All filters must be removed via the List\Remove All Filters selection before this window can be re-opened.</p>		
342.	<u>Select OK or Apply.</u>	Working list is filtered. OK closes Filter window, Apply leaves window open.
343.	To perform other functions of Target List window, refer to note prior to step 2.	

5-3.10 Groups.

Targets\Groups>Edit... selection opens the **Select Group** window which lists established groups. A group is two or more targets that have been scheduled to be fired upon at the same time. Selecting a group name and **Delete...** opens a confirmation window to delete the group identity from the list and database. This does not delete the targets from the original target list. Selecting a group name and **Send...** opens the **Select Unit** window. Selecting a unit and **OK** sends the target group to a unit. Selecting **New** opens a blank **Group** window for creating a new group of targets. Selecting a group name on the **Group** window and **OK** opens the **Group** window for viewing or editing.

The left list displays the target number, target type, and coordinate data. These targets can be selected from the right target list window or added from the planning map using the **Add from Map** function. Selecting **Open** displays target lists to select from. Selecting a list and the transfer arrow moves all targets in the list to the group window. Selecting a list and **Open** displays the targets and enables the **Previous** function. Selecting specific targets and the transfer arrow places the targets in the left list. Selecting **Previous**, when enabled, always displays the previous window. The title above the right target list window updates to the current selection; **List Type**, or the name of the target list.

Targets in the **Group** window can be edited or deleted. Selecting a target enables the **Edit**, **Delete...**, and **Find on Map** functions under the target menu. Selecting a target and **Target/Edit** opens the **Basic Target Information** window. Selecting a target and **Delete...** opens the **Target Confirm** window. Selecting **Delete** removes the target from the left list. To locate a target, select a target from the list and select **Find on Map**.

5-3.10.1 Group Window.

This window is accessed via the **Targets\Groups\New** selection or via the **Select Group** window. The **Select Group** window is opened by the **Targets\Groups\Edit...** selection.

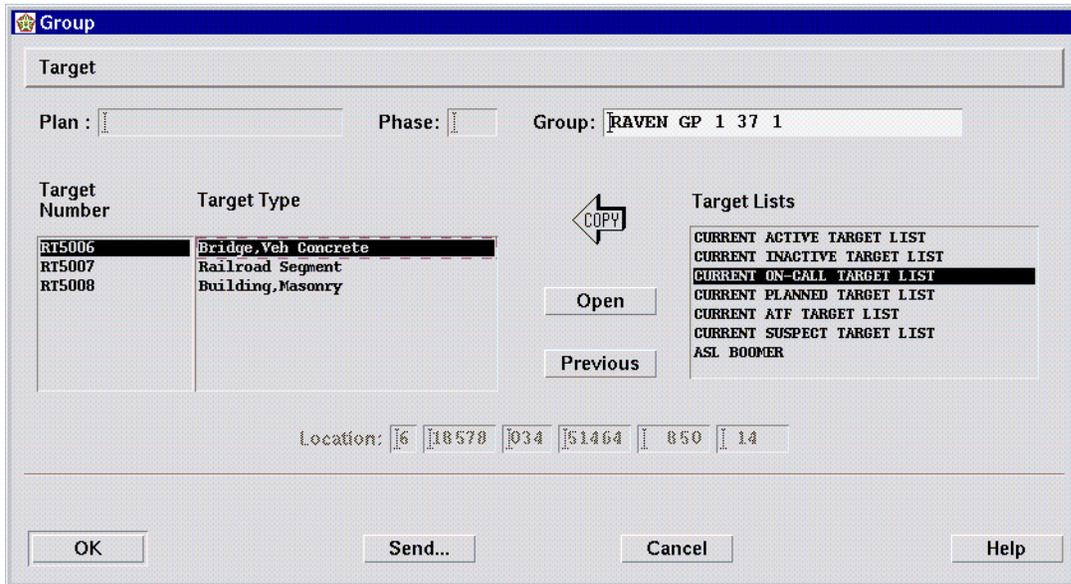


Figure 5.26 Group Window

The **Plan:** and **Phase:** fields are disabled in the current situation. The **Group:** field is the name of the group. This field is view only for an established group and is a required entry for a new group.

The **Target Number** and **Target Type** fields list the targets in the group. Targets are made part of a group by including them from other groups and/or target lists. Targets can also be added from the map display. Targets are selected from the right list and transferred to the group list via the transfer arrow.

When initially opened, the right list contains categories of target groupings (i.e., groups, target lists). The groupings can be copied into a group in their entirety or opened to display individual targets. For example, the user can select **Target Lists** and **Open** to display the target lists. A target list can be selected and copied into the group via the transfer arrow. A selected target list can also be opened via the **Open** selection and individual targets selected and transferred to the group.

The **Location:** field displays the coordinates of a target selected from the group list.

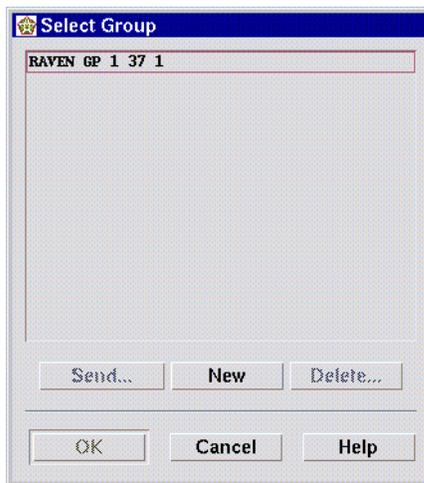
5-3.10.2 Groups Procedure.

NOTE

To perform the following functions, proceed to the indicated steps.

- Create a new group step 1
- Edit a group step 2

Groups Procedure		
Step	Action	Response
1.	<u>Select Targets\Groups\New</u> , proceed to step 15.	
2.	<u>Select Targets\Groups>Edit....</u>	The Select Group window opens



NOTE

To perform following functions, proceed to indicated steps.

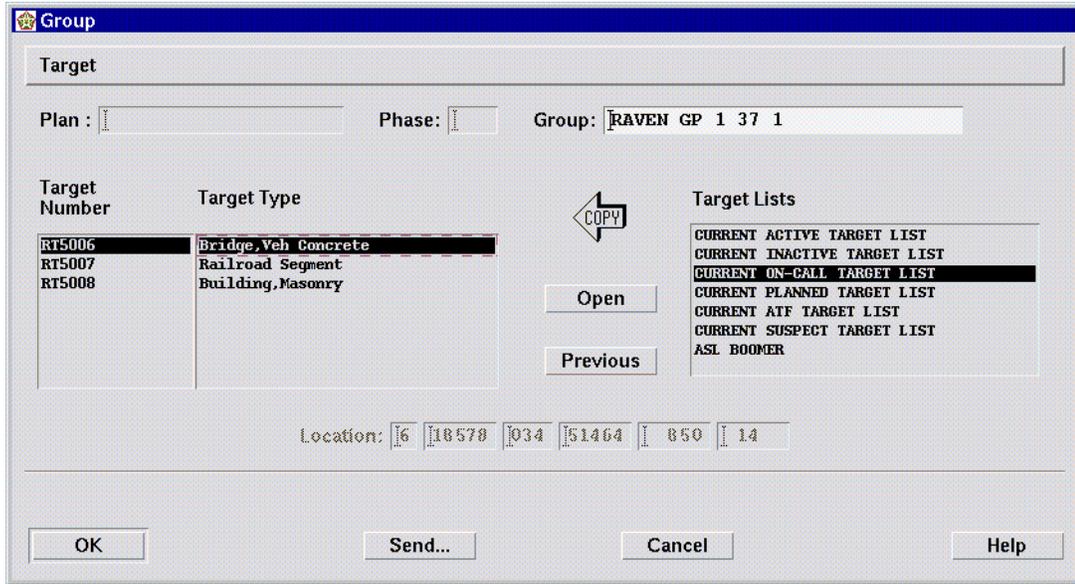
- Edit group step 3
- Create new group of targets step 5
- Delete target group..... step 6
- Send target group to unit step 10

Groups Procedure - CONT

Step	Action	Response
3.	<u>Select group to edit.</u>	
4.	<u>Select OK</u> proceed to step 16.	
5.	<u>Select New</u> proceed to step 15.	Blank Group window opens.
6.	<u>Select group</u> to be deleted.	
7.	<u>Select Delete...</u>	Delete confirmation window opens.
8.	<u>Select Delete.</u>	Delete confirmation window closes. Group is deleted.
9.	To perform other functions of Select Group window, refer to note prior to step 3.	
10.	<u>Select a target group name</u> to send to a unit.	Selection is highlighted.
11.	<u>Select Send...</u>	Select Unit window opens.
12.	<u>Select unit.</u>	
13.	<u>Select OK.</u>	Select Unit window closes. Group is sent to selected unit.
14.	To perform other functions of Select Group window, refer to note prior to step 3.	

Groups Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **Group** window, proceed to the indicated steps.

- Enter window data step 15
- Add target from map step 22
- Edit a target in group step 27
- Delete a target(s) from the group step 32
- Send a series to a unit step 39

- | | |
|-----|--|
| 15. | <u>Enter Group name.</u> |
| 16. | <u>Select category</u> to copy from in right list. |

NOTE

Selecting **Open** expands the list to display the contents of the selected category. Selecting **Previous** returns the listing to the previous display.

Groups Procedure - CONT

Step	Action	Response
17.	<u>Select Open.</u>	Targets are displayed in field. List name is displayed at top of field.
18.	<u>Select target number(s)</u> to add to the group list.	Selection(s) are highlighted.
19.	<u>Select transfer arrow.</u>	Targets are moved to group field.
20.	Repeat steps 16 thru 19 until desired targets are included in group.	
21.	To perform other functions of Group window, refer to note prior to step 15.	
22.	<u>Position cursor on map target.</u>	
23.	<u>Select target symbol</u> from map.	
24.	<u>Select Add From Map.</u>	Target is added to group window.
25.	Repeat steps 22 thru 24 until desired targets are included in group.	
26.	To perform other functions of Group window, refer to note prior to step 15.	
27.	<u>Select a target in the group list to edit.</u>	Selection is highlighted.
28.	<u>Select Target\Edit.</u>	Basic Target Information window opens.

Groups Procedure - CONT

Step	Action	Response
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29. Perform edit in accordance with Create/Edit Target Information Procedure.
30. Select OK.
31. To perform other functions of **Group** window, refer to note prior to step 15.
32. Select target to delete from group list.
33. Select Target\Delete....

Basic Target Information window closes.

Selection is highlighted.

Remove Target Confirm window opens.

Groups Procedure - CONT

Step	Action	Response
34.	<u>Select Delete.</u>	Target is deleted from the group list. End of delete target function.
35.	To perform other functions of Group window, refer to note prior to step 15.	
36.	<u>Select target from list to locate.</u>	Selection is highlighted.
37.	<u>Select Target\Find on Map.</u>	Target is highlighted on the situation map. End of find target function.
38.	To perform other functions of Group window, refer to note prior to step 15.	
39.	<u>Select Send...</u>	Select Unit window opens.
40.	<u>Select unit.</u>	
41.	<u>Select OK.</u>	Select Unit window closes. Group is sent to selected unit.

5-3.11 Series.

Targets\Series>Edit... selection opens the target **Select Series** window containing a list of established series. A series is two or more targets that have been scheduled to be fired upon at selected time offset intervals. A series may also include a group (two or more targets scheduled for fire at the same time). Selecting a series name and **Delete...** will delete the series identity from the list and database. This does not delete the targets from the original target list. Selecting a series name and **Send...** will open the **Select Unit** window. Selecting a unit and **OK** sends the target series to a unit. Selecting **New** opens a blank **Series** window for creating a new series of targets. Selecting a series name on the **Select Series** window and **OK** opens the **Series** window with a list of established targets for viewing or editing.

5-3.11.1 Series Window.

The **Series** window displays the target number, target type, coordinate data, group identification, and offset time (in minutes). The Offset column is a direct-entry field for entering or editing the time offset (0, +2, +3, +5, etc.). These targets can be selected from the right target list window or added from the planning map using the **Add from Map** function. Selection of Groups displays Group names to select from and enables **Previous**. Selecting a group name and the transfer arrow moves the target group to the left list. Selecting **Previous**, when enabled, always displays the previous window. Selecting Target Lists displays available target lists. Selecting a list and the transfer arrow moves all targets in the list to the series window. Selecting a list and **Open** displays the targets. Selecting specific targets and the transfer arrow moves the targets into the left list. The title above the right target list window updates to the current selection; Series, Groups, or List Type or the name of the target list.

Targets in the **Series** window can be edited or deleted. Selecting a target enables the **Edit**, **Delete...**, and **Find on Map** functions. Selecting a target and **Edit** opens the **Basic Target Information** window. Selecting a target and **Delete...** opens the **Remove Target Confirm** window. Selecting **Delete** removes the target from the left list. To locate a target, select a target from the list and select **Find on Map**.

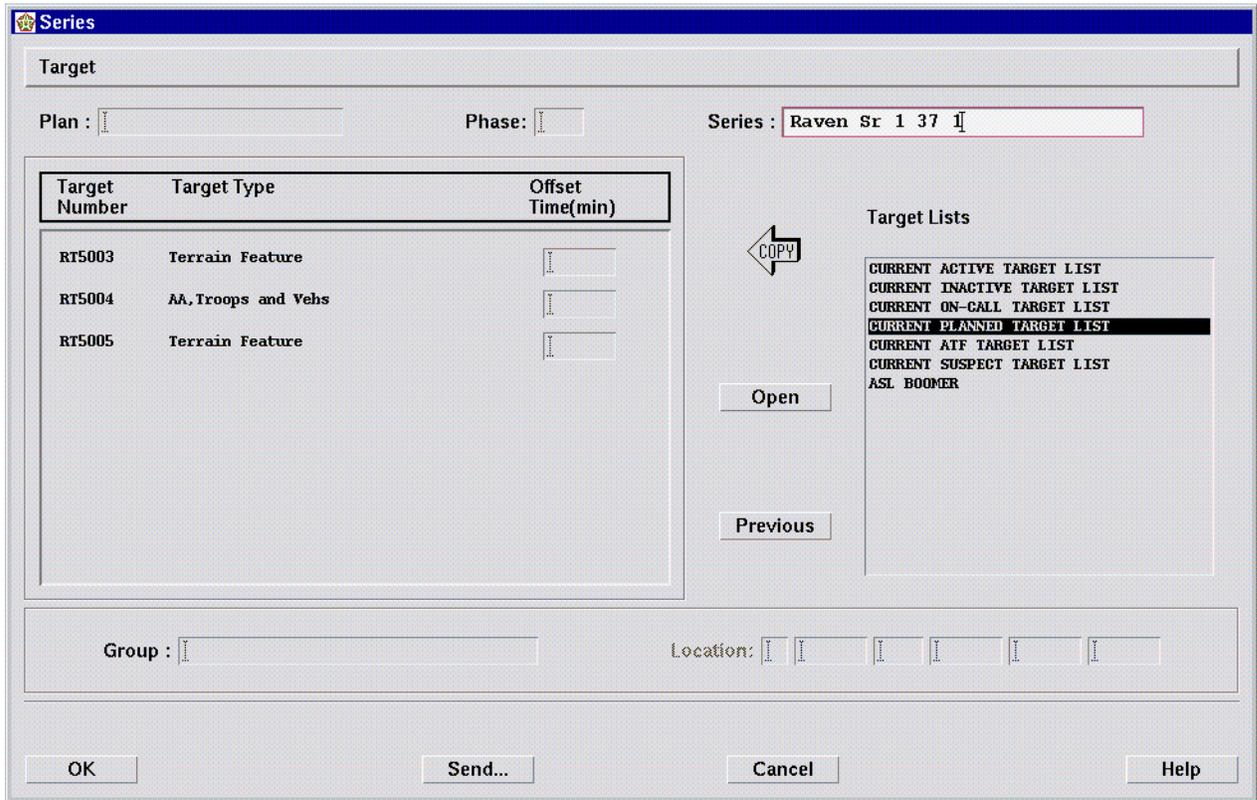


Figure 5.27 Series Window

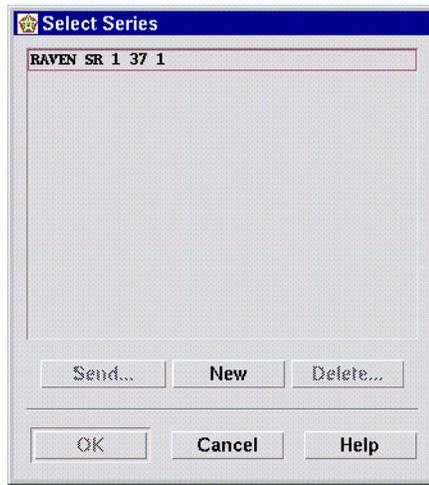
5-3.11.2 Series Procedure.

NOTE

To perform the following functions, proceed to the indicated steps.

- Create a new series step 1
- Edit a series step 2

Series Procedure		
Step	Action	Response
1.	<u>Select Targets\Series\New</u> , proceed to step 15.	
2.	<u>Select Targets\Series>Edit....</u>	The Select Series window opens.



NOTE

To perform following functions, proceed to indicated steps.

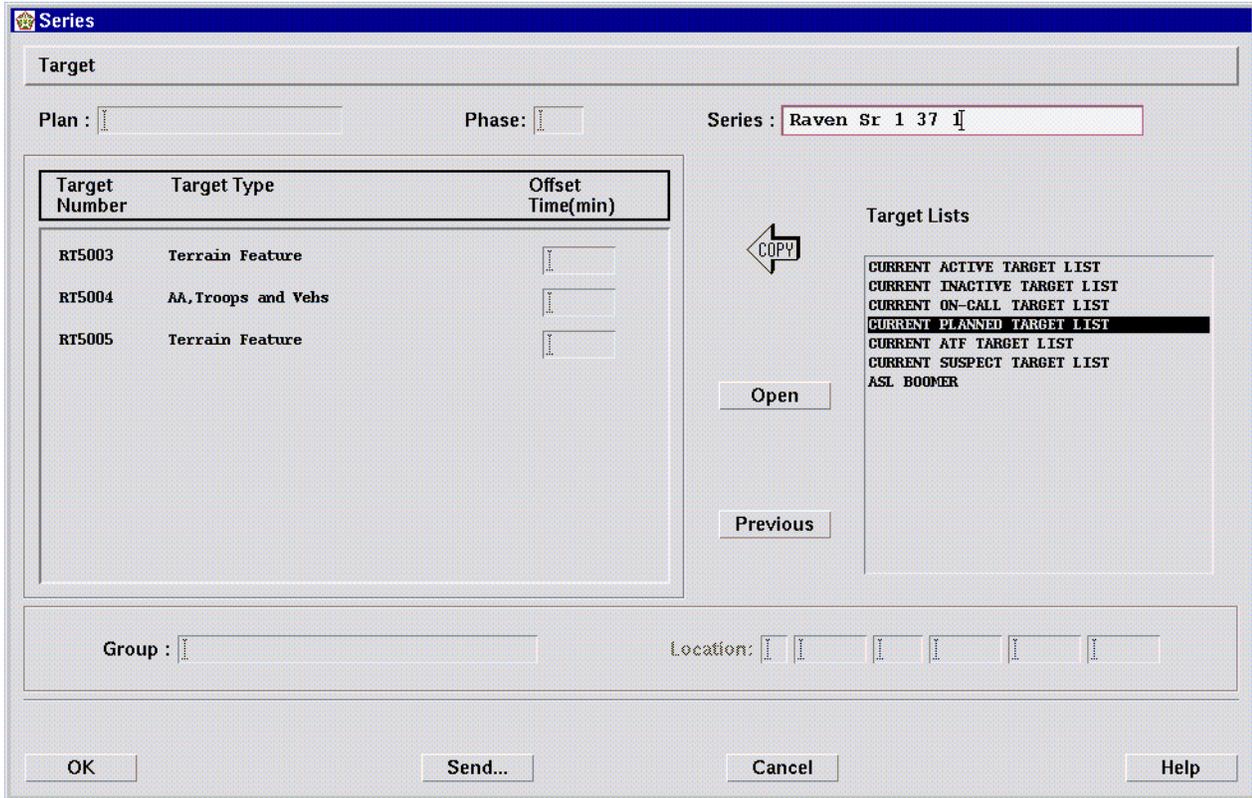
- Edit series step 3
- Create new series of targets step 5
- Delete target series step 6
- Send target series to unit step 10

Series Procedure - CONT

Step	Action	Response
3.	<u>Select series to edit.</u>	
4.	<u>Select OK</u> proceed to step 16.	
5.	<u>Select New</u> proceed to step 15.	Blank Series window opens.
6.	<u>Select series</u> to be deleted.	
7.	<u>Select Delete...</u>	Delete confirmation window opens.
8.	<u>Select Delete.</u>	Delete confirmation window closes. Series is deleted.
9.	To perform other functions of Select Series window, refer to note prior to step 3.	
10.	<u>Select a target series name</u> to send to a unit.	Selection is highlighted.
11.	<u>Select Send...</u>	Select Unit window opens.
12.	<u>Select unit.</u>	
13.	<u>Select OK.</u>	Select Unit window closes. Series is sent to selected unit.
14.	To perform other functions of Select Series window, refer to note prior to step 3.	

Series Procedure - CONT

Step	Action	Response
------	--------	----------



NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **Series** window, proceed to the indicated steps.

- Enter window data step 15
- Add target from map step 22
- Enter Offset time step 27
- Edit a target in series step 31
- Delete a target(s) from the series step 36
- Send a series to a unit step 43

- | | |
|-----|--|
| 15. | <u>Enter Series: name.</u> |
| 16. | <u>Select category</u> to copy from in right list. |

Series Procedure - CONT

Step	Action	Response
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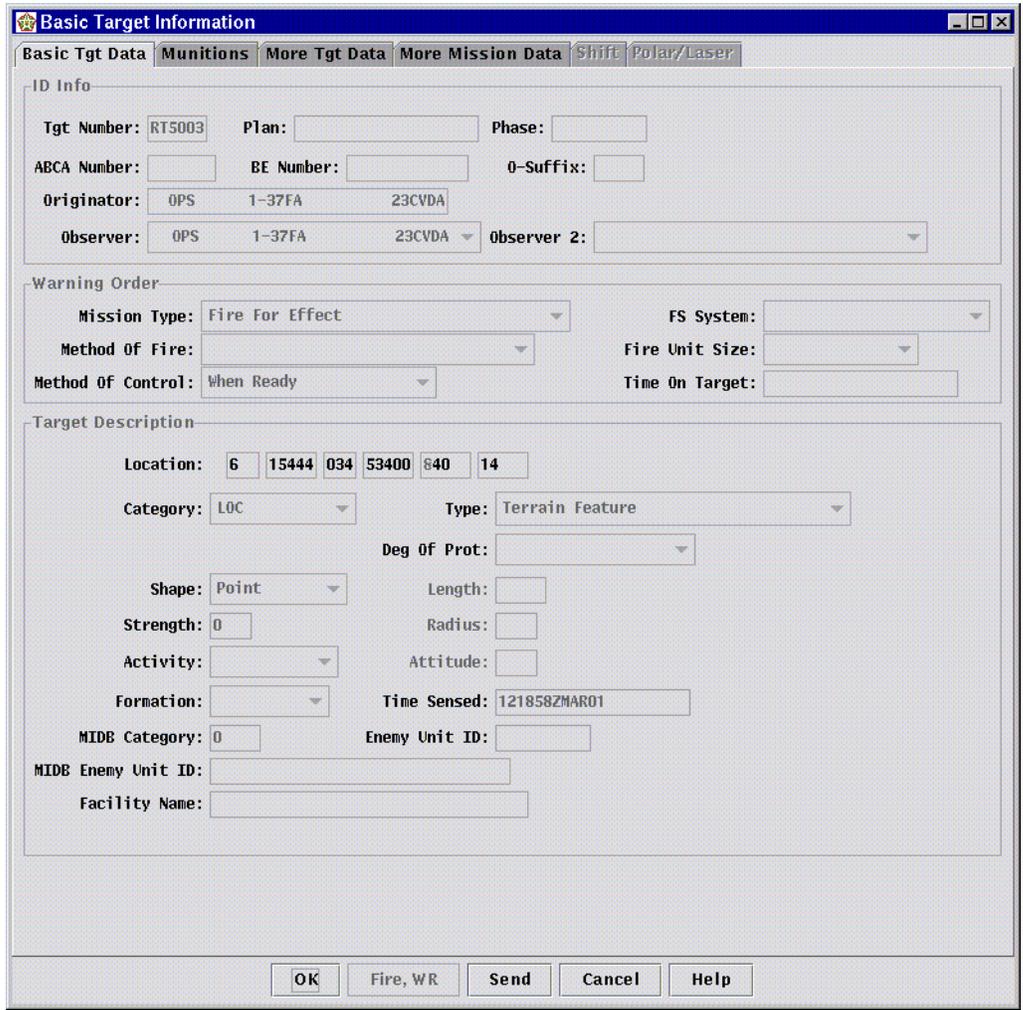
NOTE

Selecting **Open** expands the list to display the contents of the selected category.
Selecting **Previous** returns the listing to the previous display.

17.	<u>Select Open.</u>	Targets are displayed in field. List name is displayed at top of field.
18.	<u>Select target number(s)</u> to add to the series list.	Selection(s) are highlighted.
19.	<u>Select transfer arrow.</u>	Targets are moved to series field.
20.	Repeat steps 16 thru 19 until desired targets are included in series.	
21.	To perform other functions of Series window, refer to note prior to step 15.	
22.	<u>Position cursor on map target.</u>	
23.	<u>Select target symbol</u> from map.	
24.	<u>Select Add From Map.</u>	Target is added to series window.
25.	Repeat steps 22 thru 24 until desired targets are included in series.	
26.	To perform other functions of Series window, refer to note prior to step 15.	
27.	<u>Select Offset Time(min)</u> field for a target.	
28.	<u>Enter offset time.</u>	
29.	Repeat steps 27 and 28 for all targets.	
30.	To perform other functions of Series window, refer to note prior to step 15.	
31.	<u>Select a target in the series list to edit.</u>	Selection is highlighted.

Series Procedure - CONT

Step	Action	Response
32.	<u>Select Target\Edit.</u>	Basic Target Information window opens.



33.	<u>Perform edit</u> in accordance with Create/Edit Target Information Procedure.	
34.	<u>Select OK.</u>	Basic Target Information window closes.
35.	To perform other functions of Series window, refer to note prior to step 15.	

Series Procedure - CONT

Step	Action	Response
36.	<u>Select target to delete</u> from series list.	Selection is highlighted.
37.	<u>Select Target\Delete...</u> .	Remove Target Confirm window opens.
38.	<u>Select Delete</u> .	Target is deleted from the series list. End of delete target function.
39.	To perform other functions of Series window, refer to note prior to step 15.	
40.	<u>Select target from list</u> to locate.	Selection is highlighted.
41.	<u>Select Target\Find on Map</u> .	Target is highlighted on the situation map. End of find target function.
42.	To perform other functions of Series window, refer to note prior to step 15.	
43.	<u>Select Send...</u> .	Select Unit window opens.
44.	<u>Select unit</u> .	
45.	<u>Select OK</u> .	Select Unit window closes. Series is sent to selected unit.

5-3.12 Fire Plan.

Targets\Fire Plans\New opens the **Fire Plan** window for creating a new fire plan. The **Fire Plan** window is also accessed in the edit mode by selecting **Targets\Fire Plans>Edit...** which opens the **Select Fire Plan** window. Selecting a plan and **OK** opens the **Fire Plan** window in the edit mode. The **Fire Plan** window allows the user to select targets for attack, enter offset times, rank unscheduled targets, edit Fire For Effect (FFE) shell/fuze combinations, enter number of volleys, and specify the time in which the plan becomes effective.

5-3.12.1 Fire Plan Window.

Plan: and **Phase:** are not applicable when in current situation. **Fire Plan:** name (up to 30 alphanumeric or special characters) is required when in create mode.

The effective times for the plan are entered in the **Start Time:** and **End Time:** fields according to radio button selection **H-Hour** (for planning only), **On-Call**, or **Absolute**. When **On-Call** is used, the user accesses this window via the edit path and selects **Activate** button to initiate the fire plan when appropriate.

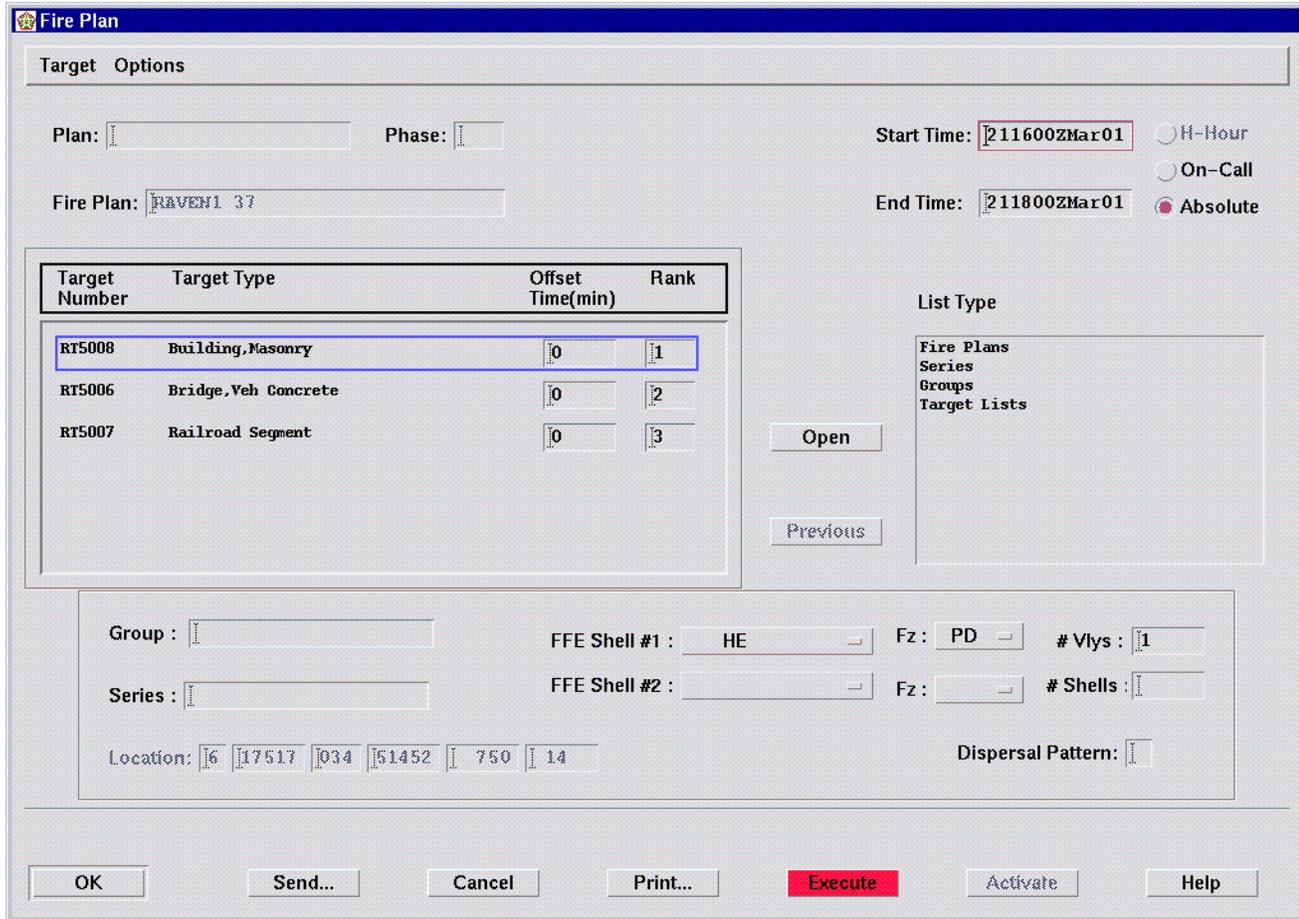


Figure 5.28 Fire Plan Window

Targets placed in the left list are those specified for the fire plan. These targets are selected from various sources in the right list. Initially the right list is titled **List Type** and listed target sources are **Fire Plans, Series, Groups, and Target Lists**. Selecting a **List Type** and **Open** displays the categories of the list and changes the list title accordingly. For example, selecting **Fire Plans** and **Open** fills the list with available fire plans from which to choose and enables the **Previous** button and the **Copy** arrow. All targets from a plan may be placed in the left list by selecting the plan and **Copy**, or the plan may be opened to list the targets from which to choose selectively. The item **Target Lists** allows the user to select from Active, Inactive, Planned, On-Call, ATF, and Suspect targets. **Previous** is used to display the previous source list.

Specified targets are identified by **Target Number, Target Type,** and given a firing **Offset Time (min)** (0, +2, +5, etc..) relative to the **Start Time**. **Rank** (1 to 30) indicates the order in which those targets which have not been assigned an offset time should be scheduled.

Selecting a target from the left list causes associated information to be displayed at the bottom of the window. **Group:** and **Series:** names are identified if a selected target is a part of a group or series. Target **Location:** is always displayed. **FFE Shell:**, **Fz:**, and **#Vlys:** information are displayed and may be edited for the associated target.

The window menu items are **Target** and **Options**. **Options\Schedule** opens the **Schedule of Fires** window for viewing schedule of fires for selected units. **Target** items are **Edit**, **Delete...**, **Description**, **Status**, **Add from Map**, and **Find on Map**. **Add from Map** is always enabled; other items are enabled by selecting a target from the left list. **Edit** opens **Basic Target Information** window for viewing additional target information or editing the target. **Delete...** opens **Remove Target Confirm** window to confirm deletion of a target from left list. **Description** opens **Basic Target Information** window in view-only mode. **Status** opens **Target Status** window which displays mission status information. **Target\Status** navigation is disabled for planning situation. **Add from Map** adds a previously selected target from the map to the open source list.

Send... opens the **Select Unit** window for selecting a unit to which to send Fire Plan information. **Execute** opens **Confirm Target Values** window which is used to confirm whether other targets are allowed to pre-empt the Fire Plan targets. Fire Requests are sent to the appropriate units when the confirmation window is closed.

The **Print...** button opens the **Print Settings** window for selection of print criteria. The Fire Plan data must be printed at 17 cpi in order to capture all data. The **Activate** button is used for on-call fire plans. Pressing this button sets the current time as the reference time for the fire mission.

5-3.12.2 Fire Plan Procedure.

NOTE

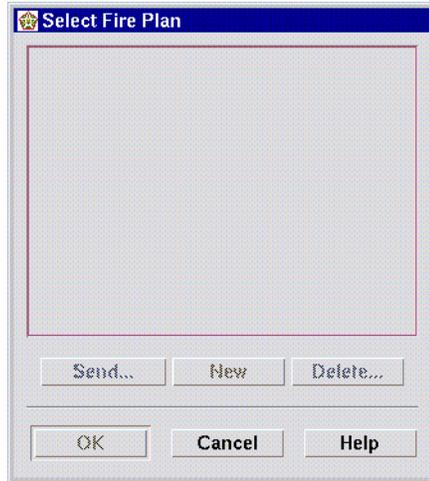
To perform the following functions, proceed to the indicated steps.

- Create a fire plan step 1
- Edit a fire plan step 2

Fire Plan Procedure		
Step	Action	Response
1.	<u>Select Targets\Fire Plans\New</u> , proceed to step 15.	
2.	<u>Select Targets\Fire Plans>Edit...</u>	The Select Fire Plan window opens

Fire Plan Procedure - CONT

Step	Action	Response
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NOTE

To perform following functions, proceed to indicated steps.

- Edit fire plan step 3
- Create new fire plan step 5
- Delete fire plan step 6
- Send fire plan to unit step 10

3.	<u>Select fire plan to edit.</u>	
4.	<u>Select OK</u> proceed to step 16.	
5.	<u>Select New</u> proceed to step 15.	Blank Fire Plan window opens.
6.	<u>Select fire plan</u> to be deleted.	
7.	<u>Select Delete...</u>	Delete confirmation window opens.
8.	<u>Select Delete.</u>	Delete confirmation window closes. Fire plan is deleted.
9.	To perform other functions of Select Fire Plan window, refer to note prior to step 3.	

Fire Plan Procedure - CONT

Step	Action	Response
10.	<u>Select a fire plan name</u> to send to a unit.	Selection is highlighted.
11.	<u>Select Send...</u>	Select Unit window opens.
12.	<u>Select unit.</u>	
13.	<u>Select OK.</u>	Select Unit window closes. Fire plan is sent to selected unit.
14.	To perform other functions of Select Fire Plan window, refer to note prior to step 3.	

Fire Plan

Target Options

Plan: [] Phase: [] Start Time: [211600ZMar01] H-Hour
 On-Call
 End Time: [211800ZMar01] Absolute

Fire Plan: [RAVEN1 37]

Target Number	Target Type	Offset Time(min)	Rank
RT5008	Building, Masonry	[0]	[1]
RT5006	Bridge, Veh Concrete	[0]	[2]
RT5007	Railroad Segment	[0]	[3]

List Type

Fire Plans
 Series
 Groups
 Target Lists

Open
 Previous

Group: [] FFE Shell #1: [HE] Fz: [PD] # Vlys: [1]
 Series: [] FFE Shell #2: [] Fz: [] # Shells: []
 Location: [6] [17517] [034] [51452] [750] [14] Dispersal Pattern: []

OK Send... Cancel Print... **Execute** Activate Help

Fire Plan Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. Selecting **Print...** at any time sends the information of this window to the printer via the **Print Settings** window. To perform the following functions of the **Fire Plan** window, proceed to the indicated steps.

Enter window data	step 15
Add target from map	step 24
Enter Offset time	step 28
Edit munitions data	step 33
Edit a target in fire plan	step 43
Delete a target(s) from the fire plan	step 48
View target description	step 52
Find target on map	step 56
Activate fire plan (On-call fire plans only)	step 59
Perform schedule of fire	step 61
View target status	step 64
Send a fire plan to a unit	step 70
Execute a fire plan	step 74

- | | |
|-----|---|
| 15. | <u>Enter Fire Plan: name.</u> |
| 16. | <u>Select H-Hour or Absolute.</u> (On-Call is only enabled when in planning situation). |
| 17. | <u>Enter Start Time: and End Time:</u> H-Hour time is entered as the number of minutes (\pm) from H-Hour; absolute time is entered in standard DTG. |
| 18. | <u>Select category</u> to copy from in right list. |

NOTE

Selecting **Open** expands the list to display the contents of the selected category. Selecting **Previous** returns the listing to the previous display.

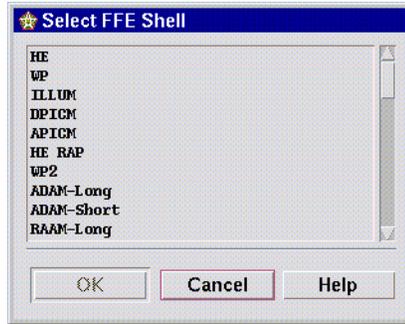
- | | | |
|-----|----------------------------|---|
| 19. | <u>Select Open.</u> | Targets are displayed in field. List name is displayed at top of field. |
|-----|----------------------------|---|

Fire Plan Procedure - CONT

Step	Action	Response
20.	<u>Select target number(s)</u> to add to the fire plan.	Selection(s) are highlighted.
21.	<u>Select transfer arrow.</u>	Targets are moved to fire plan field.
22.	Repeat steps 18 thru 21 until desired targets are included in fire plan.	
23.	To perform other functions of Fire Plan window, refer to note prior to step 15.	
24.	<u>Select target symbol</u> from map.	
25.	<u>Select Add From Map.</u>	Target is added to fire plan window.
26.	Repeat steps 24 and 25 until desired targets are included in series.	
27.	To perform other functions of Fire Plan window, refer to note prior to step 15.	
28.	<u>Select Offset Time(min)</u> field for a target.	
29.	<u>Enter offset time.</u> (0-9999 relative to Start Time for each target).	
30.	For targets of unknown offsets or unscheduled targets, enter schedule order in Rank column (1-99).	
31.	Repeat steps 28 thru 30 for all targets.	
32.	To perform other functions of Fire Plan window, refer to note prior to step 15.	
33.	<u>Select target</u> in left list.	Target coordinates fill into Location: fields. Target Group: or Series: name displayed if applicable. Established FFE shell/fuze/ volleys information displayed.
34.	<u>Select type of shell for FFE Shell #1.</u>	Select FFE Shell window opens.

Fire Plan Procedure - CONT

Step	Action	Response
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35.	<u>Select shell type.</u>	
36.	<u>Select OK.</u>	Select FFE Shell window closes.
37.	<u>Select corresponding (Fz).</u>	
38.	<u>Enter # Vlys (0-200) or #Shells (0-99999).</u>	Legend will change according to type of shell.
39.	<u>Enter Dispersal Pattern: code for shell types ATACMS-BAT (W, X, Y, or Z) or ATACMS-APAM (A, B, or C).</u>	
40.	Repeat steps 34 thru 39 for FFE Shell #2 .	
41.	Repeat steps 33 thru 40 for remaining targets.	
42.	To perform other functions of Fire Plan window, refer to note prior to step 15.	
43.	<u>Select a target in the fire plan list to edit.</u>	Selection is highlighted.
44.	<u>Select Target\Edit.</u>	Basic Target Information window opens.

Fire Plan Procedure - CONT

Step	Action	Response
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45. Perform edit in accordance with Create/Edit Target Information Procedure.

46. Select OK.

47. To perform other functions of **Fire Plan** window, refer to note prior to step 15.

48. Select target to delete from left list.

49. Select Target\Delete....

Basic Target Information window closes.

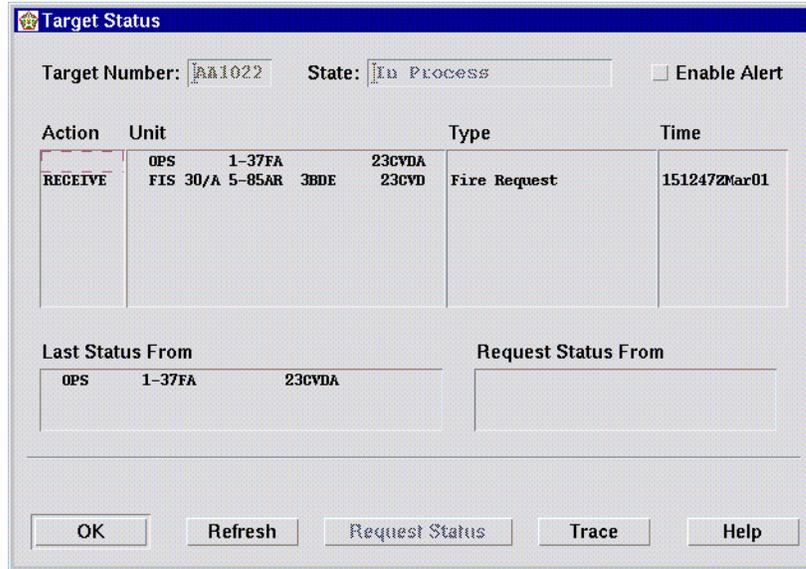
Remove Target Confirm window opens.

Fire Plan Procedure - CONT

Step	Action	Response
50.	<u>Select Delete.</u>	Remove Target Confirm window closes.
51.	To perform other functions of Fire Plan window, refer to note prior to step 15.	
52.	<u>Select target to view</u> from left list.	
53.	<u>Select Target\Description.</u>	Basic Target Information window opens in view-only mode.
54.	<u>View target information as required, then select OK.</u>	
55.	To perform other functions of Fire Plan window, refer to note prior to step 15.	
56.	<u>Select target to find</u> from left list.	
57.	<u>Select Target\Find on Map.</u>	Map is centered on target.
58.	To perform other functions of Fire Plan window, refer to note prior to step 15.	
59.	<u>Select Activate</u> (On-call fire plans only).	Start Time: and End Time: fields change to DTG format adjusted from current by entered on-call values.
60.	To perform other functions of Fire Plan window, refer to note prior to step 15.	
61.	<u>Select Options\Schedule.</u>	Schedule of Fires window opens.
62.	<u>Perform schedule of fire</u> in accordance with Schedule of Fires procedure.	
63.	To perform other functions of Fire Plan window, refer to note prior to step 15.	
64.	<u>Select target to view</u> mission status request information from left list.	
65.	<u>Select Target>Status.</u>	Target Status window opens for viewing mission status information.

Fire Plan Procedure - CONT

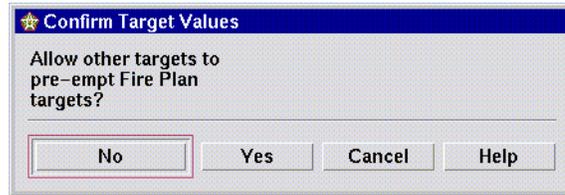
Step	Action	Response
------	--------	----------



- | | |
|---|---|
| <p>66. <u>Select Request Status</u>
or
<u>Select Trace.</u></p> <p>67. To be alerted when status report is received, select Enable Alert.</p> <p>68. <u>Select OK</u> when finished with Target Status window.</p> <p>69. To perform other functions of Fire Plan window, refer to note prior to step 15.</p> <p>70. <u>Select Send...</u></p> <p>71. <u>Select unit.</u></p> <p>72. <u>Select OK.</u></p> | <p>Status request is sent to unit in Request From field.</p> <p>Status request is sent to unit in Request From field and each unit which has received this mission.</p> <p>Target Status window closes.</p> <p>Select Unit window opens.</p> <p>Select Unit window closes. Fire plan is sent to selected unit.</p> |
|---|---|

Fire Plan Procedure - CONT

Step	Action	Response
73.	To perform other functions of Fire Plan window, refer to note prior to step 15.	
74.	<u>Select Execute.</u>	Confirm Target Values window opens.
75.	<u>Select Yes or No.</u>	Confirm Target Values window closes. Fire Request sent to appropriate units for each target.
76.	To perform other functions of Fire Plan window, refer to note prior to step 15.	



5-3.13 Schedule of Fires.

The Schedule of Fire allows the viewing and scheduling of fire missions and corresponding fire units against scheduled targets.

5-3.13.1 Schedule of Fire Window Navigation.

The **Schedule of Fires** window is used in both the current and planning situations. In the current situation, the window is accessed for active missions via the **Mission Processing\Active Missions\Scheduling Queues** selection. All established schedules are accessed via the **Select Schedule of Fires** window which is opened by the **Targets\Schedules of Fire** selection.

When creating a new or editing a fire plan via the **Targets\Fire Plan\New** or **Edit...** selection(current or planning), the schedule window is accessed from the **Fire Plan** window. In the planning situation, the **Targets\Schedules of Fire** selection opens the window via the **Select Schedule Of Fires** window.

The **Schedule of Fires** window **Options\Unit Schedule** opens the **Unit Schedule** window. The **Unit Schedule** window provides the options of Add, Move, Copy, Remove, or View targets. The **Target\Add** selection opens the **Select Target** window for selecting the target to add to the units schedule. The **Target\Move** and **Target\Copy** selections open the **Select Unit** window for selecting the fire unit to move or copy a target to. The **Target\View** selection opens the **Basic Target Information** window for viewing details of the target.

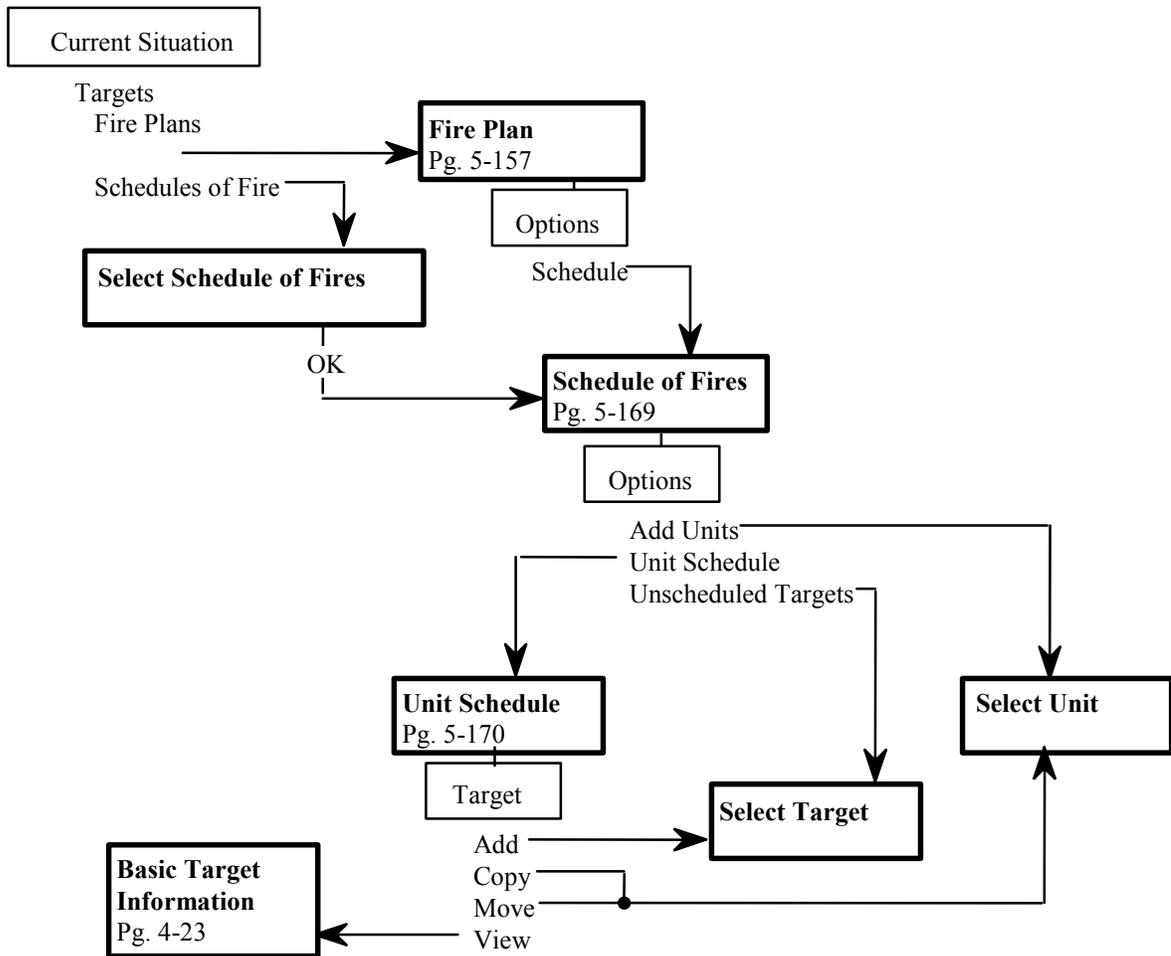


Figure 5.29 Schedule of Fire Window Navigation

5-3.13.2 Schedule of Fires Window.

This selection opens the **Schedules of Fire** window containing a list of identified Schedule of Fires for fire plans. A Schedule of Fires is a graphic representation of the target numbers relative to the firing time offset and the associated unit. Selecting the **Unit Schedule** button opens the **Unit Schedule** window for viewing or modifying the unit schedule. Selecting the **Unscheduled Targets** button opens the **Unscheduled Targets** window for selecting an unscheduled target.

The targets of the fire plan appear on the bar graph relative to the time offset and adjacent to the fire unit most suited for the target based on location, unit capabilities, and target munitions requirements. The time offsets that may have been entered on the **Fire Plan** window are also used for the calculation, but become ineffective for subsequent calculations if that target is manipulated on the bar graph. The time tic marks represent 60 minutes maximum. The scroll bars are active when shaded.

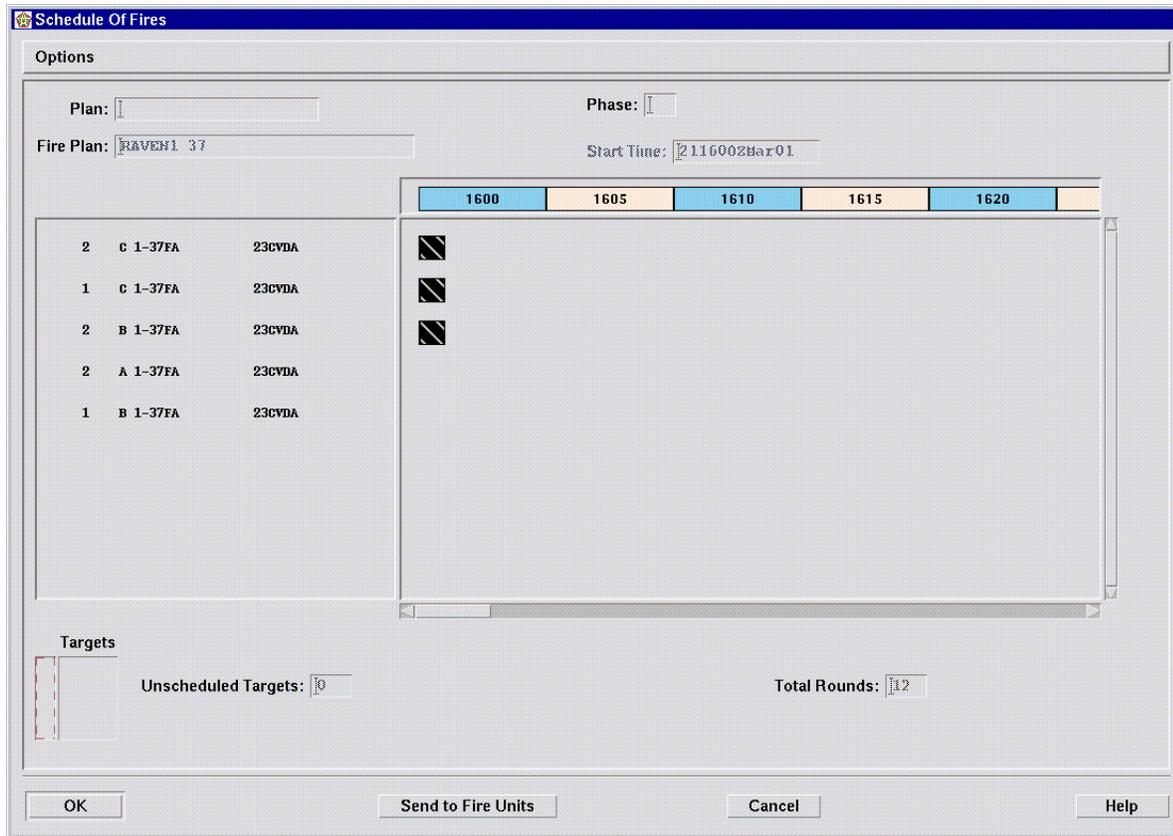


Figure 5.30 Schedule of Fires Window

The targets are represented on the graph in rectangular boxes with target the number displayed in the box in most cases. The exception is a target with a short time duration (one volley). In this case, the target box can be selected and the target number can be read in the lower left hand corner of the **Schedule of Fires** window.

When the **Schedule of Fires** window is used to display the mission queue for a unit, the desired unit will be the only one in the list with the targets assigned to it represented in the schedule.

The **Send** button allows the operator to send the schedule to each of the fire units on the schedule. The **Cancel** button allows the operator to close the **Schedule of Fires** window without saving the calculation.

5-3.13.3 Unit Schedule Window.

The **Unit Schedule** window allows the user to view and/or modify a units schedule. The selected **Unit:** ID is displayed with the **Maximum Missions:** that can be assigned to the unit by the schedule of fires calculation. Additional targets that exceed the **Maximum Missions:** entry can be added to the unit schedule by the user. The **Maximum Missions:** entry can be edited and has a legal value range of 0 to 999.

The screenshot shows the 'Unit Schedule' window. At the top, there is a 'Target' section with 'Unit:' containing '2 C 1-37FA 23CVDA' and 'Maximum Missions:' set to '10'. Below this is a table with the following columns: Target Number, Target Type, Group, Series, Firing Time(min), Shift Time(min), and Offset Time(min). The table contains one entry: Target Number 'RT5008', Target Type 'Building, Masonry', and Firing Time '0'. Below the table are fields for 'FFE Shell #1', 'FFE Shell #2', 'Fz', and '# Shells'. At the bottom are buttons for 'OK', 'Update', 'Cancel', and 'Help'.

Target Number	Target Type	Group	Series	Firing Time(min)	Shift Time(min)	Offset Time(min)
RT5008	Building, Masonry			0		0

Figure 5.31 Unit Schedule Window

The data for each **Target Number** is displayed in columns adjacent to the number. The **Target Number:**, **Target Type:**, **Group:**, and **Series:** fields are view only. The **Firing Time(min):** and **Offset Time(min):** are editable. The **Firing Time (min):** field may be edited to change the length of time the unit fires the selected target. Changing the time allowed changes the **# Vlys:** value proportionally. The **Offset Time(min):** is the time, reference to H-hour, that the target mission is to start.

The **FFE Shell #1:** and **#2:**, **Fz:**, and **#Vlys:/#Shells:** fields are editable. Changing the **# Vlys:** value will change the **Firing Time(min)** field proportionally.

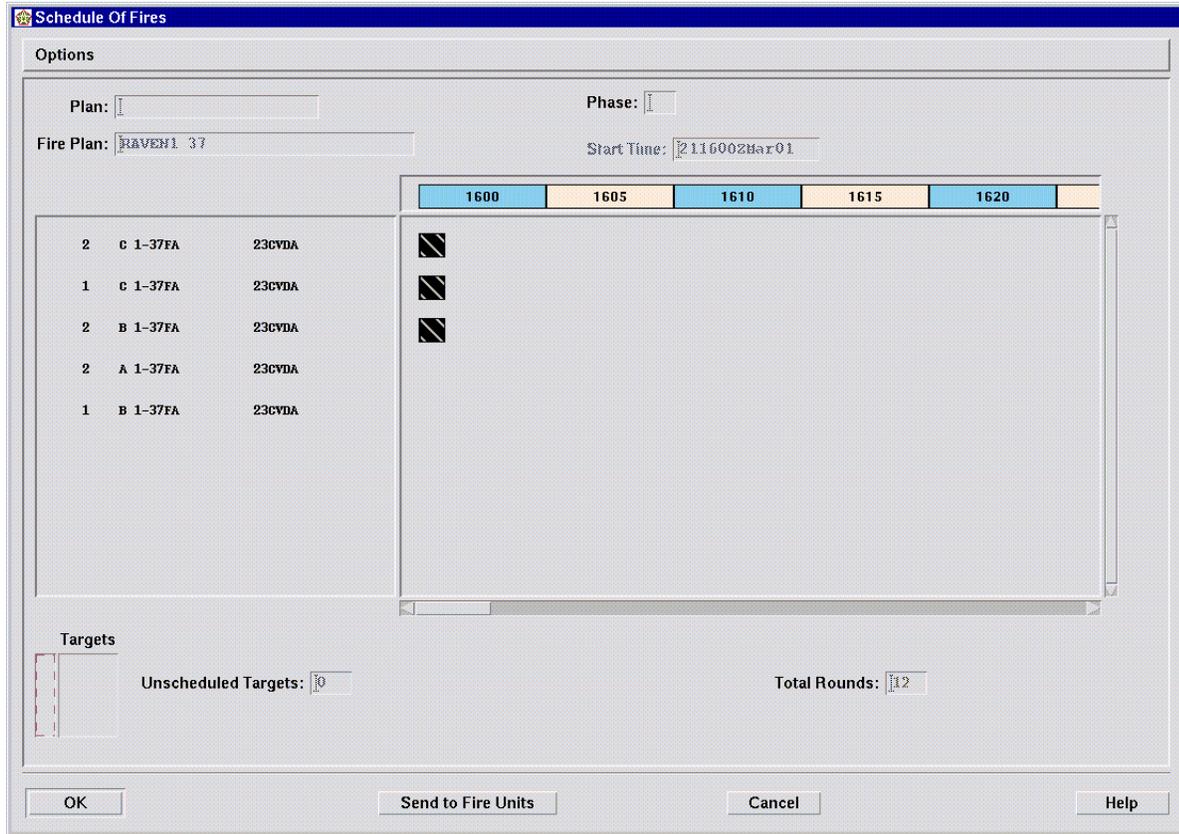
The **Target** menu selection are **Add**, **Remove**, **Move**, **Copy**, and **View**. The **Add** selection opens the **Select Target** window. The user then selects a target to add to the schedule. The **Remove** selection deletes a selected target from the unit schedule. The **Move** and **Copy** selections opens the **Select Unit** window. The user selects a unit to receive the selected target data. If **Move** was the selection, the target will be deleted from the original unit schedule.

The **Update** selection causes changes to be saved and the **Schedule of Fires** window to be modified to reflect the changes.

5-3.13.4 Schedules of Fire Procedure.

Schedules of Fire Procedure

Step	Action	Response
1.	Access Schedules of Fires window via appropriate method.	The Schedule of Fires window opens.



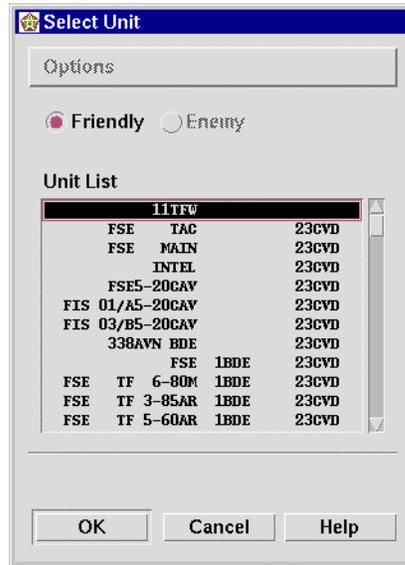
NOTE

Selecting **OK** at any time closes this window. Selecting **Cancel** closes the window without saving calculations. The **Send** button sends the schedule to all schedule fire units. To perform the following functions of the **Schedule of Fires** window, proceed to the indicated steps.

- Add unit(s) to schedule step 2
- Remove unit step 6
- Calculate schedule step 9
- View unscheduled targets step 11
- Send schedule of fire to selected unit(s) step 14
- View/Edit unit schedule step 18

Schedules of Fire Procedure - CONT

Step	Action	Response
2.	<u>Select Options\Add Units.</u>	Select Unit window opens.



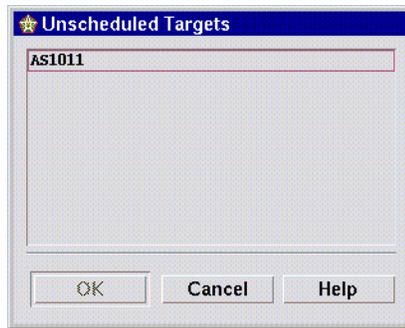
3.	<u>Select Unit(s)</u> to be added to schedule.	
4.	<u>Select OK.</u>	Select Unit window closes. Unit(s) is added to schedule list.
5.	To perform other functions of Schedule of Fires window, refer to note prior to step 2.	
6.	<u>Select unit</u> to remove.	
7.	<u>Select Options\Remove Units.</u>	Unit is removed from schedule.
8.	To perform other functions of Schedule of Fires window, refer to note prior to step 2.	

NOTE

Targets already scheduled by a previous calculation will not be affected by selecting **Options\Calculate**. To re-schedule these targets, the user should delete the schedule of fire and recreate it via the **Fire Plan** window.

Schedules of Fire Procedure - CONT

Step	Action	Response
9.	<u>Select Options\Calculate.</u>	Targets are displayed next to the assigned unit and under appropriate time interval.
10.	To perform other functions of Schedule of Fires window, refer to note prior to step 2.	
11.	<u>Select Options\Unscheduled Targets.</u>	Unscheduled Targets window opens.



12.	<u>Select Cancel</u> to close window after viewing target list.	Unscheduled Targets window closes.
13.	To perform other functions of Schedule of Fires window, refer to note prior to step 2.	
14.	<u>Select Options\Send To Selected...</u>	Select Unit window opens.
15.	<u>Select unit</u> from list.	Schedule of Fires is sent to selected unit.
16.	<u>Select OK.</u>	
17.	To perform other functions of Schedule of Fires window, refer to note prior to step 2.	
18.	<u>Select a fire unit</u> from displayed list.	
19.	<u>Select Options\Unit Schedule.</u>	Unit Schedule window opens.

Schedules of Fire Procedure - CONT

Step	Action	Response
------	--------	----------

Unit Schedule

Target

Unit: 2 C 1-37FA 23CVDA Maximum Missions: 10

Target Number	Target Type	Group	Series	Firing Time(min)	Shift Time(min)	Offset Time(min)
RT5008	Building, Masonry			0		0

FFE Shell #1 : Fz : # Shells :
 FFE Shell #2 : Fz : # Shells :

OK Update Cancel Help

NOTE

Selecting **OK** at any time closes this window and activates the **Schedule of Fires** window. To perform other functions of **Schedule of Fires** window after closing this window, refer to note prior to step 2. To perform the following functions of the **Unit Schedule** window, proceed to the indicated steps.

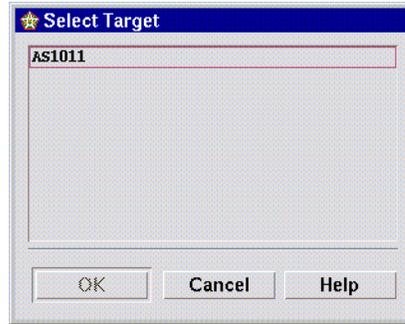
- Enter munitions data for a target step 20
- Enter firing time step 27
- Enter/Edit Firing Points step 83
- Enter offset time step 29
- Remove a target from unit schedule step 31
- Add a target to unit schedule step 34
- Move a target to another unit step 38
- Copy a target to another unit step 43
- View target information step 48

Schedules of Fire Procedure - CONT

Step	Action	Response
20.	<u>Select a Target Number.</u>	Selected Target Number is highlighted.
21.	<u>Select FFE Shell #1:</u>	
22.	<u>Select Fz:</u>	
23.	<u>Enter #Vlys: (0-200) or #Shells: (0 - 999).</u>	The value entered in # Vlys or #Shells : field modifies the Firing Time(min) field accordingly.
24.	Repeat steps 21 thru 23 for <u>FFE Shell #2</u> :	
25.	Repeat steps 20 thru 24 for remaining targets.	
26.	To perform other functions of Unit Schedule window, refer to note prior to step 20.	
27.	<u>Enter Firing Time(min).</u>	The # Vlys field is modified by the value entered in the Firing Time field.
28.	To perform other functions of Unit Schedule window, refer to note prior to step 20.	
29.	<u>Enter the Offset Time(min).</u>	The entered time is displayed.
30.	To perform other functions of Unit Schedule window, refer to note prior to step 20.	
31.	<u>Select a Target Number</u> to remove.	
32.	<u>Select Target\Remove</u> to remove selected target.	Selected target is removed from this units schedule. Target is then placed on unscheduled targets list .
33.	To perform other functions of Unit Schedule window, refer to note prior to step 20.	
34.	<u>Select Target\Add</u> to add a target to unit schedule.	Select Target window opens.

Schedules of Fire Procedure - CONT

Step	Action	Response
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35.	<u>Select target.</u>	
36.	<u>Select OK.</u>	Select Target window closes and target is added to end of target list in Units Schedule window.
37.	To perform other functions of Unit Schedule window, refer to note prior to step 20.	
38.	<u>Select a Target Number to move.</u>	
39.	<u>Select Target\Move to move a target.</u>	Select Unit window opens.
40.	<u>Select a unit.</u>	
41.	<u>Select OK.</u>	Select Unit window closes, target is removed from this Units Schedule window to selected unit.
42.	To perform other functions of Unit Schedule window, refer to note prior to step 20.	
43.	<u>Select a Target Number to copy.</u>	
44.	<u>Select Target\Copy.</u>	Select Unit window opens.
45.	<u>Select a unit.</u>	
46.	<u>Select OK.</u>	Select Unit window closes and target is added to selected units schedule.

Schedules of Fire Procedure - CONT

Step	Action	Response
47.	To perform other functions of Unit Schedule window, refer to note prior to step 20.	
48.	<u>Select a Target Number</u> to view.	
49.	<u>Select Target\View</u> .	Basic Target Information window opens.
50.	<u>View information</u> then select Cancel to close window.	
51.	To perform other functions of Unit Schedule window, refer to note prior to step 20.	

5-4 AIR SUPPORT OVERVIEW.

Air Support functionality is used by the operator to schedule, request, execute, divert, and process missions using air assets. Air Support consists of both fire support and non-fire mission classes. Fire support includes Close Air Support (CAS) and Air Interdiction (AI) missions. The non-fire mission classes are Assault Support (Aslt Supp), Air Drop, Medical Evacuation (Medevac), Reconnaissance (RECCE), and Electronic Warfare (EW).

Air missions are requested via the **Air Support Request** (ASR). An ASR is created from a specialized target list called an **Air Support List** (ASL). ASL's are created for a specific air day. An air day is a 24-hour period used for scheduling purposes that is usually is 2 to 3 days in advance for planning purposes. Each entry on the ASL is an ASR. The operator enters data for the ASR via windows for each mission class.

Air missions can be planned or immediate. Missions can be approved as On Call or Scheduled. A Scheduled mission is normally planned and executed against a specific target at a specific time and location. An On Call mission is basically an alert type mission. A request is submitted for an anticipated mission in a general area and for a general target type in a given period of time. These missions are executed if and when a fire request is received that the On Call air support can effectively engage.

In the planning situation, air support requests are created from and managed by an ASL. ASR's are added to the ASL and the completed ASL is sent up the support chain for approval and scheduling. In the current situation, planned and immediate ASR's can be created for all mission classes. Immediate CAS/AI missions can be generated using normal AFATDS mission processing procedures. Air will be considered as an attack option if air assets are available to the unit processing the mission. An ASR is generated if an air-attack option is selected.

5-4.1 Planning Situation Air Support Missions.

The Air Support functionally allows the user to plan air missions and transmit ASR's up the support chain for approval and scheduling. Scheduling and approval for preplanned air requests, within the 72 hour Air Tasking Order (ATO) cycle, is accomplished at the Air Operations Center (AOC). The AOC is a Theater Level activity which allows Army and Marine Corps units to request air support missions that may be scheduled and flown by any air asset controlled by the AOC.

The ASL allows the operator to select a mission class and to enter information for the ASR using windows specific to the mission class. Selection of **Target\New** and a mission class from the ASL opens the **Air Mission Information** window. This window is used to enter general information for the ASR and to access other windows specific to the mission class. Selecting **OK** on the **Air Mission Information** window, after data entry is complete, places the ASR on the ASL.

ASL's can be created at each echelon in the air-support chain. The operator adds local ASR's and ASL's from subordinate units to the local ASL and sends the ASL up to the next unit in the air-support chain. This process of combining ASL's and ASR's continues until the ASL reaches the Battlefield Coordination Detachment (BCD).

The BCD is the ground services' liaison at the AOC. The BCD has responsibility to consolidate all planned air requests for each ATO cycle and then submit them to the Air Force for consideration. ASL's for planned missions are sent up the support chain until they reach the BCD and are then sent to the Contingency Theater Automated Planning System (CTAPS) or Theater Battle Management Core System (TBMCS). Preplanned air requests are used to reflect future air support requirements and can include both Scheduled and On Call requests.

CTAPS and TBMCS are the theater-wide planning systems that link the various agencies involved in mapping the air resources to the mission requirements based on priority and resource availability. At the AOC, air resources are scheduled for the ASR's. ATO's and Airspace Control Orders (ACO's) are developed and distributed to the coordinating units, units conducting the mission, and the units requesting air support. ATO's contain the information used to conduct the mission. ACO's contain the information used to define airspace Geometry measures (corridors, orbits, routes etc.). ATO's and ACO's are sent back to AFATDS from the ACO as a ATOCONF message.

The ASR's on the appropriate ASL (ASL for the time frame of ATOCONF) are checked against the ATOCONF to see if they were approved. ASR's that appear on the ATOCONF are changed to a status of Confirmed. ASR's that do not appear on the ATOCONF are changed to a status of Denied.

NOTE

A Geometry Alert is posted at each OPFAC for each geometry received. If a large number of geometries are received, the alert queue may be filled to overflow (queue maximum is 99 alerts). In this case, the oldest alert is removed as a new alert is received. The operator would be prevented from viewing an alert if this happens. To prevent this from happening at subordinate OPFAC's, the operator at the OPFAC receiving the ACO should temporarily disable the automatic distribution of FSCM geometries prior to receiving an ACO. All functions normally performed on the ACO, except the distribution of geometries, will occur. The geometries are entered into the current situation at the host OPFAC. The operator should then create a plan based on the current situation. The portion of the plan containing the geometries can then be distributed to any OPFAC's that would normally receive the ACO geometries.

5-4.2 Current Situation Air Support Missions.

In the current situation, planned and immediate ASR's can be created for all mission classes. Immediate CAS/AI missions can also be generated using normal AFATDS mission processing procedures. Air will be considered as an attack option if air assets are available to the unit processing the mission. An ASR is generated and printed if an air-attack option is selected. If no ASL is available, one will be created for the new ASR.

5-4.3 Modernized Integrated Database.

The Modernized Integrated Database (MIDB) is a database maintained by the Theater Battle Management Core System (TBMCS) that lists known possible targets world wide. This database contains two (2) major components; a facilities and installation table and a units table. Data for the theater of operation is passed to AFATDS from TBMCS and maintained current by updates containing additions, deletions, and changes.

The purpose of maintaining a MIDB at AFATDS is so that a BE/OSuffix number (facility targets) or a MIDB Unit ID (unit targets) can be associated with AFATDS Air Interdiction (AI) targets. This allows the air component to track target data using TBMCS until the time of execution. For example, an AFATDS unit processes an AI mission on an enemy command post. The mission is compared to the MIDB and a matching target is found. The MIDB Unit ID is added to the AFATDS mission data and an ASR is sent. The air component can now track the mission data (e.g., location changes), during planning and scheduling, via TBMCS without further inputs from AFATDS.

5-4.3.1 MIDB Facilities.

A facility is defined as real property performing a unique function that consists of one or more of the following:

- a building
- a structure
- a utility system
- pavement
- underlying land

An installation is defined as a facility or group of facilities located in a specific area which support a particular function or have an associated function.

Facility data received from TBMCS will include, as a minimum, the Basic Encyclopedia (BE) Number, OSuffix, category, facility location, and facility name. Facility data is maintained and accessed in AFATDS via the **MIDB Facility** window. This window is opened via the **Targets\MIDB Facilities** selection in the current situation.

5-4.3.2 MIDB Units.

A unit is defined as a force or organization that is identifiable as part of an organizational structure. Unit data received from TBMCS will include, as a minimum, the Unit Name, operational status, unit location, unit ID, Unit role, Unit function, echelon, and date/time of last change. Unit data is maintained and accessed in AFATDS via the **MIDB Enemy Units** window. This window is opened via the **Targets\MIDB Enemy Units** selection in the current situation.

5-5 **AIR SUPPORT PROCESSING.**

Air support processing begins when a CFF or a FR/OTF is received requesting air assets or an ASR is received. If a CCF or FR is received, the ASR and target number are checked against the current ASL. If a match is not found or the match is not for a mission that is confirmed and On-Call or Scheduled, the ASL is checked for a mission that has the same target type and overlapping NET/NLT times. The matching mission with the earliest stop time will be selected for execution. If no missions match, the request will be processed in a normal manner.

When a received CFF or FR/OTF has a matching target or ASR number and the state is confirmed, processing continues. The mission will be Executed (On-Call) or Diverted (Scheduled). The operator will be notified as to the changing state of the mission.

When an ASR is received, it is checked against the current ASL. If it does not appear on the ASL, it will be added. If it does appear, the mission will be Executed (On-Call) or Diverted (Scheduled).

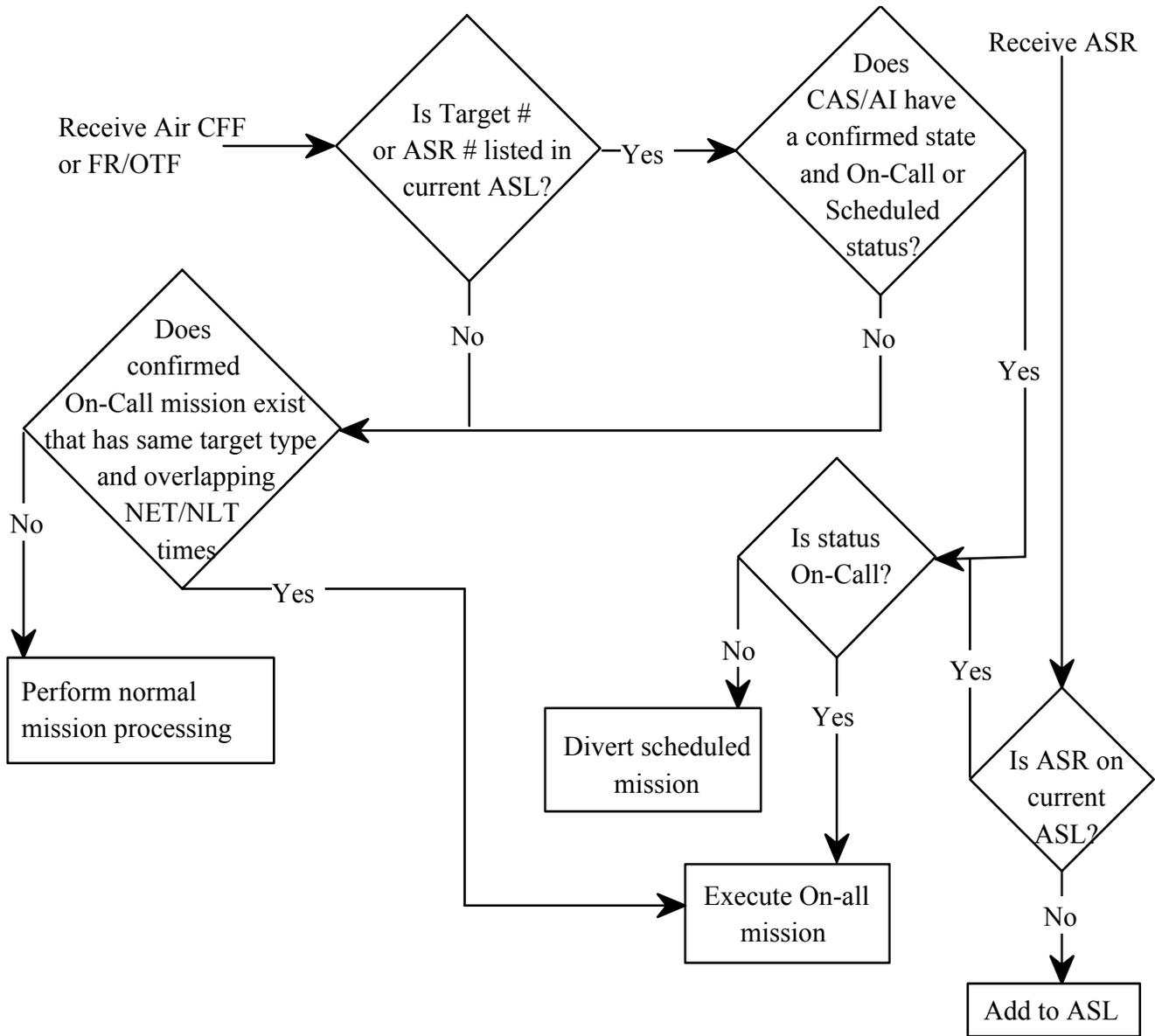


Figure 5.32 Air Support Processing

SECTION 3 TRIGGER EVENTS.

The Trigger Events function is used, in the **Current** situation only, to automatically alert the operator to a condition or occurrence that is based on a previously established set of criteria (rules). The Trigger Event rules are established and are then monitored by AFATDS to detect a condition that matches the rule. The rule can be based on a given time or on unit/target information with reference to a location, geometry, or activity. This is determined by the **DTG-Related** or **Unit/Target-Related** selection on the **Trigger Event** window.

A trigger event can exist in one of three states. These are **Set**, **Suspended**, and **Tripped**. In the **Set** state, the rule is monitored and compared to the current situation for conditions that satisfy the trigger rule. If conditions are detected that satisfy the rule, the trigger event is set to the **Tripped** state and the operator notified.

In the **Tripped** state, all monitoring of the rule is stopped. If the rule is based on a DTG and an **Interval** was established as part of the rule, the operator will be notified of the tripped state at the selected interval.

The third state is **Suspended**. In this state no monitoring or notifications are accomplished. If a component of a rule (e.g., unit, target, or geometry) is removed from the database, a medium level alert is issued informing the operator that the rule is invalid and has been suspended.

5-6 TRIGGER EVENT LIST WINDOW.

The **Trigger Event List** window is accessed via the Tool-Bar Trigger Events icon selection. This window is used to list Trigger Events, create **New...** event rules, and **Edit...** or **Delete...** event rules.



The first column lists the **Trigger Event** name. This is the name as entered via the **Trigger Event** window when the event is created. The second column is the **Item ID**. This is the item selected for **Unit/Target-Related** events on the **Trigger Event** window. If a **DTG-Related** event was created, this column will be blank for the event.

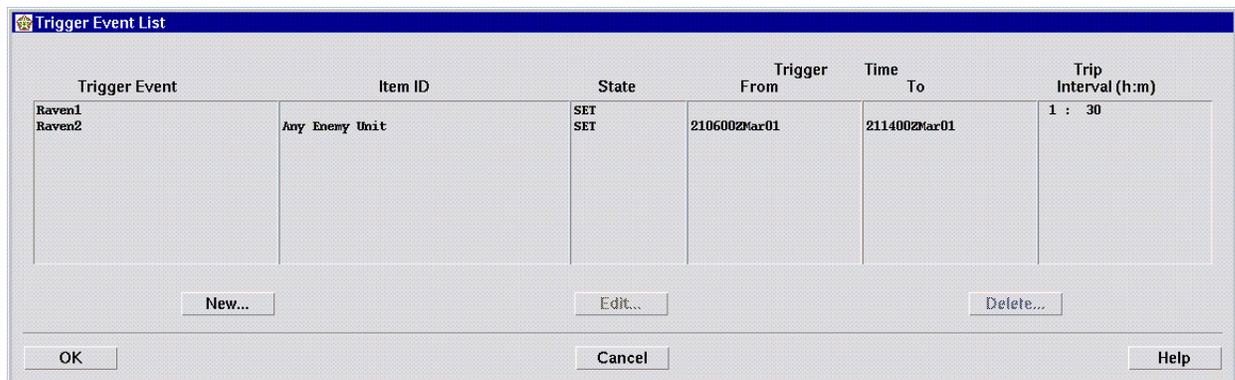


Figure 5.33 Trigger Event List Window

The **State** column displays the current (Set, Suspended, or Tripped) state of the trigger event.

The **Trigger Time** columns (**From** and **To**) display the effective time frame, if entered, for a **Unit/Target-Related** event. This column will be blank if times were not entered as part of the rule or the rule is **DTG-Related**. The **Time Interval (h:m)** column is used for **DTG-Related** events and displays the entered notification interval for the event rule.

The **New...** and **Edit...** buttons open the **Trigger Event** window. The **New...** button opens a blank window for the creation of a new rule. Selecting an existing rule and **Edit...** opens the window displaying existing rule data for editing. Selecting a rule and **Delete...** opens a confirmation window for the deletion of the selected rule. Selecting **OK** on the confirmation window removes the rule from the database and list.

Information on this window is view only. Rules are created and edited via the **Trigger Event** window and data is saved to the database when the **Trigger Event** window is closed. Therefore, the **OK** and **Cancel** buttons serve no specific functions other than to close the **Trigger Event List** window.

5-7 TRIGGER EVENT WINDOW.

The **Trigger Event** window is used to enter the data for event rules. It is also used to display the data when a trigger has been tripped and is opened with the issue of a medium level alert. The window is opened from the **Trigger Event List** window via the **New...** or **Edit...** buttons to create, edit, or view rule criteria. The window contains four basic areas. The top left area is used to identify the event and its rules. The top right area is used to establish the actions to be initiated for a tripped event. The bottom of the window contains data fields that describe the item that caused the event to be tripped and the window action buttons.

The **Trigger Event:** field is used to enter the event name. This name can be 1 to 20 alphanumeric or special characters in length and cannot be edited once the event is established.

The **State:** selections are **Set**, **Suspended**, and **Tripped**. The state can be edited at any time.

The **DTG-Related** and **Unit/Target-Related** radio buttons are used to select the type of event. With **DTG-Related** selected, the **Trigger Time (DTG):** field is enabled. A valid time is the only rule for a **DTG-Related** event. The **Interval (hours, minutes):** field is also enabled for this event. A hours and minutes entry establishes the interval at which the operator is re-alerted after the event has been tripped.

Selecting **Unit/Target-Related** enables the **Item ID:** field to allow selection of the type of item to be used for the rule. Item selections include a specific target or target type, specific unit, any unit, and units by type. Units are also specified by friendly or enemy. A supplemental field to the right of the **Item ID:** selection further identifies the selection display, such as friendly or enemy for a unit type selection.

The **Reported:** selection locates the item with respect to a geometry or coordinate location. The selections include **In**, **Forward Of**, and **Behind**. Selecting **In** enables the **Geometry:**, **Location:**, and **Radius:** fields. This allows the operator to select an area geometry via the **Select Geometry** window or enter map coordinates and a radius to specify an area. This area or geometry, with the item, then becomes the trigger rule.

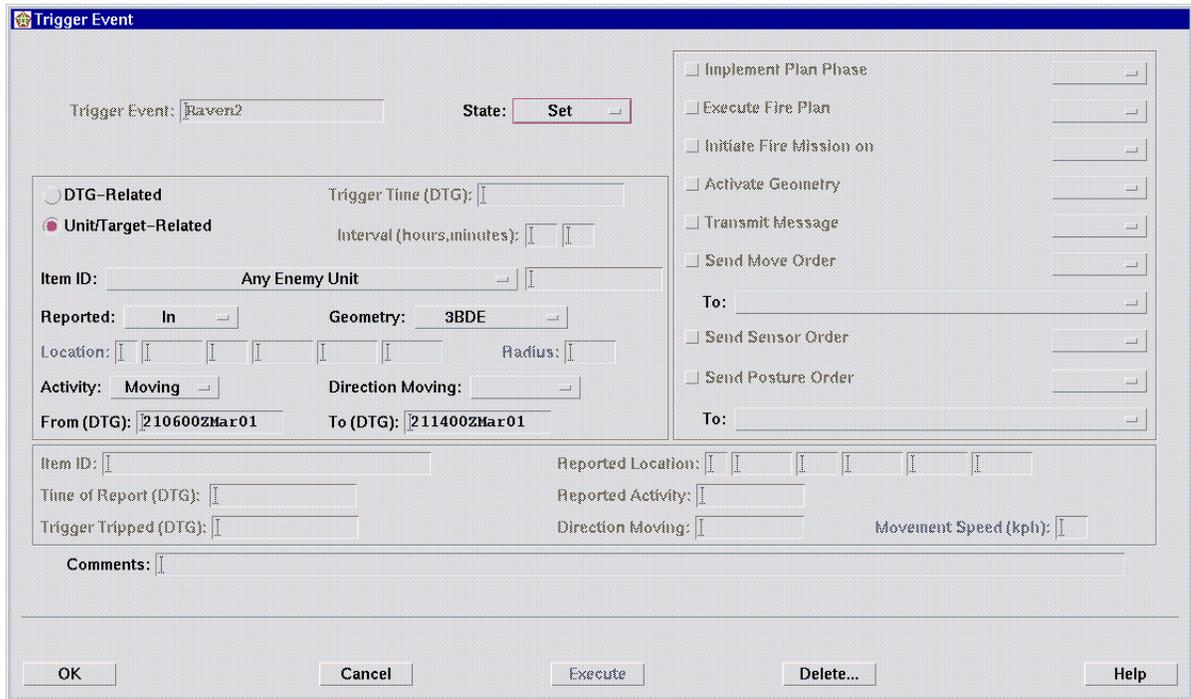


Figure 5.34 Trigger Event Window

Selecting **Forward Of** or **Behind** from **Reported:** enables the **Geometry:** field. This allows the operator to select a line geometry via the **Select Geometry** window.

NOTE

In order for the **Forward Of** and **Behind** references to be correct, the line geometry must be drawn in the general direction of left to right as viewed from the friendly position.

A Target/Unit is reported to be **Forward Of** the line if it is on the other side of the line as viewed from the friendly position. It is **Behind** the line if it is on the friendly side of the line. The line also extends out from the displayed line from both ends for trigger event monitoring. The non-displayed portion of the line extends from the end of the outer line segment in the direction of the segment.

The **Activity:** menu allows the user to specify an activity criteria for a unit. The selections are <blank>, **Moving**, **Firing**, and **Stationary**. If left blank, no activity is specified. If another selection is made, the unit or target activity must match the selection in order to trip the trigger event. The **Direction Moving:** menu is enabled if an **Activity of Moving** is selected. The selections include <blank> and eight (8) points of the compass. If left blank, no direction is specified. If another selection is made, the unit or target direction must match the selection in order to trip the trigger event.

The **From (DTG):** and **To (DTG):** fields are used to establish a time frame for the event rule. In order to trip the trigger event, the conditions of the rule must occur during the time frame. If conditions are met prior to the **From (DTG):** time, the trigger event will not trip even during the time frame. An open ended time frame can be used by entering only one (1) time parameter. These fields are optional.

The data fields at the bottom of the window display the information on a tripped event. The **Movement Speed (kph):** field (not yet functional) indicates the speed of a unit or target that tripped the trigger. The **Item ID:**, the time that the **Trigger Tripped (DTG):**, the **Time of Report (DTG):** that caused the trip, and the **Location:** of the item at the time of report are displayed. A **Comments:** field is available for operator input and can always be edited.

The **OK** button closes the window saving any changes to the database.

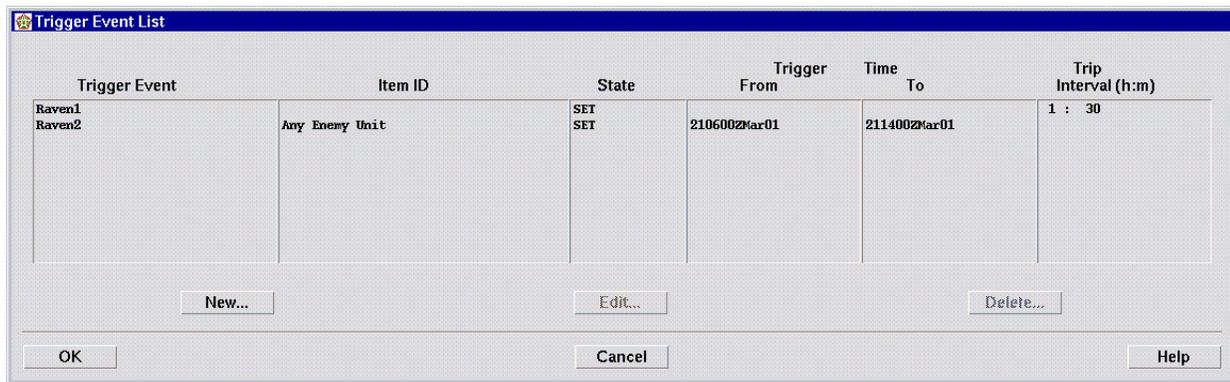
The **Cancel** button closes the window without saving any new or changed data. The **Execute** button (not yet functional) initiates any action selected to be taken as a result of a triggered event. The **Delete...** button deletes, after confirmation, the trigger event.

5-8 TRIGGER EVENT PROCEDURE.

The following procedure is used to create, edit, and view a trigger event.

Trigger Event Procedure

Step	Action	Response
1.	<u>Select Trigger Events</u> icon from Tool Bar.	Trigger Event List window opens.



Trigger Event Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **Trigger Event List** window, proceed to the indicated steps.

- Create a trigger event step 2
- Edit a trigger event step 4
- Delete a trigger event step 83

2.	<u>Select New...</u>	Trigger Event window opens.
3.	<u>Enter Trigger Event:</u> name (1 to 20 alphanumeric or special characters). Proceed to note prior to step 6.	
4.	<u>Select Trigger Event</u> to be edited.	
5.	<u>Select Edit...</u>	Trigger Event window opens.

Trigger Event Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes the **Trigger Event** window and activates the **Trigger Event List** window. To perform other functions of **Trigger Event List** window after closing this window, refer to note prior to step 2. To perform the following functions of the **Trigger Event** window, proceed to the indicated steps.

Enter/Edit a DTG related rule	step 6
Enter/Edit a Unit/Target related rule.....	step 10
Set Implement Plan Phase action	step 29
Set Execute Fire Plan action	step 34
Set Initiate Fire Mission action	step 39
Set Activate Geometry action	step 44
Set Transmit Message action	step 50
Set Send Move Order action	step 55
Set Send Sensor Order action	step 63
Set Send Posture Order action	step 68
Set a trigger State	step 78
Delete event rule	step 80

NOTE

In order to edit a trigger event, the **State:** must be **Set**.

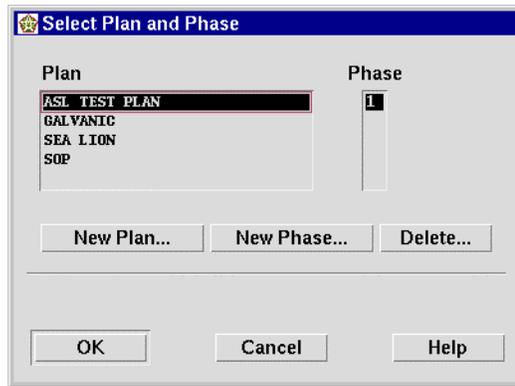
6.	<u>Select DTG-Related.</u>	Trigger Time (DTG): and Interval (hours, minutes): fields are enabled.
7.	Enter Trigger Time (DTG): (standard DTG format).	
8.	Enter Interval (hours, minutes): if appropriate.	
9.	To perform other functions of Trigger Event window, refer to note prior to step 6.	
10.	<u>Select Unit/Target-Related.</u>	Item ID: field enabled.
11.	<u>Select Item ID:</u>	Reported: selection enabled.

Trigger Event Procedure - CONT

Step	Action	Response
NOTE		
<p>If item is reported In a geometry, perform steps 12 through 15. If item is reported In a location, perform steps 16 through 18. If the item is reported Forward Of or Behind, perform steps 19 through 21.</p>		
12.	<u>Select In.</u>	Geometry selection is enabled.
13.	<u>Select Geometry\Select...</u>	Select Geometry Area window opens.
14.	<u>Select an area geometry.</u>	
15.	<u>Select OK.</u> Proceed to step 23.	Select Geometry Area window closes. Selected geometry name appears in Geometry: field.
16.	<u>Select In.</u>	Location: and Radius: fields are enabled.
17.	<u>Enter the center of the Location: to be monitored.</u>	
18.	<u>Enter the Radius: of the location.</u> Proceed to step 23.	
19.	<u>Select Forward Of or Behind.</u>	Geometry selection is enabled.
20.	<u>Select Geometry\Select...</u>	Select Geometry Area window opens.
21.	<u>Select a line geometry.</u>	
22.	<u>Select OK.</u> Proceed to step 23.	Select Geometry Area window closes. Selected geometry name appears in Geometry: field.
23.	<u>Select Activity: from pop-up menu (optional).</u>	
24.	<u>Select Direction Moving: from pop-up menu if Activity is moving (optional).</u>	
25.	<u>Enter From (DTG): (optional).</u>	
26.	<u>Enter To (DTG): (optional).</u>	

Trigger Event Procedure - CONT

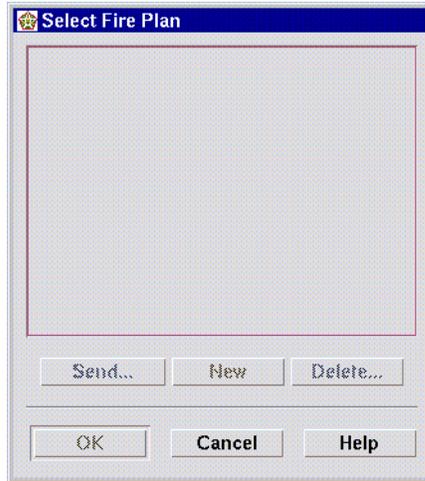
Step	Action	Response
27.	<u>Enter Comments:</u> via keyboard (optional).	
28.	To perform other functions of Trigger Event window, refer to note prior to step 6.	
29.	<u>Select Implement Plan Phase</u> menu (optional).	Menu opens.
30.	<u>Select Select...</u> .	Select Plan and Phase window opens.



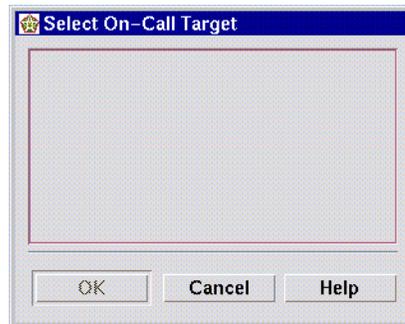
31.	<u>Select Plan and Phase</u> from lists.	
32.	<u>Select OK.</u>	Select Plan and Phase window closes. Selection displayed on menu.
33.	To perform other functions of Trigger Event window, refer to note prior to step 6.	
34.	<u>Select Execute Fire Plan</u> menu (optional).	Menu opens.
35.	<u>Select Select...</u> .	Select Fire Plan window opens.

Trigger Event Procedure - CONT

Step	Action	Response
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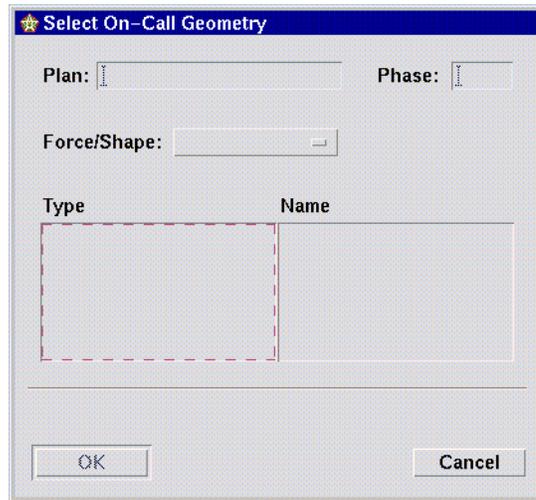


36.	Select fire plan from list.	
37.	<u>Select OK.</u>	Select Fire Plan window closes. Selection displayed on menu.
38.	To perform other functions of Trigger Event window, refer to note prior to step 6.	
39.	<u>Select Initiate Fire Mission on</u> menu (optional).	Menu opens.
40.	<u>Select Select...</u>	Select On-Call Target window opens.



Trigger Event Procedure - CONT

Step	Action	Response
41.	Select target from list.	
42.	<u>Select OK</u> .	Select On-Call Target window closes. Selection displayed on menu.
43.	To perform other functions of Trigger Event window, refer to note prior to step 6.	
44.	<u>Select Activate Geometry</u> menu (optional).	Menu opens.
45.	<u>Select Select...</u> .	Select On-Call Geometry window opens.



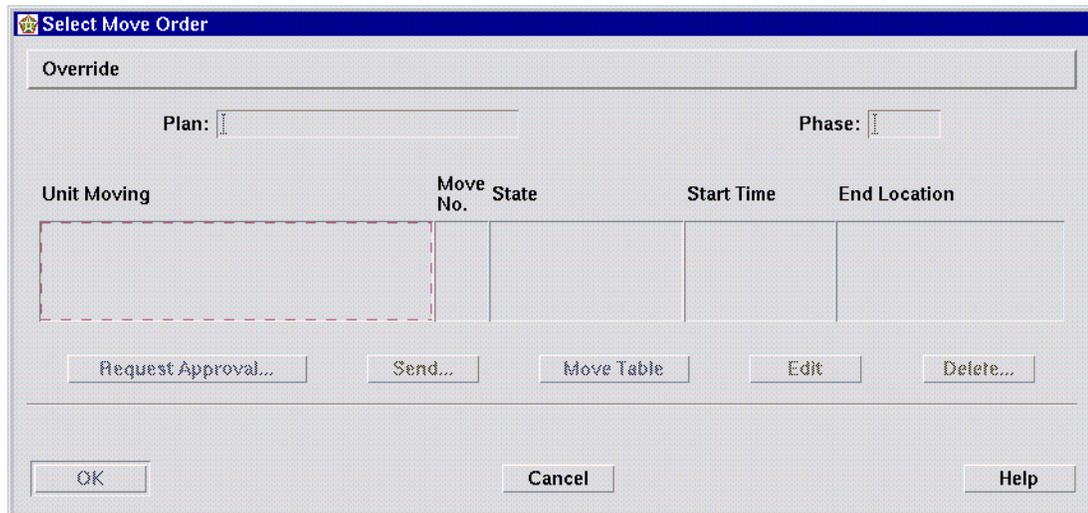
46.	<u>Select geometry Force/Shape:</u>	Geometry name are listed.
47.	<u>Select geometry.</u>	
48.	<u>Select OK</u> .	Select On-Call Geometry window closes. Selection displayed on menu.
49.	To perform other functions of Trigger Event window, refer to note prior to step 6.	
50.	<u>Select Transmit Message</u> menu (optional).	Menu opens.
51.	<u>Select Select...</u> .	Select Message window opens.

Trigger Event Procedure - CONT

Step	Action	Response
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- | | | |
|-----|---|---|
| 52. | <u>Select message.</u> | |
| 53. | <u>Select OK.</u> | Select Message window closes. Selection displayed on menu. |
| 54. | To perform other functions of Trigger Event window, refer to note prior to step 6. | |
| 55. | <u>Select Send Move Order</u> menu (optional). | Menu opens. |
| 56. | <u>Select Select...</u> | Select Move Order window opens. |



Trigger Event Procedure - CONT

Step	Action	Response
57.	<u>Select move order.</u>	
58.	<u>Select OK.</u>	Select Move Order window closes. Selection displayed on menu.
59.	<u>Select To:\Select...</u>	Select Unit window opens.



60.	<u>Select destination unit.</u>	
61.	<u>Select OK.</u>	Select Unit window closes. Selection displayed on menu.
62.	To perform other functions of Trigger Event window, refer to note prior to step 6.	
63.	<u>Select Send Sensor Order menu (optional).</u>	Menu opens.
64.	<u>Select Select...</u>	Select Unit window opens.

Trigger Event Procedure - CONT

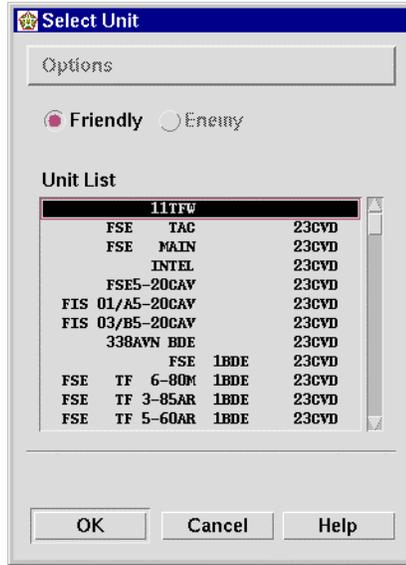
Step	Action	Response
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65.	<u>Select unit</u> to receive sensor order.	
66.	<u>Select OK.</u>	Select Unit window closes. Selection displayed on menu.
67.	To perform other functions of Trigger Event window, refer to note prior to step 6.	
68.	<u>Select Send Posture Order</u> menu (optional).	Menu opens.
69.	<u>Select Select...</u>	Select Unit window opens.

Trigger Event Procedure - CONT

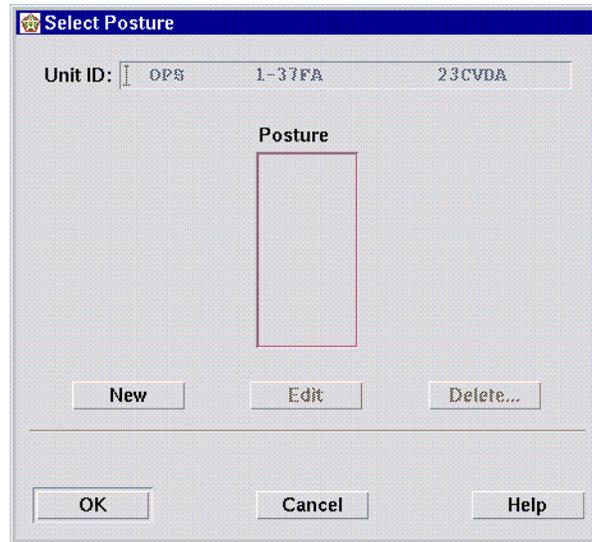
Step	Action	Response
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70. Select unit containing posture to be sent.

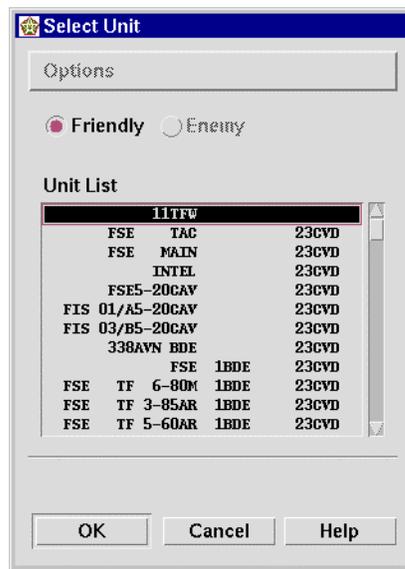
71. Select OK.

Select Posture window opens.



Trigger Event Procedure - CONT

Step	Action	Response
72.	<u>Select posture</u> from list.	
73.	<u>Select OK</u> .	Select Posture window closes. Selection displayed on menu.
74.	<u>Select To:\Select...</u>	Select Unit window opens.



75.	<u>Select destination unit</u> .	
76.	<u>Select OK</u> .	Select Unit window closes. Selection displayed on menu.
77.	To perform other functions of Trigger Event window, refer to note prior to step 6.	

Trigger Event Procedure - CONT

Step	Action	Response
78.	<p><u>Select State:\Set</u></p> <p>or</p> <p>State:\Suspended</p> <p>or</p> <p>State:\Tripped.</p>	<p>Monitoring of rule criteria begins when OK selected.</p> <p>Monitoring of rule is suspended.</p> <p>Execute button and any event actions are enabled. Refer to Trigger Event Execution procedure.</p>
79.	To perform other functions of Trigger Event window, refer to note prior to step 6.	

NOTE

The **Delete...** button is only enabled when the **Trigger Event** window has been accessed via a medium level alert.

80.	<u>Select Delete...</u>	Confirm Delete window opens.
-----	--------------------------------	-------------------------------------



81.	<u>Select OK.</u>	Confirm Delete and Trigger Event windows close. Trigger event is deleted.
82.	To perform other functions of Trigger Event window, refer to note prior to step 6.	
83.	<u>Select trigger rule(s) to be deleted.</u>	
84.	<u>Select Delete...</u>	Confirm Delete window opens.

Trigger Event Procedure - CONT

Step	Action	Response
85.	<u>Select OK.</u>	Confirm Delete window closes. Rule(s) is deleted.
86.	To perform other functions of Trigger Event List window, refer to note prior to step 2.	



5-9 TRIGGER EVENT EXECUTION.

When a trigger event with associated actions has been tripped, the **Execute** button and the actions that have been set are enabled. All actions that were set will have their check boxes selected. De-selecting a check box disables the action. The **Execute** button will be displayed differently depending on the actions that are selected. If **Execute Fire Plan** or **Initiate Fire Mission on** actions are selected, the button will be displayed in Red indicating that an active target will be generated. If **Implement Plan Phase** is selected, the button will display an ellipsis (i.e., **Execute...**) to indicate addition operator action will be required. All other selected actions will occur without operator involvement when **Execute** is selected.

CHAPTER 6 MISCELLANEOUS

SECTION 1 MESSAGES

The **Messages** selection from the Main Menu Bar provides access to the message functions.

Messages	
New...	Ctrl-n
Edit...	
Message Log	
Deferred Message Log	
Configure Message Setup	
Air Mission Messages	
Netscape	

6-1 MESSAGE WINDOWS NAVIGATION.

The **Messages** selection contains the functionality to manage all message traffic for the OPFAC. The **New...** and **Edit...** selections are enabled only after the communications configuration has been activated.

The **New...** selection opens the **Select Message Template** window. After selecting a message type, the **OK** button is selected. The message template will open immediately.

The **Messages\Edit...** selection opens the **Messaging Main Menu** window. This window serves as the main mailbox for received, sent, draft, and deleted messages. It is also the window used to maintain the Address Book and other mail functions.

The **Messages\Message Log** selection opens the **Message Log** window. The **Message Log** window is also accessed via the **Message Log Overflow Alert** window by selecting the **Message Log** button. The **Message Log** window displays a list of message DTG's, types, and From/To information. Selecting a message from the displayed list and then selecting the **View** button opens the **Message Log Message** window for viewing the selected message. **Options\Archive Log...** from the **Message Log** window opens the **Save To Archive Device** window for specifying the archive device. Selecting **Options\Clear Log...** opens the **Delete Confirmation** window for confirmation that all displayed messages are to be deleted from message log.

The **Options\Print Log...** selection opens the **Print Settings** window for specifying print parameters. The **Options\Refresh** selection refreshes the displayed **Message Log** window with the current contents of the message log. The **Messages\Deferred Message Log** selection opens the **Deferred Message Log** window. The **Deferred Message Log** is also accessed using the **Deferred Message Log** button on the **Deferred Message Log Overflow Alert** window. The **Deferred Message Log** window lists messages by DTG, message type, and originator. Selecting a message and then selecting the **View** button opens the **Deferred Message Log Message** window for viewing the selected message. Multiple messages can be selected at one time using the **Select By Type...** selection which opens the **Select by Type** window for specifying the message type to be used for grouping. Messages can also be grouped for selection by using the **Select by DTG...** selection which opens the **Select by DTG** window.

The **Messages\Configure Message Setup** selection opens the **Configure Message Setup** window. This window allows the user to select message types or groups and to select whether the message type or group is printed on receive, transmit, both, or none. Within the **Types** or **Groups** selection, individual messages can be designated to print on receive, transmit, both, or none.

This window allows the user to select message types or groups and to select which actions are to be performed on the message types or groups upon receipt. The messages may be processed, deferred, or routed to other subscribers. The **Actions\Route...** selection opens the **Select Unit** window from which a subscriber unit can be selected.

Messages\Air Mission Messages selection opens the **Select ATO/ACO Message** window. From this window, the operator can view, delete, or send a selected message. For description of the functions of this window, refer to the Air Support section.

The **Messages\Netscape** selection opens the **Netscape** window. For Netscape description, refer to the paragraphs for this function.

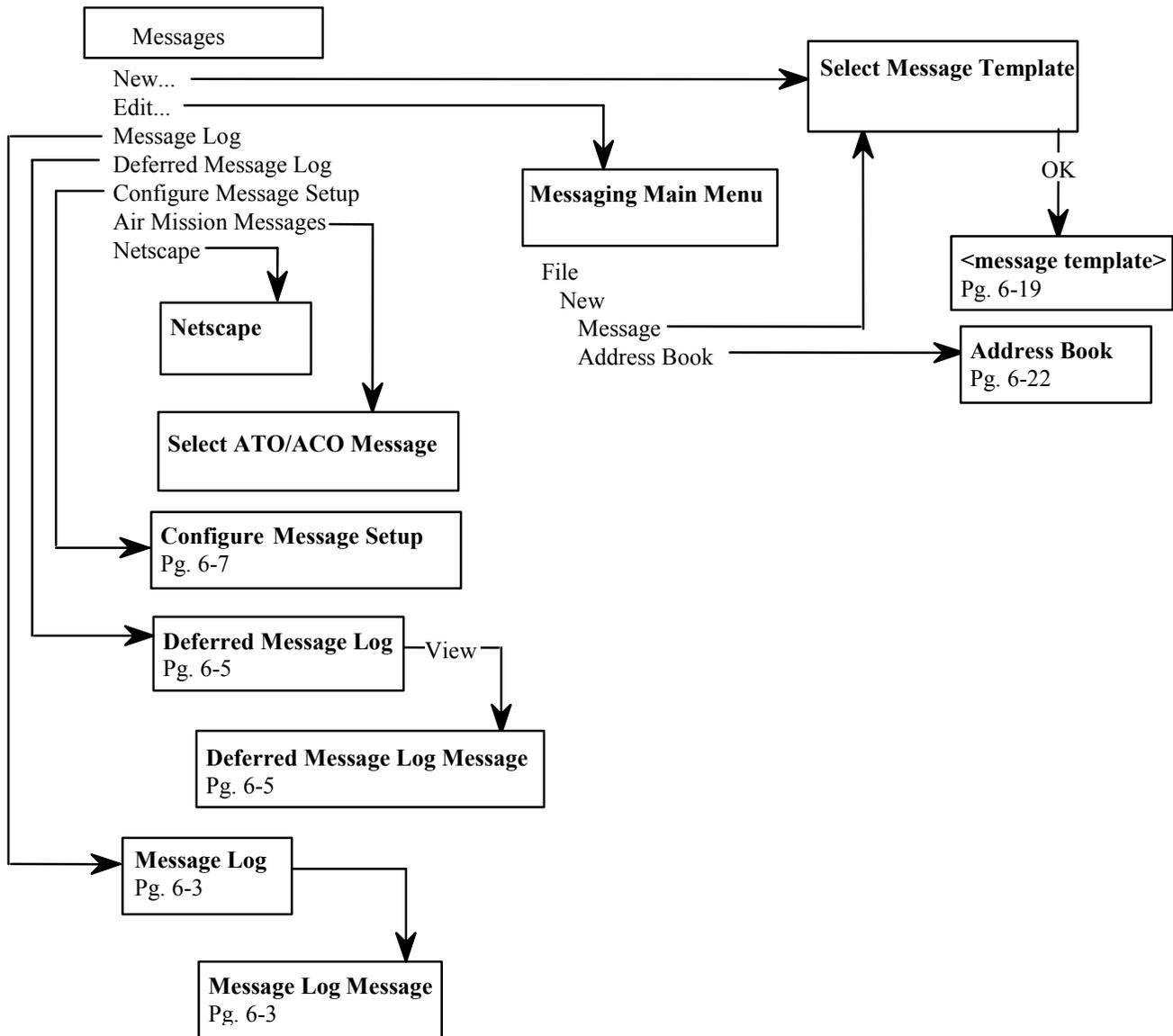
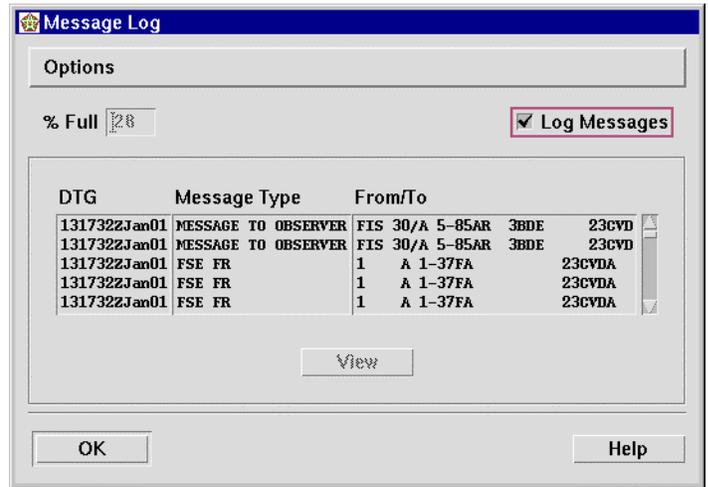


Figure 6.1 Messages Navigation

6-2 MESSAGE LOG WINDOW.

The **Message Log** window allows the user to manage messages stored in the Message Log. The **Options\Archive Log...** selection opens the **Save To Archive Device** window for specifying the storage device which will hold the archived message log. The **Options\Clear Log...** selection opens the **Delete Confirmation** window to remove all messages currently displayed in the Message Log. The **Options\Print Log...** selection opens the **Print Settings** window for specifying the print parameters for printing the Message Log. The **Options\Refresh** selection updates the displayed **Message Log** window with the current contents of the Message Log.



The **% Full** field shows the amount of allocated space used in the Message Log as a percentage of the total amount of space available.

When the **Log Messages** check box is selected, all transmitted and received messages are logged into the Message Log.

The **DTG** list displays the times that the message was logged into the message log. The **Message Type** list shows the type of message and the **From/To** list shows the source (**From**) and destination (**To**) unit ID of message.

The **View** button is enabled after a message is selected from the displayed list. When selected, the **View** button opens the **Message Log Message** window for viewing the selected message.

6-3 MESSAGE LOG OVERFLOW ALERT WINDOW.

The **Message Log Overflow Alert** window notifies the user that the Message Log percentage full has reached a predetermined threshold level. Selecting **Message Log** button opens the **Message Log** window which allows the user to archive, print, or clear the message log. The user is alerted of thresholds exceeding 90, 95, 99, and 100 percent at which time oldest messages will be overwritten.



6-4 MESSAGE LOG MESSAGE WINDOW.

The **Message Log Message** window allows the user to view header information of a message selected from the **Message Log** window. The **Message _ of _** field shows the relative number of the currently displayed header information out of the total number of messages selected for viewing.

The **DTG:** field shows the time stamp of the message. The **From:** field shows the source unit ID and the **To:** field shows the destination unit ID of the message. The **Message Type:** field shows the type of message. The **Priority:** field shows the relative priority of the message. The **Classification:** field shows the security classification of the message. The **Status:** field shows the messages status and the **Remarks:** field is provided for additional information or comments.

Selecting the **Previous** button displays the message header of a previous message and is enabled only if a previous message exists. The **Next** button is enabled if a subsequent message exists and displays the subsequent message header when selected.

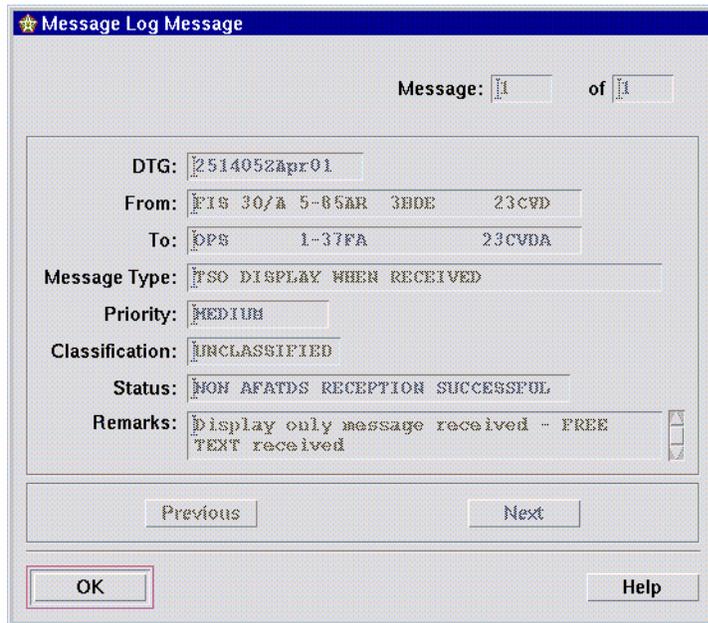
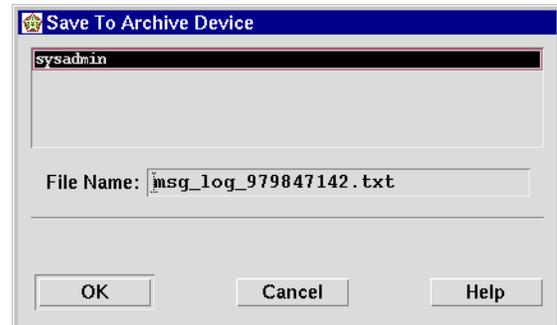


Figure 6.2 Message Log Message Window

6-5 SAVE TO ARCHIVE DEVICE WINDOW.

The **Save To Archive Device** window allows the user to select an archive device and enter the **Filename:** of the archive file.



6-6 DEFERRED MESSAGE LOG WINDOW.

The **Deferred Message Log** window is used to maintain the Deferred Message Log. The **Select\By DTG...** selection opens the **Select By DTG** window from which Deferred Message Log entries can be selected based on a date/time range. The **Select\By Type...** selection opens the **Select By Type** window from which Deferred Message Log entries can be selected based on message types. The **Select\All** selection selects all messages currently in the Deferred Message Log.



The **Options\Refresh** selection updates the **Deferred Message Log** window with the current contents of the Deferred Message Log. The **% Full** field indicates the percentage of the space allocated for the Deferred Message Log which is currently being used.

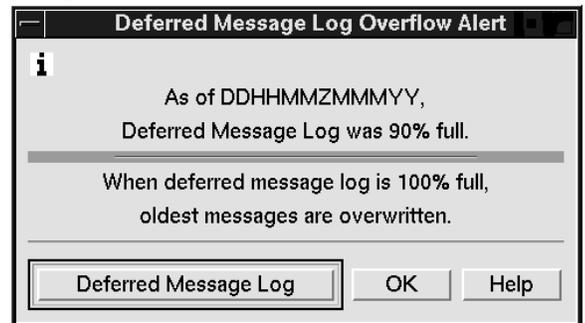
The **DTG** field shows the time stamp of the message. The **Message Type** field shows the type of message that was received. The **From** field shows the source of the message and the **To** field shows the destination unit ID. The **Process** button is enabled after selecting one or more messages. When **Process** is selected, all selected messages are processed and then are subsequently removed from the Deferred Message Log.

The **View** button is enabled after selecting a message. When **View** is selected the **Deferred Message Log Message** window is opened for viewing header information of the selected message.

The **Delete...** button is enabled after selecting a message. When **Delete...** is selected, the **Delete Confirmation** window is opened for confirming the delete action. Selecting **OK** then deletes the selected entries from the Deferred Message Log.

6-7 DEFERRED MESSAGE LOG OVERFLOW ALERT WINDOW.

The **Deferred Message Log Overflow Alert** window notifies the user that the Deferred Message Log percentage full has reached a predetermined threshold level. Selecting **Deferred Message Log** button opens the **Deferred Message Log** window which allows the user to archive, print, or clear the message log. The user is alerted of thresholds exceeding 90, 95, 99, and 100 percent at which time oldest messages will be overwritten.



6-8 DEFERRED MESSAGE LOG MESSAGE WINDOW.

The **Deferred Message Log Message** window allows the user to view header information of a message selected from the **Deferred Message Log Message** window. The **Message _ of_** field shows the relative number of the currently displayed header information out of the total number of messages selected for viewing.

The **Options\Delete** menu item marks the currently displayed Deferred Message for deletion.

The **Options\Process** menu item marks the currently displayed message to be processed.

The **Options\None** menu item marks the currently displayed message for neither deletion or processing. This is the default, and is used to change a previous selection of deletion or processing prior to closing windows.

The **DTG:** field shows the time stamp of the message. The **From:** field shows the source unit ID and the **To:** field shows the destination unit ID of the message. The **Message Type:** field shows the type of message. The **Priority:** field shows the relative priority of the message. The **Classification:** field shows the security classification of the message. The **Status:** field shows the messages status, and the **Remarks:** field is provided for additional information or comments.

The **Previous** button is enabled if a previous message exists and when selected displays the message header of the previous message. The **Next** button is enabled if a subsequent message exists and displays the subsequent message header when selected.

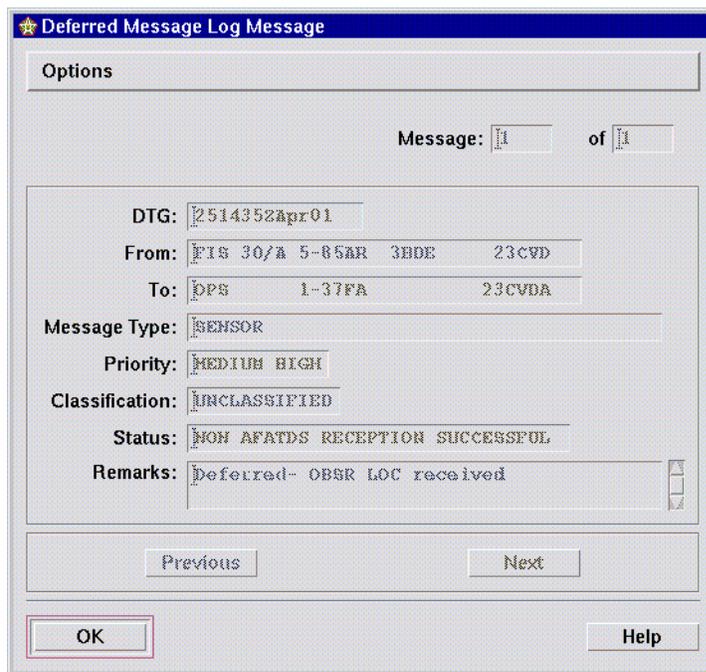
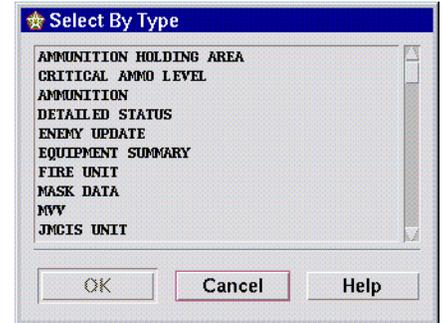


Figure 6.3 Deferred Message Log Message Window

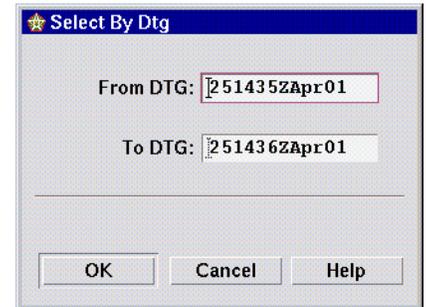
6-9 SELECT BY TYPE WINDOW.

The **Select By Type** window allows the selection of a single message type from the message types listed. Selecting a message type and then selecting **OK** closes this window and the selected message type is used as the selection criteria in the **Deferred Message Log Message** window.



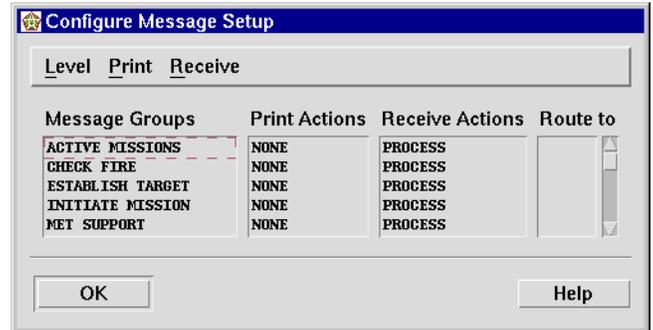
6-10 SELECT BY DTG WINDOW.

The **Select By DTG** window allows the user to specify a range of DTG's to be used as the selection criteria in the **Deferred Message Log Message** window. The **From DTG:** field is used to specify the start of the DTG range and the **To DTG:** field specifies the end of the range. A single DTG can be specified by entering the same DTG in both the **From DTG:** and **To DTG:** fields. Selecting **OK** closes this window and the specified DTG range is used as the selection criteria in the **Deferred Message Log Message** window.



6-11 CONFIGURE MESSAGE SETUP WINDOW.

The **Configure Message Setup** window is used to set the receive and printing actions for message types or message groups. The **Level** option menu provides **Types** or **Groups** selections which determine whether message types or message groups are displayed in the window list. The **Print Actions** option menu provides **Receive**, **Transmit**, **Both**, or **None** selections. The **Actions** option menu selections are provided for setting the print action for each message group or type listed. **Print Actions** for multiple message groups or types can be set by clicking the left button on each group or type; then selecting the desired print actions from the **Actions** window menu. All of the selected message types or groups then display the selected print action.



This window also allows the user to assign receive actions to message types or message groups. The **Level** option menu provides **Types** or **Groups** selections which determine whether message types or message groups are displayed in the window lists. The **Receive Actions** option menu provides **Process**, **Route...**, **Process/Route**, and **Defer** selections. After selecting a message type or group from the displayed list, the **Actions** menu selection is made and the selected action is displayed in the **Receive Actions** list associated with the selected message.

Selecting **Actions\Route...** opens the **Select Unit** window for selecting a subscriber unit ID. Once a unit ID and **OK** are selected, the **Select Unit** window closes and the unit ID appears in the **Route To** list associated with the selected message(s). Scroll bars located on the right of the window allows scrolling of the displayed lists. The **Messages\Netscape** selection opens the Netscape startup page. Refer to Netscape paragraph for description and procedures.

6-13.1 Folder Select Area.

The folder select area lists the folders that contain the different categories of mail. Selecting a folder causes the contents of that folder to be displayed in the folder display area. The **Inbox(x)** selection contains received messages. The number field (x) indicates the number of unread messages in the folder.

6-13.2 Menu Bar.

The menu bar is used to manage the messaging functions. Selections allow the user to create, read, delete, save, and sent messages. Other functions are used to create and maintain address books and establish message distribution criteria.

6-13.2.1 File\New\Message Selection.

The **File\New\Message** selection opens the **Select Template** window to initiate the creation of a new message. This window and procedure are explained later in this section.

6-13.2.2 File\New\Address Book Selection.

This selection is used to open the **Address Book** window. This window is used to create and edit both individual addresses and distribution lists. This window and procedure are explained later in this section.

6-13.2.3 File\Import Selection.

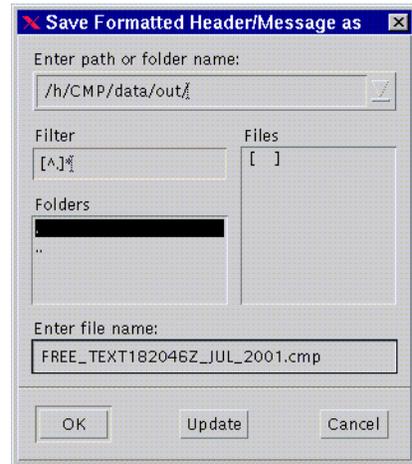
Selecting **File\Import...** menu displays the **Locate Import File** window. This option permits the user to import a complete message file (with header) or a message body file into the CMP environment. For the message body file, the user is prompted to append a header. In either case, the user is prompted to assign a message tag to the imported message.

NOTE

When importing a USMTF message, the user must import the **.cmp** file. When importing a VMF message, the user must select the **.bom** file for import. A message body file having an extension of **.txt** can be imported as well.

6-13.2.4 Save As Selection.

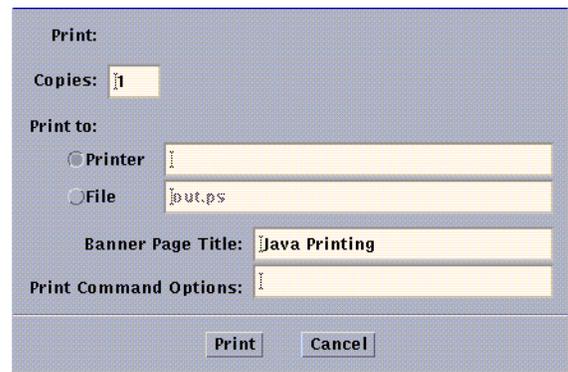
Selecting **File\Save As...** opens the **Save Formatted Header/Message as** window. This window allows the user to select or enter a location and file name for the file to be saved.



6-13.2.5 File\Print Selection.

The print window allows the user to set the parameters for the printing of a selected message. The number of copies to be printed is entered in the **Copies:** field. **Printer** or **File** is selected for the destination of the print data. The name of the printer or file is entered as appropriate. Leaving the **Printer** field blank will sent the print job to the default printer.

The **Banner Page Title:** entry determines the title that will be printed on the banner page of the printout. The **Print Command Options:** field is used to enter any special commands to be used during printing.



6-13.2.6 File\Exit Selection.

The **File\Exit** selection closes the window and stops CMP messaging functions. To close the window without stopping CMP, close or minimize the window via the window controls at the upper right corner of the window.

6-13.2.7 Edit\Message Selection.

The **Edit\Message** selection opens the message template for a message that has been selected from the Draft folder. The **From:** field will default to the host unit. The **To:** field defaults to the unit that, if applicable, had sent the message. The user can edit the **Comments:** field and change the **Precedence:** or **Classification:** fields. Refer to the section for creating messages for other functions of the template.

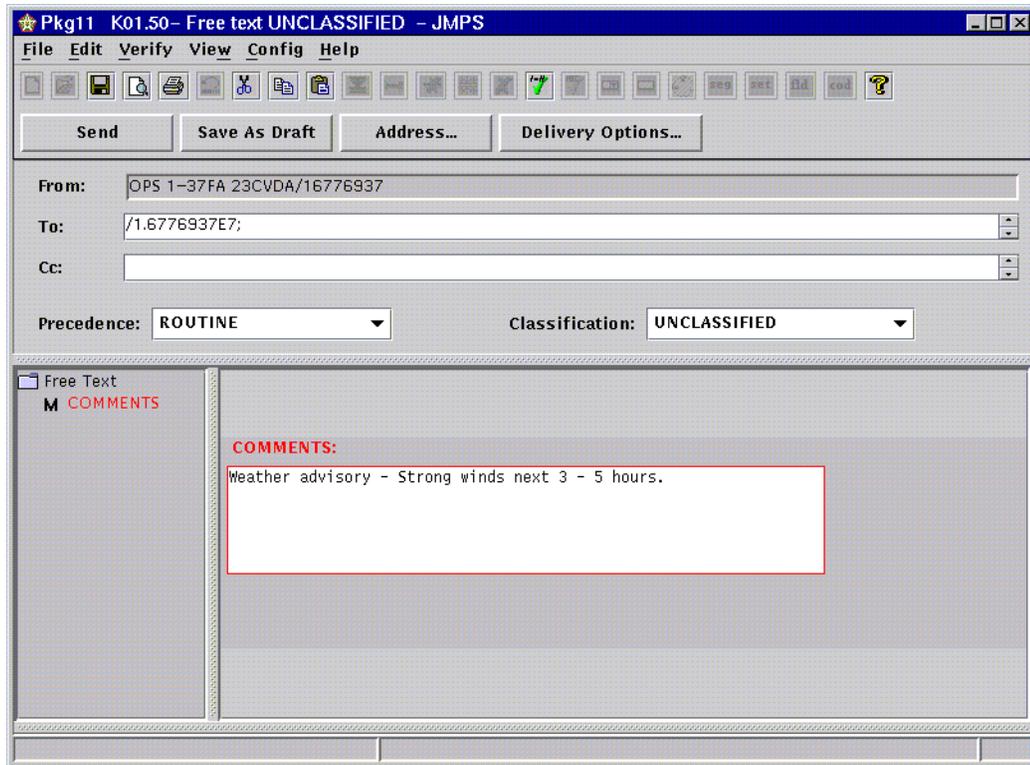
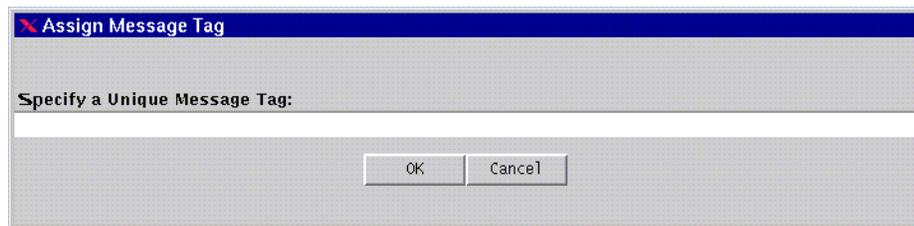


Figure 6.5 Message Template

6-13.2.8 Edit Message Tag Selection.

This selection opens the **Assign Message Tag** window. The user can enter a new tag for the message. This selection is available for messages selected from the Draft folder.



6-13.2.9 Edit\NATO SIC Selection.

The **Edit\NATO SIC** selection opens the **Select Subject Identification Code** window. This window allows the user to select a code that identifies the subject material of the message as 1 of 26 categories.

6-13.2.10 Edit\Copy Message Selection.

The **Edit\Copy** function is used to copy a selected message to the Draft folder. The message can be copied from any folder and can be edit once in the Draft folder.

6-13.2.11 Edit\Delete Message Selection.

The **Edit\Delete** function is used to delete a selected message from a folder. If the message is deleted from any folder other than the Deleted folder, it will be placed in the Deleted folder. Deleting a message from the Deleted folder, removes the message from the database.

6-13.2.12 Edit\Empty Deleted Folder Selection.

The **Edit\Empty Deleted Folder** function removes all messages in the Deleted folder from the database. The Deleted folder does not have to be viewed for this function.

6-13.2.13 Edit\Remove Attachment Selection.

The **Edit\Empty Deleted Folder** function removes any attachments from a selected message.

6-13.2.14 View\Toolbar Selection.

The **View\Toolbar** selection toggles the display of the Toolbar on the window.

6-13.2.15 View>Status Bar Selection.

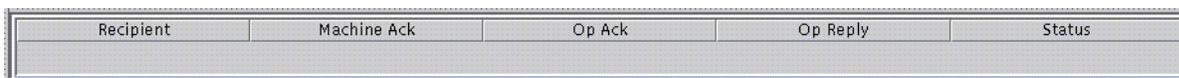
The **View>Status Bar** selection toggles the display of the Status Bar at the bottom of the window.

6-13.2.16 View\Filter Messages Selection.

When **View\Filter Messages** selection is On, only those messages that meet the filtering criteria will be displayed. The filter criteria is set via the **Config\Message Filter** selection which opens the **Message Filter** window.

6-13.2.17 View\Preview Panel\Sent ACK Selection.

The **View\Preview Panel\Sent ACK** selection toggles the display of the acknowledgement\reply panel. This panel is only viewable in the Sent folder.



Recipient	Machine Ack	Op Ack	Op Reply	Status

Figure 6.6 Acknowledgement\Reply Panel

6-13.2.18 View\Preview Panel\As Transmitted Selection.

The **View\Preview Panel\As Transmitted** selection toggles the display of the **As Transmitted** panel.

6-13.2.19 View\Preview Panel\User View Selection.

The **View\Preview Panel\User View** selection toggles the display of the **User View** panel.

6-13.2.20 Tools\Address Book Selection.

This selection opens the **Address Book** window. This window is used to create and maintain addresses and distribution lists. Refer to the Address Book section for a description of this window and procedures.

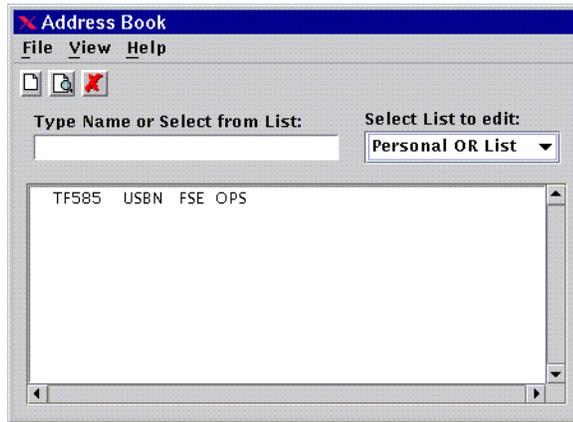


Figure 6.7 Address Book Window

6-13.2.21 Tools\Preview Messages Selection.

The **Tools\Preview Messages...** selection opens a window that displays the selected message in the same formats as the view messages areas on the **Messaging Main Menu** window.

6-13.2.22 Tools\Message Attachment Selection.

A maximum of 16 messages or files can be attached to a single VMF header (up to 1 MB total). The user selects a message from the draft folder and selects the **Tools\Message Attachment**. The user then selects/enters the attachment filename.

6-13.2.23 Tools\Send Message Selection.

The **Tools\Send Message** selection initiates transmission of a message selected from the Draft folder. After transmission the message is removed from the Draft folder and placed in the Sent folder.

6-13.2.24 Tools\Autofill Message Selection.

The purpose of Autofill is to automatically populate a user's message template from a database or an application. The user organization must prepare short programs to access the appropriate database and to call the CMP applications. Requirements include a database for message body and/or header, a program that specifies whether it is for autodraft or autosend, select header parameters, get message body parameters from the database, and call the CMP message object, and a script that defines class paths and calls the program mentioned above. The CMP user interface autofill option just runs this script.

6-13.2.25 Tools\Message Handling Table Selection.

The Message Handling Table (MHT) automatically processes messages as they come into a user's inbox based on a set of user-specified criteria. Selecting **Tool\Message Handling Table** displays the **Message Handling Table** window:

The main table contains, in the first column, the message types for the currently selected set of message table. To use the MHT, the user double-clicks in the desired check boxes (Alert, Re-Transmit, Print and Delete) to activate them.

Alert, when selected, displays an alert message in the MHT Event Log if and when a message of the selected type is received in the inbound folder. This feature is valid for all message types. Another feature, optionally, brings up a pop-up window.

Retransmit permits the received messages to be retransmitted to selected new recipients. The recipients are entered in the small window, RE-TX ADDRESS, on the bottom right of the main window. The user-entered fields replace these in the received header before transmitting. The other header fields are left unchanged. The operation is just like the **Send** from the User Interface.

Print, when selected, will print out an incoming message of the selected type. The user will be prompted for a destination printer.

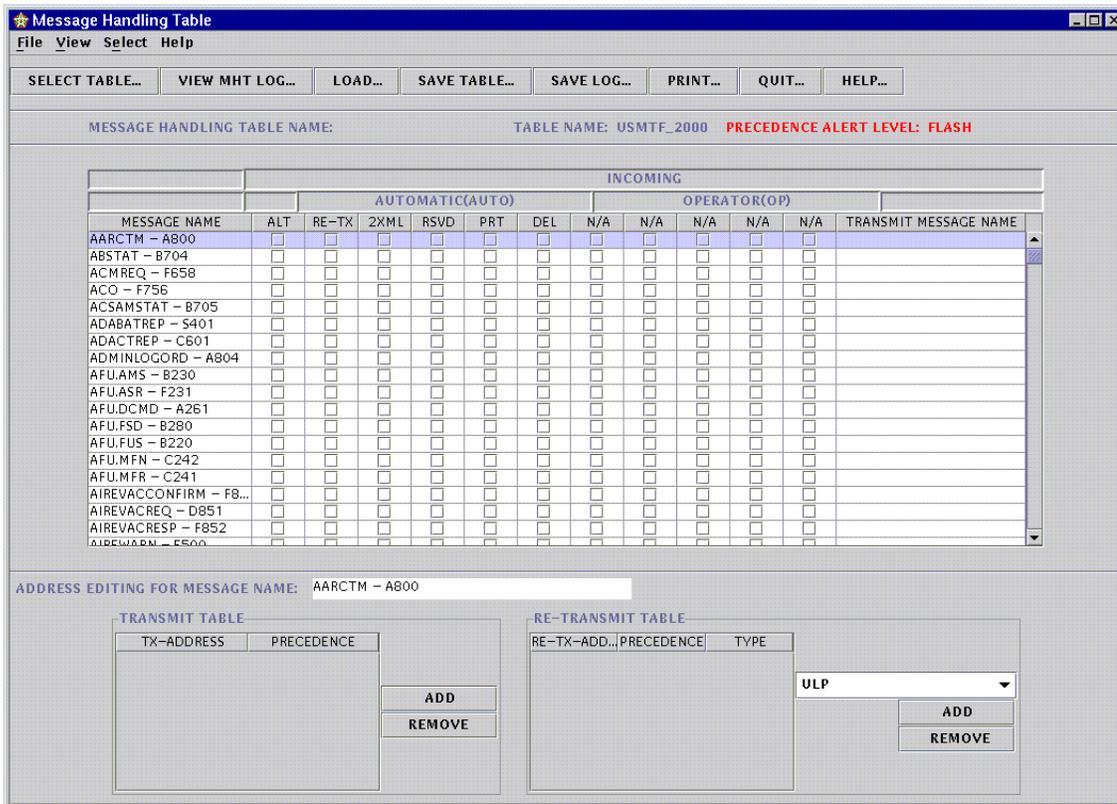


Figure 6.8 Message Handling Table Window

Delete, when selected, will delete from the Journal Server an incoming message of the selected type.

6-13.2.26 Tools\View Message Assisted Mode Selection.
TBD.

6-13.2.27 Compose\New VMF Message Selection.

Compose\New VMF Message is used to add a message to an existing VMF header or message. A VMF message must be highlighted. When **Compose\New VMF Message** is selected, the **Header Defaults** window appears.

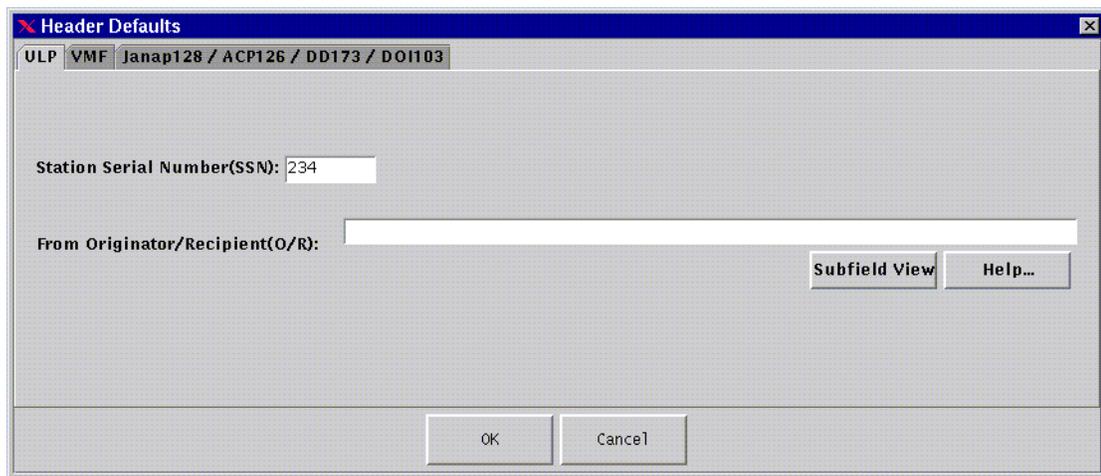


Figure 6.9 Header Defaults Window

The user must enter in the Originator VMF Role and URN. When OK is pressed, a JMPS window appears and the user can create a new message for the header.

6-13.2.28 Compose\Reply Selection.

The user is able to select a message from the inbox and **Compose\Reply**. The information from the original message is copied into a freetext message. The user can edit the freetext message and send. The destination will be the unit that originated the message. The original message does not remain intact. The information is now freetext formatted.

6-13.2.29 Compose\Reply To All Selection.

This selection is the same as the **Compose\Reply** selection except that the destinations will include all units that received the original message.

6-13.2.30 Compose\Forward Selection.

The **Compose\Forward** selection allows the user to display a selected message, enter address, and then send the message in its original form. Editing of the message is not allowed.

6-13.2.31 Config\Default Recipients Selection.

This selection opens the **Default Recipients** window that allows the user to enter commonly used destinations as default recipients. Both To and Info address can be entered.

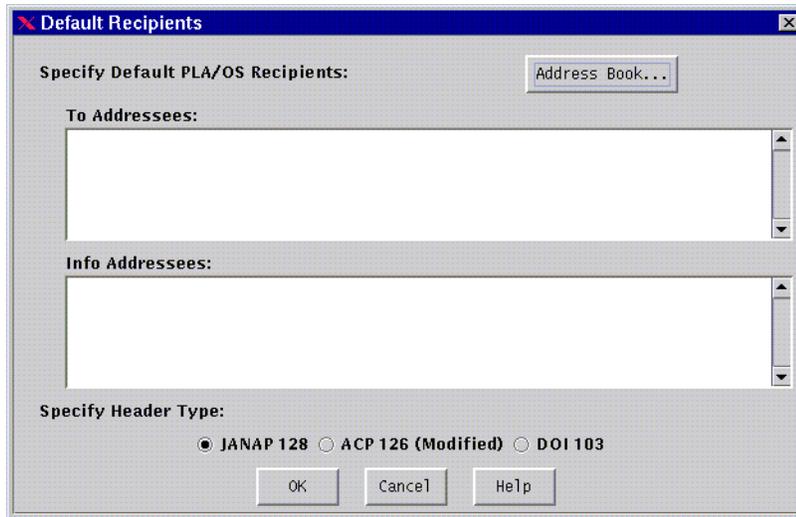


Figure 6.10 Default Recipients Window

6-13.2.32 Config\Header Defaults Selection.

This selection allows the user to set the default information of the host station for each of the different headers via the **Header Defaults** window.

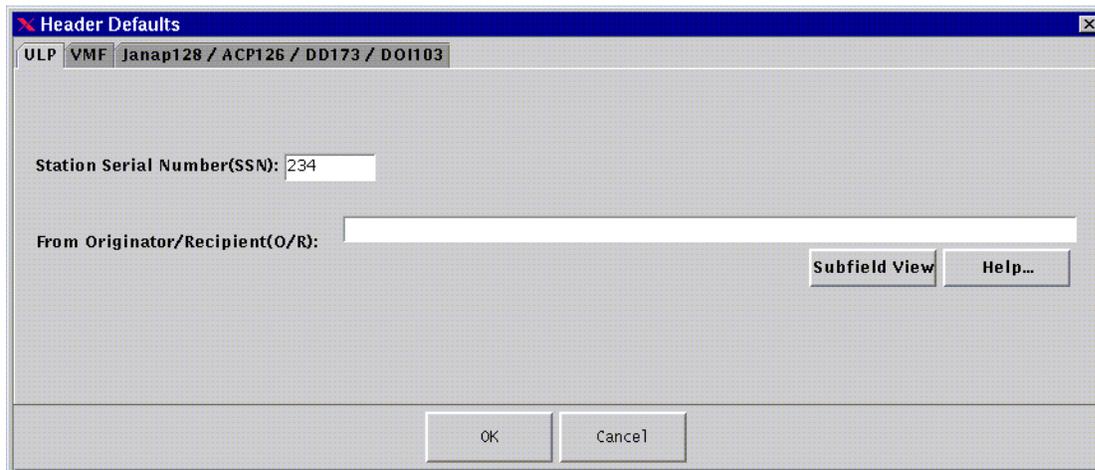


Figure 6.11 Header Defaults Window

6-13.2.33 Config\Send Directory Defaults Selection.

This selection allows the user to enter the default directory for the selection of outbound data via the **Send Directory Default** window. This is the directory that will be initially opened for the selection of data.

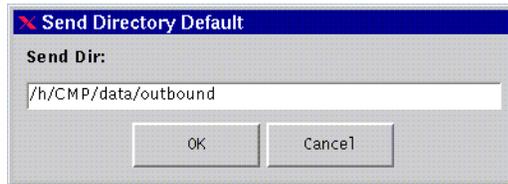


Figure 6.12 Send Directory Default Window

6-13.2.34 Config\Message Filter Selection.

The **Config\Message Filter** selection opens the **Message Filter** window. This window is used to set filter criteria that is used when the **View\Filter Messages** function is activated.

The **Source:** field is used to enter the name of a unit. When this entry is made, the filter will display only messages from this unit. The **From:** and **To:** selections are used to select a time frame for the display of messages. The time frame can be open ended; that is, not both **From:** and **To:** times must be selected. Messages on and after the **From:** time and messages on and before the **To:** time will be displayed.

Precedence: and **Classification:** criteria can also be selected for display. The **Message ID:** functions in the same manner as the **Source:** field. Only messages matching the entered **Message ID:** will be displayed.

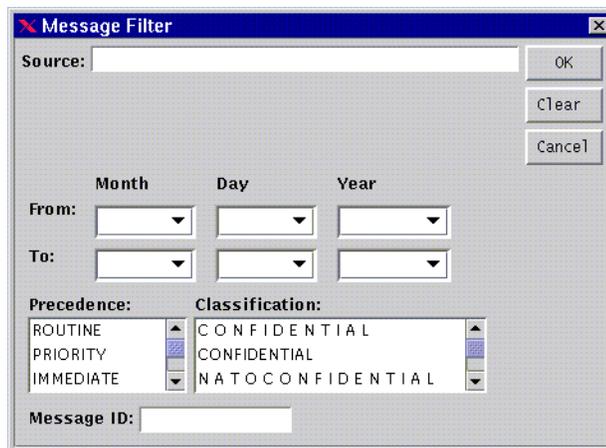
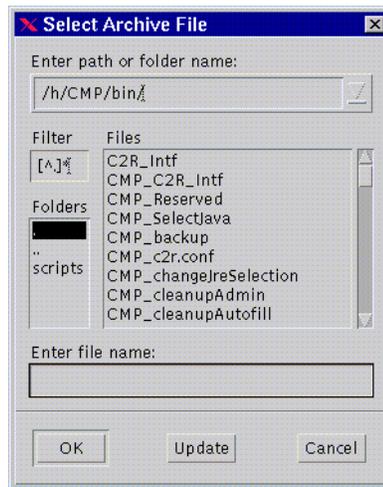


Figure 6.13 Message Filter Window

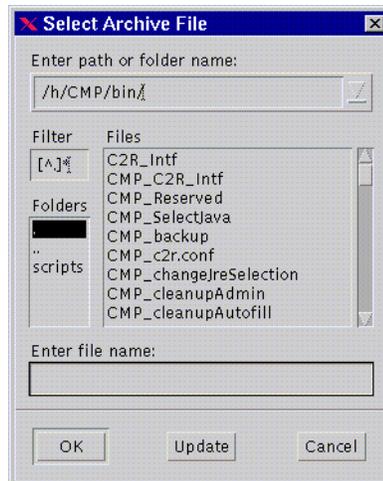
6-13.2.35 Config\Connect to C2R Address Book Selection.

This **Config\Connect to C2R Address Book** selection, when enabled, connects the addressing function to the C2R database server.

6-13.2.36 Config\Archive Messages Selection.



6-13.2.37 Config\Unarchive Messages Selection.



6-13.2.38 Check\Memory Check.
TBD.

6-14 MESSAGE TEMPLATE WINDOW.

The Message Template is the central point for the creation of all messages. Templates are opened from the **Select Message Template** via the **File\New\Message...** selection on the **Main Messaging Menu** window.

The top portion of the template is the same for all templates. It contains the Menu Bar, Tool Bar, mail action buttons, address fields, and selections for **Precedence:** and **Classification:**.

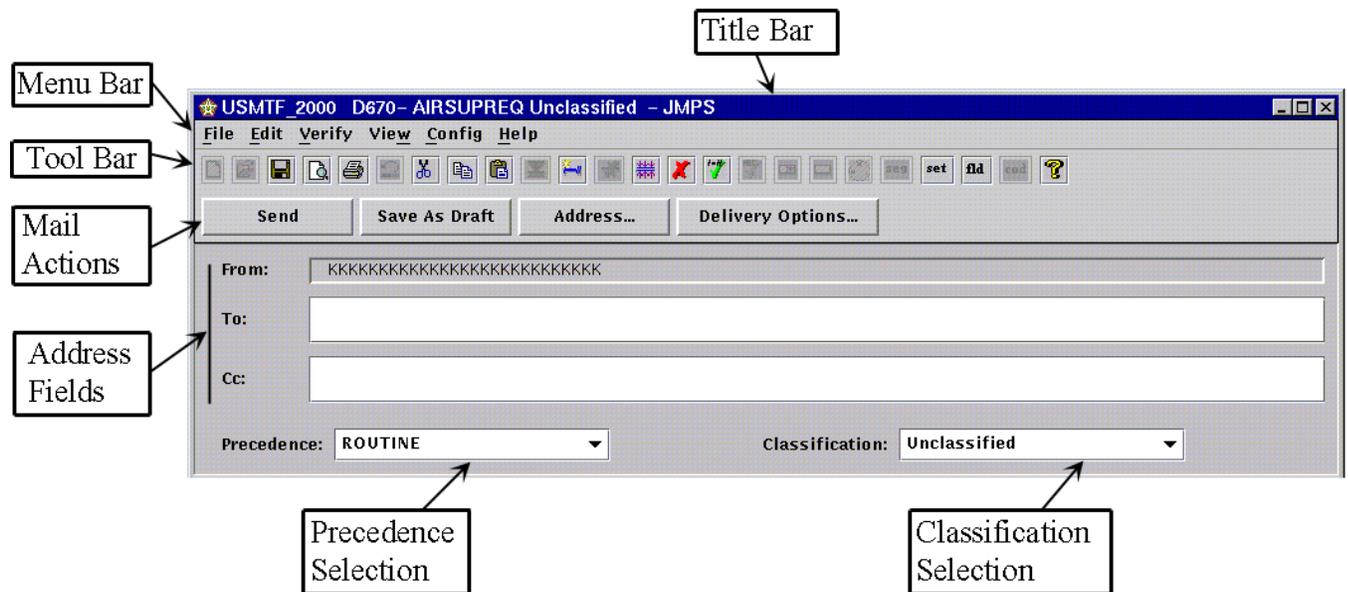


Figure 6.14 Message Template Menus

The bottom portion of the template contains fields for the entry of data specific to the message type. The message is made up of sets of data. The data sets may contain sub-set fields made up of direct-entry or menu selections. The set are expanded to display any sub-sets by placing the cursor in the field and pressing <Enter> or a left double-click. The applicable sub-sets are opened and navigated in the same manner.

A Status Bar at the bottom of the template displays information about a set and/or sub-set field.

The Status Bar indicates the set ID, sub-set ID, the legal entry format and range, if the field has alternate forms, and the field type.

The sets and fields with red highlighting are mandatory.

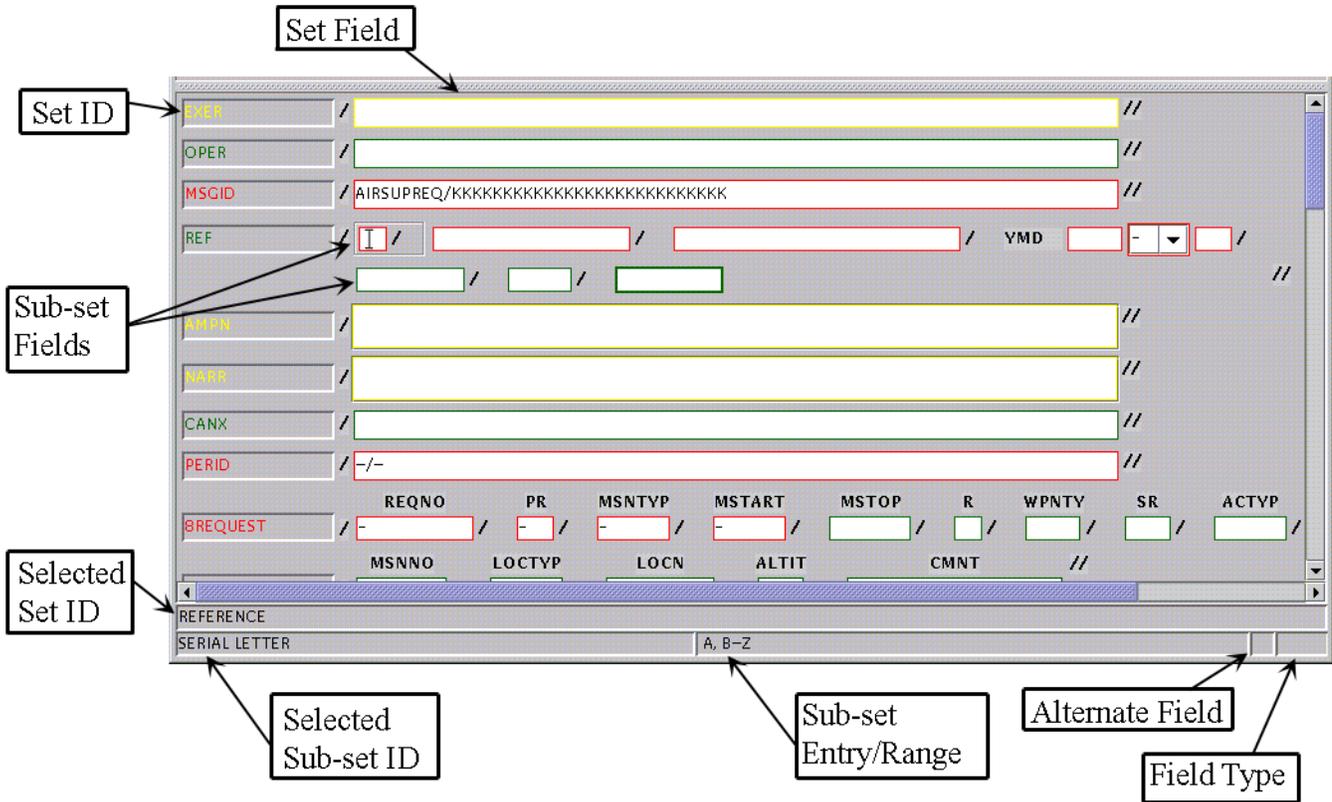


Figure 6.15 Message Template Message Fields

The sets and fields with green highlighting are optional. However, some fields of optional sets become mandatory when specific fields are populated.

The sets and fields with yellow highlighting are conditional. This means that whether or not they need to be populated depends on a set of conditions based on structural notation provided with the Message Standards.

Double clicking with the left mouse button on a set opens up its fields.

If a field has alternate forms, the letter A displays in the status bar. Select **Edit/Modify Field Alternates...** to choose an alternate form for this field. This selection opens the **Select Alternate Fields** window which lists the available forms for the field.

If a field with the cursor focus has subfields, the word, COMP (for composite) displays in the status bar (lower right). A double-click opens the subfields.

If a field has coded selections (menus), the word COD shows up and an **<Enter>** or double click brings up the coded edit box.

When a field is open, the status bar displays a code, which indicates the desired format of the field with the cursor focus. The following are the codes used:

A	Alphabetic characters
N	Numeric characters
B	Blank characters
S	Special characters
X	Equivalent to ANBS
E	Extended Special Characters (used for Freetext)
L	Lowercase
Numeric range	Range of numeric entries
Number	Number of digits

There is context sensitive help available. Depending upon what has the cursor focus, **Help\Set Information**, **Help\Field Information** or **Help\Code List Definitions** (or the associated icon) shows a help window for the set, the field, or the coded list.

6-14.1 Tool Bar.

The Toolbar contains icons that duplicate some of the most used menu selections.

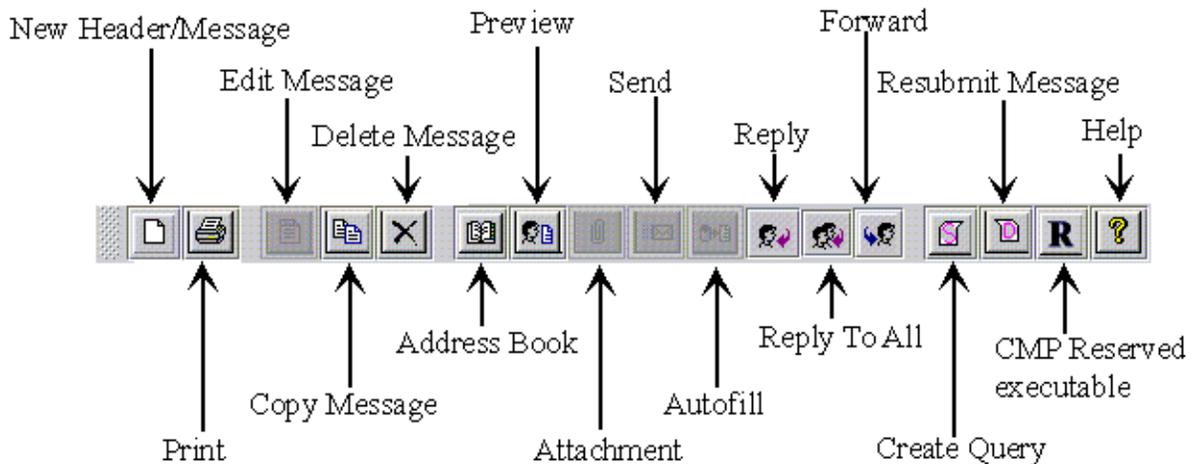


Figure 6.16 Message Tool Bar

6-15 **ADDRESS BOOK.**

There are three types of address lists that can be maintained in the system. The first is the plain language address/office symbol (PLA/OR) list. The addresses from this list can be used with all headers except ULP and MIL-STD-2045-47001B (VMF).

The second is the O/R Address List: This list is for use with the ULP header. A third is the VMF Address List: This list is used by the VMF header. The user also has the choice to pick up addresses directly from the C2R (Command and Control Registry) database.

6-15.1 Address Book Window.

The **Address Book** window is the point from which address book functions are initiated. This window is accessed via the **Tools\Address Book...** selection from the **Main Messaging Menu** window.

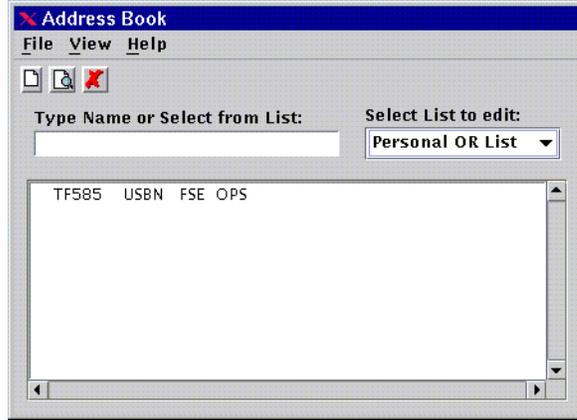
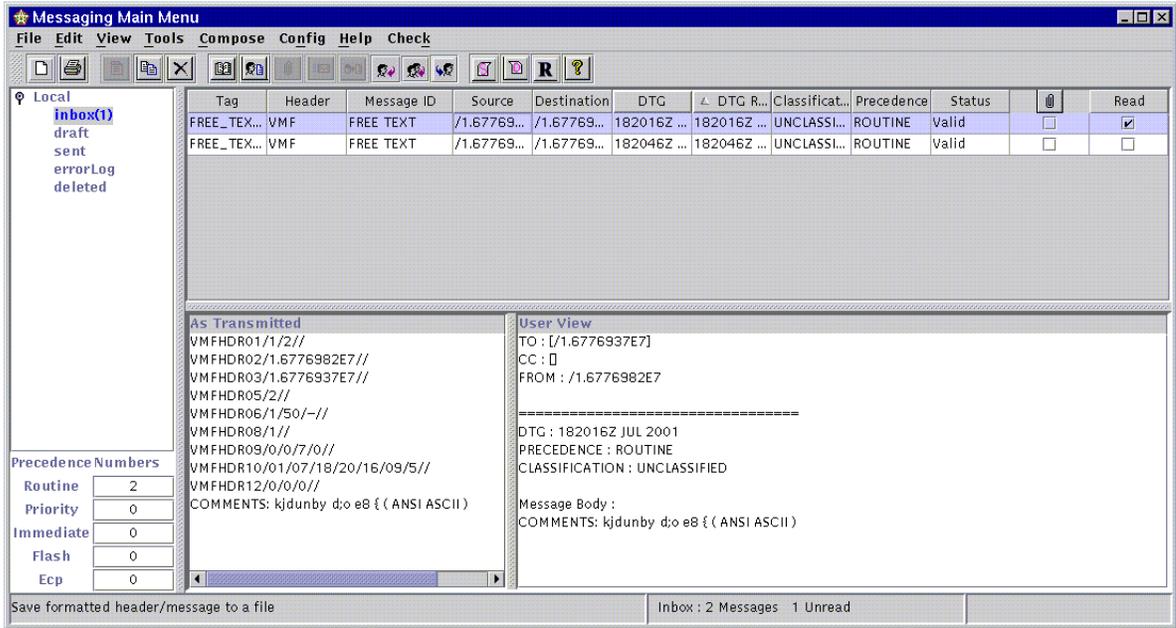


Figure 6.17 Address Book Window

6-15.2 Maintain Address Book Procedure.

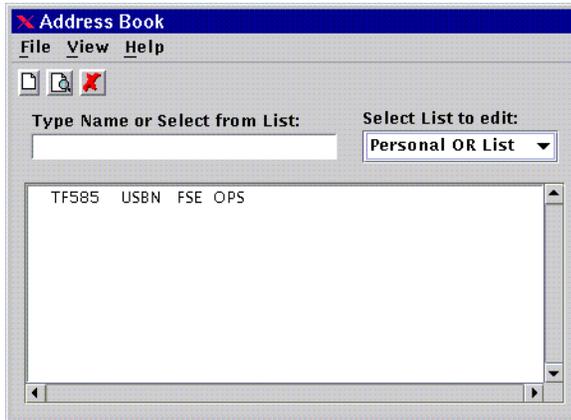
Maintain Address Book Procedure

Step	Action	Response
1.	Select Mailbox icon or Messages\Edit from Main Menu .	Messaging Main Menu window opens.



2. Select Tools\Address Book.

Address Book window opens.



Maintain Address Book Procedure - CONT

Step	Action	Response
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NOTE

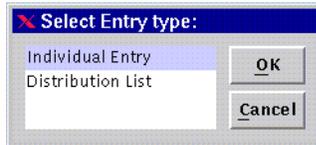
When an address is to be entered to a distribution list only, it does not have to be entered as an **Individual Entry**. To enter the address to a list only, add the address at the time the list is created or edited. To perform following functions, proceed to indicated steps.

- Add a unit address to an OR list step 3
- Add a distribution list to an OR list step 10
- Add a unit address to an PLA list step 24
- Add a distribution list to an PLA list step 39
- Add a unit address to an VMF list step 53
- Add a distribution list to an VMF list step 61

3. Select **Personal OR List** from the **Select List to edit:** field.

4. Select **File\New Entry...**

Select Entry Type: window opens.



5. Select **Individual Entry**.

6. Select **OK**.

OR Address window opens.



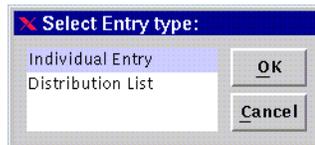
Maintain Address Book Procedure - CONT

Step	Action	Response
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NOTE

Selecting **Subfield View** expands the address field to show subfield entries. Selecting **Help** will open a window to describe field entries.

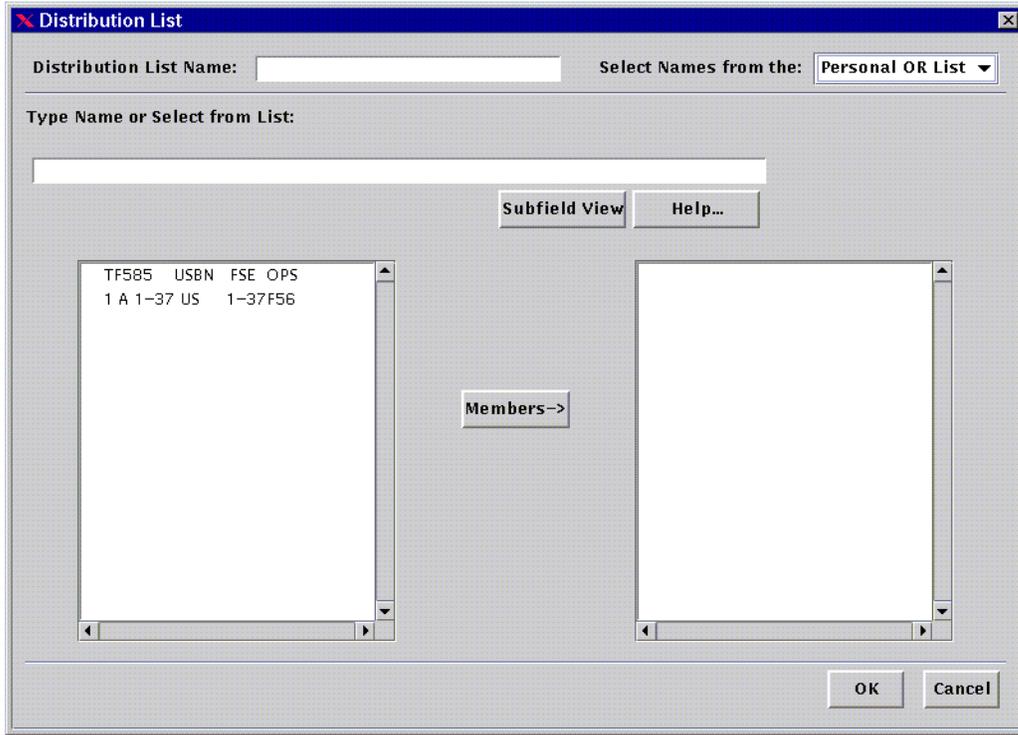
7.	<u>Enter address.</u>	
8.	<u>Select OK.</u>	OR Address window closes. Address is added to address book.
9.	<u>Proceed to note prior to step 3</u> to perform other functions of Address Book window.	
10.	<u>Select Personal OR List</u> from the Select List to edit: field.	
11.	<u>Select File\New Entry...</u>	Select Entry Type: window opens.



12.	<u>Select Distribution List.</u>	
13.	<u>Select OK.</u>	Distribution List window opens.

Maintain Address Book Procedure - CONT

Step	Action	Response
------	--------	----------



- | | |
|-----|---|
| 14. | <u>Enter the Distribution List Name:</u> |
| 15. | <u>Select Personal OR List from the Select List to edit: field.</u> |

NOTE

Selecting **OK** at any time will close the **Distribution List** window and save data. To perform following functions, proceed to indicated steps.

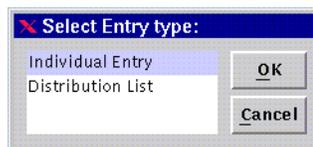
- Add new address to distribution list only step 16
- Add an existing address or distribution list to distribution list step 20

NOTE

Selecting **Subfield View** expands the address field to show subfield entries. Selecting **Help** will open a window to describe field entries.

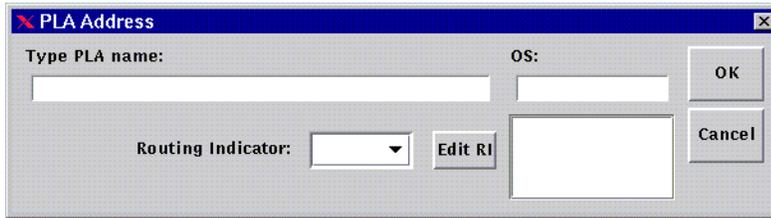
Maintain Address Book Procedure - CONT

Step	Action	Response
16.	<u>Enter address</u> in Type Name or Select From List: field.	
17.	Select Members button.	Address is added to distribution list.
18.	<u>Repeat steps 16 and 17</u> as required.	
19.	<u>Proceed to note prior to step 16</u> to perform other functions of Distribution List window or <u>Select OK</u> to close this window and refer to note prior to step 3 to perform other functions of Address Book window.	
20.	<u>Select an address or distribution list</u> from left listing.	
21.	Select Members button.	Address is added to distribution list.
22.	<u>Repeat steps 20 and 21</u> as required.	
23.	<u>Proceed to note prior to step 16</u> to perform other functions of Distribution List window or <u>Select OK</u> to close this window and refer to note prior to step 3 to perform other functions of Address Book window.	
24.	Select Personal PLA List from the Select List to edit: field.	
25.	<u>Select File\New Entry...</u>	Select Entry Type: window opens.



Maintain Address Book Procedure - CONT

Step	Action	Response
26.	<u>Select Individual Entry.</u>	
27.	<u>Select OK.</u>	PLA Address window opens.

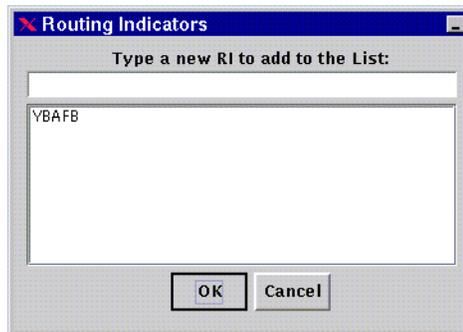


NOTE

Selecting **OK** closes this window, saves data, and activates the **Address Book** window. Refer to note prior to step 3 for other **Address Book** functions. To perform following functions, proceed to indicated steps.

- Edit routing indicators..... step 28
- Enter PLA address step 34

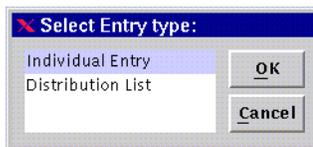
28.	<u>Select Edit RI.</u>	Routing Indicators window opens.
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29.	<u>Enter Routing Indicator</u> in top field.	
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Maintain Address Book Procedure - CONT

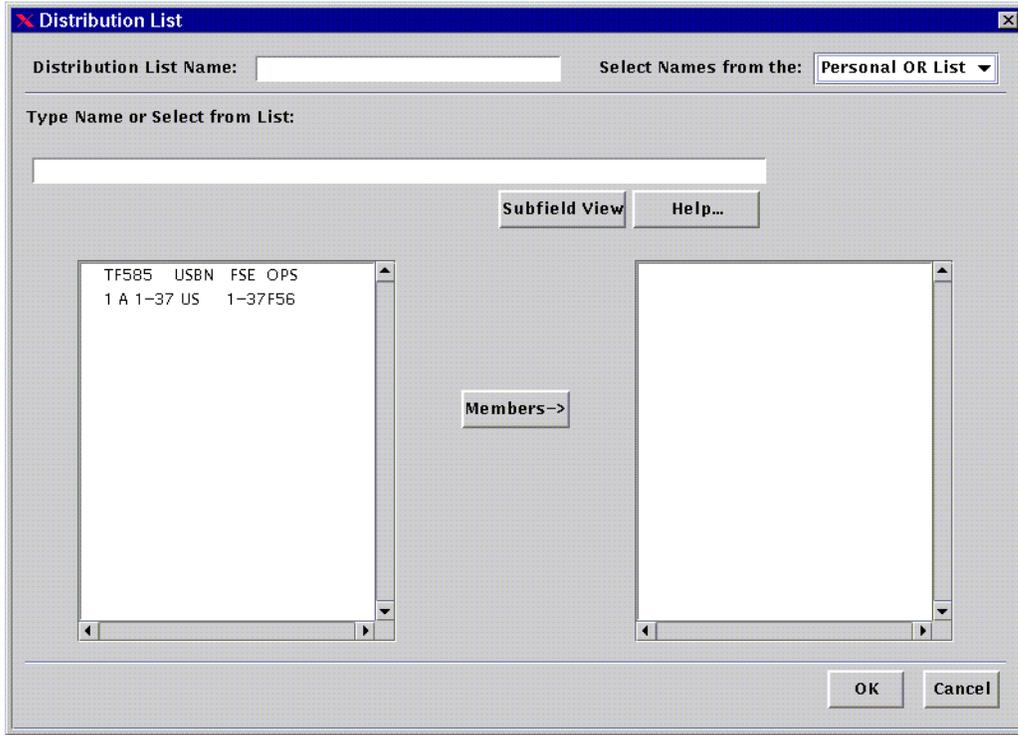
Step	Action	Response
30.	<u>Press <Enter>.</u>	Routing Indicator listed in lower field.
31.	<u>Repeat steps 29 and 30</u> as required.	
32.	<u>Select OK.</u>	Routing Indicators window closes.
33.	<u>Proceed to note prior to step 28</u> to perform other functions of PLA Address window.	
34.	<u>Enter PLA name.</u>	
35.	<u>Enter OS: name.</u>	
36.	<u>Select Routing Indicator:.</u>	
37.	<u>Repeat steps 34 thru 36</u> as required.	
38.	<u>Proceed to note prior to step 28</u> to perform other functions of PLA Address window.	
39.	<u>Select Personal PLA List</u> from the Select List to edit: field.	
40.	<u>Select File\New Entry....</u>	Select Entry Type: window opens.



41.	<u>Select Distribution List.</u>	
42.	<u>Select OK.</u>	Distribution List window opens.

Maintain Address Book Procedure - CONT

Step	Action	Response
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- | | |
|-----|--|
| 43. | <u>Enter the Distribution List Name:</u> |
| 44. | <u>Select Personal OR List from the Select List to edit:</u> |
| | field. |

NOTE

Selecting **OK** at any time will close the **Distribution List** window and save data. To perform following functions, proceed to indicated steps.

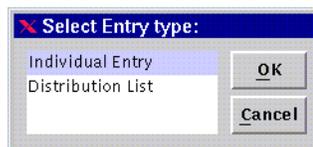
- Add new address to distribution list only step 45
- Add an existing address or distribution list to distribution list step 49

NOTE

Selecting **Subfield View** expands the address field to show subfield entries. Selecting **Help** will open a window to describe field entries.

Maintain Address Book Procedure - CONT

Step	Action	Response
45.	<u>Enter address</u> in Type Name or Select From List: field.	
46.	Select Members button.	Address is added to distribution list.
47.	<u>Repeat steps 45 and 46</u> as required.	
48.	<u>Proceed to note prior to step 45</u> to perform other functions of Distribution List window or <u>Select OK</u> to close this window and refer to note prior to step 3 to perform other functions of Address Book window.	
49.	<u>Select an address or distribution list</u> from left listing.	
50.	Select Members button.	Address is added to distribution list.
51.	<u>Repeat steps 49 and 50</u> as required.	
52.	<u>Proceed to note prior to step 45</u> to perform other functions of Distribution List window or <u>Select OK</u> to close this window and refer to note prior to step 3 to perform other functions of Address Book window.	
53.	Select Personal PLA List from the Select List to edit: field.	
54.	<u>Select File\New Entry...</u>	Select Entry Type: window opens.

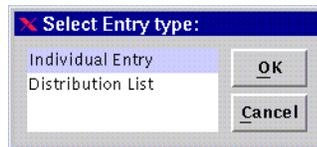


Maintain Address Book Procedure - CONT

Step	Action	Response
55.	<u>Select Individual Entry.</u>	
56.	<u>Select OK.</u>	PLA Address window opens.



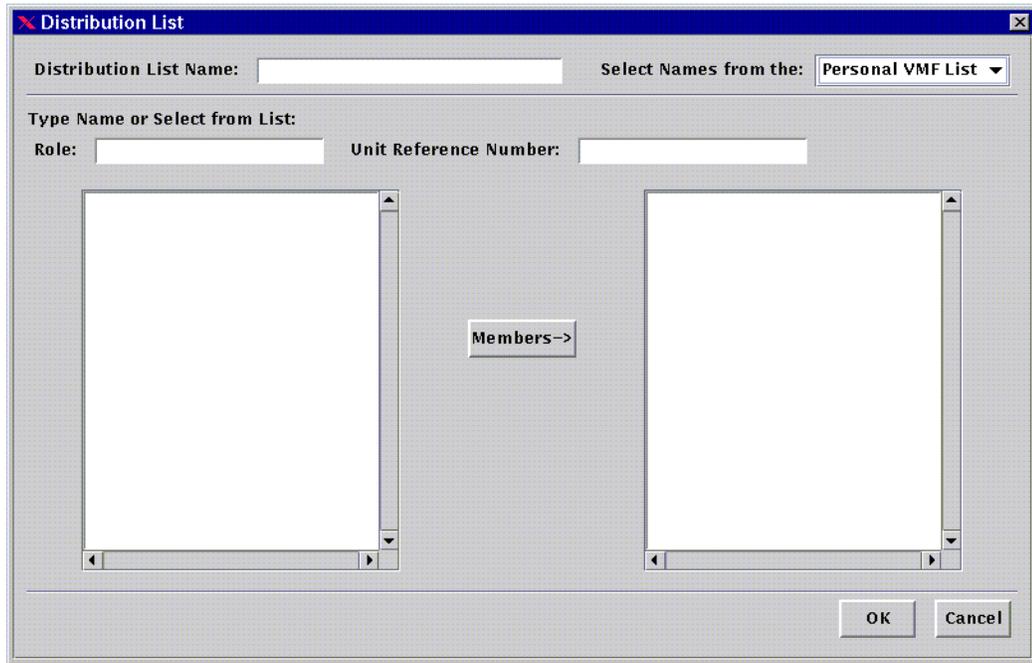
57.	<u>Enter Role:</u>	
58.	<u>Enter URN:</u>	
59.	<u>Select OK.</u>	
60.	<u>Proceed to note prior to step 3</u> to perform other functions of Address Book window.	PLA Address window closes.
61.	<u>Select Personal VMF List</u> from the Select List to edit: field.	
62.	<u>Select File\New Entry....</u>	Select Entry Type: window opens.



63.	<u>Select Distribution List.</u>	
64.	<u>Select OK.</u>	Distribution List window opens.

Maintain Address Book Procedure - CONT

Step	Action	Response
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- | | |
|-----|---|
| 65. | Enter the Distribution List Name: |
| 66. | Select Personal PLA List from the Select List to edit: field. |

NOTE

Selecting **OK** at any time will close the **Distribution List** window and save data. To perform following functions, proceed to indicated steps.

- Add new address to distribution list only step 67
- Add an existing address or distribution list to distribution list step 72

- | | |
|-----|--|
| 67. | Enter Role: in Type Name or Select From List: field. |
| 68. | Enter Unit Reference Number: |

Maintain Address Book Procedure - CONT

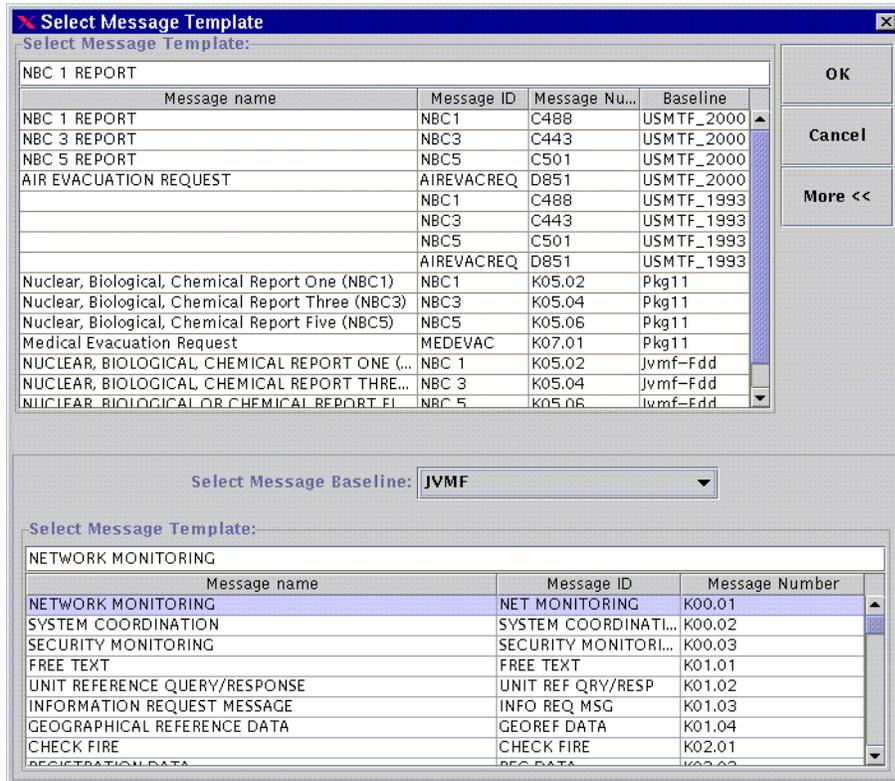
Step	Action	Response
69.	<u>Select Members</u> button.	Address is added to distribution list.
70.	<u>Repeat steps 67 thru 69</u> as required.	
71.	<p><u>Proceed to note prior to step 67</u> to perform other functions of Distribution List window</p> <p style="text-align: center;">or</p> <p><u>Select OK</u> to close this window and refer to note prior to step 3 to perform other functions of Address Book window.</p>	
72.	<u>Select an address or distribution list</u> from left listing.	Address is added to distribution list.
73.	<u>Select Members</u> button.	
74.	<u>Repeat steps 72 and 73</u> as required.	
75.	<p><u>Proceed to note prior to step 67</u> to perform other functions of Distribution List window</p> <p style="text-align: center;">or</p> <p><u>Select OK</u> to close this window and refer to note prior to step 3 to perform other functions of Address Book window.</p>	

6-16 **CREATE NEW MESSAGE PROCEDURE.**

The **Messages\New...** selection opens the **Select Message Template** window. This window provides the user with a listing of templates used to create messages. An alternate method of creating a new message is selecting **Messages>Edit...** which opens the **Message Library** window. Selecting **Options\New...** then brings up the **Select Message Template** window. From this window, the creation of a message is the same as described in the following steps.

Create Messages Procedure

Step	Action	Response
1.	<u>Select Messages\New....</u>	Select Message Template window opens.



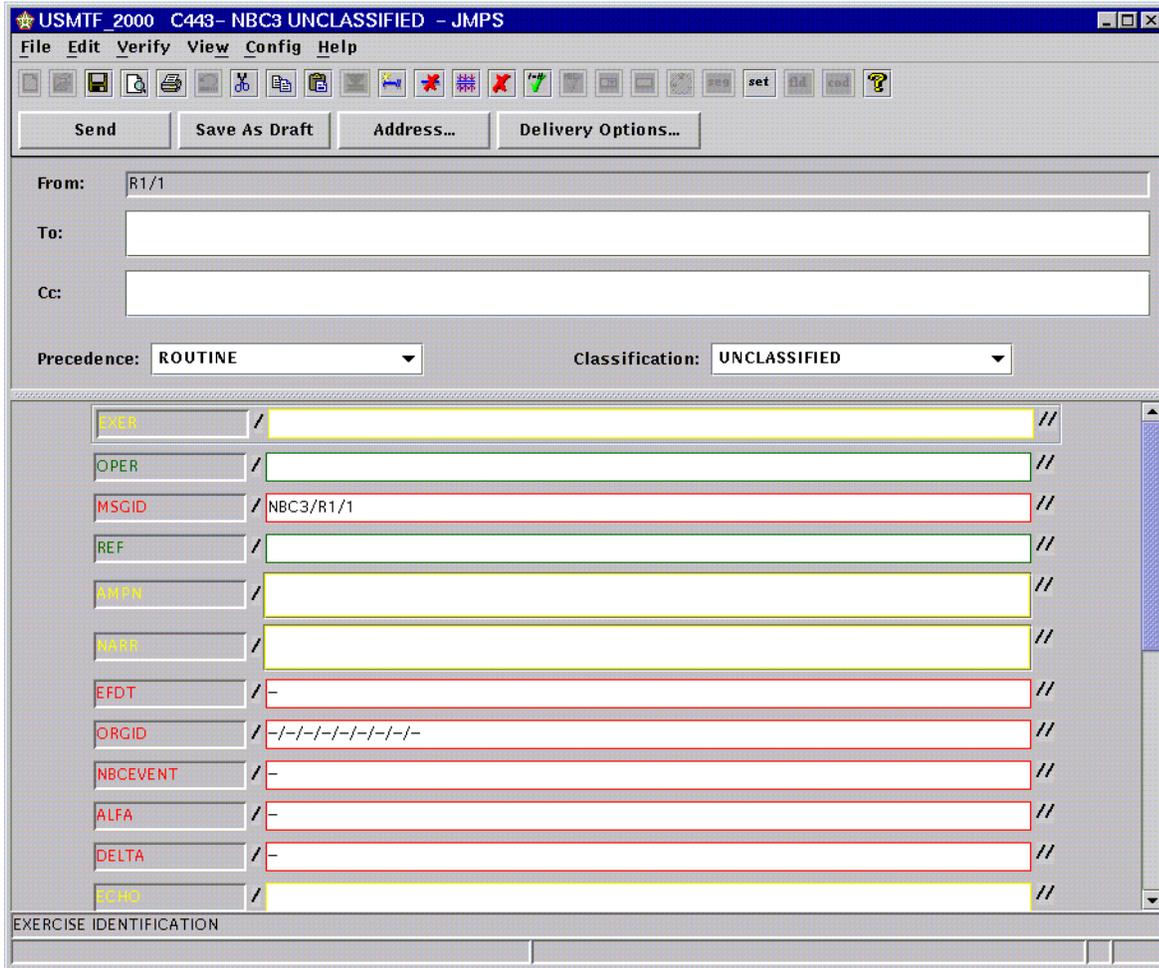
2. Select message type to be created.

3. Select OK.

Select Message Template window closes and message template is displayed.

Maintain Address Book Procedure - CONT

Step	Action	Response
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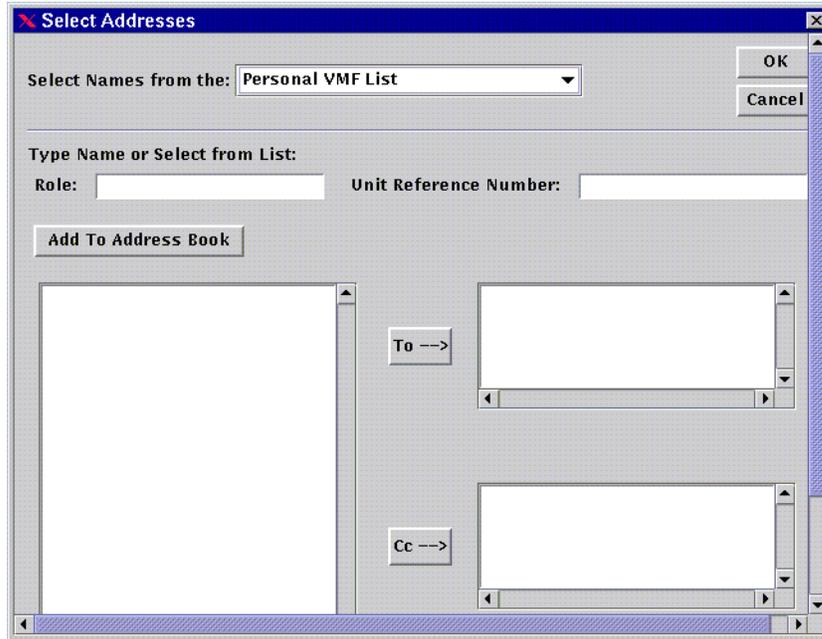


4. Select Address...

Select Address window opens.

Create Messages Procedure - CONT

Step	Action	Response
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NOTE

To perform following functions, proceed to indicated steps.

- Address unit not in Address Book step 5
- Address unit from Address Book step 9
- Proceed with message creation step 15

- | |
|--|
| <ol style="list-style-type: none"> 5. <u>Enter Role:</u> 6. <u>Enter Unit Reference Number:</u> 7. <u>Select To or Cc.</u> 8. <u>Repeat step 5 thru 7</u> as required. 9. <u>Proceed to note prior to step 5</u> to perform other functions of Select Address window. 10. <u>Select Address Book.</u> |
|--|

Create Messages Procedure - CONT

Step	Action	Response
11.	<u>Select unit</u> from left list.	
12.	<u>Select To</u> or <u>Cc</u> .	
13.	<u>Repeat step 11 and 12</u> as required.	
14.	<u>Proceed to note prior to step 5</u> to perform other functions of Select Address window	
15.	<u>Select OK</u> .	Select Address window closes.
16.	<u>Select message Precedence</u> .	
17.	<u>Select message Classification</u> .	

NOTE

Use the Status Bar to determine the proper data entry for each field.

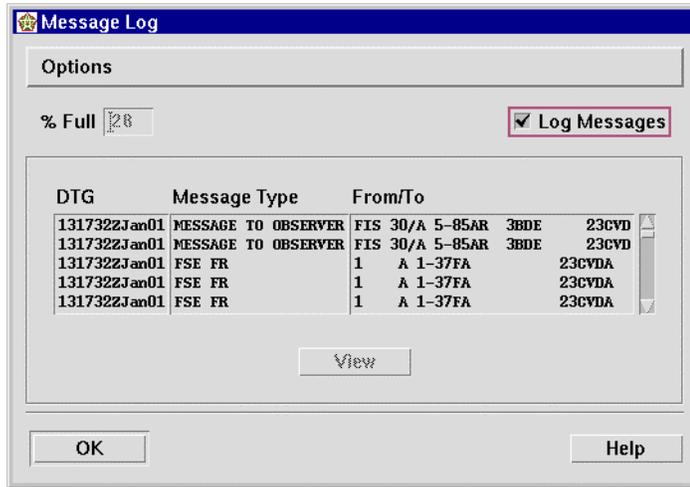
18.	<u>Enter message data</u> .	
19.	<u>Select Send</u> .	
20.	<u>Close Main Messaging Menu window</u> using window control icon (X).	

6-17 MESSAGE LOG PROCEDURE.

The **Messages\Message Log** selection opens the **Message Log** window. The **Message Log** contains a list of incoming messages by **DTG**, **Message Type**, and **From/To**. The user may retain as many as 1000 messages.

Message Log Procedure

Step	Action	Response
1.	<u>Select Messages\Message Log.</u>	Message Log window opens.



NOTE

Select **OK** at any time to close **Message Log** window. Select **Refresh** at any time to update display of message log.

To log all received and transmitted messages, ensure **Log Messages** check box is selected.

Options\Clear Log... with confirmation will clear all messages from Message Log.

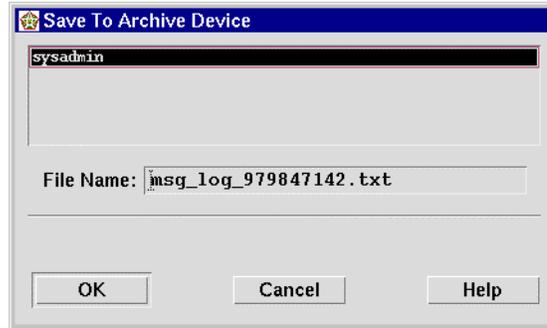
To perform following Message Log functions, proceed to indicated steps:

- Archive Log**..... step 2
- Print Log**..... step 7
- View message header** step 10
- Clear Log**..... step 15

2.	<u>Select Options\Archive Log.</u>	Save To Archive Device window opens.
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Message Log Procedure - CONT

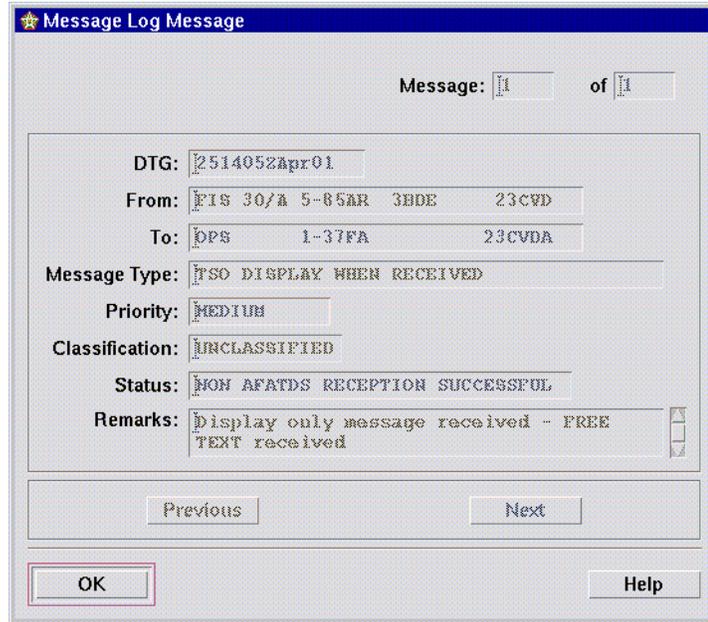
Step	Action	Response
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3.	<u>Select archive device</u> from list of available devices.	
4.	<u>Enter unique filename.</u> (up to 32 alphanumeric characters).	
5.	<u>Select OK.</u>	Save To Archive Device window closes and message log contents are written to disk of selected device.
6.	Refer to note prior to step 2 to perform other Message Log functions.	
7.	<u>Select Options\Print Log...</u> to print message log.	Print Settings window opens.
8.	<u>Ensure print settings are appropriate and select OK.</u>	
9.	Refer to note prior to step 2 to perform other Message Log functions.	
10.	<u>Select message(s)</u> to view.	
11.	<u>Select View.</u>	Message Log Message window opens.

Message Log Procedure - CONT

Step	Action	Response
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12.	Select Previous or Next to view previous or subsequent message header information.	Previous and Next buttons are only enabled when more than one message was selected from Message Log window.
13.	Select OK when finished viewing message headers.	Message Log Message window closes.
14.	Refer to note prior to step 2 to perform other Message Log functions.	
15.	Select Options\Clear Log...	Delete Confirmation window opens.
16.	Select Delete .	Delete Confirmation window closes, and log is cleared.

6-18 DEFERRED MESSAGE LOG PROCEDURE.

The Deferred Message Log procedure is used to process and delete deferred messages.

Deferred Message Log Procedure

Step	Action	Response
1.	<u>Select Messages\Deferred Message Log.</u>	Deferred Message Log window opens.



NOTE

Select **OK** at any time to close **Deferred Message Log** window.

Select **Refresh** at any time to update display of **Deferred Message Log**.

To perform following functions, proceed to indicated steps:

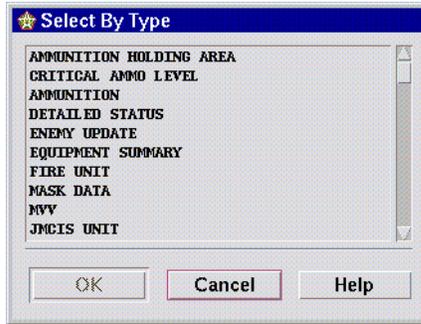
Messages must be selected before they are processed, deleted or viewed.

- Select messages **By Type...** or step 2
- Select messages **By DTG...** or step 6
- Select **All** messages step 11

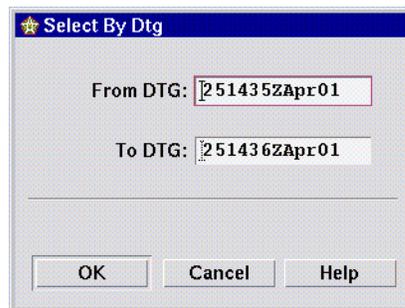
2.	<u>Select Select\By Type...</u> to select multiple messages by message type.	Select By Type window opens.
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Deferred Message Log Procedure - CONT

Step	Action	Response
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- | | | |
|----|---|--|
| 3. | <u>Select message type.</u> | |
| 4. | <u>Select OK.</u> | Select By Type window closes and all messages of type selected are highlighted in Deferred Message Log . |
| 5. | Refer to note prior to step 13 to process messages, delete messages, or view message headers. | |
| 6. | <u>Select Select\By DTG...</u> to select multiple messages according to date\time range. | Select By DTG window opens. |



- | | | |
|----|--|--|
| 7. | <u>Enter start of date\time range</u> in From DTG: field. | From DTG: field displays beginning date\time. |
| 8. | <u>Enter end of date\time range</u> in To DTG: field. | To DTG: field displays ending date\time. |

Deferred Message Log Procedure - CONT

Step	Action	Response
9.	<u>Select OK</u> .	Select By DTG window closes and all messages whose DTG fall within specified range are highlighted in Deferred Message Log .
10.	Refer to note prior to step 13 to process messages, delete messages, or view message headers.	
11.	Select Select\All to select all messages.	All deferred messages are selected.
12.	Refer to note prior to step 13 to process messages, delete messages, or view message headers.	

NOTE

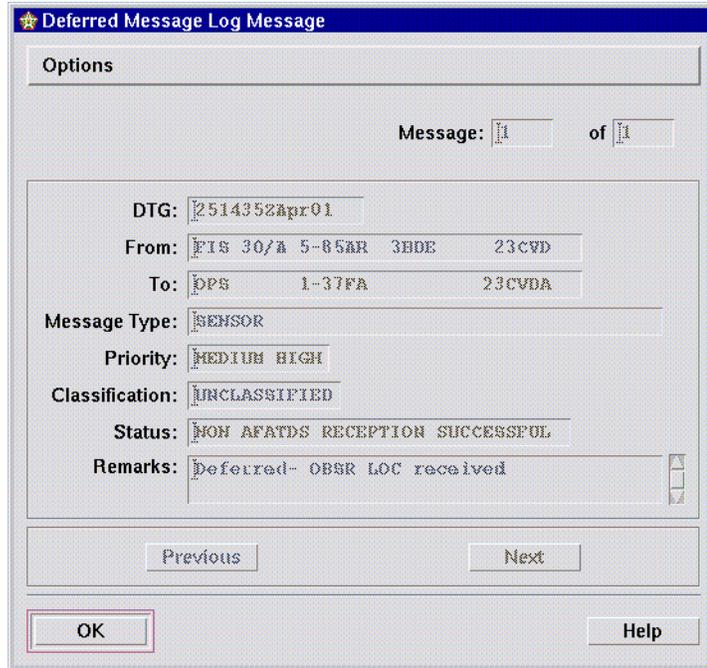
To process messages, delete messages, or view message headers, proceed to indicated steps:

- Process** deferred message step 13
- Delete...** messages from Deferred Message Log step 15
- View** message headers step 18

13.	<u>Select Process</u> to process selected messages.	Selected messages are processed and deleted from Deferred Message Log .
14.	Refer to note prior to step 2 to perform other Deferred Message Log functions.	
15.	<u>Select Delete...</u> to delete selected messages.	Delete Confirmation window opens.
16.	<u>Select Delete</u> .	Delete Confirmation window closes and messages are deleted from Deferred Message Log.
17.	Refer to note prior to step 2 to perform other Deferred Message Log functions.	
18.	<u>Select View</u> to view message header information of selected messages.	Deferred Message Log Message window opens with first message header information displayed.

Deferred Message Log Procedure - CONT

Step	Action	Response
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NOTE

Select **OK** at any time to close **Deferred Message Log Message** window.

Use **Next** or **Previous** buttons to display next higher or next lower numbered message header information as applicable.

19.	<p>Select Options\Process to process displayed message</p> <p style="text-align: center;">or</p> <p>Select Options\Delete to delete displayed message.</p>	<p>Message is marked to be processed. Message count decrements by one and next message header is displayed.</p> <p>Displayed message is marked for deletion.</p>
20.	<p>Repeat step 18 until finished with Deferred Message Log Message window.</p>	

Deferred Message Log Procedure - CONT

Step	Action	Response
21.	<u>Select OK.</u>	Deferred Message Log Message window closes and messages are processed or deleted according to selections made in steps 19 and 20.
22.	Refer to note prior to step 2 to perform other Deferred Message Log functions.	

6-19 CONFIGURE MESSAGE SETUP PROCEDURE.

The **Configure Message Setup** window is used to configure the automatic printing and processing actions for message types and groups as they are received and transmitted. Printing actions are **Receive**, **Transmit**, **Both** (print on transmit and receive), and **None**. Receive actions are **Process**, **Route...**, **Process/Route...**, and **Defer**.

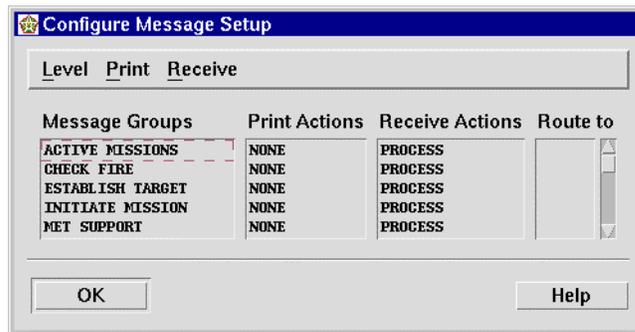
The **Receive/Defer** selection places the message in the Deferred Message Log for action at a later time.

NOTE

Changed configurations become effective upon a level change or **OK** only.

Configure Printing Setup Procedure

Step	Action	Response
1.	<u>Select Messages\Configure Message Setup.</u>	Configure Message Setup window opens.



Configure Printing Setup Procedure - CONT

Step	Action	Response
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NOTE

Select **OK** at any time to close **Configure Message Setup** window.

2.	Select Level\Groups or Types to display message groups or message types.	List title changes to Message Groups or Message Types and list fills accordingly.
3.	Select message types or groups for which to set print and/or process actions.	
4.	Select Print\ (desired print action).	Print action is displayed in Print Actions list for selected entries.
5.	Select Receive\ (desired process action).	Process action is displayed in Process Actions list for selected entries.

NOTE

If receive action is **Route...** or **Process/Route** (**Select Unit** window opens), proceed to step 6 to select a unit, otherwise proceed to step 8.



Configure Printing Setup Procedure - CONT

Step	Action	Response
6.	<u>Select unit for destination.</u>	
7.	<u>Select OK.</u>	Select Unit window closes.
8.	<u>Repeat steps 2 thru 7</u> until print and process actions are set for message groups and types.	
9.	<u>Select OK.</u>	Configure Message Setup window closes.
10.	<u>Select unit</u> to which to route messages.	
11.	<u>Select OK.</u>	Select Unit window closes and selected unit fills into Route To list for selected entries.
12.	<u>Repeat steps 2 thru 4</u> until receive actions are set for message groups or types.	
13.	<u>Select OK.</u>	Configure Message Setup window closes.

6-20 **RADAR DEPLOYMENT ORDER PROCEDURE.**

The radar deployment order (RDO) is used to establish the location and/or coverage area of a radar unit. The normal method used to send a RDO is to open the radar unit icon menu and select **RDO**. The user then selects the **Current Location:** or **Next Location:** radio button to determine the unit location to be sent for the deployment. The **Next Location:** field can be edited to the deployment location required. The **Effective Time:** time is the time that the unit is operational at the new location or capable of a new coverage area. The range fan is then determined by entering the **Direction Of Search(mils):**, **Right Azimuth(mils):**, and **Left Azimuth(mils):**. **Radar Zones** are added or removed from the list as required. The **Send** button then saves the data to the database and transmits the RDO.

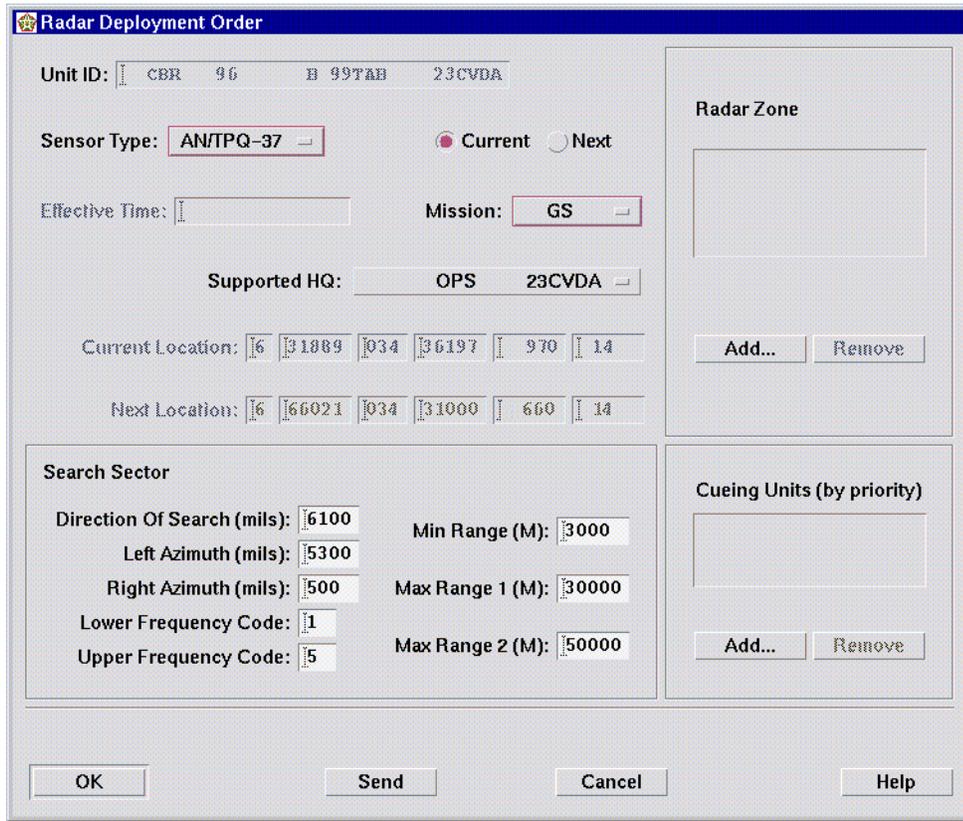


Figure 6.18 Radar Deployment Order Window

Radar Deployment Order Procedure

Step	Action	Response
1.	Select RDO from the applicable radar unit map symbol.	Radar Deployment Order window opens.

Radar Deployment Order Procedure - CONT

Step	Action	Response
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NOTE

Selecting **Send** at any time closes this window, saves the data, and transmits the RDO. To perform the following functions of the **Radar Deployment Order** window, proceed to the indicated steps.

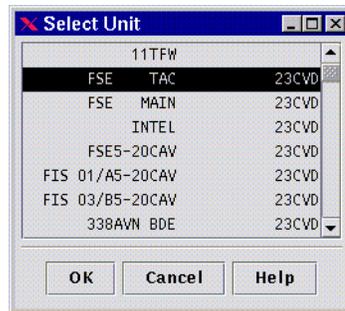
- Enter deployment data step 2
- Add Radar Zone step 8
- Remove Radar Zone step 12
- Add Cueing Unit step 15
- Remove Cueing Unit step 19

- | | |
|---|---|
| <ol style="list-style-type: none"> 2. Enter Next Location: as required. 3. Select Current Location: or Next Location: radio button. 4. Enter Direction Of Search(mils):. 5. Enter Right Azimuth(mils):. 6. Enter Left Azimuth(mils):. 7. To perform other functions of Radar Deployment Order window, refer to note prior to step 2. 8. Select Add... under Radar Zone field. | <p>Select Fire Finder Zone window opens.</p> |
|---|---|



Radar Deployment Order Procedure - CONT

Step	Action	Response
9.	<u>Select FFZ.</u>	
10.	<u>Select OK.</u>	Select Fire Finder Zone window closes. FFZ is added to list.
11.	To perform other functions of Radar Deployment Order window, refer to note prior to step 2.	
12.	<u>Select zone</u> to be removed from list.	
13.	<u>Select Remove</u> under Radar Zone field.	Zone is removed from list.
14.	To perform other functions of Radar Deployment Order window, refer to note prior to step 2.	
15.	<u>Select Add...</u> under Cueing Units field.	Select Unit window opens.



16.	<u>Select unit.</u>	
17.	<u>Select OK.</u>	Select Unit window closes. Unit is added to list.
18.	To perform other functions of Radar Deployment Order window, refer to note prior to step 2.	

Radar Deployment Order Procedure - CONT

Step	Action	Response
19.	<u>Select unit</u> to be removed from list.	
20.	<u>Select Remove</u> under Cueing Units field.	Unit is removed from list.
21.	To perform other functions of Radar Deployment Order window, refer to note prior to step 2.	

6-21 **NETSCAPE.**

NOTE

Netscape and Netscape Navigator are registered trademarks of Netscape Communications Corporation of the United States and other countries. Netscape's logos and Netscape product and service names are also trademarks of Netscape Communications Corporation, which may be registered in other countries. Other product and brand names are trademarks of their respective owners.

AFATDS software versions for the UCU and CCU-2 have E-Mail capabilities provided by Netscape Navigator. E-Mail can be sent and received between computers assigned to a LAN or via a service provider (mail server) to varied locations.

The **Netscape Mail & Newsgroups** window is a central point for the sending and receiving of E-Mail. This window can be opened from any Netscape window via the **Communicator\Messenger** selection. The setup procedure in this section contains instructions on setting this window to open directly from the **Start\AFATDS\AFATDS Functions\Netscape Browser** selection.

The window contains a menu, a set of icons, and a list display selection on the top portion. The list display selection defaults to **Inbox**. Refer to Netscape documentation for instructions on the use of these items.

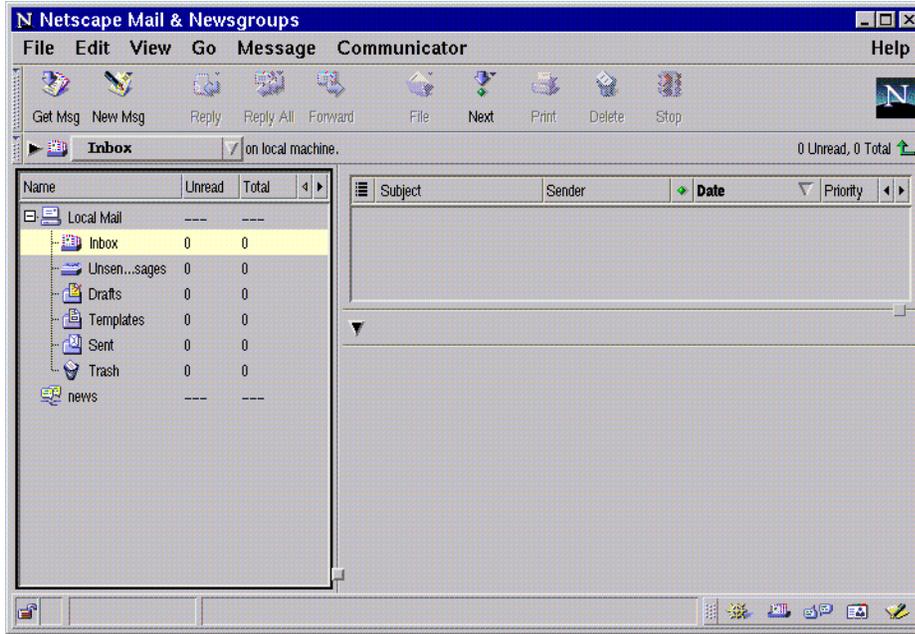


Figure 6.19 Netscape Mail & Newsgroups Window

6-21.1 Messaging Setup.

The following procedure is used to enter data used in the sending and receiving of E-Mail. The procedure also includes the setup that allows the **Netscape Mail & Newsgroups** window to be accessed directly from the **Start\AFATDS\AFATDS Functions\Netscape Browser** selection.

The difference between communicating on the LAN and the use of a mail server is in the E-Mail addresses. When communicating on the LAN, the address is *afatds@hostname*. (period required). The *hostname* is the same as assigned to the LAN on the **LAN Information** window during communications configuration setup.

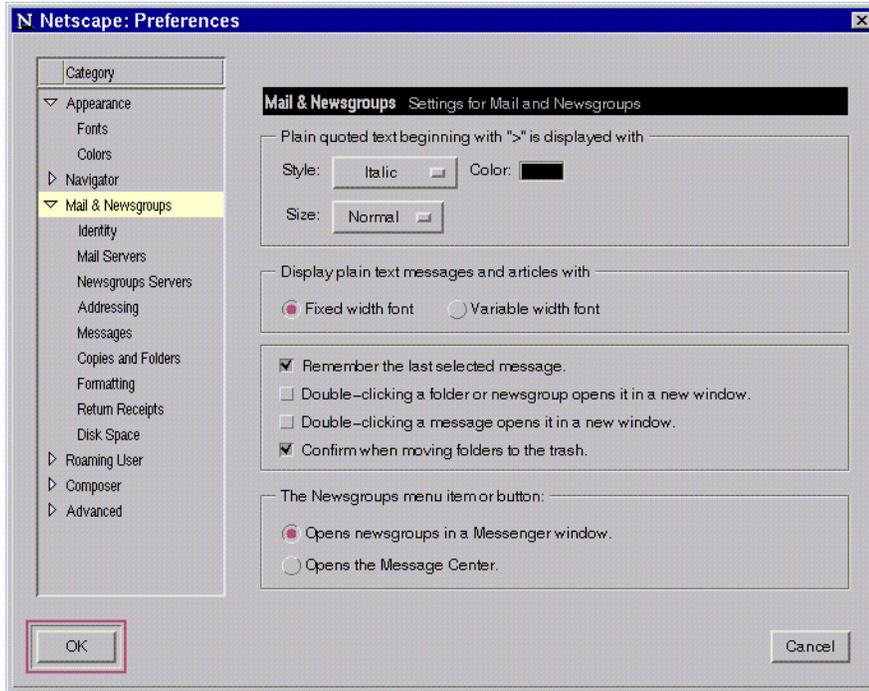
The address for use with a mail server will be supplied by the system administrator. A password is required for mail server messaging. This is also supplied by the system administrator.

Messaging Setup Procedure

Step	Action	Response
1.	Select Start\AFATDS\AFATDS Functions\Netscape Browser .	An initial Netscape window opens.
2.	Select Edit\Preferences... .	The Netscape: Preferences window opens.

Messaging Setup Procedure - CONT

Step	Action	Response
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NOTE

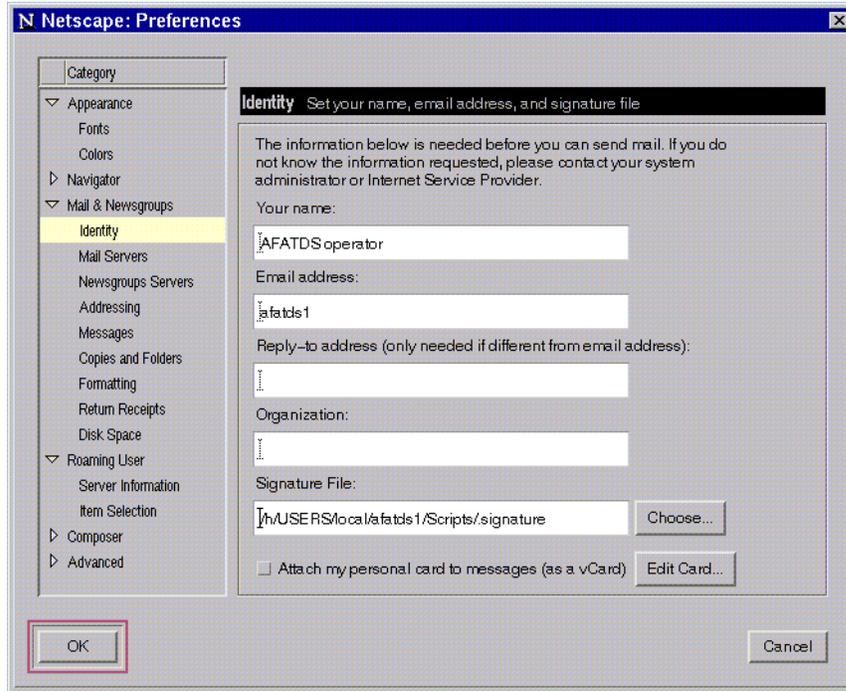
Selecting **OK** at any time closes this window and saves entered data. To perform the following functions, proceed to the indicated steps.

- Enter local identity step 3
- Enter mail server information step 11
- Set Netscape Mail & Discussions as initial window step 17

3.	Select <u>Identity</u> from the Mail & Newsgroups list.	Entry fields are displayed for the local E-Mail identification criteria.
----	---	--

Messaging Setup Procedure - CONT

Step	Action	Response
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- | | |
|----|--|
| 4. | <u>Enter Your name:</u> (optional). |
|----|--|

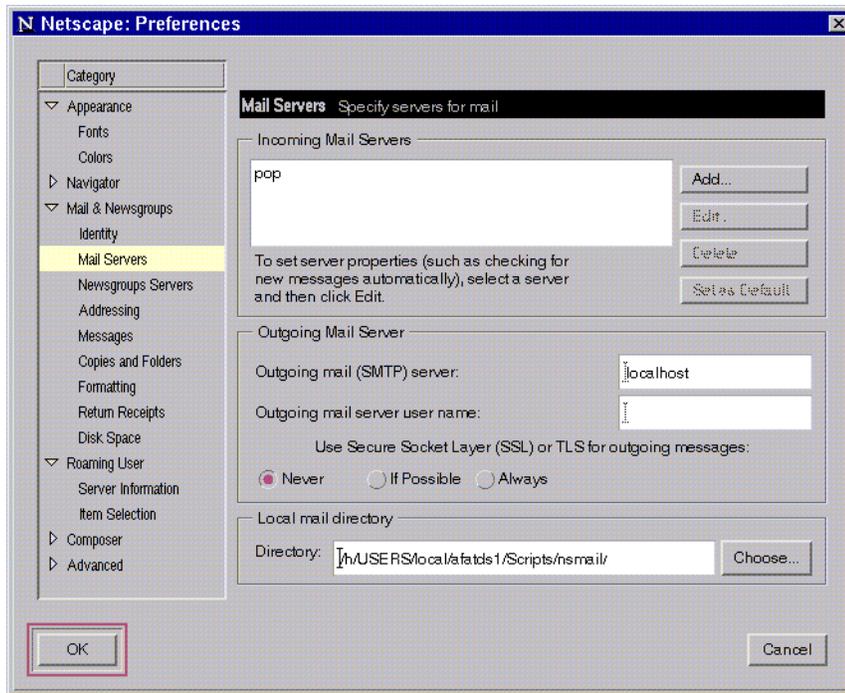
NOTE

The E-Mail address used for sending and receiving mail between computers not assigned to a mail server will be `afatds@hostname`. (period at end of address required). The *hostname* will be the name assigned to the LAN network in the current communications configuration.

- | | |
|----|--|
| 5. | <u>Enter your Email Address:</u> (required). |
| 6. | <u>Enter a Reply-to address</u> (optional). |
| 7. | <u>Enter your Organization:</u> (optional). |
| 8. | <u>Enter the location of your Signature File:</u> (optional). |

Messaging Setup Procedure - CONT

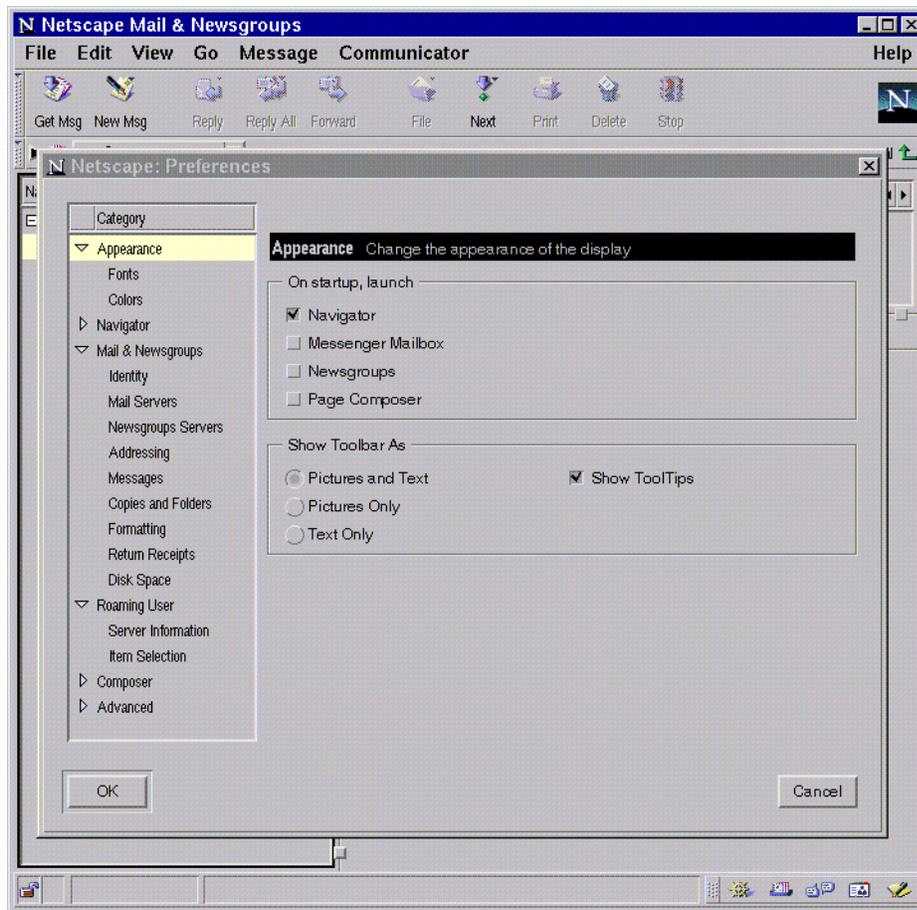
Step	Action	Response
9.	Select <u>Attach my personal card to messages (as a vCard)</u> (optional).	
10.	To perform other functions, refer to note prior to step 3.	
11.	Select <u>Mail Server</u> from the Mail & Groups list.	Entry fields are displayed for the mail server identification criteria.



- | | |
|-----|---|
| 12. | Enter <u>Incoming Mail Servers</u> names (required). |
| 13. | Enter <u>Outgoing mail (SMPT) server:</u> (required). |
| 14. | Enter <u>Outgoing mail server user name:</u> (required). |
| 15. | Select <u>Never</u> (required). |

Messaging Setup Procedure - CONT

Step	Action	Response
16.	<u>Enter or Choose...</u> a Directory to store received messages (required).	
17.	To perform other functions, refer to note prior to step 3.	
18.	<u>Select Appearance.</u>	Selections are displayed for the appearance criteria.



19.	<u>Select Messenger Mailbox</u> checkbox.	The Netscape Mail & Newsgroups window will now be opened directly from the Start\AFATDS\AFATDS Functions\ Netscape Browser selection.
20.	To perform other functions, refer to note prior to step 3.	

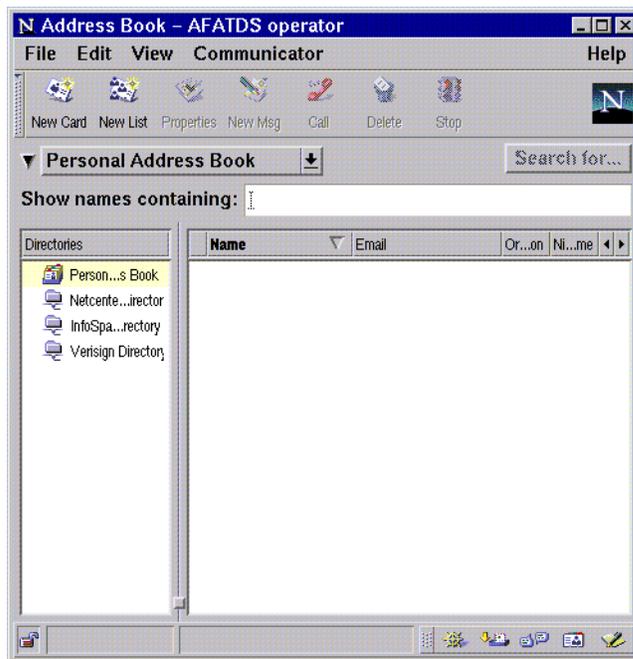
6-21.2 Address Book.

Netscape contains provisions for address books that are used to store individual and groups of addresses. Addresses are added to books via a card that contains information for each addressee. Cards can be combined, using common criteria, to form lists. As example, rocket units can be combined on a list that can be used to message all list units with a single address.

Cards and lists can also be assigned a nickname. This nickname is unique to the card or list. When entered in an address field, the nickname identifies the card or list in the same manner as the full address.

Address Book Procedure

Step	Action	Response
1.	<u>Select Communicator\Address Book.</u>	Address Book AFATDS Operator window opens



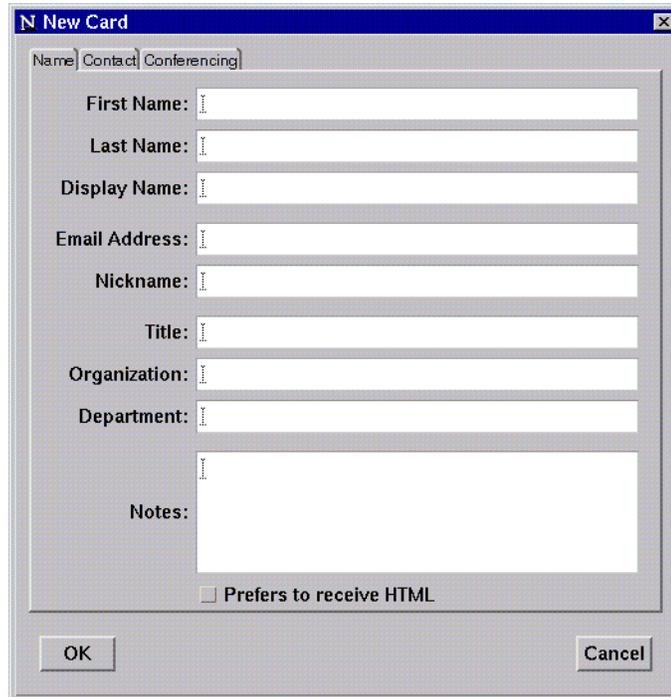
NOTE

To perform the following functions, proceed to the indicated steps.

- Enter new address step 2
- Enter new list step 13

Address Book Procedure - CONT

Step	Action	Response
2.	<u>Select File</u> New Card or the New Card icon.	New Card window opens.

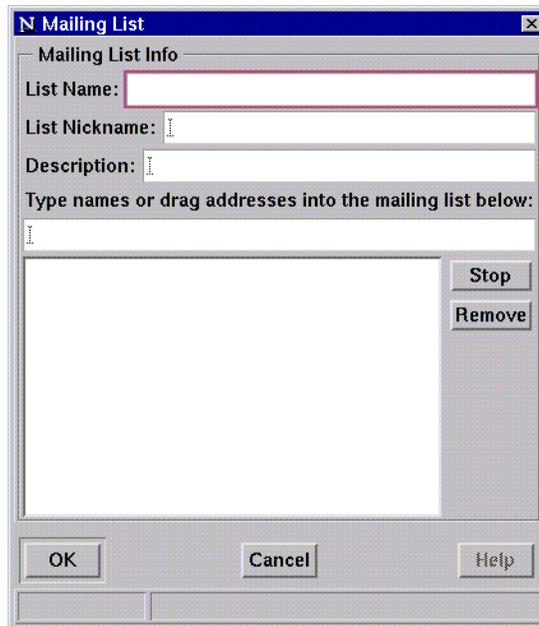


3. Enter First Name: (required).
4. Enter Last Name: (required).
5. Enter Organization: (optional).
6. Enter Title: (optional).
7. Enter Email Address: (required).
8. Enter Nickname: (optional).
9. Enter Notes: (optional).
10. Select OK.

New Card window closes.

Address Book Procedure - CONT

Step	Action	Response
11.	<u>Repeat steps 2 through 10</u> as required for each new card.	
12.	To perform other functions, refer to note prior to step 2.	
13.	<u>Select FileNew List</u> or the New List icon.	Netscape window opens.



- | | |
|-----|---|
| 14. | <u>Enter the List Name:</u> (required). |
| 15. | <u>Enter the List Nickname:</u> (optional). |
| 16. | <u>Enter the Description:</u> (optional). |
| 17. | <u>Enter the name or nickname</u> for the addressee of the message in the mailing list. |

Address Book Procedure - CONT

Step	Action	Response
18.	<u>Press <Enter>.</u>	
19.	<u>Repeat steps 17 and 18</u> for each addressee as required.	
20.	<u>Select OK.</u>	Window closes, new list is added to address book.
21.	To perform other functions, refer to note prior to step 2.	

6-21.3 Sending Messages.

The sending of E-Mail involves two major functions. These are the addressing and the entry and formatting of text. These functions are performed on the **Compose** window which is accessed from the **Netscape Mail & Discussions** window. The addressing comprises the selection of the addressee type and the entry of the address. The addressee type is selected by clicking the triangle to the left of the address line. Selections include **To:**, **Cc:** (carbon copy), and **Bcc:** (blind carbon copy). The **To:** addressee is normally one for whom the message is most pertinent. The **Cc:** addressee would normally be used for information purposes. The **Bcc:** is basically the same as the **Cc:** except that while the **To:** and **Cc:** addressees are displayed on the message at the receiving addresses, the **Bcc:** addressee is displayed at the respective receiver only. When the address is entered and **<Enter>** pressed, a new address line will be displayed. The address can be either a list or an individual address and can be entered by name or nickname.

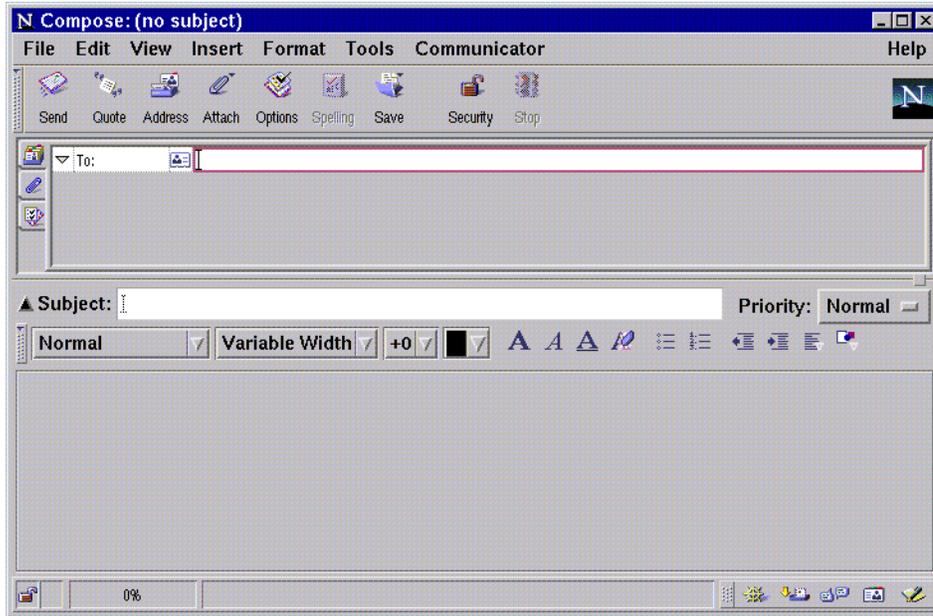
The text is entered in the field at the bottom of the window and is formatted using tools contained on the window. Refer to Netscape documentation for instructions on the use of these tools.

Send Message Procedure

Step	Action	Response
1.	<u>Select Message\New Message</u> or the New Msg icon from the Netscape Mail & Newsgroup window.	Compose window opens.

Send Message Procedure - CONT

Step	Action	Response
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NOTE

Selecting **File\Send Now** or the **Send Now** icon closes this window and sends the message. To perform the following functions of the **Compose** window, proceed to the indicated steps.

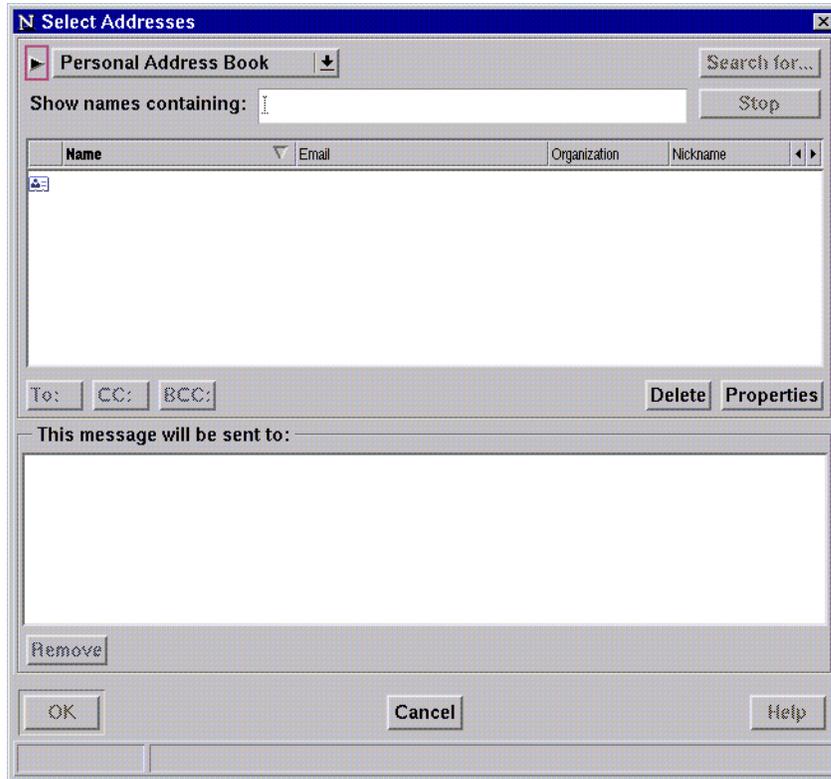
- Enter address on window step 2
- Enter address from address book step 7
- Enter message step 14

2. Select the addressee type (To:, Cc:, or Bcc:).
3. Enter the address or nickname.
4. Press <Enter>.
5. Repeat steps 2 through 4 for all addresses.
6. To perform other functions, refer to note prior to step 2.

An additional address line appears.

Send Message Procedure - CONT

Step	Action	Response
7.	<u>Select</u> the Address icon.	Select Addresses window opens for the display of address books.



8.	<u>Select</u> the appropriate address book.	List displays names from selected book.
9.	<u>Select a Name</u> from list.	
10.	<u>Select the addressee type (To:, CC:, or BCC:)</u> .	Address is added to This message will be sent to: list.
11.	<u>Repeat steps 8 through 10</u> for all addresses.	
12.	<u>Select OK</u> .	Window closes, names are added to addresses list.

Send Message Procedure - CONT

Step	Action	Response
13.	To perform other functions, refer to note prior to step 2.	
14.	<u>Enter message Subject:</u>	
15.	<u>Enter message text</u> in field at bottom of window.	
16.	To perform other functions, refer to note prior to step 2.	

6-21.4 Receiving Messages.

Received messages are listed in the **Inbox** of the **Netscape Mail & Discussions** window. The display will list all messages that have been received and not deleted. New messages received from other than a mail server will also be displayed. To receive and display messages via a mail server, the operator selects **Get Messages** and enters a password at the prompt. Double clicking a listed message opens the message and displays the text in the field at the bottom of the window.

Receive Message Procedure

Step	Action	Response
1.	<u>Select Inbox</u> from the Netscape Mail & Discussions window.	Received messages in the folder are displayed.

NOTE

If a mail server is being used, the operator must select **File\Get Messages** or the **Get Msg** icon in order to receive any new messages. These selections will cause the operator to be prompted for a password upon initial selection.

2.	<u>Double click message</u> to be viewed.	Message text is displayed.
3.	<u>Repeat step 2</u> as required for each message to be viewed.	
4.	<u>Select File\Close</u> to close window.	

SECTION 2 MOVEMENT

6-22 OVERVIEW.

AFATDS move functions allow the user to quickly enter data, view potential problem areas, request approval, and issue march tables for unit moves. Unit moves are divided into three (3) states. These states are move requirements, requests, and orders.

A move requirement consists of the **Start Location:**, **End Location:**, **Critical Time:**, and the **Az of Fire/Search (mils):**. This data is entered via the **Unit Move** window. Entering this data and closing the **Unit Move** window using the **OK** button establishes the move requirement. Choosing the **Next** button from the **Unit Move** window opens the **Movement Table Tools** window allowing the entry of data to complete a move request. The data required to complete a move request consists of the route segments and control points. Column length and the entry of a move order instruction are optional.

Up to nine moves can be created for a unit. The route used for the move is selected from existing route segments. The column length, speed of travel, control points, and critical start or release times are specified for each move.

Once the unit move is defined, any conflicts with other unit moves or positions can be resolved prior to finalizing the move order. A position conflict occurs if an end location for a move falls within a specified distance of existing or planned unit positions. This distance is 2.0 KM if both units are smaller than Battalions. If one unit is smaller and the other unit is Battalion or larger, the distance is increased to 2.5 KM. For cases where both units are Battalion or larger, the distance is 3.0 KM. Since FSE/FSCC and FA CP/FDC units can be co-located, no position conflicts will exist between these type units.

A route conflict occurs, depending on road type and direction of travel, when two moving units are on a route segment at the same time. Conflicts will not occur if the road type is a divided highway or terrain. Conflicts occur if the units are traveling in the same direction at the same time on a primary, secondary, or light all weather road. If the road type is dry all weather or trail, a conflict will occur regardless of the direction of travel.

Once a move is approved (state is order), editing of the move is not allowed. Therefore the user should perform all functions, including deconflicting position and routes, prior to requesting approval. This is true also for a unit that approves or denies a move request. This is because the approving OPFAC may contain moves that were not listed at the requesting OPFAC that may conflict with the requested move.

6-23 MOVES WINDOWS NAVIGATION.

The **Unit Move** window is accessed directly and indirectly by selections made from the unit symbol or map menu.

The **Units\Moves...** menu selection opens the **Select Unit** window. Selecting a unit and **OK** closes the **Select Unit** window and opens the **Display Moves** window which displays a list of existing unit moves for that unit. Moves can be created by selecting the **New** button, or can be edited or deleted by first selecting the move from the list and then selecting the **Edit** or **Delete...** button. Both the **New** and the **Edit** buttons open the **Unit Move** window.

The unit symbol menu allows access to the **Unit Move** window via the **Create Move Req** and **Moves** selections. These menu selections are not available for Observer, Air, and NSFS units. The **Create Move Req** selection opens the window directly. The **Moves** selection opens the **Unit Move** window via the **Display Moves** window **New** selection.

6-24 MOVES.

AFATDS move functions allow the user to quickly enter data, view potential problem areas, request approval, and issue march tables for unit moves. Unit moves are divided into three (3) states. These states are move requirements, requests, and orders.

A move requirement consists of the **Start Location:**, **End Location:**, **Critical Time:**, and the **Az of Fire/Search (mils):**. This data is entered via the **Unit Move** window. Entering this data and closing the **Unit Move** window using the **OK** button establishes the move requirement. Choosing the **Next** button from the **Unit Move** window opens the **Movement Table Tools** window allowing the entry of data to complete a move request. The data required to complete a move request consists of the route segments and control points. Column length and the entry of a move order instruction are optional.

Up to nine moves can be created for a unit. The route used for the move is selected from existing route segments. The column length, speed of travel, control points, and critical start or release times are specified for each move.

Once the unit move is defined, any conflicts with other unit moves or positions can be resolved prior to finalizing the move order. A position conflict occurs if an end location for a move falls within a specified distance of existing or planned unit positions. This distance is 2.0 KM if both units are smaller than Battalions. If one unit is smaller and the other unit is Battalion or larger, the distance is increased to 2.5 KM. For cases where both units are Battalion or larger, the distance is 3.0 KM. Since FSE/FSCC and FA CP/FDC units can be co-located, no position conflicts will exist between these type units.

A route conflict occurs, depending on road type and direction of travel, when two moving units are on a route segment at the same time. Conflicts will not occur if the road type is a divided highway or terrain. Conflicts occur if the units are traveling in the same direction at the same time on a primary, secondary, or light all weather road. If the road type is dry all weather or trail, a conflict will occur regardless of the direction of travel.

Once a move is approved (state is order), editing of the move is not allowed. Therefore the user should perform all functions, including deconflicting position and routes, prior to requesting approval. This is true also for a unit that approves or denies a move request. This is because the approving OPFAC may contain moves that were not listed at the requesting OPFAC that may conflict with the requested move.

6-24.1 Moves Windows Navigation.

The **Unit Move** window is accessed directly and indirectly by selections made from the unit symbol or map menu.

The **Units\Moves...** menu selection opens the **Select Unit** window. Selecting a unit and **OK** closes the **Select Unit** window and opens the **Display Moves** window which displays a list of existing unit moves for that unit. Moves can be created by selecting the **New** button, or can be edited or deleted by first selecting the move from the list and then selecting the **Edit** or **Delete...** button. Both the **New** and the **Edit** buttons open the **Unit Move** window.

The unit symbol menu allows access to the **Unit Move** window via the **Create Move Req** and **Moves** selections. These menu selections are not available for Observer, Air, and NSFS units. The **Create Move Req** selection opens the window directly. The **Moves** selection opens the **Unit Move** window via the **Display Moves** window **New** selection.

The **Move\Unit Moves Table** menu selection opens the **Move Request Order Table** window. This window allows the user to view and manipulate all the move requests for the OPFAC. Selecting a listed move and **Edit** from the **Move Request Order Table** opens the **Unit Move** window. Selecting the **Move Table** button from the **Move Request Order Table** opens the **Move Table** window. The **Move Table** window lists all the route segments involved in each unit move and the **Time On**, **Time Off**, **Speed**, **Delay**, and **CP's** (control points) associated with the route segments. Refer to the **Unit Move** window navigation for the navigation from this window.

The **Next** button on the **Unit Move** window opens the **Move Table Tools** window. The **Move Table Tools** window allows the creation of a move route by selecting the desired route segments from the map. The user places the cursor over the desired route segment. The operator depresses the **Shift\Control** keys simultaneously (on the keyboard) and clicks the left button on the trackball. The segment becomes highlighted. The operator repeats this step until all segments for the move route have been selected. The **Control Points** are placed on the route by selecting the start (**SP**), release (**RP**), or check (**CP**) point icon which opens the **Route Control Point Data** window. This window allows the control point location, delay, description, and report blocks to be edited. The **Override Obstructions** window button opens the **Override Obstructions** window which allows the user to override obstructions on the planned route. The **Column Length** button opens the **Unit Column** length window which allows setting the gap between vehicles. The column length is then automatically computed. The **Clear...** button opens the **Confirm Clear Move** window to confirm clearing of the move route and associated control points from the unit move table. The **Move Table** button opens the **Move Table** window.

The **Move Table** window lists all the route segments involved in each unit move and the **Time On**, **Time Off**, **Speed**, **Delay**, and **CP's** (control points) associated with the route segments. The **Options** menu **March Table** selection opens the **March Table** window which allows viewing of control point information. The **Options** menu **Deconflict Position** selection opens the **Deconflict Position** window which allows the user to view conflicts of position with other units. The position conflicts can be overridden or deconflicted from this window.

The **Move Table Options** menu **Deconflict Route** selection opens the **Deconflict Route** window. The **Deconflict Route** window allows the user to resolve conflicts between this unit's move and other unit moves which utilize the same route segments. Start time, release time, segment, travel speed, and control point delays can be adjusted to resolve the route segment conflicts.

The **Move Table Options** menu **Column Length** selection opens the **Unit Column Length** window for editing the gap between vehicles. The gap between vehicles is used with the unit movement factors (number and length of vehicles) to compute column length.

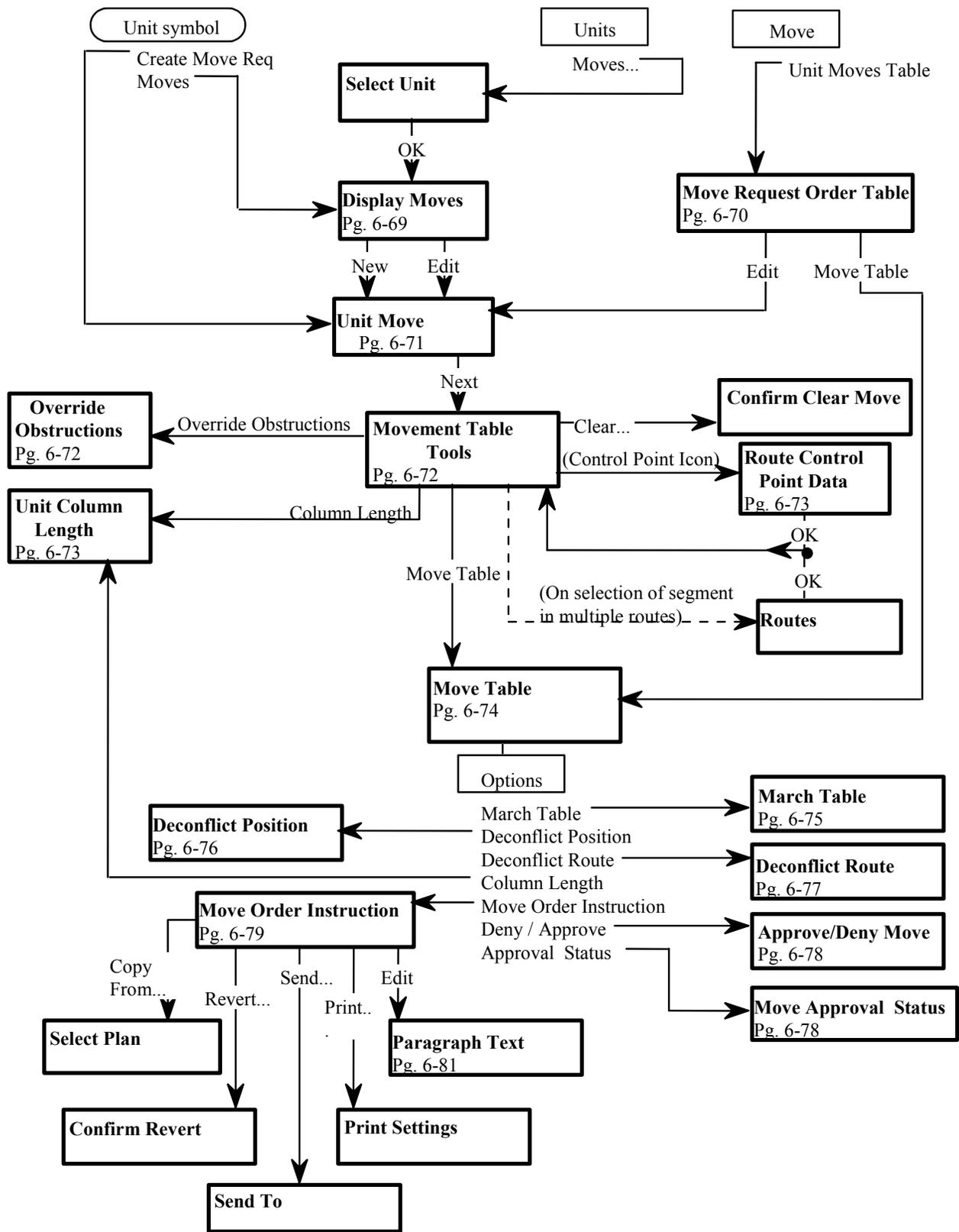


Figure 6.20 Moves Windows Navigation

The **Options** menu **Move Order Instruction** selection opens the **Move Order Instruction** window which allows the user to review or edit the move instructions. Selecting a paragraph and **Edit** from this window opens the **Paragraph Text** window for editing the move instructions text paragraph. The **Move Order Instruction** window also allows the user to copy move instructions from another plan using the **Copy From...** button or send the move instructions to another unit using the **Send...** button. The **Revert...** button opens the **Confirm Revert** window which allows confirmation of reverting the move instructions to the previously stored version. The **Move Table Options** menu **Deny/Approve** (only sensitive in request state) selection opens the **Approve/Deny Move** window for approving or denying the unit move. The **Move Table Options** menu **Approval Status** (only sensitive after move has been Approved or Denied) selections open the **Approval Status** window for reviewing the approval status of the unit move.

6-24.2 Display Moves Window.

The **Display Moves** window displays movement plans for a specific unit. Information is displayed by move number (**Move Num**). The user may create, edit, and delete moves. The **Plan:**, **Phase:**, and **Unit ID:** fields identify the plan, phase, and unit ID. The **Move Num**, **Old Position**, **New Position**, **Start Time** and **End Time** coupled lists display the time and positions associated with the listed move.

The **New** button opens the **Unit Move** window to create a new move for the unit. The **Edit** button opens the **Unit Move** window for editing information for the selected move number. The **Delete...** button opens the **Confirm Delete** window for confirmation of the move deletion.

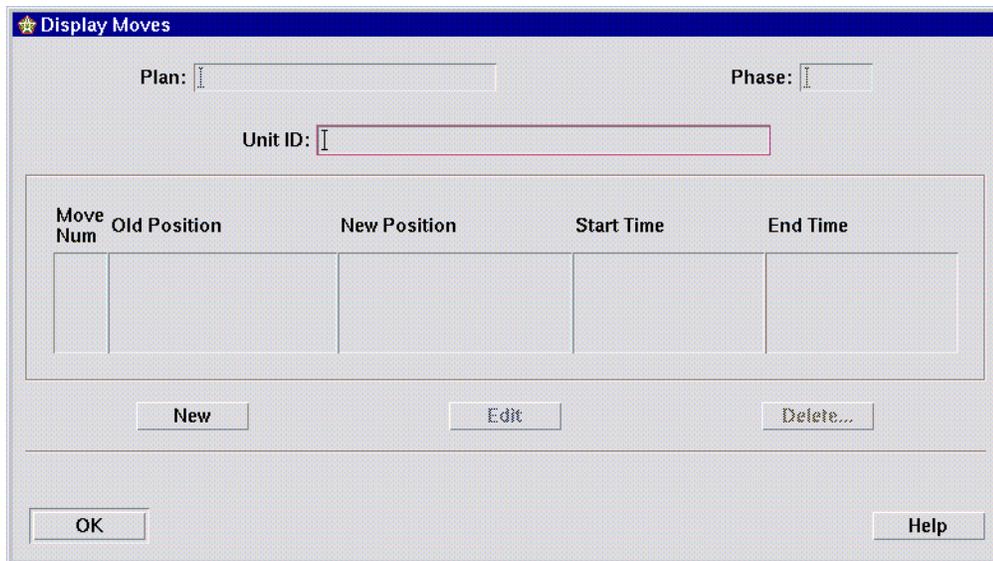


Figure 6.21 Display Moves Window

6-24.3 Move Request Order Table Window.

The **Move Request Order Table** window allows the user to manipulate unit move requirements, requests, and orders at the unit level (i.e., without specifying a particular unit). This window displays all unit moves in the OPFAC database. Unit moves are sorted by State, by Unit ID within State, and by Move No within the unit. The sort by **State** lists the requirements first, followed by request not sent, request sent, and order.

The user may request approval, access the Move Table, and edit or delete each move. The **Plan:** and **Phase:** fields identify the plan name and applicable phase. The **Unit Moving** field identifies the unit ID for this move and the **Move No.** list identifies the number of the move. The **State** list displays the current status of the move. The **Start Time** list indicates the starting time of the move and the **End Location** list displays the location of the final destination.

The **Request Approval...** button and the **Send...** button open the **Send To** window for selecting a destination unit. The **Request Approval...** sends the move information required for the unit designated to approve/deny a move to make a decision. The **Send...** button sends the move information to the moving unit and other units monitoring movements as required. If the moving unit is assigned a FPF, a warning will be displayed to the operator before the move is sent. This is a warning to reassign the FPF and no automated functions occur. Selecting **Override** will bypass further warnings.

The **Move Table** button opens the **Move Table** window for displaying the movement data for a selected move.

The **Edit** button opens the **Unit Move** window for the selected move. The **Delete...** button deletes the selected move after confirmation by the **Confirm Delete** window.

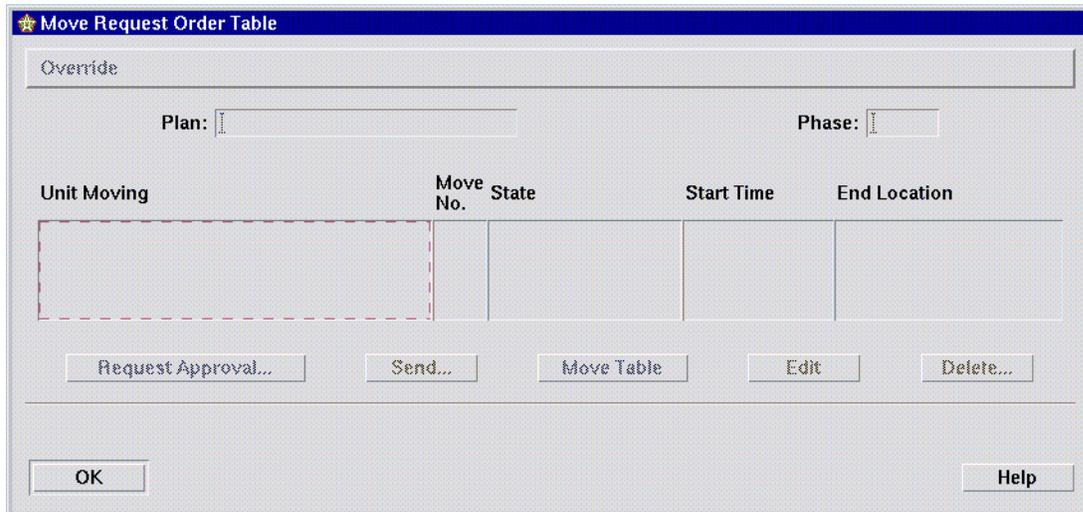


Figure 6.22 Move Request Order Table Window

6-24.4 Unit Move Window.

The **Unit Move** window provides the initial information for creating a unit move. This window specifies the **Start Location:**, **End Location:**, **Critical Time:** (Absolute or H-Hour), **Time out of:** a Start Point or **Time into:** a Release Point, and the **Az of Fire/Search (mils):**. The **Position Area** indicates the area for the final position. The **Plan:** and **Phase:** fields identify the name of the plan and the associated phase. The **Move Number** displays the move number and the **Start Location:** and **End Location:** fields show the grid coordinates for the start location and ending location of the unit move. The **Critical Time:** field display the critical time out of the start point or into the release point. The **Time out of:** option menu determines **Start Point** or **Release Point**. The **Absolute** and **H-Hour** radio buttons determine whether absolute or relative time is used. The **On-Call** button is always insensitive. When **H-Hour** is selected, the user enters the relative time in the **Critical Time** field. The **Az of Fire/Search (mils):** field displays the azimuth of fire or search which is set after the unit move.

The **Next** button saves the displayed information and opens the **Movement Table Tools** window for entering routes, control points, and related information.

The screenshot shows the 'Unit Move' dialog box with the following fields and values:

- Plan: [Empty]
- Phase: [Empty]
- Unit ID: FSE MAIN 1-22IN 1BDE 4ID
- Move: 1
- Start Location: 5 64478 034 20463 800 14
- End Location: 6 16955 034 32845 800 14
- Critical Time: 061447ZSep02
- Time out of: Start Point (selected)
- H-Hour(DTG): 061446ZSep02
- Az of Fire/Search (mils): 0000
- Position Area: [Empty]

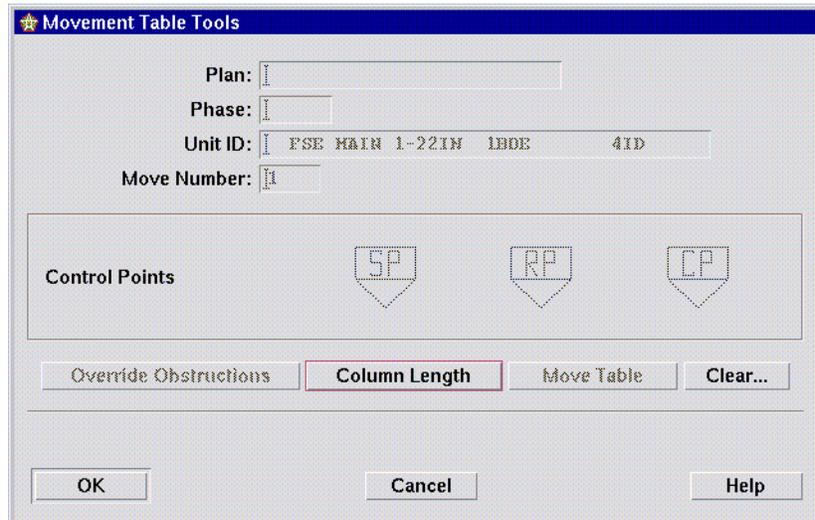
Radio buttons for Critical Time: Absolute (selected), H-Hour, On Call.

Buttons at the bottom: OK, Next, Cancel, Help.

Figure 6.23 Unit Move Window

6-24.5 Movement Table Tools Window.

The **Movement Table Tools** window aids in the creation or modification of a unit move. A unit move route is selected by selecting individual route segments to form the route. Then control points are placed along the unit route by selecting the appropriate icon (Start Point - **SP**, Release Point - **RP**, or Check Point - **CP**) and entering the map location at which the control point is to be placed. Once a start point and release point have been placed, the user can select the **Override Obstructions** button to override any obstructions. Once a Start Point is created, the **Move Route** is no longer editable. Control Points may be edited.



The **Override Obstructions** button opens the **Override Obstructions** window. This window allows the user to view the obstructions on the selected segments that will have an impact on the unit move. The user can override these obstructions at this time.

The **Column Length** button opens the **Unit Column Length** window to enter gap between vehicles. The gap between vehicles is used with the unit movement factors (number and length of vehicles) to compute column length.

The **Move Table** button opens the **Move Table** window which lists the move data including the times for the critical point, control points, and route segments.

The **Clear...** button opens the **Confirm Clear Move** window for confirmation of removing the control point and move route data for the unit move.

Selection of the **SP** icon opens the **Route Control Point Data** window. This window allows the user to enter data (location, delay time, description, and report status) for the start point. Closing the **Route Control Point Data** window causes the **RP** icon to be enabled. Selection of the **RP** icon opens the **Route Control Point Data** window. Data for the release point is entered in the same manner. With the start and release points established, the check point (**CP**) is enabled to allow the entry of check points along the move route. Check point data is entered in the same manner as other control points and a number is assigned to each in the order entered.

6-24.6 Override Obstructions Window.

The **Override Obstructions** window displays all obstructions along the route involved in the unit move that will impact the move. The characteristics (width, height, bridge classification, etc.) of each obstruction is compared with the unit movement factors to determine if the obstruction impacts the move. The **Override** button causes all listed obstructions to be marked as overridden for this move. The **Segment Name**, **Type**, and **Location** lists identify the location and type of obstruction on the listed route segment. Selecting **Cancel** closes this window without overriding any obstructions.

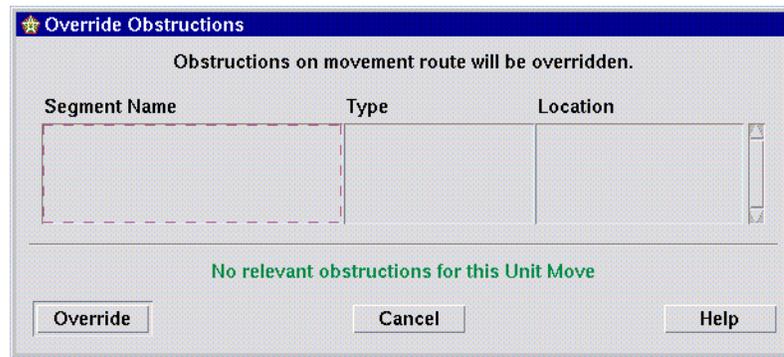
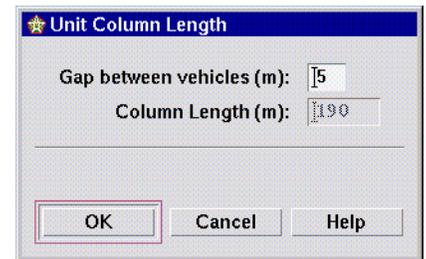


Figure 6.24 Override Obstructions Window

6-24.7 Unit Column Length.

The **Unit Column Length** window allows the user to adjust the column length for the moving unit. The column length is adjusted by editing the **Gap between vehicles (m):** field. The **Column Length (m):** field is automatically recalculated when the user tabs or clicks out of the Gap field, for any change made to the **Gap between vehicles (m):** field.



6-24.8 Route Control Point Data Window.

The **Route Control Point** window displays information on a specific control point and allows the user to change the information as required. The **Plan:**, **Phase:**, **Unit ID:**, **Move Number:**, **Control Point Name:**, and **Route Segment Name:** fields display established data for the move. These fields cannot be edited. The **Control Point Location:** field displays the grid location of the control point. The **Delay at Control Point (min):** field displays the length of time that the unit is to delay at the control point. The **Report** check box, when checked indicates that the unit is to report in on arrival at the control point. The **Description:** field is used to enter additional information about the control point.

Route Control Point Data

Plan: [] Phase: []

Unit ID: [A 65FA 23CVDA]

Move Number: []

Control Point Name: [Start Point]

Route Segment Name: []

Control Point Location: [5 08414 034 21355 550 14]

Delay at Control Point (min): [10] Report

Description:
300 m east of water tower

OK Delete... Cancel Help

Figure 6.25 Route Control Point Data Window

6-24.9 Move Table.

The **Move Table** window displays segment information for a unit move and allows the user to modify the move table. The **Plan:**, **Phase:**, and **Unit ID:** fields identify the plan and phase that the unit move is part of. The **Critical Time:** field display the critical time out of the start point or into the release point. The **Time out of/Time into** option menu displays **Time out of:** when the menu selection is **Start Point**, and displays **Time into:** when the menu selection is **Release Point**.

The **Segment Name/CP** list identifies the route segment, the **Time On** and **Time Off** lists show the time the unit starts on the route segment and the time it leaves the route segment. The **Segment Name/CP** list also displays check points, control points, or release points. The **Speed** field shows how fast the unit moves on the route segment. The **Delay** list shows the delay associated with the listed control point.

The **Options** window menu contains the following selections:

March Table - opens the **March Table** window for viewing or printing unit march table.

Deconflict Position - opens **Deconflict Position** window to deconflict unit positions.

Deconflict Route - opens the **Deconflict Route** window which allows the user to deconflict or override route segment conflicts.

Column Length - opens **Unit Column Length** window for adjusting column length.

Move Order Instruction - opens **Move Order Instruction** window for reviewing or editing move instructions.

Deny/Approve - opens **Approve/Deny Move** window which allows the user to approve or deny move.

Approval Status - opens **Approval Status** window for reviewing approval status.

The screenshot shows a window titled "Move Table" with a blue header bar. Below the header is an "Options" section with several input fields: "Plan:", "Phase:", "Unit ID:" (containing "A 65FA 23CVDA"), "State:" (containing "Request Not Sent"), "Move Number:" (containing "1"), "Critical Time:" (containing "191300ZMay01"), and "Time out of:" (containing "Start Point"). Below the options is a table with the following data:

Segment Name / CP	Time On	Time Off	Speed Delay
Start Point	A	N/A	N/A 10
4A	1310ZMay01	191346ZMay01	30 N/A
4B	1346ZMay01	191402ZMay01	30 N/A
4C	1402ZMay01	191422ZMay01	30 N/A
Release Point	A	N/A	N/A 0

At the bottom of the window are four buttons: "OK", "Cancel", "Calculate", and "Help".

Figure 6.26 Move Table Window

6-24.10 March Table Window.

The **March Table** window is a view only window that displays information about a unit move. The **Plan:**, **Phase:**, **Unit ID:**, and **Move Number:** identify the unit move and applicable plan and phase. The **Critical Time:** is the critical **Time out of:** the **Start Point** or **Time into:** the **Release Point**. The lists display the **Control Point** identifier, the scheduled **Time In** and **Time Out** the control point, if the unit must **Report** upon arrival, and the **Delay (min)** associated with the control point. The **Distance (km)** list shows the length of the route segment and the **March Rate (kph)** list shows the travel speed in kilometers along the route segment. When a **Control Point** is selected, the **Control Point Description** field displays additional information about the selected control point.

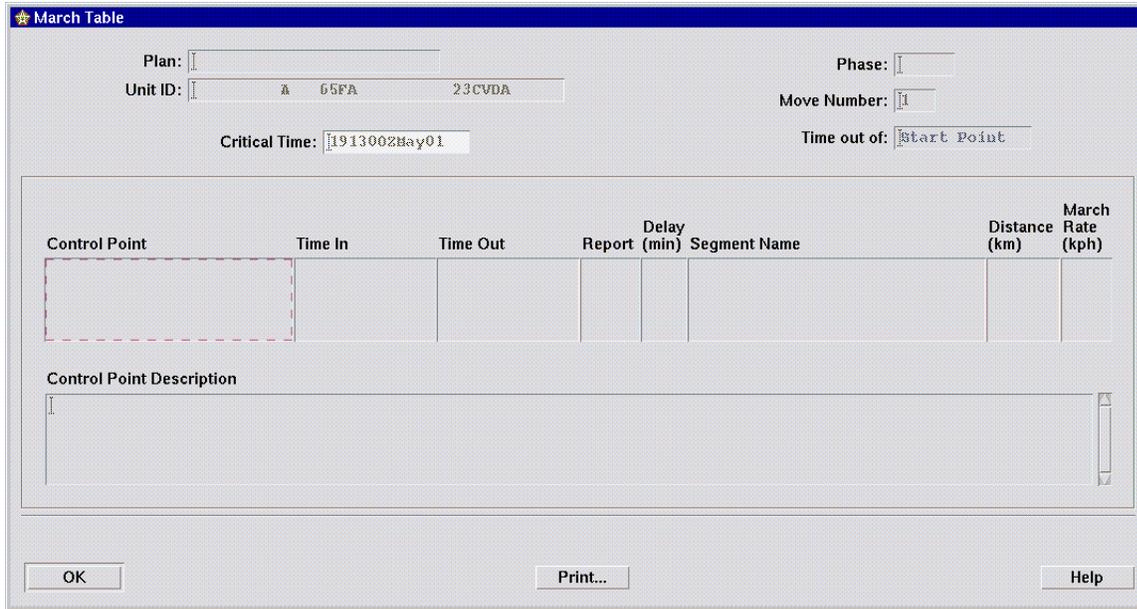


Figure 6.27 March Table Window

6-24.11 Deconflict Position Window.

The **Deconflict Position** window displays any conflicts which are a result of a unit move. The user may override the conflicting units or adjust the location of the unit being moved to clear the conflict. The **Plan:**, **Phase:**, **Unit ID:**, and **Move Number:** fields identify the applicable plan, phase, and unit move for this window. The **Location:** field shows the grid location of the unit being moved and may be edited if there are conflicting units. The **Conflicting Units** lists displays the units which are in conflict with the move of this unit. The associated **Move No.** and **State** lists identify the move plans that the listed units are part of. The **Location** list shows the grid location of the conflicting unit and the **Distance(m)** list shows the distance in meters between the center of this unit and the center of the conflicting unit.

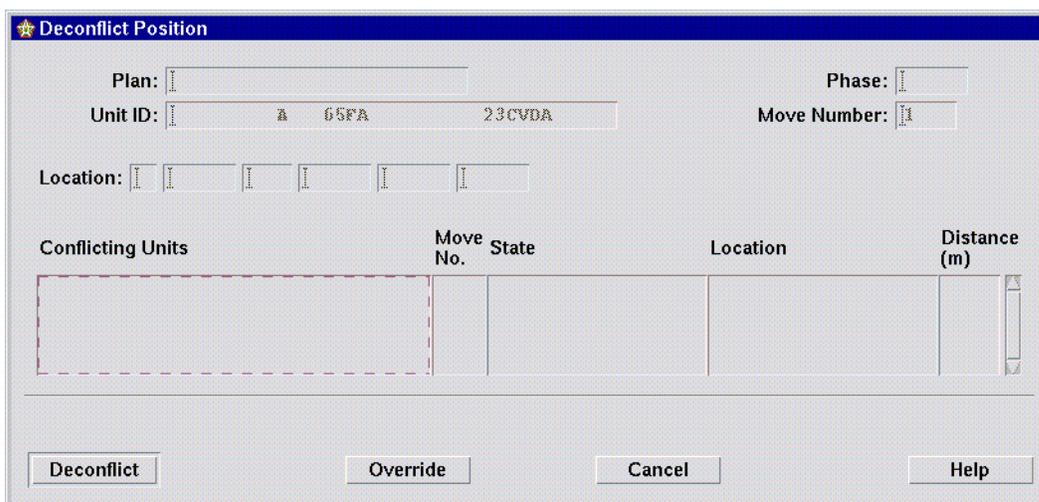


Figure 6.28 Deconflict Position Window

6-24.12 Deconflict Route Window.

The **Deconflict Route** window provides the user with a visual display of conflicting move routes and allows him to adjust route segment usage and times or override route conflicts in order to deconflict route segment conflicts.

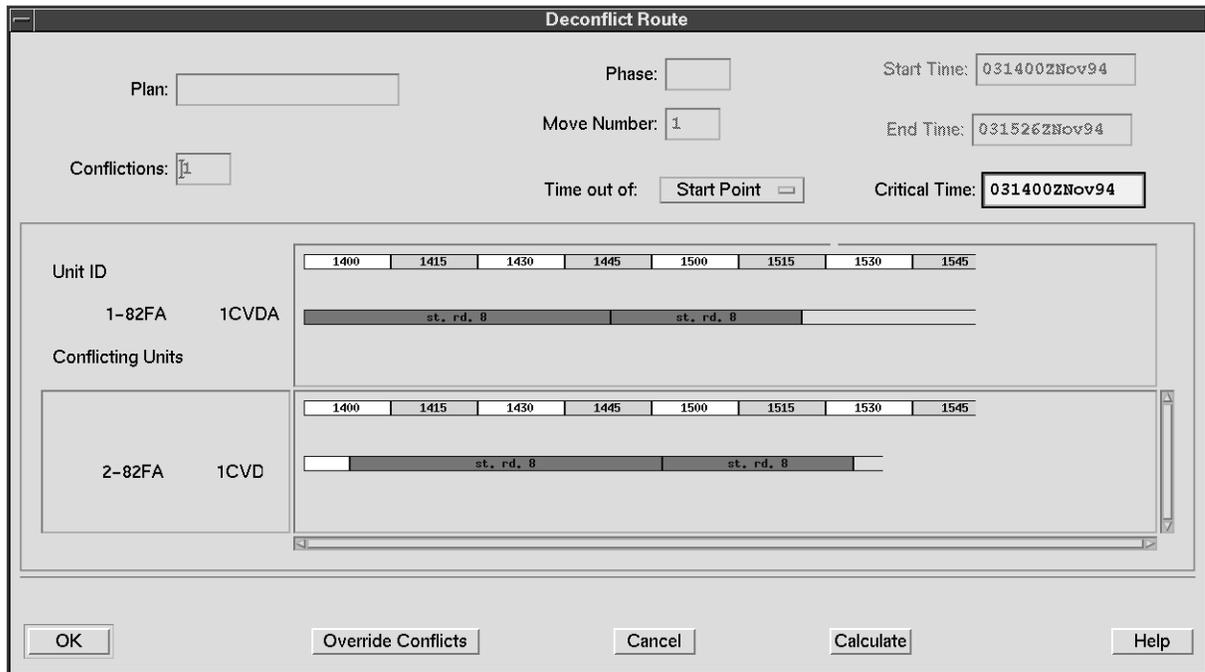


Figure 6.29 Deconflict Route Window

A time line is displayed above the confliction bar of the unit move being deconflicted. The user may designate the **Start Point** or **Release Point** as the critical point for the unit move, edit the time for the **Critical Time:** (in DTG format), change the speed of travel on any portion of the move route, and edit the delay times at any control point. Any change to these fields and any accumulated changes to the confliction bar sections are applied to the form when the **Calculate** button is pressed. The confliction bars are also updated when this button is used.

The user may change the delay at a control point or the speed on a route segment by dragging the right edge of the desired section in the confliction bar. When the right edge is repositioned, the section is visually resized in the direction of the drag and other sections are shifted to the left or right as appropriate relative to the critical point, whether **Start** or **Release**.

The changes are accumulated until the user selects the **Calculate** button, the **OK** button, or the **Override Conflicts** button. When any of these buttons are selected, the unit move is updated with all changes since the last update, and the unit move is rechecked against the other unit moves within the Movement Plan. If the **Calculate** button is selected, the confliction bars are re-displayed on the screen. If the **OK** button is selected, the move deconflicted indicator is reset depending on the new check for conflicting units, all changes, and the form is closed. If the **Override Conflicts** button is selected, the move is considered to be deconflicted, all changes are saved, and the form is closed.

If no conflicts occur or remain when the form is displayed, only the confliction bar for the moving unit is displayed.

The **Plan:** field identifies the plan name and the **Phase:** field identifies the phase number of the plan. Not applicable (grayed out) if in current situation. The **Move Number:** field identifies the unit move number. The **Start Time:** field displays starting time of move and the **End Time:** field displays ending time of move. The **Critical Time:** field displays the critical time of either start point or end point. The **Conflicts:** field displays number of conflicting route segments. The **Time out of:** option menu displays either **Start Point** or **End Point** as critical time. The **Unit ID** field displays unit ID of unit being deconflicted. The **Conflicting Units** list displays a list of units whose route segments conflict with move segments of this unit. The time line field displays time in fifteen minute increments relative to critical time.

The confliction bar icon displays move route as graphical depiction of conflicted and non-conflicted route segments including start point, control points, intersections, and end point. Plain green bars indicate no conflict for that route segment or section. Plain red bars indicate a conflict on this route segment or section. Labels on confliction bar are abbreviated to **SP** for start point, **RP** for release point, and **CPx** for check points. Intersections are displayed with a label of **X**. Every conflicting intersection on route is displayed. Intersections are not user sizable but sizes are determined by column length and rate of travel of slowest segment to either side of intersection. Pass times through intersections are recalculated each time confliction bar is updated via the **Calculate** button. The delay at the control point or the speed on the route segment can be changed by dragging the right edge of the desired section in the confliction bar. When the right edge is dragged, the section is visually resized in the direction of drag and all other sections in the confliction bar are shifted left or right as appropriate relative to the critical point (**Start Point** or **End Point**).

The **conflicting route section list** displays route sections of conflicting routes in same manner as the confliction bar, however displayed routes are not editable. The **Displayed** routes correspond to unit IDs listed in the **Conflicting Units** list. The **Override Conflicts** button gathers any changes from the form, sets route deconfliction flag, and closes the form. The **Calculate** button gathers any changes from the form, rechecks the move for conflicts with other unit moves, and re-displays the conflictions bar(s) and number of conflicts.

6-24.13 Approve\Deny Move and Approval Status.

The **Approve\Deny Move** window allows the user to approve or deny the unit move using the **Move is: (Approved or Denied)** option menu. After a unit move has been approved or denied, this window is view only. When this window is accessed from the **Approval Status** selection, the title of this window changes to **Move Approval Status**.

NOTE

When the Move is Approved or Denied, accompanying text may be entered in the Description field.

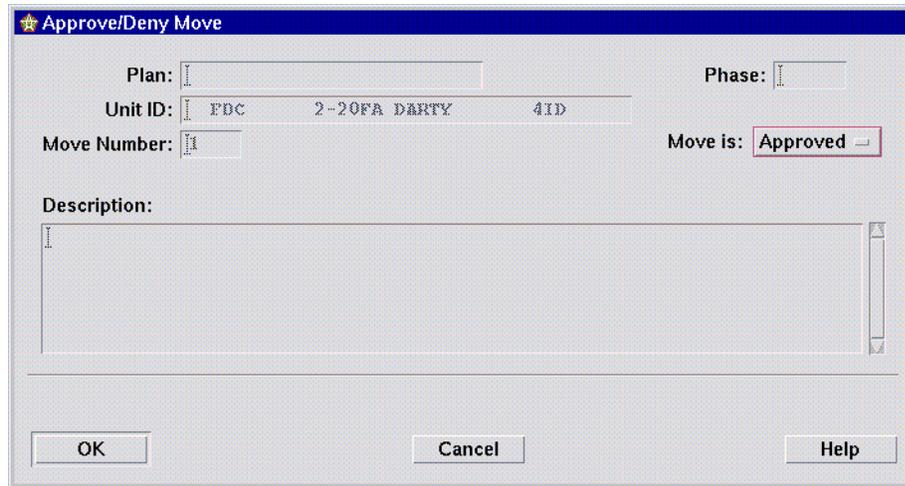


Figure 6.30 Approve\Deny Move Window

6-24.14 Move Order Instruction Window.

The **Move Order Instruction** window allows the user to view and edit textual move order instructions. The initial fields of the window identify the **Text:**, **Plan:**, **Heading Title:**, **Map Series:**, **Issuing HQ:**, **Place of Issue:**, **Classification:**, **DTG:**, and **Time Zone Used:** of the instructions.

The **Paragraphs** field lists the paragraphs applicable to a move order: **Situation**, **Mission**, **Execution**, **Service Support**, and **Command and Signal**. The contents of each of these paragraphs can be edited, only when the Move is in a request state, by selecting the desired paragraph and the selecting the **Edit** button. This opens the **Paragraph Text** window which displays the contents of the selected paragraph. A paragraph can be copied from an existing plan by first selecting the **Paragraph** and then selecting the **Copy From...** button. This opens the **Select Plan** window from which a plan can be selected to copy the paragraph from.

The **Revert...** button is used to revert the **Move Order Instruction** information to the last version saved and discards any changes made to the current window. The **Move Order Instruction** information can be sent to another unit by selecting the **Send...** button which opens the **Send To** window. The **Send To** window allows selection of a unit and corresponding distribution list. The **Print...** button opens the **Print Settings** window to choose the print parameters. This window is view only when in the Move Order state.

Move Order Instruction

Text: Plan:

Heading Title:

Map Series:

Issuing HQ:

Place of Issue:

Classification:

DTG: Time Zone Used:

Paragraphs

- Situation**
- Mission
- Execution
- Service Support
- Command and Signal

Footing

Figure 6.31 Move Order Instruction Window

6-24.15 Paragraph Text Window.

The **Paragraph Text** window allows the user to view and edit the paragraph selected from the **Move Order Instruction** window.

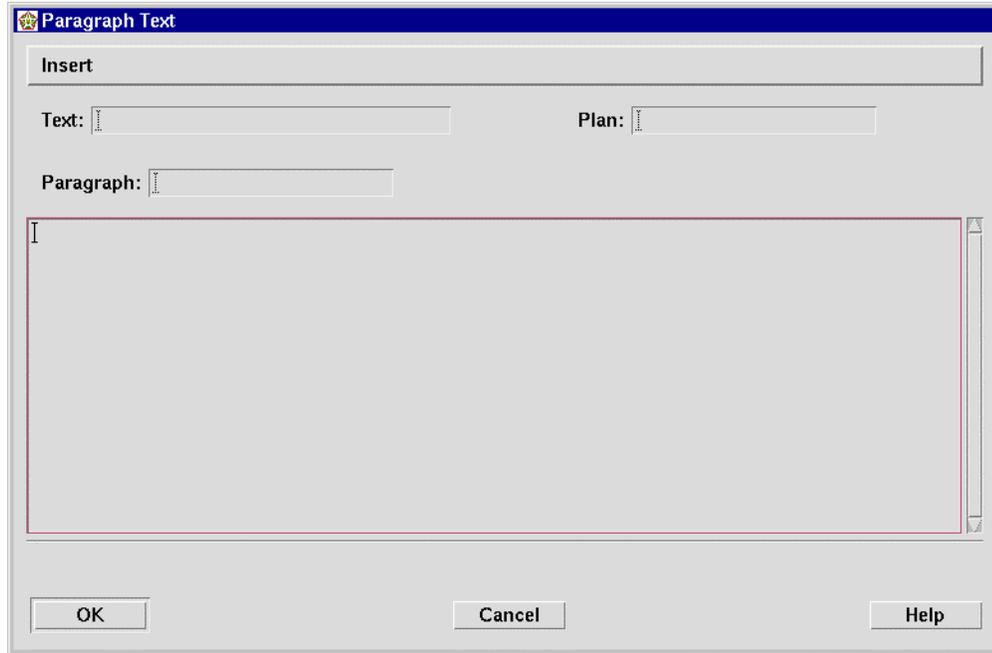


Figure 6.32 Paragraph Text Window

6-24.16 Moves Procedure.

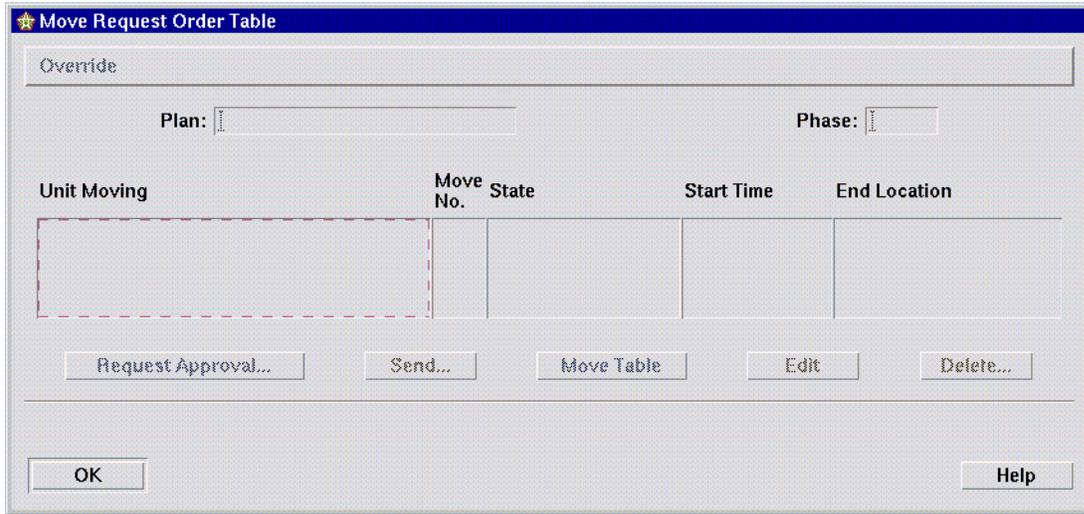
This procedure details the steps necessary to create, edit, or delete a unit move. The starting point in this procedure is dependent upon the initial selection. The selection starting points are:

- Unit symbol - **Create Move Req** step 1
- Unit symbol - **Moves** step 2
- Units\Moves...** selection step 3
- Move\Unit Moves Table** step 6

Moves Procedure		
Step	Action	Response
1.	Select Create Move Req from unit symbol. Proceed to step 32.	Unit Move window opens.

Moves Procedure - CONT

Step	Action	Response
2.	<u>Select Moves</u> from unit symbol. Proceed to note prior to step 25.	Display Moves window opens.
3.	<u>Select Units\Moves...</u>	Select Unit window opens.
4.	<u>Select unit</u> for which moves are to be displayed.	
5.	<u>Select OK</u> . Proceed to note prior to step 25.	Display Moves window opens.
6.	<u>Select Move\Unit Moves Table</u> .	Move Request Order Table window opens.



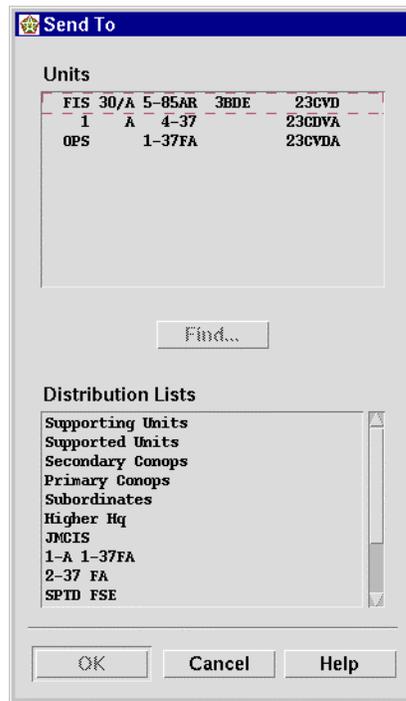
NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **Move Request Order Table** window, proceed to the indicated steps.

- Delete...** a move step 7
- Request Approval...** for a move step 11
- Send...** a move step 16
- Open **Move Table** for a move step 21
- Edit** a move step 23

Moves Procedure - CONT

Step	Action	Response
7.	<u>Select move</u> to be deleted.	
8.	<u>Select Delete...</u>	Confirm Delete window opens.
9.	<u>Select Delete.</u>	Confirm Delete window closes. Move is deleted from list and database.
10.	To perform other functions of Move Request Order Table window, refer to note prior to step 7.	
11.	<u>Select move</u> for request.	
12.	<u>Select Request Approval....</u>	Send To window opens.



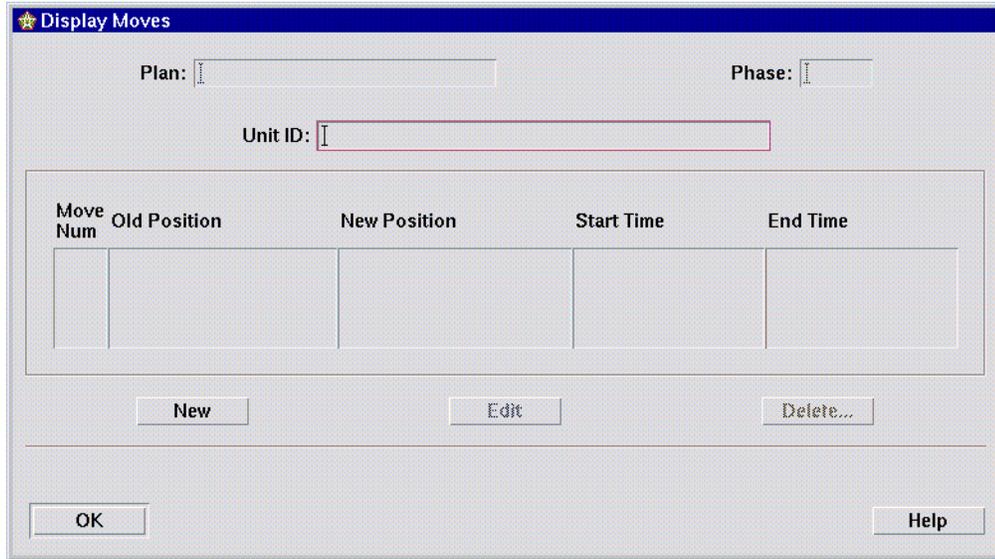
13. | Select destination(s) for request. |

Moves Procedure - CONT

Step	Action	Response
14.	<u>Select OK</u> .	Send To window closes. Request is transmitted to destination.
15.	To perform other functions of Move Request Order Table window, refer to note prior to step 7.	
16.	<u>Select move</u> to send.	
17.	<u>Select Send...</u>	Send To window opens.
18.	<u>Select destination(s)</u> of move.	
19.	<u>Select OK</u> .	Send To window closes. Request is transmitted to destination.
20.	To perform other functions of Move Request Order Table window, refer to note prior to step 7.	
21.	<u>Select move</u> .	
22.	<u>Select Move Table</u> . Proceed to note prior to step 66.	Move Table window opens.
23.	<u>Select move</u> to edit.	
24.	<u>Select Edit</u> . Proceed to step 32.	Unit Move window opens.

Moves Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **Display Moves** window, proceed to the indicated steps.

- Delete...** a move step 25
- Create a **New** move step 29
- Edit** a move step 30

25.	<u>Select move</u> to delete.	
26.	<u>Select Delete...</u>	Confirm Delete window opens.
27.	<u>Select Delete</u> .	Confirm Delete window closes. Move is deleted from list and database.
28.	To perform other functions of Display Moves window, refer to note prior to step 25.	
29.	<u>Select New</u> . Proceed to step 32.	Unit Move window opens.

Moves Procedure - CONT

Step	Action	Response
30.	<u>Select move</u> to edit.	
31.	<u>Select Edit</u> .	Unit Move window opens.

NOTE

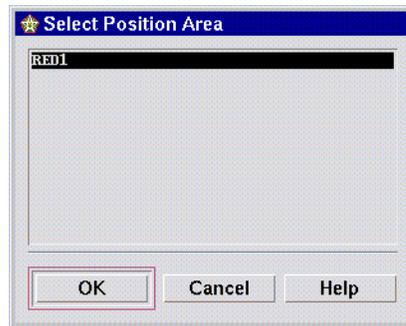
Selecting **OK** at any time closes this window. To perform the following functions of the **Unit Move** window, proceed to the indicated steps.

Enter move requirement data step 32

32.	<u>Enter Start Location</u> :
33.	<u>Enter End Location</u> :
34.	<u>Select Absolute</u> or <u>H-Hour</u> radio button.

Moves Procedure - CONT

Step	Action	Response
35.	<u>Enter Critical Time</u> : in DTG format for Absolute or in +/- format for H-Hour.	
36.	<u>Select Start Point or Release Point</u> from the Time out of: option menu.	Window indicates Time Out Of Start Point or Time Into Release Point .
37.	<u>Enter H-Hour(DTG)</u> :	
38.	<u>Enter Az of Fire/Search (mils)</u> : (0-6400).	
39.	<u>Select Position Area</u> : (Proceed to note prior to step 42 if Position Area not selected.	Select Position Area window opens.



40.	<u>Select position area</u> from list.	
41.	<u>Select OK</u> .	Select Position Area window closes.

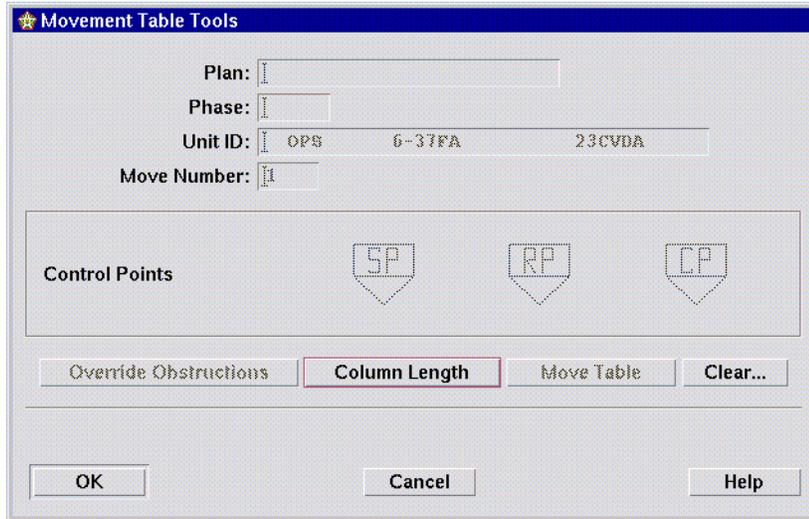
NOTE

Selecting **OK** on the **Unit Move** window at this point completes the creation of a move requirement. To complete the move request, proceed with step 42.

42.	<u>Select Next</u> .	Movement Table Tools window opens.
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Moves Procedure - CONT

Step	Action	Response
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NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **Movement Table Tools** window, proceed to the indicated steps.

- Establish route step 43
- Set Column Length step 58
- Override Obstructions step 62
- Display **Move Table** step 65

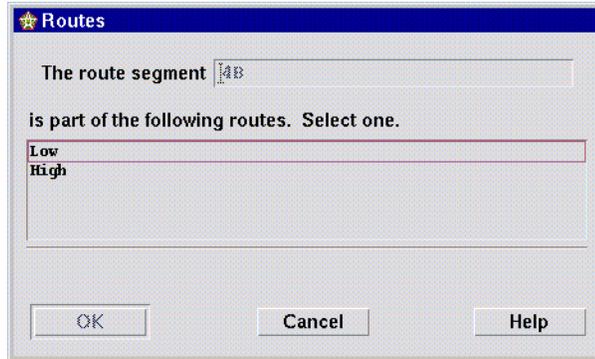
- | | |
|--|---|
| 43. <u>Select route or first route segment from map.</u>
Use Shift-Ctrl button. | Selected route segment or route is bolded.
Start point (SP) icon is enabled. |
|--|---|

NOTE

The **Routes** window will open if the selected route segment is part of two or more existing routes. Choose the desired route from the list and then select **OK** to close the window.

Moves Procedure - CONT

Step	Action	Response
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44.	<u>Select next non-bolded Route Segment to be used for move.</u> (Must intersect current move route).	Segment is bolded.
45.	<u>Repeat step 44 as required to construct movement route.</u>	Segment is bolded.

NOTE

A **Start Point** and a **Release Point** must be specified for the movement route. **Check Points** may be added as required after the **Start Point** and **Release Points** are designated. To perform the following functions of the **Route Control Points**, proceed to the indicated steps. Selecting **OK** at any time closes this window.

Establish Start Point	step 46
Delete Check Point	step 53
Establish Release Point	step 58
Establish Check Point	step 61

Once you have created the Start Point, you can no longer construct the movement route.

46.	<u>Select Start Point (SP) icon on the Movement Table Tools window.</u>	Route Control Point Data window opens.
-----	---	---

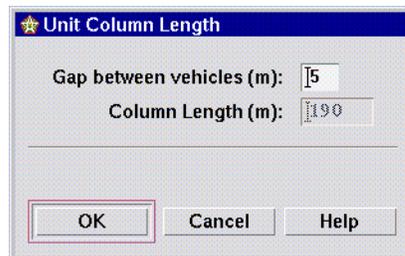
Moves Procedure - CONT

Step	Action	Response
------	--------	----------

- | | | |
|-----|---|---|
| 47. | <u>Enter the Control Point Location:</u> either directly or by using the map clipboard to paste in the location. | |
| 48. | <u>Enter Delay at Control Point (min):</u> (0-1440). | |
| 49. | Check Report if desired. | |
| 50. | <u>Enter control point Description:</u> | |
| 51. | <u>Select OK.</u> | Route Control Point Data window closes.
Data is saved. |
| 52. | To perform other functions of Route Control Point Data window, refer to note prior to step 46. | |
| 53. | <u>Select Control Point symbol on map.</u> | |
| 54. | <u>Select Edit from map pop-up menu.</u> | Route Control Point Data window opens. |

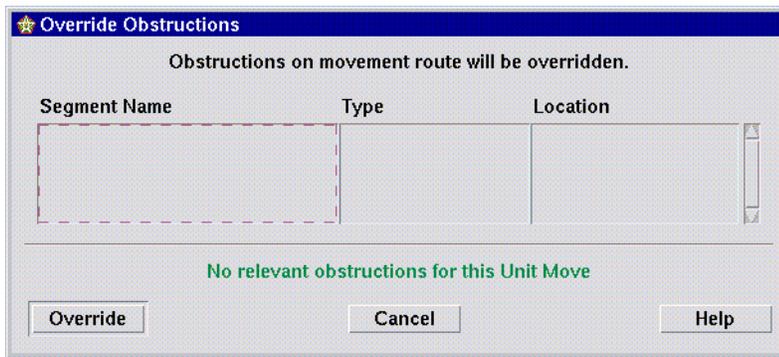
Moves Procedure - CONT

Step	Action	Response
55.	<u>Select Delete...</u>	Confirm Delete window opens to confirm deletion of control point.
56.	<u>Select Delete</u> .	Confirm Delete window closes and Movement Table Tools window is displayed.
57.	To perform other functions of Route Control Point Data window, refer to note prior to step 46.	
58.	<u>Select Release Point (RP) icon on Movement Table Tools window.</u>	Route Control Point Data window opens.
59.	Repeat steps 47 thru 52 for the release point (RP).	
60.	<u>Select Check Point (CP) icon on Movement Table Tools window.</u>	Route Control Point Data window opens.
61.	Repeat steps 47 thru 52 for each check point (CP).	
62.	To perform other functions of Route Control Point Data window, refer to note prior to step 46.	
63.	<u>Select Column Length button on Movement Table Tools window to set column length.</u>	Unit Column Length window opens.



Moves Procedure - CONT

Step	Action	Response
64.	Enter Gap between vehicles (m) : (Tab or click out to update/recalculate the column length field).	Column Length (m) field adjusts column length according to value entered in Gap between vehicles (m) .
65.	Select OK .	Unit Column Length window closes and Movement Table Tools window is displayed.
66.	To perform other functions of Route Control Point Data window, refer to note prior to step 43.	
67.	Select Override Obstructions button to override any obstructions on the route.	Override Obstructions window opens.



68.	Select Override button to override listed obstructions.	Override Obstructions window closes and Movement Table Tools window is displayed.
69.	To perform other functions of Route Control Point Data window, refer to note prior to step 43.	
70.	Select Move Table .	Move Table window opens.

Moves Procedure - CONT

Step	Action	Response
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Segment Name / CP	Time On	Time Off	Speed Delay
Start Point	A	N/A	N/A 10
4A	13102May01	191346ZMay01	30 N/A
4B	1346ZMay01	191402ZMay01	30 N/A
4C	1402ZMay01	191422ZMay01	30 N/A
Release Point	A	N/A	N/A 0

NOTE

Selecting **OK** at any time closes this window. To perform the following functions of the **Move Table** window, proceed to the indicated steps.

- Open **March Table** step 71
- Deconflict Position step 77
- Deconflict Route step 81
- Move Order Instruction step 92
- Deny/Approve Move step 118
- View Approval Status step 123

71. Select Options\March Table.

March Table window opens.

Moves Procedure - CONT

Step	Action	Response
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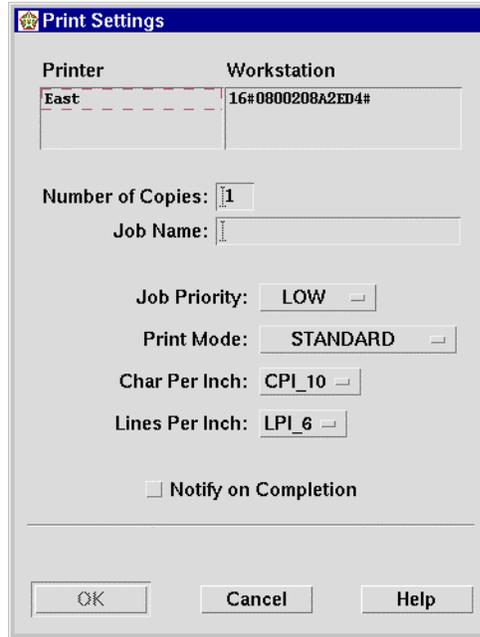
NOTE

Selecting **OK** at any time closes this window and activates the **Move Table** window. To perform other functions of **Move Table** window after closing this window, refer to note prior to step 71. The only function that is performed from the **March Table** is **Print...**. To print the **March Table** data, proceed to step 72.

72.	Select <u>Print...</u>	Print Settings window opens for setting print parameters.
-----	------------------------	--

Moves Procedure - CONT

Step	Action	Response
------	--------	----------



73. Set print parameters.

74. Select **OK**.

75. Select **OK**.

76. To perform other functions of **Move Table** window, refer to note prior to step 66.

77. Select **Options\Deconflict Position** to deconflict unit position.

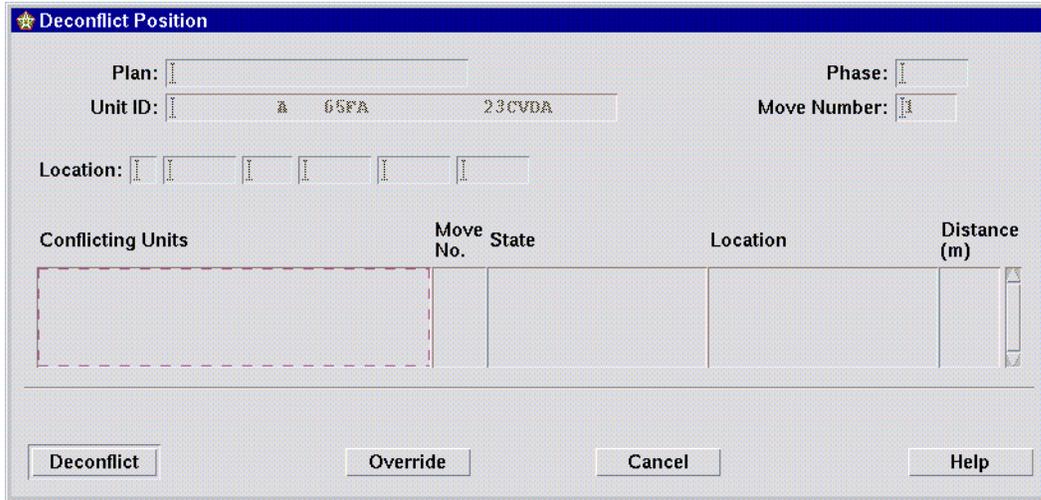
Print Settings window closes. Print job sent to printer.

March Table window closes.

Deconflict Position window opens.

Moves Procedure - CONT

Step	Action	Response
------	--------	----------



NOTE

If no position conflicts are listed, select **Cancel** to close this window. To override position conflicts without deconflicting the unit's position, select the **Override** button.

- | | | |
|-----|---|--|
| 78. | <u>Enter Location:</u> | The Location: field is only enabled when a conflict exists with another unit's location and this unit's location. |
| 79. | <u>Select Deconflict</u> to deconflict the unit move using the new location. | If a conflict still exists with another unit's position this window remains open. If no further conflicts exist, this window closes and the Move Table window is displayed. |
| 80. | To perform other functions of Move Table window, refer to note prior to step 71. | |
| 81. | <u>Select Options\Deconflict Route.</u> | Deconflict Route window opens. |

Moves Procedure - CONT

Step	Action	Response
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NOTE

To perform the following functions, proceed to the indicated steps.

- Adjust time segment step 82
- Calculate conflicts step 83
- Enter Critical Time step 86
- Override Conflicts step 90

NOTE

If no route segment conflicts are listed, select **Cancel** or **OK** to close this window. When the unit move is fully deconflicted, no **Conflicting Units** are listed and the confliction bar shows no red marks.

If unable to satisfactorily deconflict the unit move, adjust the **Column Length** as described under the **Move Table** window, then return to the **Deconflict Route** window and attempt to deconflict the move.

Moves Procedure - CONT

Step	Action	Response
82.	<u>Adjust the time on a route segment or the delay at a control point</u> by dragging the right edge of the route segment or control point in the direction desired (dragging to the right extends the time on the route segment or control point; dragging to the left reduces the time).	The Unit Confliction bar is resized in the direction of the drag.
83.	<u>Select Calculate</u> .	Route segment conflicts are recalculated and the confliction bars are updated.
84.	<u>Repeat previous two steps as needed</u> to deconflict the unit move.	When unit move is fully deconflicted, no Conflicting Units are listed and the unit confliction bar shows no red marks.
85.	To perform other functions of Deconflict Route window, refer to note prior to step 82.	
86.	<u>Select Time out of:</u>	
87.	<u>Enter Critical Time:</u>	
88.	<u>Select Calculate button.</u>	Route segment conflicts are recalculated and the confliction bars are updated.
89.	To perform other functions of Deconflict Route window, refer to note prior to step 82.	
90.	<u>Select Override Conflicts button.</u>	Deconflict Route window closes and Move Table window is displayed.
91.	To perform other functions of Deconflict Route window, refer to note prior to step 82.	
92.	<u>Select Options\Move Order Instruction from Move Table window.</u>	Move Order Instruction window opens.

Moves Procedure - CONT

Step	Action	Response
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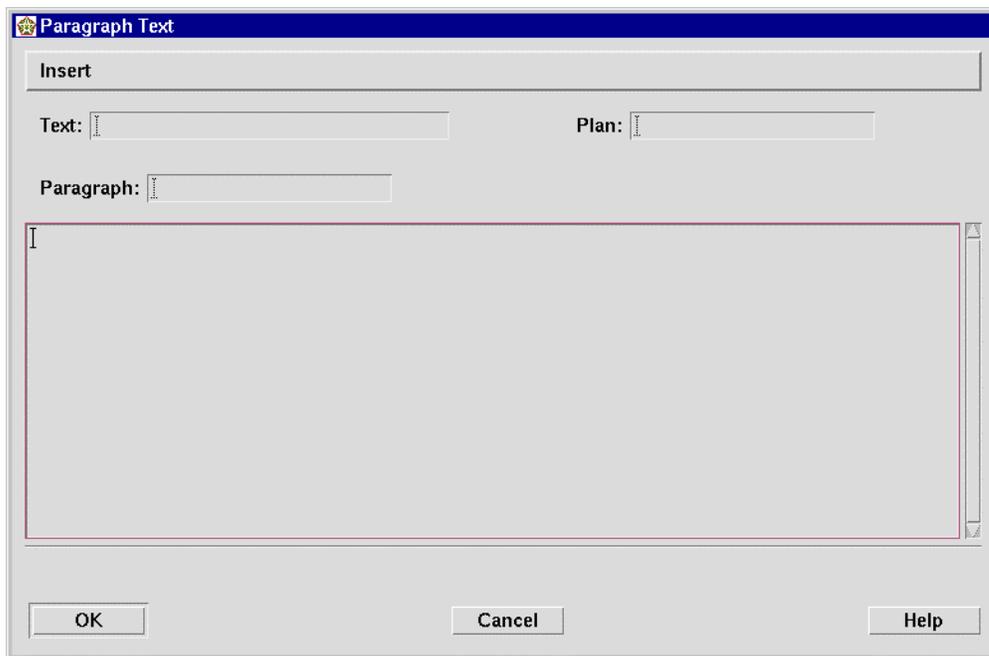
NOTE

To perform the following functions, proceed to the indicated steps.

- Enter window data step 93
- Edit Paragraph step 100
- Copy Paragraph step 105
- Send move order instruction step 108
- Revert to previous MOI version step 111
- Print Move Order Instruction step 114

Moves Procedure - CONT

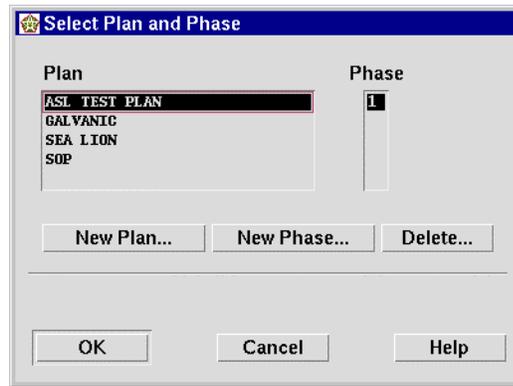
Step	Action	Response
93.	<u>Enter the Heading Title:</u>	
94.	<u>Enter Map Series:</u>	
95.	<u>Enter Issuing HQ:</u>	
96.	<u>Enter Place of Issue:</u>	
97.	<u>Enter Classification:</u>	
98.	<u>Enter DTG:</u>	
99.	<u>Enter Time Zone Used:</u>	
100.	<u>Select Paragraph to edit.</u>	
101.	<u>Select Edit.</u>	Paragraph Text window opens.



102. Enter move instruction text.

Moves Procedure - CONT

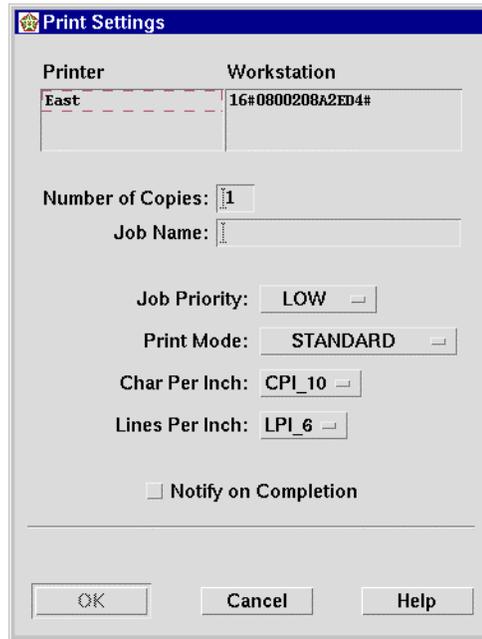
Step	Action	Response
103.	Select OK when finished with window.	Paragraph Text window closes.
104.	To perform other functions of the Move Order Instruction window, refer to note prior to step 93.	
105.	Select Paragraph to copy and then select Copy From... to copy the selected Paragraph from another plan.	Select Plan and Phase window opens.



106.	Select desired Plan and Phase and then select OK .	Select Plan and Phase window closes and paragraph is copied from selected plan.
107.	To perform other functions of the Move Order Instruction window, refer to note prior to step 93.	
108.	Select Send...	Send To window opens.
109.	Select destination Unit and then select OK .	Send To window closes and move instructions are sent to selected destination unit. Move Table window is displayed.
110.	To perform other functions of the Move Order Instruction window, refer to note prior to step 93.	
111.	Select Revert ... button.	Confirm Revert window opens.

Moves Procedure - CONT

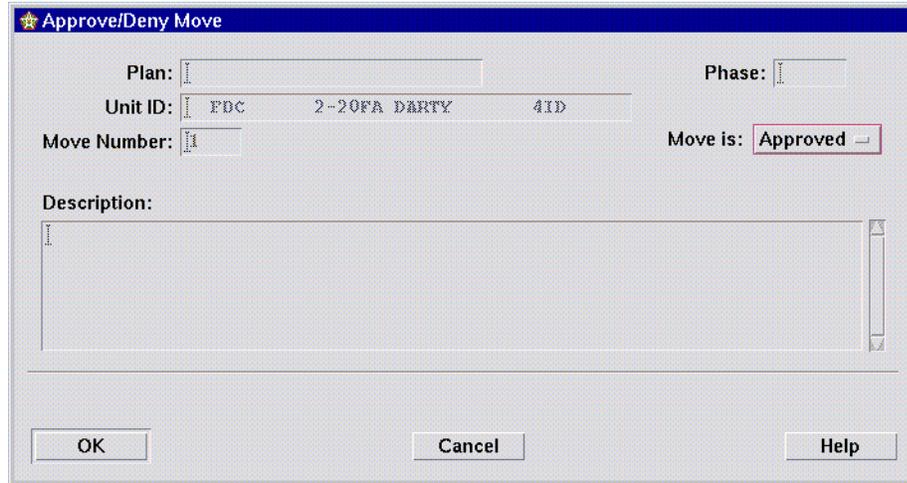
Step	Action	Response
112.	<u>Select Revert button.</u>	Move order instruction reverts to previous version, canceling any changes made to current version.
113.	To perform other functions of the Move Order Instruction window, refer to note prior to step 93.	
114.	<u>Select Print...</u>	Print Settings window opens for configuring printing.



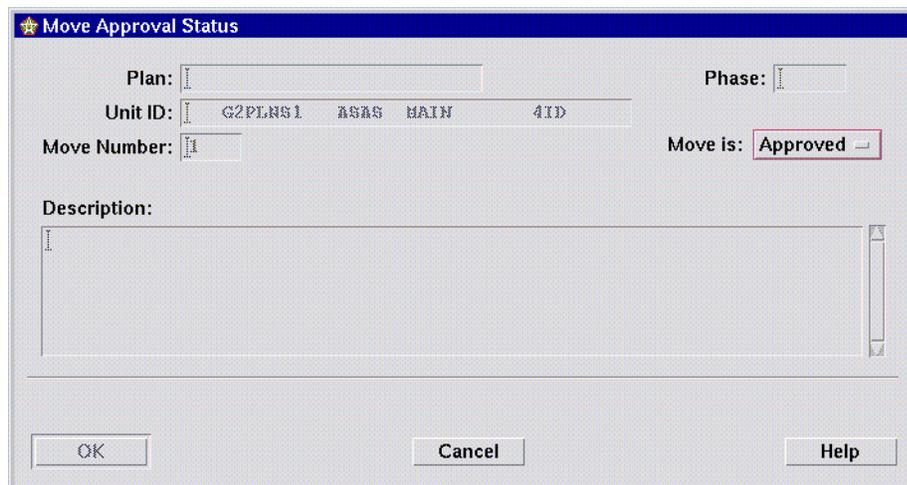
115.	<u>Select OK.</u>	Print Settings window closes.
116.	To perform other functions of the Move Order Instruction window, refer to note prior to step 93.	
117.	To perform other functions of the Move Table window, refer to note prior to step 71.	
118.	<u>Select Options\Deny/Approve.</u>	Approve/Deny Move window opens.

Moves Procedure - CONT

Step	Action	Response
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- | | |
|--|---|
| 119. <u>Select Move is:</u> (Approved or Denied). | |
| 120. <u>Enter Description:</u> (If applicable). | |
| 121. <u>Select OK.</u> | Approve/Deny Move window closes. |
| 122. To perform other functions of the Move Table window, refer to note prior to step 71. | |
| 123. <u>Select Options\Approval Status.</u> | Move Approval Status window opens. |



Moves Procedure - CONT

Step	Action	Response
124.	<u>Select OK.</u>	Move Approval Status window closes and Move Table window is displayed.
125.	To perform other functions of the Move Table window, refer to note prior to step 71.	
126.	<u>Select OK</u> when finished with Move Table .	Move Table window closes.

6-25 ROUTES AND ROUTE SEGMENTS.

Routes and Route Segments identify the roadways contained on the battlefield. Routes are comprised of one or more segments and a segment may be a part of multiple Routes. Segments are not required to be part of a Route.

Construction of a Route Segment is basically the same as that for a Line Geometry. The segments can be connected to each other to form a continuous path. Segments can also have obstructions and intersections that are associated with the segment.

Obstructions on a segment are also displayed as map symbols. Refer to appendix E for description of symbols.

6-25.1 Moves Window Navigation.

The navigation information provided in this paragraph concerns the creation, deletion, and editing of route components. The **Delete...**, **Description**, and **Edit** selections contained in the segment map-symbol pop-up menu allow direct access to the windows for the selected segment. Route information is only available using the menu bar.

The **Move** selections from the main menu allow the user access to routes and segments. The **New Route Segment...** and **New Route...** selections cascade from the **Move\Routes and Route Segments** selection. Each of these selections open a window containing the title of the selection. The user enters the name of the new route or segment and selects **OK** to close the window and begin construction of the new item.

The **New Route** and **New Route Segment** windows are also accessed via the **Select Route** or **Select Route Segment** window. These windows are accessed by choosing **Move\Routes and Route Segments** and then **Edit** from the cascade. Choosing **Edit** opens the **Select Route Segment** window. The user then selects the routes or segments button and **NEW** to open the appropriate **New Route** or **New Route Segment** window.

The **Route Identification** window identifies a route as a series of segments. This window is accessed from the **New Route** window or the **Select Route** window via the **Edit (Route)** selection.

The **Route Segment Information** window is the first window used in the construction of a segment. This window opens upon the completion of the **New Route Segment** window. Selecting **Coordinates** from the **Route Segment Information** window also opens the **Edit Route Segment** window to edit coordinates of an existing segment.

Completion of the **Edit Route Segment** window for a new segment returns the user to the **Route Segment Information** window. The user uses this window to enter descriptive information for the segment and to access the **Obstructions** and **Intersections** window. Selecting **Edit** from the segment map symbol or from the **Select Route Segment** window also opens the **Route Segment Information** window to edit an existing segment.

Selecting **Intersections** from the **Route Segment Information** window opens the **Intersections** window for editing intersections on the route segment.

Selecting **Obstructions** from the **Route Segment Information** window opens the **Obstructions** window. This window lists obstructions on the segment and allows access to the **Obstruction Information** window for creation, deletion, and/or editing obstructions.

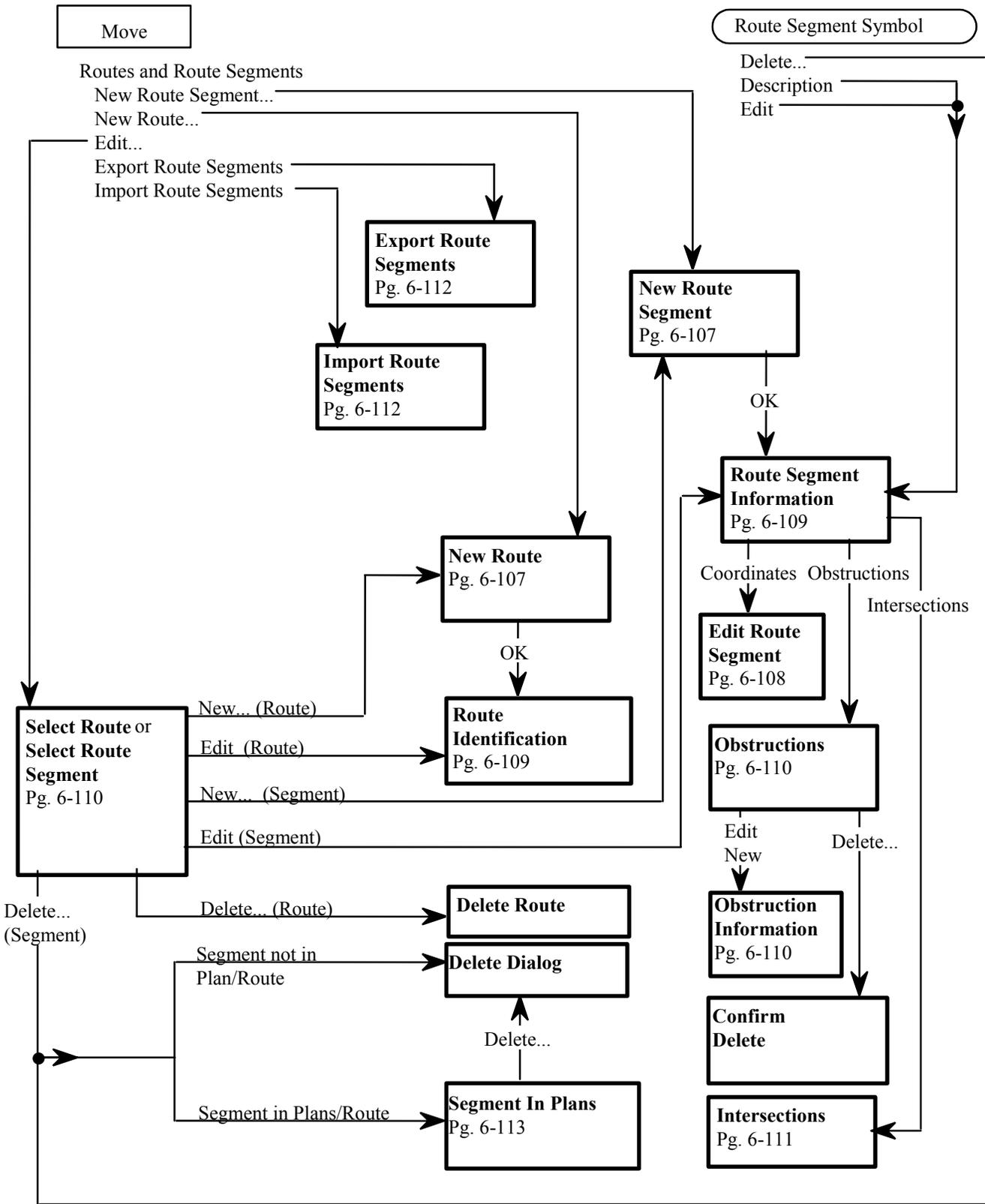
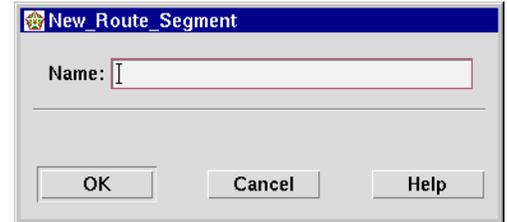


Figure 6.33 Moves Window Navigation

6-25.2 New Route Segment Window.

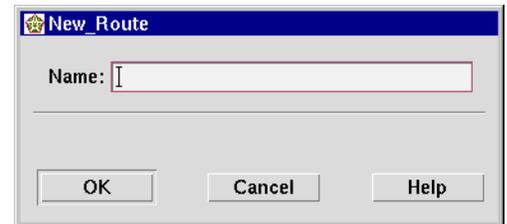
The **New Route Segment** window is used to assign a name for a route segment. This window opens when the user initiates the construction of a new segment. The **Move\Routes and Route Segments\New Route Segment...** selection is the most direct access to this window. Selecting **Route Segments** and **New...** from the **Select Route Segment** window also opens the **New Route Segment** window.



The user enters the **Name:** of the new segment and selects **OK** to close this window and open the **Route Segment Information** window. A message appears if the entry is not legal or if the entry duplicates an existing name. Selecting **Cancel** closes the window without saving entered information.

6-25.3 New Route Window.

The **New Route** window is used to assign a name to a route under construction. This window opens when the user initiates the construction of a new route. The **Move\Routes and Route Segments\ New Route...** selection is the most direct access to this window. Selecting **Route** and **New...** from the **Select Route** window also opens the **New Route** window.



The user enters the **Name:** of the new route and selects **OK** to close this window and open the **Route Identification** window. A message appears if the entry is not legal or if the entry duplicates an existing name. Selecting **Cancel** closes the window without saving entered information.

6-25.4 Edit Route Segment Window.

The **Edit Route Segment** window is used to enter and or edit the coordinates of a route segment. Selection of the **Coordinates** button on the **Route Segment Information** window. This access is used each time a new segment is created and is also available any time the **Route Segment Information** window is open.

The **Plan:**, **Phase:**, and **Segment Name:** fields are not editable. Information for these fields is supplied by the database. The **Plan:** and **Phase:** fields indicate the plan and phase for which the segments are being constructed. The fields are not applicable in the current situation.

The location fields accept the standard location inputs. The coordinate location may be entered directly into the fields or selected from the map display. A coordinate is edited by selecting the line for the coordinate and entering or selecting the new coordinates of the point.

The **Insert Before** button allows the user to choose a coordinate from the list and insert a new coordinate at that point. Selecting a coordinate, pressing **Apply**, and **Insert Before** moves the selected coordinate and all following coordinates down one (1) position on the list. The new coordinates are then entered by direct entry or map selection.

The **Delete** button allows the user to remove a coordinate point from the list. The point to be removed is selected from the list, **Apply** is pressed, and **Delete** selected. All points in the list below the deleted point will move up one position in the list. The map then displays the segment with the point removed.

The **Reverse Locations** button allows the user to reverse the order of listed **Locations**. This function is used for construction of lines, such as the FLOT, where the direction affects the display of the line. Route segment display is not affected by the direction of the listed coordinates. There is one instance that the user may find the **Reverse Locations** button useful for editing segments. If multiple points are to be added to the start point of the segment, the user may reverse the **Locations** list and add the points to the end of the list in the same manner as construction of a segment. This will be much faster than multiple **Insert Before** functions.

The screenshot shows the 'Edit Route Segment' dialog box. At the top, there are three input fields: 'Plan:', 'Phase:', and 'Segment Name:'. The 'Segment Name' field contains the value '190'. Below these fields is a table with the following data:

Locations					
1:	5	05395	034	41501	500 14
2:	6	04000	034	43000	350 14
3:	6	17000	034	43500	400 14
4:	6	33000	034	39500	300 14
5:					

Below the table are four buttons: 'Insert Before', 'Delete', 'Reverse Locations', and 'Close Line'. At the bottom of the dialog are four buttons: 'OK', 'Apply', 'Cancel', and 'Help'.

6-25.5 Route Segment Information Window.

The **Route Segment Information** window contains the descriptive information for a segment. This window is used to enter and or edit the information for a route segment including obstructions and intersections. This window is accessed from the **Select Route Segment** window **Edit** button or from the route segment symbol **Edit** or **Description** menu item selection.

The **Obstructions** button opens the **Obstructions** window for editing obstructions on the route segment. The **Intersections** button opens the **Intersections** window for editing intersections on the route segment.

The **Coordinates** button opens the **Edit Route Segment** window for editing the locations of the coordinate points.

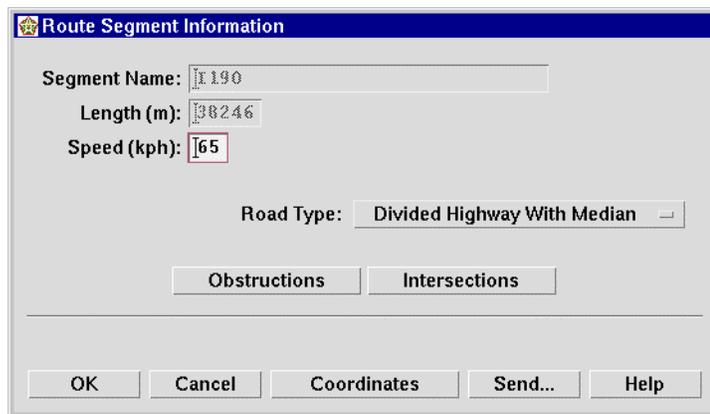
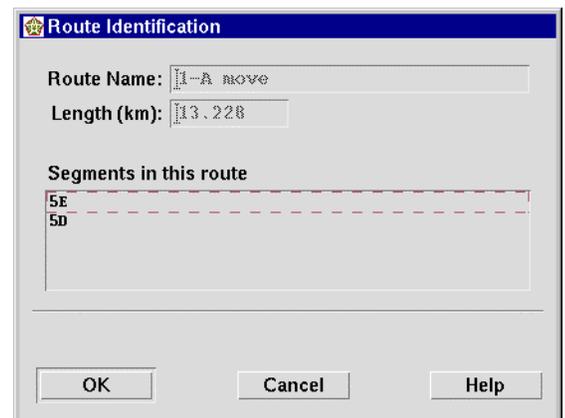


Figure 6.34 Route Segment Information Window

6-25.6 Route Identification Window.

This window is accessed from **New Route** window **OK** button, or from the **Select Route** window **Edit** button. The **Route Identification** window displays the route segments which make up the route. Routes are built by selecting desired route segments on the map. The user places the cursor on the route segment to be added. He depresses Shift+Alt (on Keyboard) simultaneously and presses the Left button on the trackball. The segment becomes highlighted. As segments are added to the route, they are added to Segments in this Route and the Length field is updated. Segments are removed from the route by clicking on the last highlighted segment on the map. The **Route Name** field identifies the name of the route.



The **Length** field displays the segment length in kilometers. Length is calculated and updated as segments are added to route.

The **Segments in this route** list displays a list of segment names that make up route.

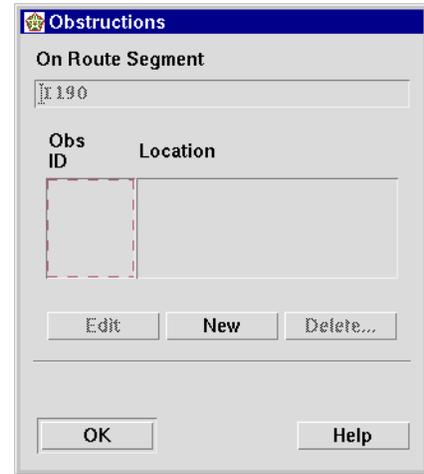
6-25.7 Obstructions Window.

The **Obstructions** window displays a list of all obstructions on a given route segment. The obstruction (**Obs**) **ID** and **Location** are displayed in the list. The user may create a new obstruction on the route segment or select an obstruction from the list to edit or delete.

The **Edit** button is used to edit a selected obstruction on a route segment.

The **New** button is used to create a new obstruction on the route segment.

The **Delete...** button opens the **Confirm Delete** window for confirmation of removal of the obstruction from the route segment. The **On Route Segment** field displays the name of the route segment containing obstructions.

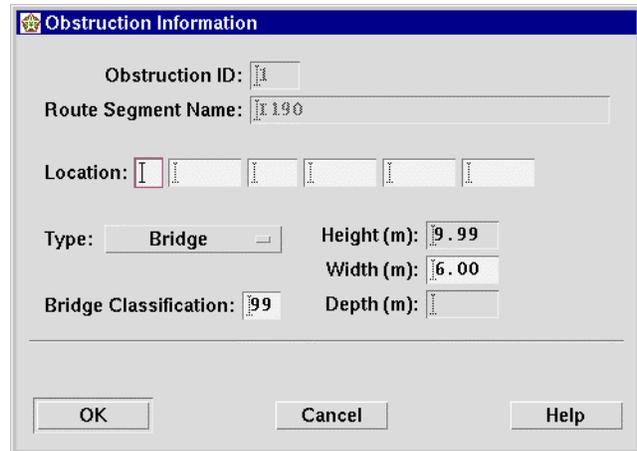


The **Obs ID** list is a selectable list of obstruction identification numbers (1 to 15).

The **Location** list displays a list of obstruction grid locations.

6-25.8 Obstruction Information Window.

This window is accessed from the **Obstructions** window **Edit** or **New** selections. The **Obstruction Information** window is used to create or edit information for an obstruction on a route segment. The **Obstruction ID:** field displays an identification number which is automatically assigned. The **Route Segment Name:** displays the name of the route segment and the **Location:** fields specify the grid location of the obstruction. The **Type:** option menu displays the type of obstruction and the **Height (m):**, **Width (m):**, and **Depth (m):** fields specify the dimensions of the obstructions. The **Bridge Classification:** field shows the bridge classification in weight limit for safe transport of vehicles across the bridge.



6-25.9 Select Route or Select Route Segment Windows.

This window is accessed from the **Move\Routes and Route Segments\Edit...** selection on the map menu bar. The **Select Route** or **Select Route Segment** window allows the user to view and maintain all route segments in the OPFAC. The user may create, edit, or delete route segments and routes.

Selecting the **Route Segments** radio button causes route segment names to be entered in the **Name** list.

Selecting the **Routes** radio button causes route names to be displayed in the **Name** list and changes the title of the window to **Select Route**.

The **New...** button opens the **New Route** or **New Route Segment** window in order to name segment or route.

The **Edit** button is enabled when a route or a route segment is selected from the list. When a route is selected the **Edit** button opens the **Route Identification** window for viewing segments within route. When a route segment is selected the **Edit** button opens the **Route Segment Information** window for viewing or editing route segments.

The **Delete...** button opens the **Delete Dialog** or **Delete Route** window if the selected route segment is not part of a route or if an entire route is selected. If the route segment is part of a route, or move route, the **Segment in Plans** window is opened for viewing the routes that the route segment is part of.

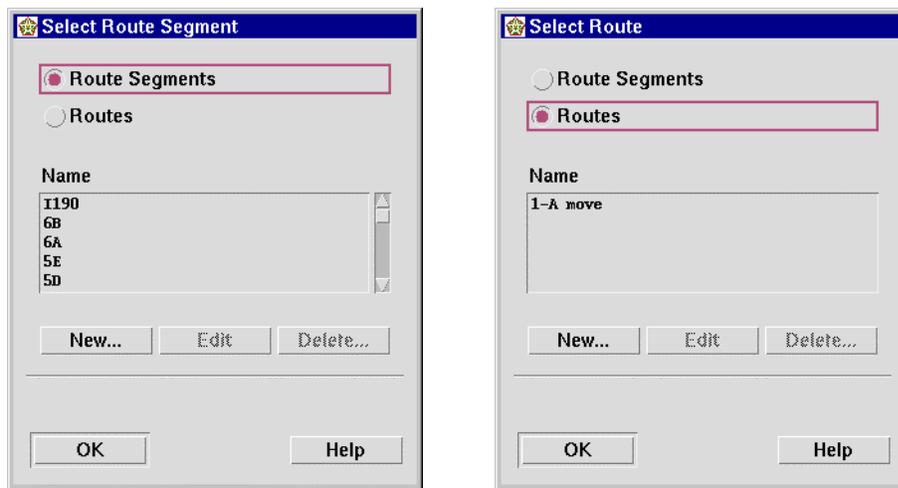
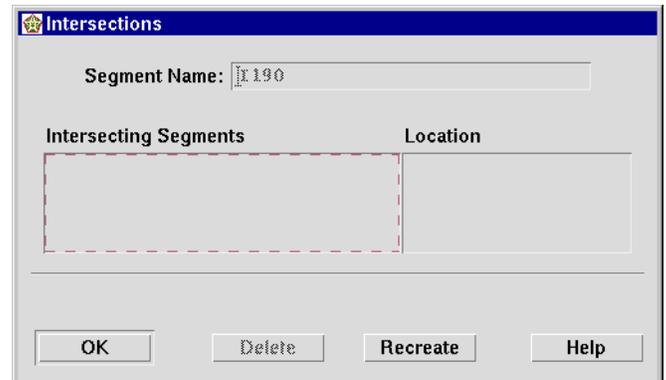


Figure 6.35 Select Route or Select Route Segment Windows

6-25.10 Intersections Window.

This window is accessed from the **Route Segment Information** window **Intersections** selection. The **Intersections** window is used to allow the user to remove intersections from specified route segments. Intersections are created automatically whenever two route segments touch, and this window is used to remove unwanted intersections.



The **Segment Name:** field displays the name of the segment. The **Recreate** button causes all intersections for the route segment to be recalculated and the intersection list is re-displayed. One or more intersections can be selected and removed from the route segment using the **Delete** button. The **Intersecting Segments** list and the **Location** list displays all of the intersections and their locations for a specified route.

6-25.11 Import\Export Route Segments Windows.

The **Import Route Segments** and **Export Route Segments** windows are opened from the **Move\Routes and Route Segments\Export Route Segments** and **\Import Route Segments** selections. This window provides the functionality to export or import entire data sets of route segment information. The default button **Import/Export** changes appropriately with the window title. Workstations with removable media attached are displayed in the **Archive Device** list with their associated **Status** of **Ready** or **No Disk**. **No Disk** states that no disk is inserted in the optical disk drive.

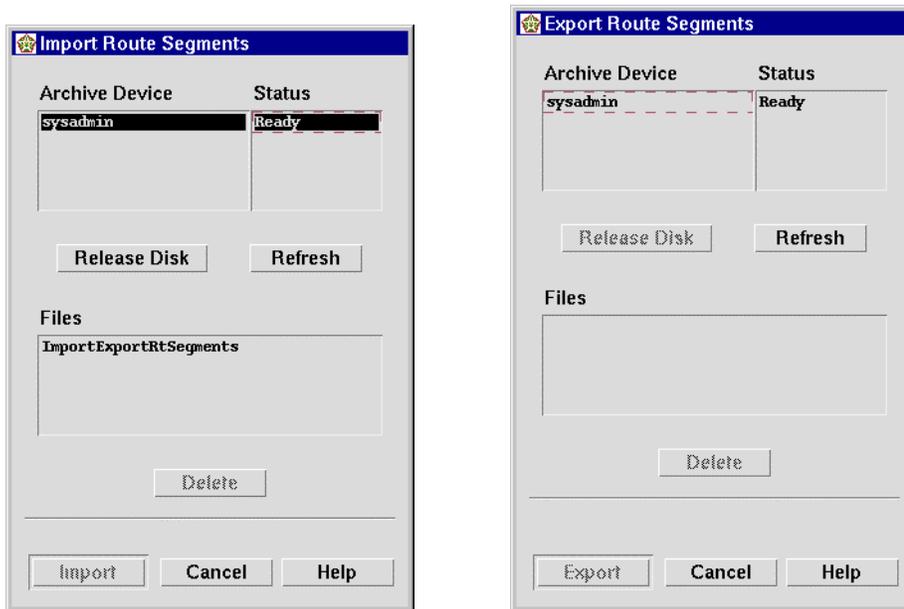


Figure 6.36 Import\Export Route Segments Windows

When the operation is export, the user selects a workstation in the **Archive Device** list with a **Status** of **Ready** to receive route segment information and selects **Export**. All route information in the OPFAC database is written to the selected archive device. This process overwrites any archive which may exist on the removable media.

When the operation is import, the user selects a workstation in the **Archive Device** list with a **Status** of **Ready** from which to import route segment information. The **Files** list fills with any existing route segment archive files. When a file is selected, the **Delete** and **Import** buttons are enabled. The import process overwrites route segment information currently stored in the database.

The **Release Disk** button is enabled at completion of an import or export function and enables the eject disk button on the optical disk drive allowing the user to remove the disk from the removable media.

The **Refresh** button updates this window with current status of the workstations.

An alert message notifies the user when the import or export process is complete. The user may perform other tasks while importing or exporting information.

6-25.12 Segment In Plans Window.

The **Segment In Plans** window is displayed when an user attempts to delete a route segment which is used in Routes or Moves. The displayed information aids the user in deciding if the route segment should be deleted or not. If the user wants to delete the route segment after viewing the information in this window, selecting the **Delete...** button opens the **Delete Dialog** window for continuing with the route segment deletion. The **Plan, Phase, Unit ID, and Move Number** linked lists show which move plans that the route segment is part of. The lower field titled **and is part of the following general routes** shows which routes the route segment is part of. Selecting **Cancel** closes this window without deleting the route segment.

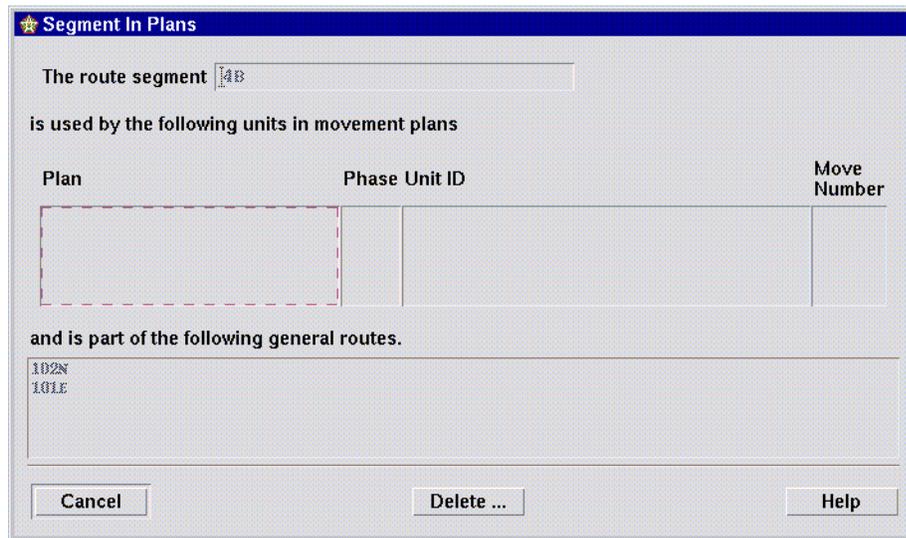


Figure 6.37 Segment In Plans Window

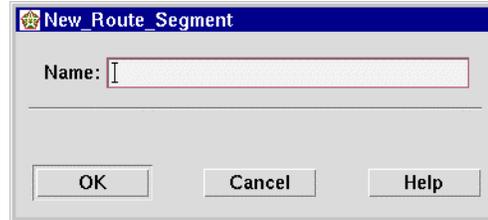
6-25.13 Create New Route Segment Procedure.

Route Segments may be created in both the Current and Planning situations. The construction of segments is identical for both situations. This procedure describes construction in the Current situation.



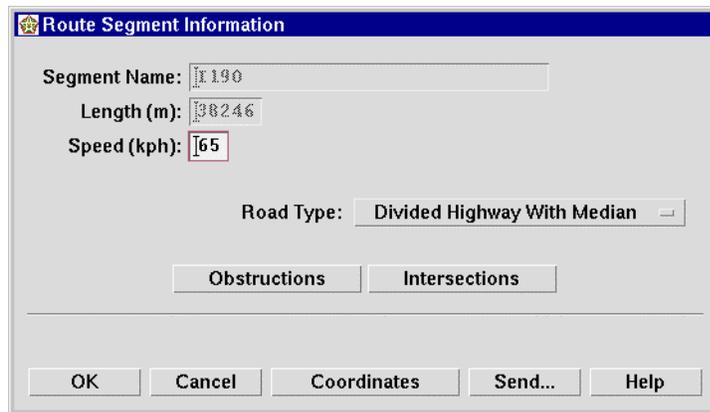
Create New Route Segment Procedure

Step	Action	Response
1.	<u>Select Move\Routes and Route Segments\New Route Segment...</u>	New Route Segment window opens for name entry.



2. Enter **Name:**
3. Select **OK.**

New Route Segment window closes. **Route Segment Information** window opens.



4. Select **Road Type:**
5. Enter **Speed (kph):** (1-99).
6. Select **Coordinates.**

Edit Route Segment window opens.

Create New Route Segment Procedure - CONT

Step	Action	Response
------	--------	----------

Edit Route Segment

Plan: Phase:

Segment Name:

Locations						
1:	<input type="text" value="5"/>	<input type="text" value="95395"/>	<input type="text" value="034"/>	<input type="text" value="41501"/>	<input type="text" value="500"/>	<input type="text" value="14"/>
2:	<input type="text" value="6"/>	<input type="text" value="04000"/>	<input type="text" value="034"/>	<input type="text" value="43000"/>	<input type="text" value="350"/>	<input type="text" value="14"/>
3:	<input type="text" value="6"/>	<input type="text" value="17000"/>	<input type="text" value="034"/>	<input type="text" value="43500"/>	<input type="text" value="400"/>	<input type="text" value="14"/>
4:	<input type="text" value="6"/>	<input type="text" value="33000"/>	<input type="text" value="034"/>	<input type="text" value="39500"/>	<input type="text" value="300"/>	<input type="text" value="14"/>
5:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

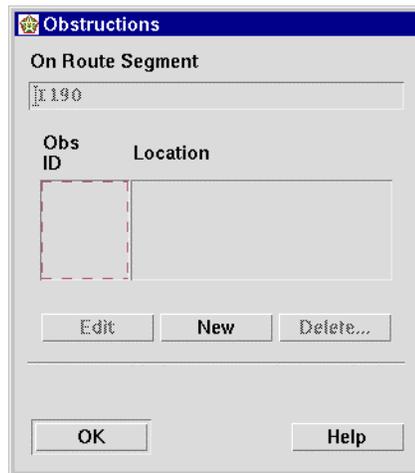
NOTE

Coordinates may be entered by direct-entry method and/or by copy from map method using the cursor. If copy from map method is used, the user may open the **Cursor Location** window to ensure accurate positioning. This procedure describes the copy from map method for coordinate entries.

- | | | |
|----|--|--|
| 7. | <u>Enter map coordinates</u> of first point. | Coordinates of point 1 appear in window. |
|----|--|--|

Create New Route Segment Procedure - CONT

Step	Action	Response
8.	<u>Select Apply.</u>	
9.	Repeat steps 7 and 8 for remainder of Route Segment coordinates.	
10.	<u>Select OK.</u>	Edit Route Segment window closes and Route Segment Information window opens.
11.	<u>Select Obstructions.</u>	Obstructions window opens.



12.	<u>Select New.</u>	Obstruction Information window opens.
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Create New Route Segment Procedure - CONT

Step	Action	Response
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13. Enter position of obstruction on segment using cut/paste or direct entry.

Coordinates of obstruction appear in **Location** fields.

14. Select Type:

15. Enter Bridge Classification: (0-99) (if required).

16. Enter Height (m): (0-9.99) (if required).

17. Enter Width (m): (0-6) (if required).

18. Enter Depth (m):, (0-9.99) (if required).

19. Select OK.

Obstruction Information window closes.
Obstructions window opens.

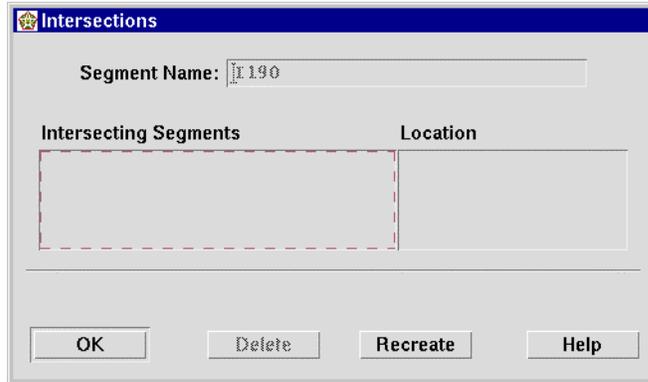
20. Repeat steps 12 thru 19 for each obstruction on segment, then select OK to close **Obstructions** window.

21. Select Intersections.

Intersections window opens.

Create New Route Segment Procedure - CONT

Step	Action	Response
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22.	<u>Select an intersection</u> to delete from list.	
23.	<u>Select Delete</u> to remove intersection.	Intersection is deleted.

NOTE

To restore a deleted intersection, select **Recreate** button. Intersection will be recalculated and displayed in list.

24.	<u>Select OK</u> when finished with Intersections window.	Intersections window closes.
25.	<u>Select OK</u> .	Route Segment Information window closes.
26.	Repeat steps 1 thru 25 for each new route segment.	

6-25.14 View/Edit Route Segment Procedure.

Two (2) navigational paths are available to the user to view and/or edit Route Segments. Selecting **Move/Routes and Route Segments>Edit...** opens the **Select Route Segment** window. This window displays a listing of established Routes or Route Segments depending on radio button selections. Selecting a Route Segment from the list and **Edit** opens the **Route Segment Information** window.

A second method of accessing the Route Segment windows is to select **Description** or **Edit** from the map symbol pop-up menu. The **Description** and **Edit** selections open the **Route Segment Information** window.

The advantage of using the menu selection is that the user may select a segment that is not visible on the map display. If the symbol to be viewed/edited is visible, the pop-up menu offers quicker access to the window displays.

View/Edit Route Segment Procedure

Step	Action	Response
1.	<u>Select Move\Routes and Route Segments\Edit...</u>	Select Route or Select Route Segment window opens.



2.	<u>Select Route Segments</u> radio button.	Names list fills with established segments and window title displays Select Route Segment .
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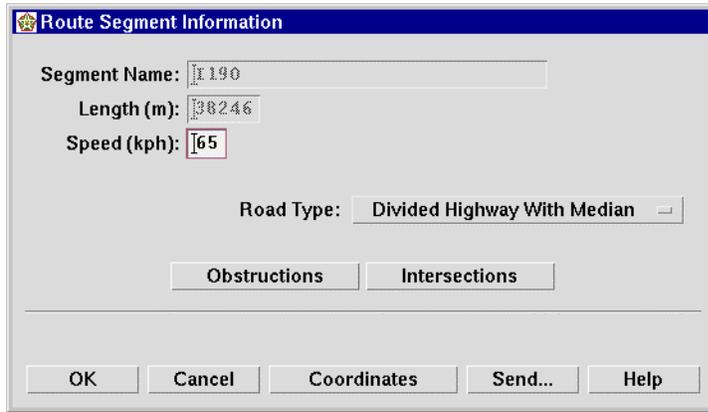
NOTE

Route Segments may be selected by clicking on the Route Segment entry in list or on the map symbol.

3.	<u>Select</u> desired <u>Route Segment</u> from <u>list</u> . or <u>Click on Route Segment</u> map <u>symbol</u> .	Selected Route Segment highlights in list.
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View/Edit Route Segment Procedure - CONT

Step	Action	Response
4.	<u>Select Edit.</u>	Route Segment Information window opens.



NOTE

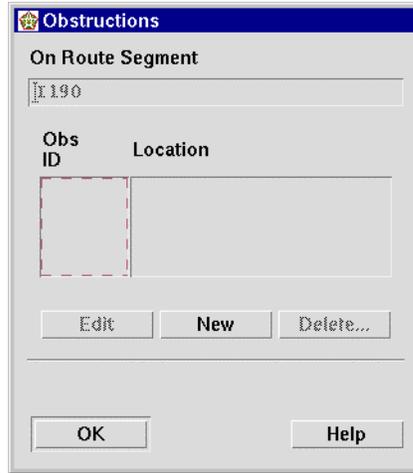
Select OK at any time to close window. To perform following **Route Segment Information** window functions, proceed to indicated steps:

- Edit route segment information step 5
- Edit route segment coordinate point location step 28

5.	<u>Select Road Type:</u>	
6.	<u>Enter Speed (kph): (0-99).</u>	
7.	To edit obstructions, <u>select Obstructions</u> or To delete an intersection, <u>proceed to step 23.</u>	Obstructions window opens displaying established obstructions.

View/Edit Route Segment Procedure - CONT

Step	Action	Response
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NOTE

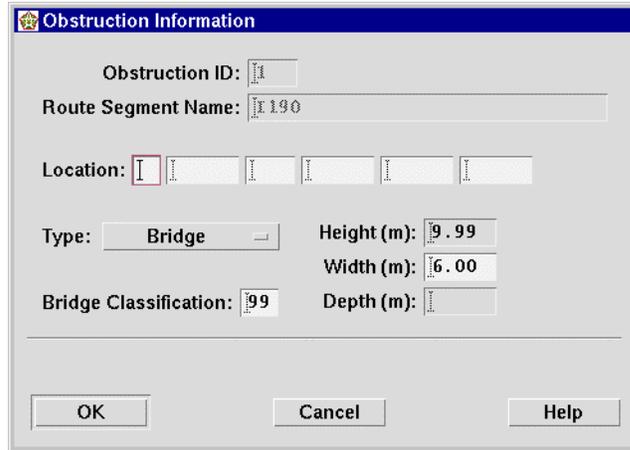
Select **OK** at any time to close window. To perform following **Obstructions** window functions, proceed to indicated steps.

- View/Edit an obstruction step 8
- Add new obstruction step 10
- Delete an obstruction step 19

8.	<u>Select an Obstruction</u> from list.	
9.	<u>Select Edit</u> , proceed to step 11.	Obstruction Information window opens.
10.	<u>Select New</u> .	Obstruction Information window opens.

View/Edit Route Segment Procedure - CONT

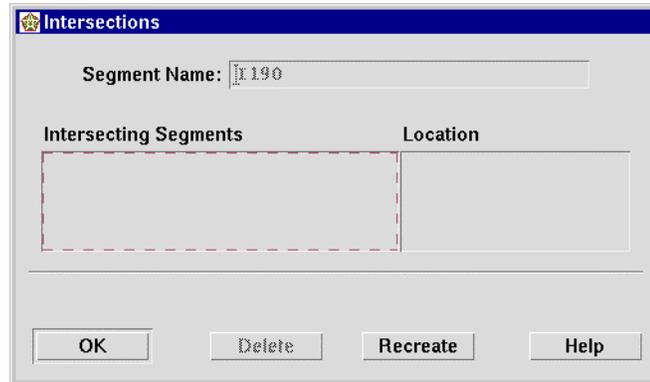
Step	Action	Response
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11.	<u>Enter Location:</u>	Coordinates of obstruction appear in Location: fields.
12.	<u>Select Type:</u>	
13.	<u>Enter Bridge Classification:</u> as required.	
14.	<u>Enter Height (m):</u> as required (0-9.99).	
15.	<u>Enter Width (m):</u> as required (0-6.00).	
16.	<u>Enter Depth (m):</u> as required (0-9.99).	
17.	<u>Select OK.</u>	Obstruction Information window closes.
18.	To perform other Obstructions window functions, return to note prior to step 8.	
19.	<u>Select an Obstruction</u> from list to delete.	
20.	<u>Select Delete...</u>	Confirm Delete window opens for delete confirmation.
21.	<u>Select Delete</u> to delete obstruction.	Confirm Delete window closes and obstruction is deleted.
22.	To perform other Obstructions window functions, return to note prior to step 8.	

View/Edit Route Segment Procedure - CONT

Step	Action	Response
23.	<u>Select Intersections.</u>	Intersections window opens.



24.	<u>Select intersection to delete from Intersecting Segments list.</u>	
25.	<u>Select Delete to delete intersection from route segment.</u>	Intersection is deleted from list.

NOTE

To restore deleted intersection, select **Recreate** button. Intersection will be recalculated and displayed in list.

26.	<u>Select OK when finished with Intersections window.</u>	Intersections window closes.
27.	To perform other Route Segment Information window functions, return to note prior to step 5.	
28.	<u>Select Coordinates.</u>	Edit Route Segment window opens.

View/Edit Route Segment Procedure - CONT

Step	Action	Response
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Edit Route Segment

Plan: Phase:

Segment Name:

Locations						
1:	<input type="text" value="5"/>	<input type="text" value="95395"/>	<input type="text" value="034"/>	<input type="text" value="41501"/>	<input type="text" value="500"/>	<input type="text" value="14"/>
2:	<input type="text" value="6"/>	<input type="text" value="04000"/>	<input type="text" value="034"/>	<input type="text" value="43000"/>	<input type="text" value="350"/>	<input type="text" value="14"/>
3:	<input type="text" value="6"/>	<input type="text" value="17000"/>	<input type="text" value="034"/>	<input type="text" value="43500"/>	<input type="text" value="400"/>	<input type="text" value="14"/>
4:	<input type="text" value="6"/>	<input type="text" value="33000"/>	<input type="text" value="034"/>	<input type="text" value="39500"/>	<input type="text" value="300"/>	<input type="text" value="14"/>
5:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

NOTE

To edit a line symbol, proceed to the step indicated for the edit process to be performed as follows:

- Reverse Locations of coordinate points (change line direction)..... step 29
- Change location of point step 31
- Delete coordinate point location step 35
- Insert new coordinate point location step 38

View/Edit Route Segment Procedure - CONT

Step	Action	Response
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NOTE

Reversing locations of coordinate points reverses order of listed points. This changes direction of line by interchanging the start point (coordinate point 1) and the end point (last listed point).

If multiple extensions of the start point are to be accomplished, the user will find it more convenient to re-order coordinates and extend the end point. The line is re-ordered after extensions are complete.

29.	<u>Select Reverse Locations.</u>	First and last coordinate points are reversed.
30.	<u>Select OK</u> to close window if edit is complete <div style="text-align: center;">or</div> refer to note prior to step 29 to perform another edit function.	
31.	<u>Select Location</u> to change.	
32.	<u>Enter new Location.</u>	
33.	<u>Select Apply.</u>	New location drawn on map.
34.	<u>Select OK</u> to close window if edit is complete <div style="text-align: center;">or</div> refer to note prior to step 29 to perform another edit function.	
35.	<u>Select Location</u> in list to be deleted.	
36.	<u>Select Apply.</u>	
37.	<u>Select Delete.</u>	Selected Location is removed from list and subsequent locations are shifted up one position.

View/Edit Route Segment Procedure - CONT

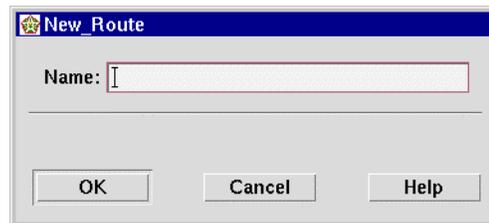
Step	Action	Response
38.	<u>Select OK</u> to close window if edit is complete or refer to note prior to step 29 to perform another edit function.	
39.	<u>Select Location</u> in list to insert new point.	
40.	<u>Select Apply</u> .	
41.	<u>Select Insert Before</u> .	New Location field is positioned above selected Location .
42.	<u>Enter new Location</u> .	
43.	<u>Select OK</u> to close window if edit is complete or refer to note prior to step 29 to perform another edit function.	

6-25.15 Create New Routes Procedure.

The following procedure details the steps necessary to create a new route.

Create New Routes Procedure

Step	Action	Response
1.	<u>Select Move\Routes and Route Segments\New Route...</u>	New Route window opens for entering route name.



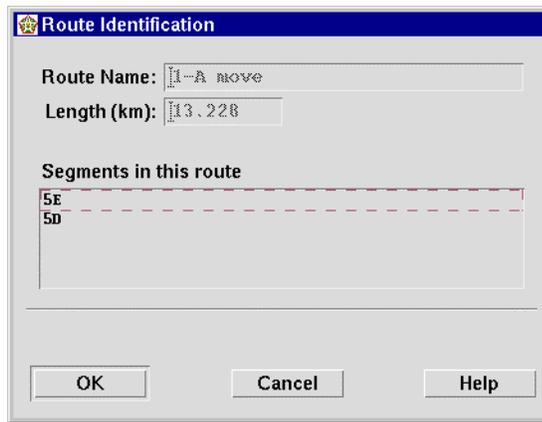
Create New Routes Procedure - CONT

Step	Action	Response
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NOTE

A new route may also be created from the **Select Route** or **Select Route Segment** window by selecting **Routes** radio button and then **New**. This opens the **New Route** window and following steps are same for either method of accessing **New Route** window.

2.	<u>Enter Name:</u>	
3.	<u>Select OK.</u>	New Route window closes. Route Identification window opens with new name and length of 0.00.



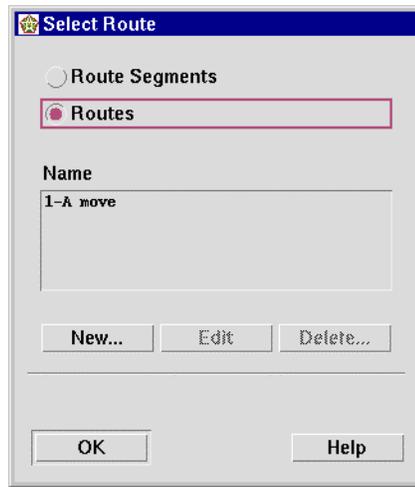
4.	<u>Select</u> map route <u>segment</u> to add to route. (Use Shift-Control button.)	Segment name fills in Segments in this route list. Route Length (km) updates accordingly.
5.	<u>Repeat step 3</u> to add more route segments <u>until route is constructed.</u>	
6.	<u>Select OK.</u>	Route Identification window closes. End of Create New Routes procedure.

6-25.16 Edit Routes Procedure.

The following procedure details the steps necessary to edit existing routes.

Edit Routes Procedure

Step	Action	Response
1.	<u>Select Move\Routes and Route Segments\Edit...</u>	Select Route or Select Route Segment window opens.



2.	<u>Select Routes</u> radio button.	Name list fills with established routes and window title displays Select Route .
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NOTE

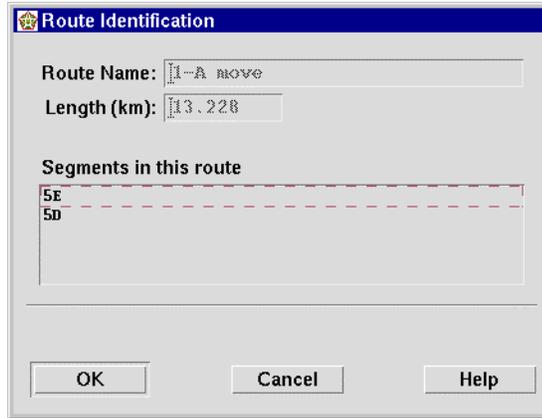
To perform following functions, proceed to indicated steps.

- Edit route..... step 3
- Delete route..... step 8

3.	<u>Select route</u> from list to edit.	
4.	<u>Select Edit</u> .	Route Identification window opens and route segments within route are shown in Segments in this route list.

Edit Routes Procedure - CONT

Step	Action	Response
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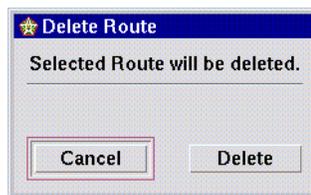


- | | |
|---|--|
| 5. <u>Select a route segment on map</u> to add to end of route. | Route name appears at end of Segments in this route list. |
|---|--|

NOTE

To remove the last route segment, select last segment in **Segments in this route** list and Control-click left trackball switch.

- | | |
|---|--|
| 6. <u>Repeat step 5 as required to edit route, then select OK.</u> | Route Identification window closes. |
| 7. To perform other route functions, return to note prior to step 3. | |
| 8. <u>Select route name</u> to delete. | |
| 9. <u>Select Delete...</u> | Delete Route window opens. |



Edit Routes Procedure - CONT

Step	Action	Response
10.	<u>Select Delete.</u>	Delete Route window closes and route is removed from list.
11.	To perform other route functions, return to note prior to step 3.	

6-25.17 Export Route Segments Procedure.

The following procedure details the steps necessary to export entire data sets of route segment information to removable media.

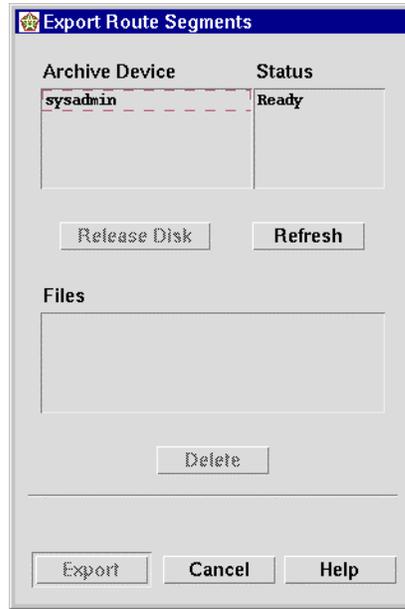
NOTE

To remove disk after export function is complete, open window as in step 1, select workstation from which to release disk, and select **Release Disk** button to enable eject button on optical disk drive.

To refresh **Archive Device** list, open window as in step 1 and select **Refresh** button.

Export Route Segment Information Procedure

Step	Action	Response
1.	Select Move\Routes and Route Segments\Export Route Segments .	Export Route Segments window opens with Delete button disabled.



2.	Select Archive Device with Status of Ready .	Files list remains blank.
3.	Select Export button to start archive process.	Release Disk button disabled and window closes. All route segment information is written to archive device overwriting any existing archive information. Release Disk button enabled and message displayed when process completed. User may perform other tasks during archive process.

6-25.18 Import Route Segments Procedure.

The following procedure details the steps necessary to import entire data sets of route segment information and delete an archive file from removable media.

NOTE

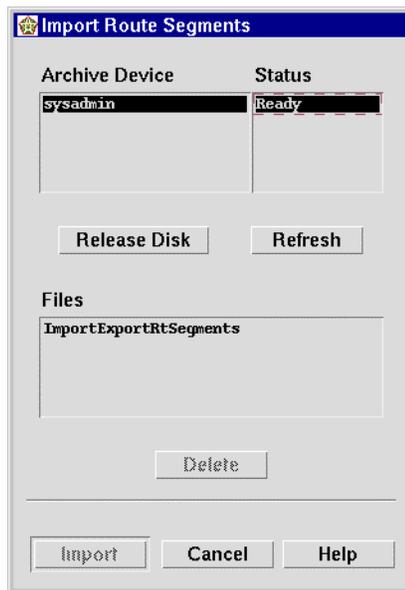
To remove disk after import function is complete, open window as in step 1, select workstation from which to release disk, and select **Release Disk** button to enable eject button on optical disk drive.

To refresh **Archive Device** list and clear **Files** list, open window as in step 1 and select **Refresh** button.

To delete an archive file from optical disk select **Archive Device** with **Status** of **Ready**, select file from **Files** list and select **Delete** button.

Import Route Segment Information Procedure

Step	Action	Response
1.	Select Move\Routes and Route Segments\Import Route Segments.	Import Route Segments window opens.



2.	Select Archive Device with Status of Ready that contains file to import.	Files list fills with any existing archive file names.
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Import Route Segment Information Procedure - CONT

Step	Action	Response
3.	<u>Select file to import</u> from Files list.	<p>Release Disk button disabled and window closes. Archive file is saved to database. Release Disk button enabled and message displayed when process completed. User may perform other tasks during import process.</p> <p>End of Import function.</p>
4.	<u>Select Import</u> .	

SECTION 3 OPERATIONS UNDER UNUSUAL CONDITIONS

6-26 CONOPS OPERATIONS.

The AFATDS system is able to perform both intra-OPFAC and inter-OPFAC Continuity of Operations (CONOPS). Inter OPFAC CONOPS is in two (2) forms, planned and unplanned. In the planned CONOPS, the affected units make preparations for the orderly transitions of mission processing prior to a unit entering CONOPS. An unplanned CONOPS occurs when a unit is discovered or reported to be missing from the normal mission processing routine.

6-26.1 Inter-OPFAC CONOPS Terminology.

Principal	The Unit entering CONOPS, or the Unit that no longer exists.
Backup	The Unit assuming control for the Principal .
Principals Satellites	The Units one level removed from the Principal in the command/support chain, i.e. Principals Subordinates, Principals Supporting, Principals Supported, and Principals Higher.

6-26.2 Planned Inter-OPFAC CONOPS.

A unit entering CONOPS must maintain its responsibilities until control is passed to the backup unit. Intervention is set for all missions so that the user can control any new missions while unit organizations are being changed. The principal unit determines to use the primary or secondary backup unit. The principals command, subordinate, supporting, and backup unit(s) are notified of the principals intention to enter CONOPS. This notification is by voice or plain text message (PTM).

Upon receiving notification of the impending CONOPS, the affected units modify their unit organization and communications configurations to support the flow of the new processing. Each unit will then edit their dataset for the principal's **Basic Unit Info** to reflect the CONOPS situation. This edit includes changing the **Address Missions To:** field to either **Primary** or **Secondary** and selecting the **Active Unit Organization** and/or **Mission Routing** check boxes. Each unit then notifies the principal (by PTM or voice) that their unit organization changes are complete.

After receiving confirmation of unit organization changes from all units, the principal unit processes all missions that it has intervened. The principal then edits its **Basic Unit Info** to change **Address Missions To:** field to either **Primary** or **Secondary**. The user also selects the **Mission Routing** and **Active Unit Organization** check boxes. This action causes the principal's active target list to be sent to the selected backup unit. The backup unit then ensures that automatic purging of inactive targets and MFR's is turned off. This will ensure data is available to update the principal's target information when CONOPS is terminated.

After receiving confirmation that the backup has received the active target list, the principal adds the backup unit to the **Mission Info Routing** list. Also **MFRs** is selected and the system time is entered in the **Since Time:** field.

The backup unit then enters the **Mission Info Routing** window and selects **Add...**; the principal is added to the list and **MFRs** selected. This causes any MFR's received at the backup to be routed to the principal. This keeps the principal updated on any MFR's received prior to actual shutdown.

The backup notifies Higher, Subordinates, Supporting, and Principal that Backup has successfully entered CONOPS for Principal. The Higher, Subordinates, and Supporting units modify mission routing. They enter Principal's unit record CONOPS form, and check **Mission Routing**. All subsequent messages addressed to the principal will be sent to the backup. Principal will not receive any new missions, and may now shutdown.

The backup unit will know when a failed transmission alert is received for the principal that shutdown has occurred. Backup then removes the principal from the **Mission Info Routing** list and notes the system time.

JUMP_TOC is a special use of Planned CONOPS used to split a unit so as to move part of the unit and establish operations, then move the rest of the unit. JUMP_TOC is implemented by first splitting a Unit, then the part that is able to, shuts down and moves forward. When the moved part of the Unit is in its new position, the part of the Unit that remained, initiates a planned inter-OPFAC CONOPS with a backup unit, and the moved part of the Unit immediately terminates the CONOPS with the Backup.

6-26.3 Un-planned Inter-OPFAC CONOPS.

An un-planned CONOPS is normally initiated when a unit is discovered to be non-operational. For example, a unit that has lost all communications capability. This discovery may be made by any unit (Higher, Subordinate, or Supporting) in the mission processing chain. The procedure for planned and un-planned CONOPS is basically the same. The difference is that with the un-planned loss of the principal the principals active target list is also lost. The backup must retrieve active target data from each of the units in the principals mission processing chain.

When the principal is lost, the designated primary backup will assume the principal unit's duties. If the primary is not available, the secondary backup will assume the principal units duties. The selected backup ensures that all required units are in the communications configuration. The backup unit then ensures that automatic purging of inactive targets and MFR's is turned off. This will ensure data is available to update the principal's target information when CONOPS is terminated.

The backup edits the principal's **Basic Unit Info** window to change the information on the **CONOPS Information** window. The user selects **Primary** or **Secondary** for the **Address Missions To:** field and selects **Active Unit Organization** and **Mission Routing** check boxes. This causes the system to retrieve active target lists from each unit in the chain.

The backup notifies each affected unit to modify their unit organization and communications configurations to support the flow of the new processing. Each unit will then edit their dataset for the principal's **Basic Unit Info** to reflect the CONOPS situation. This edit includes changing the **Address Missions To:** field to either **Primary** or **Secondary** and selecting only the **Active Unit Organization** check box at this time. Each unit then notifies the principal (by PTM or voice) that their unit organization changes are complete.

Backup waits for alert confirming that all requested active target lists have been received. Upon confirmation, backup instructs each unit in chain to change their mission routing. These units then enter Principal's unit record CONOPS form, and now selects the **Mission Routing** check box. All subsequent messages addressed to the principal will be sent to the backup.

The status of target list responses may be monitored by viewing the CONOPS Responses window. This window shows each unit polled, and the status of the response. If a response has not been received from several units, and the operator at the Backup knows that the responses will never be received (unit is moving etc.), the operator may select Continue on the CONOPS Responses Window, thereby causing AFATDS to proceed as if all target lists had been received. Selecting Continue should be used cautiously, if subsequent target lists are received, it will be up to the operator to manually handle each one.

6-26.4 Terminate Inter-OPFAC CONOPS.

A unit terminating CONOPS must ensure that mission files, active targets lists, mission routing and unit organizations are restored and updated. The principal notifies the backup, by PTM or voice, when CONOPS is to be terminated. The principal removes the backup from the mission routing list. The backup adds the principal to backup's mission routing list, selects MFR check box, and enters the **Time Since:**. The **Time Since:** entry is the time noted when the principal entered CONOPS and was removed from the mission routing list by the backup unit. Adding the principal to the backup's mission routing list causes MFR's stored at the backup to be sent to the principal. This updates the principal's active target list as each MFR is actioned at the principal.

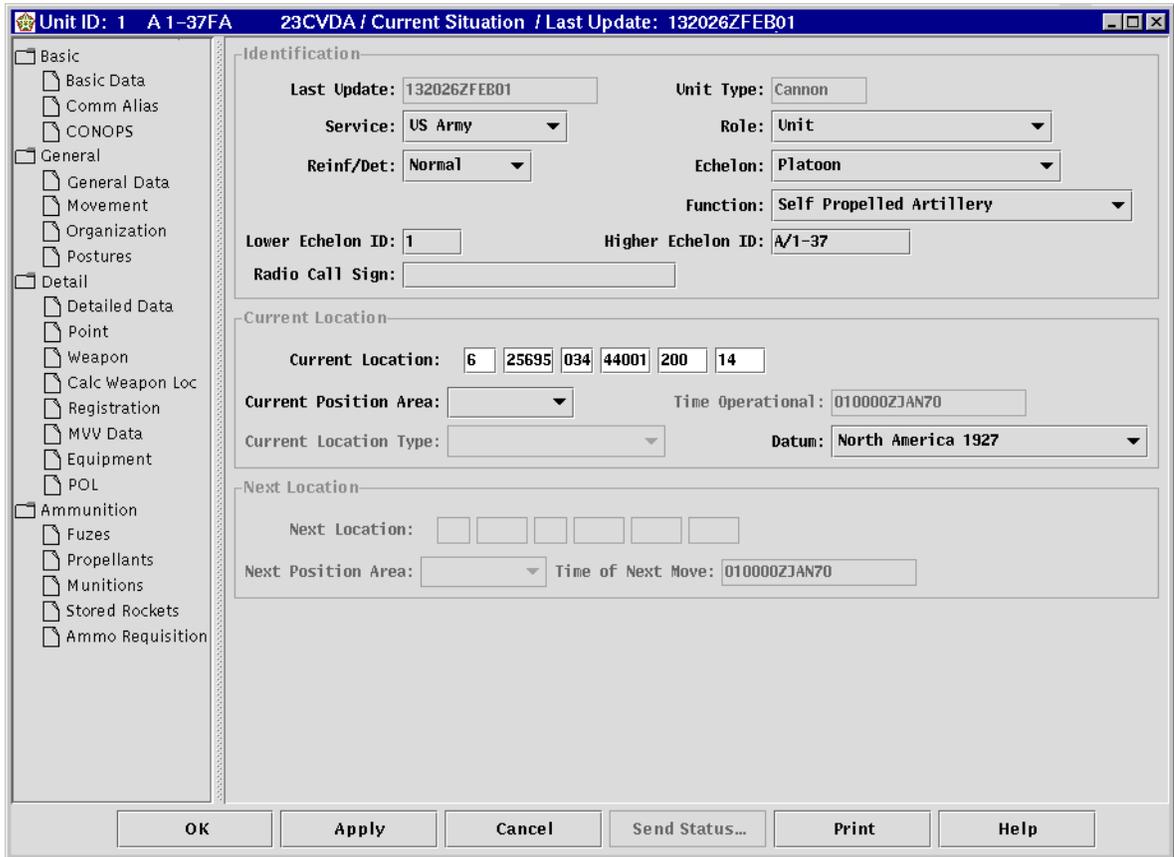
The principal then enters the **CONOPS Information** window and changes the **Address Missions To:** field to **Principal**. The principal also messages all other units involved in the CONOPS to change the principal's **CONOPS Information** window in the same manner. Each unit is also requested to update their unit status to the principal. The backup unit removes the principal from the backups mission info routing list when the missions transferred to the principal are completely processed. Transition from CONOPS is complete.

6-26.5 Setting Up for Inter-OPFAC CONOPS.

In order to initiate Inter-OPFAC CONOPS, the CONOPS organization must be in place. AFATDS verifies that the Principals selected backup, primary or secondary, has the Principal specified as one of the **Units Backed Up**. If the CONOPS organization is not complete, AFATDS will notify the user that the CONOPS modifications were unsuccessful. The following procedures are used to setup or verify the CONOPS organization. Note that this procedure must be performed for the Principal at each of the Principals Satellite Units, and the Backup.

Inter-OPFAC CONOPS Setup Procedure

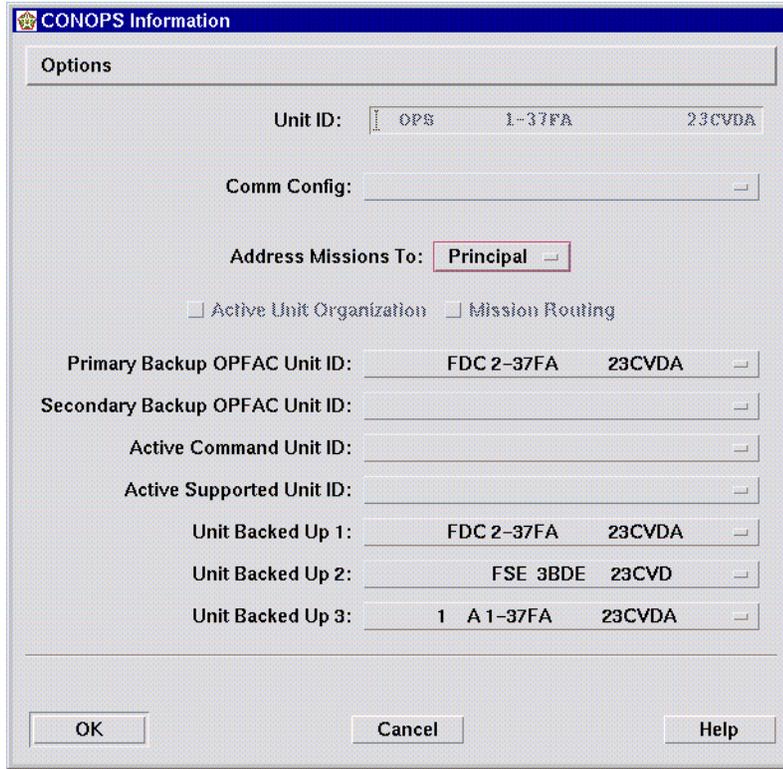
Step	Action	Response
1.	<u>Select Units\Edit This Unit.</u>	Basic Unit Info window opens.



2.	<u>Select Options\CONOPS.</u>	CONOPS Information window opens.
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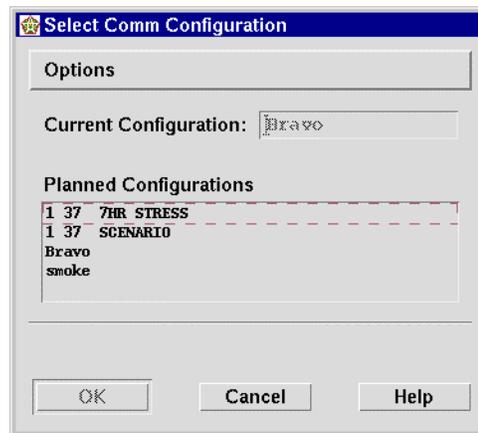
Inter-OPFAC CONOPS Setup Procedure - CONT

Step	Action	Response
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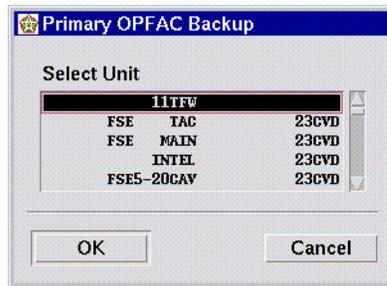
3. Select Comm Config:

Select Comm Configuration window opens.

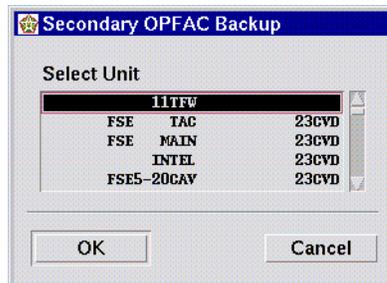


Inter-OPFAC CONOPS Setup Procedure - CONT

Step	Action	Response
4.	<u>Select a configuration.</u>	
5.	<u>Select OK.</u>	Select Comm Configuration window closes. Selection is displayed on CONOPS Information window.
6.	<u>Select Primary Backup OPFAC Unit ID:\Select...</u>	Primary OPFAC Backup window opens.

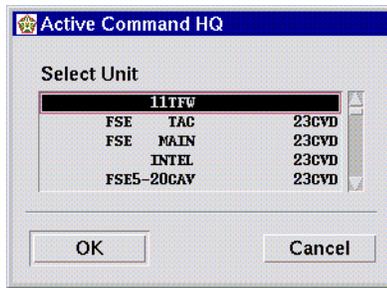


7.	<u>Select Primary Backup unit.</u>	
8.	<u>Select OK.</u>	Primary OPFAC Backup window closes. Selection is displayed on CONOPS Information window.
9.	<u>Select Secondary Backup OPFAC Unit ID:.</u>	Secondary OPFAC Backup window opens.

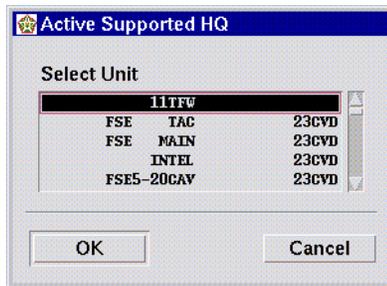


Inter-OPFAC CONOPS Setup Procedure - CONT

Step	Action	Response
10.	<u>Select Secondary Backup unit.</u>	
11.	<u>Select OK.</u>	Secondary OPFAC Backup window closes. Selection is displayed on CONOPS Information window.
12.	<u>Select Active Command Unit ID:</u>	Active Command HQ window opens.

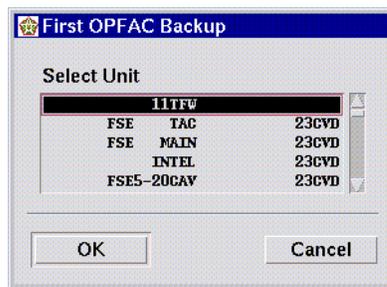


13.	<u>Select Active Command unit.</u>	
14.	<u>Select OK.</u>	Active Command HQ window closes. Selection is displayed on CONOPS Information window.
15.	<u>Select Active Supported Unit ID:</u>	Active Supported HQ window opens.

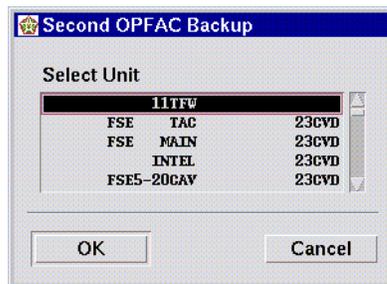


Inter-OPFAC CONOPS Setup Procedure - CONT

Step	Action	Response
16.	<u>Select Active Supported unit.</u>	
17.	<u>Select OK.</u>	Active Supported HQ window closes. Selection is displayed on CONOPS Information window.
18.	<u>Select Unit Backed Up 1:</u>	First OPFAC Backup window opens.



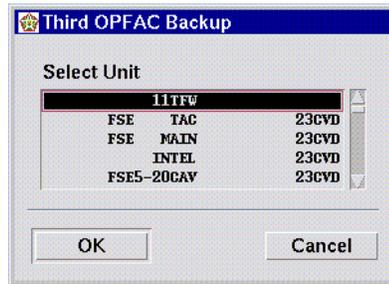
19.	<u>Select unit.</u>	
20.	<u>Select OK.</u>	First OPFAC Backup window closes. Selection is displayed on CONOPS Information window.
21.	<u>Select Unit Backed Up 2:</u>	Second OPFAC Backup window opens.



22.	<u>Select unit.</u>	
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Inter-OPFAC CONOPS Setup Procedure - CONT

Step	Action	Response
23.	<u>Select OK.</u>	Secondary OPFAC Backup window closes. Selection is displayed on CONOPS Information window.
24.	<u>Select Unit Backed Up 3:</u>	Third OPFAC Backup window opens.



25.	<u>Select unit.</u>	
26.	<u>Select OK.</u>	Third OPFAC Backup window closes. Selection is displayed on CONOPS Information window.
27.	<u>Select OK.</u>	CONOPS Information window closes.
28.	<u>Select OK.</u>	Basic Unit Info window closes.

6-26.6 Planned Inter-OPFAC CONOPS Procedure (Principal).

The unit entering Planned Inter-OPFAC CONOPS must perform the following procedure in order to ensure the proper transfer of data and configuration of affected units.

Planned Inter-CONOPS Procedure (Principal Unit)

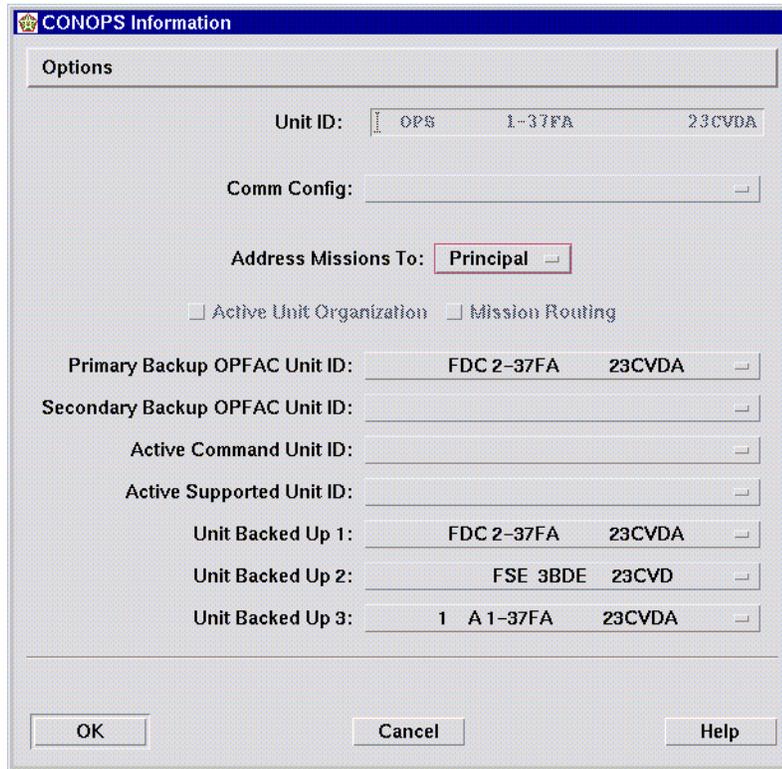
Step	Action	Response
1.	<u>Notify backup and satellite units</u> by PTM of pending CONOPS.	
2.	<u>Select Units\Edit This Unit.</u>	Basic Unit Data window opens.

3. Select Options\CONOPS.

CONOPS Information window opens.

Planned Inter-CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
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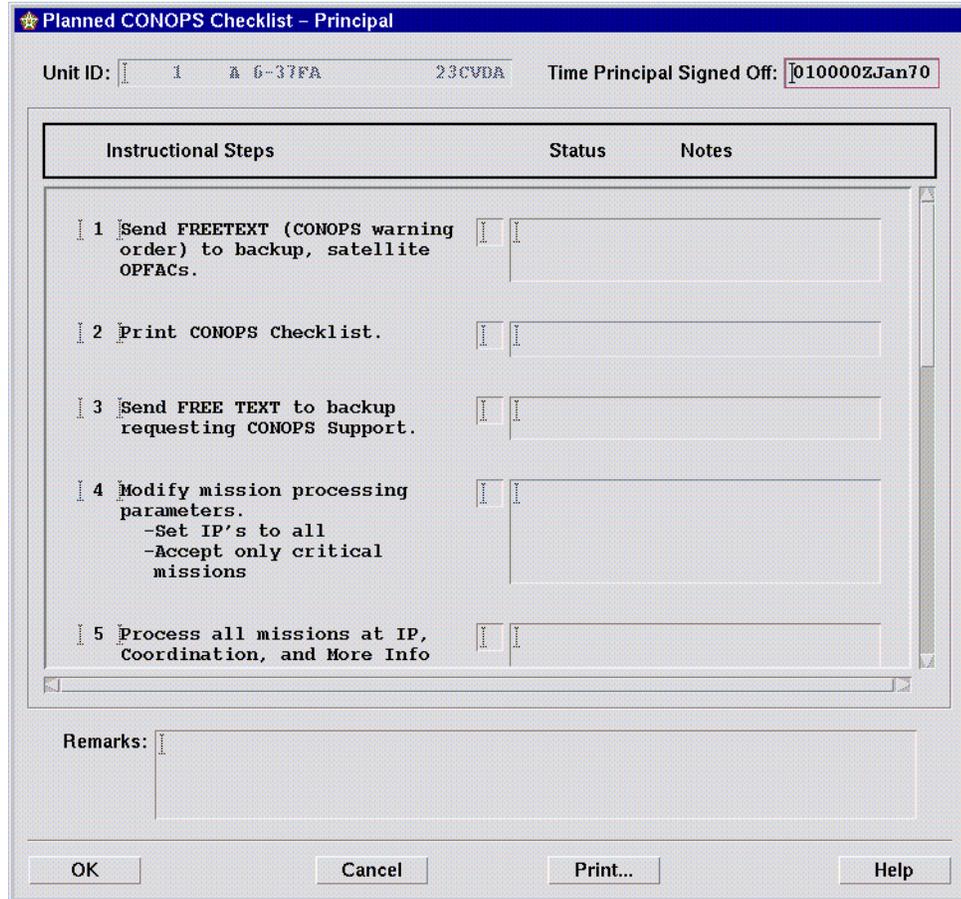


4. Select Options\Planned.

Planned CONOPS Checklist - Principal
window opens.

Planned Inter-CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
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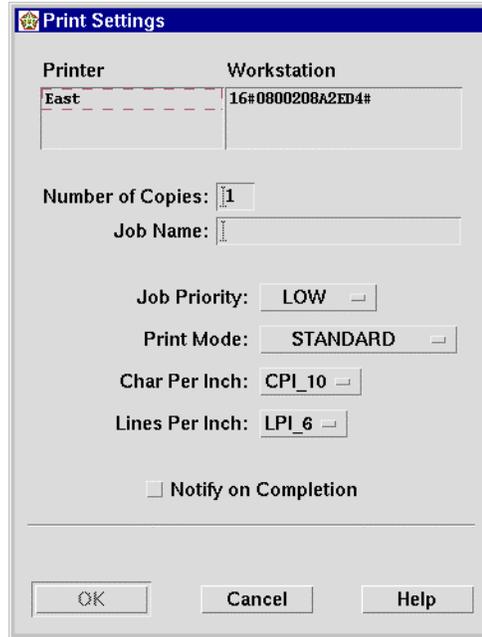


5. Select **Print...**

Print Settings window opens.

Planned Inter-CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
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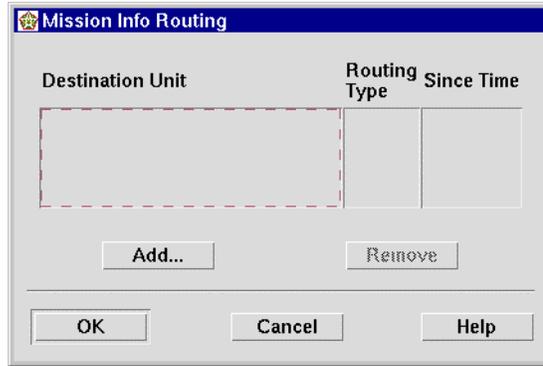
6.	<u>Select printer</u> and ensure appropriate print settings.	
7.	<u>Select OK.</u>	Print Settings window closes. Checklist sent to printer.
8.	<u>Select OK.</u>	Planned CONOPS Checklist - Principal window closes.
9.	<u>Select OK</u> on CONOPS Information window.	CONOPS Information window closes.
10.	<u>Select OK</u> on Basic Unit Info window.	Basic Unit Info window closes.
11.	<u>Request CONOPS support</u> from backup by PTM.	

Planned Inter-CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
12.	<u>Set mission processing to intervene all missions.</u> Accept only high priority missions.	
13.	<u>Process all missions</u> in the Coordination, IP, and More Info fields of the Mission Monitor window.	
14.	<u>Ensure message from backup</u> stating that Unit Org has been updated.	
15.	<u>Select Units\Edit This Unit.</u>	Basic Unit Info window opens.
16.	<u>Select Options\CONOPS.</u>	CONOPS Information window opens.
17.	<u>Select Primary or Secondary</u> as the backup unit in the Address Missions To: field.	
18.	<u>Select Active Unit Organization</u> check box.	
19.	<u>Select Mission Routing</u> check box.	
20.	<u>Select OK.</u>	Backup unit assumes Principals mission processing and command and support relationships. Active Target List is sent to backup. CONOPS Information window closes.
21.	<u>Select Mission Processing\Mission Routing\Mission Info Routing.</u>	Mission Info Routing window opens.

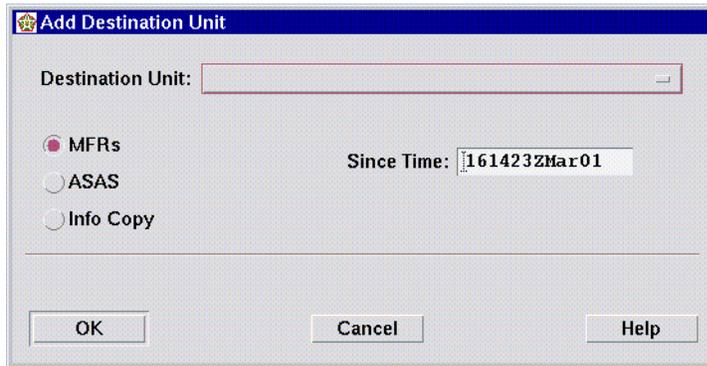
Planned Inter-CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
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22. Select **Add...**

Add Destination Unit window opens.



23. Select **Destination Unit:\Select...**

Select Unit window opens.

Planned Inter-CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
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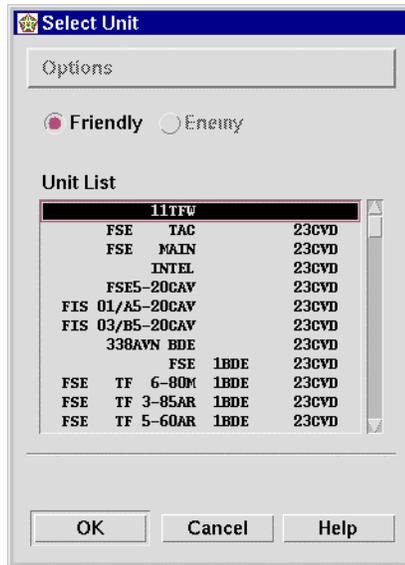
24.	<u>Select unit</u> from list.	
25.	<u>Select OK.</u>	Select Unit window opens. Unit is added to Destination Unit: field.
26.	<u>Select MFRs</u> radio button.	
27.	<u>Select OK.</u>	Add Destination Unit window closes. Unit is added to Destination Unit field on Mission Info Routing window.
28.	<u>Select OK.</u>	Mission Info Routing window closes.
29.	<u>Archive database to optical drive.</u>	
30.	<u>Send message to backup</u> stating that principal is shutting down.	
31.	<u>Shut down</u> OPFAC.	

6-26.7 Planned Inter-OPFAC CONOPS Procedure (Backup Unit).

The unit acting as Backup for the Principal in a Planned Inter-OPFAC CONOPS must perform the following procedure in order to ensure the proper transfer of data and configuration of affected units.

Planned Inter-OPFAC CONOPS Procedure (Backup Unit)

Step	Action	Response
1.	Notification received from Principal, stating that Principal is entering planned CONOPS with its primary or secondary backup unit and to modify Unit Org. for Principal unit.	
2.	<u>Select Units\Edit.</u>	Select Unit window opens.



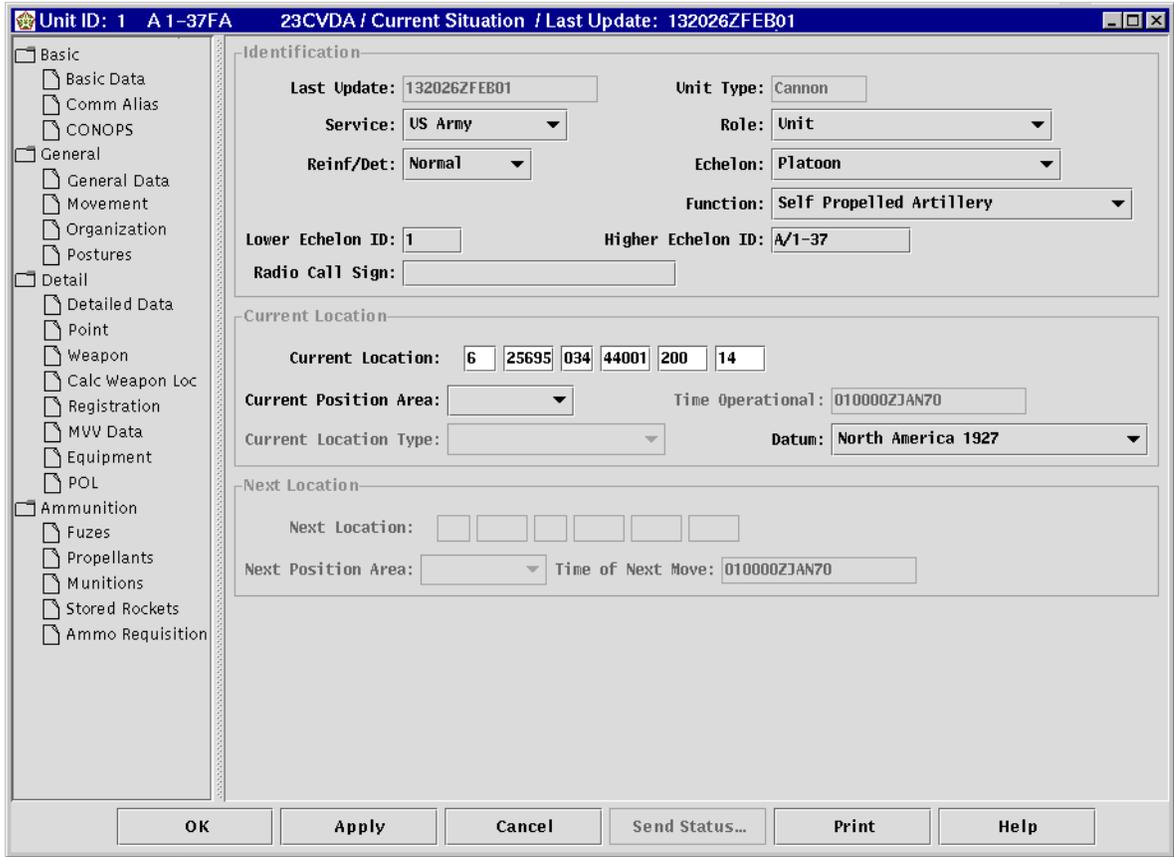
3. Select Principal from list.

4. Select OK.

Select Unit window closes. **Basic Unit Info** window opens.

Planned Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
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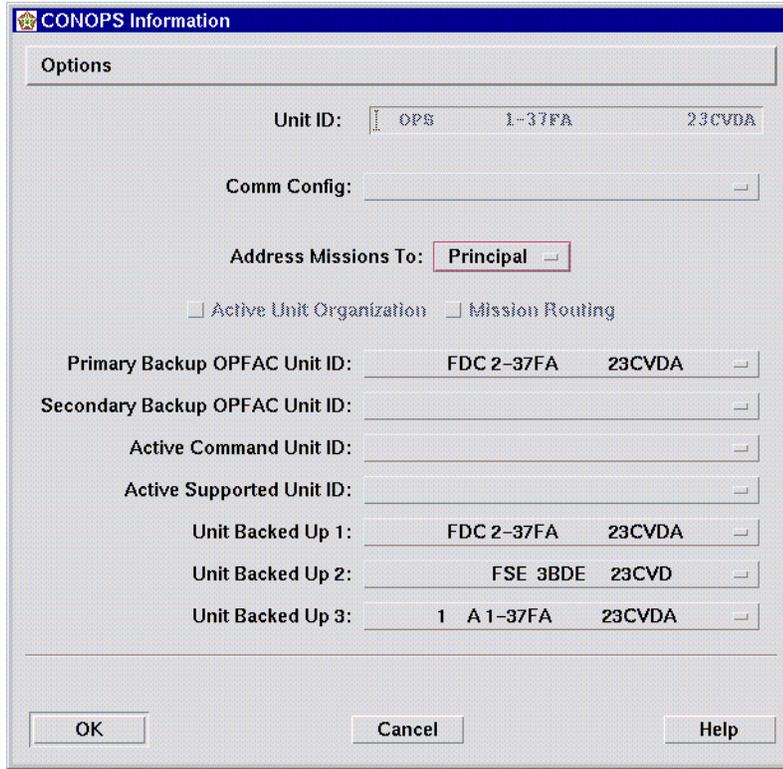


5. Select Options\CONOPS.

CONOPS Information window opens.

Planned Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
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6. Select Options\Planned.

Planned CONOPS Checklist - Backup window opens.

Planned Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
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Planned CONOPS Checklist - Backup

Unit ID: Time Principal Signed Off:

Instructional Steps	Status	Notes
1 Review FREE TEXT warning order msg from principal OPFAC.	<input type="checkbox"/>	<input type="text"/>
2 Review FREE TEXT msg from principal requesting CONOPS support.	<input type="checkbox"/>	<input type="text"/>
3 Print CONOPS Checklist.	<input type="checkbox"/>	<input type="text"/>
4 Edit principal Unit/CONOPS - "Address Missions To" primary or secondary - "Active Unit Org" check OK CONOPS Info form.	<input type="checkbox"/>	<input type="text"/>
5 Send FREE TEXT to principal: "Unit Org. Updated."	<input type="checkbox"/>	<input type="text"/>

Remarks:

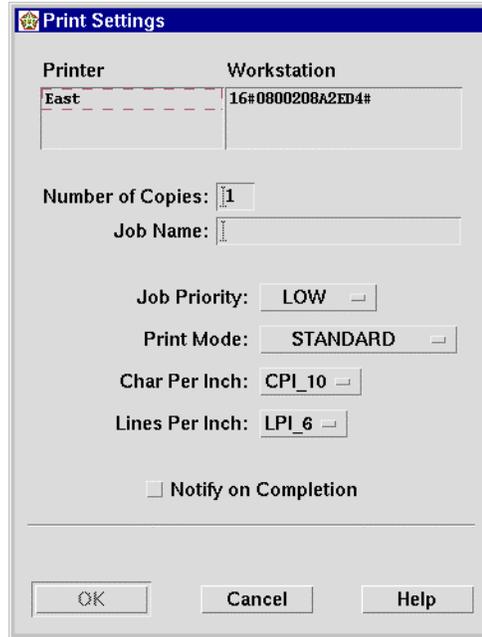
OK Cancel Print... Help

7. Select **Print...**

Print Settings window opens.

Planned Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
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8. Select printer and ensure appropriate print settings.

9. Select OK.

10. Select OK.

11. Select Primary, or Secondary backup unit from **Address Missions To:** menu.

12. Select Active Unit Organization.

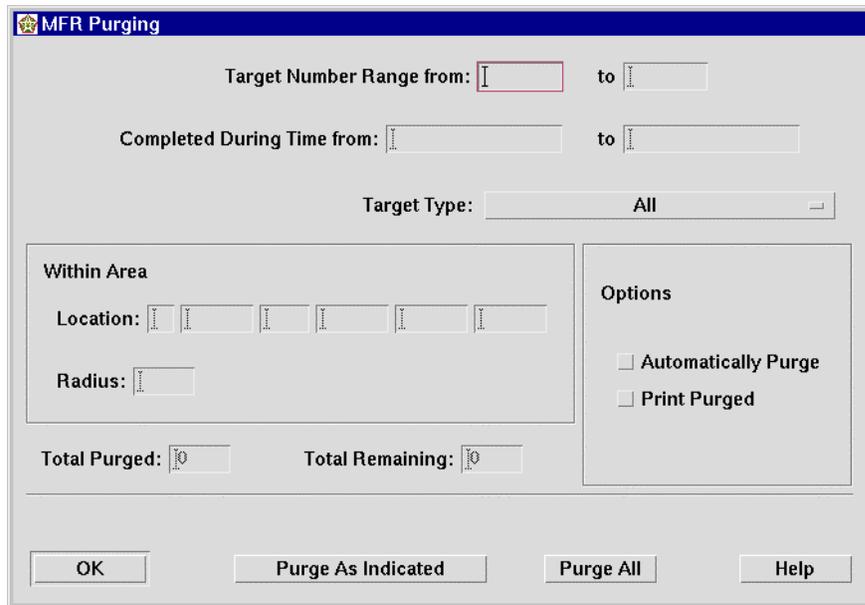
Print Settings window closes. Checklist sent to printer.

Planned CONOPS Checklist - Backup window closes.

Active Unit Organization and **Mission Routing** check boxes are enabled.

Planned Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
13.	<u>Select OK.</u>	CONOPS Information window closes. Medium Level Alert is generated, noting that Inter-OPFAC CONOPS Unit Organization modification attempt successful and the DTG of when it occurred.
14.	<u>Message Principal</u> that Unit Org has been updated.	
15.	<u>Select Mission Processing\Purging\MFR Purging.</u>	MFR Purging window opens.



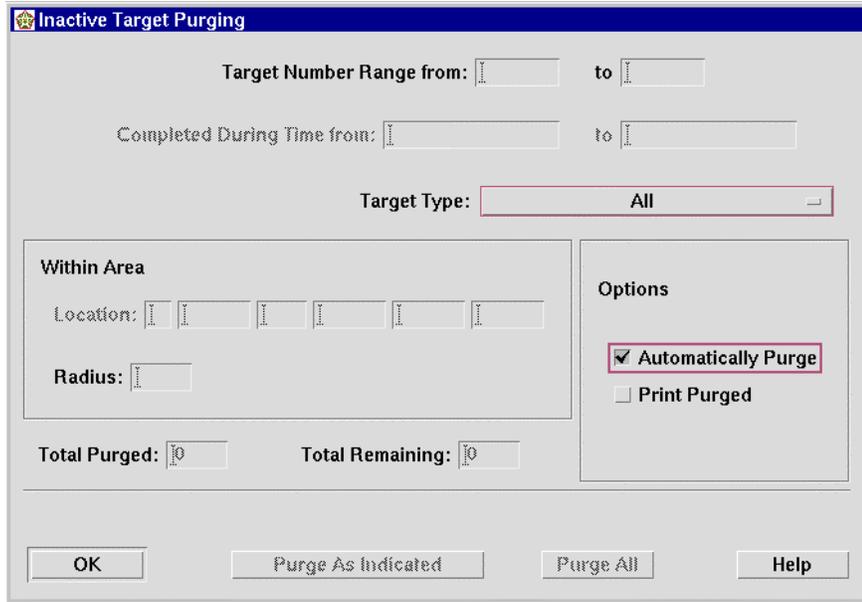
16. Ensure **Automatically Purge** check box is not selected.

17. Select **OK**.

MFR Purging window closes.

Planned Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
18.	<u>Select Mission Processing\Purging\ Inactive Target Purging.</u>	Inactive Target Purging window opens.



19.	<u>Ensure Automatically Purge check box is <u>not</u> selected.</u>	
20.	<u>Select OK.</u>	Inactive Target Purging window closes.
21.	<u>Wait for Active Target List from Principal.</u>	

NOTE

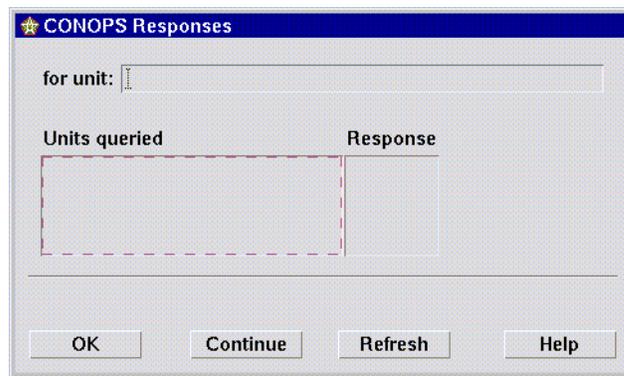
If Active Target List is not received in a reasonable time (approximately 5 min), message Principal to send list again. If list is received, proceed to step 37. If list is not received, proceed to step 22.

Planned Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
22.	<u>Select Units\Edit...</u>	Select Unit window opens.
23.	<u>Select Principal</u> from list.	
24.	<u>Select OK</u> .	Select Unit window closes. Basic Unit Info window opens.
25.	<u>Select Options\CONOPS</u> .	CONOPS Information window opens.
26.	<u>Select Address Missions To: Principal</u> .	
27.	<u>Select OK</u> .	CONOPS Information window closes.
28.	<u>Establish communications</u> with Principals subordinate, supporting, and command units by implementing a CONOPS configuration or editing current communications.	
29.	<u>Select Units\Edit...</u>	Select Unit window opens.
30.	<u>Select Principal</u> from list.	
31.	<u>Select OK</u> .	Select Unit window closes. Basic Unit Info window opens.
32.	<u>Select Options\CONOPS</u> .	CONOPS Information window opens.
33.	<u>Select Address Missions To:</u> appropriate backup unit.	
34.	<u>Select Active Unit Organization</u> check box.	
35.	<u>Select Mission Routing</u> check box.	

Planned Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
36.	<u>Select OK.</u>	CONOPS Information window closes. Principals subordinate, supporting, and command units are queried for active target lists.
37.	<u>Select Mission Processing\CONOPS Responses.</u>	CONOPS Responses window opens.



38.	<u>Monitor CONOPS Responses window</u> until queried units have responded.	
39.	<u>Select Continue.</u>	Active Target Lists are merged into backup's list.
40.	<u>Select OK.</u> Proceed to step 42.	CONOPS Responses window closes.
41.	<u>Establish communications</u> with Principals subordinate, supporting, and command units by implementing a CONOPS configuration or editing current communications (refer to chapter 2 section 1 for procedures).	
42.	<u>Select Options\CONOPS.</u>	CONOPS Information window opens.

Planned Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
43.	<u>Select Mission Routing</u> check box.	
44.	<u>Select OK</u> .	CONOPS Information window closes. Active Target Lists are merged into backup's list.
45.	<u>Message satellite units</u> that backup is assuming control for Principal.	
46.	<u>Select Mission Processing\Mission Routing\Mission Info Routing</u> .	Mission Info Routing window opens.
47.	<u>Select Destination Unit:\Select...</u>	Select Unit window opens.
48.	<u>Select Principal unit</u> from list.	
49.	<u>Select OK</u> .	Select Unit window opens. Unit is added to Destination Unit: field.
50.	<u>Select MFRs</u> radio button.	
51.	<u>Select OK</u> .	Add Destination Unit window closes. Unit is added to Destination Unit field on Mission Info Routing window.
52.	<u>Select OK</u> .	Mission Info Routing window closes.
53.	<u>Wait for Principal's message</u> of signing off. Note time of message.	
54.	<u>Select Mission Processing\Mission Routing\Mission Info Routing</u> .	Mission Info Routing window opens.
55.	<u>Select Principal</u> from list.	
56.	<u>Select Remove</u> .	Principal is removed from list.
57.	<u>Select OK</u> .	Mission Info Routing window closes.

Planned Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
58.	<u>Message satellite units</u> that backup has assumed control for Principal.	
59.	Select Units\Edit...	Select Unit window opens.
60.	Select <u>Principal</u> from list.	
61.	Select OK .	Select Unit window closes. Basic Unit Info window opens.
62.	Select Options\CONOPS .	CONOPS Information window opens.
63.	Select Mission Routing check box.	
64.	Select OK .	CONOPS Information window closes. CONOPS transition is complete.

6-26.8 Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units).

Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units)

Step	Action	Response
1.	Notification received from Principal stating that Principal is entering planned CONOPS with its primary or secondary backup unit and to modify Unit Org. for Principal unit.	
2.	Select Units\Edit...	Select Unit window opens.
3.	Select <u>Principal unit</u> from list.	
4.	Select OK .	Select Unit window closes. Basic Unit Info window opens.

Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units) - CONT

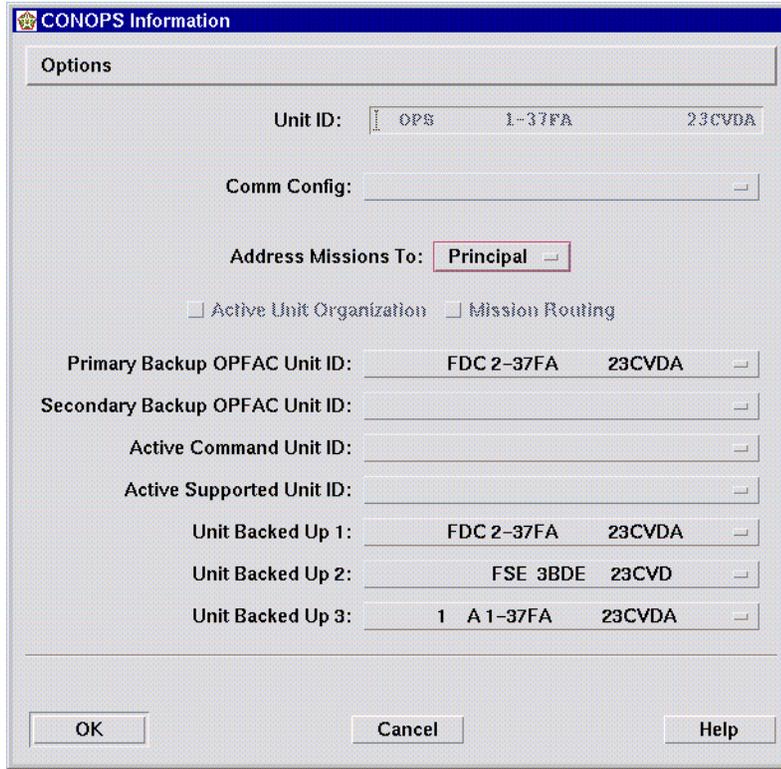
Step	Action	Response
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5. Select Options\CONOPS.

CONOPS Information window opens.

Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units) - CONT

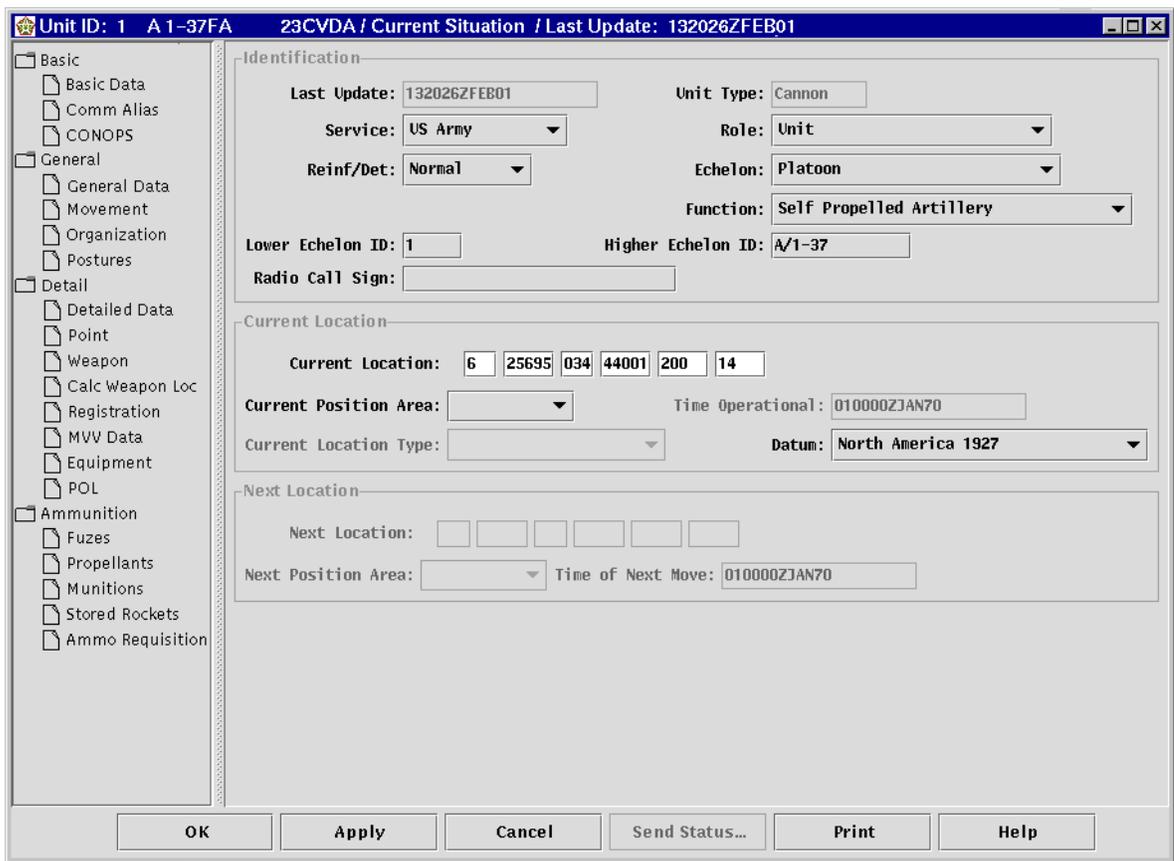
Step	Action	Response
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6.	<p>Select Primary, or Secondary backup unit from Address Missions To: menu.</p>	<p>Active Unit Organization and Mission Routing check boxes are enabled.</p>
7.	<p>Select Active Unit Organization.</p>	
8.	<p>Select OK.</p>	<p>CONOPS Information window closes.</p>
9.	<p>Notify Principal that Unit Org change is complete.</p>	<p>1 Medium Level Alert is generated, noting that Inter-OPFAC CONOPS Unit Organization modification attempt successful and the DTG of when it occurred.</p>

Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units) - CONT

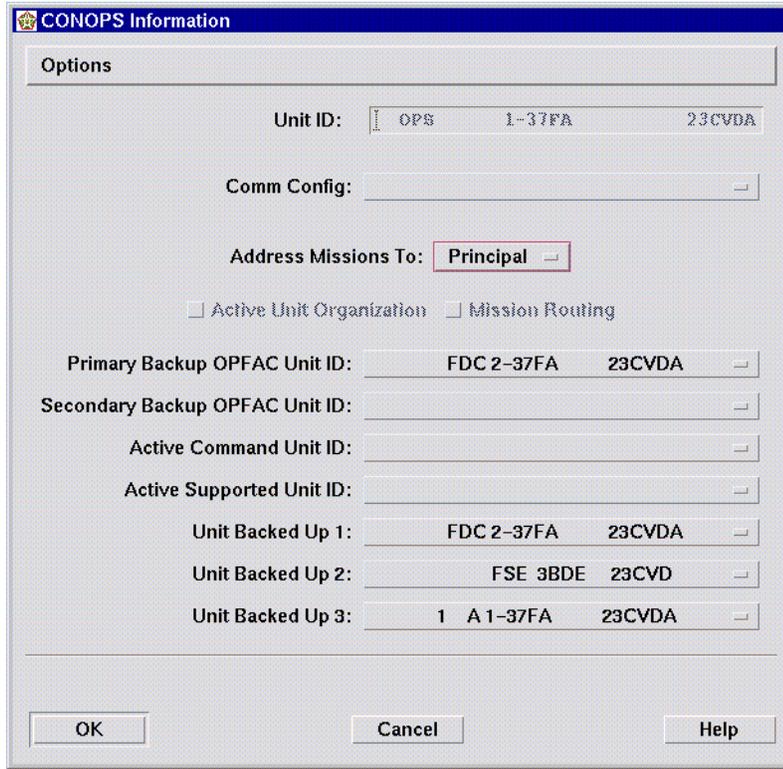
Step	Action	Response
10.	When a message is received from the Backup Unit stating that Backup is now in control, and to modify Mission Routing for Principal unit.	
11.	<u>Select Units\Edit select Principal Unit ID.</u>	Basic Unit Info window opens.



12.	<u>Select Options\CONOPS.</u>	CONOPS Information window opens.
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Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units) - CONT

Step	Action	Response
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13. Select Mission Routing.

14. Select OK.

15. Planned Inter-OPFAC CONOPS procedure for Principals Satellite Units is now complete.

CONOPS Information window closes. Active Target list is sent to backup unit.

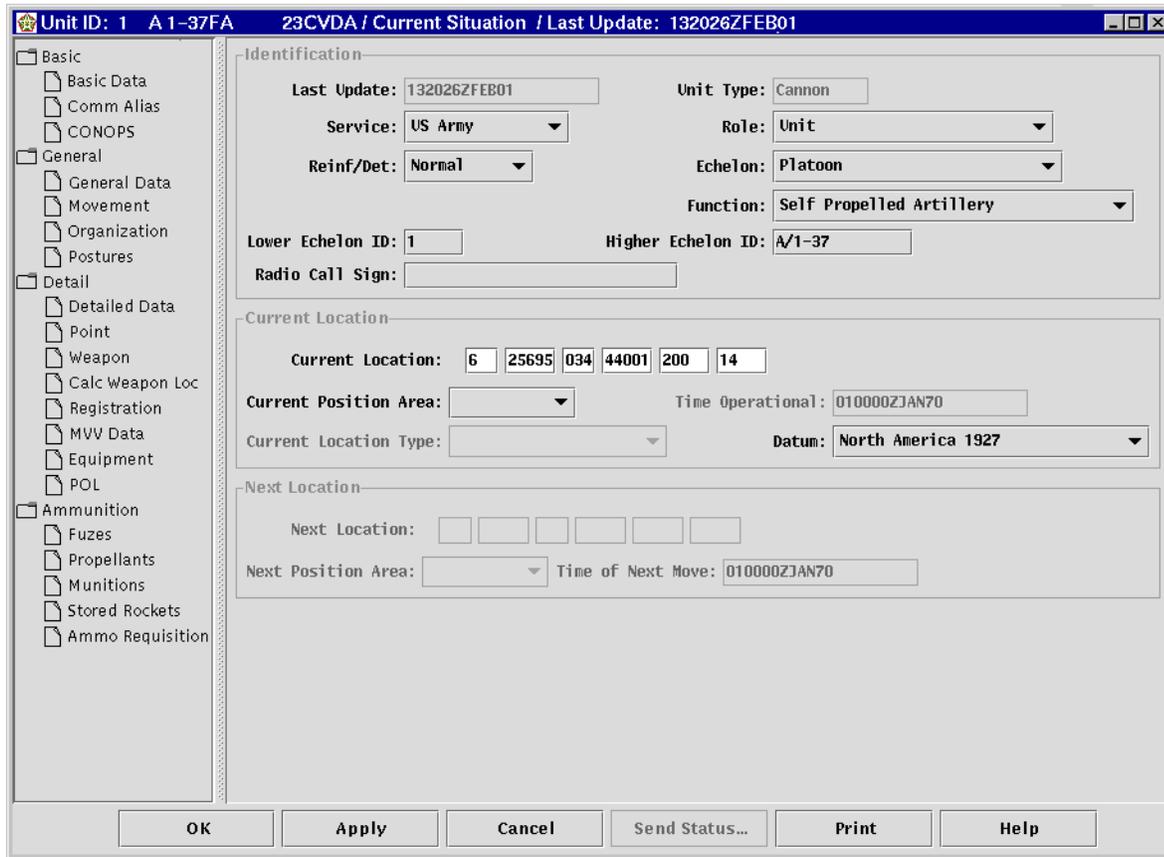
1 **Medium Level Alert** is generated, noting that Inter-OPFAC CONOPS Unit Organization modification attempt successful and the DTG of when it occurred.

6-26.9 Un-Planned Inter-OPFAC CONOPS Procedure (Principal Unit).

Un-Planned Inter-OPFAC CONOPS Procedure (Principal Unit)		
Step	Action	Response
1.	Any of Principals Satellite Units, or Backup Units determine that the Principal is no longer in action. Primary backup will take over for the Principal if available. If not, Secondary backup will take over.	
2.	Backup implements the CONOPS communication setup.	
3.	Disable <u>Automatic Inactive Target</u> and <u>MFR Purging</u> .	
4.	<u>Select Units\Edit select Principal Unit ID.</u>	Basic Unit Info window opens.

Un-Planned Inter-OPFAC CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
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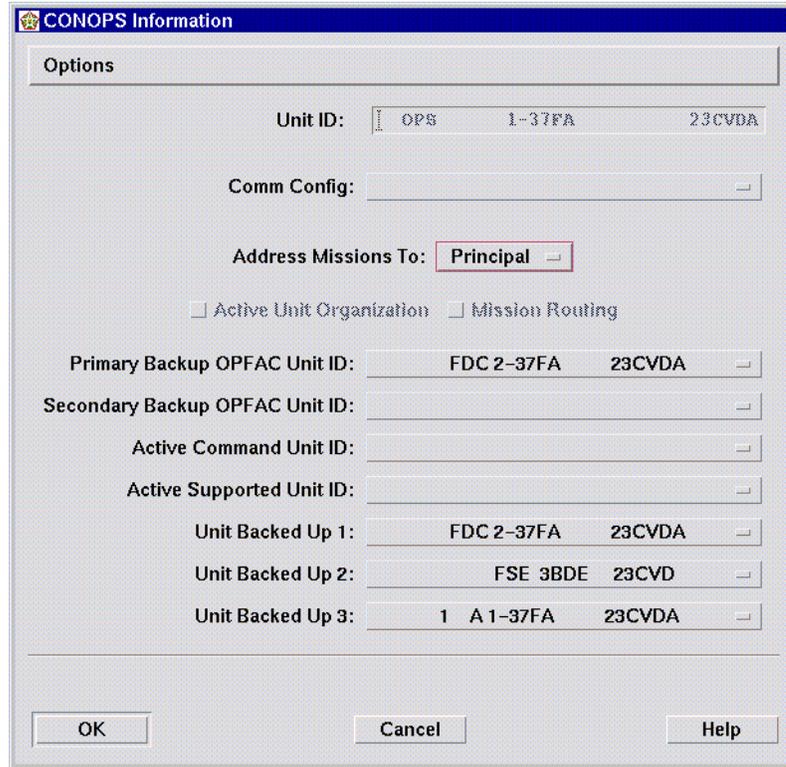


5. Select Options\CONOPS.

CONOPS Information window opens.

Un-Planned Inter-OPFAC CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
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6. Select Primary, or Secondary backup unit from **Address Missions To:** menu.
7. Select Active Unit Organization.
8. Select Mission Routing.

Active Unit Organization and **Mission Routing** check boxes are enabled.

Un-Planned Inter-OPFAC CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
9.	<u>Select OK.</u>	<p>CONOPS Information window closes. This triggers the backup's AFATDS to send a message to Principals Satellite Units, instructing their AFATDS to return their respective active target lists.</p> <p>2 Medium Level Alerts are generated, noting that Inter-OPFAC CONOPS Unit Organization modification attempt successful and the DTG of when it occurred.</p>
10.	<u>Notify Principal's Satellite Units that Backup has assumed control, and to modify their Active Unit Org for the Principal.</u>	
11.	Backup receives notification that all target lists have been received from those units polled. Satellite Units have notified backup that they have made their Unit Org Changes.	
12.	<u>Notify Principal's Satellite Units to modify their Mission Routing for the Principal.</u>	
13.	Un-Planned Inter-OPFAC CONOPS procedure for Backup is now complete. User should note system time.	

6-26.10 Un-Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units).

Un-Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units)

Step	Action	Response
1.	Any of Principals Satellite Units, or Backup Units determine that the Principal is no longer in action.	

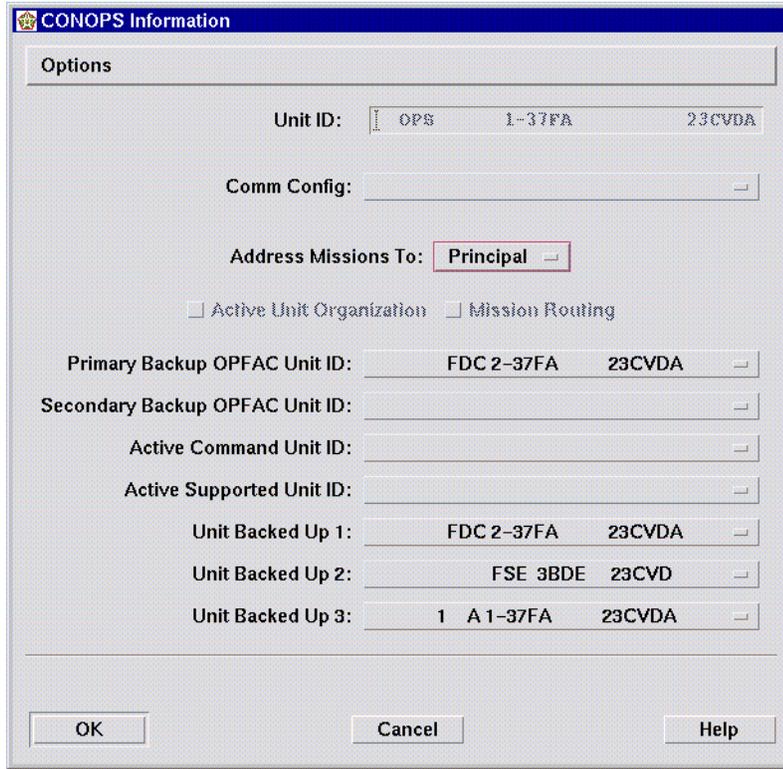
Un-Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units) - CONT

Step	Action	Response
2.	Notification is received from Backup to modify Unit Org.	
3.	<u>Select Units\Edit select Principal Unit ID.</u>	Basic Unit Info window opens.

4.	<u>Select Options\CONOPS.</u>	CONOPS Information window opens.
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Un-Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units) - CONT

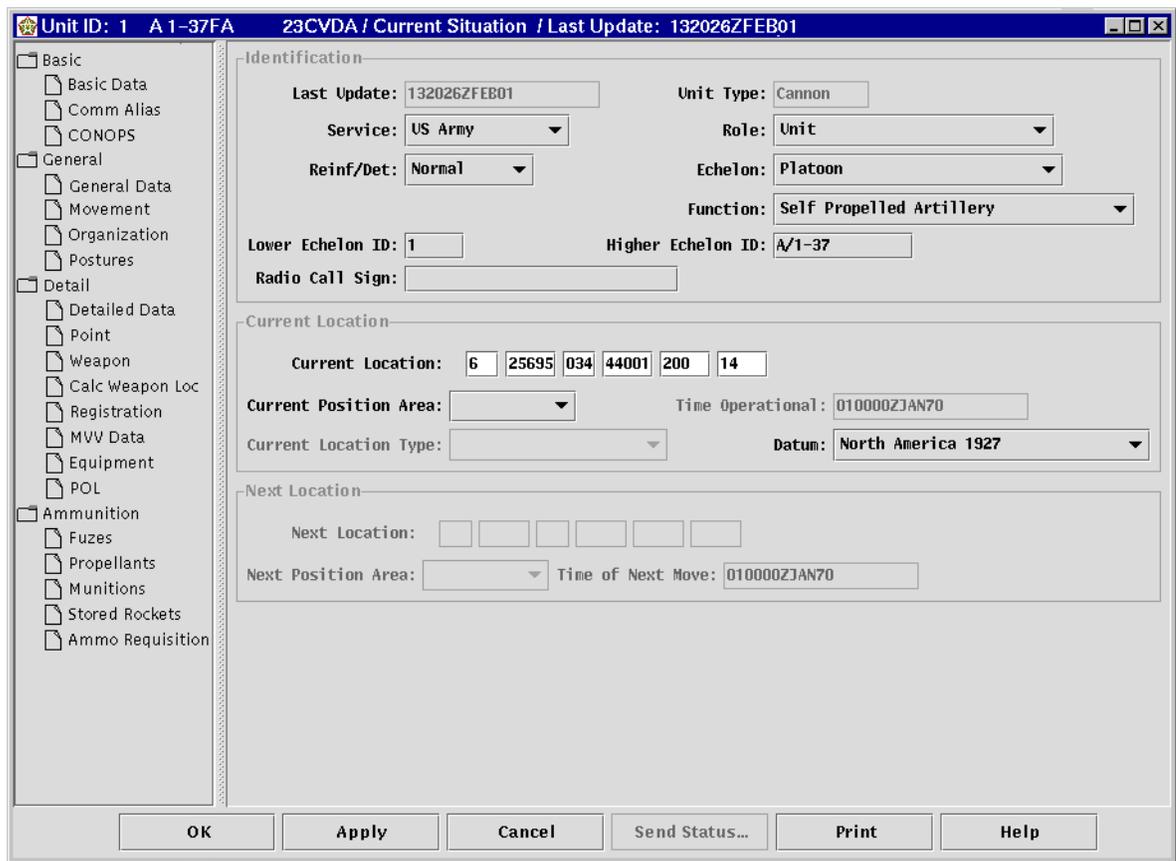
Step	Action	Response
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5.	<p>Select Primary, or Secondary backup unit from Address Missions To: menu.</p>	<p>Active Unit Organization and Mission Routing check boxes are enabled.</p>
6.	<p>Select Active Unit Organization.</p>	
7.	<p>Select OK.</p>	<p>CONOPS Information window closes.</p>
8.	<p>Notify Backup that Unit Org change is complete.</p>	<p>1 Medium Level Alert is generated, noting that Inter-OPFAC CONOPS Unit Organization modification attempt successful and the DTG of when it occurred.</p>

Un-Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units) - CONT

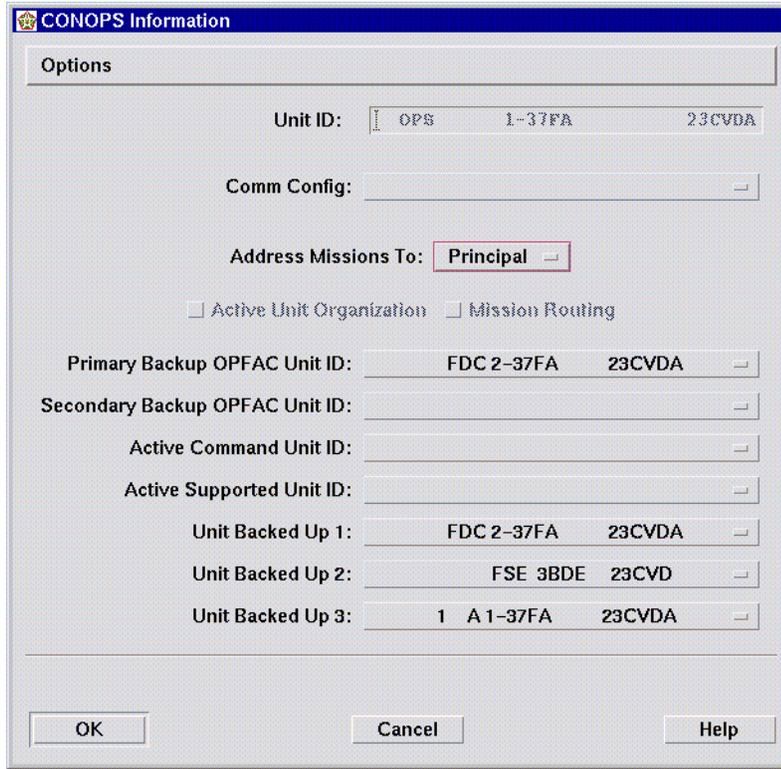
Step	Action	Response
9.	When a message is received from the Backup Unit stating that Backup is now in control, modify Mission Routing for Principal unit as follows:	
10.	<u>Select Units\Edit select Principal Unit ID.</u>	Basic Unit Info window opens.



11.	<u>Select Options\CONOPS.</u>	CONOPS Information window opens.
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Un-Planned Inter-OPFAC CONOPS Procedure (Principal's Satellite Units) - CONT

Step	Action	Response
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12. Select Mission Routing.

13. Select OK.

14. Notify Backup that Mission Routing change is complete.

15. Un-Planned Inter-OPFAC CONOPS procedure for Principals Satellite Units is now complete.

CONOPS Information window closes. Active Target list is sent to backup unit.

1 **Medium Level Alert** is generated, noting that Inter-OPFAC CONOPS transition was completed successfully.

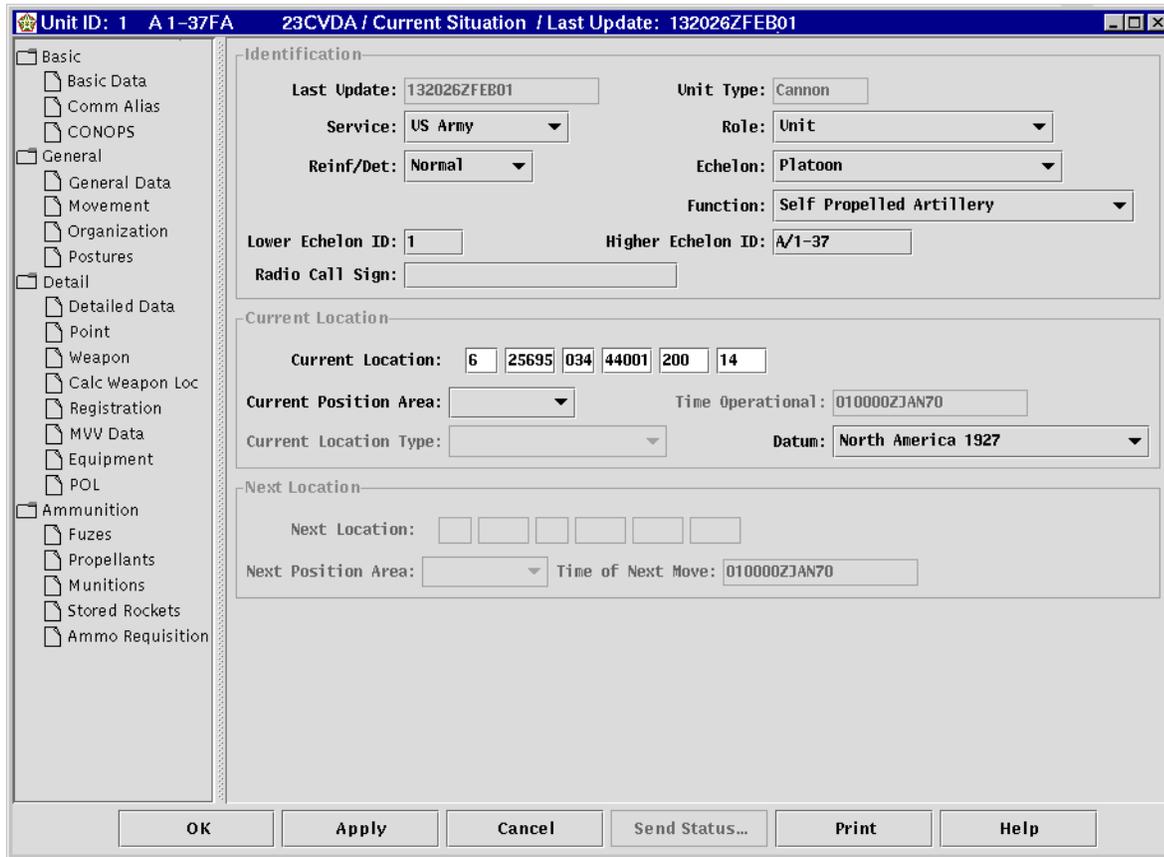
6-26.11 Terminate Inter-OPFAC CONOPS Procedure (Principal).

Terminate Inter-OPFAC CONOPS Procedure (Principal Unit)

Step	Action	Response
1.	Principal Notifies Backup that Principal is ready to return from CONOPS.	
2.	Principal removes Backup from Mission Info Routing.	
3.	Principal monitors Active Target List. Backup will be sending MFRs to clear active missions from Principals active target list. If missions have not been shot, Principal will not receive MFR. Principal must coordinate with backup about missions that have not been processed.	
4.	<u>Select Units\Edit select Principal Unit ID.</u>	Basic Unit Info window opens.

Terminate Inter-OPFAC CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
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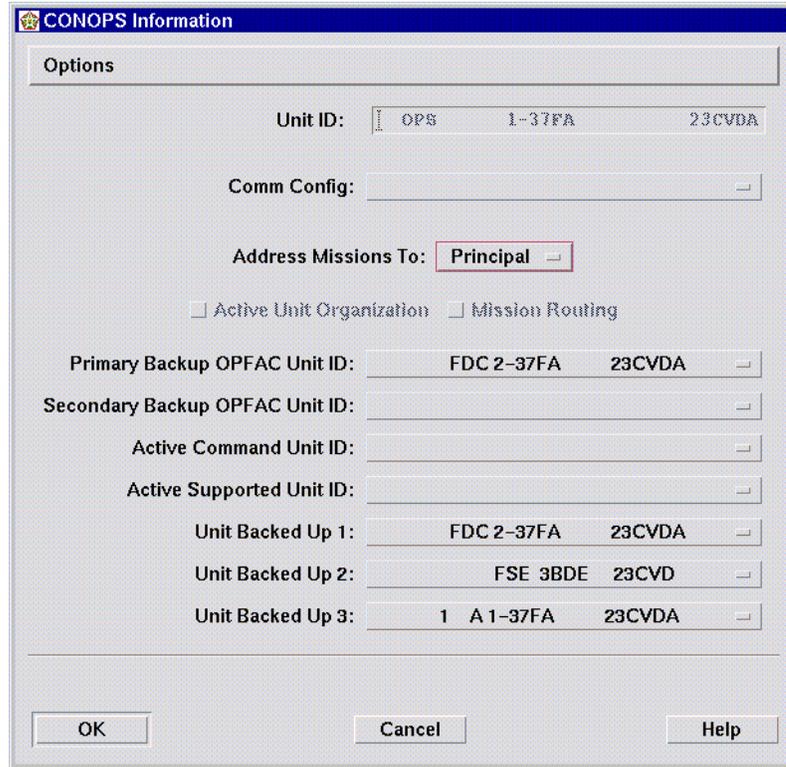


5. Select Options\CONOPS.

CONOPS Information window opens.

Terminate Inter-OPFAC CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
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6. Select **Principal** from Address Missions To: menu.

Active Unit Organization and **Mission Routing** check boxes are cleared and disabled.

7. Select **OK**.

CONOPS Information window closes.

8. Notify Backup and Principal's Satellite Units to modify their Unit org and Mission Routing.

2 **Medium Level Alerts** are generated, noting that Inter- CONOPS Unit Organization modification attempt successful and the DTG of when it occurred.

Terminate Inter-OPFAC CONOPS Procedure (Principal Unit) - CONT

Step	Action	Response
9.	Principal may adjust Purging, Comm, and Intervention as desired.	
10.	Termination of Inter-OPFAC CONOPS procedure for Principal Unit is now complete.	

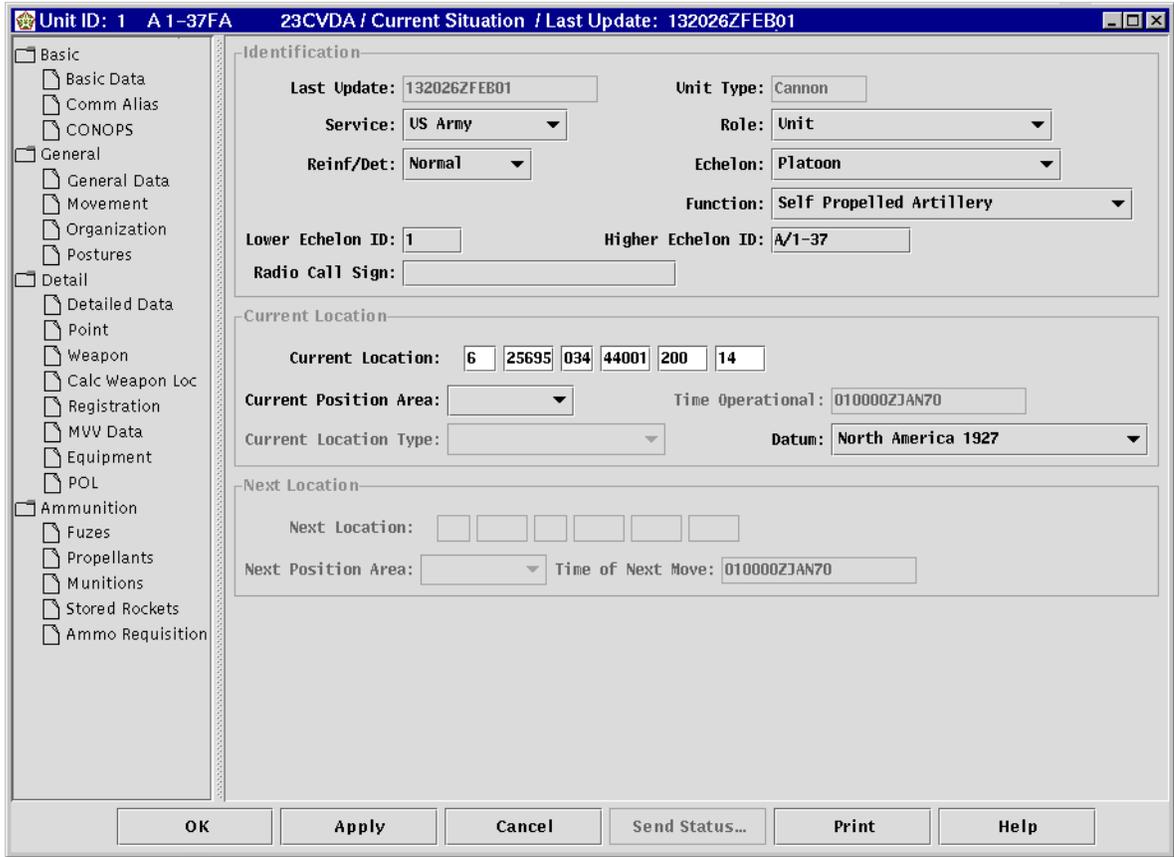
6-26.12 Terminate Inter-OPFAC CONOPS Procedure.(Backup Unit).

Terminate Inter-OPFAC CONOPS Procedure (Backup Unit)

Step	Action	Response
1.	Backup receives the message from the Principal stating that the Principal is ready to return from CONOPS.	
2.	Backup adds Principal to Mission Info Routing checking MFR and enters time noted when Backup took control for Principal in the Since Time: field.	
3.	Backup receives notification from Principal to modify Unit org and Mission Routing.	
4.	<u>Select Units\Edit select Principal Unit ID.</u>	Basic Unit Info window opens.

Terminate Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
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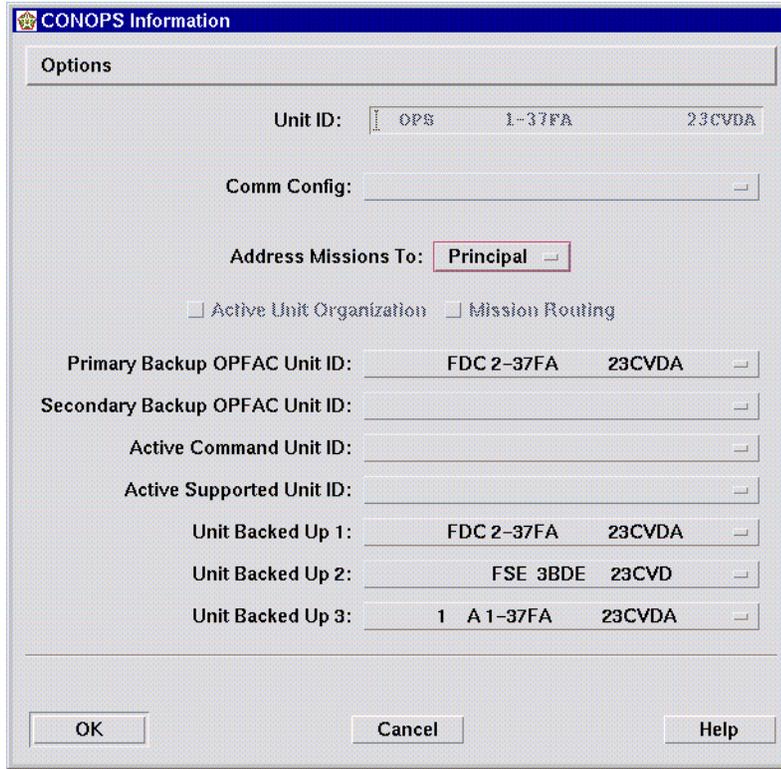


5. Select Options\CONOPS.

CONOPS Information window opens.

Terminate Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
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6. Select **Principal** from Address Missions To:
 menu.

Active Unit Organization and **Mission Routing** check boxes are cleared and disabled.

7. Select **OK**.

CONOPS Information window closes.

8. Backup implements the standard (non-CONOPS) communications setup.

2 **Medium Level Alerts** are generated, noting that Inter-OPFAC CONOPS Unit Organization modification attempt successful and the DTG of when it occurred.

Terminate Inter-OPFAC CONOPS Procedure (Backup Unit) - CONT

Step	Action	Response
9.	Backup coordinates with Principal as to when to remove Principal from Mission Routing.	
10.	Backup may adjust Purging and Intervention as desired.	

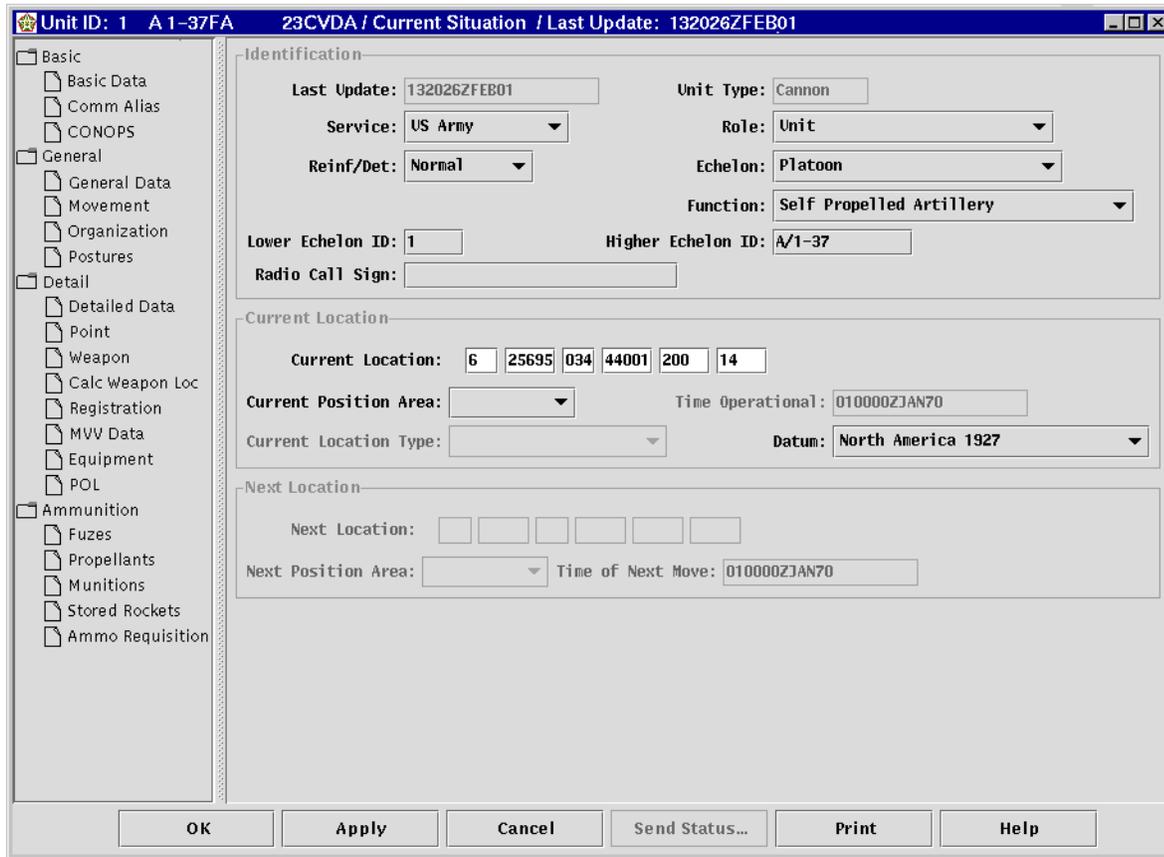
6-26.13 Terminate Inter-OPFAC CONOPS Procedure (Principal's Satellite Units).

Terminate Inter-OPFAC CONOPS Procedure (Principal's Satellite Units)

Step	Action	Response
1.	Notification received, stating that the Principal is ready to return from CONOPS, and to modify Unit Org and Mission Routing.	
2.	<u>Select Units\Edit select Principal Unit ID.</u>	Basic Unit Info window opens.

Terminate Inter-OPFAC CONOPS Procedure (Principal's Satellite Units) - CONT

Step	Action	Response
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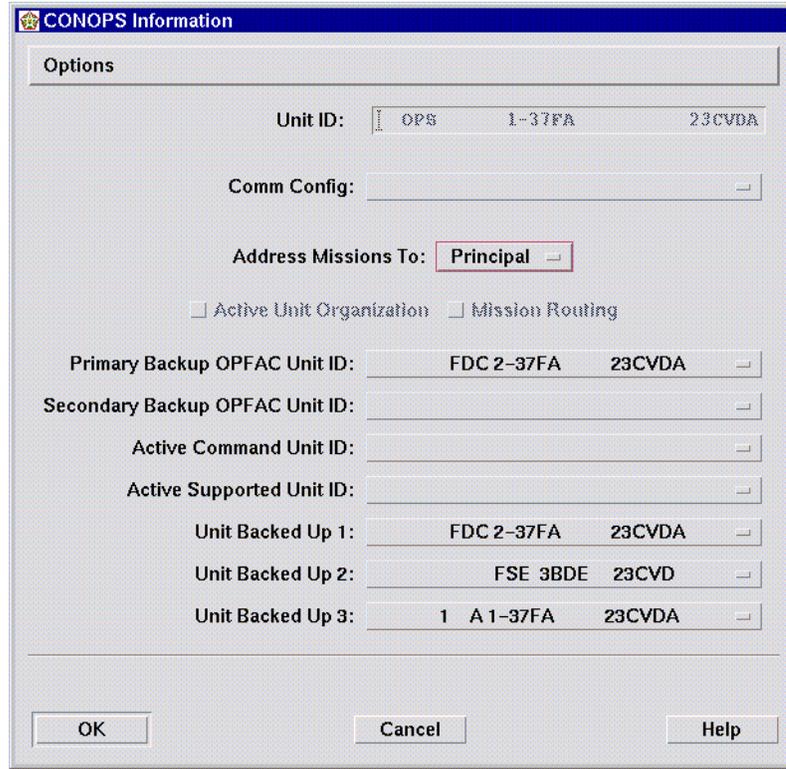


3. Select Options\CONOPS.

CONOPS Information window opens.

Terminate Inter-OPFAC CONOPS Procedure (Principal's Satellite Units) - CONT

Step	Action	Response
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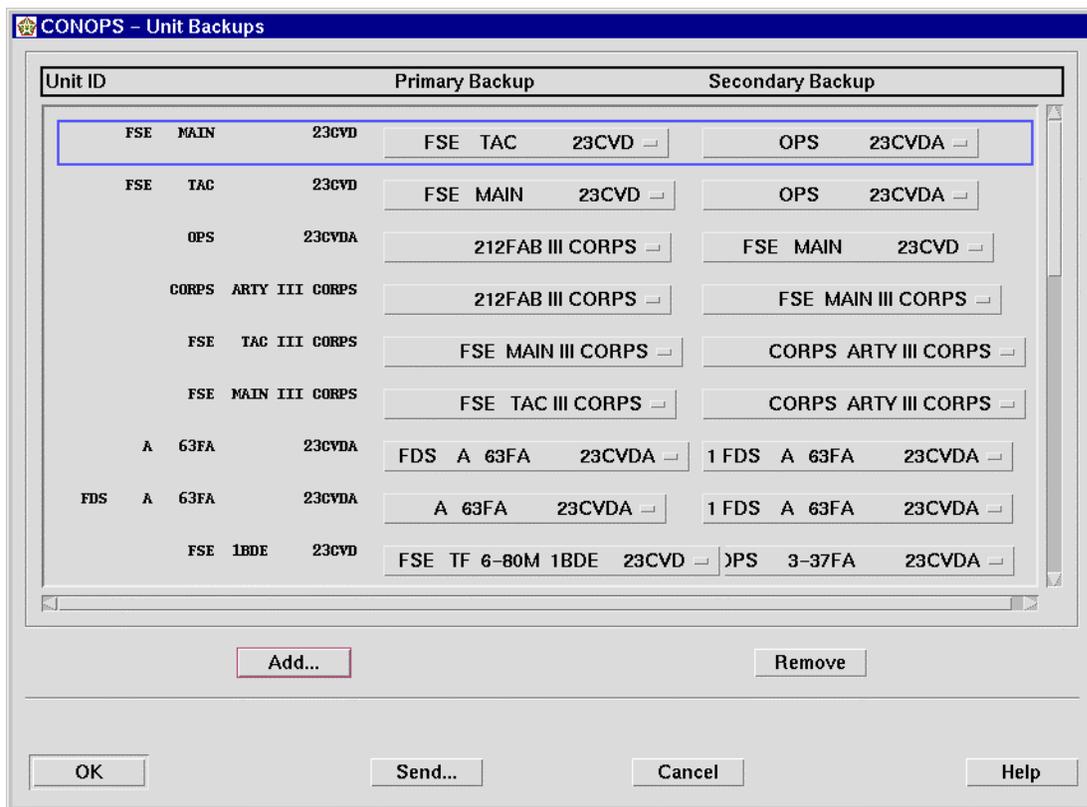


4.	Select Principal from Address Missions To: menu.	Active Unit Organization and Mission Routing check boxes are cleared and disabled.
5.	Select OK .	CONOPS Information window closes. 2 Medium Level Alerts are generated, noting that Inter- CONOPS Unit Organization modification attempt successful and the DTG of when it occurred.
6.	Termination of Inter-OPFAC CONOPS procedure for Principals Satellite Units is now complete.	

6-26.14 CONOPS-Unit Backups.

The **CONOPS-Unit Backups** window is a guidance window only that can inform other OPFAC's of the **Primary Backup** and **Secondary Backup** units. When this OPFAC goes into a CONOPS mode, the current OPFAC information is transferred to the **Primary Backup** unit and this OPFAC shuts down. The **Primary Backup** unit then assumes the role and duties of this OPFAC. In the event that the **Primary Backup** unit is unavailable to assume the OPFAC role, the **Secondary Backup** unit is activated and assumes the role of the OPFAC. The **Add...** button opens the **Select Unit** window for selecting a unit to add to the list. The **Remove** button is used to remove a unit from the list. The **Send...** button opens the **Send To** window for selecting the unit to send the CONOPS unit backup information to. Selecting **OK** closes this window and saves the changes.

Note that this window is for sending CONOPS Organization Guidance between OPFAC's. In order to use the guidance, the operator must enter the guidance data into the CONOPS information window located from the Options pull-down on the **Basic Unit Info** window.



6-26.15 CONOPS Unit Backup Procedure.

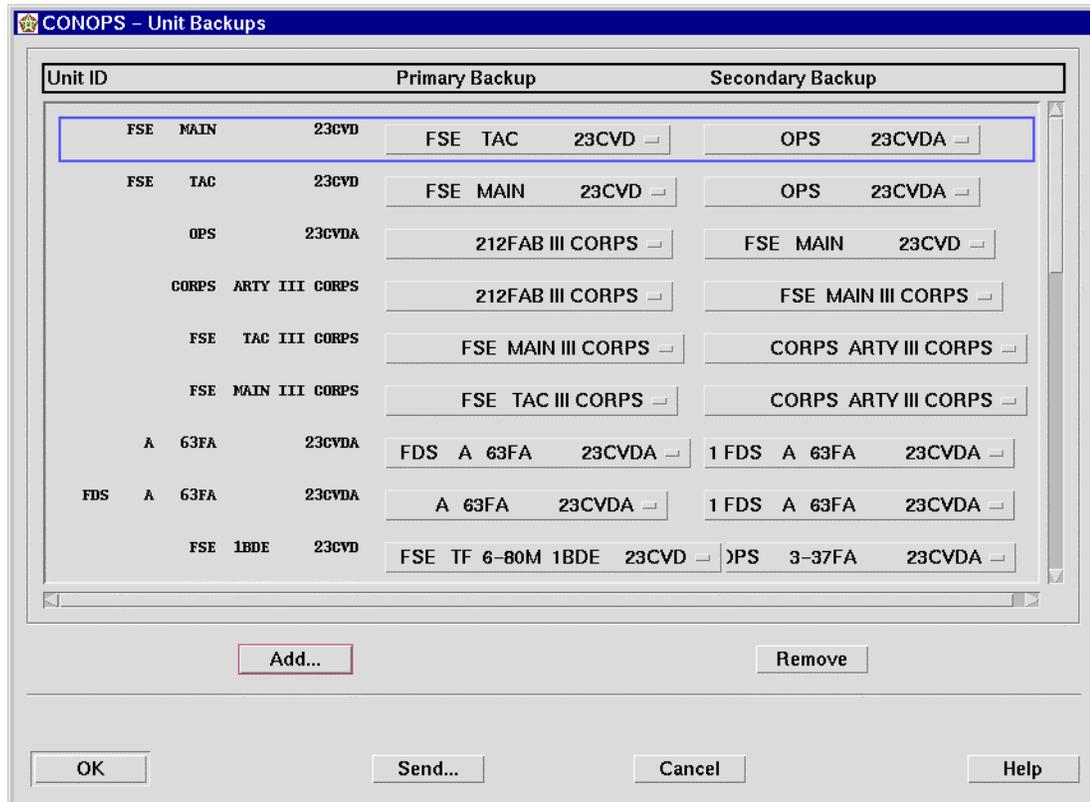
CONOPS Unit Backup Procedure

Step	Action	Response
1.	<u>Select Guidances\Miscellaneous\ CONOPS - Unit Backups.</u>	The CONOPS-Unit Backups window opens.

NOTE

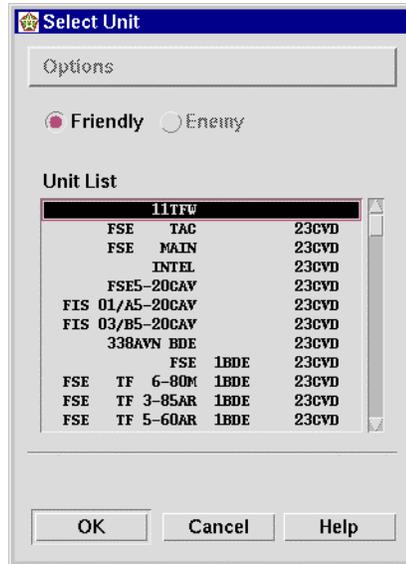
Selecting **OK** at any time will close this window. To perform the following functions, proceed to the indicated steps:

- Change **Primary Backup** step 2
- Change **Secondary Backup**..... step 5
- Add...** a unit ID step 8
- Remove** a unit ID step 11
- Send...** CONOPS information step 14



CONOPS Unit Backup Procedure - CONT

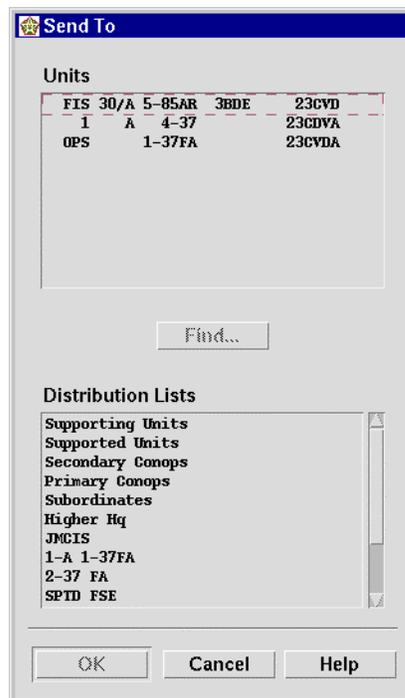
Step	Action	Response
2.	Select the Primary Backup option menu and then Select... to change the displayed unit.	The Select Unit window opens.



3.	Select the desired unit and then select OK .	Selected unit is highlighted and after Select Unit window closes unit is displayed in Primary Backup list.
4.	Refer to the note prior to step 2 to perform other CONOPS-Backups functions.	
5.	Select the Secondary Backup option menu and then Select... to change the displayed unit.	The Select Unit window opens.
6.	Select the desired unit and then select OK .	Selected unit is highlighted and after Select Unit window closes unit is displayed in Secondary Backup list.
7.	Refer to the note prior to step 2 to perform other CONOPS-Backups functions.	

CONOPS Unit Backup Procedure - CONT

Step	Action	Response
8.	<u>Select Add... button.</u>	Select Unit window opens.
9.	<u>Select the desired unit and then select OK.</u>	Selected unit is highlighted and after Select Unit window closes the unit is added to the Unit ID list.
10.	<u>Refer to the note prior to step 2 to perform other CONOPS-Backups functions.</u>	
11.	<u>Select a unit from the Unit ID list.</u>	Selected Unit ID is highlighted.
12.	<u>Select Remove button to remove the selected Unit ID.</u>	The selected Unit ID is removed from the list.
13.	<u>Refer to the note prior to step 2 to perform other CONOPS Backup functions.</u>	
14.	<u>Select Send...</u>	The Send To window opens.



CONOPS Unit Backup Procedure - CONT

Step	Action	Response
15.	<u>Select a unit</u> and <u>then select OK</u> .	The Send To window closes and the CONOPS information is sent to the selected unit.

6-27 OPFAC RECONFIGURATION.

Whenever AFATDS detects a failure in a process, the system will attempt to reconfigure that process. A high-level alert will be issued with the following text.

OPFAC Reconfiguration In Progress.

After reading this alert, "OK" it and delete it from the High Level Alert list. Then allow five minutes for either "OPFAC Reconfiguration Complete" or "Degraded" Medium Level alert to post. To minimize likelihood of inducing system crash, cease operator actions until one of these alerts posts.

If "OPFAC Reconfiguration Complete" alert posts, archive database and continue operations. If "Degraded" alert posts or neither alert posts after five minutes, attempt Shutdown then Restart. If shutdown is not successful, recycle power then Restart AFATDS.

Upon receiving this alert, the operator closes the alert window via **OK** and deletes the alert from the list. A period of up to five minutes is the allowed to see if a medium-level alert is issued stating that the reconfiguration has completed or the system is degraded. If OPFAC reconfiguration is completed, the operator should archive databases (as a precaution) and continue operations. If a degraded alert or no alert is received, the operator should attempt to archive databases and perform normal shutdown and restart. If normal shutdown cannot be accomplished, power to the workstation and peripherals should be recycled and AFATDS restarted.

If a window loses functionality (grays out) and cannot be closed and no alerts issued, wait approximately two minutes and then perform the procedure as if the system is degraded.

SECTION 4 MAINTENANCE UTILITIES AND COE FUNCTIONS

6-28 SCOPE.

The procedures in this chapter are used to load software on the different hardware systems (platforms) used in AFATDS. These platforms include the UCU and CCU-2.

6-29 UCU/CCU-2 LOAD.

The UCU/CCU-2 application software is loaded on the hard disk from a CD Rom. The CD contains the application in an unclassified state and the operating system (OS) required to allow operation of the software on the UCU/CCU-2. Loading of the UCU/CCU-2 comprises the copying of files from the CD to the hard disk and the configuring of these files for system operation. The system is then re-started (re-booted) using the system and files installed on the hard drive for normal operation.

Databases specific to the unit are loaded via the Restore function from an OD or Jaz or from a floppy disk. Databases may also be loaded from a floppy disk using the Floppy Disk Utility function. Databases from older versions of AFATDS, e.g. A98, must be loaded via the Floppy Disk Utility function.

6-29.1 UCU/CCU-2 Load Procedures.

AFATDS software is initially loaded on UCU/CCU-2 hard drives from a CD. This loading is normally accomplished for new hard drives (first use, or as a result of a maintenance action) or upgrade of software.

UCU/CCU2 Load Procedures

Step	Action	Response
1.	<u>Ensure or set UCU/CCU2 power OFF.</u> All other components should be on.	
2.	<u>Insert AFATDS application disk</u> into CD.	
3.	<u>Set UCU/CCU2 power ON.</u>	Initialization messages appear on monitor.
4.	<u>Press <Stop> + <A>.</u>	OK prompt is displayed.
5.	<u>Type boot cdrom.</u>	
6.	<u>Press <Enter> key.</u>	The system loads from the optical drive.

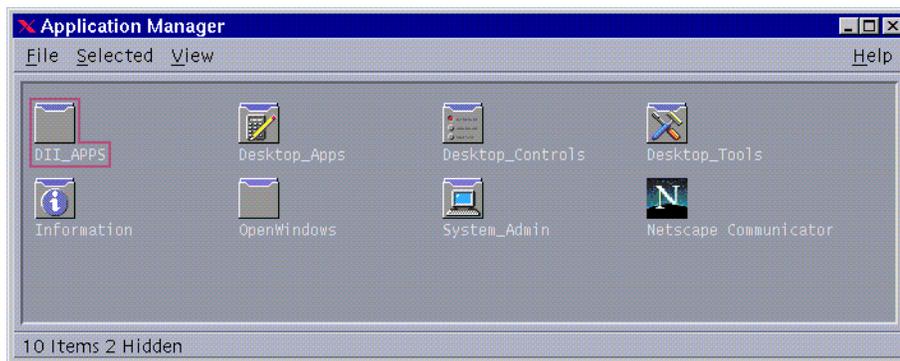
6-29.2 Database Load Procedures.

Databases specific to the unit are loaded via the Restore function from an OD or JAZ or from a floppy disk using the Floppy Disk Utility function. Refer to the applicable paragraph for these procedures.

6-30 SEGMENT INSTALLER PROCEDURE (UCU/CCU-2).

Segment Installer Procedure (UCU, CCU-2)

Step	Action	Response
1.	<u>Login as sysadmin.</u>	
2.	<u>Select Start\Programs\CDE App Manager.</u>	Application Manager window opens.

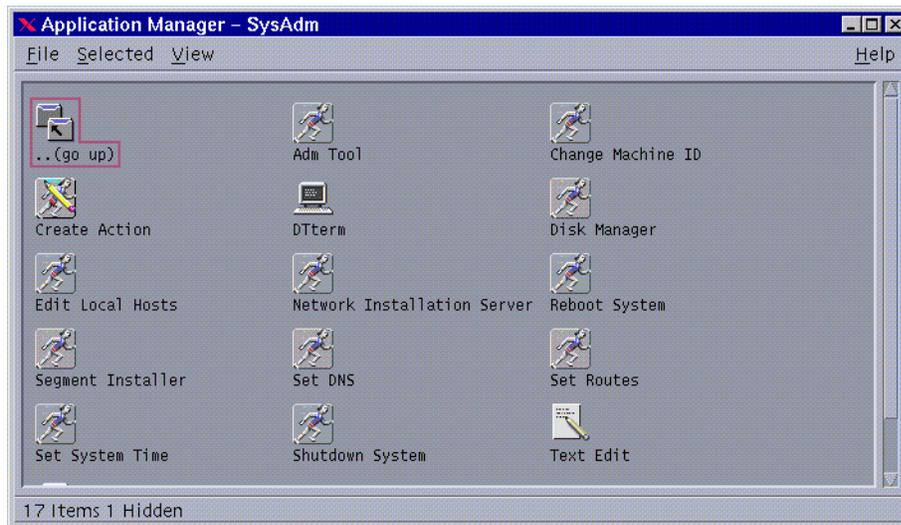


Segment Installer Procedure (UCU, CCU-2) - CONT

Step	Action	Response
3.	<u>Double-click DII APPS</u> icon.	Application Manager DII APPS window opens.



4.	<u>Double-click SysAdm</u> icon.	Application Manager SysAdm window opens.
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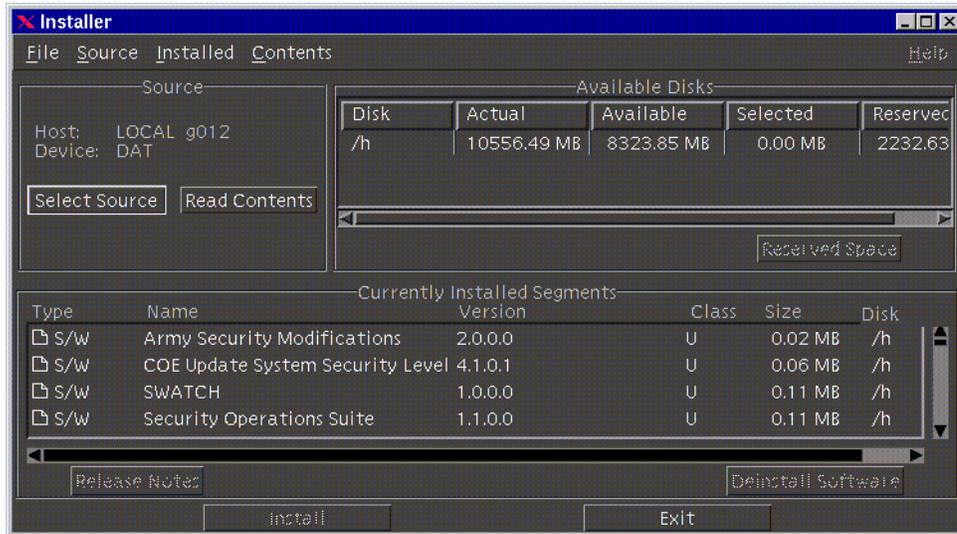
5.	<u>Double-click Segment Installer</u> icon.	Installer window opens.
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Segment Installer Procedure (UCU, CCU-2) - CONT

Step	Action	Response
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NOTE

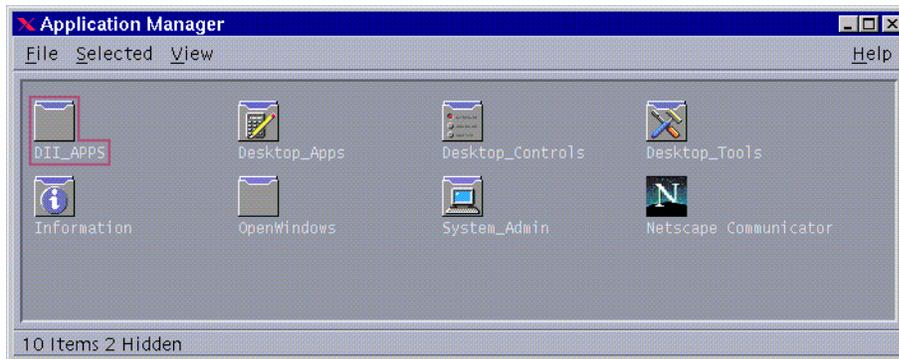
A window may appear warning of processes that are currently running; OK out of this window.



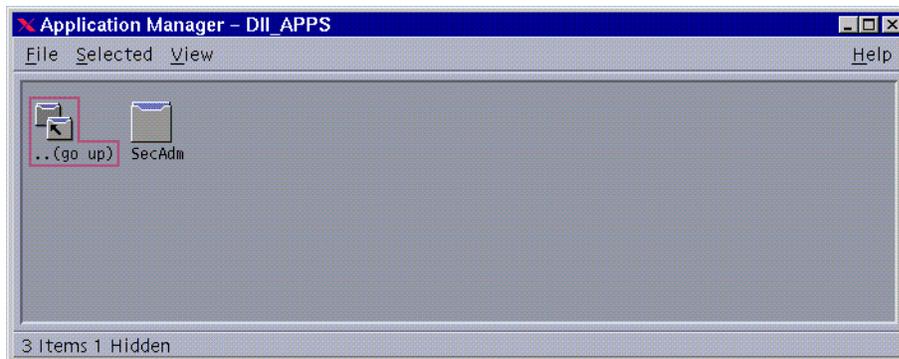
6.	<u>Select Select Source.</u>	Select Media Device window opens.
7.	<u>Select CDROM.</u>	
8.	<u>Select OK.</u>	Select Media Device window closes.
9.	<u>Select Read Contents.</u>	Select Software to Install window opens. Contents of CDROM are displayed.
10.	<u>Select segment to install.</u>	
11.	<u>Select Install.</u>	Selected segment is installed.
12.	Repeat steps 10 and 11 as required.	
13.	<u>Select Exit.</u>	Installer window closes.

6-31 CREATE NEW USER.

Create New User		
Step	Action	Response
1.	<u>Login as secman</u> at DII COE login window.	
2.	<u>Select Start\Programs\CDE App Manager.</u>	Application Manager window opens.

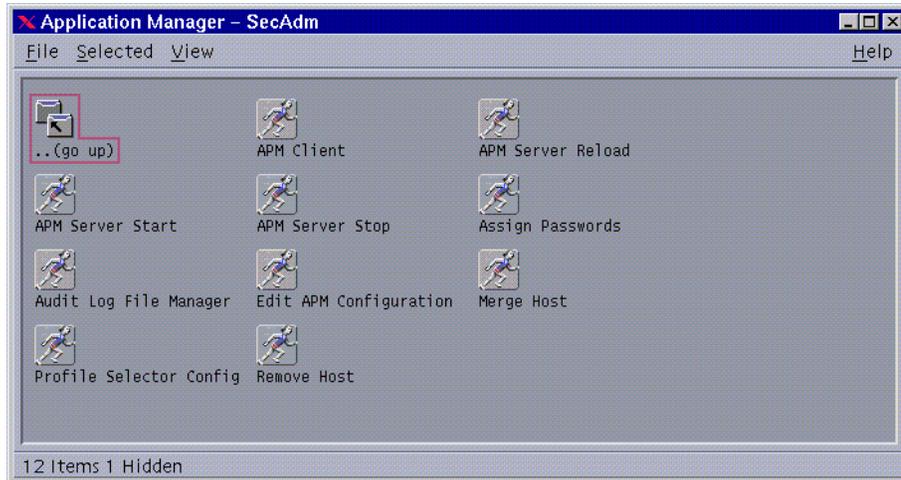


3.	<u>Double-click DII APPS</u> icon.	Application Manager DII APPS window opens.
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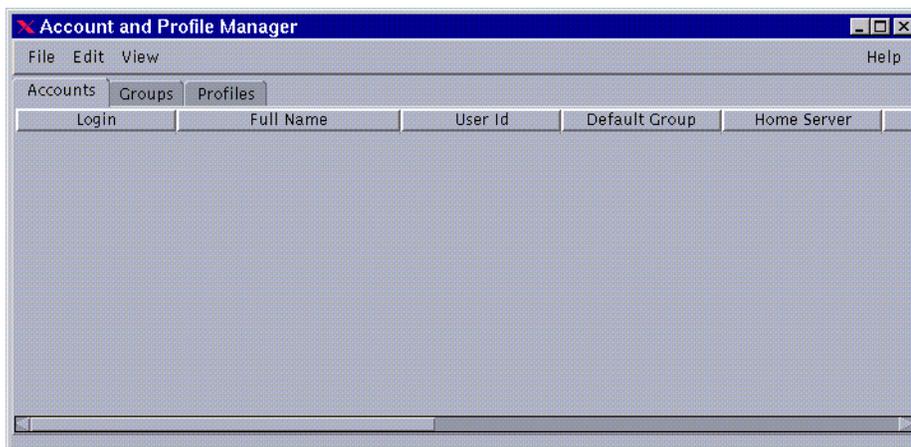


Create New User - CONT

Step	Action	Response
4	<u>Double-click SecAdm icon.</u>	Application Manager SecAdm window opens.

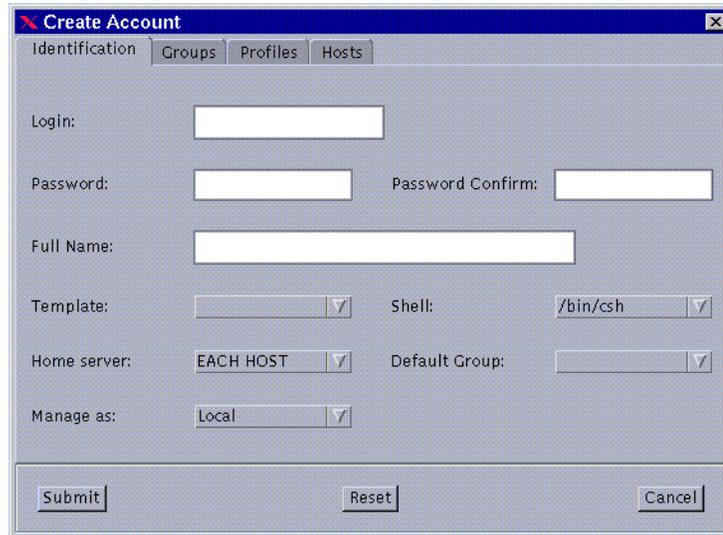


5.	<u>Double-click APM Client icon.</u>	Account and Profile Manager window opens.
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Create New User - CONT

Step	Action	Response
6.	<u>Select FileNew Account.</u>	Create Account window opens.

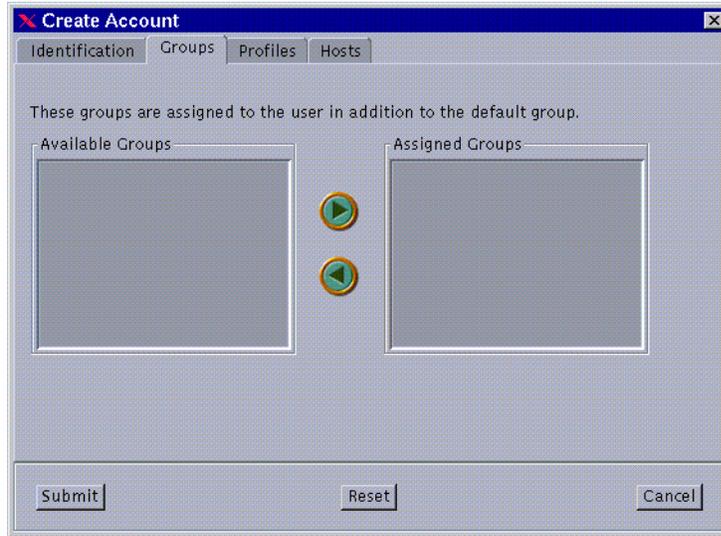


7. Enter Login:
8. Enter Password:
9. Enter password in **Password Confirm:** field.
10. Enter Full Name:
11. Select Template:
12. Select Home Server:
13. Select Manage as:
14. Select Shell:
15. Select Default Group:
16. Select Groups tab.

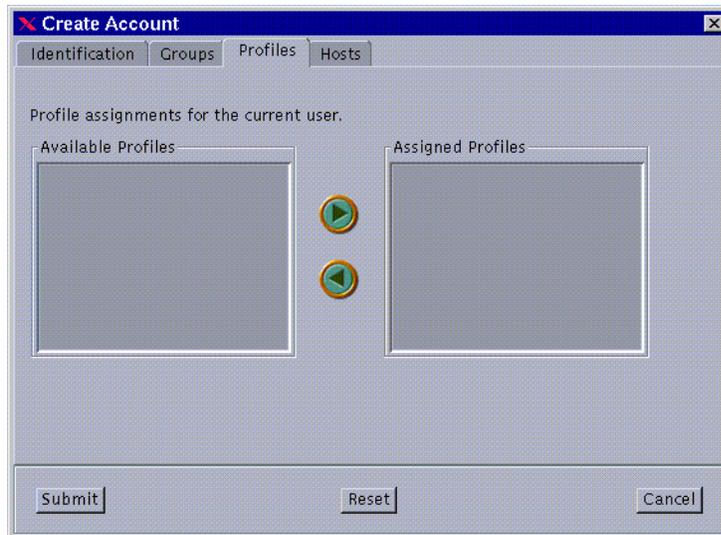
Groups tab is displayed.

Create New User - CONT

Step	Action	Response
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- | | | |
|-----|---|--|
| 17. | <u>Select groups</u> from Available Groups list. | |
| 18. | <u>Select right-arrow.</u> | Group(s) appear in Assigned Groups field. |
| 19. | <u>Select Profiles</u> tab. | Profiles tab is displayed. |



Create New User - CONT

Step	Action	Response
20.	<u>Select Profiles:</u> from Available list.	
21.	<u>Select right-arrow.</u>	Profile(s) appear in Assigned field.
22.	<u>Select Hosts tab.</u>	Hosts tab is displayed.



23.	<u>Select Hosts:</u> from Available list.	
24.	<u>Select right-arrow.</u>	Host(s) appear in Assigned field.
25.	<u>Select Submit.</u>	
26.	<u>Repeat steps 6 through 25</u> for each new user.	
27.	<u>Select File\Exit</u> for each window until all Application Manager windows are closed.	
28.	<u>Logout of AFATDS</u> using procedures of section 3.	

Create New User - CONT

Step	Action	Response
29.	<u>Logon to AFATDS</u> using procedures of section 3.	
30.	<u>Assign new users to a group</u> using procedures of section 3.	

APPENDIX A REFERENCES

A-1 SCOPE.

This appendix lists all forms, field manuals, technical manuals, and Army/Marine Corps regulations referenced in this manual.

A-2 FORMS.

Discrepancy in Shipment Report	SF 361
Equipment Inspection and Maintenance Worksheet	DA Form 2404
Quality Deficiency Report	SF 368
Changes to DA Publications	DA Form 2028-2
Recommended Changes to Technical Publications	NAVNC 10772
Report of Discrepancy (ROD)	SF 364

A-3 FIELD MANUALS.

First Aid for Soldiers	FM 21-11
NBC Decontamination	FM 3-5
NBC Defense	FM 21-40
Nuclear, Biological, and Chemical (NBC) Reconnaissance and Decontamination Operations	FM 3-87

ARMY TM 11-7025-297-10
MARINE CORPS TM 10690A-10

A-4 TECHNICAL MANUALS.

Administrative Storage of Equipment

| TM 740-90-1

Ground Equipment Record Procedures

| TM 4700-15/1

A-5 MISCELLANEOUS PUBLICATIONS.

Product Quality Deficiency Report Manual

| MCO P4855.10

APPENDIX B ENEMY TEMPLATES

B-1 GENERAL.

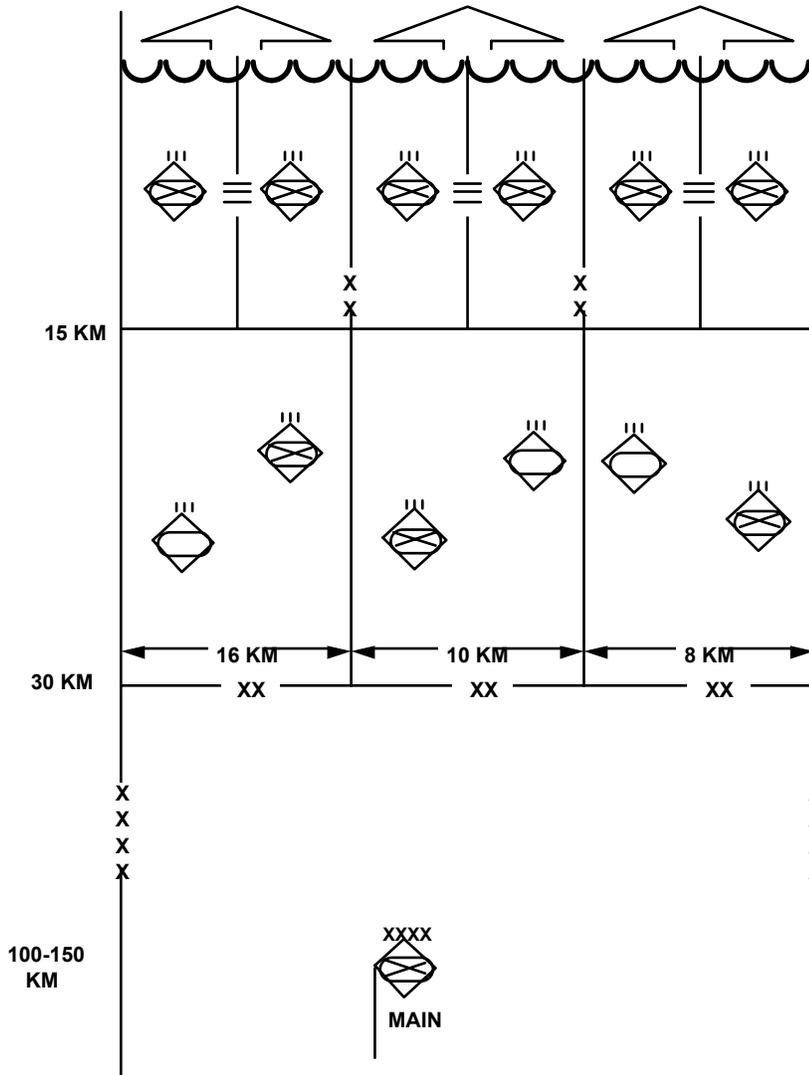
This appendix contains seventeen enemy templates that are available to the user. These templates are designed to aid the user by supplying a quick method of entering a typical enemy posture. The templates are identified by echelon and situation. After template selection, the user may reposition, edit, add, and/or delete units to reflect the actual situation. Following each template is the positioning and unit information for the template. The user has the capability to position an enemy template on the map by using the **Add Enemy Template** window. This window is accessed by selecting **Units>Add Enemy Template** from the map menu. The headings of the tabular data for each template unit are described in the following paragraphs.

- Unit ID - The Unit ID is the unique identifier of each unit displayed in the template. The Unit ID consists of three alpha characters and a set of numeric characters. The alpha characters are an abbreviation of the unit type (i.e. MRB is a Motorized Rifle Battalion, TDK is a Tank Division, etc.).

The set of numerals represent three types of data. The numbering scheme was devised so that multiple uses of a template and/or use of multiple templates will not create duplicate unit ID's. The first number indicates the sequence of the unit type within a given template. As example, MRP 3/2-1 is the third MRP of the template. Remaining numbers identify the template and usage number. In this example, the MRP 3/2-1 is displayed via the first usage of template number 2 (2-1). FAB 3/3-2 would be the third FA battalion in a Regiment Attack & Seize Subsequent Adjust Objective template (template number 3) and it is part of the second Regiment Attack & Seize Subsequent Objective template displayed for that given Plan/Phase. In this way, no two units will have the same ID.

- TVA Category - TVA Category is assigned to a unit based on the most prevalent type of system in the unit. For example, a reinforced motorized rifle battalion may have a company of tanks and a battery of artillery attached but it is still identified as maneuver based on the predominance of its armored fighting vehicles.
- Target Type - Like TVA Category, the target type is assigned to a unit based on the most prevalent type of system in the unit.
- Number of Platoons - Number of platoons associated with a unit is based on the total number of platoon size units affiliated with the unit regardless of target type. Therefore the MRB which would only have sixteen platoons form may have nineteen platoons when reinforced with a tank company.
- X and Y Coordinates - The X and Y coordinates represent the location of the center of mass of the unit measured in meters from the template center. Given the center of mass and orientation of the template, the Cartesian coordinates can be plotted for all of its component units.
- Role, Echelon, and Function - Role, Echelon, and Function columns display the data used to construct the unit symbols.

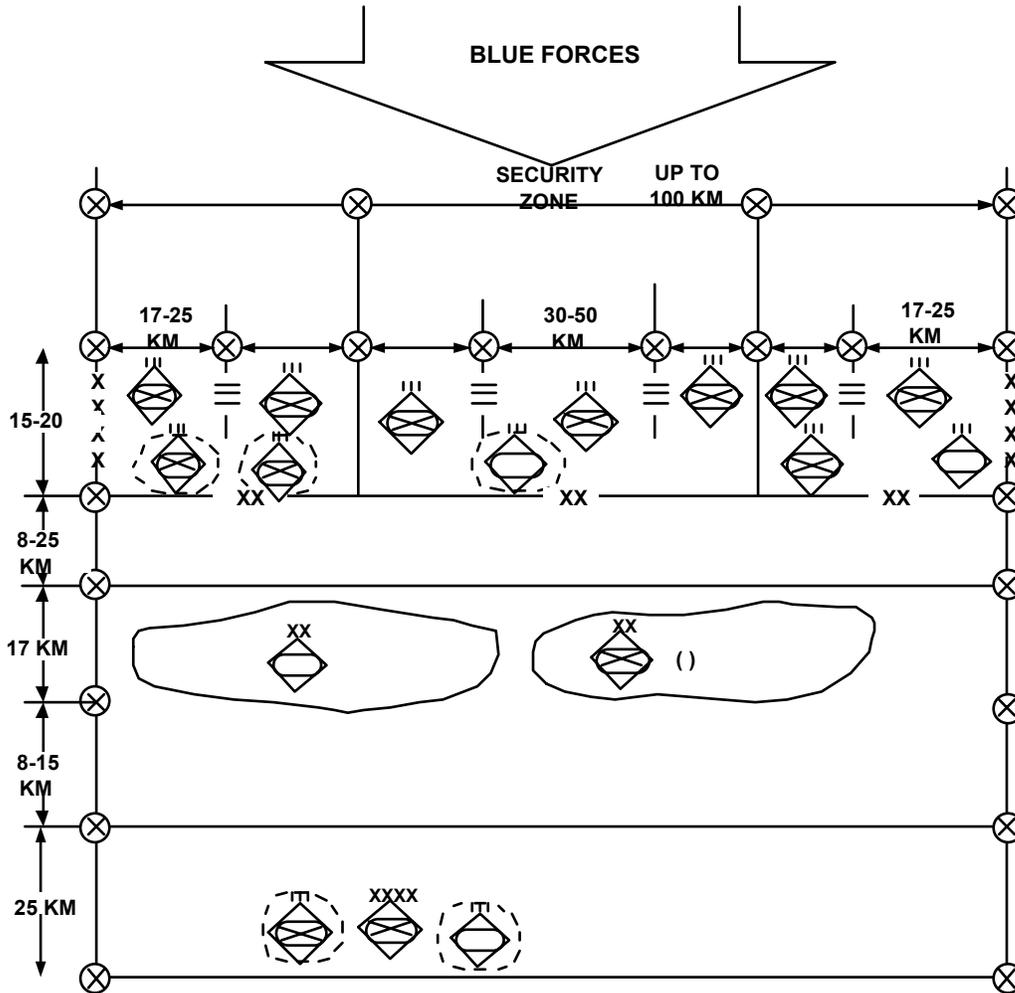
B-2 ARMY - ATTACK/SEIZE SUBSEQUENT OBJECTIVE (TEMPLATE 14).



Army - Attack/Seize Subsequent Objective (template 14)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
1st MRREGT	MRR 1/14-1	MVR	ARMD VEH	105	-14000	67500	Unit	REG	MECZ Infantry
2nd MRREGT	MRR 2/14-1	MVR	APC	102	-8500	67500	Unit	REG	MECZ Infantry
3rd MRREGT	MRR 3/14-1	MVR	APC	102	-8500	55000	Unit	REG	MECZ Infantry
TankREGT	TKR 1/14-1	MVR	Tank Medium	69	-14000	51500	Unit	REG	Tank
1st MRREGT	MRR 4/14-1	MVR	ARMD VEH	105	-3000	67500	Unit	REG	MECZ Infantry
2nd MRREGT	MRR 5/14-1	MVR	APC	102	3000	67500	Unit	REG	MECZ Infantry
3rd MRREGT	MRR 6/14-1	MVR	APC	102	-3000	51500	Unit	REG	MECZ Infantry
TankREGT	TKR 2/14-1	MVR	Tank Medium	69	3000	55000	Unit	REG	Tank
1st MRREGT	MRR 7/14-1	MVR	ARMD VEH	105	8500	67500	Unit	REG	MECZ Infantry
2nd MRREGT	MRR 8/14-1	MVR	APC	102	14000	67500	Unit	REG	MECZ Infantry
3rd MRREGT	MRR 9/14-1	MVR	APC	102	14000	52500	Unit	REG	MECZ Infantry
TankREGT	TKR 3/14-1	MVR	Tank Medium	69	8500	55000	Unit	REG	Tank
MR DIV	MRD 1/14-1	MVR	ASSY Area MECZ Troops	635	-12500	-50000	Unit	DIV	MECZ Infantry
Tank DIV	TKD 1/14-1	MVR	ASSY Area Troops and Armor	608	4500	-25000	Unit	DIV	Tank
Army CP Main	ACP 1/14-1	C3	CP Unknown	10	-5400	-75000	HQ	Army	MECZ Infantry

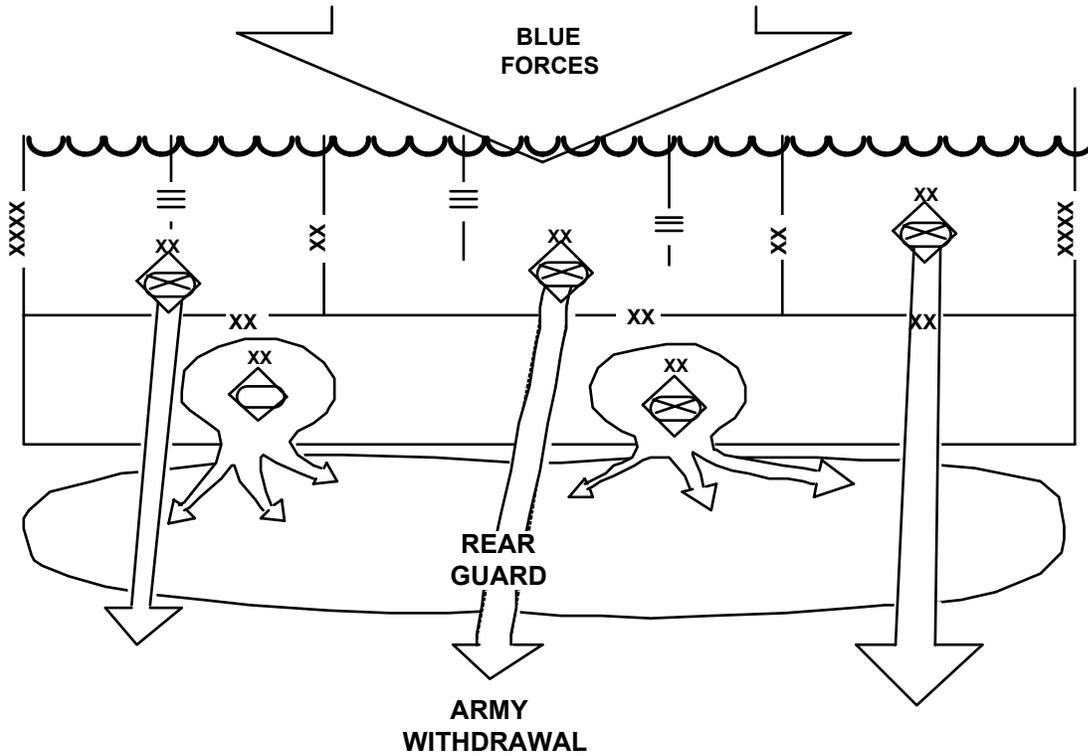
B-3 ARMY - DELIBERATE DEFENSE (TEMPLATE 15).



Army - Deliberate Defense (template 15)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
1st MRREGT	MRR 1/15-1	MVR	ARMD VEH	105	-34000	24500	Unit	REGT	MECZ Infantry
2nd MRREGT	MRR 2/15-1	MVR	APC	102	-24200	24000	Unit	REG	MECZ Infantry
3rd MRREGT	MRR 3/15-1	MVR	APC	102	-33600	14250	Unit	REG	MECZ Infantry
TankREGT	TKR 1/15-1	MVR	Tank Medium	69	-25200	14250	Unit	REG	Tank
1st MRREGT	MRR 4/15-1	MVR	ARMD VEH	105	-15000	24000	Unit	REG	MECZ Infantry
2nd MRREGT	MRR 5/15-1	MVR	APC	102	2100	19000	Unit	REG	MECZ Infantry
3rd MRREGT	MRR 6/15-1	MVR	APC	102	15000	24000	Unit	REG	MECZ Infantry
TankREGT	TKR 2/15-1	MVR	Tank Medium	69	-5000	14250	Unit	REG	Tank
1st MRREGT	MRR 7/15-1	MVR	ARMD VEH	105	22700	24000	Unit	REG	MECZ Infantry
2nd MRREGT	MRR 8/15-1	MVR	APC	102	33600	24000	Unit	REG	MECZ Infantry
3rd MRREGT	MRR 9/15-1	MVR	APC	102	25200	14250	Unit	REG	MECZ Infantry
TankREGT	TKR 3/15-1	MVR	Tank Medium	69	33600	14250	Unit	REG	Tank
MR DIV	MRD 1/15-1	MVR	ASSY Area MECZ Troops	635	7350	-3750	Unit	DIV	MECZ Infantry
Tank DIV	TKD 1/15-1	MVR	ASSY Area Troops and Armor	608	-23100	-3750	Unit	DIV	Tank
CA Army (Minus)	CAA 1/15-1	MVR	ASSY Area MECZ Troops	1850	-14700	-25250	Unit	Army	MECZ Infantry
MR DIV	MRD 2/15-1	MVR	ASSY Area MECZ Troops	635	-22000	-24250	Unit	DIV	MECZ Infantry
Tank DIV	TKD 2/15-1	MVR	ASSY Area Troops and Armor	608	-8400	-24750	Unit	DIV	Tank

B-4 ARMY - WITHDRAWAL (TEMPLATE 16).



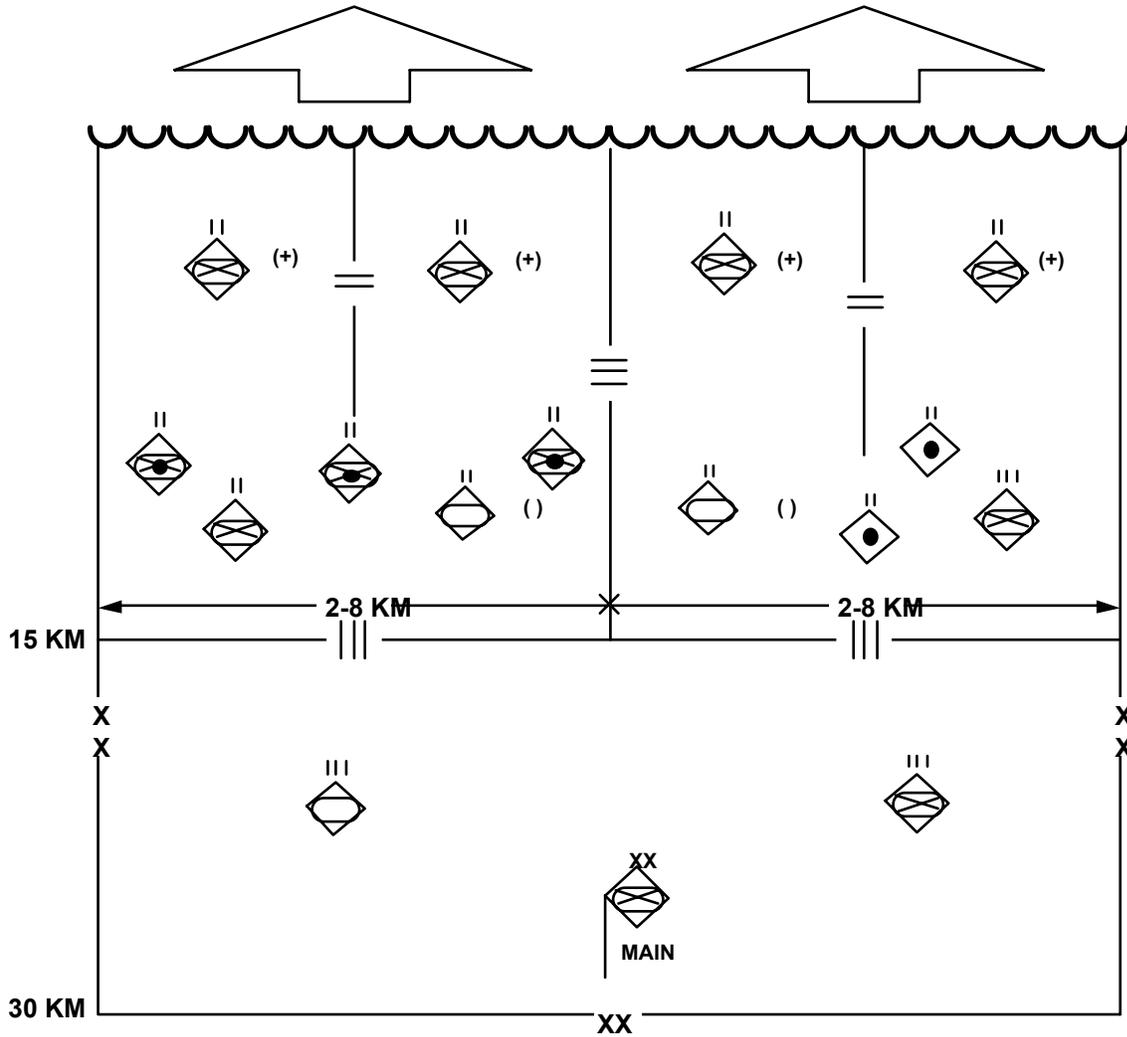
- PHASE 1 SECOND ECHELON ELEMENTS ESTABLISH REAR GUARD AND MOVES TO AND OCCUPIES A DELAYING POSITION.
- PHASE 2 MAIN BODY ESTABLISHES A COVERING FORCE MOVES THROUGH THE REAR GUARD AND INIATES RETIREMENT TO THE NEXT ASSIGNED AREA.
- PHASE 3 CONDUCT COVER FORCE WITHDRAW.

ARMY WITHDRAWAL WILL BE DONE AT REGIMENT & DIVISION LEVELS IN THE SYSTEMATIC APPROACH REFLECTED ABOVE. AT ARMY LEVEL WITHDRAWAL MAY BE CONDUCTED DUE TO UNTENABLE DEFENSIVE SITUATIONS OR TO SHIFT FORCES FROM ONE AREA TO THE OTHER AS PART OF AN ARMY BATTLE PLAN.

Army - Withdrawal (template 16)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
MR DIV	MRD 1/16-1	MVR	APC	635	-30500	14600	Unit	DIV	MECZ Infantry
MR DIV	MRD 2/16-1	MVR	APC	635	0	15500	Unit	DIV	MECZ Infantry
MR DIV	MRD 3/16-1	MVR	APC	635	30500	19000	Unit	DIV	MECZ Infantry
MR DIV	MRD 4/16-1	MVR	ASSY Area MECZ Troops	635	7350	-3750	Unit	DIV	MECZ Infantry
Tank DIV	TKD 1/16-1	MVR	ASSY Area Troops and Armor	608	-23100	-3750	Unit	DIV	Tank

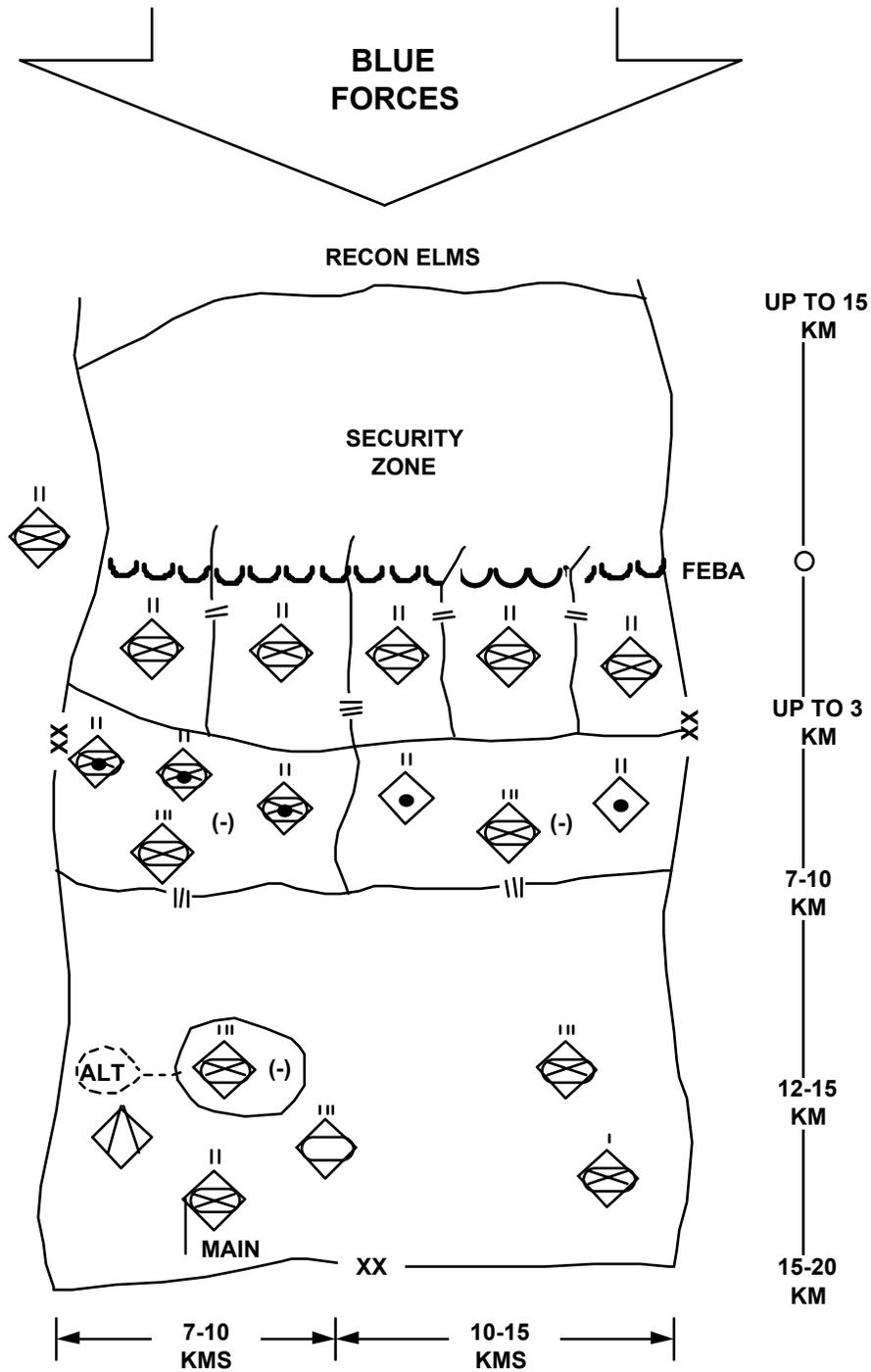
B-5 DIV - ATTACK/SEIZE SUBSEQUENT OBJECTIVE (TEMPLATE 8).



Div - Attack/Seize Subsequent Objective (template 8)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
MR Bn (Reinf)	MRB 1/8-1	MVR	ARMD VEH	20	-3700	14500	Unit	Battalion	MECZ Infantry
MR Bn (Reinf)	MRB 2/8-1	MVR	ARMD VEH	20	-1400	14500	Unit	Battalion	MECZ Infantry
MR Bn (Reinf)	MRB 3/8-1	MVR	ARMD VEH	17	-3700	9900	Unit	Battalion	MECZ Infantry
Tank Bn (Minus)	TKB 1/8-1	MVR	Tank Medium	4	-1400	9900	Unit	Battalion	Tank
Arty Bn	FAB 1/8-1	FIRE SPRT	Arty Medium SP	11	-4200	12000	Unit	Battalion	Field Arty MECZ
Arty Bn	FAB 2/8-1	FIRE SPRT	Arty Medium SP	11	-2400	11000	Unit	Battalion	Field Arty MECZ
Arty Bn	FAB 3/8-1	FIRE SPRT	Arty Medium SP	11	-500	11500	Unit	Battalion	Field Arty MECZ
MR Bn (Reinf)	MRB 4/8-1	MVR	APC	19	1400	14500	Unit	Battalion	MECZ Infantry
MR Bn (Reinf)	MRB 5/8-1	MVR	APC	19	3600	14500	Unit	Battalion	MECZ Infantry
MRR (Minus)	MRR 1/8-1	MVR	APC	60	3800	10000	Unit	REG	MECZ Infantry
Tank Bn (Minus)	TKB 2/8-1	MVR	Tank Medium	4	1450	10000	Unit	Battalion	Tank
Arty Bn	FAB 4/8-1	FIRE SPRT	Arty Towed	11	2400	9700	Unit	Battalion	Field Arty
Arty Bn	FAB 5/8-1	FIRE SPRT	Arty Towed	11	3000	12000	Unit	Battalion	Field Arty
TankREGT	TKR 1/8-1	MVR	ASSY Area Troops and Armor	69	-2800	-6500	Unit	REG	Tank
MRREGT	MRR 2/8-1	MVR	APC	102	2700	-6500	Unit	REG	MECZ Infantry
Div CP Main	DCP 1/8-1	C3	CP DIV	3	0	-8500	HQ	DIV	MECZ Infantry

B-6 DIV - DELIBERATE DEFENSE (TEMPLATE 12).

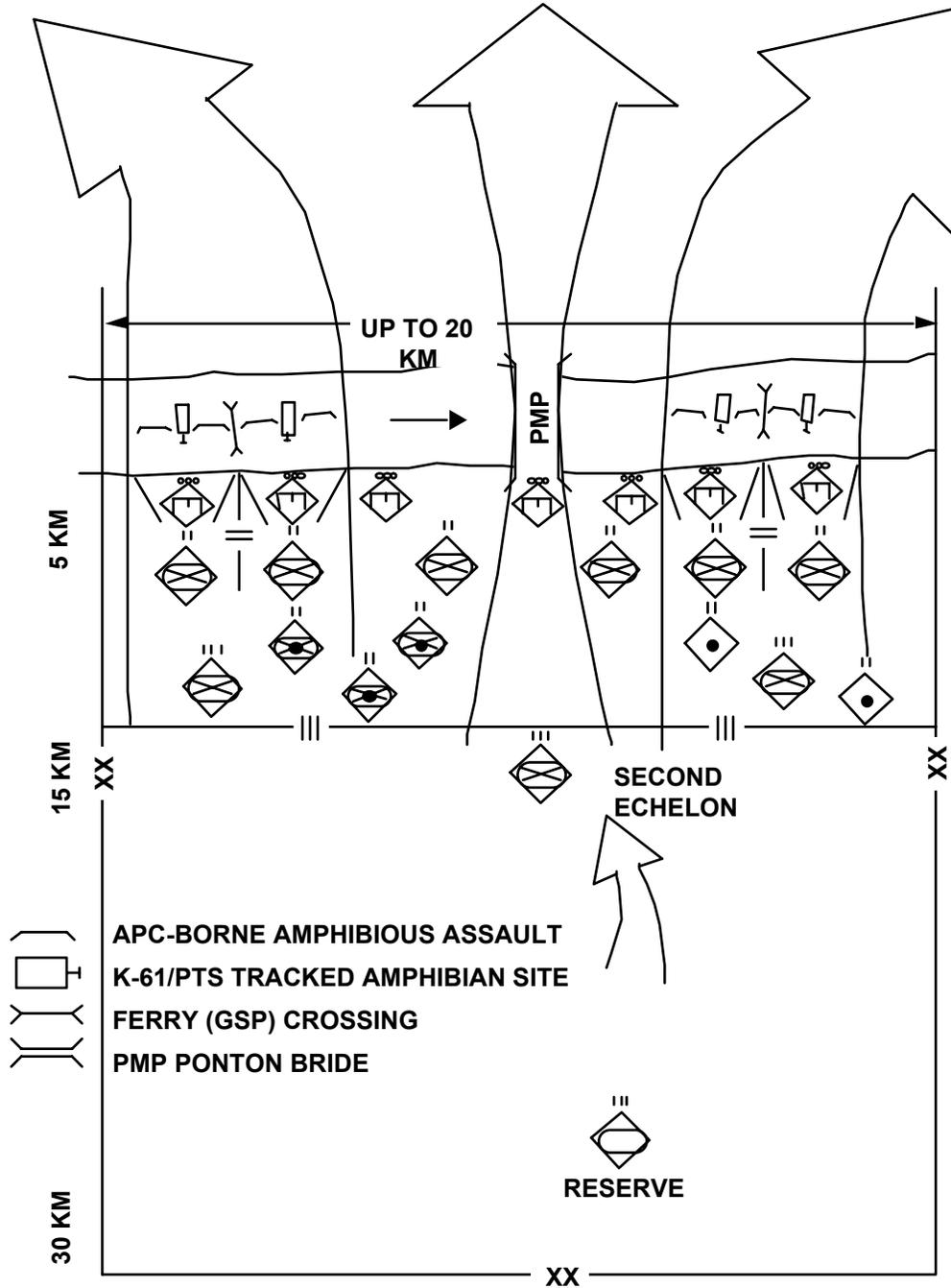


Div - Deliberate Defense (template 12)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
1st MR Bn	MRB 1/12-1	MVR	ARMD VEH	17	-8000	7500	Unit	Battalion	MECZ Infantry
2nd MR Bn	MRB 2/12-1	MVR	ARMD VEH	17	-3600	7250	Unit	Battalion	MECZ Infantry
MRREGTt (Minus)	MRR 1/12-1	MVR	ARMD VEH	71	-6900	2250	Unit	REG	MECZ Infantry
1st Arty Bn	FAB 1/12-1	FIRE SPRT	Arty Medium SP	11	-8500	4750	Unit	Battalion	Field Arty MECZ
2nd Arty Bn	FAB 2/12-1	FIRE SPRT	Arty Medium SP	11	-5250	4700	Unit	Battalion	Field Arty MECZ
3rd Arty Bn	FAB 3/12-1	FIRE SPRT	Arty Medium SP	11	-2400	3700	Unit	Battalion	Field Arty MECZ
1st MR Bn	MRB 3/12-1	MVR	APC	16	800	7250	Unit	Battalion	MECZ Infantry
2nd MR Bn	MRB 4/12-1	MVR	APC	16	4500	7250	Unit	Battalion	MECZ Infantry
3rd MR Bn	MRB 5/12-1	MVR	APC	16	8900	7250	Unit	Battalion	MECZ Infantry
MRREGTt (Minus)	MRR 2/12-1	MVR	APC	54	4800	2250	Unit	REG	MECZ Infantry
4th Arty Bn	FAB 4/12-1	FIRE SPRT	Arty Towed	11	1200	4700	Unit	Battalion	Field Arty
5th Arty Bn	FAB 5/12-1	FIRE SPRT	Arty Towed	11	9300	3750	Unit	Battalion	Field Arty
MRREGTt (Minus)	MRR 3/12-1	MVR	ASSY Area MECZ Troops	99	-4400	-4250	Unit	REG	MECZ Infantry
TankREGT	TKR 1/12-1	MVR	ASSY Area Troops and Armor	69	4000	-5750	Unit	REG	Tank
MR Co	MRC 1/12-1	MVR	ASSY Area MECZ Troops	3	3650	-6750	Unit	Co	MECZ Infantry
AT Reserve	ATB 1/12-1	MVR	Anti Tank Gun	3	-8900	-6250	Unit	Battery	Anti Armor
Div CP Main	DCP 1/12-1	C3	CP DIV	3	-4850	-8250	HQ	DIV	MECZ Infantry

B-7 DIV - DELIBERATE RIVER CROSSING (TEMPLATE 10).

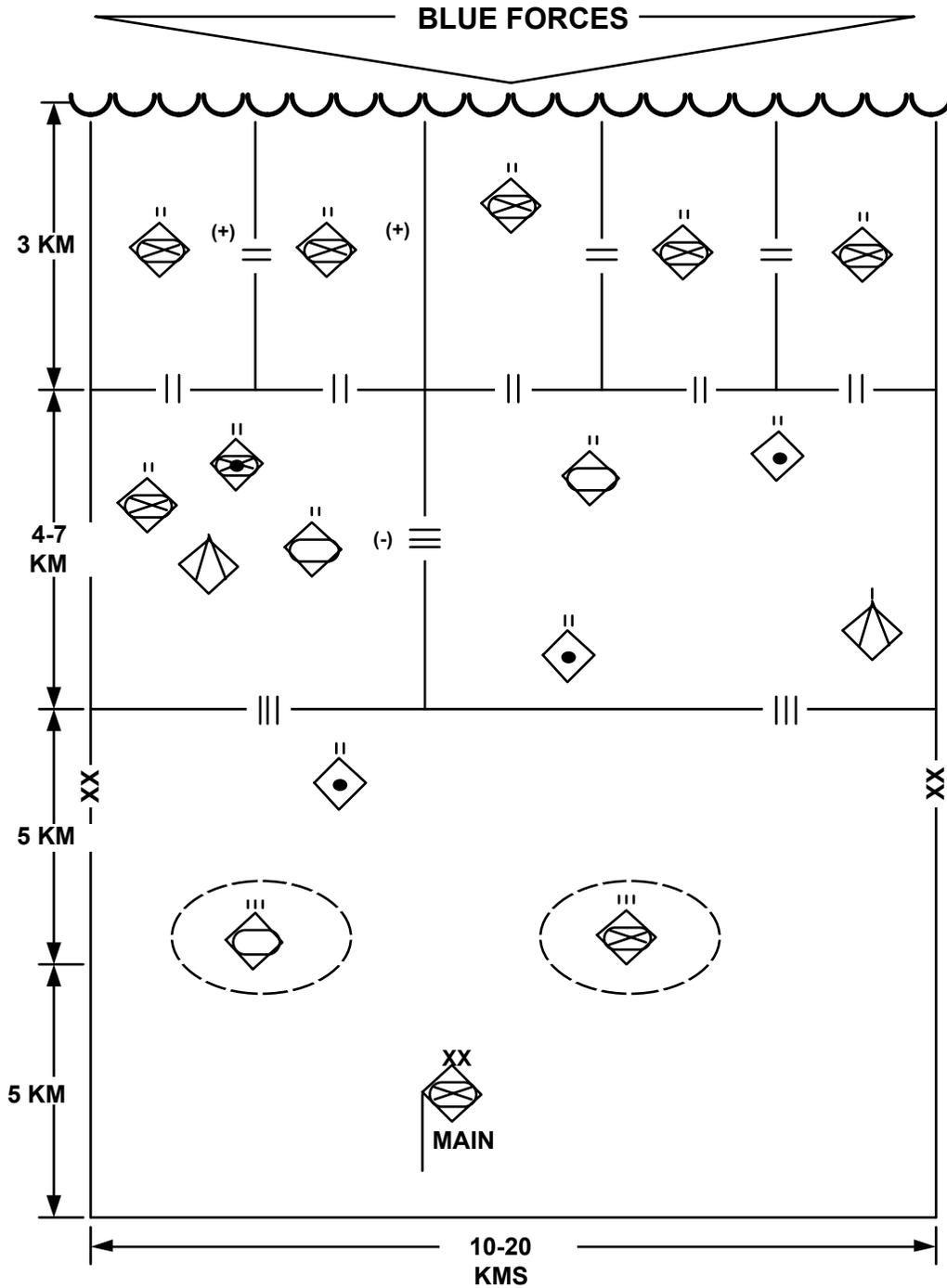
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Div - Deliberate River Crossing (template 10)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
PTS Platoon	ENG 1/10-1	ENGR	Ferry Bridge	1	-8000	15000	Unit	Platoon	ENGR
GSP Platoon	ENG 2/10-1	ENGR	Ferry Bridge	1	-7100	15000	Unit	Platoon	ENGR
PTS Platoon	ENG 3/10-1	ENGR	Ferry Bridge	1	-5700	15000	Unit	Platoon	ENGR
1st MRB	MRB 1/10-1	MVR	ARMD VEH	17	-7850	11000	Unit	Battalion	MECZ Infantry
2nd MRB	MRB 2/10-1	MVR	ARMD VEH	17	-6000	11000	Unit	Battalion	MECZ Infantry
3rd MRB	MRB 3/10-1	MVR	ARMD VEH	17	-2200	11000	Unit	Battalion	MECZ Infantry
MRREGTt (Minus)	MRR 1/10-1	MVR	ARMD VEH	54	-7200	1500	Unit	REG	MECZ Infantry
1st Arty Bn	FAB 1/10-1	FIRE SPRT	Arty Medium SP	11	-5000	6000	Unit	Battalion	Field Arty MECZ
2nd Arty Bn	FAB 2/10-1	FIRE SPRT	Arty Medium SP	11	-4200	1000	Unit	Battalion	Field Arty MECZ
3rd Arty Bn	FAB 3/10-1	FIRE SPRT	Arty Medium SP	11	-2200	5500	Unit	Battalion	Field Arty MECZ
PMP Bridge	ENG 4/10-1	ENGR	Bridge Floating Pontoon VEH	4	0	15000	Unit	Platoon	ENGR
PTS Platoon	ENG 5/10-1	ENGR	Ferry Bridge	1	5800	15000	Unit	Platoon	ENGR
GSP Platoon	ENG 7/10-1	ENGR	Ferry Bridge	1	6800	15000	Unit	Platoon	ENGR
PTS Platoon	ENG 7/10-1	ENGR	Ferry Bridge	1	8000	15000	Unit	Platoon	ENGR
1st MRB	MRB 4/10-1	MVR	APC	16	3000	11000	Unit	Battalion	MECZ Infantry
2nd MRB	MRB 5/10-1	MVR	APC	16	6000	11000	Unit	Battalion	MECZ Infantry
3rd MRB	MRB 6/10-1	MVR	APC	16	7850	11000	Unit	Battalion	MECZ Infantry
MRREGTt (Minus)	MRR 2/10-1	MVR	APC	54	6500	1500	Unit	REG	MECZ Infantry
1st Arty Bn	FAB 4/10-1	FIRE SPRT	Arty Towed	11	4500	6000	Unit	Battalion	Field Arty
2nd Arty Bn	FAB 5/10-1	FIRE SPRT	Arty Towed	11	8500	1000	Unit	Battalion	Field Arty
TankREGTt	TKR 1/10-1	MVR	Tank Medium	69	2200	-10000	Unit	REG	Tank
MRREGT	MRR 3/10-1	MVR	APC	102	500	-1000	Unit	REG	MECZ Infantry

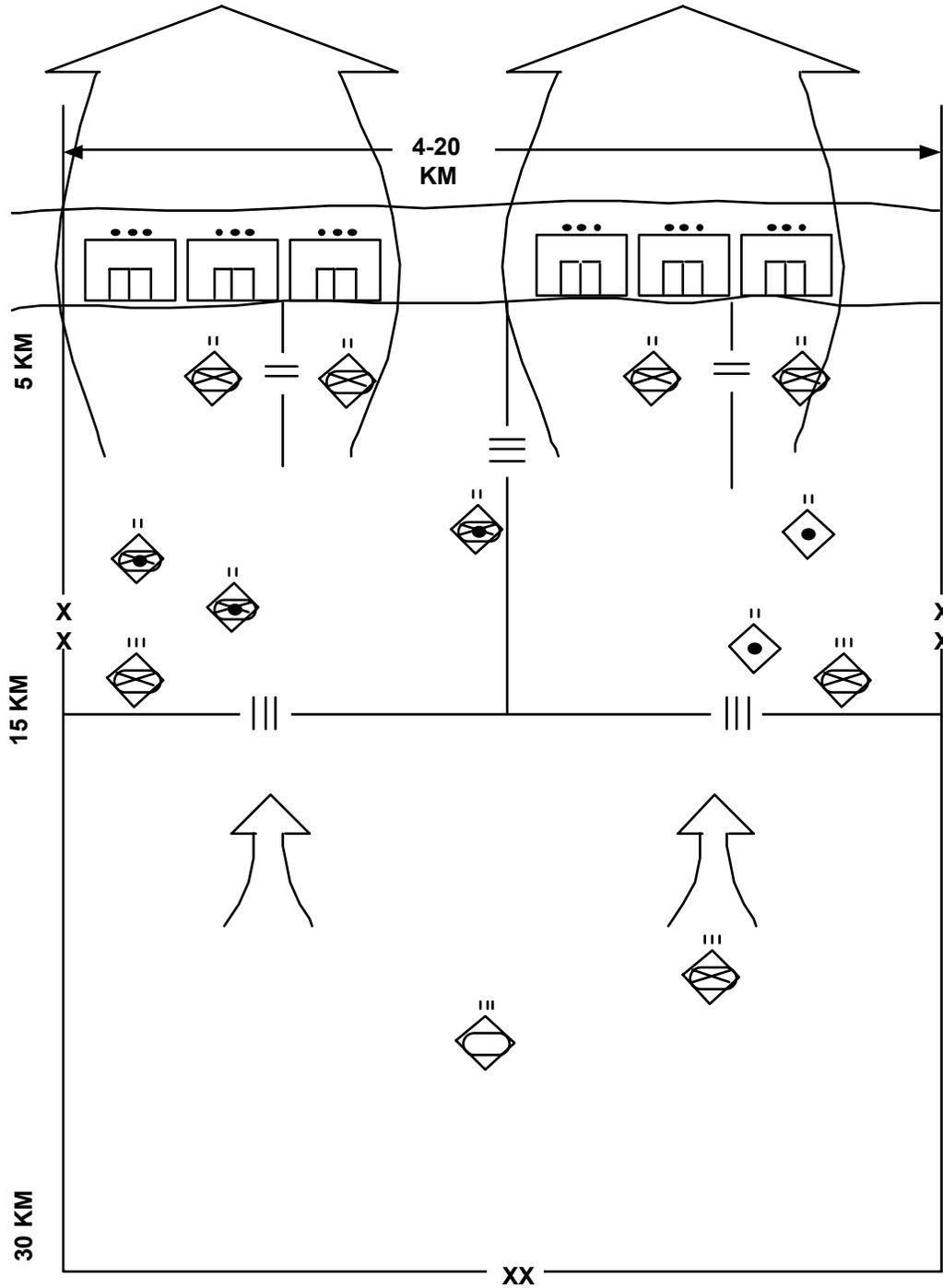
B-8 DIV - HASTY DEFENSE (TEMPLATE 11).



Div - Hasty Defense (template 11)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
1st MR Bn	MRB 1/11-1	MVR	ARMD VEH	20	-6300	7750	Unit	Battalion	MECZ Infantry
2nd MR Bn	MRB 2/11-1	MVR	ARMD VEH	20	-3200	7750	Unit	Battalion	MECZ Infantry
3rd MR Bn	MRB 3/11-1	MVR	ARMD VEH	17	-6400	3900	Unit	Battalion	MECZ Infantry
Tank Bn (Minus)	TKB 1/11-1	MVR	Tank Medium	4	-2000	3500	Unit	Battalion	Tank
1st Arty Bn	FAB 1/11-1	FIRE SPRT	Arty Medium SP	11	-4800	5150	Unit	Battalion	Field Arty MECZ
AT Reserve	ATB 1/11-1	MVR	Anti Tank Gun	3	-6000	1750	Unit	Battery	Anti Armor
1st MR Bn	MRB 4/11-1	MVR	APC	16	0	7600	Unit	Battalion	MECZ Infantry
2nd MR Bn	MRB 5/11-1	MVR	APC	16	3200	7700	Unit	Battalion	MECZ Infantry
3rd MR Bn	MRB 6/11-1	MVR	APC	16	6300	7750	Unit	Battalion	MECZ Infantry
Tank Bn	TKB 2/11-1	MVR	Tank Medium	10	1200	4700	Unit	Battalion	Tank
2nd Arty Bn	FAB 2/11-1	FIRE SPRT	Arty Towed	11	1000	1500	Unit	Battalion	Field Arty
3rd Arty Bn	FAB 3/11-1	FIRE SPRT	Arty Towed	11	4800	5200	Unit	Battalion	Field Arty
4th Arty Bn	FAB 4/11-1	FIRE SPRT	Arty Towed	11	-3200	-750	Unit	Battalion	Field Arty
AT Reserve	ATB 2/11-1	MVR	Anti Tank Gun	3	5100	1750	Unit	Battery	Anti Armor
MRREGT	MRR 1/11-1	MVR	ASSY Area MECZ Troops	102	2000	-3600	Unit	REG	MECZ Infantry
TankREGT	TKR 1/11-1	MVR	ASSY Area Troops and Armor	69	-4500	-3600	Unit	REG	Tank
Div CP Main	DCP 1/11-1	C3	CP DIV	3	-1400	-8200	HQ	DIV	MECZ Infantry

B-9 DIV - HASTY RIVER CROSSING (TEMPLATE 9).



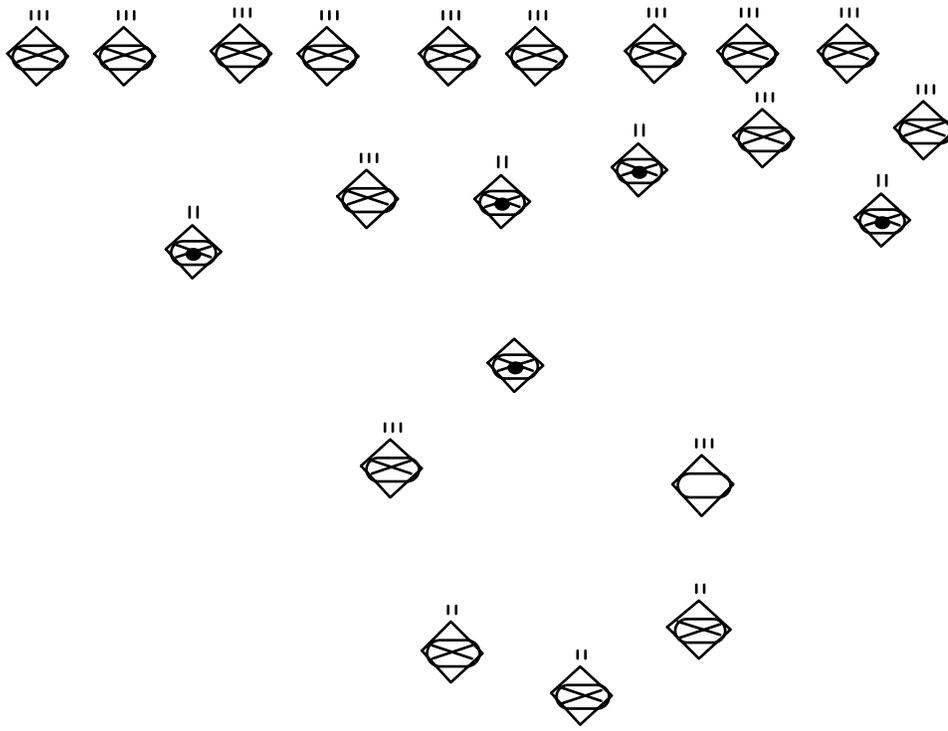
Div - Hasty River Crossing (template 9)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
PTS Platoon	ENG 1/9-1	ENGR	Ferry Bridge	1	-4000	15000	Unit	Platoon	ENGR
GSP Platoon	ENG 2/9-1	ENGR	Ferry Bridge	1	-3100	15000	Unit	Platoon	ENGR
PTS Platoon	ENG 3/9-1	ENGR	Ferry Bridge	1	-1700	15000	Unit	Platoon	ENGR
1st MRB	MRB 1/9-1	MVR	ARMD VEH	17	-3850	11000	Unit	Battalion	MECZ Infantry
2nd MRB	MRB 2/9-1	MVR	ARMD VEH	17	-2000	11000	Unit	Battalion	MECZ Infantry
MRREGTt (Minus)	MRR 1/9-1	MVR	ARMD VEH	71	-3200	1500	Unit	REG	MECZ Infantry
1st Arty Bn	FAB 1/9-1	FIRE SPRT	Arty Medium SP	11	-5000	4000	Unit	Battalion	Field Arty MECZ
2nd Arty Bn	FAB 2/9-1	FIRE SPRT	Arty Medium SP	11	-1700	2000	Unit	Battalion	Field Arty MECZ
3rd Arty Bn	FAB 3/9-1	FIRE SPRT	Arty Medium SP	11	-400	5000	Unit	Battalion	Field Arty MECZ
PTS Platoon	ENG 4/9-1	ENGR	Ferry Bridge	1	1850	15000	Unit	Platoon	ENGR
GSP Platoon	ENG 5/9-1	ENGR	Ferry Bridge	1	2800	15000	Unit	Platoon	ENGR
PTS Platoon	ENG 6/9-1	ENGR	Ferry Bridge	1	4000	15000	Unit	Platoon	ENGR
1st MRB	MRB 3/9-1	MVR	APC	16	2000	11000	Unit	Battalion	MECZ Infantry
2nd MRB	MRB 4/9-1	MVR	APC	16	3850	11000	Unit	Battalion	MECZ Infantry
MRREGTt (Minus)	MRR 2/9-1	MVR	APC	70	2500	1500	Unit	REG	MECZ Infantry
1st Arty Bn	FAB 4/9-1	FIRE SPRT	Arty Towed	11	1000	2000	Unit	Battalion	Field Arty
2nd Arty Bn	FAB 5/9-1	FIRE SPRT	Arty Towed	11	3850	5000	Unit	Battalion	Field Arty
TankREGTt	TKR 1/9-1	MVR	Tank Medium	69	-3000	-7500	Unit	REG	Tank
MRREGT	MRR 3/9-1	MVR	APC	102	2800	-7500	Unit	REG	MECZ Infantry

Div - Move to Contact (template 7)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
Patrols	REC 1/7-1	MVR	ARMD VEH	3	-6000	50000	Unit	Co	MECZ Infantry
Lead MR Bn (Reinf)	MRB 1/7-1	MVR	ARMD VEH	29	-6000	36000	Unit	Battalion	MECZ Infantry
Tank Co	TKC 1/7-1	MVR	Tank Medium	3	-6000	29000	Unit	Co	Tank
HQ/RAG/ADA Grp	RAG 1/7-1	FIRE SPRT	Arty Medium SP	43	-6000	17000	Unit	Group	Field Arty MECZ
Tank Co	TKC 2/7-1	MVR	Tank Medium	3	-6000	11000	Unit	Co	Tank
2nd MRB	MRB 2/7-1	MVR	ARMD VEH	17	-6000	5000	Unit	Battalion	MECZ Infantry
Tank Co	TKC 3/7-1	MVR	Tank Medium	3	-6000	-2500	Unit	Co	Tank
3rd MRB	MRB 3/7-1	MVR	ARMD VEH	17	-6000	-7000	Unit	Battalion	MECZ Infantry
Patrols	REC 2/7-1	MVR	ARMD VEH	3	0	50000	Unit	Co	MECZ Infantry
Lead Tk Bn (Reinf)	TKB 1/7-1	MVR	Tank Medium	22	0	36000	Unit	Battalion	Tank
DAG	DAG 1/7-1	FIRE SPRT	Arty Medium SP	33	0	17000	Unit	Group	Field Arty MECZ
FROG Bn (FFR)	FFR 1/7-1	FIRE SPRT	Missile Heavy	11	0	9000	Unit	Battalion	Field Arty Missile
HQ/RAG/ADA Grp	RAG 2/7-1	FIRE SPRT	Arty Medium SP	43	0	-1000	Unit	Group	Field Arty MECZ
2nd Tk Bn	TKB 2/7-1	MVR	Tank Medium	10	0	-6000	Unit	Battalion	Tank
3rd Tk Bn	TKB 3/7-1	MVR	Tank Medium	10	0	-12000	Unit	Battalion	Tank
MRB	MRB 4/7-1	MVR	ARMD VEH	17	0	-18000	Unit	Battalion	MECZ Infantry
Tank Co	TKC 4/7-1	MVR	Tank Medium	3	0	-23000	Unit	Co	Tank
HQ/MRR (Minus)	MRR 1/7-1	MVR	APC	26	0	-29000	Unit	REG	MECZ Infantry
MRB	MRB 5/7-1	MVR	APC	16	0	-34000	Unit	Battalion	MECZ Infantry
Tank Co	TKC 5/7-1	MVR	Tank Medium	3	0	-39000	Unit	Co	Tank
MRB	MRB 6/7-1	MVR	APC	16	0	-45000	Unit	Battalion	MECZ Infantry
Tank Co	TKC 6/7-1	MVR	Tank Medium	3	0	-50000	Unit	Co	Tank
Patrols	REC 3/7-1	MVR	ARMD VEH	3	6000	50000	Unit	Co	MECZ Infantry
Lead MR Bn (Reinf)	MRB 7/7-1	MVR	ARMD VEH	29	6000	36000	Unit	Battalion	MECZ Infantry
Tank Co	TKC 7/7-1	MVR	Tank Medium	3	6000	29000	Unit	Co	Tank
HQ/RAG/ADA Grp	RAG 3/7-1	FIRE SPRT	Arty Medium SP	43	6000	17000	Unit	Group	Field Arty MECZ
Tank Co	TKC 8/7-1	MVR	Tank Medium	3	6000	11000	Unit	Co	Tank
2nd MRB	MRB 8/7-1	MVR	ARMD VEH	17	6000	5000	Unit	Battalion	MECZ Infantry
Tank Co	TKC 9/7-1	MVR	Tank Medium	3	6000	-3000	Unit	Co	Tank
3rd MRB	MRB 9/7-1	MVR	ARMD VEH	17	6000	-9000	Unit	Battalion	MECZ Infantry

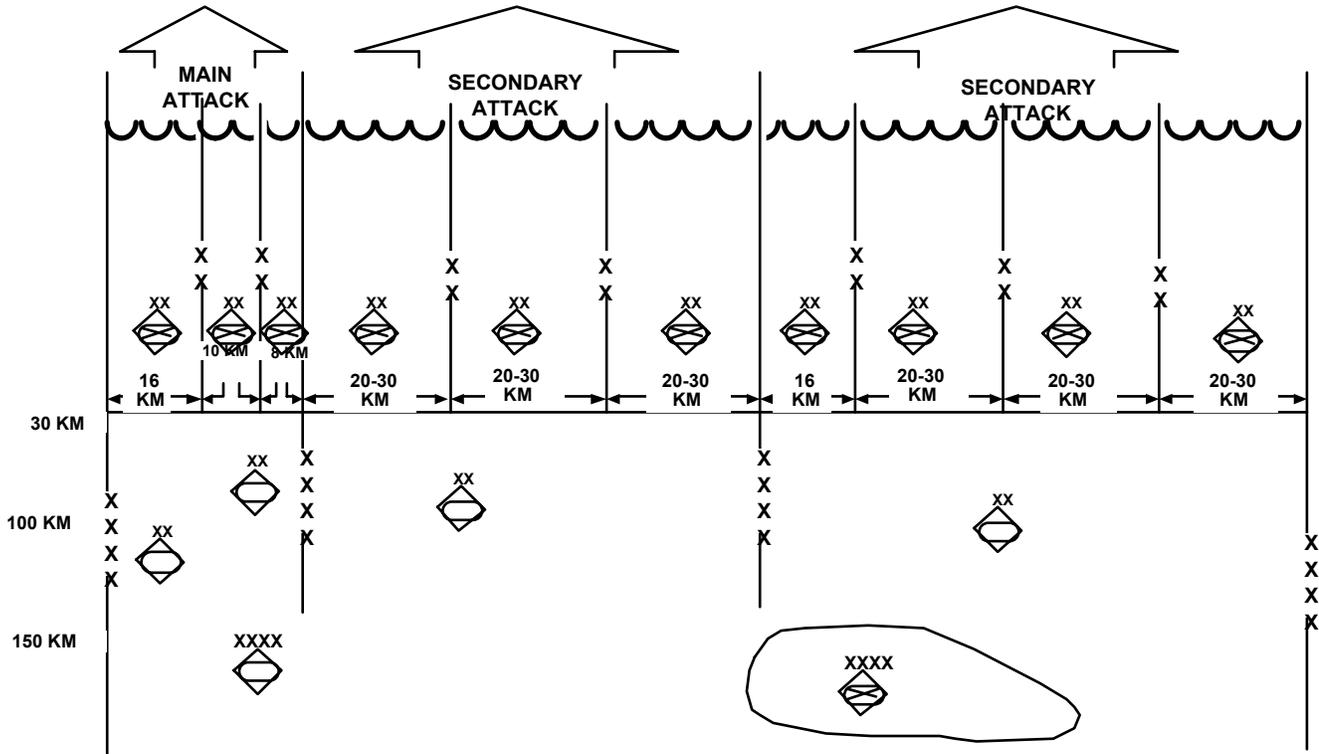
B-11 DIV - WITHDRAWAL (TEMPLATE 13).



Div - Withdrawal (template 13)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
Cov Force Plt (R)	MRP 1/13-1	MVR	ARMD VEH	2	-8700	8500	Unit	Platoon	MECZ Infantry
Cov Force Plt (R)	MRP 2/13-1	MVR	ARMD VEH	2	-7200	8500	Unit	Platoon	MECZ Infantry
Cov Force Plt (R)	MRP 3/13-1	MVR	ARMD VEH	2	-4350	8250	Unit	Platoon	MECZ Infantry
Cov Force Plt (R)	MRP 4/13-1	MVR	ARMD VEH	2	-2850	8250	Unit	Platoon	MECZ Infantry
Cov Force Plt (R)	MRP 5/13-1	MVR	APC	2	50	8250	Unit	Platoon	MECZ Infantry
Cov Force Plt (R)	MRP 6/13-1	MVR	APC	2	1550	8250	Unit	Platoon	MECZ Infantry
Cov Force Plt (R)	MRP 7/13-1	MVR	APC	2	3750	8250	Unit	Platoon	MECZ Infantry
Cov Force Plt (R)	MRP 8/13-1	MVR	APC	2	5250	8250	Unit	Platoon	MECZ Infantry
Cov Force Plt (R)	MRP 9/13-1	MVR	APC	2	8150	8250	Unit	Platoon	MECZ Infantry
Cov Force Plt (R)	MRP10/13-1	MVR	APC	2	9650	8250	Unit	Platoon	MECZ Infantry
1st MRREGTt(Minus)	MRR 1/13-1	MVR	ARMD VEH	101	-5250	4400	Unit	REG	MECZ Infantry
2d MRREGTt (Minus)	MRR 2/13-1	MVR	APC	96	5250	4400	Unit	REG	MECZ Infantry
1st Arty Bn	FAB 1/13-1	FIRE SPRT	Arty Medium SP	11	-9300	3700	Unit	Battalion	Field Arty MECZ
2nd Arty Bn	FAB 2/13-1	FIRE SPRT	Arty Medium SP	11	-2400	4800	Unit	Battalion	Field Arty MECZ
3rd Arty Bn	FAB 3/13-1	FIRE SPRT	Arty Medium SP	11	-1000	-1000	Unit	Battalion	Field Arty MECZ
4th Arty Bn	FAB 4/13-1	FIRE SPRT	Arty Medium SP	11	1200	4700	Unit	Battalion	Field Arty MECZ
5th Arty Bn	FAB 5/13-1	FIRE SPRT	Arty Medium SP	11	9300	3750	Unit	Battalion	Field Arty MECZ
3d MRREGTt (Minus)	MRR 3/13-1	MVR	ASSY Area MECZ Troops	45	-4400	-4250	Unit	REG	MECZ Infantry
TankREGT	TKR 1/13-1	MVR	ASSY Area Troops and Armor	69	4000	-5750	Unit	REG	Tank
1st MR Bn (Reinf)	MRB 1/13-1	MVR	APC	19	-4000	-14250	Unit	Battalion	MECZ Infantry
2nd MR Bn (Reinf)	MRB 2/13-1	MVR	APC	19	1000	-14750	Unit	Battalion	MECZ Infantry
3rd MR Bn (Reinf)	MRB 3/13-1	MVR	APC	19	5500	-14000	Unit	Battalion	MECZ Infantry

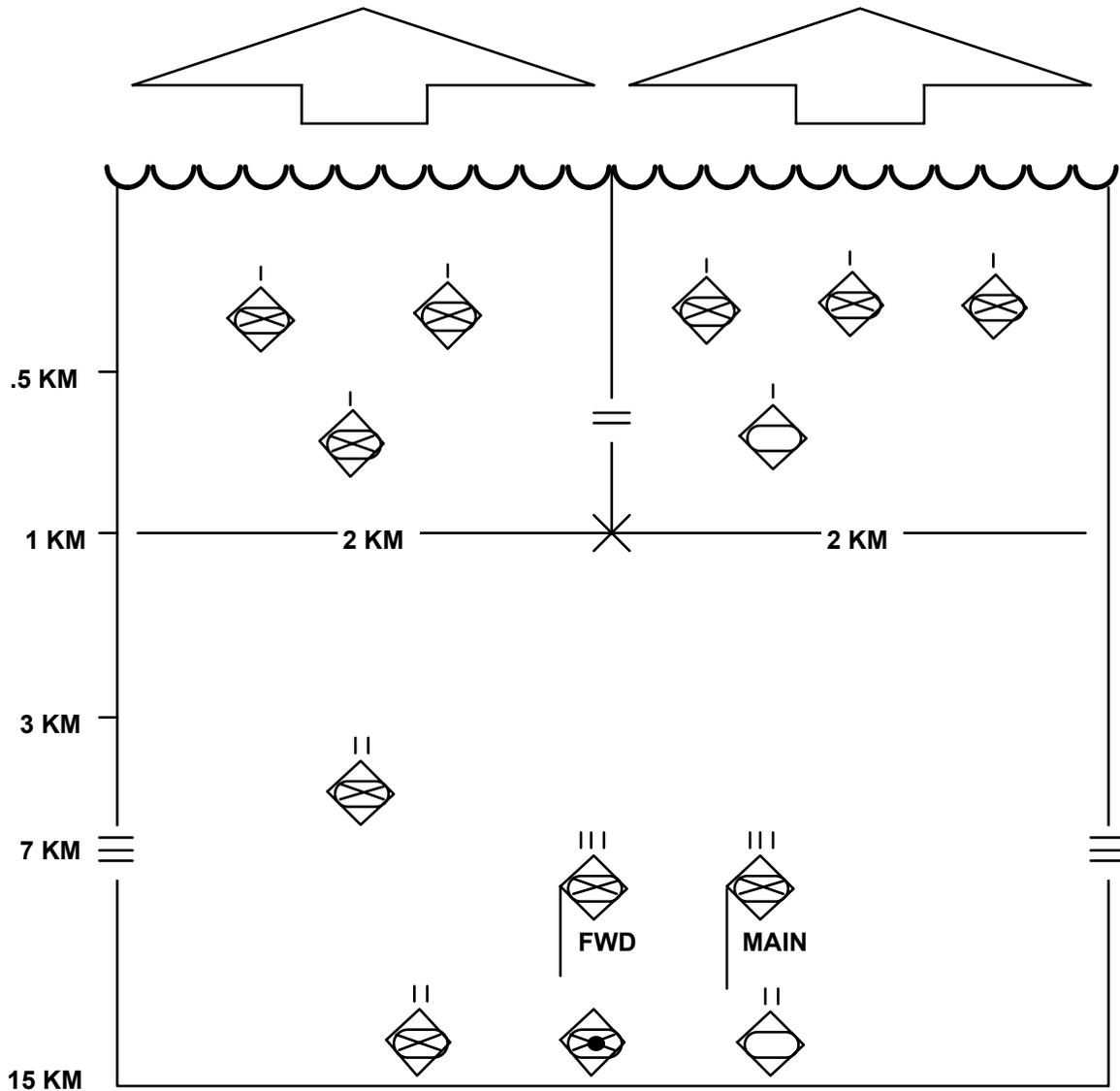
B-12 FRONT - ATTACK/SEIZE SUBSEQUENT OBJECTIVE (TEMPLATE 17).



FRONT- Attack/Seize Subsequent Objective (template 17)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
MR DIV	MRD 1/17-1	MVR	APC	635	-92000	75000	Unit	DIV	MECZ Infantry
MR DIV	MRD 2/17-1	MVR	APC	635	-79000	75000	Unit	DIV	MECZ Infantry
MR DIV	MRD 3/17-1	MVR	APC	635	-70000	75000	Unit	DIV	MECZ Infantry
MR DIV	MRD 4/17-1	MVR	APC	635	-53500	75000	Unit	DIV	MECZ Infantry
MR DIV	MRD 5/17-1	MVR	APC	635	-28500	75000	Unit	DIV	MECZ Infantry
MR DIV	MRD 6/17-1	MVR	APC	635	-3500	75000	Unit	DIV	MECZ Infantry
MR DIV	MRD 7/17-1	MVR	APC	635	17000	75000	Unit	DIV	MECZ Infantry
MR DIV	MRD 8/17-1	MVR	APC	635	37500	75000	Unit	DIV	MECZ Infantry
MR DIV	MRD 9/17-1	MVR	APC	635	62500	75000	Unit	DIV	MECZ Infantry
MR DIV	MRD10/17-1	MVR	APC	635	87500	75000	Unit	DIV	MECZ Infantry
Tank DIV	TKD 1/17-1	MVR	Tank Medium	608	-92000	-20000	Unit	DIV	Tank
Tank DIV	TKD 2/17-1	MVR	Tank Medium	608	-74500	-10000	Unit	DIV	Tank
Tank DIV	TKD 3/17-1	MVR	Tank Medium	608	-34750	0	Unit	DIV	Tank
Tank DIV	TKD 4/17-1	MVR	Tank Medium	608	45000	-10000	Unit	DIV	Tank
Tank Army	TAA 1/17-1	MVR	ASSY Area Troops and Armor	3039	-74000	-70000	Unit	Army	Tank
CA Army	CAA 1/17-1	MVR	ASSY Area MECZ Troops	3093	25000	-75000	Unit	Army	MECZ Infantry

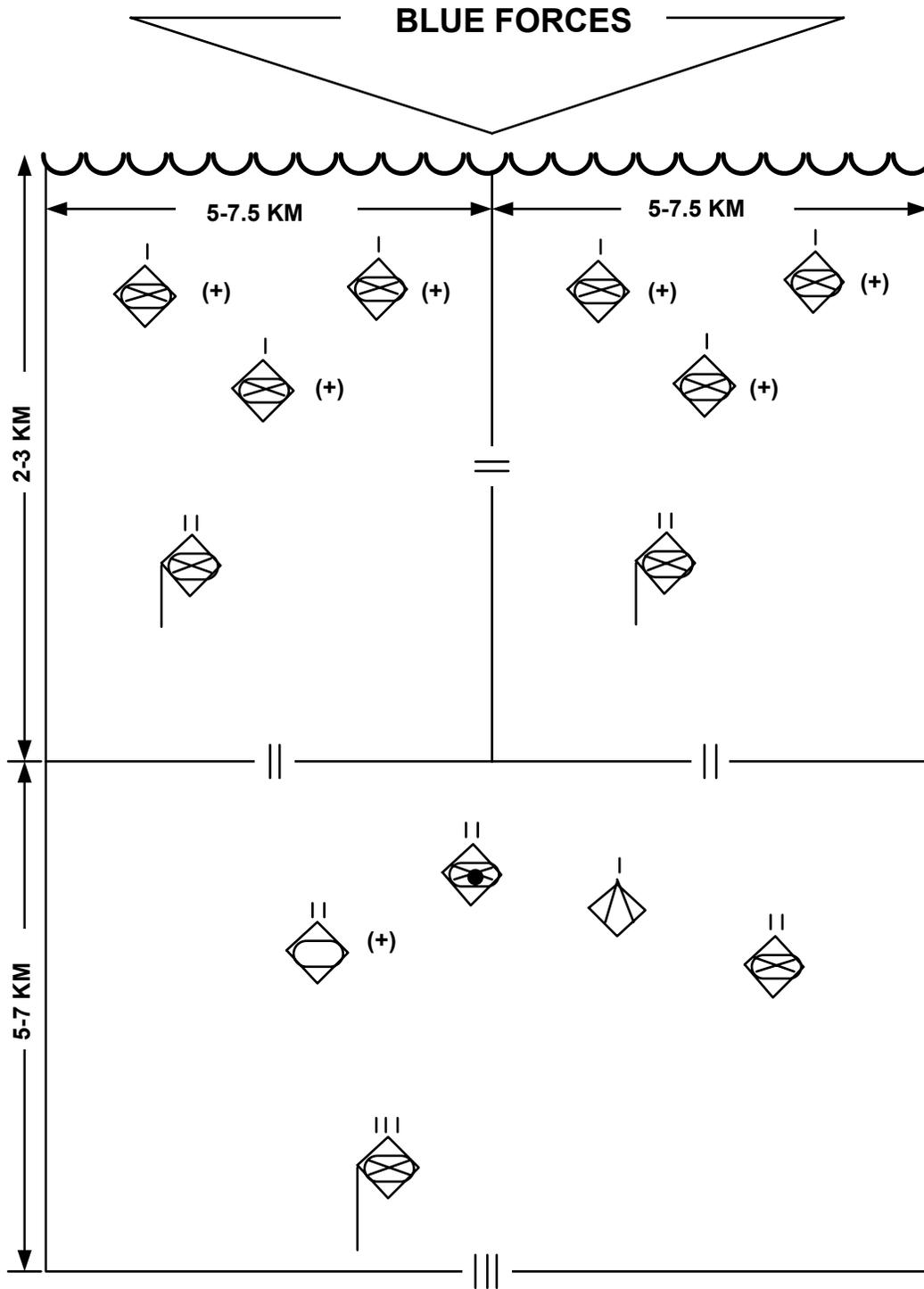
B-13 REGT - ATTACK/SEIZE SUBSEQUENT OBJECTIVE (TEMPLATE 3).



Regt - Attack/Seize Subsequent Objective (template 3)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
1st MR Co/1 MRB	MRC 1/ 3-1	MVR	ARMD VEH	3	-1500	7100	Unit	Co	MECZ Infantry
2nd MR Co/1 MRB	MRC 2/ 3-1	MVR	ARMD VEH	3	-500	7100	Unit	Co	MECZ Infantry
3rd MR Co/1 MRB	MRC 3/ 3-1	MVR	ARMD VEH	3	-1000	6750	Unit	Co	MECZ Infantry
1st MR Co/2 MRB	MRC 4/ 3-1	MVR	ARMD VEH	3	400	7100	Unit	Co	MECZ Infantry
2nd MR Co/2 MRB	MRC 5/ 3-1	MVR	ARMD VEH	3	1000	7100	Unit	Co	MECZ Infantry
3rd MR Co/2 MRB	MRC 6/ 3-1	MVR	ARMD VEH	3	1600	7100	Unit	Co	MECZ Infantry
Tank Co/2 MRB	TKC 1/3-1	MVR	Tank Medium	3	750	6750	Unit	Co	Tank
Regt CP Forward	FCP 1/3-1	C3	CP Forward	1	-200	4500	TOC	REG	MECZ Infantry
3rd MRB	MRB 1/3-1	MVR	ARMD VEH	17	-900	2500	Unit	Battalion	MECZ Infantry
1st Arty Bn	FAB 1/3-1	FIRE SPRT	Arty Medium SP	11	200	2500	Unit	Battalion	Field Arty MECZ
2nd Arty Bn	FAB 2/3-1	FIRE SPRT	Arty Medium SP	11	1250	5500	Unit	Battalion	Field Arty MECZ
Tank Bn (Minus)	TKB 1/3-1	MVR	Tank-Medium	7	1000	2500	Unit	Battalion	Tank
Regt CP Main	RCP 1/3-1	C3	CPREGT	2	500	-4000	HQ	REG	MECZ Infantry

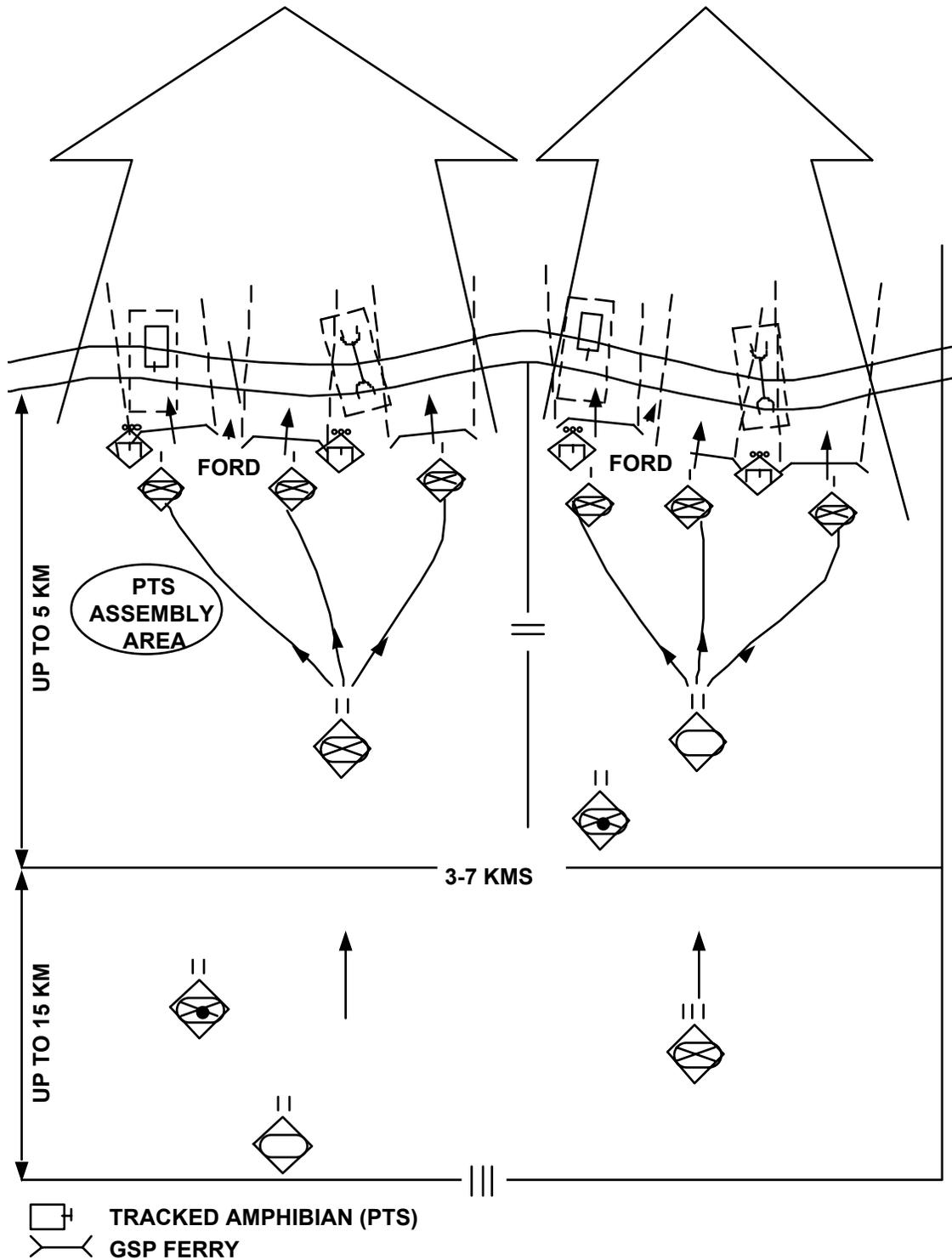
B-14 REGT - HASTY DEFENSE (TEMPLATE 5).



Regt - Hasty Defense (template 5)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
1st MRC/1 MRB (R)	MRC 1/ 5-1	MVR	ARMD VEH	4	-4680	4250	Unit	Co	MECZ Infantry
2nd MRC/1 MRB (R)	MRC 2/ 5-1	MVR	ARMD VEH	4	-1560	4250	Unit	Co	MECZ Infantry
3rd MRC/1 MRB (R)	MRC 3/ 5-1	MVR	ARMD VEH	4	-3125	3750	Unit	Co	MECZ Infantry
1st MR Bn CP	BCP 1/5-1	C3	CP Battalion	1	-4150	2250	TOC	Battalion	MECZ Infantry
1st MRC/2 MRB (R)	MRC 4/ 5-1	MVR	ARMD VEH	4	1560	4250	Unit	Co	MECZ Infantry
2nd MRC/2 MRB (R)	MRC 5/ 5-1	MVR	ARMD VEH	4	4680	4250	Unit	Co	MECZ Infantry
3rd MRC/2 MRB (R)	MRC 6/ 5-1	MVR	ARMD VEH	4	3125	3750	Unit	Co	MECZ Infantry
2nd MR Bn CP	BCP 2/5-1	C3	CP Battalion	1	2350	2450	TOC	Battalion	MECZ Infantry
3rd MRB	MRB 1/5-1	MVR	ARMD VEH	17	3700	-250	Unit	Battalion	MECZ Infantry
1st Arty Bn	FAB 1/5-1	FIRE SPRT	Arty Medium SP	11	0	500	Unit	Battalion	Field Arty MECZ
AT Battery	ATB 1/5-1	FIRE SPRT	Rocket Missile Anti Tank	4	2100	250	Unit	Battery	Anti Armor
Tank Bn (Minus)	TKB 1/5-1	MVR	Tank Medium	4	-2350	-250	Unit	Battalion	Tank
Regt CP Main	RCP 1/5-1	C3	CPREGT	3	-1175	-3250	HQ	REG	MECZ Infantry

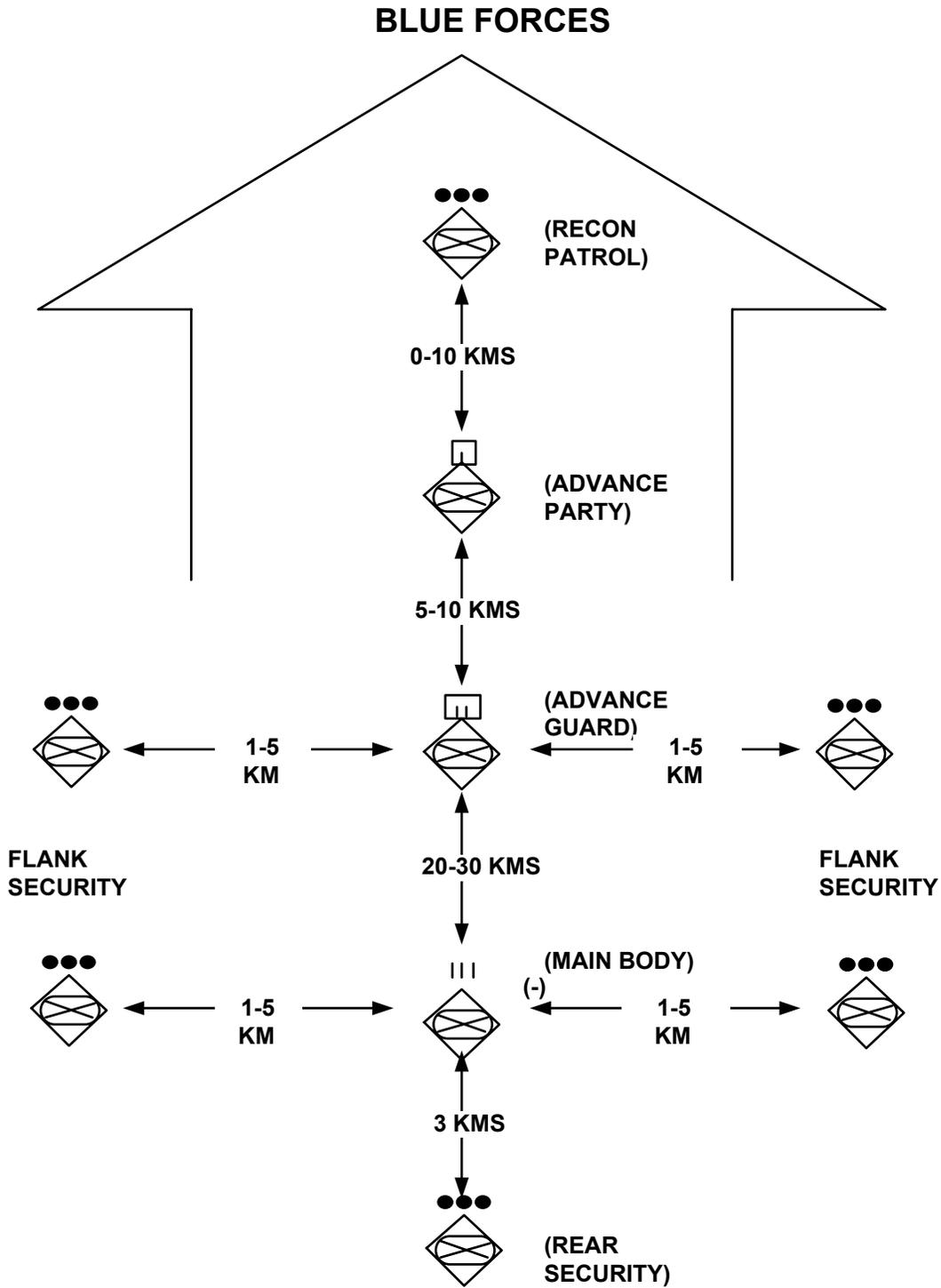
B-15 REGT - HASTY RIVER CROSSING (TEMPLATE 4).



Regt - Hasty River Crossing (template 4)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
1st PTS Platoon	ENG 1/ 4-1	ENGR	Ferry Bridge	1	-1750	10000	Unit	Platoon	ENGR
1st GSP Platoon	ENG 2/ 4-1	ENGR	Ferry Bridge	1	-700	9900	Unit	Platoon	ENGR
2nd PTS Platoon	ENG 3/ 4-1	ENGR	Ferry Bridge	1	625	10000	Unit	Platoon	ENGR
2nd GSP Platoon	ENG 4/ 4-1	ENGR	Ferry Bridge	1	1600	9900	Unit	Platoon	ENGR
1st MR Co/1 MRB	MRC 1/ 4-1	MVR	ARMD VEH	3	-1600	9900	Unit	Co	MECZ Infantry
2nd MR Co/1 MRB	MRC 2/ 4-1	MVR	ARMD VEH	3	-1000	9800	Unit	Co	MECZ Infantry
3rd MR Co/1 MRB	MRC 3/ 4-1	MVR	ARMD VEH	3	-250	9900	Unit	Co	MECZ Infantry
1st MR Co/2 MRB	MRC 4/ 4-1	MVR	ARMD VEH	3	625	9900	Unit	Co	MECZ Infantry
2nd MR Co/2 MRB	MRC 5/ 4-1	MVR	ARMD VEH	3	1250	9800	Unit	Co	MECZ Infantry
3rd MR Co/2 MRB	MRC 6/ 4-1	MVR	ARMD VEH	3	2000	9800	Unit	Co	MECZ Infantry
1st MRB (Minus)	MRB 1/4-1	FIRE SPRT	Mortar Heavy	8	-875	6000	Unit	Battalion	MECZ Infantry
2nd MRB (Minus)	MRB 2/4-1	FIRE SPRT	Mortar Heavy	8	1250	6000	Unit	Battalion	MECZ Infantry
1st Arty Bn	FAB 1/4-1	FIRE SPRT	Arty Medium SP	11	625	5000	Unit	Battalion	Field Arty MECZ
2nd Arty Bn	FAB 2/4-1	FIRE SPRT	Arty Medium SP	11	-1600	-1000	Unit	Battalion	Field Arty MECZ
Tank Bn	TKB 1/4-1	MVR	Tank Medium	10	-875	-5000	Unit	Battalion	Tank
MRR (Minus)	MRR 1/4-1	MVR	ARMD VEH	46	1250	-3500	Unit	REG	MECZ Infantry

B-16 REGT - MEETING ENGAGEMENT (TEMPLATE 2).



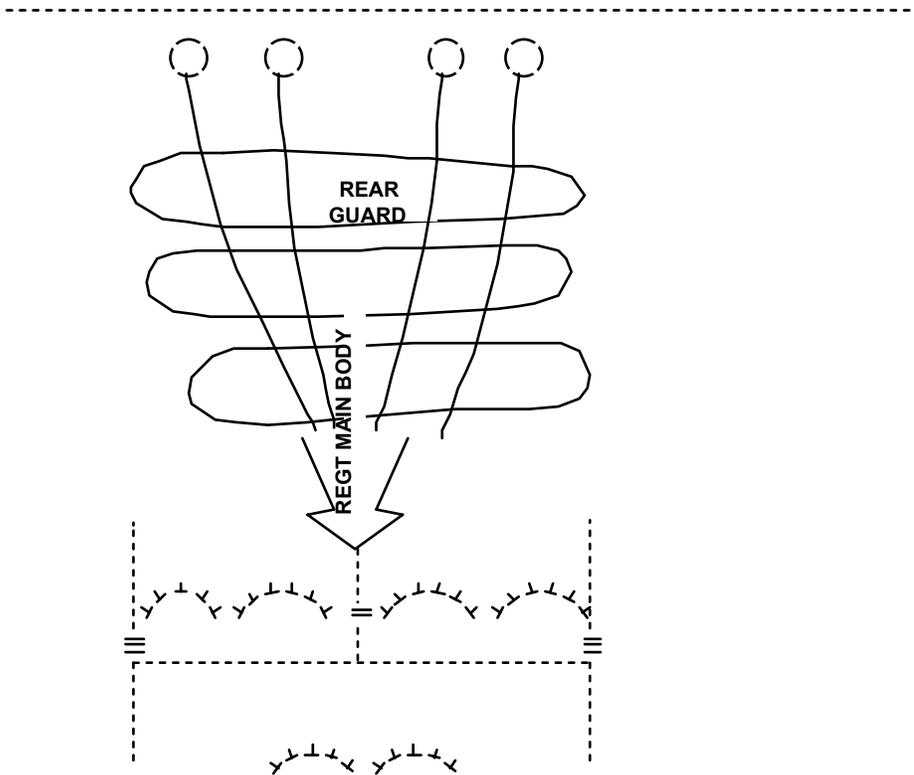
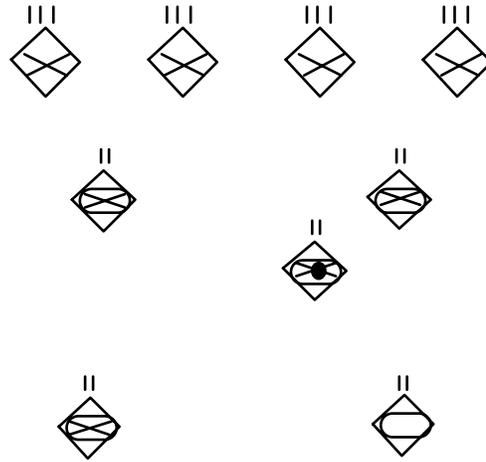
Regt - Meeting Engagement (template 2)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
Recon Patrol	MRP 1/ 2-1	MVR	ARMD VEH	1	0	38250	Unit	Platoon	MECZ Infantry
Advance Party	MRC 1/2-1	MVR	ARMD VEH	6	0	32750	Unit	Co	MECZ Infantry
Advance Guard	MRB 1/2-1	MVR	ARMD VEH	23	0	23250	Unit	Battalion	MECZ Infantry
Left FI Sec - AG	MRP 2/2-1	MVR	ARMD VEH	1	-3000	23250	Unit	Platoon	MECZ Infantry
Right FI Sec - AG	MRP 3/2-1	MVR	ARMD VEH	1	3000	23250	Unit	Platoon	MECZ Infantry
MR Main Body	MRR 1/2-1	MVR	ARMD VEH	103	0	-19250	Unit	REG	MECZ Infantry
Left FI Sec - MB	REC 1/2-1	MVR	ARMD VEH	1	-3000	-19250	Unit	Platoon	MECZ Infantry
Right FI Sec - MB	REC 2/2-1	MVR	APC	1	3000	-19250	Unit	Platoon	MECZ Infantry
Rear Security	MRP 4/2-1	MVR	ARMD VEH	1	0	-38250	Unit	Platoon	MECZ Infantry

Regt - Move to Contact (template 1)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
Patrols	REC 1/1-1	MVR	ARMD VEH	3	0	21000	Unit	Co	MECZ Infantry
Lead MR Bn (Reinf)	MRB 1/1-1	MVR	ARMD VEH	32	0	19500	Unit	Battalion	MECZ Infantry
HQ/RAG/ADA Grp	RAG 1/1-1	FIRE SPRT	Arty Medium SP	42	0	12250	Unit	Group	Field Arty MECZ
Tank Bn (Minus)	TKB 1/1-1	MVR	Tank Medium	7	0	5650	Unit	Battalion	Tank
2nd MRB	MRB 2/1-1	MVR	ARMD VEH	17	0	-400	Unit	Battalion	MECZ Infantry
3rd MRB (Minus)	MRB 3/1-1	MVR	ARMD VEH	16	0	-6675	Unit	Battalion	MECZ Infantry
Rear Services	SVC 1/1-1	LIFT	VEH Heavy Wheel	20	0	-14225	Svce SPR T Unit	REG	Service
Rear Security	MRP 1/1-1	MVR	ARMD VEH	1	0	-20850	Unit	Platoon	MECZ Infantry

B-18 REGT - WITHDRAWAL (TEMPLATE 6).



Regt - Withdrawal (template 6)

Template Unit	Unit ID	TVA Category	Target Type	# Plts	X Coord	Y Coord	Role	Echelon	Function
Cov Force A/1 (R)	MRP 1/ 6-1	MVR	ARMD VEH	2	-4680	4250	Unit	Platoon	MECZ Infantry
Cov Force B/1 (R)	MRP 2/ 6-1	MVR	ARMD VEH	2	-1560	4250	Unit	Platoon	MECZ Infantry
1st MR Bn	MRB 1/6-1	MVR	ARMD VEH	16	-4150	2250	Unit	Battalion	MECZ Infantry
Cov Force A/2 (R)	MRP 3/ 6-1	MVR	ARMD VEH	2	1560	4250	Unit	Platoon	MECZ Infantry
Cov Force B/2 (R)	MRP 4/ 6-1	MVR	ARMD VEH	2	4680	4250	Unit	Platoon	MECZ Infantry
2nd MRB	MRB 2/6-1	MVR	ARMD VEH	16	2350	2450	Unit	Battalion	MECZ Infantry
3rd MRB	MRB 3/6-1	MVR	ARMD VEH	17	-2350	-250	Unit	Battalion	MECZ Infantry
Arty Bn	FAB 1/6-1	FIRE SPRT	Arty Medium SP	11	1200	2100	Unit	Battalion	Field Arty MECZ
Tank Bn (Minus)	TKB 1/6-1	MVR	Tank Medium	4	3700	-250	Unit	Battalion	Tank

APPENDIX C PRINT FORMATS

C-1 GENERAL.

This appendix contains print formats for Request Objects, Object Images, and Message Templates. The header will be the same on all messages and will consist of:

Request
Source
DTG
Priority
Security
Status
Comments
Destination(s)

C-2 ADJUST.

Mission Type
Target Number
Observer ID
Originator ID
Target Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
Mission Information
 Method of Control
 Trajectory
 FFE HOB
Adjustment Information
 Shell
 Fuze
FFE Information
 1st Shell Type
 1st Shell model
 1st Fuze
 Quantity
 2nd Shell Type
 2nd Shell model
 2nd Fuze Type
 Quantity
Remarks

C-3 AIR ATTACK METHODS GUIDANCE.

Basic Plan Information

Plan: Current
 Time Zone: ZULU
 Current Time: 201400ZOct02

Datum{ NORTH_AMERICA_1927

Air Attack Method Guidance

Target Category: C3

Target Type	First Choice		Second Choice	
	Munition	Rnds	Munition	Rnds
CP, Battalion	Air Rockets	12	Air Rockets	12
CP, Division	Air Rockets	16	Air Rockets	16
CP, Forward	Air Rockets	8		
CP, Regiment	Air Rockets	10	Air Rockets	10
CP, Small	GP Bombs	12		
CP, Unknown				
Guidance Equipment	Air Rockets	4	Air Rockets	4
Navigational Aids	Air Rockets	4	Air Rockets	4

Target Category: FIRE SUPPORT

Target Type	First Choice		Second Choice	
	Munition	Rnds	Munition	Rnds
Arty, Hvy SP (>160mm)	Air Rockets	12	Air Rockets	12
Arty, Light SP (<121mm)	Air Rockets	8	Air Rockets	12

Continues for each target category.



C-4 AIR CREW MISSION BRIEFING.

Air Crew Mission Briefing

Air Aircraft Call Sign:

ASR Number: 02AAA005 Approved Air Mission ID: Request Air

Briefing Follows:

1. Initial Point (IP): 5 94720 34 61634 14 0
2. Heading (IP to Target) 24
3. Distance (IP to Target) 0
4. Target Elevation 0
5. Target Description Cp Battalion
6. Target Location 5 94720 34 61634 14 0
7. Type Mark
8. Location of Friendly Forces
9. Egress Directions LEFT

Remarks:

Mission Start Time or TOT: 121940ZFeb02

Mission End Time: 131940ZFeb02

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MARINE CORPS TM 10690A-10

C-5 AIR ORDER TO FIRE.

Mission Type -----: FIRE FOR EFFECT
Target Number -----: AA0003
Observer Unit ID -----: FDC A 3-16FA DARTY 4ID
Controlling Unit ID -----:
Observer Number -----:
Observer-Target Azimuth (mils) -----: 5979
Requested FS System -----: AIR

Target Location

Easting -----:
Northing -----:
Grid Zone -----:
Altitude -----:

Target Source Information

Reporting Sensor Type -----:
Target Source Reliability -----:
Report Type -----:
Target Location Error (m) -----:
Reported to this OPFAC as -----:

Mission Air Data

Air Support Request Number -----:
Air Control Agency Primary Freq -----:
Air Control Agency Secondary Freq -----:
Aircraft Call Sign -----:
Aircraft Item -----:
Aircraft Name -----:
Aircraft Code -----:
Number Of Aircraft -----:
Air Approved Mission Number -----:

Air Ordnance

Air Weapon Item -----:
Air Weapon Name -----:
Air Weapon Code -----:

Air Order To Fire - CONT

Target Information

Type -----: :
Degree Of Protection -----: :
Strength -----: :
Shape -----: POINT
Time Acquired -----: 202029ZOct02
Time Received -----: 202029ZOct02
Time On Target -----: :
Time Target Decays -----: 202229ZOct02
Target Location Time -----: :
Osuffix -----: :
Target Unit Id -----: :
MIDB Enemy Unit Id -----: :
MIDB Facility Name -----: :
MIDB Category Number -----: :

Mission Information

Mission Precedence -----: As Acquired
Mission Value -----: 25
Method of Fire -----: :
Method of Control -----: WHEN READY
Desired Effects Level -----: SUPPRESS
Desired Effects (%) -----: 3

Child Mission Data

Lm Go No-Go Indicator -----: :

Aimpoint Location

Easting -----: 589562
Northing -----: 3476496
Grid Zone -----: 14
Altitude -----: 900
Lmm Aimpoint Location 1 -----: :
Lmm Aimpoint Location 2 -----: :

Aimpoint Shape

Shape -----: POINT
Not Earlier Than Time -----: :
Not Later Than Time -----: :
Time Of Flight Requested -----: :
Splash -----: :
Can't Observe -----: :
Danger Close -----: FALSE
Sheaf Distribution -----: :
Distance Between Bursts (m) -----: :
Trajectory -----: :
FFE Height Of Burst (m) -----: :

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Air Order To Fire - CONT

Adjustment Information

Method ----- :

FFE Information

Fire Unit Size ----- :

1st Shell Type ----- :

1st Shell Model ----- :

1st Fuze ----- :

Quantity ----- :

2nd Shell Type ----- :

2nd Shell Model ----- :

2nd Fuze ----- :

Quantity ----- :

C-6 AMMO REQUISITION.

REQUEST FOR ISSUE OF AMMUNITION

Request From (FDC A 3-16FA Darty 4ID)
Date Material Required (021400ZOct02)
Allocation Period (3-5 Oct 02)
DODAAC 9280
Requested By SFC Smith
Date 2259

DODIC	NSN	Model	UI	Qty Requested
NNNN	NNNN-NN-NNN-NNNN	XXX	AA	XXXX *

Remarks

* - Printout may contain multiple line entries

C-7 AMMUNITION HOLDING AREA.

Controlling Unit ID

Location

Easting

Northing

Grid Zone

Altitude (m)

Munition Model (n)

Qty on-wheel (n)

Qty on-ground (n)

C-8 AMMUNITION FIRE UNIT-DEPLOYMENT COMMAND.

Fire Plan
 Unit
 Liaison Location
 Easting
 Northing
 Grid Zone
 Liaison Effective DTG
 Mission
 Mission Assignment Effective
 Mission Assignment Terminated
 Supported Unit
 Reinforced Unit
 Position Area ID (n=1..9)
 Easting
 Northing
 Grid Zone
 Azimuth of Fire (mils)
 Movement Start Time
 Movement End Time
 Special Remarks

C-9 AMMUNITION SUMMARY.

AMMUNITION SUMMARY

Units			Last Update (Hrs)	CM Munitions	Fuzes Rockets	Propellants Rockets	Uploaded	Stored
OPS	1-37FA	23CVDA	N/A	N/A	N/A	N/A	N/A	N/A
	FSE 3BDE	23CVD	N/A	N/A	N/A	N/A	N/A	N/A
1 A	1-37FA	23CVDA	G 0	G 802	G 700	Y 250	N/A	N/A
1 B	1-37FA	23CVDA	G 0	G 802	G 700	Y 250	N/A	N/A
2 A	1-37FA	23CVDA	G 0	G 802	G 700	Y 250	N/A	N/A
2 B	1-37FA	23CVDA	G 0	G 802	G 700	Y 250	N/A	N/A

G=Green; Y=Yellow; R=Red; B=Black; N/A=Not Applicable

ARMY TM 11-7025-297-10
MARINE CORPS TM 10690A-10

C-10 ARTILLERY TARGET REPORT MESSAGE.

Action
Target Number
Desired Effects (%)
Target Location
 Easting
 Northing
 Grid Zone
 Altitude
Target Information
 Type
 Degree of Protection
 Num of Target Elements
 Shape
 Length/Radius (m)
 Width (m)
 Attitude (mils)
DTG Acquired
Tgt Report Accuracy (m)
Mission Fired
Confirmed Target
Special Remarks

C-11 ASSAULT SUPPORT REQ.

Request Number
Mission Priority
Immediate/Preplanned
Air Mission Type
Assault Support Aircraft (n)
Pickup Point (n)
Pickup Point Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
Pickup Zone Identification
Pickup Zone Marking
Pickup Zone Color
Pickup Zone Hot
DTG at Pickup Point
Pickup Time (NET)
Pickup Time (NLT)
Relative NLT
Relative NET
Number of Passengers

Assault Support Req - CONT

External Weight (100 lbs)
Internal Weight (100 lbs)
Cargo Type (n)
Quantity
Drop Point (n)
Drop Point Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
Drop Zone Identification
Drop Zone Controller Call Sign
Agency Contact Frequency Designator
Drop Zone Terrain
Drop Zone Marking
Drop Zone Color
Drop Zone Hot
DTG at Drop Point
Drop Time (NET)
Drop Time (NLT)
Relative NLT
Relative NET
Number of Passengers
Cargo Type (n=1..5)
Quantity
Comments
To Mil ID (n=1..10)
Operation Name
Schedule Identifier
Schedule Number
From Mil ID
Forward/Disseminate
Planned Mission Number
Mission Number
Block Identifier

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C-12 ASSIGN.

Mission Type
Target Number
Observer ID
Target Location
Easting
Northing
Grid Zone
Altitude (m)
Target Information
Shape
Radius (m)
Length (m)
Width (m)
Attitude (mils)
Mission Information
Method of Fire
Method of Control
Adjustment Information
Projectile
Fuze
FFE Information
1st Shell Type
1st Shell Model
1st Fuze
Quantity
2nd Shell Type
2nd Shell model
2nd Fuze Type
Quantity

C-13 ATI REPORT.

Observer ID
Target Location
Grid Zone
Coordinates
Altitude (m)
Target Information
Type
Degree of protection
Strength
Shape
Radius (m)
Length (m)
Width (m)
Attitude (mils)

C-14 AVAILABLE SUPPLY RATE MESSAGE.

Fire Plan
 Fire Unit
 Weapon Type
 Supply Rate (rounds per day)
 Expended Amount (rounds)

C-15 AVIATION ATTACK METHODS.

Basic Plan Information

Plan: Current
 Time Zone: ZULU
 Current Time: 201400ZOct02

Datum{ NORTH_AMERICA_1927

Aviation Attack Method Guidance

Target Category: C3

Target Type	First Choice Munition	Rnds	Second Choice Munition	Rnds
CP, Battalion	Air Rockets	12	Air Rockets	12
CP, Division	Air Rockets	16	Air Rockets	16
CP, Forward	Air Rockets	8		
CP, Regiment	Air Rockets	10	Air Rockets	10
CP, Small	GP Bombs	12		
CP, Unknown				
Guidance Equipment	Air Rockets	4	Air Rockets	4
Navigational Aids	Air Rockets	4	Air Rockets	4

Target Category: FIRE SUPPORT

Target Type	First Choice Munition	Rnds	Second Choice Munition	Rnds
Arty, Hvy SP (>160mm)	Air Rockets	12	Air Rockets	12
Arty, Light SP (<121mm)	Air Rockets	8	Air Rockets	12

Continues for each target category.



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 MARINE CORPS TM 10690A-10

C-16 CANCEL TARGET RECORD.

Target Number
 Requesting Unit ID

C-17 CANNON ATTACK METHODS.

Basic Plan Information

Plan: Current
 Time Zone: ZULU
 Current Time: 201400ZOct02

Datum{ NORTH_AMERICA_1927

Cannon Attack Method Guidance

Target Category: C3

Target Type	First Choice			Second Choice			Fire Unit		Sub Auth
	Shell	Fuze	Vlys	Shell	Fuze	Vlys	Size	MRSI	
CP, Battalion	HE	Time	2	HE	Time	2	Platoon	Y	N
CP, Division	HE	Time	3	HE	Time	3	Platoon	Y	N
CP, Forward									
CP, Regiment									
CP, Small									
CP, Unknown									
Guidance Equipment									
Navigational Aids									

Target Category: FIRE SUPPORT

Target Type	First Choice			Second Choice			Fire Unit		Sub Auth
	Shell	Fuze	Vlys	Shell	Fuze	Vlys	Size	MRSI	
Arty, Hvy SP (>160mm)	HE	Time	2	HE	Time	2	Platoon	Y	N
Arty, Light SP (<121mm)	HE	Time	2	HE	Time	2	Platoon	Y	N

Continues for each target category.



C-18 CFL MESSAGE.

MET Originating Unit ID
Valid Time
Valid Time Period (hr)
Station
Altitude (10 m)
Latitude (1/10deg)
Longitude (1/10deg)
Global Octant
Wind Direction (n) (10 mils)
Wind Speed (n) (kts)

C-19 CHECK FIRE.

Message Type ---: CHECK FIRE

From -----: OPS 1-37FA 23CVDA

DTG -----: 051849ZJAN87

Priority -----: HIGH

Classification -: UNCLASSIFIED

Status -----: NO STATUS

Remarks -----:

To(1) -----: 1 A 1-37FA 23CVDA

(2) -----:

(3) -----:

(4) -----:

(5) -----:

(6) -----:

(7) -----:

(8) -----:

(9) -----:

(10) -----:

(11) -----:

(12) -----:

(13) -----:

(14) -----:

(15) -----:

(16) -----:

Firing Options -----:

Fire Plan Name -----:

Mission Type -----: FIRE FOR EFFECT

Target Number -----: GR6522

Plan -----:

Originator ID -----: OPS 1-37FA 23CVDA

Observer ID -----: OPS 1-37FA 23CVDA

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Check Fire - CONT

Target Location

Easting -----: 624437
Northing -----: 3458476
Grid Zone -----: 14
Altitude (m) -----: 0

Method Of Control ----: WHEN READY

C-20 CHECK FIRING.

Firing Options
Mission Type
Target Number
Originator ID
Observer ID
Target Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
Method of Control

C-21 CM MESSAGE.

MET Originating Unit ID
Valid Time
Valid Time Period
Station
 Atmospheric Pressure (mBars)
 Altitude (10 m)
 Latitude (1/10deg)
 Longitude (1/10deg)
 Global Octant
Wind Direction (n) (10 mils)
Wind Speed (n) (kts)
Air Temperature (n) (K)
Air Pressure (n) (mBars)

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Commands - CONT

FFE 2 Information

Shell Category ----- : ILLUM
Shell Type ----- : CPH
Shell Model ----- : MJSA
Shell Lot Code ----- : I
Fuze Category ----- : MOFA
Fuze Type ----- : PDB
Fuze Model ----- : M78A1Q
Fuze Lot Code ----- : C
Propellant Model ----- M188A1
Propellant Charge ----- : EIGHT SUPER RKT
Propellant Lot Code ----- : E
Quantity (Volleys) ----- : 19
Quantity (Rounds) ----- : 1000

Attacking Unit Information

Unit Id ----- : UNKNOWN UNIT
Deny Received ----- : TRUE
Easting Location ----- : 166021
Northing Location ----- : 0
Grid Zone ----- : 31
Altitude (m) ----- : -9999

Unit Id ----- : UNKNOWN UNIT
Deny Received ----- : FALSE
Easting Location ----- : 166021
Northing Location ----- : 0
Grid Zone ----- : 31
Altitude (m) ----- : -9999

Unit Id ----- : UNKNOWN UNIT
Deny Received ----- : TRUE
Easting Location ----- : 166021
Northing Location ----- : 0
Grid Zone ----- : 31
Altitude (m) ----- : -9999

Unit Id ----- : UNKNOWN UNIT
Deny Received ----- : FALSE
Easting Location ----- : 166021
Northing Location ----- : 0
Grid Zone ----- : 31
Altitude (m) ----- : -9999

Commands - CONT

Unit Id ----- :UNKNOWN UNIT
Deny Received ----- :TRUE
Easting Location ----- :166021
Northing Location ----- :0
Grid Zone ----- :31
Altitude (m) ----- :-9999

Aiming Data

Aim Azimuth ----- :0.0000000000000000
Aim Elevation ----- :0.0000000000000000
Fuze Setting Time ----- :0.0000000000000000
Time First Munition Fired ----- :010000ZJAN70

C-23 CONOPS GUIDANCE OBJECT IMAGE.

Format

CONOPS GUIDANCE

Unit ID (1)
 Primary Backup
 Secondary Backup
Unit ID (2)
 Primary Backup
 Secondary Backup
Unit ID (n)
 Primary Backup
 Secondary Backup

Example

CONOPS GUIDANCE

Unit ID (1)
 Primary Backup
 Secondary Backup

Unit ID (2)
 Primary Backup
 Secondary Backup

Always use the first (or only) COA within a phase to determine guidance.
Note that CONOPs guidance is not phase specific; guidance exists per OPFAC.

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MARINE CORPS TM 10690A-10

C-24 COORDINATION REQUEST.

Target Number
Target Location
Easting
Northing
Grid Zone
Altitude (m)
Target Information
Type
Mission Precedence
Mission Value
Violated Area
Responsible Unit ID
Name
Type
Effective DTG
Expiration DTG
NET Approved
NLT Approved
Status
Adjustment Information
Method
Shell
Fuze
Interval Between Adj Rds
FFE Information
1st Shell Type
1st Shell model
1st Fuze
Quantity
2nd Shell Type
2nd Shell model
2nd Fuze Type
Quantity

C-25 COORDINATION RESPONSE.

Target Number
Requesting Unit ID
Violated Area
NET Approved
NLT Approved
Status
Remarks

C-26 CP FO.

Unit to Fire (n)
Mission Type
Target Number
Observer ID
Originator ID
Controlling Unit
Observer-Tgt Az (mils)
Target Location
Easting
Northing
Grid Zone
Altitude (m)

Target Information
Type
Degree of Protection
Strength
Target Environment
Target Countermeasures (n)
Target Vegetation
Target Element 1 Type
Target Element 1 Qty
Target Element 2 Type
Target Element 2 Qty
Target Element 3 Type
Target Element 3 Qty
Heading (mils)
Speed (kph)
Shape
Radius (m)
Length (m)
Width (m)
Attitude (mils)
Time Acquired
Time Received
Time Target Decays

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CP FO - CONT

Mission Information

- Mission Precedence
- Mission Value
- Method of Fire
- Method of Control
- Desired Effects
- Time On Target
- NET
- NLT
- TOF
- Splash
- Can't Observe
- Danger Close
- Sheaf Distribution
- Distance Between Bursts (m)
- Trajectory
- FFE HOB

Adjustment Information

- Method
- Shell
- Fuze
- Interval Between Adj Rds

FFE Information

- 1st Shell Type
- 1st Shell model
- 1st Fuze
- Quantity
- 2nd Shell Type
- 2nd Shell model
- 2nd Fuze Type
- Quantity
- Interval Between Illum Rnds
- Interval Between Illum Eff Rnds
- Interval Between Copperhead Rnds

Coordination Results

- Violated Area Type (n)
- Violated Area Name (n)
- NET approved (n)
- NLT Approved (n)
- Status (n)
- Reason for Denial

C-27 CP FR.

Unit to Fire (n)
Mission Type
Target Number
Observer ID
Originator ID
Observer-Tgt Az (mils)
Target Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
Target Information
 Type
 Degree of Protection
 Strength
 Target Environment (n)
 Target Countermeasures (n)
 Target Vegetation
 Target Element 1 Type
 Target Element 1 Qty
 Target Element 2 Type
 Target Element 2 Qty
 Target Element 3 Type
 Target Element 3 Qty
 Heading (mils)
 Speed (kph)
 Shape
 Radius (m)
 Length (m)
 Width (m)
 Attitude (mils)
 Time Acquired
 Time Received
 Time Target Decays
Mission Information
 Mission Precedence
 Mission Value
 Method of Fire
 Method of Control
 Desired Effects
 Time On Target
 NET
 NLT
 TOF
 Splash

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CP FR - CONT

Can't Observe
Danger Close
Sheaf Distribution
Distance Between Bursts (m)
Trajectory
FFE HOB
Adjustment Information
Method
Projectile
Fuze
Interval Between Adj Rds
FFE Information
1st Shell Type
1st Shell Model
1st Fuze
Quantity
2nd Shell Type
2nd Shell model
2nd Fuze Type
Quantity
Interval Between Illum Rnds
Interval Between Illum Eff Rnds
Interval Between Copperhead Rnds
Coordination Results
Violated Area Type (n)
Violated Area Name (n)
NET approved (n)
NLT Approved (n)
Status (n)

Note: Several Iterations of the Coordination Results section may be present.

C-28 CRITICAL AMMO LEVEL.

Unit ID
Plan
Phase
Fuze Model
Munition Model
Critical Munition Level

C-29 CSR.

Unit ID
 FA Model
 Munition Model
 Authorized Qty

Do not include label if no data (blank) provided

C-30 CSR GUIDANCE.

Basic Plan Information

Plan: Current
 Time Zone: ZULU
 Current Time: 201400ZOct02

Datum{ NORTH_AMERICA_1927

CSR Guidance

Caliber: 105mm Munition -----	D_Day -----	S-Day -----
HE 200	40	
APICM	50	10
WP		
HE RAP		
ILLUM		
DPICM		
Smoke		

Caliber: 155mm Munition -----	D_Day -----	S-Day -----
HE 200	40	
APICM	50	10
WP		
HE RAP		
ILLUM		

Continues for each weapon type.



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C-31 DATUM INPUT MESSAGE.

Edit
Print
Delete
Transmit
Subscriber (n)
Datum
Spheroid
Location
Easting
Northing
Grid Zone
Altitude

C-32 DEAD SPACE AREA.

Plan Alias
Action
Name
Type
Force
Effective DTG
Expiration DTG
Establishing Unit ID
Coordinate (n)
Easting
Northing
Grid Zone
Altitude (m)
Radius (m)
Center Location
Easting
Northing
Grid Zone
Altitude (m)
Width
Start Location
Easting
Northing
Grid Zone
Altitude (m)
End Location
Easting
Northing
Grid Zone
Altitude (m)
Dead Space Unit

C-33 DENIED FIRE MISSION.

Target Number
Observer ID
Reason For Denial

C-34 DEPLOYMENT COMMAND - HOWITZER.

Type of Deployment MOVE TO FIRING AREA
Location
Easting 512507
Northing 7627068
Grid Zone 23
Altitude (m) 35

Firing Area Data
Azimuth of Fire (mils) 6400
Left Azimuth (mils) 0
Right Azimuth (mils) 6400
Firing Area Radius (m)

Effective Time DTG 022134ZAPR02

C-35 DETAILED AMMUNITION.

Detailed Ammunition

Last Update (Hrs)	HE	DPCIM	HC	WP	APCIM	ILLUM	RAP	CPHD	ADAM (L)	ADAM (S)	RAAM (L)	RAAM (S)	SMOKE
OPS N/A	1-37FA N/A	23CVDA N/A	N/A	N/A	N/A	N/A	N/A						
FSE N/A	3BDE N/A	23CVD N/A	N/A	N/A	N/A	N/A	N/A						
1 A G 0	1-37FA Y 144	23CVDA G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144
1 B G 0	1-37FA Y 144	23CVDA G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144
2 A G 0	1-37FA Y 144	23CVDA G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144
2 B G 0	1-37FA Y 144	23CVDA G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144	G 170	Y 144

G=Green; Y=Yellow; R=Red; B=Black; N/A=Not Applicable

C-36 DETAILED FUZES.

Detailed Fuzes

Units			Last Update (Hrs)	PD	VT	Time	CP	
FDC	A	3-16FA	DARTY	B 99	G 905	G 980	G 850	G 980
1	A	3-16FA	DARTY	B 99	G 225	G 300	G 200	G 300
1	B	3-16FA	DARTY	G 0	G 230	G 230	G 230	G 230
2	A	3-16FA	DARTY	B 99	G 230	G 230	G 200	G 230
2	B	3-167FA	DARTY	B 99	G 220	G 220	G 220	G 220

G=Green; Y=Yellow; R=Red; B=Black; N/A=Not Applicable

C-37 DETAILED PROPELLANTS.

Detailed Propellants

Units			Last Update (Hrs)	GB	WB	RB	
FDC	A	3-16FA	DARTY	B 99	G 905	G 980	G 850
1	A	3-16FA	DARTY	B 99	G 225	G 300	G 200
1	B	3-16FA	DARTY	G 0	G 230	G 230	G 230
2	A	3-16FA	DARTY	B 99	G 230	G 230	G 200
2	B	3-167FA	DARTY	B 99	G 220	G 220	G 220

G=Green; Y=Yellow; R=Red; B=Black; N/A=Not Applicable

C-38 DISTRIBUTION CRITERIA SELECTION LIST.

Selection List

'Subcategory'
 'Distribution List'
 'Criteria'

Category
 UNIT DATA

Units

- (*) This Unit
- () Higher
- () Subordinates
- () Others

'FSCMS'	ALL	Any Change
'BOUNDARY LINES'	ALL	Any Change
'SITUATION GRAPHICS'	ALL	Any Change
'BATTLE AREAS'	Bn FSEs/FA CP	None

-----		-----		-----		-----
OK		Cancel		Print...		Help
-----		-----		-----		-----

C-39 EFFECTS GUIDANCE.

- Effective Time
- Action
- Target Type (1)
- Degree of Protection (1)
- Effects (1)
- Volleys (1)
- Target Type (95)
- Degree of Protection (95)
- Effects (95)
- Volleys (95)

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C-40 EOM.

Adjusting Unit
 FFE Unit
 Mission Completion
 Number of Casualties
 Target Number
 Observer ID
 Target Location
 Easting
 Northing
 Grid Zone
 Target Information
 Type
 Disposition
 FFE Information
 1st Shell Type
 1st Shell Model
 1st Fuze
 Quantity
 2nd Shell Type
 2nd Shell model
 2nd Fuze Type
 Quantity

C-41 EQUIPMENT SUMMARY.

EQUIPMENT SUMMARY

Units			Last Update (Hrs)	Computers	Vehicles	Radios	COMSEC	MSE	EPLRS	ULS	Radars	Lasers
OPS	1-37FA	23CVDA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	FSE	3BDE	23CVD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1 A	1-37FA	23CVDA	G 0	G 1	G 10	Y 10	N/A	N/A	N/A	N/A	N/A	N/A
1 B	1-37FA	23CVDA	G 0	G 1	G 9	Y 9	N/A	N/A	N/A	N/A	N/A	N/A
2 A	1-37FA	23CVDA	G 0	G 1	G 11	Y 11	N/A	N/A	N/A	N/A	N/A	N/A
2 B	1-37FA	23CVDA	G 0	G 1	G 11	Y 11	N/A	N/A	N/A	N/A	N/A	N/A

G=Green; Y=Yellow; R=Red; B=Black; N/A=Not Applicable

C-42 ESTABLISH TARGET.

Message Type ---: ESTABLISH TARGET

From -----: FSE 1BDE 23CVD
DTG -----: 122140ZJUN02
Priority -----: MEDIUM LOW
Classification -: UNCLASSIFIED
Status -----: AFATDS RECEPTION SUCCESSFUL
Remarks -----:

Control Information

Message Action -----:
Last Target -----:

Mission ID Components

Target Number -----: SG0012
Plan -----:
Firing Unit (n) -----: FSE 1BDE 23CVD
Mission Number -----: 19

Target Data

Type -----: CP BATTALION
Easting -----: 605111
Northing -----: 3460845
Grid Zone -----: 14
Altitude (m) -----: 0

Target Area

Type -----: POINT
Reporting Sensor Type -----:
Report Type -----:
Target Source Reliability -----: COMPLETELY RELIABLE
TLE (m) -----:
Target ABCA Number -----: NOTSET
Target Be Number -----: NOTSET
Target Activity -----:
Target Permanence -----:
Target Classification -----: 'A'
Target Aff Priority -----: UNKNOWN
Target Formation -----:

Establish Target - CONT

Mission Data

Method of Control -----: WHEN READY
Target State -----:
Strength -----:
Degree Of Protection -----:
Time Acquired -----: 122140ZJUN02
Mission Value -----: 35
Mission Precedence -----: AS ACQUIRED
Target State -----: ACTIVE
Target Observer Fm Buffer -----: 1
Target Observer Report Value -----:
Atf List Part Number -----: 1
Atf Status Code -----:
Atf Status Percentage -----:
Number Of Lmm Rounds (1) -----:
Number Of Lmm Rounds (2) -----:
Predicted Point Of Impact -----
Easting -----:
Northing -----:
Grid Zone -----:
Altitude (m) -----:
Send As Info Copy -----: TRUE
Receive As Info Copy -----: TRUE

Observer Request Indicators

Cannot Observe Indicated -----:
Splash Requested -----:
Time Of Flight Requested -----:
Danger Close Indicated -----:

Lmm Aimpoints

Lmm Aimpoint Location 1 -----
Easting -----:
Northing -----:
Grid Zone -----:
Altitude (m) -----:
Lmm Aimpoint Location 2 -----
Easting -----:
Northing -----:
Grid Zone -----:
Altitude (m) -----:

Establish Target - CONT

Firing Unit Locations

Attacking Unit Id (1) -----: A 63FA 23CVDA
Easting -----: 617550
Northing -----: 3430939
Grid Zone -----: 14
Altitude (m) -----: 0

Firing Unit Detailed Info

Method Of Engagement Information

Height Of Burst -----:
Dispersal Pattern -----:
Angle of Fire -----:

Control Mission

Mission Type -----: FIRE FOR EFFECT
Duration Of Fire -----:
Parent Plan Number -----: 0
Parent Unit Number -----: 0
Parent Phase ID -----: 0
Parent Coa ID -----: 0
Parent Mission Number -----: 0
Parent Creating Unit Number -----: 32767
Parent Target Number -----:
Comments -----:

Control Unit

Observer Unit ID -----: FSE 1BDE 23CVD
Easting -----:
Northing -----:
Grid Zone -----:
Altitude (m) -----:
Planned Firing Unit -----:

Control Times

Time On Target -----:
No Later Than -----:
No Earlier Than -----:
Operational Until -----: 170040ZJUN02

FX Data

Effects Level -----: SUPPRESS
Effects Percentage -----: 3
FS System -----: RKT MSL
Fire Unit Size -----:

Establish Target - CONT

Moving Target Data

Heading (mils) -----:
Speed (kph) -----:
DTG -----:

Weather Data

Quick Smoke Information

Wind Speed (knots) -----: 0
Wind Direction -----: TAIL
Duration of Smoke (minutes) -----: 0
Temperature Gradient -----: NEUTRAL
Target Wind Direction -----:
Target Precipitation Type -----:
Target Precipitation Rate -----:

C-43 FA FIRE ORDER (MTR FIRE ORDER).

Target Number

Observer ID

Observer-Tgt Az (mils)

Target Location

Easting

Northing

Grid Zone

Altitude (m)

Target Information

Type

Strength

Target Environment (n)

Target Countermeasures (n)

Target Vegetation

Target Element Type (n)

Target Element Qty (n)

Heading (mils)

Speed (kph)

Shape

Radius (m)

Length (m)

Width (m)

Attitude (mils)

FA Fire Order (Mtr Fire Order) - CONT

Mission Information

Mission Precedence
Method of Fire
Method of Control
Desired Effects Level
Desired Effects Percentage
Time On Target
NLT
TOF
Splash
Can't Observe
Danger Close
Sheaf Distribution
Distance Between Bursts (m)
Trajectory
FFE HOB

Adjustment Information

Method
Projectile
Fuze
Interval Between Adj Rds

FFE Information

1st Projectile Type
1st Projectile model
1st Fuze
Quantity
Interval Between Rds
Interval Between Illum Rds
Interval Between Illum Fx Rds
Interval Between Cphd Rds
2nd Projectile Type
2nd Projectile model
2nd Fuze Type
Quantity (volleys)

Remarks

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C-44 FA ORDER TO FIRE (MORTAR ORDER TO FIRE).

Unit to Fire (n)
Mission Type
Target Number
Observer ID
Originator ID
Observer-Tgt Az (mils)
Target Location
Easting
Northing
Grid Zone
Altitude (m)
Target Information
Type
Degree of protection
Strength
Target Environment (n)
Target Countermeasures (n)
Target Vegetation
Target Element Type (n)
Target Element Qty (n)
Heading (mils)
Shape
Radius (m)
Length (m)
Width (m)
Attitude (mils)
Time Acquired
Time Received
Time Target Decays
Mission Information
Mission Precedence
Mission Value
Method of Fire
Method of Control
Desired Effects Level
Desired Effects Percentage
Time On Target
NET
NLT
TOF
Splash
Can't Observe
Danger Close
Sheaf Distribution
Distance Between Bursts (m)
Trajectory
FFE HOB

FA Order To Fire (Mortar Order To Fire) - CONT

Adjustment Information

Method
Shell
Fuze
Interval Between Adj Rds

FFE Information

1st Shell Type
1st Shell model
1st Fuze
Quantity
2nd Shell Type
2nd Shell model
2nd Fuze Type
Quantity
Interval Between Illum Rds
Interval Between Illum Fx Rds
Interval Between Cphd Rds

Coordination Results

Violated area name (n)

FA Order To Fire (Mortar Order To Fire). - CONT

Speed (kph)
Violated area type (n)
NET approved (n)
NLT Approved (n)
Status (n)

Remarks

C-45 FDC FR.

Unit to Fire (n)
Mission Type
Target Number
Observer ID
Originator ID
Observer-Tgt Az (mils)
Target Location
Easting
Northing
Grid Zone
Altitude (m)

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FDC FR - CONT

Target Information

Type
Degree of Protection
Strength
Target Environment (n)
Target Countermeasures (n)
Target Vegetation
Target Element 1 Type
Target Element 1 Qty
Target Element 2 Type
Target Element 2 Qty
Target Element 3 Type
Target Element 3 Qty
Heading (mils)
Speed (kph)
Shape
Radius (m)
Length (m)
Width (m)
Attitude (mils)
Time Acquired
Time Received
Time Target Decays

Mission Information

Mission Precedence
Mission Value
Method of Fire
Method of Control
Desired Effects
Time On Target
NET
NLT
TOF
Splash
Can't Observe
Danger Close
Sheaf Distribution
Distance Between Bursts (m)
Trajectory
FFE HOB

Adjustment Information

Method
Projectile
Fuze
Interval Between Adj Rds

FDC FR - CONT

FFE Information

- 1st Shell Type
- 1st Shell Model
- 1st Fuze
- Quantity
- 2nd Shell Type
- 2nd Shell model
- 2nd Fuze Type
- Quantity
- Interval Between Illum Rnds
- Interval Between Illum Eff Rnds
- Interval Between Copperhead Rnds

Note: Several Iterations of the Coordination Results section may be present

C-46 FDS GUIDANCE.

- Fire Unit ID
- Zone of Fire
- Self Destruct Code
- Cycle Time (min)
- Dwell Time (min)
- Effects Cutoff (%)
- Time Between Rounds (sec)
- OPSTAT Report Interval (min)
- Munition Category (n)
- Max Number Rounds
- MFR Format
- Reload When (# pods empty)
- Terminal Homing Munitions
 - Altitude of Flight (m)
 - Target Count Code
 - Scan Limit (mils)
 - Target Element Separation
- High QE Authorized
- Allow Multiple Missions
- Message Action

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C-47 **FIRE.**

Unit to Fire (n)
Mission Type
Target Number
Observer ID
Originator ID
Time Acquired
Time Received
Method of Control
Reason for Denial

C-48 **FIRE ORDER.**

FO Message Type -----: UNKNOWN
FO Mission Type -----: UNKNOWN
Unit Echelon -----: UNKNOWN

Specified Unit Information

Unit To Fire (1) -----: UNKNOWN UNIT
Unit To Fire (2) -----: UNKNOWN UNIT
Controlling Unit -----: UNKNOWN UNIT
Observer Number -----: 0
Observer ID -----: UNKNOWN UNIT
Observer Fm Buffer Number -----: 0
Observer-Tgt Az (mils) -----: 0
Cloud Height (Tens of m) -----: 0
Visibility (Hundreds of m) -----: 0
Creating Unit -----: UNKNOWN UNIT

Target Number -----:
Target Location
Easting -----: 166021
Northing -----: 0
Grid Zone -----: 31
Altitude (m) -----: -9999
Tgt Location Time -----: 010000ZJAN70

Target Information

Type -----: ADA_HEAVY
Strength -----: 0
Formation -----: UNKNOWN
Target Environment (1) -----: UNKNOWN
Target Environment (2) -----: UNKNOWN
Target Countermeasures (1) -----: UNKNOWN
Target Countermeasures (2) -----: UNKNOWN
Target Vegetation -----: UNKNOWN

Fire Order - CONT

Target Element Type (1) -----: UNKNOWN
Target Element Qty (1) -----: 0
Target Element Type (2) -----: UNKNOWN
Target Element Qty (2) -----: 0
Heading (mils) -----: 0
Speed (kph) -----: 0
Shape -----: UNKNOWN
Radius (m) -----: 0
Length (m) -----: 0
Width (m) -----: 0
Attitude (mils) -----: 0
Gun Tgt Direction (mils) -----: 0
Obs Tgt Direction (mils) -----: 0

Mission Information

Mission Number -----: 0
Mission Precedence -----: UNKNOWN
Method of Fire -----: UNKNOWN
Method of Control -----: WHEN_READY
Desired Effects Level -----: SUPPRESS
Desired Effects Percentage -----: 3%
Error Margin (m) -----: 0%
Time On Target -----: 010000ZJAN70
Not Earlier Than Time -----: 010000ZJAN70
Not Later Than Time -----: 010000ZJAN70
Operational Until Time -----: 010000ZJAN70
Time Of Flight Requested -----: FALSE
Splash Requested -----: FALSE
Cannot Observe Indicated -----: FALSE
Cannot Observe Action -----: UNKNOWN
Laser Observation -----: UNKNOWN
Adjust Fpf Mission -----: FALSE
Mark Requested -----: FALSE
Danger Close -----: FALSE
Sheaf Distribution -----: UNKNOWN
Distance Between Bursts (m) -----: 0
Trajectory -----: UNKNOWN
Substitution Authorized -----: NO
Mission Value -----: 42
FFE HOB -----: 0

Quick Smoke Data

Wind Speed -----: 0
Wind Direction -----: UNKNOWN
Duration of Smoke -----: 0
Temperature Gradient -----: UNKNOWN

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Fire Order - CONT

Aimpoint Location

Easting -----: 166021
Northing -----: 0
Grid Zone -----: 31
Altitude (m) -----: -9999

Aimpoint Information

Shape -----: UNKNOWN
Radius (m) -----: 0
Length (m) -----: 0
Width (m) -----: 0
Attitude (mils) -----: 0
Previous Location
Easting -----: 166021
Northing -----: 0
Grid Zone -----: 31
Altitude (m) -----: -9999

Adjustment Information

Method -----: AREA
Tube Count -----: 0
Shell Category -----: UNKNOWN
Shell Type -----: UNKNOWN
Shell Model -----: UNKNOWN
Shell Lot Code -----:
Fuze Category -----: UNKNOWN
Fuze Type -----: UNKNOWN
Fuze Model -----: UNKNOWN
Fuze Lot Code -----:
Propellant Model -----: UNKNOWN
Propellant Charge -----: UNKNOWN
Propellant Lot Code -----:
Quantity (Volleys) -----: 0
Quantity (Rounds) -----: 0
Interval Between Adj Rds -----: 0
Adjustment
Left or Right -----: 0
Add or Drop -----: 0
Up or Down -----: 0
Interval Between Adj Rds -----: 0

Fire Order - CONT

FFE 1 Information

Shell Category -----: UNKNOWN
Shell Type -----: UNKNOWN
Shell Model -----: UNKNOWN
Shell Lot Code -----:
Fuze Category -----: UNKNOWN
Fuze Type -----: UNKNOWN
Fuze Model -----: UNKNOWN
Fuze Lot Code -----:
Propellant Model -----: UNKNOWN
Propellant Charge -----: UNKNOWN
Propellant Lot Code -----:
Quantity (Volleys) -----: 0
Quantity (Rounds) -----: 0

FFE 2 Information

Shell Category -----: UNKNOWN
Shell Type -----: UNKNOWN
Shell Model -----: UNKNOWN
Shell Lot Code -----:
Fuze Category -----: UNKNOWN
Fuze Type -----: UNKNOWN
Fuze Model -----: UNKNOWN
Fuze Lot Code -----:
Propellant Model -----: UNKNOWN
Propellant Charge -----: UNKNOWN
Propellant Lot Code -----:
Quantity (Volleys) -----: 0
Quantity (Rounds) -----: 0

Interval Information

Between Rounds -----: 010000ZJAN70
Between Illum Rds -----: 0
Between Illum Fx Rds -----: 0
Between Cphd Rds -----: 0
Between Continuous Fire Rnds ----: 0

Weapon Technical Solution

Adjust Deflection (Mils) -----: 0.0000000000000000
Adjust Quadrant Elevation (m) ---: -400.0000000000000000
Adjust Aimpoint Location
Easting -----: 166021
Northing -----: 0
Grid Zone -----: 31
Altitude (m) -----: -9999

Fire Order - CONT

Adjust Time Fuze Setting -----: 0.0000000000000000
Adjust Time Of Flight -----: 0.0000000000000000
Adjust Height Of Burst -----: 0
Adjust Laser Alert Time -----: 0.0000000000000000
Adjust Max Apogee -----: -9999
Adjust Number of Rounds -----: 0
FFE1 Deflection -----: 0.0000000000000000
FFE1 Quadrant Elevation -----: -400.0000000000000000
FFE1 Aimpoint Location
Easting -----: 166021
Northing -----: 0
Grid Zone -----: 31
Altitude (m) -----: -9999
FFE1 Time Fuze Setting -----: 0.0000000000000000
FFE1 Time Of Flight -----: 0.0000000000000000
FFE1 Height Of Burst -----: 0
FFE1 Laser Alert Time -----: 0.0000000000000000
FFE1 Max Apogee -----: -9999
FFE1 Number of Rounds -----: 0
FFE2 Deflection -----: 0.0000000000000000
FFE2 Quadrant Elevation -----: -400.0000000000000000
FFE2 Location
Easting -----: 166021
Northing -----: 0
Grid Zone -----: 31
Altitude (m) -----: -9999
FFE2 Time Fuze Setting -----: 0.0000000000000000
FFE2 Time Of Flight -----: 0.0000000000000000
FFE2 Height Of Burst -----: 0
FFE2 Laser Alert Time -----: 0.0000000000000000
FFE2 Max Apogee -----: -9999
FFE2 Number of Rounds -----: 0

Self Destruct Code -----: 1
Thm Target Element Separation -----: 0
Thm Target Count Code -----: 'A'
Thm Altitude Of Flight (ft) -----: 0
MLRS Interval Between Rounds -----: 5
High Qe Option -----: TRUE
Copperhead GllD Code -----:

Fire Order - CONT

Firing Point Information

Id -----: UNKNOWN
Firing Point Location
Easting -----: 166021
Northing -----: 0
Grid Zone -----: 31
Altitude (m) -----: -9999
Parking Azimuth (mils) -----: 0
Mask Left Azimuth (mils) -----: 0
Mask Right Azimuth (mils) -----: 0
Elevation To Mask (mils) -----: 0
Distance To Mask (m) -----: 0

Next Point Information

Type -----: FIRING POINT
Id -----: UNKNOWN
Location
Easting -----: 166021
Northing -----: 0
Grid Zone -----: 31
Altitude (m) -----: -9999
Parking Azimuth (mils) -----: 0
Mask Left Azimuth (mils) -----: 0
Mask Right Azimuth (mils) -----: 0
Elevation To Mask -----: 0
Distance To Mask (m) -----: 0

Reload Data

Pod 1
Reload Indicator -----: FALSE
Warhead Type -----: UNKNOWN
Number of Rounds -----: 0
Pod 2
Reload Indicator -----: FALSE
Warhead Type -----: UNKNOWN
Number of Rounds -----: 0

Remarks -----:

MLRS Action Code -----: STANDARD
MFR Report -----: LONG
Message Sequence Number -----: 1

Report Ready Info

Report Ready -----: TRUE
Report Advanced Ready -----: TRUE

C-49 FIRE PLAN OBJECT IMAGE.

Format

Fire Plan Start Time End Time	Fire Plan Name Fire Plan Start Time Fire Plan Stop Time			
Target	Target Type	Location	Alt (m)	Munitions (1st/2nd)
XX9999	XXXXXXXXXXXXXXXXXXXX XXXXXXX	9 99999 999 99999	±99 99999	XXXXXXXXXX/XXXXXXXXXX

Example

Fire Plan Start Time End Time	Anvil 021330Z NOV 93 021339Z NOV 93			
Target	Target Type	Location	Alt	Munitions (m) (1st/2nd)
AA0301 AA0354	Missile, Hvy Landing Strip	4 54000 054 87900 +16 4 20908 053 98070 +16	00700 00230	HE/DPICM HE/HE

C-50 FIRE PLAN TARGET.

- Plan
- Fire Plan Name
- Target Number
- Target Location
- Easting
- Northing
- Grid Zone
- Altitude (m)
- Target Information
- Type
- Shape
- Radius (m)
- Length (m)
- Width (m)
- Attitude (mils)
- Degree of Protection
- Strength
- State

Fire Plan Target - CONT

H-Hour DTG
Start DTG
Phase Length (min)
Duration of Fire (min)
Precedence
Group
Series
Series Number
Action

C-51 FIRE UNIT.

Unit ID
Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
Effective Start DTG
Mission
Operational Status
Return to Operation DTG
FA Model
Weapons on Hand
Azimuth of Lay (mils)
Left Traverse Limit (mils)
Right Traverse Limit (mils)
Response Time (min)
Maximum Rate of Fire (rpm)
Sustained Rate of Fire (rpm)
RES
EPLRS Alias

Do not include label if no data (blank) provided

ARMY TM 11-7025-297-10
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C-52 FIRE UNIT REQUEST.

Unit ID -----: UNKNOWN UNIT

Location

Easting -----: 500000

Northing -----: 4982950

Grid Zone -----: 20

Altitude (m) -----: 76

Effective Start DTG -----: 010203ZAPR02

Mission Type -----: GS

Message Action -----: MODIFY

Max Range (m) -----:

Operational Status -----: READY

Return To Operation DTG -----: 050346ZAPR02

FA Model -----: UNKNOWN

Weapons on Hand -----:

Weapons Operational -----: 4

Weapons Authorized -----:

Powder Temperature (F) -----: 145

Max Quadrant Elevation (mils): 0

Azimuth of Lay (mils) -----: 520

Left Traverse Limit (mils) --: 0

Right Traverse Limit (mils) -: 6400

Response Time (min) -----: 10

Shift Time (min) -----:

Maximum Rate of Fire (rpm) --: 6.2

Sustained Rate of Fire (rpm) : 7.0

Radiation Exposure Status ---: RES3

EPLRS Alias -----:

Unit Type -----:

Unit Role -----:

Echelon -----:

Unit Function -----:

Radio Call Sign -----:

NSFS Caliber -----:

Ship Type -----:

Limited Operation Status(1)-: NOT GIVEN

Limited Operation Status(2)-: GPS INOP

Limited Operation Status(3)-: BOOM SUPPLY PORT INOP

Mogas Quantity -----: 99999

Diesel Quantity -----: 99999

C-53 FORECAST MET MESSAGE.

DTG

Effective Day

Effective Hour

Effective Minute

Effective Start Time

Day of Month

Hour

Length of Valid Period (hrs)

Station Location

Easting

Northing

Grid Zone

Altitude (m)

Station Spheroid

Surface Wind

At Altitude (m)

Direction (tens of degrees)

Speed (tens of knots)

Temperature Gradient

Temperature (deg F)

Relative Humidity (10 %)

Precipitation

Type

Depth

Cloud Cover

Cloud Height

Forecast Winds

Altitude band

Direction (deg)

Speed (knots)

C-54 FS COA COMPARISON.

Format

COA STATISTICS

Plan (n)

Supportable Tasks

Tubes

Massing Capability (Tubes)

Rounds Required

Simplicity

System Utilization (%)

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C-55 **FSE FR.**

Unit to Fire (n)
Mission Type
Target Number
Observer ID
Originator ID
Observer-Tgt Az (mils)
Target Location
Easting
Northing
Grid Zone
Altitude (m)
Target Information
Type
Degree of Protection
Strength
Target Environment (n)
Target Countermeasures (n)
Target Vegetation
Target Element 1 Type
Target Element 1 Qty
Target Element 2 Type
Target Element 2 Qty
Target Element 3 Type
Target Element 3 Qty
Heading (mils)
Speed (kph)
Shape
Radius (m)
Length (m)
Width (m)
Attitude (mils)
Time Acquired
Time Received
Time Target Decays
Mission Information
Mission Precedence
Mission Value
Method of Fire
Method of Control
Desired Effects
Time On Target
NET
NLT

FSE FR - CONT

Sheaf Distribution
Distance Between Bursts (m)
Trajectory
FFE HOB
Adjustment Information
Method
Projectile
Fuze
Interval Between Adj Rds
FFE Information
1st Shell Type
1st Shell Model
1st Fuze
Quantity
2nd Shell Type
2nd Shell model
2nd Fuze Type
Quantity
Interval Between Illum Rnds
Interval Between Illum Effects Rnds
Coordination Results
Violated Area Type (n)
Violated Area Name (n)
NET approved (n)
NLT Approved (n)
Status (n)
Tac Air Information
Operation Name
To
From
Chart Series
Chart ID
Sheet ID
TACAN Bearing
TACAN Range
TACAN Channel
TACAN Number
On-Call Status
Reallocated From
Friendly Unit Marking
Air Sortie Information
Request Number
Mission Number
Mission Type
Mission Priority

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FSE FR - CONT

Ingress Direction
Egress Direction
CAS Aircraft Type
Number of Aircraft
Aircraft Call Sign
Target Air Defenses
Time Off Target
Report In Point
Easting
Northing
Grid Zone
Altitude (m)
Closest Friendly Unit
Easting
Northing
Grid Zone
Altitude (m)
Air Control Agency
Type
Call Sign
Freq Designator
2nd Freq Designator
Remarks

Note: Several Iterations of the Coordination Results section may be present.

C-56 FS SYSTEM BUFFER DISTA.

Basic Plan Information

Plan: Current
Time Zone: ZULU
Current Time: 201400ZOct02

Datum{ NORTH_AMERICA_1927

FS System Effects Distance Guidance

FS System	Distance
-----	-----
FA Cannon	300
Rkt/Msl	300
Mortar	100
Air 1000	
Aviation	1000
NGFS	700

C-57 GEOMETRIES REQUEST ACA.

Plan Alias -----:
Action -----: ADD

Name -----: BARNEY
Type -----: AIRSPACE COORDINATION AREA
Force -----: FRIENDLY AREA
Effective DTG -----: 010000ZJAN70
Expiration DTG -----: 010000ZJAN06
Establishing Unit ID ---: FSE 2BDE 23CVD

Location Point ID -----:

Coordinate (1) -----: 1
Easting (1) -----: 600249
Northing (1) -----: 3414857
Grid Zone (1) -----: 14
Altitude (1) (m) ---: 0
Coordinate (2) -----: 2
Easting (2) -----: 600436
Northing (2) -----: 3394865
Grid Zone (2) -----: 14
Altitude (2) (m) ---: 0

Width (m) -----: 19998

ACA Coordinate (1) ----: 1
Easting (1) -----: 600343
Northing (1) -----: 3404861
Grid Zone (1) -----: 14
Altitude (1) (m) ---: 0

ACA Radius (m) -----: 9999

ACA Altitude
Minimum (m) -----: -9999
Maximum (m) -----: 99999

Parking Heading (mils) :-

Masking
Left Azimuth (mils) --:
Right Azimuth (mils) -:
Elevation (mils) ----:
Range (m) -----:

Echelon -----:

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C-58 GEOMETRY.

Printing Type: -----: General Geometries Only
Overlay Name: -----: GEOMS
Source Unit: -----: 8888

Geometry #7:
Geometry Name -----: J123456789
Time Established -----: 290001JANZ2002
Time Expired -----: 312359ZJAN2002
Geometry Shape -----: Friendly Line
Geometry Type -----: General Line
Coordinate (1) -----: 1
Easting (1) -----: 620000
Northing (1) -----: 03450000
Grid Zone (1) -----: 14
Altitude (1) -----: 125
Coordinate (2) -----: 2
Easting (2) -----: 622000
Northing (2) -----: 03450000
Grid Zone (2) -----: 14
Altitude (2) -----: 100

Geometry #12:
Geometry Name -----: J223456789
Width/Radius (m) -----: 3000
Time Established -----: 290001JANZ2002
Time Expired -----: 312359ZJAN2002
Geometry Shape -----: Friendly Area
Geometry Type -----: General Area
Coordinate (1) -----: 1
Easting (1) -----: 620000
Northing (1) -----: 03450000
Grid Zone (1) -----: 14
Altitude (1) -----: 125

C-59 IN PROGRESS.

Target Number -----: AA3333
Known Point Number -----: 22

Observer Information
Observer ID -----: UNIT TEST
Observer Number -----: 52
Observer Tgt Direction (mils) ---: 777
Observer Tgt Vertical Angle -----: 146
Report Vertical Angle -----: TRUE

Creating Unit Number -----: FSO TF 8-60AR 2BDE 23CVD
Adjusting Unit Number -----: UNIT UI
Adjusting Unit Location
Easting -----: 166021
Northing -----: 0
Grid Zone -----: 31

In Progress - CONT

Altitude (m) -----: -9999

Fist Id Number -----: UNIT SIT

Fist Hq Number -----: 88

Controlling Unit -----: UNKNOWN UNIT

Target Location

Easting -----: 166021

Northing -----: 0

Grid Zone -----: 31

Altitude (m) -----: -9999

Target Information

Type -----: ADA HEAVY

Degree Of Protection -----: DUG IN AND PRONE

Strength -----: 7373

Shape -----: CIRCULAR

Radius (m) -----: 565

Length (m) -----: 343

Width (m) -----: 878

Attitude (mils) -----: 4343

Mission Information

Mission Number -----: 8606

Observer Fm Buffer -----: 1

Type -----: FIRE FOR EFFECT

Angle of Fire -----: HIGH

Method of Fire -----: PLATOON CENTER

Method of Control -----: AT MY COMMAND

Time On Target -----: 010000ZJAN70

Not Earlier Than Time -----: 010000ZJAN70

Not Later Than Time -----: 010000ZJAN70

Angle T (mils) -----: 90

Time Of Flight (sec) -----: 33.3

Maximum Ordinate -----: 123

Gun Target Line Offset -----: 456

Gun-Target Line Azimuth -----: 78

Laser Alert Time (sec) -----: 12.3

Adjustment Information

Method -----: AREA

Radar Max Ordinate (m) -----: 545

Radar Quad Elevation (mils) ---: -400.0

Range Probable Error -----: 0.0

Projectile -----: HE

Fuze -----: PD

Angle T Direction -----: ONLINE

Gun To Target Range (m) -----: 999

Gun Tgt Direction (mils) -----: 5555

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In Progress - CONT

Interval Between Rounds (sec) -: 888

FFE 1 Information

Shell Category -----: ILLUM
Shell Type -----: AML
Shell Model -----: M26 TGW
Shell Lot Code -----: C
Fuze Category -----: TIME
Fuze Type -----: PDBD
Fuze Model -----: M732
Fuze Lot Code -----: I
Propellant Model -----: PROP25
Propellant Charge -----: NINE RKT
Propellant Lot Code -----: I
Quantity (Volleys) -----: 30
Quantity (Rounds) -----: 60423

FFE 2 Information

Shell Category -----: ILLUM
Shell Type -----: CPH
Shell Model -----: MJSA
Shell Lot Code -----: I
Fuze Category -----: MOFA
Fuze Type -----: PDB
Fuze Model -----: M78A1Q
Fuze Lot Code -----: C
Propellant Model -----: M188A1
Propellant Charge -----: EIGHT SUPER RKT
Propellant Lot Code -----: E
Quantity (Volleys) -----: 19
Quantity (Rounds) -----: 1000

Mission Precedence -----: IMMEDIATE
Number Of Massing Units -----: 77

Air Sortie Information

Air Support Request Number ----: ABCDEFGH
Air Mission Number -----: NT111000
Number Of Aircraft -----: 66
Aircraft Item -----: 111
Aircraft Name -----: AIR
Aircraft Code -----: BLUE
Air Weapon Item -----: 100
Air Weapon Name -----: SAMPLE
Air Weapon Code -----: ADA
Aircraft Call Sign -----: SIGN
Prim Freq Designator -----: 222.330000000000013
2nd Freq Designator -----: 333.300000000000011
Remarks -----:

C-60 JMCIS GEOMETRY.

Printing Type: -----: General Geometries Only
Overlay Name: -----: GEOMS
Source Unit: -----: 8888

Geometry #7:
Geometry Name -----: J123456789
Time Established -----: 290001JANZ2002
Time Expired -----: 312359ZJAN2002
Geometry Shape -----: Friendly Line
Geometry Type -----: General Line
Coordinate (1) -----: 1
Easting (1) -----: 620000
Northing (1) -----: 03450000
Grid Zone (1) -----: 14
Altitude (1) -----: 125
Coordinate (2) -----: 2
Easting (2) -----: 622000
Northing (2) -----: 03450000
Grid Zone (2) -----: 14
Altitude (2) -----: 100

Geometry #12:
Geometry Name -----: J223456789
Width/Radius (m) -----: 3000
Time Established -----: 290001JANZ2002
Time Expired -----: 312359ZJAN2002
Geometry Shape -----: Friendly Area
Geometry Type -----: General Area
Coordinate (1) -----: 1
Easting (1) -----: 620000
Northing (1) -----: 03450000
Grid Zone (1) -----: 14
Altitude (1) -----: 125

C-61 KNOWN POINT.

Mission Type
Observer Unit I
Target Information
Location
Easting
Northing
Grid Zone
Altitude (m)
Type
Strength
Shape
Radius (m)
Length (m)
Width (m)
Attitude (mils)
Time Acquired
Time Received

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C-62 MAP MODIFICATION MESSAGE.

Minimum UTM Location
Easting
Northing
Grid Zone
Maximum UTM Location
Easting
Northing
Grid Zone
Datum

C-63 MARCH TABLE.

ROAD MOVEMENT TABLE

Plan
Phase

Unit ID	1	A 4-37FA	23CVDA
Unit Move Number	1		
Start Time	121230Z	Oct02	
Start Location			
Easting	320017		
Northing	4328788		
Grid Zone	15		
Altitude (m)	800		
End Time	121400Z	Oct02	
End Location			
Easting	314917		
Northing	4332888		
Grid Zone	15		
Altitude (m)	800		
Critical Control Point	Start Point		
H-Time	121600Z	Oct02	
Unit Column Length (m)	200		
Position Area			
Azimuth of Fire (mils)	0		
Route Segment	US59 to SR16		
Road Classification	PRIMARY ALL WEATHER		
Road Length (m)	3850		
Speed (km/h)	50		

March Table - CONT

Route Segment	SR16 to SR30
Road Classification	PRIMARY ALL WEATHER
Road Length (m)	3200
Speed (km/h)	50

Route Segment	SR30 to US40
Road Classification	PRIMARY ALL WEATHER
Road Length (m)	4330
Speed (km/h)	50

Control Point Name	Start Point
Location	
Easting	321398
Northing	4330066
Grid Zone	15
Altitude (m)	800
Time Due	121245ZOct02
Time Out	121245ZOct02
Time At CP (min)	0
Report In	No
Description	

Control Point Name	Check Point Number 1
Location	
Easting	324000
Northing	4335670
Grid Zone	15
Altitude (m)	800
Time Due	121310ZOct02
Time Out	121310ZOct02
Time At CP (min)	0
Report In	No
Description	CP1

Control Point Name	Release Point
Location	
Easting	314840
Northing	4331780
Grid Zone	15
Altitude (m)	800
Time Due	121400ZOct02
Time Out	121400ZOct02
Time At CP (min)	0
Report In	No
Description	End

C-64 MASTER UNIT LIST.

Master Unit List

Unit #	Unit Id	Accs Alias	VMF Unit Id	VMF URN Tacfire	Device Org ID
709	TMD BCE		TMD BCE	16777145	AFATDS
709	TMD TOC		TMD BCE	16777148	AFATDS

C-65 MEDICAL EVACUATION REQUEST.

Request Number
 Mission Priority
 Friendly KIA
 Friendly WIA

Number of Casualties (n)
 Casualty Type
 Body Part Affected
 Medic Required

DTG at Pickup Point
 Pickup Zone Identification
 Pickup Point Location
 Easting
 Northing
 Grid Zone
 Altitude (m)

Agency Contact Frequency Designator
 Pickup Zone Controller Call Sign
 Pickup Zone Marking
 Pickup Zone Hot
 Pickup Zone Terrain
 Pickup Zone Color

C-66 MESSAGE TO OBSERVER.

Shape
Target Number
Known Point Number
Controlling Unit
Target Location
Grid Zone
Coordinates
Altitude (m)
Target Information
Type
Degree of protection
Strength
Message To Observer - CONT
Radius (m)
Length (m)
Width (m)
Attitude (mils)
Mission Information
Method of Fire
Method of Control
Time On Target
NET
NLT
Angle T (mils)
Adjustment Information
Method
Shell
Fuze
FFE Information
1st Shell Type
1st Shell model
1st Fuze
Quantity
2nd Shell Type
2nd Shell model
2nd Fuze Type
Quantity
Air Sortie Information
Request Number
Mission Number
Mission Type
Mission Priority
Ingress Direction
Egress Direction
CAS Aircraft Type
Number of Aircraft

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Message To Observer - CONT

Aircraft Call Sign
Target Air Defenses
Report In Point
Air Control Agency
Type
Call Sign
Freq Designator
2nd Freq Designator
Remarks

C-67 MET GUIDANCE OBJECT IMAGE.

Example

MET GUIDANCE

Phase (1)

Unit ID (1)

Altitude to Fly MET (m)

Frequency to Fly MET (hours)

Met Type (1)

Units to Receive MET

Met Type (2)

Units to Receive MET

Met Type (3)

Units to Receive MET

Met Type (4)

Units to Receive MET

Met Type (5)

Units to Receive MET

Unit ID (2)

Altitude to Fly MET (m)

Frequency to Fly MET (hours)

Met Type (1)

Units to Receive MET

Phase (2)

C-68 **MFR.**

Firing Unit -----:

Attacking Unit Id (1) --: JVMF FCS
Easting -----: 668770
Northing -----: 3456032
Grid Zone -----: 14
Altitude (m) -----: 0

Target Number -----: AA1001
Originating ID -----:
Observer ID -----:
ASR Number -----:

Mission Completed DTG --:
Number of Casualties ---:

Target Location
Easting -----:
Northing -----:
Grid Zone -----:
Altitude (m) -----:

Target Information
Type -----:
Degree Of Protection -:
Strength -----:
Disposition -----:
Shape -----:

Launcher Aiming Data
Aim Azimuth (mils) ---:
Aim Elevation (mils) -:
Fuze Setting Time (s) :
Time Of First Fire ---:

FFE Information
Fire Unit ID (1) -----: JVMF FCS
1st Shell Type (1) --: MLRS_DPICM
1st Shell Model (1) --: UNKNOWN
1st Fuze Type (1) --: UNKNOWN
Quantity (1) (Rnd) -: 1
2nd Shell Type (1) --: UNKNOWN
2nd Shell Model (1) --: UNKNOWN
2nd Fuze Type (1) --: UNKNOWN
Quantity (1) (Rnd) -: 0

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MFR - CONT

Fire Unit ID (2) -----:
1st Shell Type (2) --:
1st Shell Model (2) --:
1st Fuze Type (2) --:
Quantity (2) (Rnd) -: 0
2nd Shell Type (2) --:
2nd Shell Model (2) --:
2nd Fuze Type (2) --:
Quantity (2) (Rnd) -: 0

Fire Unit ID (3) -----:
1st Shell Type (3) --:
1st Shell Model (3) --:
1st Fuze Type (3) --:
Quantity (3) (Rnd) -: 0
2nd Shell Type (3) --:
2nd Shell Model (3) --:
2nd Fuze Type (3) --:
Quantity (3) (Rnd) -: 0

Fire Unit ID (4) -----:
1st Shell Type (4) --:
1st Shell Model (4) --:
1st Fuze Type (4) --:
Quantity (4) (Rnd) -: 0
2nd Shell Type (4) --:
2nd Shell Model (4) --:
2nd Fuze Type (4) --:
Quantity (4) (Rnd) -: 0

Fire Unit ID (5) -----:
1st Shell Type (5) --:
1st Shell Model (5) --:
1st Fuze Type (5) --:
Quantity (5) (Rnd) -: 0
2nd Shell Type (5) --:
2nd Shell Model (5) --:
2nd Fuze Type (5) --:
Quantity (5) (Rnd) -: 0

Effects

Effects Level -----:
Effects Percentage ---:

C-69 MLRS AMMUNITION DATA MESSAGE.

Projectile Type
Munitions per Pod
Submunitions
Shell ID
Minimum Range (m)
Maximum Range (m)
Reliability (1/10 %)
Footprint Radius (m)
Footprint Length (m)
Footprint Width (m)

Class of Munition
Countermeasure (n)
Environmental Condition (n)
Minimum Report Restriction (m)
Maximum Report Restriction (m)
Minimum Speed (km/hr)
Maximum Speed (km/hr)
Minimum Target Strength
Maximum Target Strength
Minimum Target Radius or Length (m)
Maximum Target Radius or Length (m)
Minimum Target Width (m)
Maximum Target Width (m)

C-70 MLRS GUIDANCE.

Priority Zone of Fire
Minimum Target Radius (m)
Priority Munition
Priority Target Type
Use Standard MET
TVA Geometry
MLRS Unit ID
TVA Effective DTG
TVA Expiration DTG
Target Type
Minimum Target Strength
Maximum TLE (m)
Munition
Ranking
Munition
Minimum Distance From FLOT (m)
Minimum Target Strength
Maximum TLE (m)
Minimum Tgt Length/Radius (m)
Maximum Target Width (m)

C-71 MLRS REQUEST.

Request Type
 Source Unit ID
 Referenced Geometry Type
 Operational Area
 SCP Name

C-72 MORTAR ATTACK METHODS.

Basic Plan Information

Plan: Current
 Time Zone: ZULU
 Current Time: 201400ZOct02

Datum{ NORTH_AMERICA_1927

Mortar Attack Method Guidance

Target Category: C3

Target Type	First Choice			Second Choice			Fire Unit Size
	Shell	Fuze	Vlys	Shell	Fuze	Vlys	
CP, Battalion	HE	Time	2	HE	Time	2	Platoon
CP, Division	HE	Time	3	HE	Time	3	Platoon
CP, Forward							
CP, Regiment							
CP, Small							
CP, Unknown							
Guidance Equipment							
Navigational Aids							

Target Category: FIRE SUPPORT

Target Type	First Choice			Second Choice			Fire Unit Size	Fire Unit MRSI	Sub Auth
	Shell	Fuze	Vlys	Shell	Fuze	Vlys			
Arty, Hvy SP (>160mm)	HE	Time	2	HE	Time	2	Platoon	Y	N
Arty, Light SP (<121mm)		Air Rockets		8			Air Rockets		12

Continues for each target category.



C-73 MORTAR IMM. ATTACK SYSTEMS.

Basic Plan Information

Plan: Current
 Time Zone: ZULU
 Current Time: 201400ZOct02

Datum{ NORTH_AMERICA_1927

Mortar Immediate Attack Method Guidance

Target Category: C3

Mission Type	First Choice			Second Choice			Fire Unit Size
	Shell	Fuze	Vlys	Shell	Fuze	Vlys	
Immediate Suppression	HE	VT	2	WP		Platoon	
Immediate Smoke	HE	VT	2	WP		Platoon	

C-74 MOVEMENT.

Requesting Unit ID
 Reporting Unit ID
 Departure DTG
 Arrival DTG
 Speed (km/h)
 Bridge Classification
 Maximum Vehicle Height (100th of m)
 Maximum Vehicle Length (100th of m)
 Maximum Vehicle Width (100th of m)
 Start Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
 End Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
 Vehicle Model (n)
 Number

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Movement - CONT

Route Point (n)
Easting
Northing
Grid Zone
Altitude (m)
Control Point (n)
Easting
Northing
Grid Zone
Altitude (m)
Action to be taken

Do not include label if no data (blank) provided

C-75 EFFECTS GUIDANCE.

Effective Time -----: 010000ZJAN70
Action -----: DELETE

Target Type (1) -----: ADA HEAVY
Degree Of Protection (1) -----: NONE
Effects ----- (1) -----: VOLLEYS
Mrsi Attack ----- (1) -----: TRUE
Munition Substitution -- (1) --: YES
Volleys ----- (1) -----: 0
Substitution Authorized -----: TRUE
Pts Use Authorized -----: TRUE
Trajectory Preference -----: OPTIMAL
Auto Adjust Authorized -----: TRUE
Min Propellant Data Charge -----: UNKNOWN
Min Propellant Data -----: UNKNOWN
Max Propellant Data Charge -----: UNKNOWN
Max Propellant Data -----: UNKNOWN
Max Adjust Rounds -----: 0
Max Effects Rounds -----: 0
Max Ordinate -----: -9999

C-76 NAVAL CRUISE MSL ATTACK METHODS GUIDANCE.

Defile
 Hill
 Landing Strip
 Railroad Segment
 Road Junction
 Road Segment
 Terrain Feature
 Bridge,Veh Concrete
 Bridge,Veh Wood
 Bridge,Veh Steel
 Bridge,Site

Naval Cruise Msl Attack Methods Guidance

Category: C3

Target Type	Munition	Number
CP,Battalion		
CP,Division		
CP,Forward		
CP,Regiment		
CP,Small		
CP,Unknown		
Guidance Equipment		
Navigation Aids		

Continues for each target category.



C-77 NAVAL GUN ATTACK METHODS GUIDANCE.

Basic Plan Information

Plan: 3BDE STRESS PLAN
 Time Zone: ZULU
 Created By: FSE 3BDE 23CVD
 Map Series:
 Phase: 1
 Plan Alias:
 Time Created: 190423ZJan96
 Time Effective: 010000ZJan70
 H-Hour: 010000ZJan70

Naval Gun Attack Methods Guidance - CONT

COA: 1

Datum: NORTH_AMERICA_1927

Naval Gun Attack Methods Guidance

Target Category: C3

Target Type	First Choice		Second Choice		Rnds
	Shell	Fuze	Shell	Fuze	
CP,Battalion					
CP,Division					
CP,Forward					
CP,Regiment					
CP,Small					
CP,Unknown					
Guidance Equipment					
Navigation Aids					

CP,Battalion
 CP,Division
 CP,Forward
 CP,Regiment
 CP,Small
 CP,Unknown
 Guidance Equipment
 Navigation Aids

Target Category: FIRE SUPPORT

Target Type	First Choice		Second Choice		Rnds
	Shell	Fuze	Shell	Fuze	
Arty,Hvy SP (>160mm)					
Arty,Light SP (<121 mm)					
Arty,Med SP (121-160mm)					
Arty,Towed					
Arty,Unknown					
Missile,Hvy					
Missile,Light					
Missile,Med					
Mortar,Hvy (109-150mm)					
Mortar,Light (<61mm)					
Mortar,Med (61-108mm)					
Mortar,Very Hvy (>150mm)					
Mortar,Unknown					
Rkt/Msl,Anti-Pers					

Arty,Hvy SP (>160mm)
 Arty,Light SP (<121 mm)
 Arty,Med SP (121-160mm)
 Arty,Towed
 Arty,Unknown
 Missile,Hvy
 Missile,Light
 Missile,Med
 Mortar,Hvy (109-150mm)
 Mortar,Light (<61mm)
 Mortar,Med (61-108mm)
 Mortar,Very Hvy (>150mm)
 Mortar,Unknown
 Rkt/Msl,Anti-Pers

Continues for each target category.



C-78 NAVAL LAND ATTACK MSL ATTACK GUIDANCE.

Road Segment
 Terrain Feature
 Bridge,Veh Concrete
 Bridge,Veh Wood
 Bridge,Veh Steel
 Bridge,Site

Naval Land Attack Msl Attack Methods Guidance

Category: C3

Target Type	Munition	Number
CP,Battalion	LASM	3
CP,Division		
CP,Forward		
CP,Regiment		
CP,Small		
CP,Unknown		
Guidance Equipment		
Navigation Aids		

Category: FIRE SUPPORT

Target Type	Munition	Number
Arty,Hvy SP (>160mm)		
Arty,Light SP (<121 mm)		
Arty,Med SP (121-160mm)		
Arty,Towed		
Arty,Unknown		
Missile,Hvy		
Missile,Light		
Missile,Med		
Mortar,Hvy (109-150mm)		
Mortar,Light (<61mm)		
Mortar,Med (61-108mm)		
Mortar,Very Hvy (>150mm)		
Mortar,Unknown		
Rkt/Msl,Anti-Pers		
Rkt/Msl,AntiTank		
Rkt/Msl,Position Area		
Rkt/Msl,Unknown		

Continues for each target category.



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C-79 NAVAL RESTRICTIONS GUIDANCE.

Max Fire Units per Target: 4

Restricted Shells:

WP

ILLUM

Restricted Fuzes:

Naval Restrictions Guidance

C-80 NGF ORDER TO FIRE.

Unit to Fire (n)

Target Number

Observer ID

Originator ID

Observer-Tgt Az (mils)

Target Location

Easting

Northing

Grid Zone

Altitude (m)

Target Information

Type

Degree of protection

Strength

Heading (mils)

Speed (kph)

Shape

Radius (m)

Length (m)

Width (m)

Attitude (mils)

Mission Information

Mission Type

Method of Control

Time On Target

Trajectory

FFE HOB

Adjustment Information

Method

Projectile

Fuze

Interval between Adj Rds

NGF Order To Fire - CONT

FFE Information

1st Projectile Type
1st Projectile model
1st Fuze
Quantity
Interval Between Illum Rds
Interval Between Illum Fx Rds
Interval Between Cphd Rds
2nd Projectile Type
2nd Projectile model
2nd Fuze Type
Quantity

Remarks

Do not include label if no data (blank) provided

C-81 ORGANIZATION FOR COMBAT OBJECT IMAGE.

Format

Organization for Combat.

(Organization for Combat Mission Assignments)

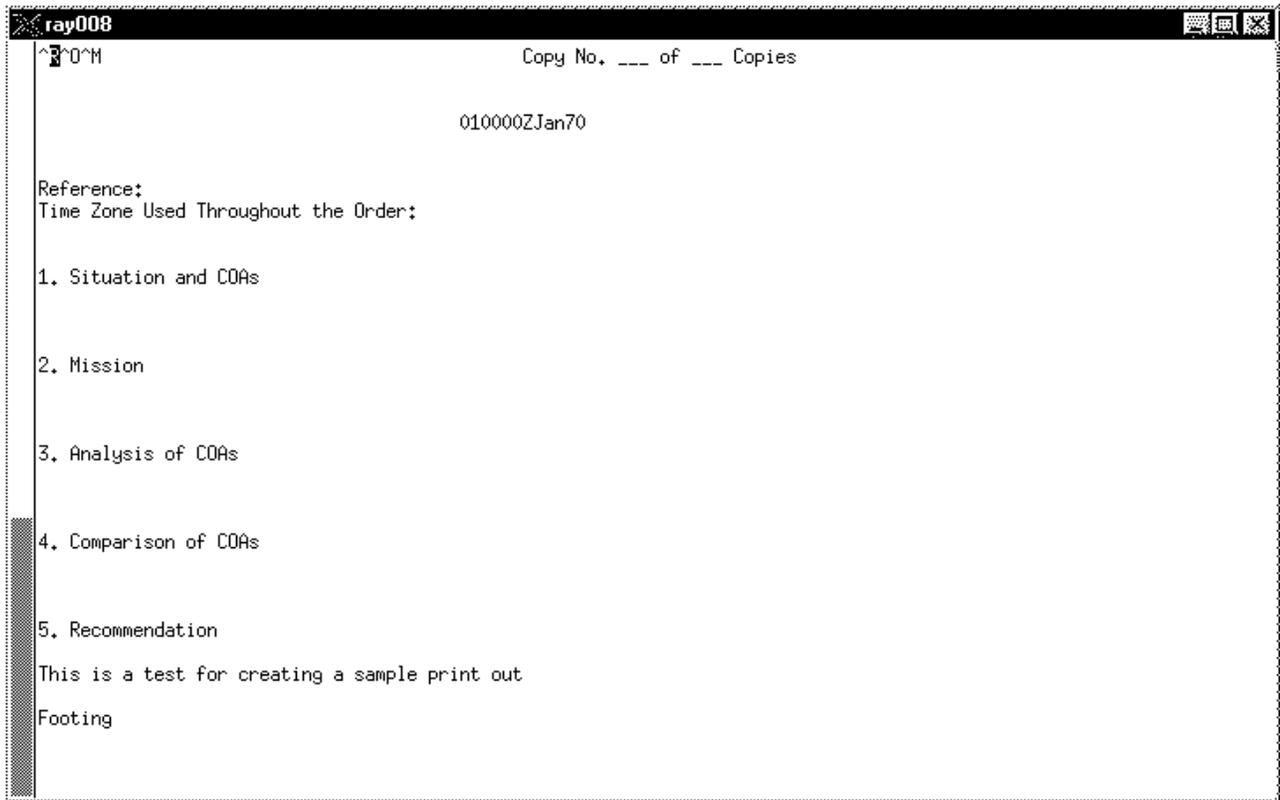
Example

Organization for Combat.

1-40 FA:
1-41 FA:
2-606 FA:
2-607 FA:
2-631 FA:
USS Springfield:

Use organization for combat mission assignments for the last phase of the plan. The use of On-Order assignments, "o/o", will communicate all necessary information.

C-82 PLAN TEXT.



C-83 PLANNED TARGET LIST.

Plan
Target List Name
Target Number (n)
Target Location
Easting
Northing
Grid Zone
Altitude (m)
Target Information
Type
Degree of Protection
Length (m)
Width (m)
Radius (m)
Target Attitude (mils)
State
Observer Unit ID
Observer Report Value (m)

C-84 POL SUMMARY.

POL SUMMARY

Units			Diesel (gal)	MOGAS (gal)
OPS	1-37FA	23CVDA	N/A	N/A
	FSE 3BDE	23CVD	N/A	N/A
1 A	1-37FA	23CVDA	G 1200	G 225
1 B	1-37FA	23CVDA	G 1200	G 230
2 A	1-37FA	23CVDA	G 1200	G 230
2 B	1-37FA	23CVDA	G 1200	G 220

G=Green; Y=Yellow; R=Red; B=Black; N/A=Not Applicable

C-85 QUICK RESPONSE FIRE REQUEST MESSAGE.

Target Number
 Priority
 Known Point Number
 Trajectory

C-86 RADAR REGISTRATION.

Mission Type
 Target Number
 Observer ID
 Number of Units to Fire
 Fire Unit
 Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
 Quadrant Elevation (mils)
 Target Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
 Volleys
 Time Between Rounds (min)
 Max Number of Rounds

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RADAR Registration - CONT

Max Ordinate (m)
Time of Flight (sec)
Observation Status
Observed Number of Rounds
Impact Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
RADAR Characteristics
 Azimuth (mils)
 Left Sector Edge (mils)
 Right Sector Edge (mils)
 Max Range (km)
 Min Range (km)
 Error (m)

C-87 RADAR TASKING ORDER.

Unit ID
Unit Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
Effective DTG
Radar Zones
 Radar Zone (n)
 Radar Zone Type
 Coordinate (n)
 Easting
 Northing
 Grid Zone
 Altitude (m)
Cueing Unit (n)
 Cueing Unit Priority
Left Azimuth (mils)
Right Azimuth (mils)
Min Range (m)
Max Range 1 (m)
Max Range 2 (m)
Lower Frequency (GHz)
Upper Frequency (GHz)

Do not include label if no data (blank) provided

C-88 RAT.

Adjusting Unit
FFE Unit
Mission Completion
Number of Casualties
Target Number
Observer ID
Target Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
Target Information
 Type
 Disposition
FFE Information
 1st Shell Type
 1st Shell Model
 1st Fuze
 Quantity
 2nd Shell Type
 2nd Shell model
 2nd Fuze Type
 Quantity
Effects
 Effects Level
 Effects Percentage

C-89 READY.

Observer
Controlling Unit
Target Number

C-90 REPORTING GUIDANCE.

REPORTING GUIDANCE

Phase (1)
Class
Class III
Class V
Class VII

Always use the first (or only) COA within a phase to determine guidance.

C-91 REQUEST FOR TARGET DAMAGE ASSESSMENT.

Target Number
Target Location
Easting
Northing
Grid Zone
Altitude (m)
Target Information
Type
Degree of Protection
Strength
Target Environment
Target Countermeasures (n)
Target Vegetation
Heading (mils)
Speed (kph)
Shape
Radius (m)
Length (m)
Width (m)
Attitude (mils)
Time Target Decays
Mission Information
Mission Precedence
Mission Value

C-92 REQUEST SCP LIST.

Search
Circle
Radius (m)
Center Location
Thrust Line
Start Location
End Location
Distance to Left (m)
Distance to Right (m)
Rectangle
Upper Right Location
Lower Left Location
Four Points
Location 1
Location 2
Location 3
Location 4

C-93 RESUPPLY LEVEL.

Unit Number -----: UNKNOWN UNIT
Resupplying Unit Number -----: UNKNOWN UNIT
Plan -----: SOP
Phase -----: 0
Resupply Plan Name -----: SUPPLY
Effective Start -----: 010000ZJAN70
Fuze Lot Quantity Array
Fuze Model(1)-----: M513A1
Fuze Type -----:
Lot Quantity -----: 36
Lot Code -----:
Lot Number -----:
Munition Lot Quantity Array
Munition Model(1)-----:
Munition Type -----: CPH
Lot Quantity -----: 50
Lot Code -----:
Lot Number -----:
Mated Fuze Model -----: M514
Mated Fuze Type -----:
Mated Fuze Lot Code -----:
Mated Fuze Lot Number -----:
Propellant Lot Quantity Array
Propellant Model(1)-----: M3A1
Lot Quantity -----: 55
Lot Code -----:
Lot Number -----:
Mogas Quantity Authorized ----: 145
Diesel Quantity Authorized ---: 366
Urgent Ammo Resupply Level ---: 50
Urgent Pol Resupply Level ----: 75
Critical Item Array
Munition Model(1)-----:
Munition Type -----: HEE
Propellant Model -----: M119A1
Urgent Resupply Level -----: 68

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C-94 RESTRICTED FIRE AREA.

Plan Alias
Action
Name
Type
Effective DTG
Expiration DTG
Establishing Unit ID
Coordinate (n)
Easting
Northing
Grid Zone
Altitude (m)
Radius (m)
Restricted Shell (n)

C-95 SCHEDULE.

Plan
Schedule Name
Target Number
Firing Unit ID
Target Location
Easting
Northing
Grid Zone
Altitude (m)
Target Information
Type
Degree of Protection
Target Element Type
Target Element Qty
Length (m)
Width (m)
Radius (m)
Attitude (mils)
Mission Information
Desired Effects
FFE HOB (m)
FFE Information
1st Shell Type
1st Shell Model
1st Fuze
Quantity
2nd Shell Type
2nd Shell model
2nd Fuze Type
Quantity

Schedule - CONT

H-Hour DTG
Duration of Fire (m)
Phase of Fire (m)
Group
Series
Series Number
Weapon Type

C-96 SCHEDULE OF FIRES--FP2.

Plan	Alpha Bravo						
Schedule (1)	Red						
Start Time	080430ZMar94						
Unit (1)	1 A 1-40FA 52 DIV						
Target	Target Type	Munition 1	Vlys	Munition 2	Vlys	Offset Firing Time	Time
AA0221		HE/PD	04	HE/PD	04	0000	04
AA0322		HE/PD	04	HE/PD	04	0005	05
AA0204		WP/VT	06	WP/VT	06	0005	08
Unit (2)	2 A 1-40FA 52 DIV						
AA1023		HE/PD	04	HE/PD	04	0010	15
AA1033		HE/PD	04	HE/PD	04	0020	10
Schedule (2)	Blue						
Start Time	080530ZMar94						
Unit (1)	1 A 1-40FA 52 DIV						
Target	Target Type	Munition 1	Vlys	Munition 2	Vlys	Offset Firing Time	Time
AA0891		HE/PD	04	HE/PD	04	0000	10
AA0832		HE/PD	04	HE/PD	04	0000	05

Schedules are listed within a plan, units within a schedule and targets for a unit. That is, a plan name is listed once, a schedule name once within a plan and a unit ID once within a schedule.

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C-97 SCP LIST.

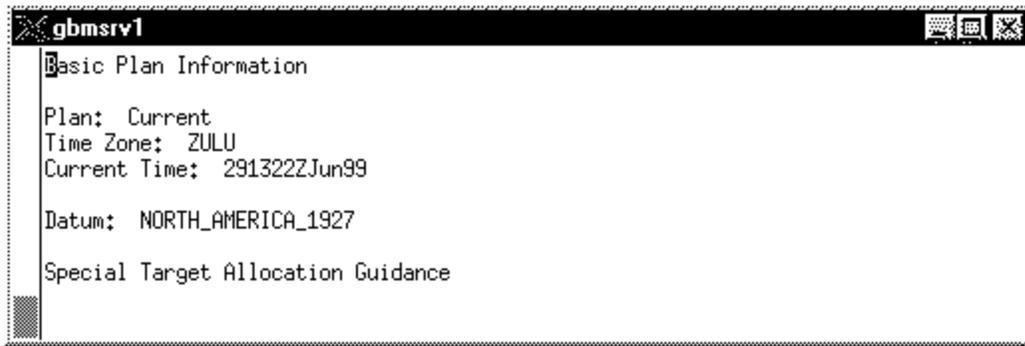
Action
Point (n)
Name
Source
Order
Location
Easting
Northing
Grid Zone
Altitude (m)
Latitude
Longitude
Azimuth Mark 1
Name
Azimuth (mils)
Description
Azimuth Mark 2
Name
Azimuth (mils)
Description
Description
Route

C-98 SENSOR.

Unit ID
Unit Location
Easting
Northing
Grid Zone
Altitude (m)
Effective Start DTG
G/VLLD Code
Visibility (m)
Cloud Height (m)

Do not include label if no data (blank) provided

C-99 SPECIAL TARGET ALLOCATION.



C-100 STATUS REPORT.

Target Number
Type of Report
Unit Reporting (n)
Target State
Request (n)
Message Type
Destination
Time

C-101 STATUS REQUEST MESSAGE.

Type of Data Requested:
Fire Unit ID:
Geometry Type:
Operational Area:
Point Number:
Target Number:
Active Target:

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C-102 **SURVEY.**

SURVEY GUIDANCE

Phase (1)

Unit

2 A 1-40 FA 1 Bde 52 DIV
 1 B TAB 52 DIV
1 A 1-40 FA 1 Bde 52 DIV
 2 B TAB 52 DIV

...

Phase (2)

Unit

2 A 1-40 FA 1 Bde 52 DIV
 1 B TAB 52 DIV
1 A 1-40 FA 1 Bde 52 DIV
 2 B TAB 52 DIV

...

If no entries are present, nothing is inserted.

Always use the first (or only) COA within a phase to determine guidance.

C-103 **SYSTEM REPLY OR REMARKS MESSAGE.**

Message Type

Originator

DTG of Reference

Message Reply

Remarks

C-104 **SYSTEM SUBSCRIBER TABLE MESSAGE.**

Security Classification

Subscriber (n)

Channel Used

Subscriber Address

Subscriber Name

Device Type

Status (Communicating)

Serial Number

 Received Message

 Transmitted Message

COMSEC Status

BCS Relay Address

C-105 SYSTEM TASK LIST.

tbs

C-106 TA MESSAGE.

MET Originating Unit ID
Valid Time
Valid Time Period
Station
Atmospheric Pressure (mBars)
Altitude (10 m)
Latitude (1/10deg)
Longitude (1/10deg)
Global Octant
Cloud Base Height (10m)
Cloud Base Indicator
Refractive Index
Wind Direction (n) (10 mils)
Wind Speed (n) (kts)
Air Temperature (n) (K)
Relative Humidity (n) (%)

C-107 TALL MESSAGE.

MET Originating Unit ID
Valid Time
Valid Time Period
Station
Atmospheric Pressure (mBars)
Altitude (10 m)
Latitude (1/10deg)
Longitude (1/10deg)
Global Octant
Cloud Base Height (10m)
Cloud Base Indicator
Refractive Index
Precipitation Type
Precipitation Rate (mm/hr)
Wind Direction (n) (10 mils)
Wind Speed (n) (kt)
Air Temperature (n) (K)
Relative Humidity (n) (%)

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C-108 TARGET CRITERIA INPUT MESSAGE.

Destination Unit
Valid Time (n)
Modification Option
Request Number
ATI Indicator
Zone of Responsibility (n)
Target Number
TVA Name
Acquisition Agency (n)
Area Forward of FLOT
Minimum Distance (m)
Maximum Distance (m)
Target Area
Rectangular
Circular
UTM Point 1
Easting
Northing
Grid Zone
UTM Point 2
Easting
Northing
Grid Zone
Spheroid Point 1
Spheroid Point 2
Width (m)
Radius (m)
Reliability
Report Value Accuracy (m)
Fire Mission Indicator
Target Elapsed Time (min)
Minimum Radius (m)
Maximum Radius (m)
Minimum Length (m)
Maximum Length (m)
Minimum Width (m)
Maximum Width (m)
Target Category
Target Type
Minimum Strength
Maximum Strength
Fire Unit(n)

C-109 TARGET LIST OBJECT IMAGE.

Target	List	Red				
Target	Target Type	Location	Alt (m)	L/Rad (m)	W (m)	Att (mils)
AB0230	ADA, Position Area	5 98070 054 45030 +16	00780			
AB0325	CP, Battalion	5 67080 054 42095 +16	00840	1500	200	1450
AB0678	Mortar, Very Hvy (>150mm)	5 78093 054 41074 +16	00826			
AB0781	Arty, Hvy SP (>160mm)	5 76002 054 41058 +16	00827			
Target	List	Blue				
Target	Target Type	Location	Alt (m)	L/Rad (m)	W (m)	Att (mils)
AB0472	Arty, Med SP (121-160mm)	5 67070 054 54030 +16	00767			
AB0445	Rkt/Msl, AntiTank	5 89080 054 32458 +16	00676			
...						

C-110 TARGET SELECTION STANDARDS.

Basic Plan Information		
Plan: Current		
Time Zone: ZULU		
Current Time: 291320ZJun99		
Datum: NORTH_AMERICA_1927		
Target Selection Standards (TSS) Guidance		
Target Category: C3		
Target Type	Max TLE (m)	Max Report Age (min)
CP,Battalion	150	120
CP,Division	200	2000
CP,Forward	200	120
CP,Regiment	120	1100
CP,Small	80	120
CP,Unknown	100	120
Guidance Equipment	100	120
Navigation Aids	100	60
Target Category: FIRE SUPPORT		
Target Type	Max TLE (m)	Max Report Age (min)
Arty,Hvy SP (>160mm)	100	60
Arty,Light SP (<121 mm)	100	60
Arty,Med SP (121-160mm)	100	60
Arty,Towed	100	60
Arty,Unknown	100	60
Missile,Hvy	100	60
Missile,Light	100	60
Missile,Med	100	60
Mortar,Hvy (109-150mm)	100	60
Mortar,Light (<61mm)	100	60
Mortar,Med (61-108mm)	100	60
Mortar,Very Hvy (>150mm)	100	60
Mortar,Unknown	100	60
Rkt/Msl,Anti-Pers	100	60
Rkt/Msl,AntiTank	100	60
Rkt/Msl,Position Area	100	60
Rkt/Msl,Unknown	100	60

C-111 TERMINAL HOMING MUNITIONS TARGET OUTPUT MESSAGE.

Target Number
Originating Agency
Do-Not-Adjust
Do-Not-Combine
Mission Fired
Mission Priority
Latest Fix Point
DTG
Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
Spheroid
Speed
Direction
Target Descriptor
Target Location
 Easting
 Northing
 Grid Zone
 Altitude (m)
Spheroid
Desired Attack Direction (mils)
Report Value
Reliability
Target Information
 Type
 Strength
 Target Countermeasures (n)
 Environmental Conditions
 Target Element 1 Type
 Target Element 1 Qty
 Target Element 2 Type
 Target Element 2 Qty
 Target Element 3 Type
 Target Element 3 Qty
 Heading (mils)
 Speed (kph)
 Radius/Length (m)
 Width (m)
 Attitude (mils)
 False Density (per square km)
Disposition
Number of Casualties
Confirmed
Plain Text Message
MET Identification
Dispersal Pattern

C-112 TEST MESSAGE STATUS.

Destination Units		Network	Ch	Time Sent	Status
FSE	TAC	23CVD	lhelp	11011851ZNov99	Failed
FSE	TAC	23CVD	lhelp	1011850ZNov99	Failed
FSE	TAC	23CVD	lhelp	1011850ZNov99	Failed
FSE	TAC	23CVD	lhelp	1011850ZNov99	Failed
FSE	TAC	23CVD	lhelp	1011846ZNov99	Failed

C-113 TEXT INDEX.

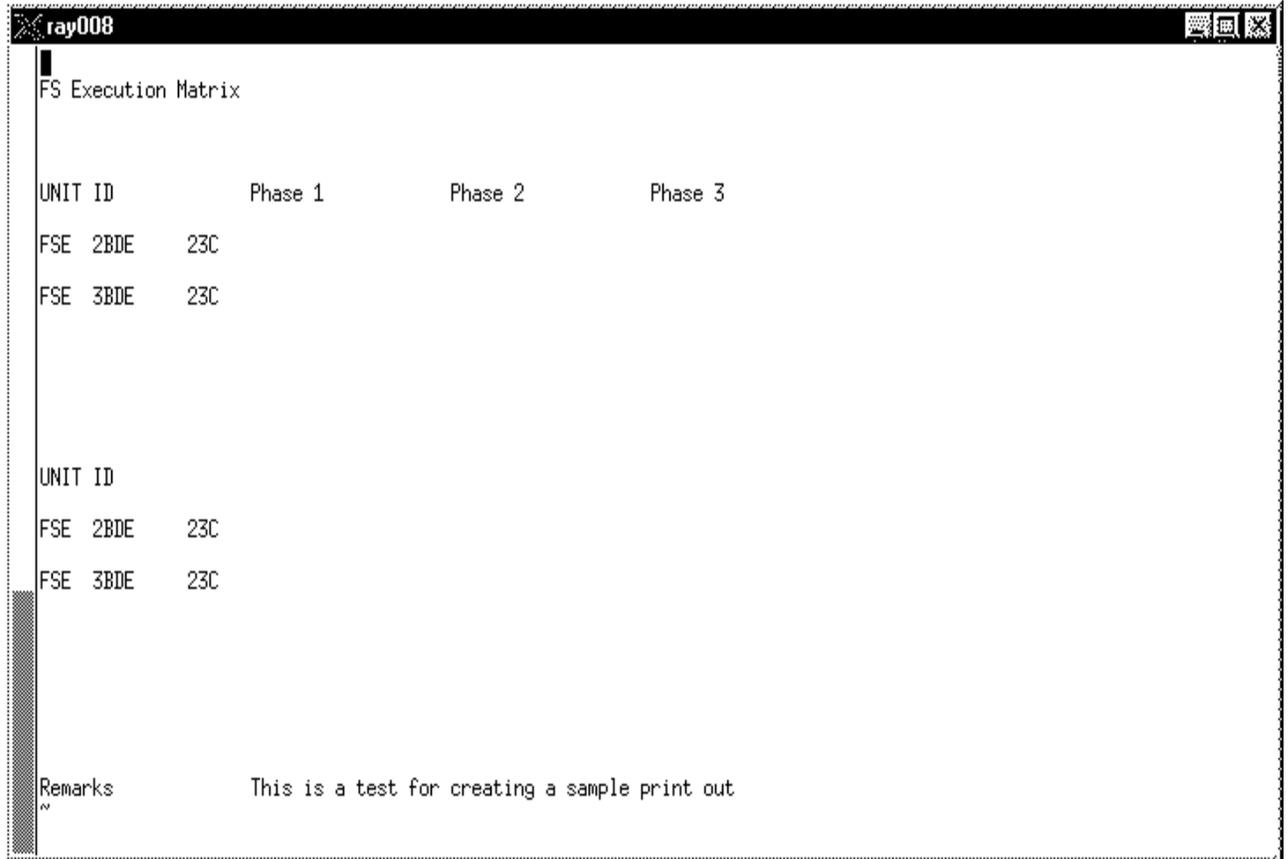
ray008

Copy No. ___ of ___ Copies
 FSE 3BDE 23
 190423ZJan96

Reference:
 Time Zone Used Throughout the Order: Z

1. Situation
 - a. Enemy Forces.
 - b. Friendly Forces.
 - c. Attachments and Detachments.
2. Mission
3. Execution
 - a. Concept of Operation.
 - b. Fire Support.
 - c. Air Defense.
 - d. Engineering Support.
 - e. Coordinating Instructions.
4. Service Support

C-114 TEXT MATRIX.



The screenshot shows a window titled "ray008" with a standard Windows-style title bar. The main content area is titled "FS Execution Matrix" and contains a table with the following data:

UNIT ID	Phase 1	Phase 2	Phase 3
FSE 2BDE	23C		
FSE 3BDE	23C		

Below the table, there is a section labeled "UNIT ID" with the following data:

FSE 2BDE	23C
FSE 3BDE	23C

At the bottom of the window, there is a "Remarks" section with the text: "This is a test for creating a sample print out".

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C-115 **TMM.**

Basic Plan Information						
Plan: Current						
Time Zone: ZULU						
Current Time: 291325ZJun99						
Datum: NORTH_AMERICA_1927						
Target Management Matrix (TMM) Guidance						
Target Category: C3						
HIGH PAYOFF TARGETS						
Target Type	When	Effects	%	TDA	IEW	Value
CP,Division	I	Destroy	30	Y	Y	100
CP,Regiment	I	Destroy	30	Y	Y	100
NON-HIGH PAYOFF TARGETS						
Target Type	When	Effects	%	TDA		
CP,Battalion	A	Neutralize	10	Y		
CP,Forward	A	Neutralize	10	Y		
CP,Small	P	Neutralize	10	Y		
CP,Unknown	P	Neutralize	10	Y		
Guidance Equipment	P	Neutralize	10	N		
Navigation Aids	P	Neutralize	10	N		
EXCLUDED TARGETS						
Target Type					IEW	
Target Category: FIRE SUPPORT						
HIGH PAYOFF TARGETS						
Target Type	When	Effects	%	TDA	IEW	Value
Arty,Hvy SP (>160mm)	I	Neutralize	10	Y	Y	80
Arty,Med SP (121-160mm)	I	Neutralize	10	Y	Y	80
Missile,Hvy	I	Neutralize	10	Y	Y	90
Missile,Light	I	Neutralize	10	Y	Y	90
Missile,Med	I	Neutralize	10	Y	Y	90
Rkt/Msl,Anti-Pers	I	Neutralize	10	Y	Y	70
Rkt/Msl,AntiTank	I	Neutralize	10	Y	Y	70
Rkt/Msl,Position Area	A	Neutralize	10	N	N	80
NON-HIGH PAYOFF TARGETS						
Target Type	When	Effects	%	TDA		
Arty,Light SP (<121 mm)	A	Neutralize	10	Y		
Arty,Towed	A	Neutralize	10	Y		
Arty,Unknown	A	Neutralize	10	Y		
Mortar,Hvy (109-150mm)	A	Neutralize	10	Y		
Mortar,Light (<61mm)	A	Neutralize	10	Y		
Mortar,Med (61-108mm)	A	Neutralize	10	Y		
Mortar,Very Hvy (>150mm)	A	Neutralize	10	Y		
Mortar,Unknown	A	Neutralize	10	Y		
Rkt/Msl,Unknown	A	Suppress	3	Y		
EXCLUDED TARGETS						
Target Type					IEW	

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C-116 UNIT STATUS REPORT.

OTHER Unit Status Report

Basic Unit Information

Unit ID FSE TF 5-80M 2BDE 23CVD
Last Update 121924Z Apr 02
Unit Type OTHER

Service US ARMY
Echelon TASK FORCE
Lower Echelon 5
Higher Echelon 80
Unit Role FSE
Function MECHANIZED INFANTRY
Radio Call Sign
Reinforcing Indicator Normal

Current Location
Easting 608657
Northing 3441134
Grid Zone 14
Altitude (m) 200

Current Location Type UNIT CENTER
Current Position Area
Datum NORTH AMERICA 1927

General Unit Information

Next Location
Easting 629468
Northing 429705
Grid Zone 14
Altitude (m) 210

Next Position Area

Primary Backup OPFAC Unit ID FSE 3BDE 23CVD
Secondary Backup OPFAC Unit ID

Current Supported Unit ID FSE 2BDE 23CVD
Current Command Unit ID FSE 2BDE 23CVD
On Order Supported Unit ID
On Order Command Unit ID

Unit Status Report - CONT

Battery HQ Unit ID

Operational Status READY
 MOPP Level MOPP1
 Radiation Exposure Status RES1
 Vulnerability UNWARNED EXPOSED

Time Operational 260932Z Aug 93
 Time of Next Move 260932Z Aug 93

Number of Sorties Allocated 0

MET Station ID

Detailed Unit Information

Unit ID FSE TF 5-80M 2BDE 23CVD
 Response Time (min) 1
 Mission Saturation Quantity 1
 Units in Range Fan Rollup

ALIAS Information

Device Type AFATDS
 TACFIRE Alias F/S/E/5 /80
 USMTF Alias
 ADLER Alias
 ATCCS Alias
 MTS Alias
 EPLRS Alias

MOVEMENT FACTORS

Total Vehicles in March Column 13
 Unit Bridge Classification 10
 Unit Daily Hauling Capacity (stons) 0
 Maximum Vehicle Width (m) 3.00
 Maximum Vehicle Height (m) 5.00
 Maximum Vehicle Length (m) 10.00
 Maximum Fording Depth (m) 1.00

POL Status Information

MOGAS Authorized (gal) 0
 MOGAS On Hand (gal) 0
 Diesel Authorized (gal) 0
 Diesel On Hand (gal) 0

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Unit Status Report - CONT

EQUIPMENT Status Information

AMMUNITION Status Information

Unit ID 1 A 4-37FA 23CVDA

MUNITIONS

Category HE
 Authorized Qty 300
 Critical Level (%) 50
 Last Update 021026Z Oct 98

MUNITION Model	Auth Qty
M1NC	10
M760DC	20
M1DC	30

MUNITION Model	Lot Code	Lot Number	Lot	Qty	Proj Lot Wt	Status
M1NC	A	HEA86N123	123	75	0.0	SERVICEABLE
M760DC	B	HEB91A456	456	125	0.0	SERVICEABLE
M1DC	C	HEC92M654	654	100	0.0	SERVICEABLE

TOTAL On Hand for Category 300

Category WP
 Authorized Qty 50
 Critical Level (%) 50
 Last Update 021030Z Oct 98

MUNITION Model	Auth Qty
M60 WP	10

MUNITION Model	Lot Code	Lot Number	Lot	Qty	Proj Lot Wt	Status
M60 WP	W	WPA94A123	567	50	0.0	SERVICEABLE

TOTAL On Hand for Category 50

Category ILLUM
 Authorized Qty 100
 Critical Level (%) 50
 Last Update 021030Z Oct 98

MUNITION Model	Auth Qty
M314A3	10

Unit Status Report - CONT

MUNITION Model	Lot Code	Lot Number	Lot	Qty	Proj Lot Wt	Status
M314A3	I	ILA88D567	765	100	0.0	SERVICEABLE

TOTAL On Hand for Category 100

Category HE RAP
 Authorized Qty 100
 Critical Level (%) 50
 Last Update 021030Z Oct 98

MUNITION Model	Auth Qty
M913	10

MUNITION Model	Lot Code	Lot Number	Lot	Qty	Proj Lot Wt	Status
M913	R	HER96S234	789	100	0.0	SERVICEABLE

TOTAL On Hand for Category 100

FUZES

Category PD
 Authorized Qty 150
 Critical Level (%) 50
 Last Update 021016Z Oct 98

FUZE Model	Auth Qty
M557	10
M572	20

FUZE Model	Lot Code	Lot Number	Lot	Quantity	Status
M557	A	PDA89J123	123	75	SERVICEABLE
M572	B	PDA96M456	456	75	SERVICEABLE

TOTAL On Hand for Category 150

Category Time
 Authorized Qty 225
 Critical Level (%) 50
 Last Update 021017Z Oct 98

FUZE Model	Auth Qty
M762	10
M577A1	20
M564	30

ARMY TM 11-7025-297-10
 MARINE CORPS TM 10690A-10

Unit Status Report - CONT

FUZE Model	Lot Code	Lot Number	Lot	Quantity	Status
M762	A	TIA96F789	789	75	SERVICEABLE
M577A1	B	TIB87S234	234	75	SERVICEABLE
M564	T	JME96A345	456	75	SERVICEABLE
TOTAL On Hand for Category		225			

PROPELLANTS

Category	Canister
Authorized Qty	225
Critical Level (%)	50
Last Update	021022Z Oct 98

PROPELLANT Model	Auth Qty
M67	10
M176	20
M200	30

PROPELLANT Model	Lot Code	Lot Number	Lot	Quantity	Status
M67	A	GBP97J234	123	75	SERVICEABLE
M176	U	WBP88J234	567	75	SERVICEABLE
M200	R	RBP78O456	765	75	SERVICEABLE
TOTAL On Hand for Category		225			

STORED MUNITIONS REPORT

Unit ID
 Last Update

SUMMARY

ROCKET/MISSILES

CATEGORY	Authorized	Ground	Wheel	Total On Hand	Last Update
MLRS DPCIM	100	50	20	70	
TOTAL	xxxx	xxx	xxx	xxx	

PROJECTILES

CATEGORY	Authorized	Ground	Wheel	Total On Hand	Last Update
HE	100	50	20	70	
TOTAL	xxxx	xxx	xxx	xxx	

Unit Status Report - CONT

FUZE					
CATEGORY	Authorized	Ground	Wheel	Total On Hand	Last Update
CP	100	50	20	70	
TOTAL	xxxx	xxx	xxx	xxx	

PROPELLANT					
Color	Authorized	Ground	Wheel	Total On Hand	Last Update
GB	100	50	20	70	
TOTAL	xxxx	xxx	xxx	xxx	

AUTHORIZED MODELS

ROCKET/MISSILES	
Model	Authorized

PROJECTILES	
Model	Authorized
M107DC	100

FUZE	
Model	Authorized
M564	100

PROPELLANT	
Model	Authorized
M229	100

STORAGE SITES

Storage Site ID	id
Location	
Easting	
Northing	
Altitude (m)	
Grid Zone	

Last update
Wheel Response
Ground Response

ROCKET/MISSILES

CATEGORY	Ground Model	Wheel Qty	Lot Qty	Lot Code	Number serviceable	Status
MLRS DPCIM	M26	20	20			

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Unit Status Report - CONT

PROJECTILES

CATEGORY	Ground Model	Wheel Qty	Lot Qty	Lot Code	Number	Status
HE	M1NC	20	20	WPA94A123	567	serviceable

FUZE

CATEGORY	Ground Model	Wheel Qty	Lot Qty	Lot Code	Number	Status
PD	M557	20	20	TIA96F789	789	serviceable

PROPELLANT

CATEGORY	Ground Model	Wheel Qty	Lot Qty	Lot Code	Number	Status
Canister	M67	20	20	GBP97J234	123	serviceable

C-117 UPDATED TIME ON TARGET.

Unit to Fire
 Target Number
 Observer ID

C-118 UPLOADED MUNITION SUMMARY.

Uploaded Munition Summary

Units	Last Update (Hrs)	Munition 0-2 (min)	Munition 2-5 (min)	Munition 5-20 (min)	Total		
FDS	B 2-20 DARTY	4ID 99	DPICM:	18	18	18	54
			TOW:	0	0	0	0
			SADARM:	0	0	0	0
			ATACMS-BAT	0	0	0	0
			ATACMS-BAT-P3	0	0	0	0
			ATACMS-APAM:	2	2	2	6
			ATACMS-HE	0	0	0	0
			LASM:	0	0	0	0
			TOMAHAWK:	0	0	0	0
			MLRS-SMOKE	0	0	0	0
			MINE:	0	0	0	0
			PRAC	0	0	0	0

C-119 UPLOADED MUNITION SUMMARY.

Uploaded Muniton Summary

Units				Munition 0-2		2-5	5-20	Total	
Last Update (Hrs)				(min)	(min)	(min)			
FDS	B 2-20	DARTY	4ID	99	DPICM:	18	18	18	54
					TOW:	0	0	0	0
					SADARM:	0	0	0	0
					ATACMS-BAT	0	0	0	0
					ATACMS-BAT-P3	0	0	0	0
					ATACMS-APAM:	2	2	2	6
					ATACMS-HE	0	0	0	0
					LASM:	0	0	0	0
					TOMAHAWK:	0	0	0	0
					MLRS-SMOKE	0	0	0	0
					MINE:	0	0	0	0
					PRAC	0	0	0	0

ARMY TM 11-7025-297-10
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C-120 ZONE OF RESPONSIBILITY.

Plan Alias
Action
Name
Type
Force
Effective DTG
Expiration DTG
Establishing Unit ID
Coordinate (n)
Easting
Northing
Grid Zone
Altitude (m)
Radius (m)
Center Location
Easting
Northing
Grid Zone
Altitude (m)
Width
Start Location
Easting
Northing
Grid Zone
Altitude (m)
End Location
Easting
Northing
Grid Zone
Altitude (m)

APPENDIX D TARGET TYPES

D-1 TARGET TYPES.

The following table indicates how AFATDS and IFSAS classify each target type (Effects or Volleys). Entries are bolded where the system differs on the target type.

Target Category	Target Types	Effects/Volleys Category	
		AFATDS	IFSAS
ADA	ADA, Hvy (> 99mm) ADA, Light (Less than 58mm) ADA, Med (58-99mm) ADA, Missile ADA, Position Area ADA, Unknown	Effects Effects Effects Effects Effects Effects	Effects Effects Effects Effects Effects Effects
Ammunition	Ammunition Dump	Volleys	Effects
C3	CP, Battalion CP, Division CP, Forward CP, Regiment CP, Small CP, Unknown Guidance Equipment Navigation Aids	Effects Effects Effects Effects Effects Effects Effects Effects	Effects Effects Effects Effects Effects Effects Effects Effects
Engineer	Bridge, Foot Pontoon Bridge, Veh Pontoon Bridge, Footbridge Raft Building, Concrete Building, Unknown Building, Masonry Building, Spec Purpose Building, Metal Building, Wood Bunker Pillbox	Volleys Volleys Volleys Volleys Volleys Volleys Volleys Volleys Volleys Volleys Volleys	Effects Effects Effects Volleys Volleys Volleys Volleys Volleys Volleys Effects Effects

Target Types - CONT

Target Category	Target Type	Effects/Volleys Category	
		AFATDS	IFSAS
Fire Support	Arty, Hvy SP (> 160mm)	Volleys	Effects
	Arty, Light SP (less than 121mm)	Effects	Effects
	Arty, Med SP (121-160mm)	Effects	Effects
	Arty, Towed	Effects	Effects
	Arty, Unknown	Volleys	Effects
	Missile, Hvy	Effects	Effects
	Missile, Light	Effects	Effects
	Missile, Med	Effects	Effects
	Mortar, Hvy (109-150mm)	Volleys	Effects
	Mortar, Light (less than 61mm)	Volleys	Effects
	Mortar, Med (61-108mm)	Effects	Effects
	Mortar, Very Hvy (> 150mm)	Volleys	Effects
	Mortar, Unknown	Volleys	Effects
	Rkt/Msl, Anti-Pers	Effects	Effects
	Rkt/Msl, AntiTank	Effects	Effects
	Rkt/Msl, Position Area	Effects	Effects
	Rkt/Msl, Unknown	Effects	Effects
LIFT	Boat	Effects	Effects
	Ferry Bridge	Effects	Effects
	Helicopter, Attack	Effects	Effects
	Helicopter, Cargo	Effects	Effects
	Helicopter, Obser	Effects	Effects
	Veh, Hvy Wheel (> 5T)	Effects	Effects
	Veh, Light Wheel (less than 5T)	Effects	Effects
	Veh, Utility	Effects	Effects
	Aircraft	Effects	Effects
LOC	Defile	Volleys	Volleys
	Hill	Volleys	Volleys
	Landing Strip	Volleys	Volleys
	Railroad Segment	Volleys	Volleys
	Road Junction	Volleys	Volleys
	Road Segment	Volleys	Volleys
	Terrain Feature	Volleys	Volleys
	Bridge, Veh Concrete	Volleys	Volleys
	Bridge, Veh Wood	Volleys	Volleys
	Bridge, Veh Steel	Volleys	Volleys
	Bridge Site	Volleys	Volleys

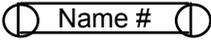
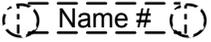
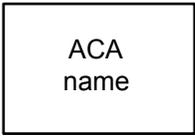
APPENDIX E SYMBOLS

E-1 GENERAL.

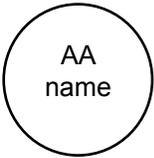
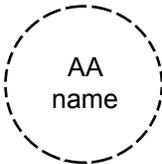
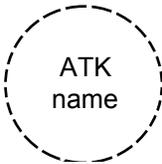
This appendix depicts the symbols used on the AFATDS map displays. The symbols are shown with labels and the position of the geometry name as appropriate. The symbols are described to indicate the different displays for current and planned and friendly and enemy situations.

E-2 AREA GEOMETRIES.

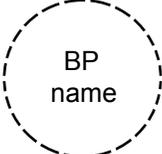
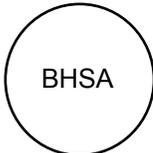
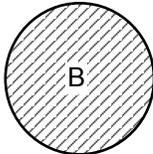
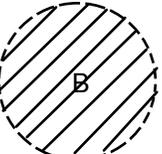
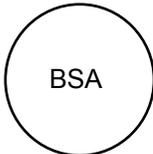
The area geometries illustrated in the following table can be a circle, rectangle, or irregular shape unless otherwise noted.

Area Geometries				
Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Air Corridor (must be irregular)	F	Blue		
Airspace Coordination Area	F	Red		
Ammunition Holding Area	F	Blue		
Amphibious Objective Area	F	Blue		

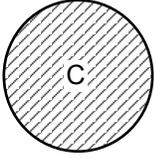
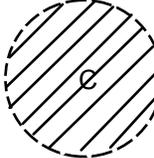
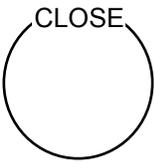
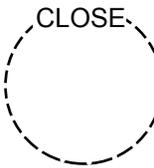
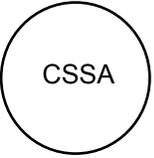
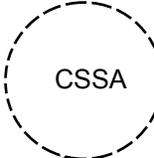
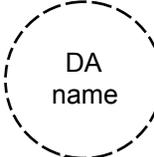
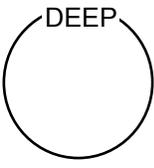
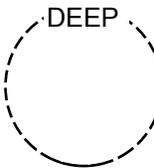
Area Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Assault Objective	F or E	F - Blue E - Red		
Assault Position	F or E	F - Blue E - Red		
Assembly Area	F or E	F - Blue E - Red		
ATI Zone	F	F - Blue		
Attack Position	F or E	F - Blue E - Red		

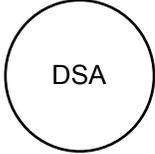
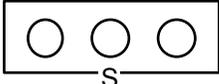
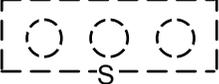
Area Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Battle Position	F or E	F - Blue E - Red		
Beach Support Area	F	Blue		
Biological Contamination Area	F	Black with Yellow fill		
Brigade Support Area	F	Blue		
Call for Fire Zone	F	Blue		
Censor Zone	F	Blue		

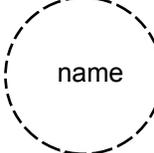
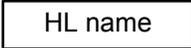
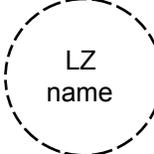
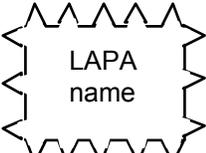
Area Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Chemical Contamination Area	F	Black with Yellow fill		
Close Battle Area	F	Blue		
Combat Service Support Area	F	Blue		
Critical Friendly Zone	F	Blue		
Dead Space Area	F	Blue		
Deep Battle Area	F	Blue		

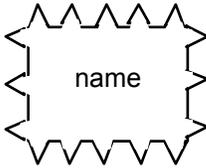
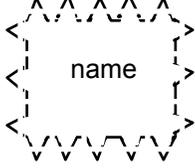
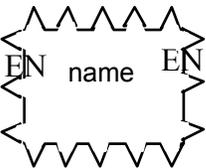
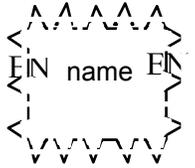
Area Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Division Support Area	F	Blue		
Drop Zone	F or E	F - Blue E - Red		
Fascam Safety Zone (must be a rectangle)	F	Blue		
Engagement Area	F or E	F - Blue E - Red		
Fire Support Area	F or E	F - Blue E - Red		
Forward Arming And Refueling Point	F	Blue		

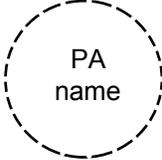
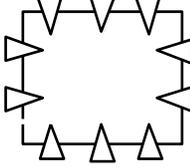
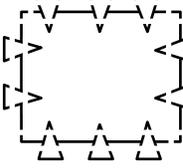
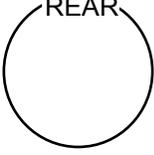
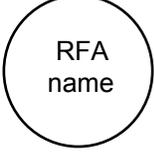
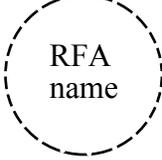
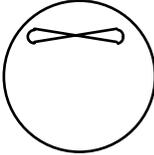
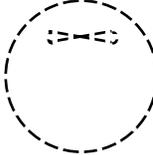
Area Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Free Fire Area	F	Blue		
General Area	F	Blue		
Helicopter Lane	F	Blue		
Landing Zone	F or E	F - Blue E - Red		
Landing Zone Support Area	F or E	F - Blue E - Red		
Limited Access Position Area (may not be a circle)	F or E	F - Blue E - Red		

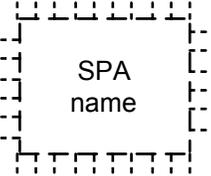
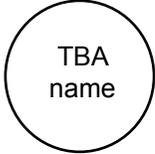
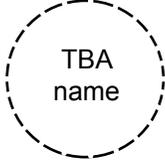
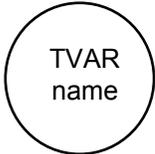
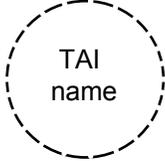
Area Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Mine Field (must be a rectangle)	F	Green		
	E	Green		
No Fire Area	F	Black with Red fill		
Obstacle Area (may not be a circle)	F	Green		
	E	Green		
Pickup Zone	F or E	F - Blue E - Red		

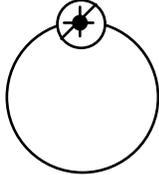
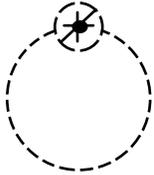
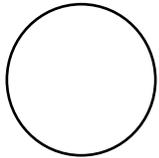
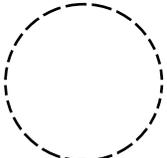
Area Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Position Area	F	Blue		
Radioactive Area	F	Yellow		
Rear Battle Area	F	Blue		
Restrictive Fire Area	F	Red		
Shorad Zone	F	Blue		

Area Geometries - CONT

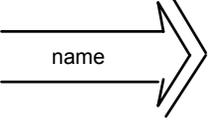
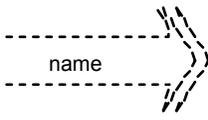
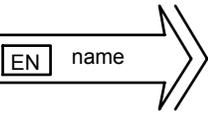
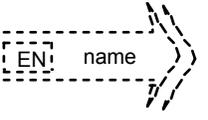
Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Strong Point Area	F or E	F - Blue E - Red		
Target Build-Up Area	F	Blue		
Target Geometry	F	Blue		
Target Value Area	F	Blue		
Targeted Area of Interest	F	Blue		

Area Geometries - CONT

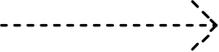
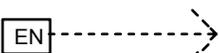
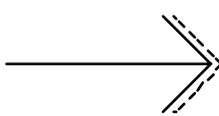
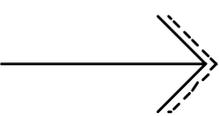
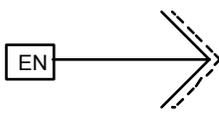
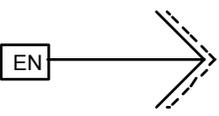
Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Vulnerable Area	F	Blue		
Zone Of Responsibility	F	Blue		

E-3 LINE GEOMETRIES.

Line Geometries

Geometry	Situation: Friendly (F) Enemy (E)	Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Airhead Line	F	Blue		
Axis Of Advance	F	Blue		
	E	Red		

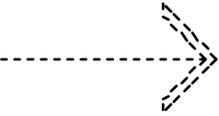
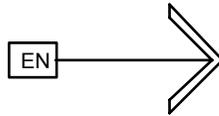
Line Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Boundary Line	F or E	F - Blue E - Red	<u>second unit name</u> first unit name	<u>second unit name</u> first unit name
Bridgehead Line	F or E	F - Blue E - Red	--- BRIDGEHEAD LINE name ---	--- BRIDGEHEAD LINE name ---
Coordinated Fire Line	F	Blue	----- CFL -----	----- CFL -----
Crossover Line	F	Blue	<u>CROS name</u>	<u>CROS name</u>
Direction Of Attack	F	Blue		
	E	Red		
Feint	F	Blue		
	E	Red		
Final Coordination Line	F	Blue	FINAL CL ——— FINAL CL	FINAL CL - - - - FINAL CL

Line Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Fire Support Coordination Line	F	Blue		
Force Beachhead Line	F	Blue		
Ford Crossing	F or E	F - Blue E - Red		
Fortified Line	F	Blue		
Forward Edge Of The Battlefield	F	Blue		
Forward Line Of Own Troops	F	Blue		
	E	Red		
General Line	F or E	F - Blue E - Red		
Holding Line	F	Blue		
Lane Crossing	F or E	F - Blue E - Red		

Line Geometries - CONT

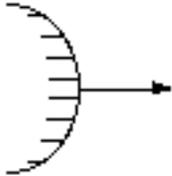
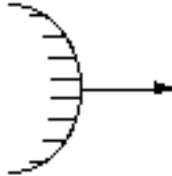
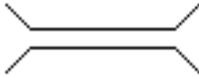
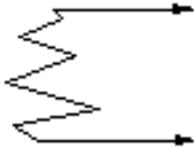
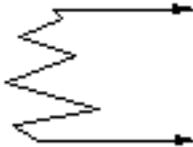
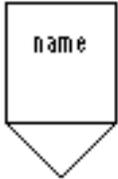
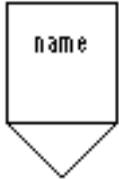
Geometry	Situation: Friendly (F) Enemy (E)	Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Light Line	F	Blue	LL————LL	LL- - - - -LL
Limit Of Advance	F	Blue	LOA————LOA	LOA- - - - -LOA
Line Of Contact	F or E	Blue & Red		
Line Of Departure	F or E	F - Blue E - Red	LD————LD	LD- - - - -LD
Line Of Departure/ Contact	F or E	Blue & Red	LD/LC name  D/LC name	LD/LC name  D/LC name
Main Attack	F	Blue		
	E	Red		
Main Supply Route	F or E	F - Blue E - Red	- - HOLDING LINE name - -	- - - - MSR name - - - -

Line Geometries - CONT

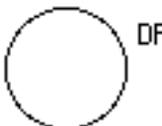
Geometry	Situation: Friendly (F) Enemy (E)	Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Obstacle Line	F	Green		
	E	Green		
Phase Line	F	Blue	PL name — PL name	PL name --- PL name
Probable Line Of Deployment	F	Blue	PLD - - - - - PLD	PLD - - - - - PLD
Restricted Fire Line	F	Red		
Supporting Attack	F	Blue		
	E	Red		

E-4 POINT GEOMETRIES.

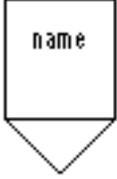
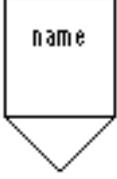
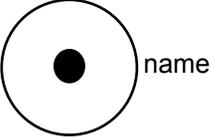
Point Geometries

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Air Control Point	F	Blue		
Ambush Point	F	Blue		
Bridge Site	F or E	F - Blue E - Red		
Bypass Difficult	F	Blue		
Checkpoint	F	Blue		
Communications Check Point	F	Blue		

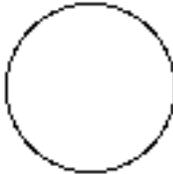
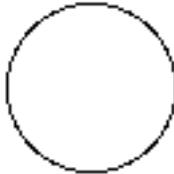
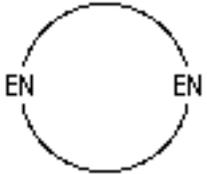
Point Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Contact Point	F or E	F - Blue E - Red		
Coordinating Point	F or E	F - Blue E - Red		
Decon Point	F or E	F - Blue E - Red		
Departure Point	F	Blue		
Fire Support Station	F	Blue		
Firing Point	F or E	F - Blue E - Red		

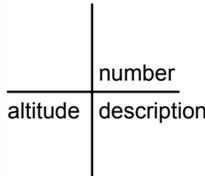
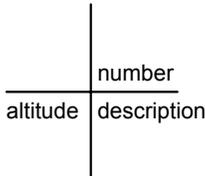
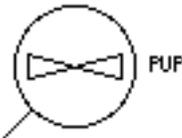
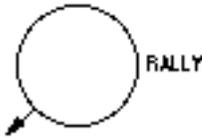
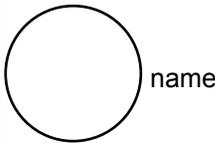
Point Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Ford Crossing Point	F	Blue		
General Point	F or E	F - Blue E - Red		
Hide Point	F or E	F - Blue E - Red		
Initial Point	F	F - Blue		
Launch Point	F or E	F - Blue E - Red		
Linkup Point-Marine	F	Blue		

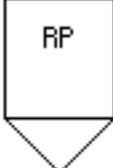
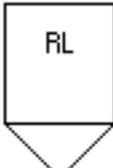
Point Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Linkup Point	F	Blue		
Obstacle	F	Blue		
	E	Red		
Passage Point	F	Blue		
	F	Blue		

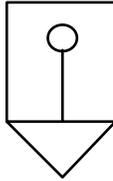
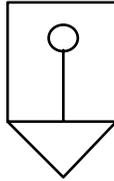
Point Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Point Of Departure	F	Blue		
Point Target	F	Black		
Pop-up Point	F	Blue		
Rally Point	F	Blue		
Rally Point-Marine	F	Blue		

Point Geometries - CONT

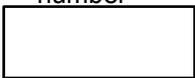
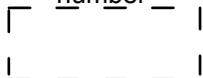
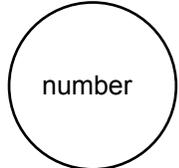
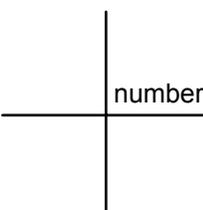
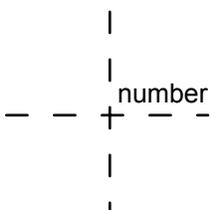
Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Release Point	F	Blue		
Reload Point	F or E	F - Blue E - Red		
Reduced Width Point	F	Blue		
Rendezvous Point	F	Blue		
Start Point	F	F - Blue		
Survey Control Point	F	Blue		

Point Geometries - CONT

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Traffic Control Point	F	Blue		

E-5 TARGET GEOMETRIES.

Target Geometries

Geometry	Situation: Friendly (F) Enemy (E)	Border Color: Friendly (F) Enemy (E)	Symbol	
			Current	Planned
Rectangular Target	F	Black	number 	number 
Circular Target	F	Black	number 	number 
Linear Target	F	Black	number 	number 
Target Reference Point	F	Black	number 	number 

APPENDIX F TASKS CROSS REFERENCE

F-1 TASKS TO VOLUME/PAGE CROSS REFERENCE.

The following table references the volume and page numbers for commonly performed tasks. Tasks are listed in alphabetical order.

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