MX-25-493

SISTIM
OPERATOR'S MANUAL
For
Version 6.3.0.2

Revision A

31 October 2002

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Revision Status Sheet
for
SISTIM OPERATOR'S MANUAL

Revision	Date	Description of Change
Draft	01 Mar 02	Original Release
Rev A	31 Oct 02	MX-25-493, New functionality Maps

Prepare SISTIM for Operations

WARNING

HIGH VOLTAGE

is used in the operation of this equipment.

DEATH ON CONTACT

may result if personnel fail to observe safety precautions

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CHAPTER 1.
OVERVIEW

SECTION 1
INTRODUCTION: IDENTIFICATION

SISTIM is a Fire Support training device designed to operate on the CHS2 Family of hardware. It operates on the UCU using external TCIMs and on the CCU2 using TCIMs and SP-TCIMs concurrently. SISTIM is designed to operate on a workstation as a stand-alone product.

1-1. System Overview

Simulator/Stimulator (SISTIM) is a message stimulation and simulation product that supports testing and training for fire support systems. It is capable of transmitting and receiving fire support messages using communications protocols, and performing simple message response generation for several common fire support systems; for instance, generating a response of Message To Observer to a Fire Request message when simulating a mortar Fire Direction Center (FDC) unit.

SISTIM also includes a Time-Ordered-Event-List (TOEL) and Event Ordered Event List (EOEL) generation and execution capability, providing the operator with a means of creating and “playing back” a sequence of actions to the live fire support system. This capability then stimulates the fire support system to test system actions. The simulation capabilities are also active to permit the “filling in” of absent systems, permitting testing in a sparse environment.

SECTION 2
EXERCISES

1-2. Networks and Units

An exercise is created by an operator and consists of a communications structure, a unit hierarchy and a scenario. The communications networks are defined by configuring various network parameters so that later defined units can be assigned to specific communications nets. Units are defined by describing the type of operational facility (OPFAC), command headquarters, and their communication network assignments.

1-3 Automatic Target Generation and Messages

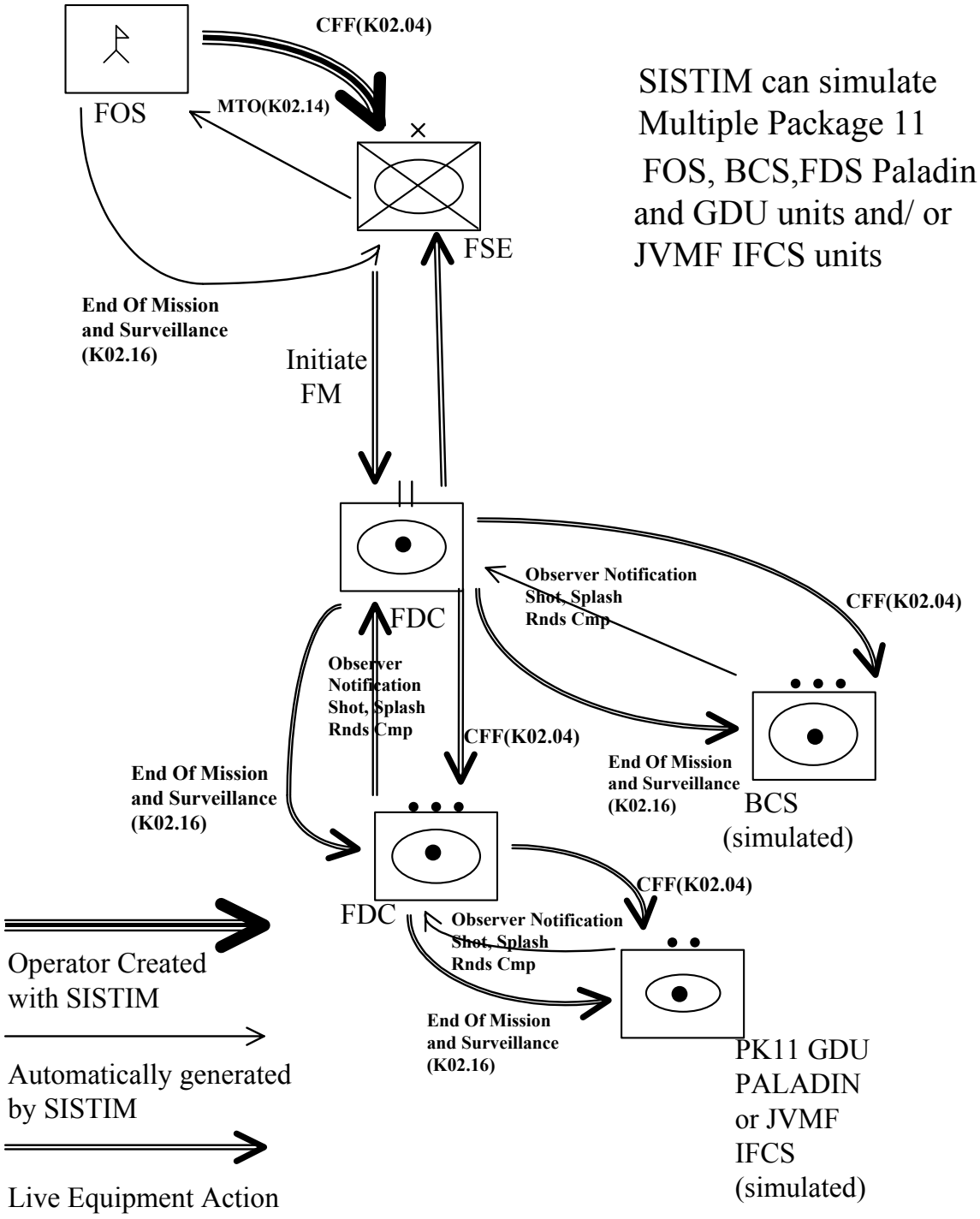
After the units and communications paths are created, then targets can be created. The operator can establish the FLOT location, orientation, target box depth, and target intensity. Targets can automatically be generated using the operator defined target density. These targets are assigned to the observer units previously configured. After the targets are created, additional messages can be inserted into the Event List. After the scenario has been created, it can be saved and run.

1-4. Execution

SISTIM operates in three states, Configure, Ready and Running. The “Configure” state represents the capabilities to create, manage, save, delete, and modify exercises. It provides modification capabilities of all aspects of exercises but does not provide the capability to execute exercises or events. The “Ready” state represents the capabilities of SISTIM to manually prepare for the execution of an exercise as well as the “pause” state within an exercise. The “Running” State represents the SISTIM capabilities to execute an exercise with permitted operator interactions.

In order to provide the capability to test Advanced Field Artillery Tactical Data System (AFATDS) mission processing threads, SISTIM provides a mechanism for defining the mission situation, including the participating system roles, and automated message event generation. The collection of mission defining elements is called an exercise. SISTIM provides the capability to set up exercises consisting of a TOEL of external messages arranged to be transmitted on predefined networks, by predefined devices acting in predefined roles, at specified times relative to the initiation of the exercise. Individual message events may be created and executed (transmitted and received) within the TOEL of an exercise, or upon operator command at any time when SISTIM is in the ready or running state.

SISTIM in ACTION



CHAPTER 2.
SISTIM HARDWARE AND LOAD PROCEDURES

This chapter shows the SISTIM operator how to cable hardware and load software procedures.

SECTION 1
CABLE UP A SYSTEM

The SISTIM Compact Disk load software either loads on a UCU or CCU common hardware platforms.

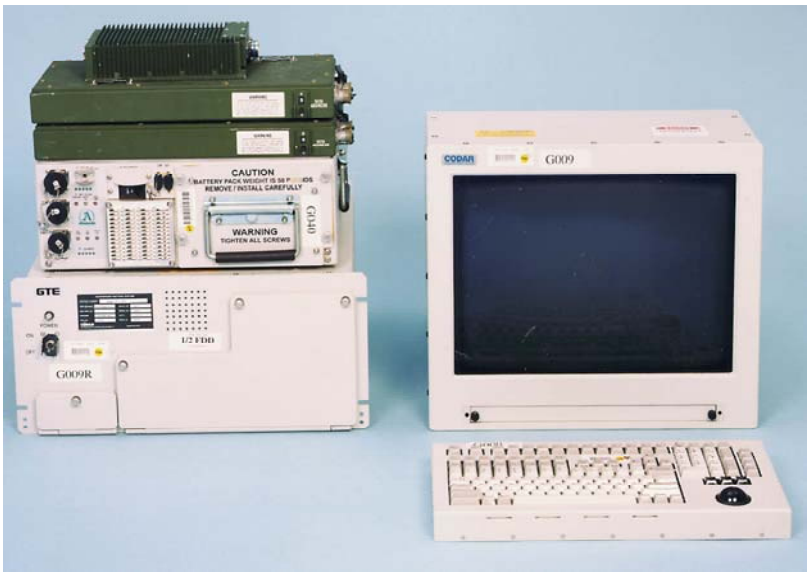


Figure 2-1 Prepare SISTIM for Operations (UCU)

2-1 Cable a UCU

To cable a UCU insure that the cables are configured correctly:
Start with the Monitor there are two cables, a power cable that connects it to the power strip and a cable from the SHRD to the UCU.
Connect the power cable from the UCU into the power strip.
Connect the SCSI Cable from the UCU into the TCIMS. (Make sure the TCIM addresses are four and five and are properly terminated.)
Connect the power cable and wire line adapter to the TCIM. Connect the TCIM power cord into the power strip.
Connect the LAN cable to the hme0 port. (The LAN port connection is next to the SCSI port on the back of the UCU).
Cable the keyboard and trackball cables. (The printer can also be accessible by the LAN if available. If you are using a local printer connect the cable into the Parallel port and connect the power cord into the power strip.)
Next connect the power strip into the UPS or other power source.

Figure 2-2 Prepare SISTIM for Operations (CCU2)

2-2 Cable a CCU2

To cable a CCU2 connect the keyboard cable.
Connect the power cable from the CCU2 into power strip.
Connect the SCSI Cable from the CCU2 into the TCIM. Make sure the TCIM address are four and five and is properly terminated.
Connect the power cable and wire line adapter to the TCIM. Connect the TCIM power cord into the power strip.
Connect the PCMIA cards and cables. If you have both TCIM and SPTCIM there are possible 8 communication channels available for use in SISTIM.
Connect the LAN cable to the primary LAN port. If you are using a local printer connect the cable into the Parallel port and connect the printer power cable into the power strip. The printer can also be accessible by the LAN.
Connect the power strip into a 120-Volt power source.

The appropriate Hardware is now ready for power to be applied.

NOTE

If SISTIM software is all ready loaded proceed to the SISTIM login screen.

SECTION 2
SISTIM LOAD PROCEDURES

NOTE

Prior to setup diagram your Unit Communication structure to establish the TCIM and LAN IP address and net setup.

2-3 SISTIM SOFTWARE INSTALLATION

SISTIM is available on CDROM for installation.

SISTIM SINGLE CD LOAD/CONFIGURE INSTRUCTIONS

The single CDROM load for SISTIM is compatible for both the CCU2 and the UCU platform. A hard drive of 4GB or larger is required.

To load the SISTIM follow the procedures listed below:

Place the CDROM in the CDROM drive.

Turn on the computer system. Anytime when the system is coming up, on the keyboard hold down the (Stop) key and then press the (a) key, this will give you an OK prompt on the screen.

Type "boot cdrom" and press return.

If you are prompted for a password, use AFATDS.

The CDROM will boot.

After the system boots you will be prompted for a **HOST NAME**, the name selected should be unique within the LAN address subnet to be used. Listed below are some examples:

sistim01
sistim02
sistim09

The next prompt will be for a **LAN IP address**.

IP Information:

IP Address - The IP address is the most critical element to a host (your box/machine/platform/computer). This address must be unique for each host in a network. If a user is going to communicate on the global Internet, they must have a unique address for the entire Internet. A systems administrator (USMC = G-6/S-6, Army = Signal Officer, FDO or FCNCO) issues an address with this fact in mind.
An IP address is four decimal numbers between 1 and 254 separated by periods. For example, 192.156.2.169.
The user should know the setting of their IP address in the configuration in case they ever have to call in a network problem.
Users should never change their IP address without consulting the network administrator as this can easily create problems.

Subnet Mask - The Subnet mask is used by the IP routing setup to determine if the station they are trying to reach is on their LAN network, but not necessarily on the same physical LAN, or in a totally different network. Users should never change the Subnet mask without discussing this need with their network administrator.
Once the LAN IP is entered the system will configure. This takes between (30-45 minutes), depending on your platform.

2-4 Login to SISTIM

Login Screen

At the Login Screen: enter "**sistim**".
Next you will be prompted for a password: enter "**sistim**" again.

Figure 2-3 Login Screen

Wait for X windows to load.

Windows Desktop

After Log-on if the SISTIM screen loads in this configuration (Figure 2.4) The operator must Select the number three-mouse button, select exit and confirm exit. This will exit SISTIM. At the log-on screen select Options/Select Sessions/ Select Common Desktop Environment and then re-login into SISTIM. Wait for X windows to load.

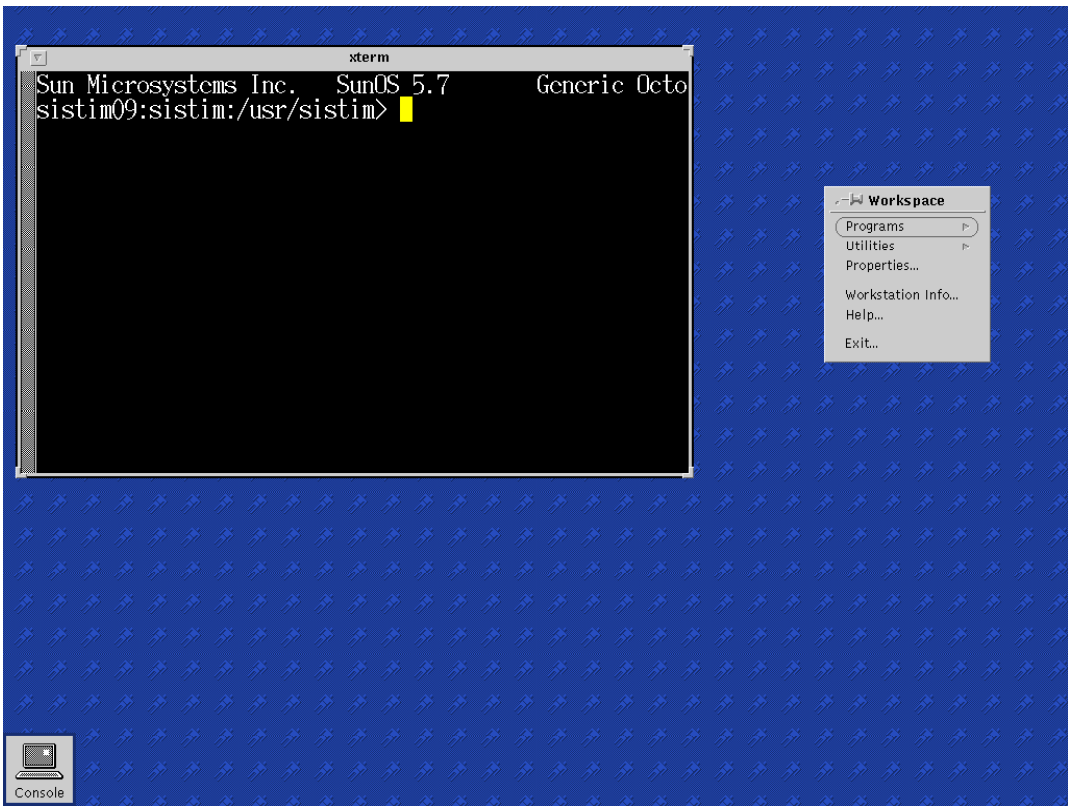


Figure 2-4 Windows Desktop Screen

2-5 Start SISTIM Program.

There are three ways to start the SISTIM program. (Fig 2-5)
The first way to start is Double click on SISTIM on the MENU Bar.
The second way is to click on the arrow above the SISTIM and then select the SISTIM application. The third way is right click on the blue background and select SISTIM/SISTIM to launch the application.

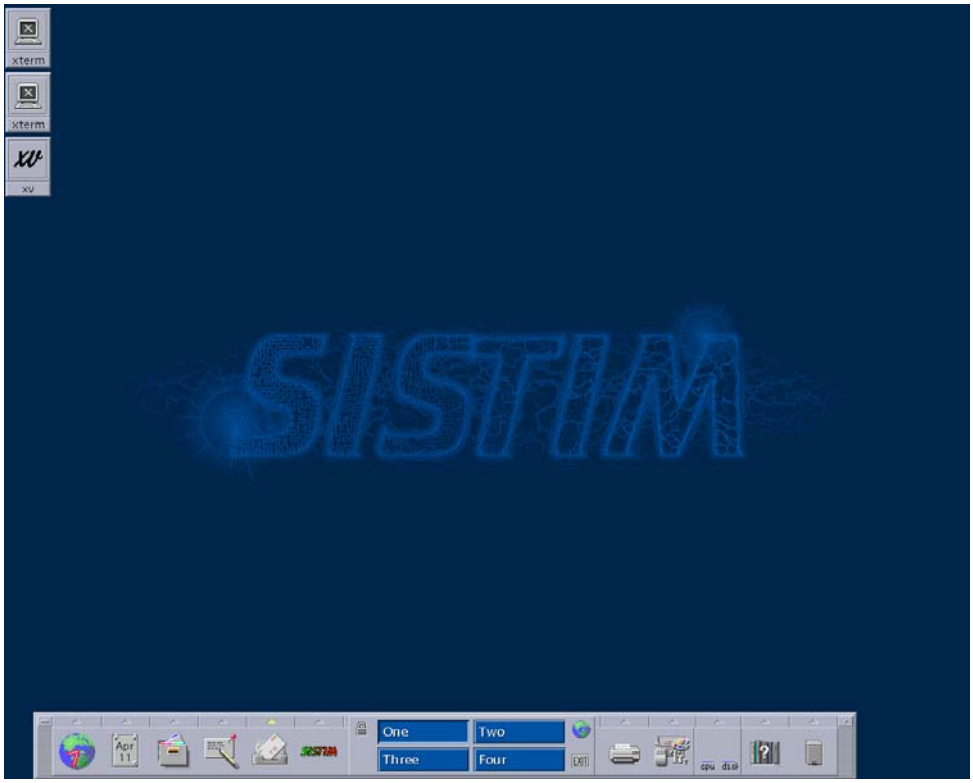


Figure 2-5 Start SISTIM Program

2-6 Start SISTIM Window

Start SISTIM Window Procedure

In the RUNSISTIM window when the SISTIM is started for the first time, it loads the messages. The Messages types are PK 11, JVMF, USMTF, and GDU. Then configures the TCIM's, SPTCIM's and LAN Interface for use. SISTIM's user interface is entirely menu driven and window oriented. This makes SISTIM extremely user friendly for both the novice and expert operator.
The Field Types windows displayed by SISTIM consist of different types of fields. The fields require different types of inputs from the operator. Each field type used during operation of SISTIM is discussed in Message Templates.

NOTE

Helpful hint, In the RUNSISTIM window there are posted results of the LAN, TCIM and SPTCIM configuration. If any of the above configurations are incomplete check all connections and cables. Power down the system and do a boot –r. SISTIM will find any devices that were not available on the last boot.

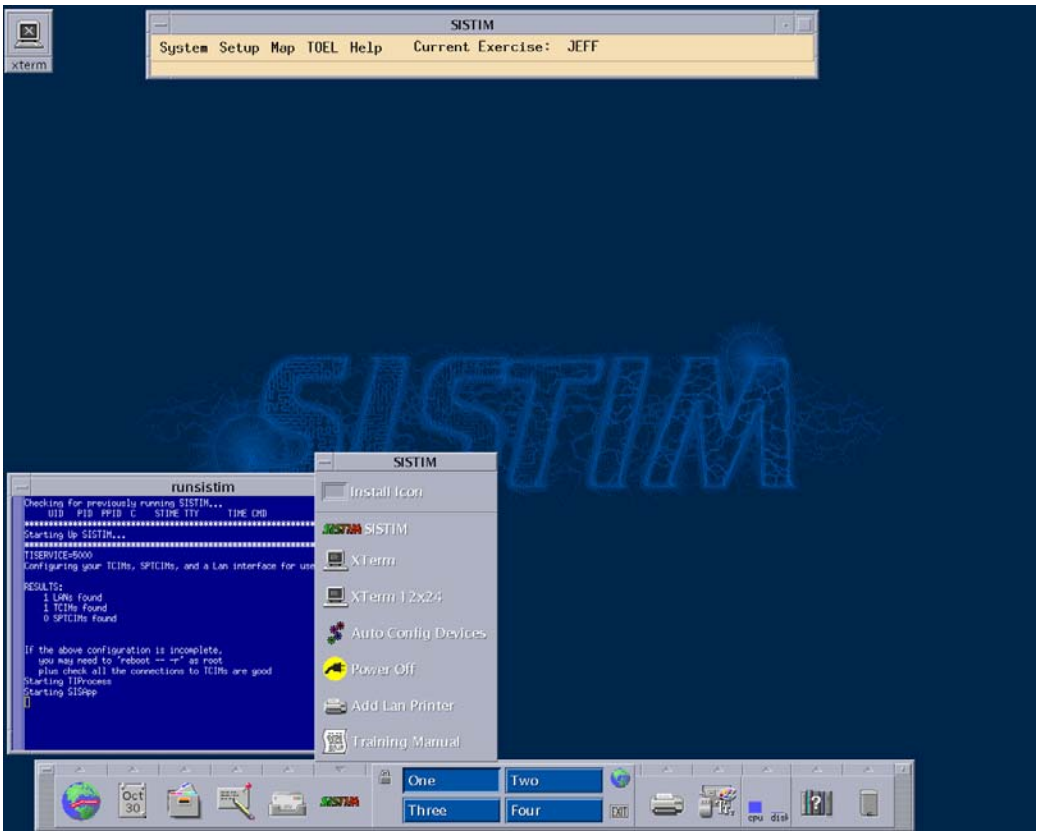


Figure 2-6 Start SISTIM Window

There are six items on the top of the SISTIM window.

1. **System Pull Down Menu**, this selection is used to manage the Printing, Loading and Saving the Database.

2. **Setup Pull Down Menu**, this is one of the most important pull down menus in SISTIM. The Setup pull down menu gives the operator the inputs for building Network Combinations, Units, and Scenario Setups. The output from the setup is used in the Time Ordered Event List (TOEL).

3. MAP Pull Down Menu, this function is used for editing and viewing the SISTIM Map.

4. TOEL Pull Down Menu, this function is used for editing and running the Exercise Controller. The TOEL is made from the Setup pull down menu.

5. Help Menu has the user's manual and current SISTIM operating version.

6. Current Exercise is the name that tells the operator what exercise is in use.

When building a scenario, it is wise to frequently save the data to a database on disk or hard drive. This will reduce data losses due to power failures, etc. To save the current exercise Select System and Save Exercise, this action saves the exercise to the hard drive.

CHAPTER 3.
ESTABLISH/BUILD SISTIM COMMUNICATION CONFIGURATIONS

SECTION 1
SETUP NETWORKS

NOTE

SISTIM software is configured that only one window can be open at any one time.

Available Networks are; UDPLAN Channel (LAN), USMTFMail channel (TBMCS Sendmail), UDP220 Channel (SPTCIMS and TCIM), GDU/MCA Channel (GDU) and AFCS Channel (Paladin).

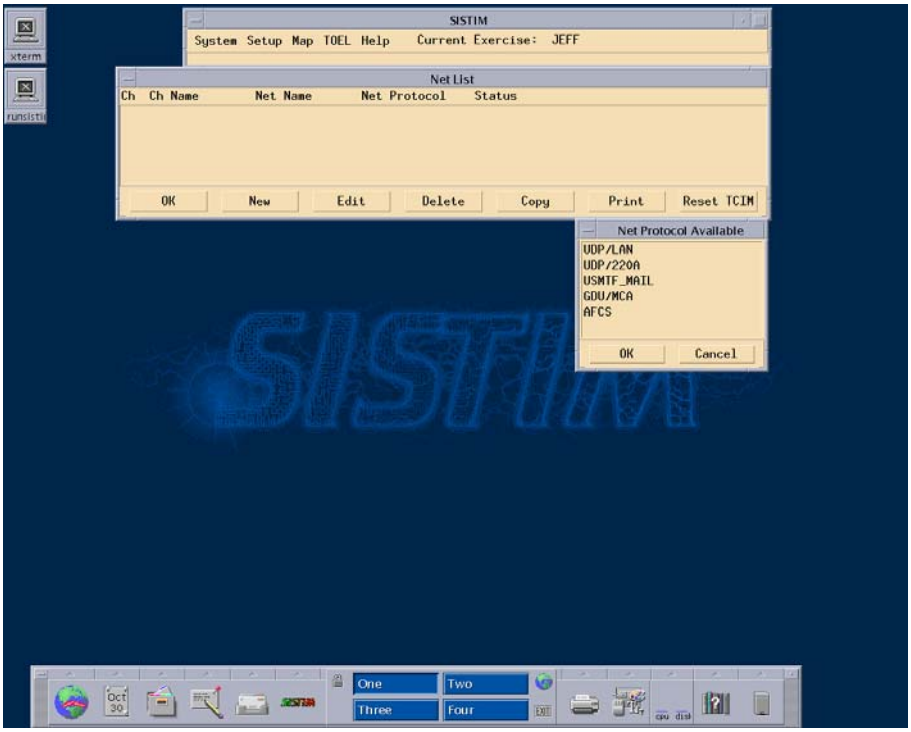


Figure 3-1 Setup Networks

NOTE

The most import area in SISTIM is the Networks setup. If configured incorrectly the operator will not receive the desired results from the SISTIM Scenario.

SECTION 2
SETUP LAN NETWORKS

3-2 UDPLAN Setup

This window allows the operator to configure the UDPLAN protocol network within the current exercise. Any unit that can be assigned an IP address can communicate over the LAN network.
To set up a UDPLAN Network the operator will have to name the network and assign it to a channel.

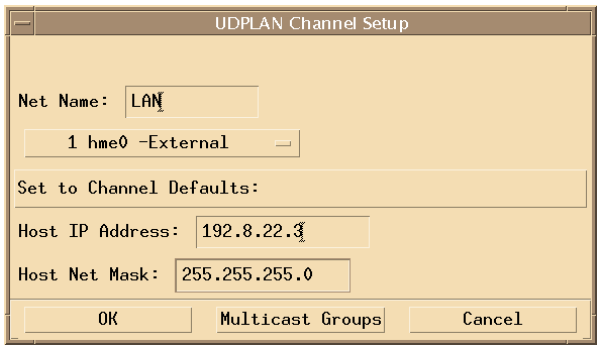


Figure 3-2 UDPLAN Setup

In SISTIM channel 1 (Fig 3-2) is the only UDPLAN Channel that is available to communicate on. The operator has the selection to place the UDPLAN on any other channel if so desired to have Host IP address the net simulated. The permanent UDPLAN card is assigned the IP address from the load producers and cannot be changed. This is the selection that was placed in the IP window from the software load procedures. If the Host IP address is changed, communicating over the LAN will not be possible.

UDPLAN Setup Procedure

Net Name - Any name, up to 12 alpha/numeric characters, is valid in this field.
Channel - The channel for this network will either be simulated or external. Once a channel has been chosen for a network, it is grayed-out to ensure no duplications.
Host IP Address: - TCP/IP numeric network address for the SISTIM host machine**. (The same IP name that was used from the load software instructions.)**
Host Net Mask: - This is used to define the domain for the Host IP Address.
Multicast: is only available between FBCB2 and AFATDS units. (fig 3-3) This window displays a list of the multicast groups and allows the operator to create, edit, and delete the groups for the current net.

NOTE

> The BDE_ALL net in AFATDS is the only net that will send and receive messages. The other MCGroup Name types (BN_EPLRS, BN_ALL, BDE_EPLRS) will only received by AFATDS.

MCGroup Name/MCGroup Type/ Multicast IP is the list of the multicast groups for the net. This information displayed includes the identifying name for each multicast group, its group type and it's multi cast IP address in fig 4-3 it is showing the BDE_ALL with an IP of 225.10.10.25.

Multicast *Setup Procedure MCGroup list*

***OK* button:** closes the Multicast Group List window.

New Button: gives the operator the opportunity to create a new multicast group.
Edit Button: gives the operator the opportunity to edit an existing multicast group. A multicast group must be highlighted to be in a activate state.
Delete: when a multicast group is highlighted, the group can be deleted from the MCGroup list

Figure 3-3 Multicast Channel Setup

Multicast Group Setup

This window (Fig 3-4) allows the operator t to configure a multicast group for the current loaded exercise.

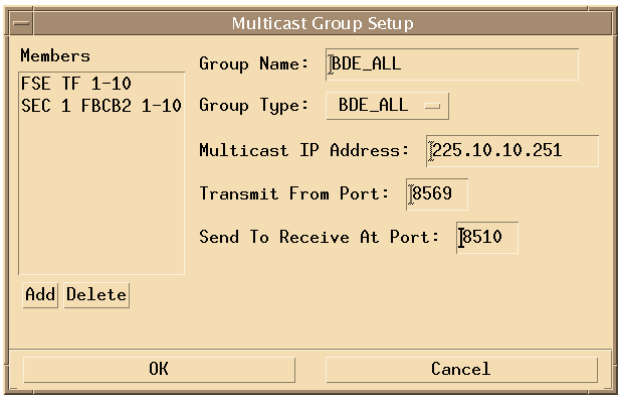


Figure 3-4 Multicast Group Setup

Multicast *Group Setup Procedure*

Group Name: Any name up to 24 alpha/numeric character.
Group Type: indicates whether this is a Battalion EPLRS, Battalion All, Brigade EPLRS, or Brigade All group.
Multicast IP Address indicates the multicast IP address of the group. SISTIM will prompt for the legal IP entry.
Transmit From Port: Indicates the port number of this group will be transmitted. This field is not editable.
Send To Receive At Port: Indicates the port number of this group will be sent and received. This field is not editable.
Add: This button allows selection of a unit to be added to the group that appears in the group name. Only legal units will be presented for selection.

3-3 USMTFMAIL Channel Setup

The USMTF Mail network (Fig 3-5) only works on channel 2 in SISTIM. The host IP address is the same as the LAN IP address. This network is used for communicating to the TBMCS device for immediate and preplanned air request. The IP is the same for the UDPLAN for it is associated with the LAN.

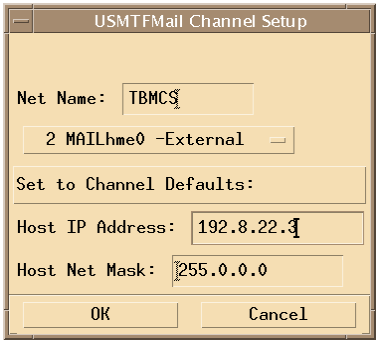


Figure 3-5 USMTFMAIL Channel Setup

USMTFMAIL Channel Setup Procedure

Net Name - Any name, up to 12 alpha/numeric characters, is valid in this field.
Channel - The channel for these networks can either be simulated or external.
Host IP Address - TCP/IP numeric network address for the SISTIM host machine. This is the same IP name that was used from the load software instructions.
Host Net Mask - This is used to define the domain for the Host IP Address.

SECTION 3
SETUP WIRE NETWORKS

3-4 UDP220 2 WIRE Channel Setup

NOTE

When selecting screen combinations options some entries that are not legal entries and are grayed out for non-selection. The IP address must be unique when setting up the UDP220 Network

On the SPTCIMS the second channel is non-selectable. This TCIM UDP220 channel (Fig 3-6) is used to talk over numerous devices, the most common Devices are 2 wire and SINCGARS Radio.

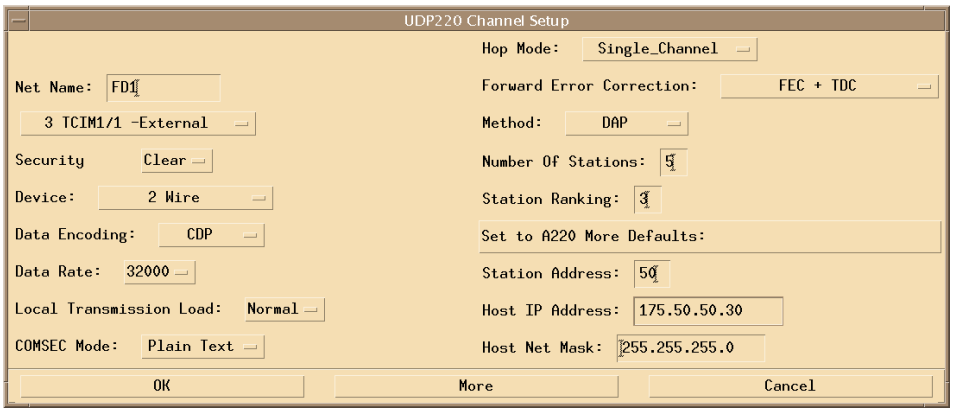


Figure 3-6 UDP220 2 WIRE Channel Setup

UDP220 2 WIRE Channel Setup Procedure.

Assign the network a name i.e.: FD1, CF1 etc.
Select a disable channel that is available from the pull down.
Selecting a Simulated channel will not let the operator establish AFATDS communication. When the Time Ordered Event List (TOEL) is selected, the networks that the operator selected will go from disable to enable and the TCIMS will be enabled for use.
Security is not selectable. In the AFATDS it must be defaulted to Secure.
Device - Select the appropriate communication device.
Data Rate the Rate of transmission for a device on a TCIM channel. Channel one maximum data rate is 32000 BPS and on Channel two maximum Data Rate is 1200 BPS on a TCIM. The SPTCIM does not have a second channel. Stations and Host IP Address are required entries. When in uncertainty use the AFATDS legal entries as a guide.
Net Name - Any name, up to 12 alpha/numeric characters, is valid in this field.
Channel - The channel for this network can either be or external.
Security - The only option in SISTIM is 'CLEAR'.
Device - Selects different device interfaces on each channel.
Data Encoding - Selects the type of modulation on each channel.
Data Rate - Selects the baud rate on each channel.
Local Transmission Load - Estimated amount of network traffic to be expected.
Hop Mode - This field informs the TCIM if SINCGARS radio is set for frequency hopping.
Method - Select the different NAD methods.
Stations - Number of net stations to use for NAD algorithms.
Set to A220 Defaults - Sets A220 parameters to defaults values. Selecting this feature will override and customization made on the UDP220 Channel Setup 2 Window.
Station Address - The link address for this station.
Host IP Address - TCP/IP numeric network address for the SISTIM host machine. This IP address must be unique (different from the LAN IP address).
More - Selecting this button will display the UDP220 Channel Setup 2 window allowing the operator to make additional customizations to the UDP220 network.

3-5 Available TCIM Channels

Available TCIM Channels to assign to a network. In the case below (Fig 3-7) there are two possible TCIM selections.

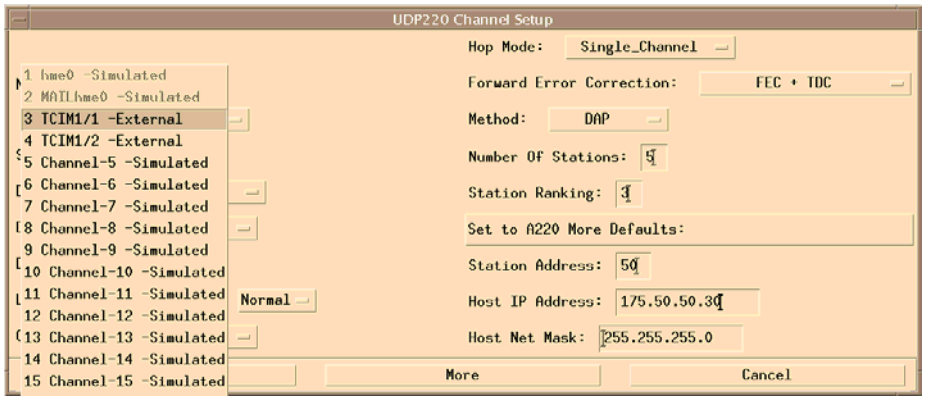


Figure 3-7 Available TCIM Channels

3-6 UDP220 More Channel Setup

NOTE

A good way to tell if the switch settings for wire are correct is by looking at the EPRE, ELAG, and TURN. If they are all zeros then the operator has entered the correct communication settings. Do not edit this window, the default settings are correct. Only if you are told by a communication expert (CECSO) should you make a selection in this window.

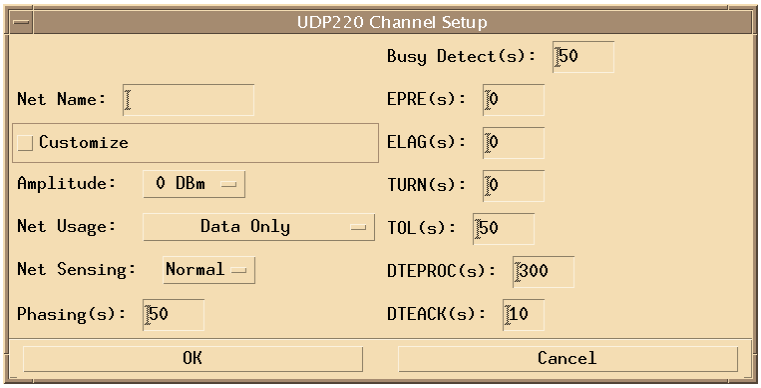


Figure 3-7.1 UDP220 More Wire Channel Setup

UDP220 More Wire Channel Setup Procedure. *Fig(3-7.1)*

Net Name - Any name, up to 12 alpha/numeric characters, is valid in this field. (It will be the same “net_id” as main UDP220 Channel Setup window).
Customize – By selecting this radio button, the operator has the option to modify the A220 parameters.
Amplitude - Amplitude for analog modulations.
Net Usage - For radio nets, indicates whether the net will be used for both voice and data or data only.
Net Sensing - Indicates whether to sense net busy using all possible means or to use methods that limit false busy indications in noisy nets.
Phasing(s) - Time (ms) end of EPRE during which the TCIM sends a one/zero data pattern.
Busy Detect(s) - Time from transmit start at any station (PTT) until all stations detect net busy.
EPRE - Is the time interval from push to talk (PTT) activation until device has sent its COMSEC or other preamble and is ready to accept data from the TCIM.

ELAG – IS 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.
TURN - Is the time interval for transmitter and receiver to be ready for the next operation after the end of ELAG.
TOL – Is the time allowed for computing an acknowledgment.
DTEPRO – is the time allotted for the receiving station to process data that does not require acknowledgment before the NAD cycle resumes
DTEACK – Is the time allotted for the receiving station to process data and transmit an acknowledgment.

3-7 UDP220 Radio Channel Setup

These window (Fig 3-8) and (Fig 3-8.1) allow the operator to configure the UDP220A protocol network within the current exercise using radio.

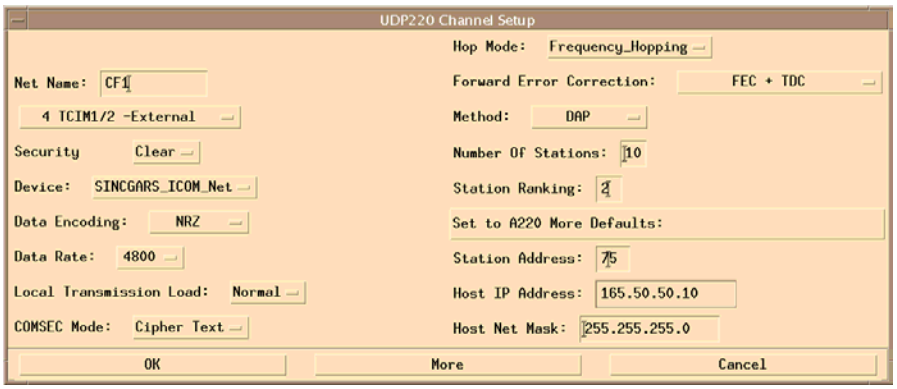


Figure 3-8 UDP220 Radio Channel Setup

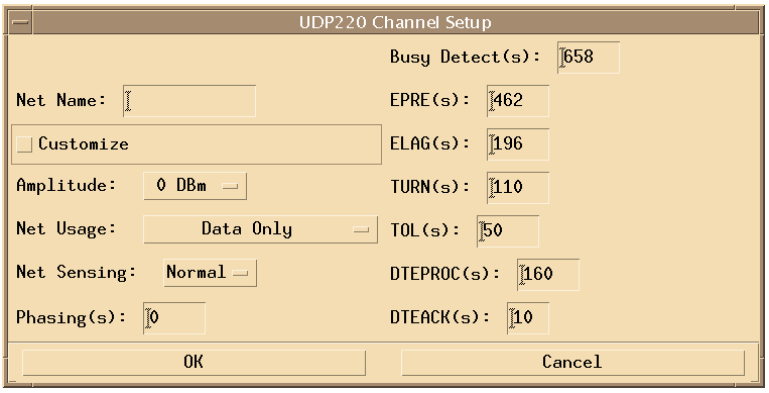


Figure 3-8.1 More UDP220 Radio Channel Setup

3-8 GDU/MCA Network Setup

This window (Fig 3-9) allows an operator to configure a GDU/MCA network within the current exercise. It is recommended to assign this network on the second TCIM channel because the transmission rate for GDU's is a maximum of 1200 BPS.

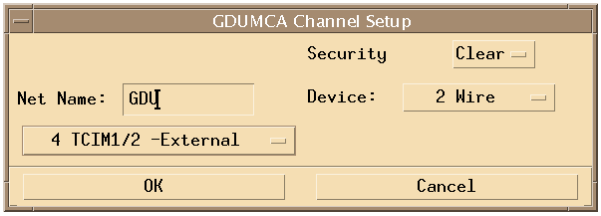


Figure 3-9 GDU/MCA Network Setup

GDU/MCA Network Setup Procedure

Net Name - Any name, up to 12 alpha/numeric characters, is valid in this field.
Channel - The channel for this network can either be simulated or external.
Security - The only option in SISTIM is 'CLEAR'.
Device - Selects different device interfaces on each channel.

3-9 AFCS Channel Setup

This window (Fig 3-10) allows an operator to configure an AFCS network within the current exercise. AFCS Networks are used to allow communications between SISTIM simulated Paladins and AFATDS. Some selections may be grayed out based on legality rules of the AFCS network.

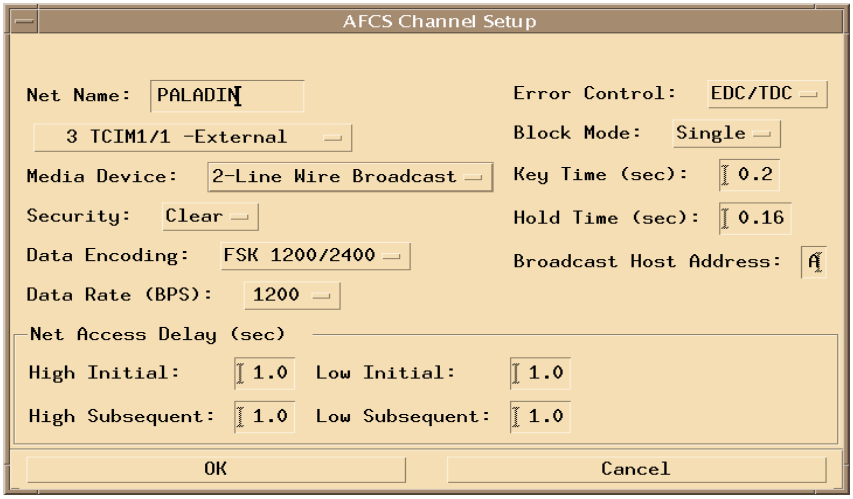


Figure 3-10 AFCS Channel Setup

AFCS Channel Setup Procedure

Net Name - Any name, up to 12 alpha/numeric characters, is valid in this field.
Channel - The channel for this network can either be external or simulated external.
Security - The only option in SISTIM is 'CLEAR'.
Device - Selects different device interfaces on each channel.

Data Encoding - Selects the type of modulation on each channel.
Data Rate - Selects the baud rate on each channel.
Broadcast Host Address - Selects the Tacfire Net Address of the AFCS network for the simulated Paladins on this network.
Key Time - Selects the key time delay value. Legal values are between 0 and 255 representing 0.1 to 25.5 seconds.
Hold Time - This field designates a constant used in calculating a Hold Time. The time after transmission of a message (or receipt of a message if not transmitter) that a device should wait for a control message to be resent.
Net Access Delay - This is the amount of time to delay a transmission after either a Net Busy indication or expiration of a Hold Timer. With this field, it is possible to prioritize the net so that higher priority devices have a shorter Net Access Delay (NAD) than lower priority devices. Its use requires that there be four different values for NAD to insure adequate access to the net.

CHAPTER 4.
BUILDING SISTIM UNITS CONFIGURATION

SECTION 1
AFATDS FDC UNIT CONFIGURATION

Available Units Configuration

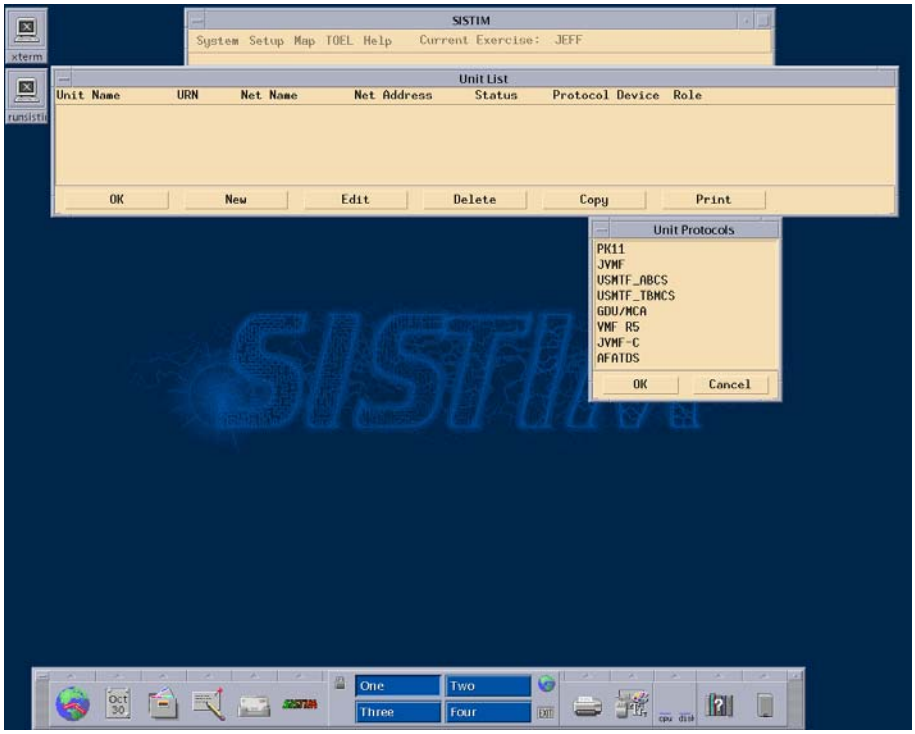


Figure 4-1 Build SISTIM Units Configuration

4-1 Build AFATDS FDC Unit Configuration

This window (Fig 4-1) allows the operator to view or edit the parameters for live and simulated units.

NOTE

SISTIM uses the Unit Reference Number (URN) in the SISTIM database to track all message traffic. The URN for a unit in SISTIM must match the corresponding URN in AFATDS to unsure successful communications

Accessible Windows Unit Protocol Available:

Unit Setup (PK11 Observer)
Unit Setup (PK11 Other)
Unit Setup (PK11 Paladin)
Unit Setup (JVMF Observer)
Unit Setup (JVMF Other)
Unit Setup (USMTF)
Unit Setup (VMF R5-Other) Not used in AFATDS
Unit Setup (JVMF-C Other) Not used in AFATDS

NOTE

Build real AFATDS units first then continue with building of other real units. The last units that will be built are the simulated units. The simulated units need an entry in command HQ. This is used in the scenario to generate targets and communications.

Figure 4-2 Build AFATDS Unit

Build AFATDS Unit Procedure

Unit Name - Any valid unit name up to 64 characters can be entered into this field.
Unit Reference Number - The (VMF) URN is a number between 0 - 16777215. This number is used by AFATDS to identify units and it must be unique within each unit and exercise.
Device - This is a pull-down menu, which enables the operator to choose the type of device. The valid types for an AFATDS are AFATDS.
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Command HQ - By selecting “Select” a window is displayed that allows the operator to set the command unit.
In most, if not all cases AFATDS devices will have a selection of none in the Command HQ.
Fields/Parameters.
In the case of PK11 Paladin and GDU/MCA units they should always have an AFATDS unit assigned as Command HQ.
This window displays a list of the units appropriate for Command HQ.
Set to None - This button will insert “NONE” into the Command HQ field on the Unit Setup window.
OK - This button closes the window and inserts the highlighted unit into the Command HQ field on the previous Unit Setup window.
Location - This is the unit location in the exercise. Any valid (UTM) coordinate is allowed in this field.

NOTE

Location position is not used for fire mission processing, but an entry is required in the Location field

Unit Role - The operator has the option of setting a unit to Simulated (acted by SISTIM) or Real (configured on another device connected to SISTIM).
Status - The operator has the option of setting the status of this unit to either Active or Inactive.

Net/Address Pairs in Use - A list of the Net/Address pairs that are currently in use by this unit
New - Activation of this button displays a Select Net Address Pair (Fig 4-5) (PK11 UDP/220A) that allows the operator to add a new net for this unit.

NOTE

If the operator chooses to add the Net/Address Pairs when the unit is first created the following warning will appear.

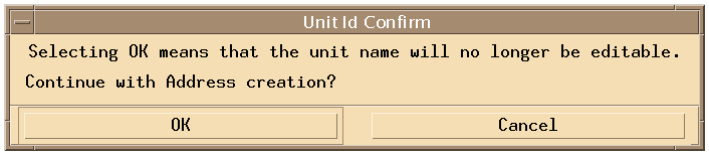


Figure 4-3 Unit ID Confirm

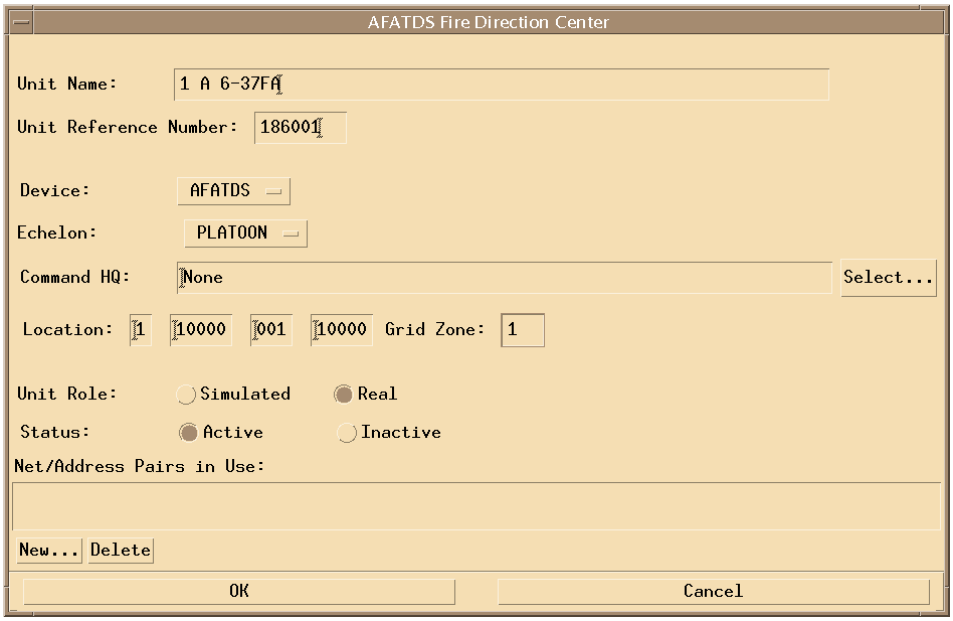


Figure 4-4 Building AFATDS FDC Unit Configuration

NOTE

The operator has the option to add more then one network to any real or simulated unit.

4-1-1. SELECT NET/ADDRESS PAIR (PK11 LAN)

This window (Fig 4-5) allows the operator to select the communications network and the address to be used by this unit. In order to access this window there must be a valid UDP/LAN network in the Network List, and it must be highlighted in the Available Nets field.

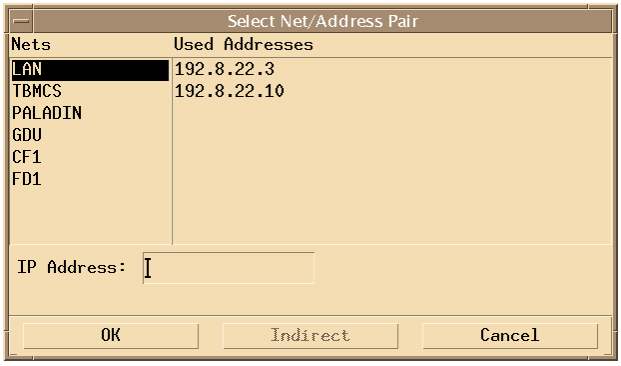


Figure 4-5 SELECT NET/ADDRESS PAIR (PK11 LAN)

Available Nets - A list of nets available for this unit. When a net is selected, the used address list is displayed.
Used Addresses - A list of currently in use net addresses are displayed.

NOTE

In AFATDS to setup a package 11 communications network the AFATDS operator makes the SISTIM unit primary direct on the LAN communications channel. The simulated units on the LAN channel will be setup as primary indirect through the SISTIM unit.

IP Address - This field allows the operator to choose the UDP/LAN address to use for this unit. This must be a unique IP. (For simulated units this address is not used outside of SISTIM, for real units this address should match the IP at that device).

SELECT NET/ADDRESS PAIR (INDIRECT)

This window (Fig 4-5) allows the operator to setup the communications for a REAL unit that is indirectly connected to SISTIM. In order to do this there must be a direct UDPLAN or UDP220 connection to a Real PK11, JVMF, USMTF_ABCS or AFATDS unit, and the desired Indirect Unit must be properly connected to that “router”. All these units should be properly created in the Current SISTIM Exercise. The proper method to enter an Indirect Unit is to choose the Net that the direct unit is connected on from the Available Nets portion of the window, and then select the Unit to communicate indirectly through from the selection window that is displayed. The most common and useful way to utilize the indirect feature is to communicate to multiple AFATDS through one direct AFATDS “router”.

ADDING SELECT NET/ADDRESS PAIR (INDIRECT) Procedure

Available Nets - A list of nets available for this unit. When a net is selected, the used address list is displayed. Select a UDP/LAN or UDP220 type network with a valid real unit connected before you attempt to setup indirect communications.
Used Addresses - A list of currently in use net addresses are displayed.
IP Address - This field allows the operator to choose the address to use for this unit. (This field does not need to be completed, in order to setup indirect communications with a unit the IP is not used).
OK - This button closes the Select Net/Address Pair window and makes any changes effective. In the Unit List window any units that are Indirect will now have an (I) by their IP addresses, and those that are routers will have a (D) by their IP addresses.
Indirect - Selecting this button is the proper method to create an indirect connection. When depressed a window is display that will allow the operator to select the directly connected REAL unit that SISTIM will communicate through.
When the Proper Direct Unit has been chosen simply select OK to continue.
Close This button closes the Select Net/Address Pair window without saving any changes.

NOTE

When an AFATDS unit is used as the routing unit for other AFATDS, it should be noted if the routing unit is deleted communication will be lost with the indirect units. Although if this is attempted the following Warning message will be displayed. If the operator selects “Cancel” the action will be cancelled and the Unit will not be removed. Selecting “Delete” will continue with the deletion.

4-1-2. Adding an USMTFMAIL NET to AFATDS Comms Configuration

This window (Fig 4-6) allows the operator to select the communications network and the address to be used by this unit. In order to access this window there must be a valid USMTFMail network in the Network List and it must be highlighted in the Available Nets field. USMTF_TBMCS Units use USMTFMail communications.

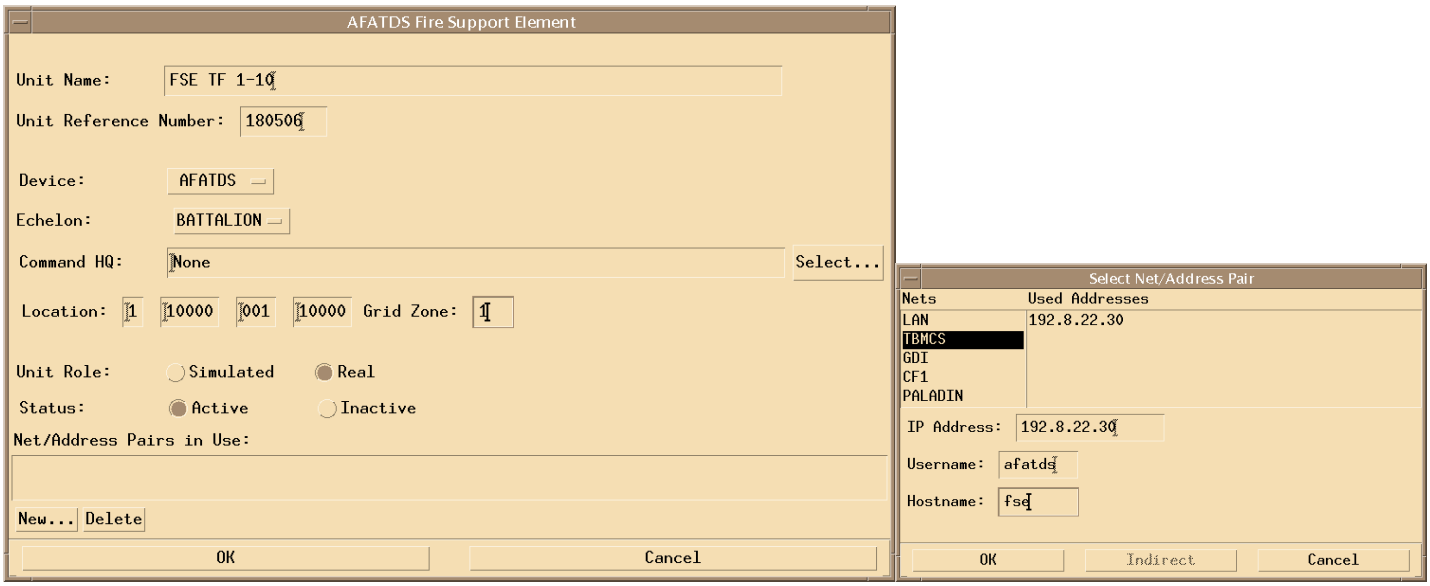


Figure 4-6 Adding an USMTFMAIL NET to AFATDS

Adding USMTFMAIL NET to AFATDS Procedure

Available Nets A list of nets available for this unit. When a net is selected, the used address list is displayed.
Used Addresses - A list of currently in use net addresses are displayed.
IP Address - This field allows the operator to choose the USMTFMail address to use for this unit. This must be a unique IP. (For simulated units this address is not used outside of SISTIM, for real units this address should match the IP at that device. Select an IP that has not been used.
Username - This field is the user name used by AFATDS for this unit (afatds).
Hostname - This field is the host name used by AFATDS for this unit. This entry is found on the AFATDS system. Edit the LAN Network that the TBMCS is communicating on and enter the Hostname into the Net address pair Hostname in SISTIM.

4-1-3. Adding a GDU/MCA Net to AFATDS Comms Configuration

Select the AFATDS as a HQ Unit and select OK.

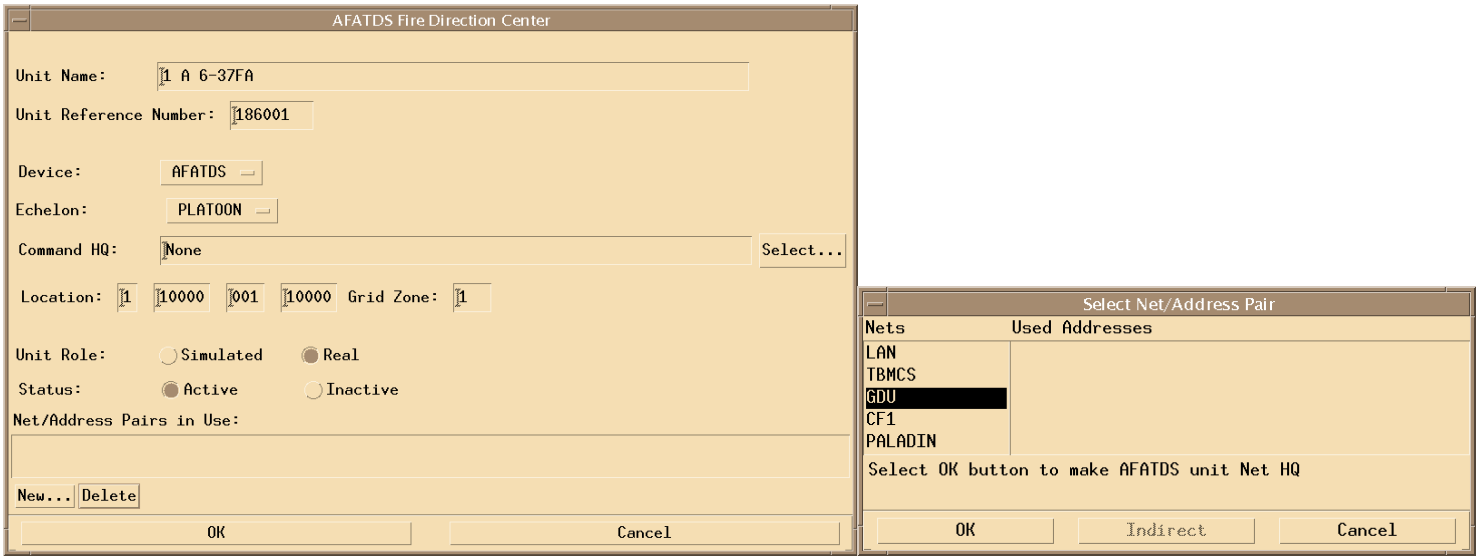


Figure 4-7 Adding a GDU/MCA net to AFATDS Comms Configuration

4-1-4. Adding a AFCS net to AFATDS Comms Configuration

Select the AFCS Subscriber address of the AFATDS system and select OK

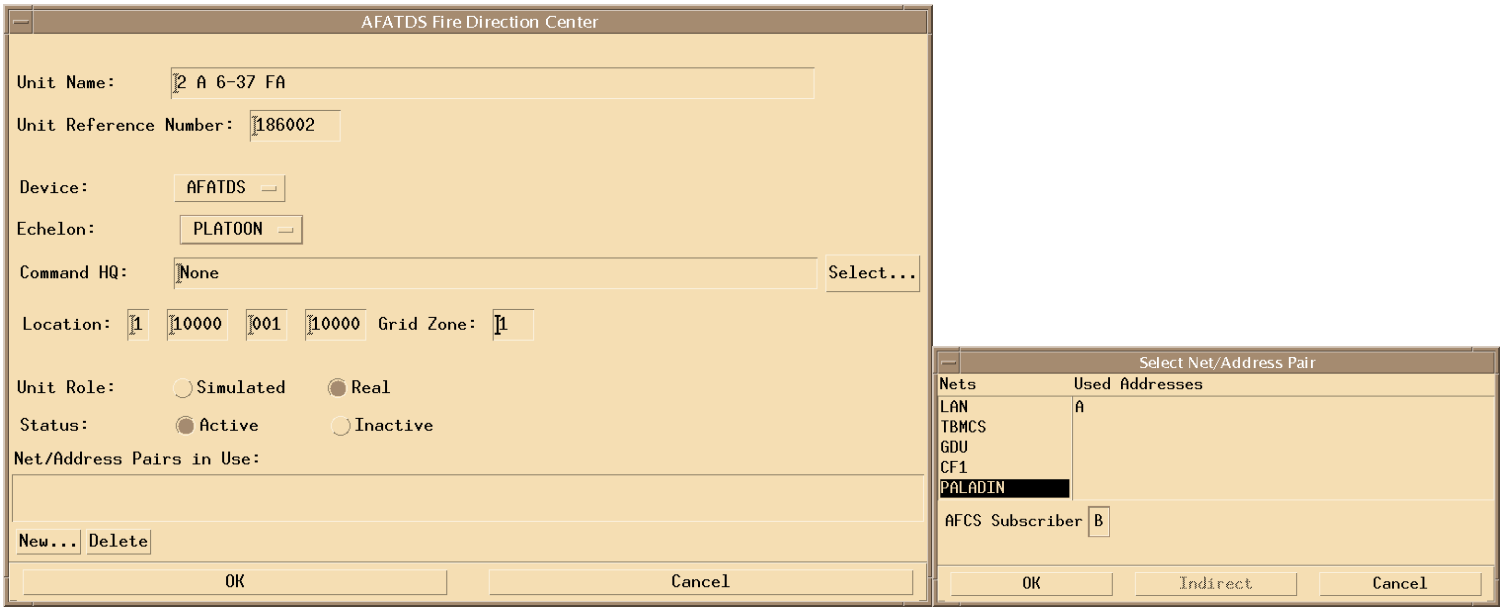


Figure 4-8 Adding an AFCS net to AFATDS Comms Configuration

4-1-5 Adding a UDPLAN net to AFATDS Comms Configuration

This window allows the operator to select the communications network and the address to be used by this unit. In order to access this window there must be a valid UDPLAN network in the Network List.
IP Address - This field allows the operator to choose the UDPLAN address to use for this unit. This must be a unique IP.

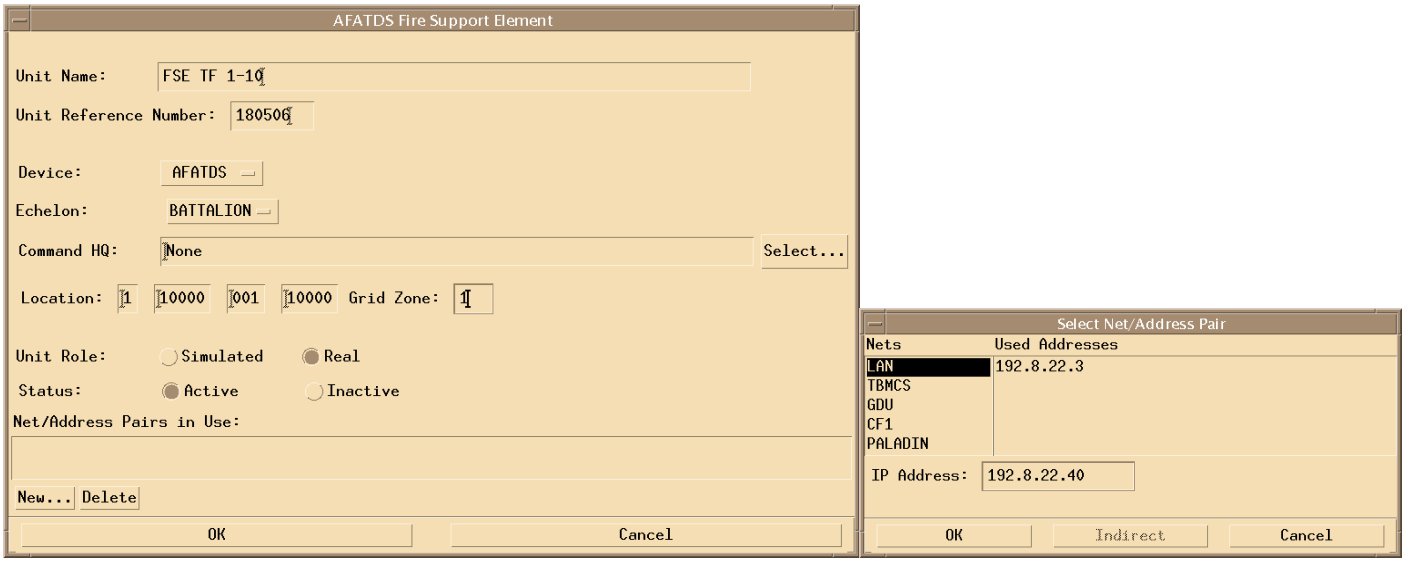


Figure 4-9 Adding an UDPLAN net to AFATDS Comms Configuration

SECTION 2
AFATDS FSE UNIT CONFIGURATION

This window (Fig 4-10) allows the operator to view or edit the parameters for live and simulated units.

NOTE

Build real AFATDS units first then continue with building of other real units. The last units that will be built are the simulated units. The reason for this is when a unit is built in SISTIM the command support of a unit is established.

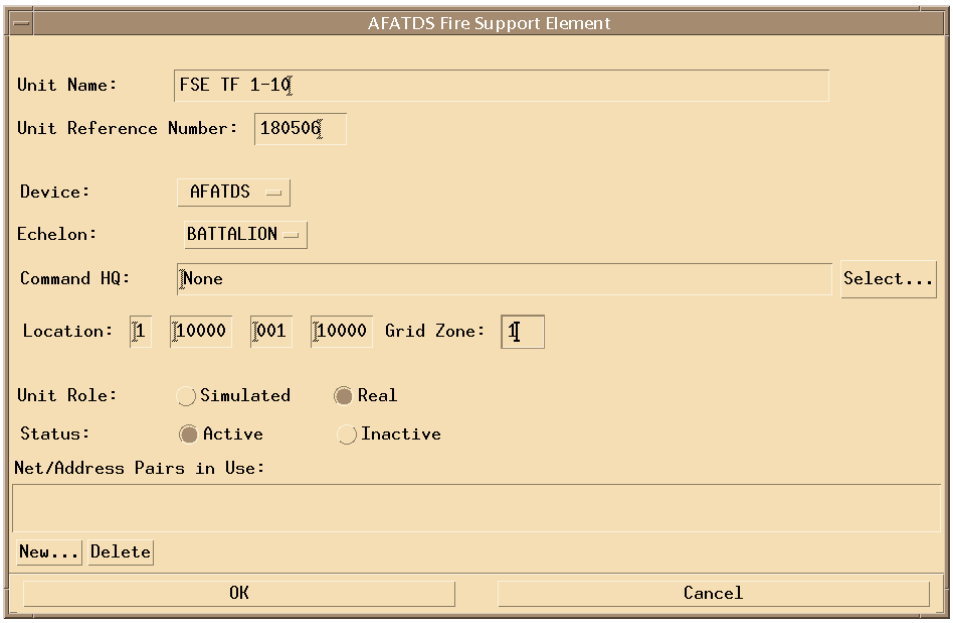


Figure 4-10 Build AFATDS FSE Unit Configuration

Build AFATDS FSE Unit Configuration Procedure

Unit Name - Any valid unit name up to 64 characters can be entered into this field.
Unit Reference Number - The (VMF) URN is a number between 0 - 16777215. This number is used by AFATDS to identify units and it must be unique.
Device - This is a pull-down menu, which enables the operator to choose the type of device
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Command HQ - By selecting "Select" a window is displayed that allows the operator to set the command unit.
In most, if not all cases AFATDS will have a selection of None in the Command HQ.
Fields/Parameters.
In the case of PK11 Paladin and GDU/MCA units they should always have an AFATDS unit assigned as Command HQ. This window displays a list of the units appropriate for Command HQ.
Set to None - This button will insert "NONE" into the Command HQ field on the Unit Setup window.
OK - This button closes the window and inserts the highlighted unit into the Command HQ field on the previous Unit Setup window.
Location - This is the unit location in the exercise. Any valid (UTM) coordinate is allowed in this field.

NOTE

Location position is not used for fire mission processing, but an entry is required in the Location field. This entry does not need to be within the current map mode.

Unit Role - The operator has the option of setting a unit to Simulated (acted by SISTIM) or Real (configured on another machine connected to SISTIM).
Status - The operator has the option of setting the status of this unit to either Active or Inactive.
Note: The operator has the option to add more than one network to any real or simulated unit.
Net/Address Pairs in Use - A list of the Net/Address pairs that are currently in use by this unit
New - Activation of this button displays a Select Net Address Pair (PK11 UDP/220A) that allows the operator to add a new net for this unit.

IP Address - This field allows the operator to choose the UDPLAN address to use for this unit. This must be a unique IP.

4-1-6. Adding an UDP220 net to AFATDS Comms Configuration

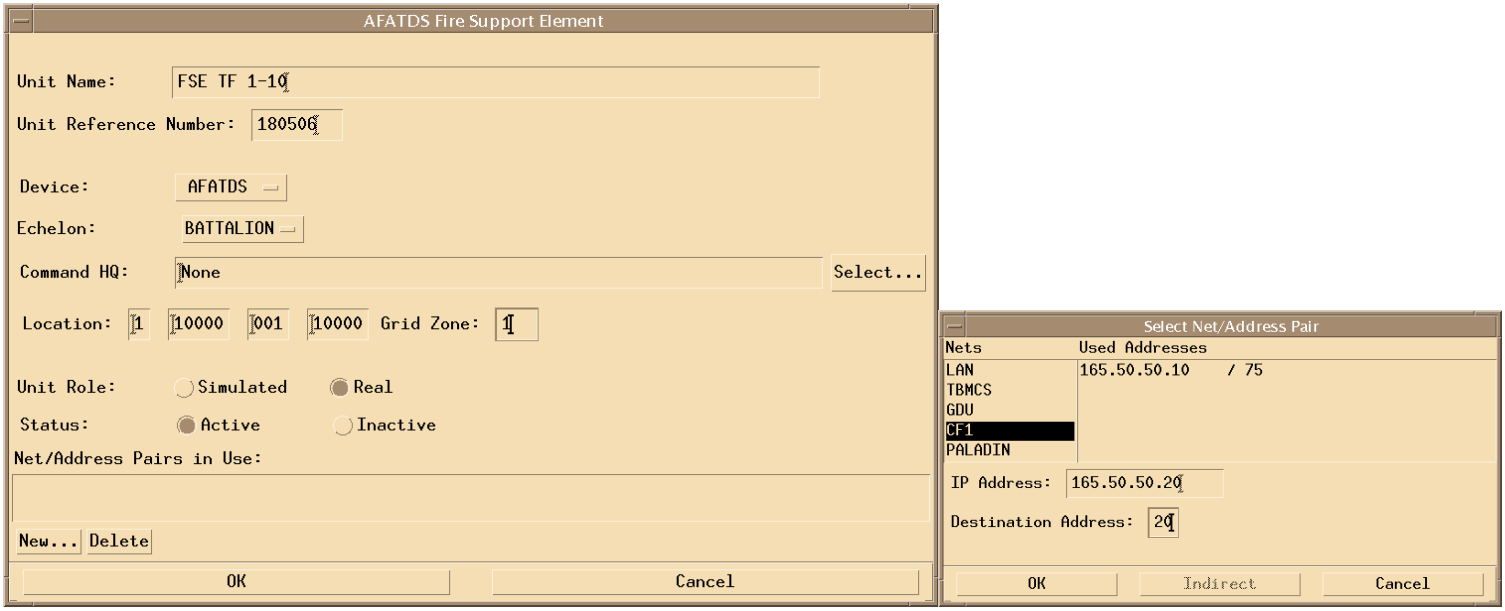


Figure 4-11 Adding an UDP220 net to AFATDS Comms Configuration

SECTION 3
BUILDING SIMULATED UNIT CONFIGURATION

4-2. Building Package 11 Forward Observer System Unit Configuration select PK11

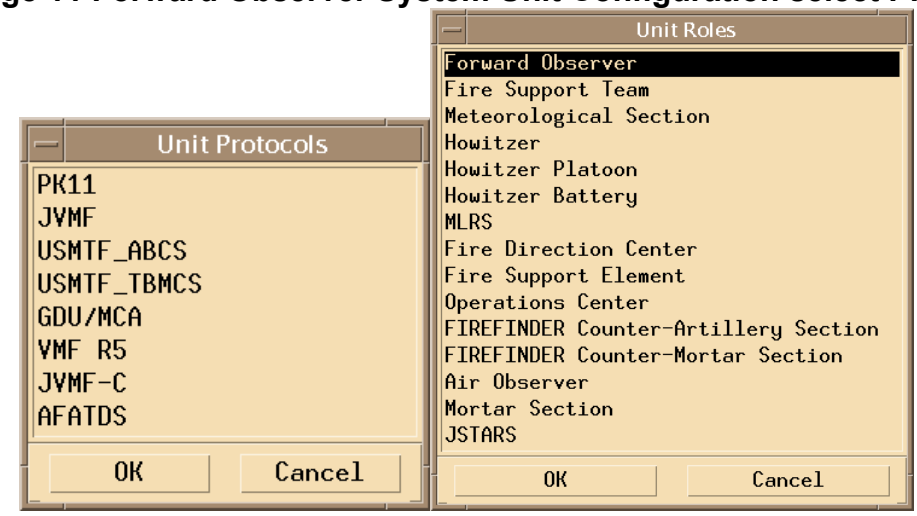


Figure 4-12 Building Package 11 FOS Unit Configuration select PK11

4-2-1. Building Package 11 FOS Unit Configuration

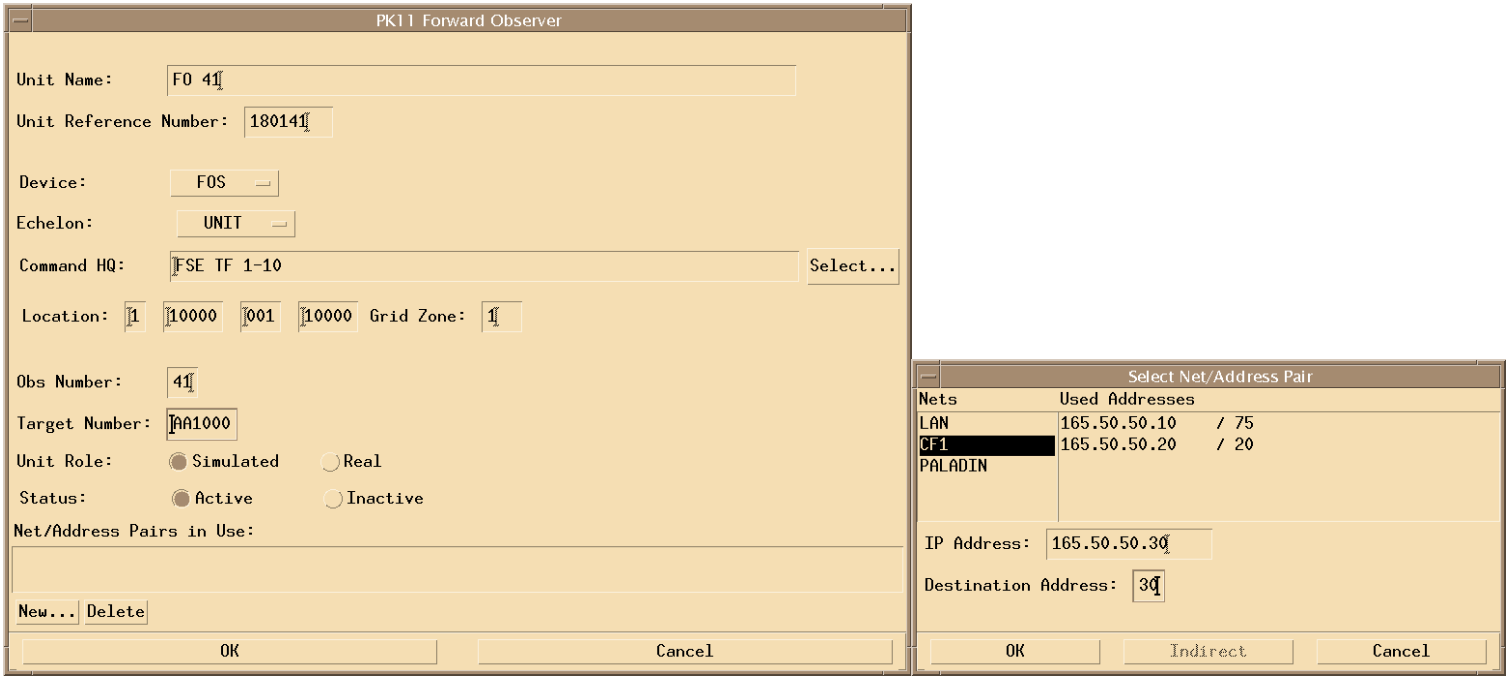


Figure 4-13 Build Package 11 FOS Unit Configuration

Build Package 11 FOS Unit Configuration Procedure (Fig 4-12, 4-13, 4-14)

Unit Name - Any valid unit name up to 64 characters can be entered into this field.
Unit Reference Number - The (VMF) URN is a number between 0 - 16777215. This number is used by AFATDS to identify units.
Device - This is a pull-down menu, which enables the operator to choose the type of device
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Command HQ - By selecting “Select” a window is displayed that allows the operator to input the command unit. (Command unit is one of the previously entered AFATDS units)
In the case of PK11 Paladin and GDU/MCA units they should always have an AFATDS unit assigned as Command HQ. This window displays a list of the units appropriate for Command HQ.
Set to None - This button will insert “NONE” into the Command HQ field on the Unit Setup window.
OK - This button closes the window and inserts the highlighted unit into the Command HQ field on the previous Unit Setup window.
Location - This is the location in the exercise at which the unit is located. Any valid (UTM) coordinate is allowed in this field.

NOTE

Location position is not used for fire mission processing, but an entry is required in the Location field. This entry does not need to be within the current map mod.

Obs Number - The observer number must be an integer between 01 and 99. This number must be unique for each observer.

Target Number - Any valid target number can be entered into this field. The format is “AANNNN”, A = Alpha and N = Numeric. Must be unique for each Observer.
Unit Role the operator has the option of setting a unit to Simulated (acted by SISTIM) or Real (configured on another machine connected to SISTIM).
Status - The operator has the option of setting the status of this unit to either Active or Inactive.
Note: The operator has the option to add more the one network to any real or simulated unit.
Net/Address Pairs in Use - A list of the Net/Address pairs that are currently in use by this unit
New - Activation of this button displays a Select Net Address Pair (PK11 UDP/220A) that allows the operator to add a new net for this unit.

NOTE

If the operator chooses to add the Net/Address Pairs when the unit is first created the following warning will appear IP Address - This field allows the operator to choose the UDPLAN address to use for this unit. This must be a unique IP.

4-2-2. Edit Device Package 11 FOS Unit Configuration

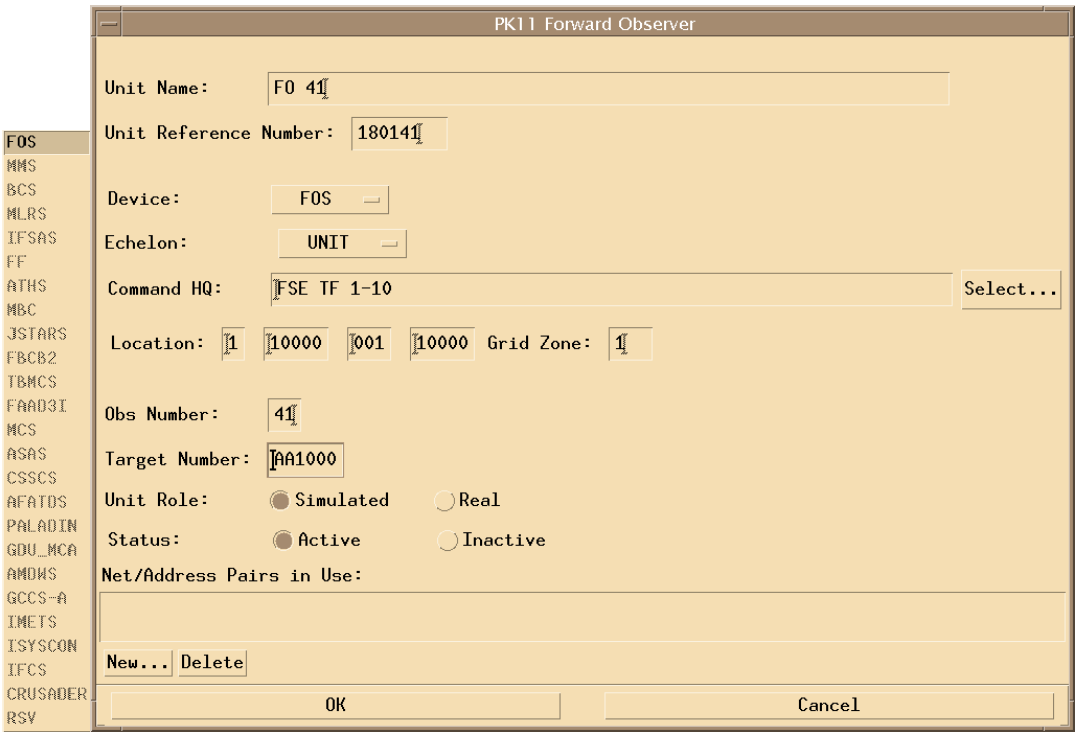


Figure 4-74 Edit Device Package 11 FOS Unit Configuration

4-3. Build Package 11 FireFinder Unit Configuration

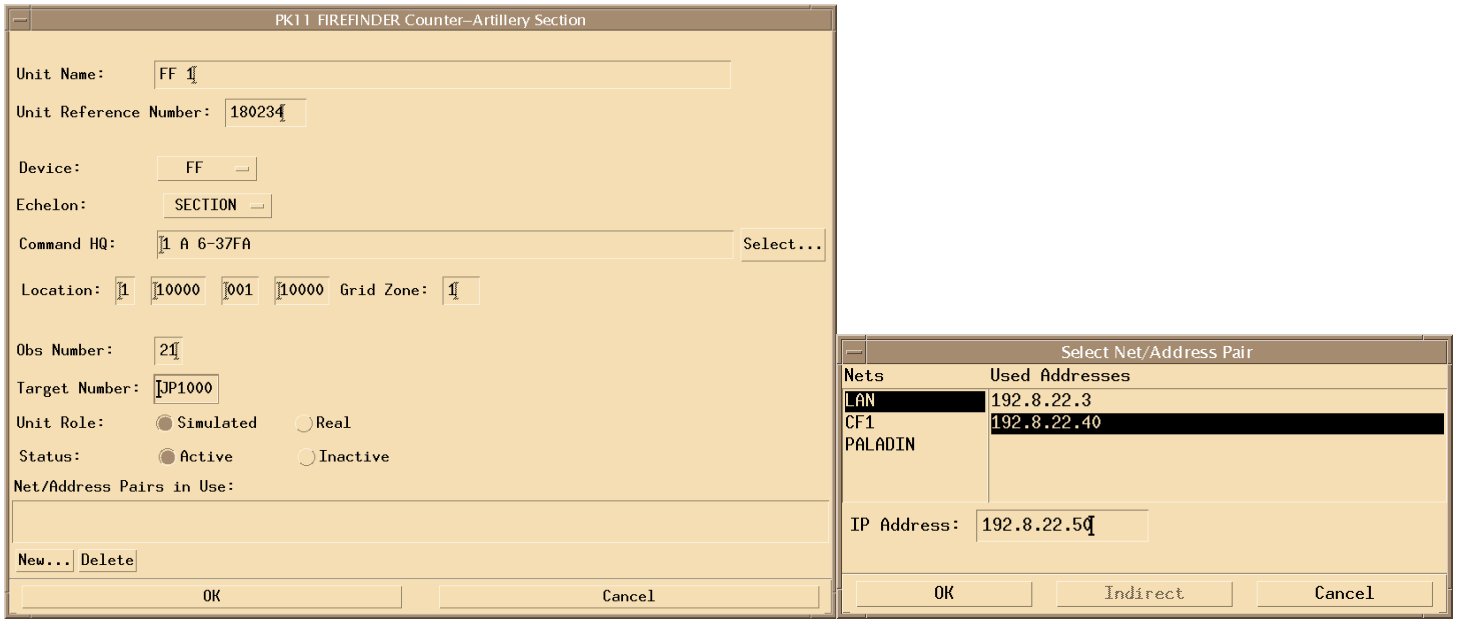


Figure 4-15 Build Package 11 FF Unit Configuration

Build Package 11 FF Unit Configuration Procedure (Fig 4-15)

Unit Name - Any valid unit name up to 64 characters can be entered into this field.
Unit Reference Number - The (VMF) URN is a number between 0 - 16777215. This number is used by AFATDS to identify units.
Device - This is a pull-down menu, which enables the operator to choose the type of device. The valid types for AFATDS are AFATDS.
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Command HQ - By selecting "Select" a window is displayed that allows the operator to input the command unit. In the case of PK11 Paladin, FOS, FF etc… and GDU/MCA units they should always have an AFATDS unit assigned as Command HQ.
This window displays a list of the units appropriate for Command HQ.
Set to None - This button will insert "NONE" into the Command HQ field on the Unit Setup window.
OK - This button closes the window and inserts the highlighted unit into the Command HQ field on the previous Unit Setup window.
Location - This is the unit location in the exercise. Any valid (UTM) coordinate is allowed in this field.

NOTE

Location position is not used for fire mission processing, but an entry is required in the Location field.

Obs Number - The observer number must be an integer between 01 and 99. This number must be unique for each observer.

Target Number - Any valid target number can be entered into this field. The format is “AANNNN”, A = Alpha and N = Numeric. Must be unique for each observer.
Unit Role - The operator has the option of setting a unit to Simulated (acted by SISTIM) or Real (configured on another machine connected to SISTIM).
Status - The operator has the option of setting the status of this unit to either Active or Inactive.
Note: The operator has the option to add more the one network to any real or simulated unit.
Net/Address Pairs in Use - A list of the Net/Address pairs that are currently in use by this unit.

4-4. Build Package 11 Paladin Unit Configuration

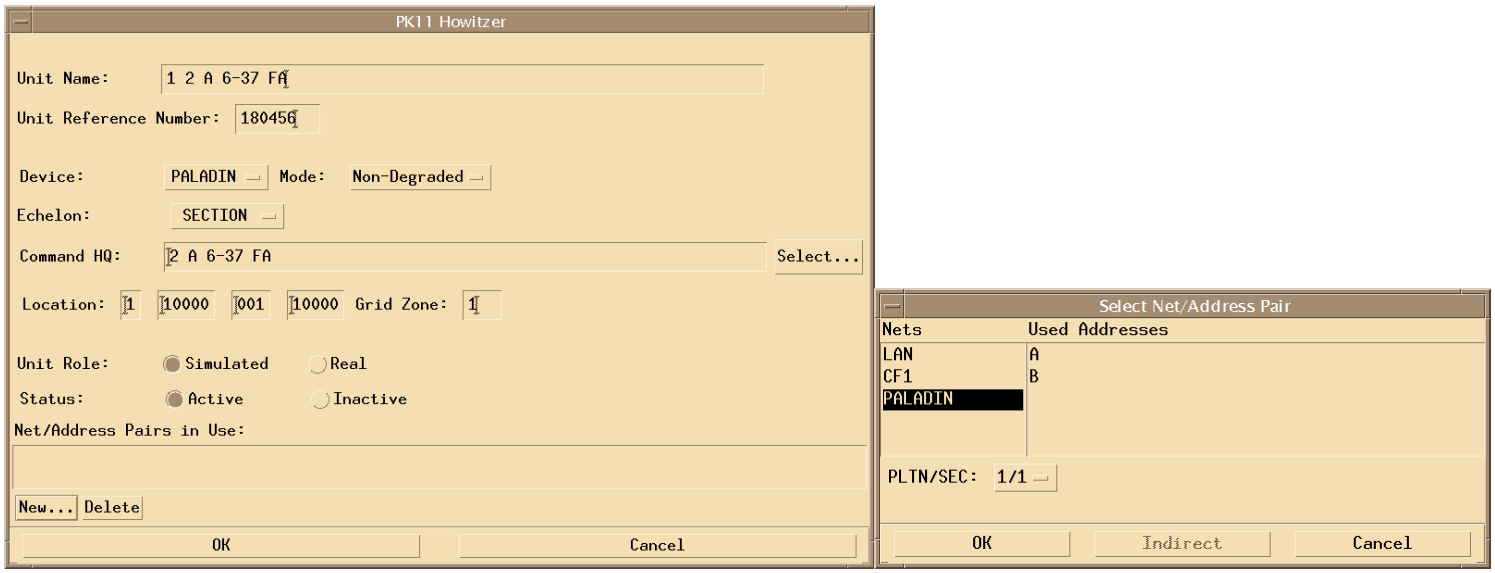


Figure 4-16 Build Package 11 Paladin Unit Configuration

Build Package 11 Paladin Unit Configuration Procedure (Fig 4-16)

Unit Name - Any valid unit name can be entered into this field up to 64 characters.

NOTE

SISTIM uses the Unit Reference Number (URN) in the SISTIM database to track all message traffic. The URN in AFATDS is the VMF Unit Reference Number. In AFATDS the AFATDS Unit Number could be the same as the VMF URN but if doubtful edit the unit from the MUL to make sure that VMF URN is correct. If the URN is not correct failure to communicate is the outcome. The only acceptation is with the Gun Display Unit (GDU) it can use any URN.

Unit Reference Number - The URN is a number between 0 - 16777215. This number is used by AFATDS to identify units and it must be unique within each exercise.
Device - This is a pull-down menu, which enables the operator to choose the type of device. The only valid type to create a PK11 Paladin is Paladin.
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Mode - This is a pull down menu, which enables the operator to choose the current Paladin unit’s mode. Selecting Non-Degraded means the current paladin is simulating a Paladin unit with its ballistics computer enabled. Degraded mode Paladins are ones that are operating without their ballistics computer. The AFATDS must be set the same as SISTIM. NON-DEGRADED or DEGRADED otherwise they will not talk.

(All Package 11 units that are simulated must have a Command HQ established. For the Paladin unit the Command HQ is used to send Ready, Shot, Splash and Rounds Complete to the real AFATDS that was specified in the Command HQ.)
Command HQ - By selecting “Select” a window is displayed that allows the operator to set the command unit.

NOTE

Location position is not used for fire mission processing, but an entry is required in the Location field.

Location - This is the location in the exercise at which the unit is located. Any valid (UTM) coordinate is allowed in this field.
Net/Address Pairs in Use - A list of the Net/Address pairs that are currently in use by this unit.

NOTE

Name the Paladin’s Gun 1 through Gun 8 in sequential order. If there is only six guns (two platoons) in your firing unit, name them Gun 1 through Gun 3 and omit Gun 4 and name the remaining Guns five through seven.

New - Activation of this button displays a window Select Net/Address Pair (AFCS) that allows the operator to add a new net for this unit.
Available Nets - A list of nets available for this unit. When a net is selected, the used address list is displayed.
Used Addresses - A list of currently in use net addresses are displayed.
Paladin Gun Address or AFCS Subscriber - This field allows the operator to choose the AFCS address to use for this unit. Paladin Gun Address represented on the top screen of this section should be a unique single numerical value representing the gun address of that unit on the AFCS net. The Paladin Gun Address field appears for PK11 Paladin units only. AFATDS units to represent their Tacfire address on the AFCS net use the AFCS Subscriber field, represented on the bottom screen of this section.

4-5. Build GDU/MCA Unit Configuration

This window (Fig 4-17) allows the operator to setup a GDU/MCA type unit in the current exercise. (To create a valid GDU unit the operator should choose Howitzer from the Unit Role Available window.)

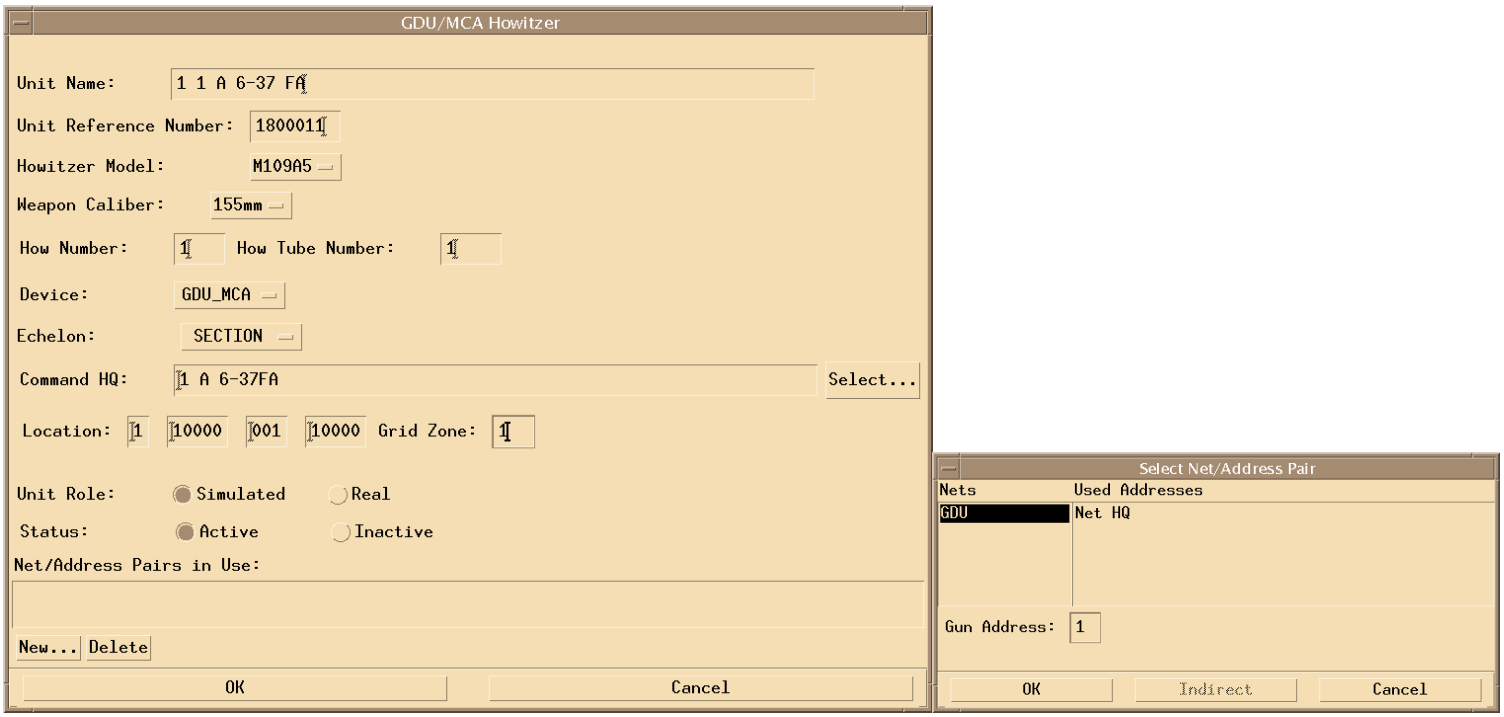


Figure 4-87 Build GDU/MCA Unit Configuration

Build GDU/MCA Unit Configuration Procedure

Unit Name - Any valid unit name can be entered into this field up to 64 characters
Unit Reference Number - The (VMF) URN is a number between 0 - 16777215. This number is used by AFATDS to identify units and it must be unique within each exercise.
Howitzer Model - This is a pull down menu, which allows the operator to choose the type of Weapon associated with this weapon.
Weapon Caliber - This displays the weapon caliber associated with the howitzer model chosen in the previous selection. (This is not an editable field, it is chosen automatically when a Howitzer Model is chosen).
How Number - This displays the Howitzer number for this unit.
How Tube Number - This displays the Tube number for this unit.
Device - This is a pull-down menu, which enables the operator to choose the type of device. The valid type for GDU/MCA is GDU_MCA.
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Command HQ - By selecting “Select” a window is displayed that allows the operator to set the command unit. GDU units that are simulated must have a Command HQ established. For the GDU unit the Command HQ is used to send Ready, Shot, Splash and Rounds Complete to the real AFATDS that was specified in the Command HQ.
Location - This is the location in the exercise at which the unit is located. Any valid (UTM) coordinate is allowed in this field. The Location field is not used for any Fire Mission computations.
Assign Simulated units to a comm channel.

4-6. Build USMTF TBMCS Unit Configuration

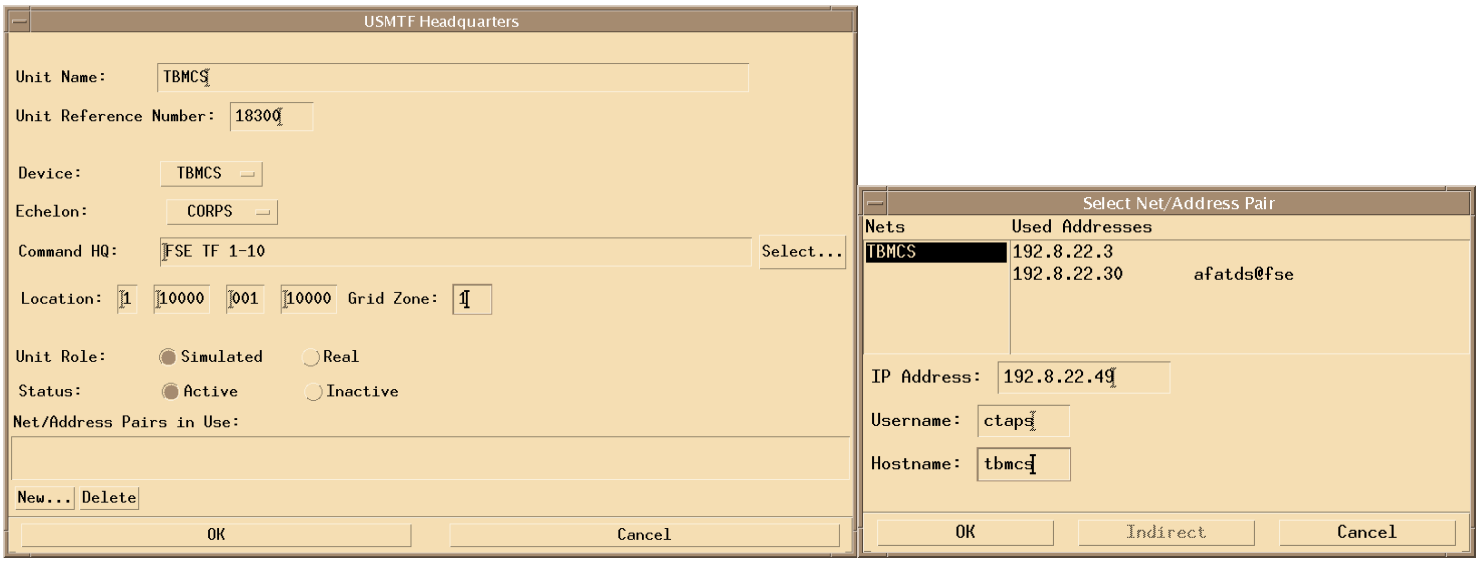


Figure 4-18 Build USMTF TBMCS Unit Configuration

Build USMTF TBMCS Unit Configuration Procedure (Fig 4-18)

Unit Name - Any valid unit name can be entered into this field up to 64 characters.
Unit Reference Number - The (VMF) URN is a number between 0 - 16777215. This number is used by AFATDS to identify units and it must be unique within each exercise.
Device - This is a pull-down menu, which enables the operator to choose the type of device. The valid types for TBMCS is TBMCS.
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Command HQ - By selecting “Select” a window is displayed that allows the operator to set the command unit.
Location - This is the location in the exercise at which the unit is located. Any valid (UTM) coordinate is allowed in this field.
This window allows the operator to select the communications network and the address to be used by this unit. In order to access this window there must be a valid USMTFMail network in the Network List and it must be highlighted in the Available Nets field. USMTF_TBMCS Units use USMTFMail communications.
Available Nets - A list of nets available for this unit. When a net is selected, the used address list is displayed.
Used Addresses - A list of currently in use net addresses are displayed.
IP Address - This field allows the operator to choose the USMTFMail address to use for this unit. This must be a unique IP. (For simulated units this address is not used outside of SISTIM, for real units this address should match the IP at that device.)
Username - This field is the user name used by CTAPS for this unit.
Hostname - This field is the host name used by TBMCS for this unit.

4-7. Build USMTF ABCS Unit Configuration

Figure 4-99 Build USMTF ABCS Unit Configuration

Build USMTF ABCS Unit Configuration Procedure (Fig 4-19)

Unit Name - Any valid unit name can be entered into this field up to 64 characters.
Unit Reference Number - The (VMF) URN is a number between 0 - 16777215. This number is used by AFATDS to identify units and it must be unique within each exercise.
Device - This is a pull-down menu, which enables the operator to choose the type of device. The valid types for UAMTF are ASAS, MCS, FAAD31, AMDWS, IMETS, ISYSCON, GCCS-A, CSSCS.
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Command HQ - By selecting “Select” a window is displayed that allows the operator to set the command unit. The error No Net means that the Command HQ was not filled in.
Location - This is the location in the exercise at which the unit is located. Any valid (UTM) coordinate is allowed in this field.
IP Address - This field allows the operator to choose the UDPLAN address to use for this unit. This must be a unique IP.

4-8. Edit Device JVMF Unit Configuration (Fig 4-20)

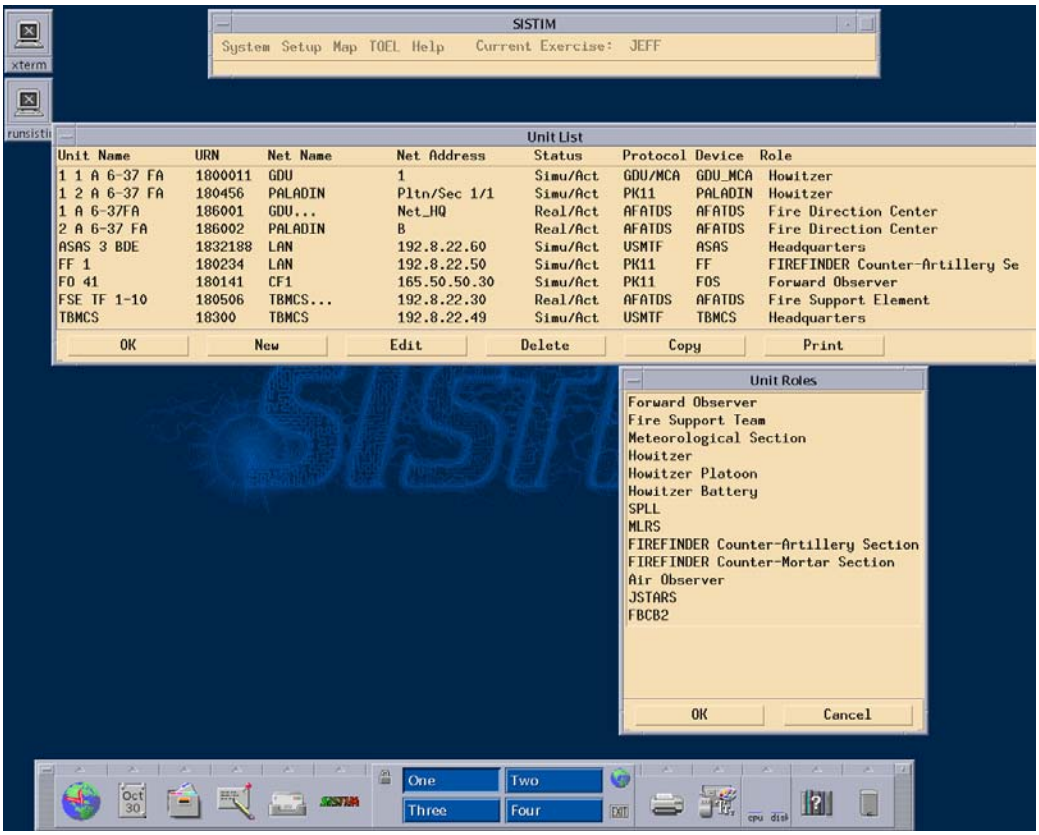


Figure 4-20 Edit Device JVMF Unit Configuration

4-9. Build JVMF IFCS UNIT SETUP (SPLL) Configuration

This window (Fig 4-21) allows the operator to setup a JVMF SPLL type unit in the current exercise.

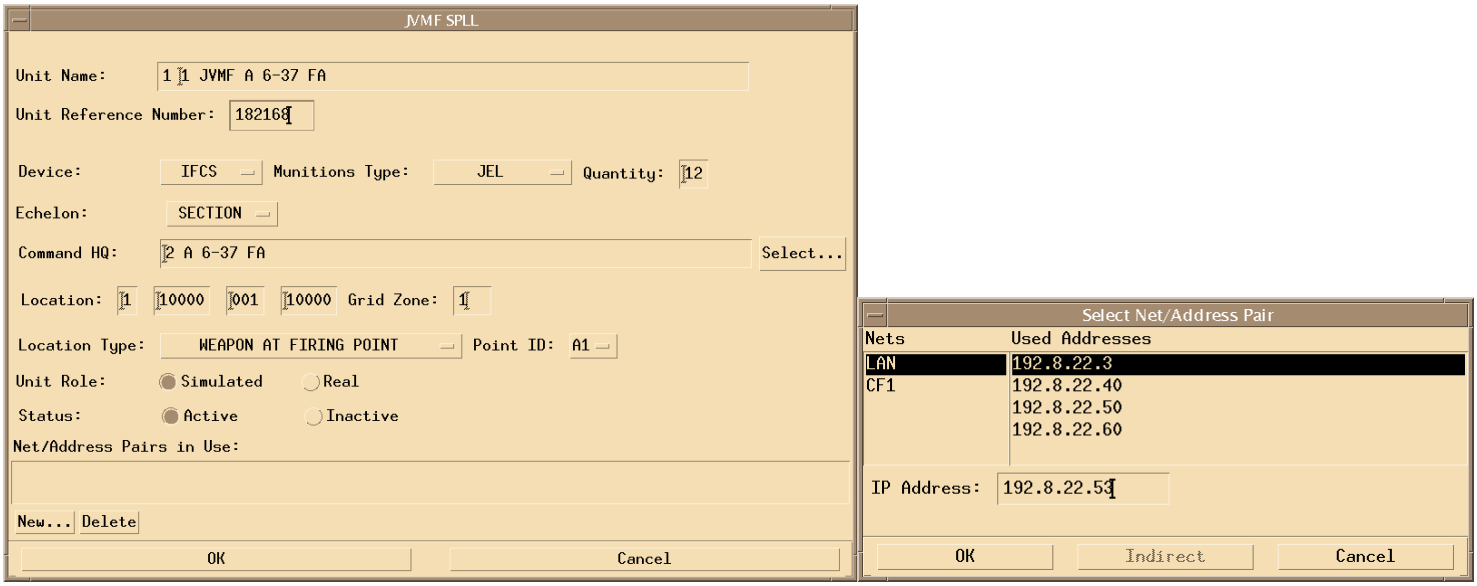


Figure 4-21 Build JVMF IFCS Unit Configuration

Build JVMF IFCS Unit SPLL Configuration Procedure (Fig 4-21)

Unit Name - any valid unit name can be entered into this field up to 64 characters.
Unit Reference Number - the (VMF) URN is a number between 0 – 16777215. This number is used by AFATDS to identify units and it must be unique within each exercise.
Device - a pull-down menu, which enables the operator to choose what type of device to select a device type. The valid type for JVMF SPLL is IFCS.
Munitions - Type a pull-down menu, which enables the operator to choose the munitions type. The valid types for JVMF SPLL are: JEG, JEH, JEJ, JEK, JEM, JED, JEE, JEP, JEQ, JER, JML, JTA, JTB, JTD, JTE, JTF, JMT, JTC, JTG, JTH, JTJ, JTK, JTL, JTW, JTM, JEN, JMU, JEL, JNB, JSA, YMGM157B.
Quantity- any valid quantity can be entered into this field up to 2 digits. For Munitions Types JEE,JEJ,JEN,JTC,JTQ, or JTH the maximum is 2 rockets. For all other munitions types, the maximum is 12. SISTIM should start out with the same munitions as AFATDS, if not the first mission sent to the IFCS would likely fail.
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Command HQ - selecting "Select" a window is displayed that allows the operator to set the command unit
Location - the location of the unit in the exercise at which the unit is located. Any valid (UTM) coordinate is allowed in this field.
Location Type - a pull-down menu, which enables the operator to choose the current location type of the JVMF SPLL unit. The valid types are: WEAPON AT FIRING POINT, REARM POINT, RENDEZVOUS POINT, SURVEY CONTROL POINT, WEAPON HIDE POINT, POINT SPECIFIED BY COORDINATES, MOVE POINT, PLATOON CENTER.

NOTE

The first time AFATDS sends a Launcher Order with a new location to the simulated launcher unit, SISTIM will update the unit data to that new location.

Point ID - a pull-down menu, which enable the operator to choose the Point ID of the current location type for the JVMF SPLL unit. The valid Point ID's are: A1 – A9, B1 – B9, C1 – C9.
Unit Role - the operator has the option of setting a unit to Simulated (acted by SISTIM) or Real (configured on another machine connected to SISTIM).
Status - the operator has the option of setting the status of this unit to either Active or Inactive.
Net/Address Pairs in Use - is a list of the Net/Address pairs that are currently in use by this unit.
New activation of this button displays a window Select Net/Address Pair (JVMF LAN)) that allows the operator to add a new net for this unit. (Note: A JVMF unit may also be placed on a UDP 220 net similar to a PK11 Unit Select Net/Address Pair (PK11 UDP/220A).

4-10. Build JVMF or Package 11 FDS Unit Configuration

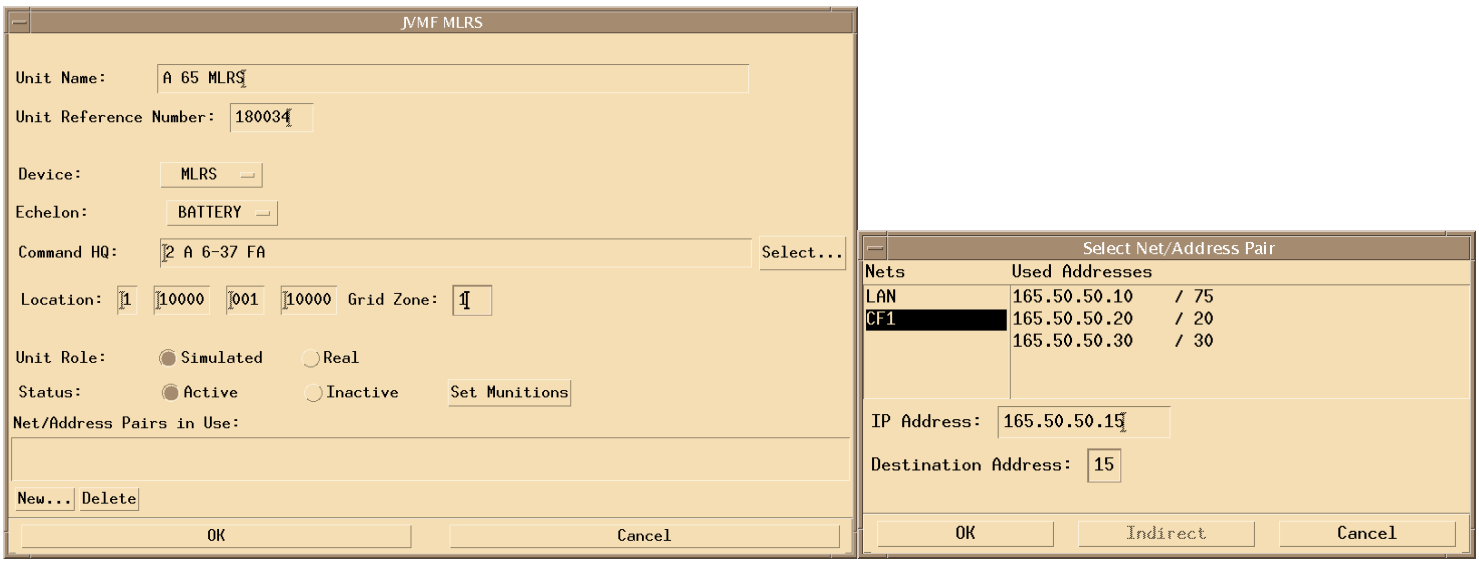


Figure 4-22 Build JVMF or Package 11 FDS Unit Configuration

Build JVMF or Package 11 FDS Unit Configuration Procedure (Fig 4-22)

Unit Name is any valid unit name can be entered into this field up to 64 characters.
Unit Reference Number is the (VMF) URN is a number between 0 - 16777215. This number is used by AFATDS to identify units and it must be unique within each exercise.
Device is a pull-down menu, which enables the operator to choose the type of device. The valid types for FDS is MLRS.
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Command HQ selecting "Select" a window is displayed that allows the operator to set the command unit.
Location is the location in the exercise at which the unit is located. Any valid (UTM) coordinate is allowed in this field.
IP Address this field allows the operator to choose the UDPLAN address to use for this unit. This must be a unique IP.

4-10.1 Set munitions in JVMF or Package 11 FDS Unit Configuration

This window (Fig 4-23) allows the operator to select the MLRS Rocket munitions to be sent to AFATDS from the FDS, in the OPSTAT message. This is a one-time entry. After each Fire mission SISTIM will report back with whatever the operator selects.

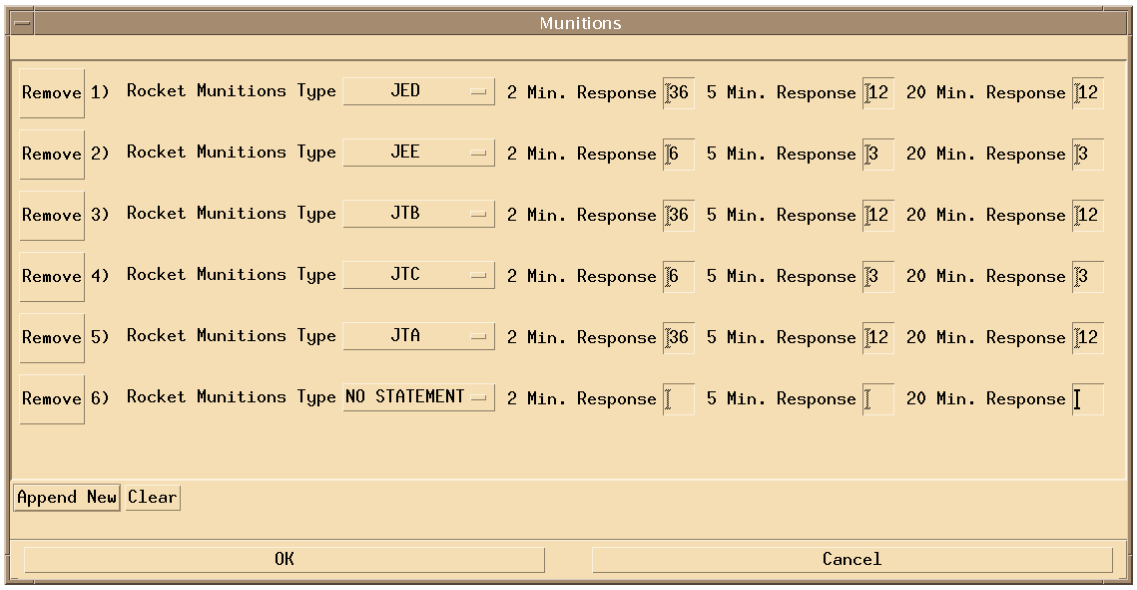


Figure 4-23 Set munitions in FDS

4-11. Build JVMF FBCB2 (Future XXI Battle Command Brigade and Below) Unit Configuration

This window (Fig 4-24) allows the operator to setup a JVMF FBCB2 type unit in the current exercise. FBCB2's will not automatically generate messages from the scenario generator. There is a work around for this, select one of the JVMF messages, Edit the message and change the originator to be the selected FBCB2. The message is now ready to be transmitted out Multicast over the LAN.

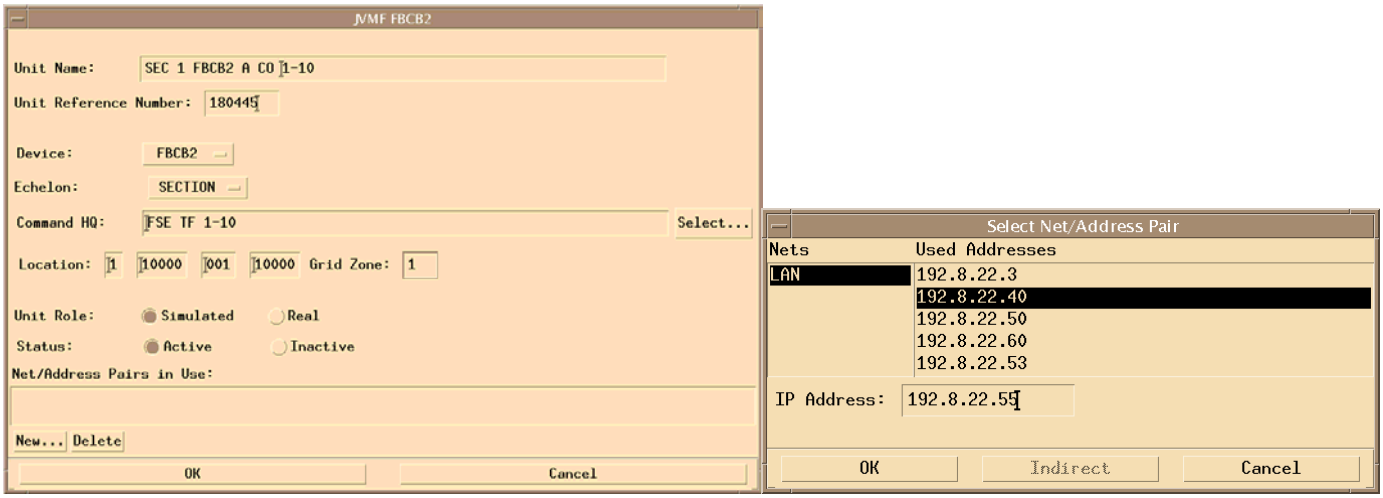


Figure 4-104 Build JVMF FBCB2 Unit Configuration

Build JVMF FBCB2 Unit Configuration Procedure

Unit Name is any valid unit name can be entered into this field up to 64 characters.
Unit Reference Number is the (VMF) URN is a number between 0 - 16777215. This number is used by AFATDS to identify units and it must be unique within each exercise.
Device is a pull-down menu, which enables the operator to choose the type of device. The valid type for JVMF is FBCB2.
Echelon - This is a pull down menu, which enable the operator to choose the echelon of the device. The valid echelons are Unit, Section, Platoon, Battery, Company, Battalion, Brigade, Division, and Corps. The Echelon that was selected will be displayed on the Map window with the proper echelon displayed.
Command HQ selecting "Select" a window is displayed that allows the operator to set the command unit.
Location is the location in the exercise at which the unit is located. Any valid (UTM) coordinate is allowed in this field.
Unit Role - The operator has the option of setting a unit to Simulated (acted by SISTIM) or Real (configured on another machine connected to SISTIM).
Status - The operator has the option of setting the status of this unit to either Active or Inactive.
Note: The operator has the option to add more the one network to any real or simulated unit.
IP Address this field allows the operator to choose the UDPLAN address to use for this unit. This must be a unique IP.

CHAPTER 5.
ESTABLISH AFATDS UNITS CONFIGURATION

SECTION 1
BUILD A UNITS IN AFATDS

5-1. Build a SISTIM unit in AFATDS

The SISTIM units (Fig 5-1) will be created as Package 11 units. Name the Unit SISTIM, SISTIM1 or SISTIM2 to that effect. The AFATDS only has one SISTIM unit per network. For each communications network that AFATDS and SISTIM are interfacing over the AFATDS operator must enter a different SISTIM unit on each of the nets. For the AFCS and GDU/MCA nets there is no need for a SISTIM unit. The VMF URN must be unique for each SISTIM device. The SISTIM software simulator does not track the SISTIM URN's

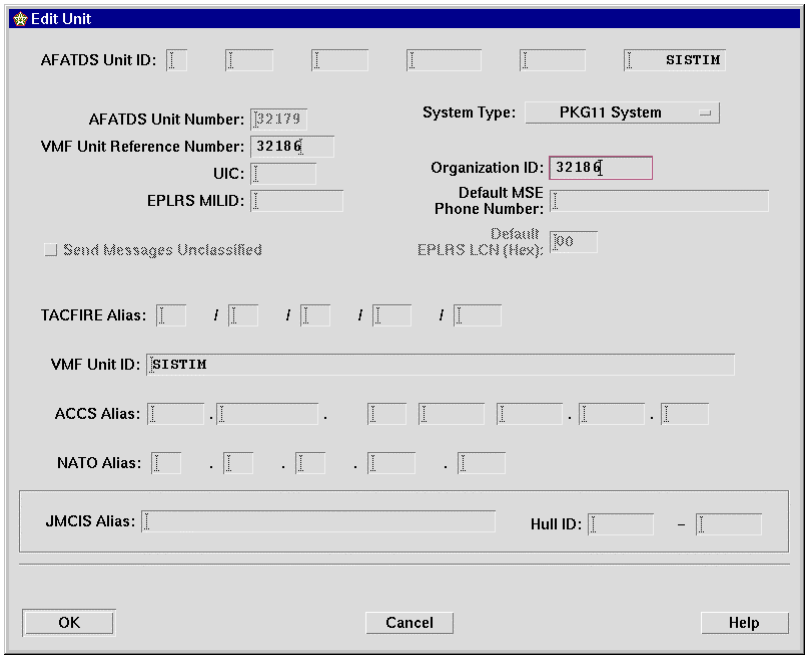


Figure 5-1 Build a SISTIM unit in AFATDS

Build a SISTIM unit in AFATDS Procedure

Click System / Administration / Master Unit List. This displays the Master Unit List window. Click the New Button to display the Edit Unit window.
AFATDS UNIT ID: is any valid unit name can be entered into this field up to 64 characters.
SYSTEM TYPE: PKG 11 SYSTEM
AFATDS UNIT Reference Number 32186 (This number default in AFATDS to next available.)
VMF URN is any valid number must be unique for each device (in SISTIM this is the Unit Reference Number)
VMF Unit ID: SISTIM

5-2. Building a FOS Unit in AFATDS

There is no difference in AFATDS building a FOS unit. Ensure the VMF URN is the same in both the AFATDS and SISTIM for that unit.

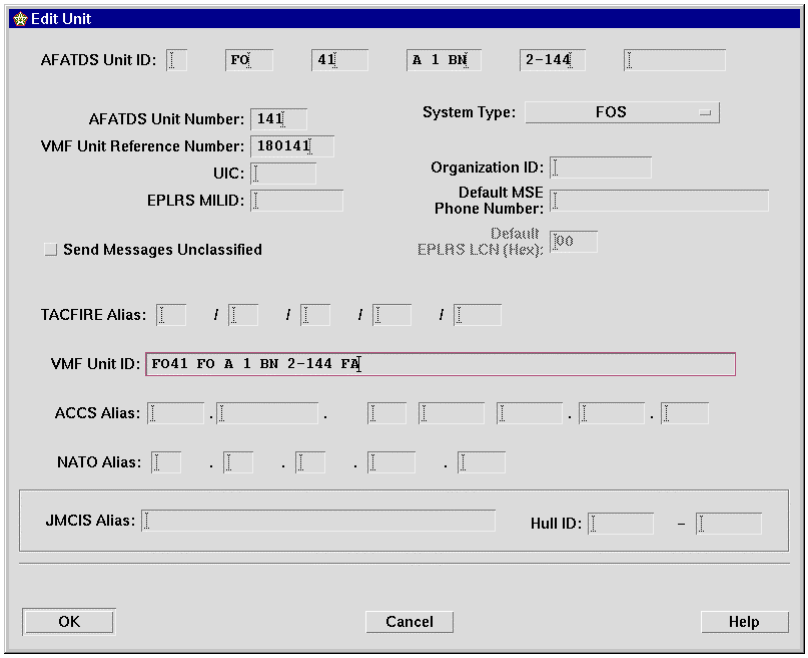


Figure 5-2 Build a FOS Unit in AFATDS

Build a FOS Unit in AFATDS Procedure

AFATDS UNIT ID: is any valid unit name can be entered into this field up to 64 characters.
Type SYSTEM TYPE: FOS
AFATDS UNIT Reference Number 141
VMF URN is any valid number must be unique for each device (in SISTIM this is the Unit Reference Number)

VMF Unit ID: FO41 FO A 1 BN 2-144 FA

5-3. Build a ABCS Unit in AFATDS

SISTIM simulates all of the ABCS systems. There is no difference in AFATDS building a ABCS unit.
When building an ABCS unit it must be an ABCS00 System type. Failure to have the correct system type selected will likely cause failure to communicate to that ABCS00 system.

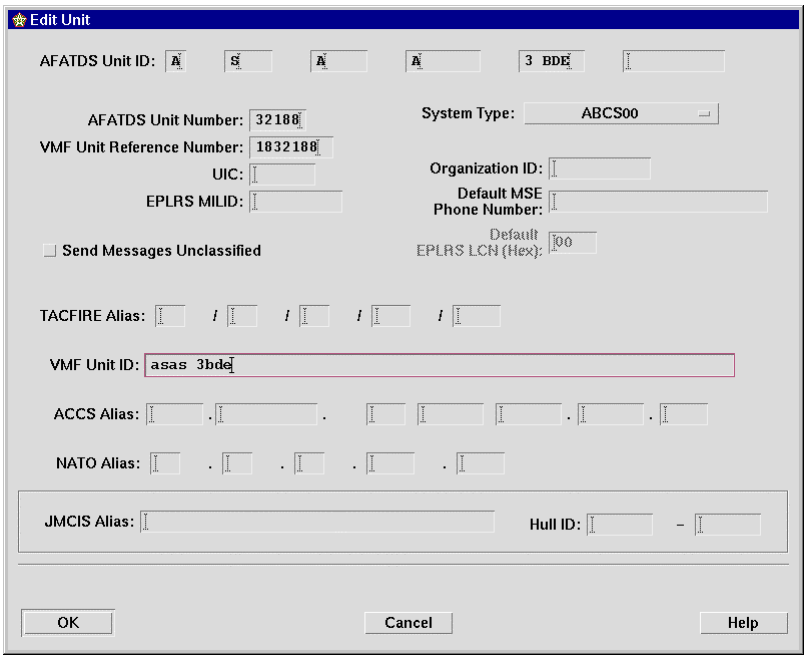


Figure 5-3 Build a ABCS Unit in AFATDS

Build a ABCS Unit in AFATDS Procedure

AFATDS UNIT ID: is any valid unit name can be entered into this field up to 64 characters.
Type SYSTEM TYPE: ABCS00
AFATDS UNIT Reference Number 32188
VMF URN is any valid number must be unique for each device (in SISTIM this is the Unit Reference Number)
VMF Unit ID: ASAS 3 BDE

5-4. Building a TBMCS Unit in AFATDS

There is no difference in AFATDS building a TBMCS unit.
When building a TBMCS unit it must be a TBMCS00 System type. Failure to have the correct system type selected will likely cause failure to communicate.

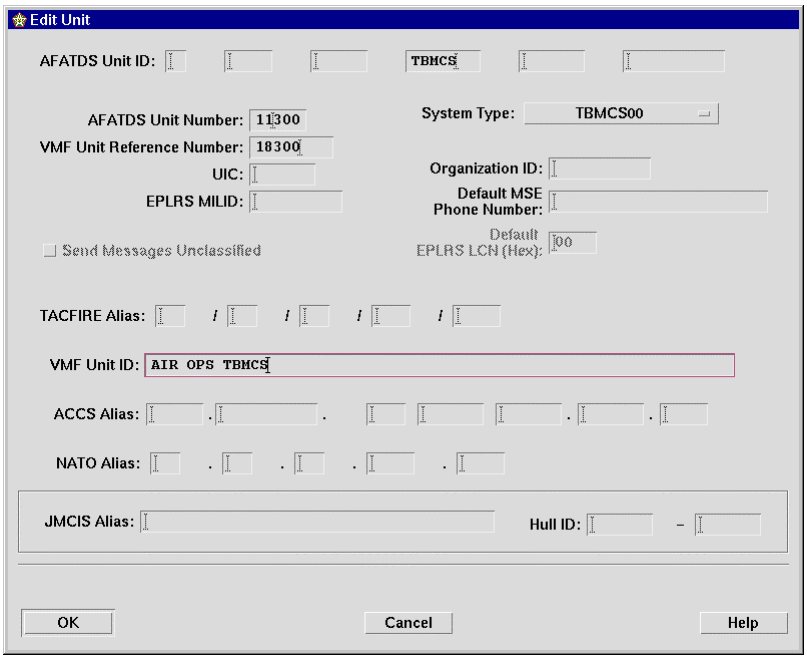


Figure 5-4 Build a TBMCS Unit in AFATDS

Build a TBMCS Unit in AFATDS Procedure

AFATDS UNIT ID: is any valid unit name can be entered into this field up to 64 characters.
Type SYSTEM TYPE: TBMCS00
AFATDS UNIT Reference Number 11300
VMF URN is any valid number must be unique for each device (in SISTIM this is the Unit Reference Number)
VMF Unit ID: AIR OPS TBMCS

5-5. Building a Package 11 FireFinder Unit in AFATDS

There is no difference in AFATDS building a RADAR unit. When building a RADAR unit it must be a PK11 Firefinder System type. Failure to have the correct system type selected will likely cause failure to communicate.

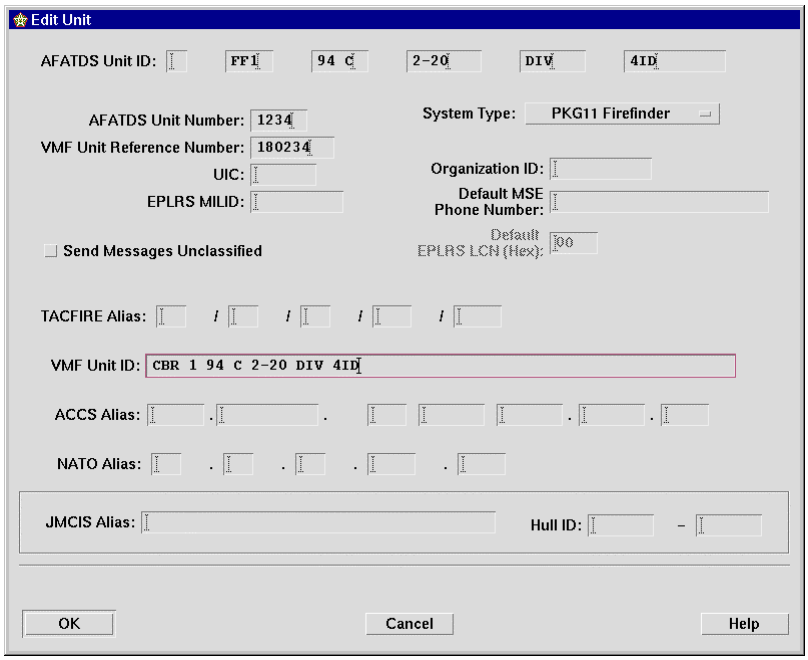


Figure 5-5 Build a Package 11 FireFinder in AFATDS

Build a Package 11FireFinder in AFATDS Procedure

AFATDS UNIT ID: is any valid unit name can be entered into this field up to 64 characters.
Type SYSTEM TYPE: PK11 Firefinder
AFATDS UNIT Reference Number 1234
VMF URN is any valid number must be unique for each device (in SISTIM this is the Unit Reference Number)
VMF Unit ID: CBR 1 94 C 2-20 DIV 4ID

NOTE

Paladin Units are created as PK11 Paladin units. There is no difference in AFATDS building a Paladin unit to talk to the simulated Paladins in SISTIM. The GDU/MCA units do not have to be built in the MUL because there are ten GDU's made in the default Master Unit List. All that is needed is for the operator to open the MUL and edit the GDU's in the AFATDS Unit Reference number. That URN can be input into the SISTIM GDU/MCA unit window.

5-6. Build a Package 11 Paladin Unit in AFATDS

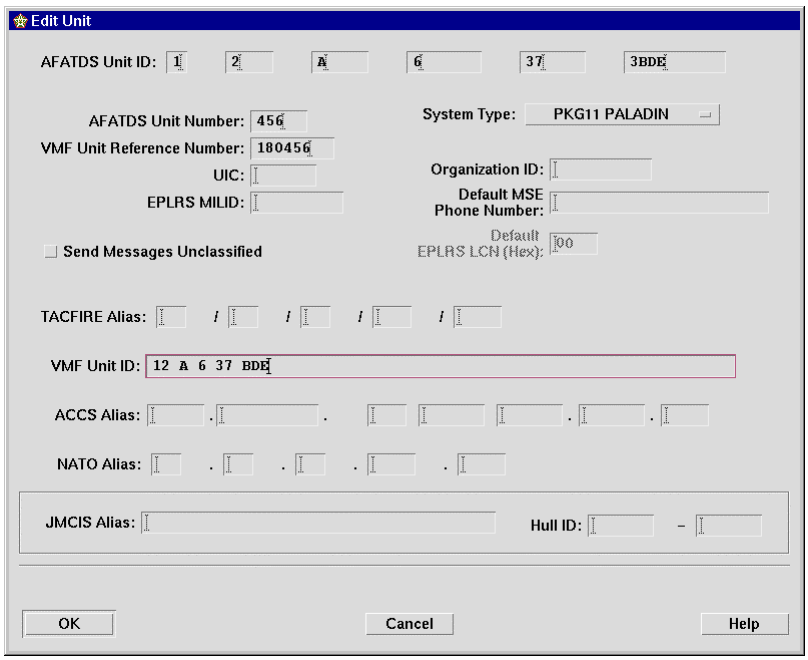


Figure 5-6 Build a Package 11 Paladin in AFATDS

Build a Package 11 Paladin in AFATDS Procedure

AFATDS UNIT ID: is any valid unit name can be entered into this field up to 64 characters.
Type SYSTEM TYPE: PK11 Paladin
AFATDS UNIT Reference Number 456
VMF URN is any valid number must be unique for each device (in SISTIM this is the Unit Reference Number)
VMF Unit ID: 12 A 6 37 BDE

5-7. Edit a GDU/MCA in AFATDS

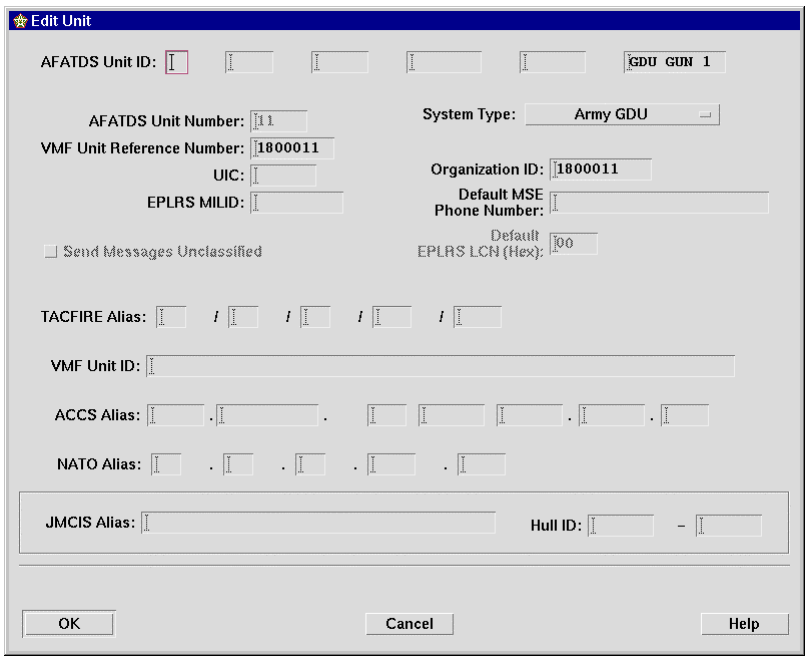


Figure 5-7 Edit a GDU/MCA in AFATDS

Edit a GDU/MCA Unit in AFATDS Procedure

AFATDS UNIT ID: is any valid unit name can be entered into this field up to 64 characters.
Type SYSTEM TYPE: ARMY GDU
AFATDS UNIT Reference Number 11
VMF URN is any valid number must be unique for each device (in SISTIM this is the Unit Reference Number)

5-8. Build a JVMF IFCS SPLL in AFATDS

When building an IFCS unit it must be built as a JVMF System type. Failure to have the correct system type selected will likely cause failure to communicate. This is the M270A1 Launcher (fig 5-8).

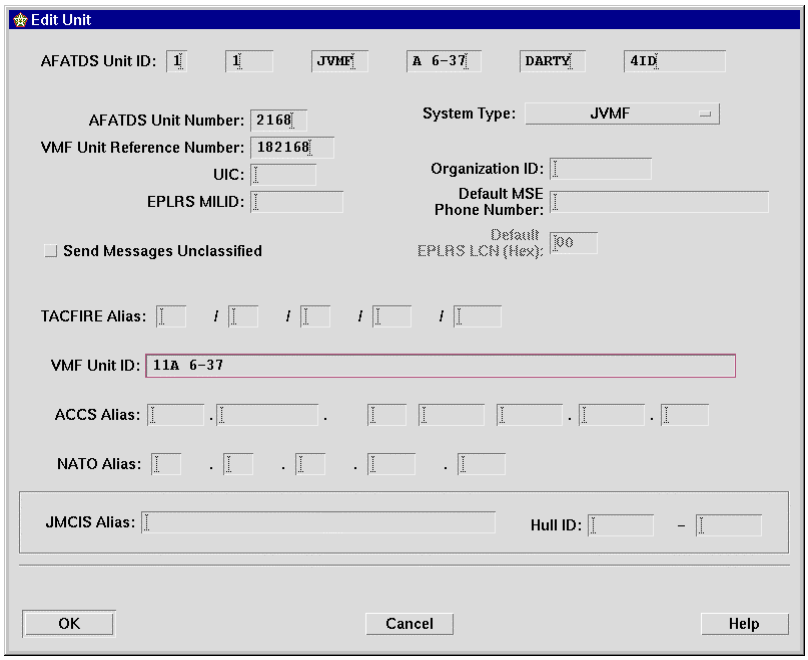


Figure 5-8 Build a JVMF IFCS SPLL in AFATDS

Build a Package JVMF IFCS SPLL in AFATDS Procedure

AFATDS UNIT ID: is any valid unit name can be entered into this field up to 64 characters.
Type SYSTEM TYPE: JVMF
AFATDS UNIT Reference Number 2168
VMF URN is any valid number must be unique for each device (in SISTIM this is the Unit Reference Number)
VMF Unit ID: 11A 6-37

5-9. Build a JVMF FBCB2 in AFATDS

When building an FBCB2 unit it must be built as an FBCB2 System type. Failure to have the correct system type selected will likely cause failure to communicate.

Build a Package JVMF FBCB2 in AFATDS Procedure

AFATDS UNIT ID: is any valid unit name can be entered into this field up to 64 characters.
Type SYSTEM TYPE: FBCB2
AFATDS UNIT Reference Number 455
VMF URN is any valid number must be unique for each device (in SISTIM this is the Unit Reference Number)
VMF Unit ID: 1SEC FBCB2 1 10

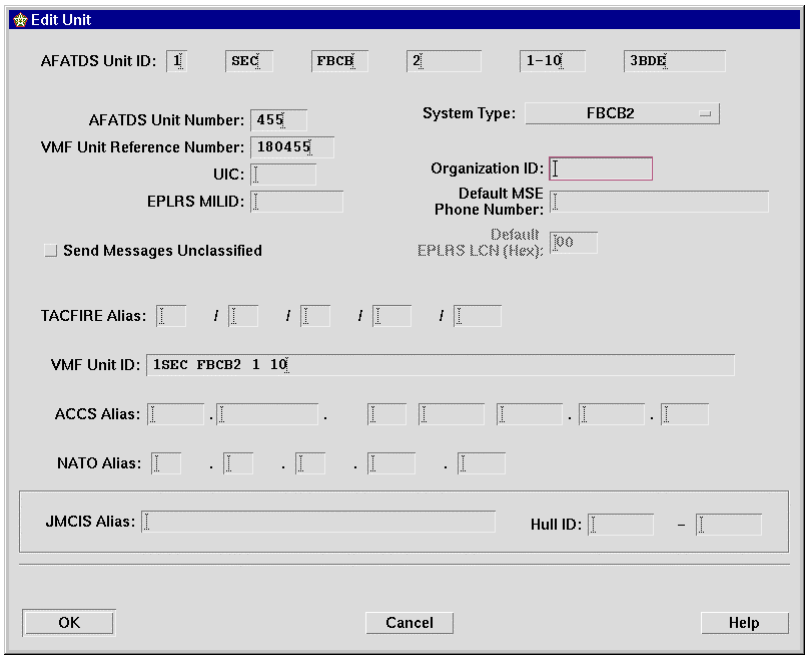


Figure 5-9 Build a JVMF FBCB2 in AFATDS

CHAPTER 6.
ESTABLISHING AFATDS COMMUNICATION

SECTION 1
BUILD A COMMUNICATION NET IN AFATDS

In order to communicate via AFATDS units must be in the Current Situation and on the map.
Select Units/New on the current map. The “Create New Unit Window” will open allowing you to select a unit to create. Select a SISTIM unit and for unit type select other. The basic unit window opens. Enter a location and unit symbol information on this window and any other relevant information. Enter No Data for General and Detailed data inputs. Select Apply and OK for each SISTIM unit.

6-1. Establishing a AFATDS LAN Network

When establishing a LAN network the AFATDS operator must remember what IP address was loaded in the SISTIM simulator.

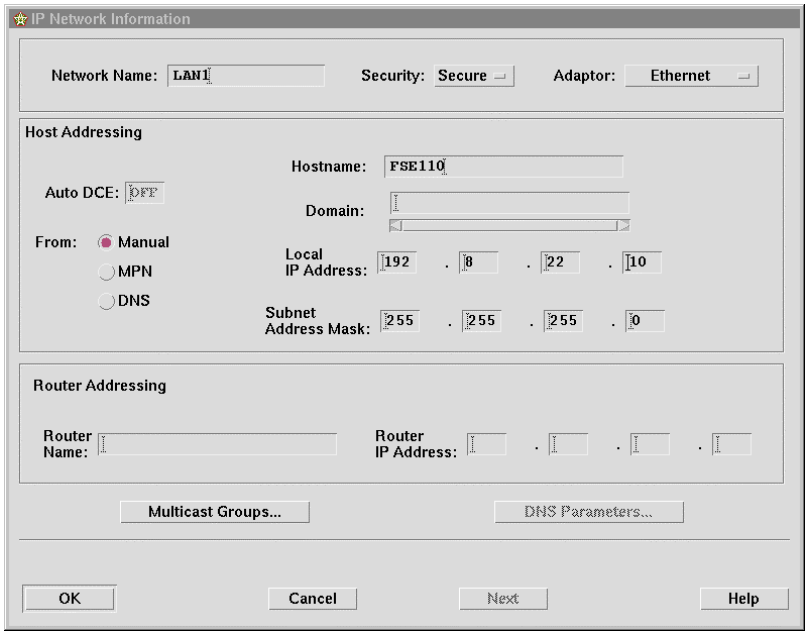


Figure 6-1 Establishing a AFATDS LAN Network

Establishing a LAN Network Procedure

In order to talk to the over LAN to SISTIM Select System/Communications/Current/Network/NEW IP
When selected you will get an IP Network Information window with Ethernet in the upper right corner name the network.
Pre-established Hostname and IP address must be entered. The sub-net mask will fill in automatically.

6-1.1 Establishing a AFATDS Multicast Group AFATDS LAN Network

NOTE

The BDE_ALL net in AFATDS is the only net that will send and receive messages. The other Group Name types (BN_EPLRS, BN_ALL, BDE_EPLRS) will only receive messages by AFATDS.

This information displayed includes the identifying name for each multicast group, its group type and its multi cast IP address in (fig 6-1-1) it is showing the BDE_ALL with an IP of 225.10.10.251.

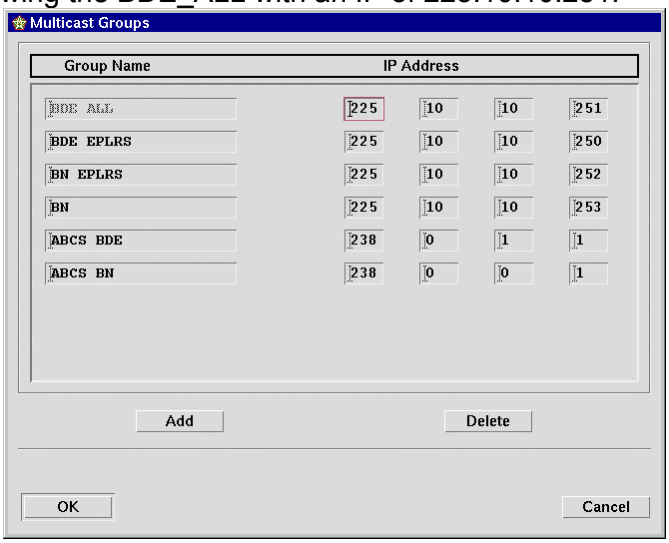


Figure 6-1-1 Establishing a AFATDS Multicast Group AFATDS LAN Network

Establishing a AFATDS Multicast Group AFATDS LAN Network Procedure

Verify the BDE_ALL IP, this IP will go into the SISTIM UDPLAN multicast IP Address.

6-2. Establishing a AFATDS TCIM 188220A Network

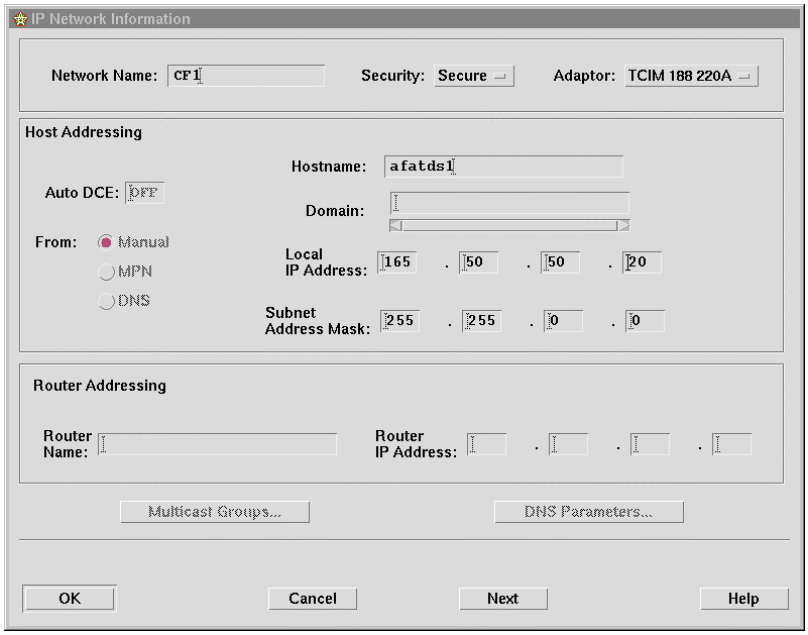


Figure 6-2 Establish a AFATDS TCIM 188220A Network

Establish a AFATDS TCIM 188220A Network Procedure

Select System/Communications/Current/Network/NEW IP
When selected you will get an IP Network Information window with Ethernet in the upper right corner name the network. Click on Ethernet and a 188-220A option will appear, select it. This will gray out some of the options on the window.
Pre-established Hostname and IP address must be entered. The sub-net mask will fill in automatically.

6-2-1. Establishing a AFATDS TCIM 188220A Network Next

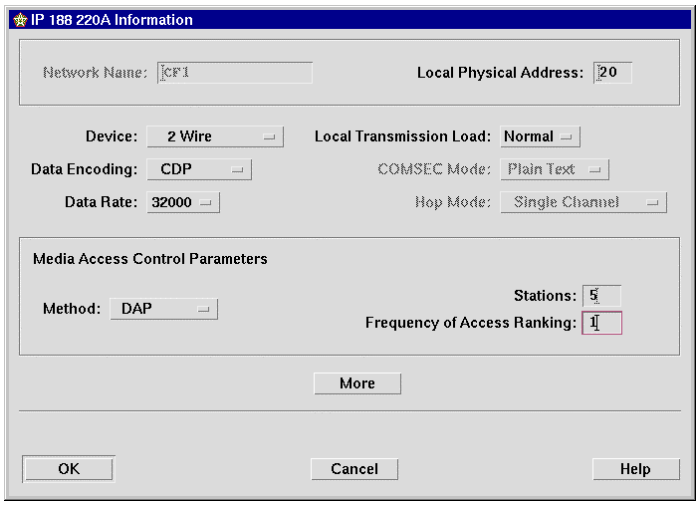


Figure 6-3 Establishing a AFATDS TCIM 188220A Network Next

Establishing a AFATDS TCIM 188220A Network Next procedure

Select Next and choose the device type. Selections are 2 wire, 4 wire Analog Radio, KY57 and SINCGARS. Which ever you choose will dictate the default value generated on the window.
Data Encoding selections are NRZ, CDP, FSK188C and FSK 4202A. The encoding choices are available based on the device type chosen.
Data Rate ranges from 75 bps to 32000 bps and are again available for selection based on the device chosen Selections should be made for Local Transmission Load, COMSEC Mode, Hop Mode, Media Access Control Parameters, Number of Stations and Frequency of Access.

6-3. Establish a AFATDS AFCS TCIM Network and Next

Create an AFCS net using TACFIRE Tunneling for Package 11 Paladins AFATDS has implemented a new communications protocol to be used when communicating with Package 11 Paladin units. The new protocol is a variant of the TACFIRE protocol currently implemented in the AFATDS system and is called AFCS. This protocol uses a process called TACFIRE tunneling. This allows a Package 11 message to be sent with a TACFIRE header. When editing the routes for Paladin units up to eight guns can be associated using the same destination address. They must also have a unique platoon/gun number associated with it. Host names and IP addresses are not required for the AFCS net.

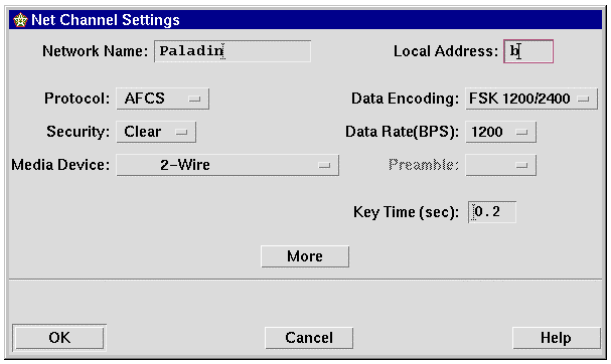


Figure 6-4 Establish a AFATDS AFCS TCIM Network and Next

Establish a AFATDS AFCS TCIM Network and Next Procedure
Select Network/New (AFCS Net)
Network Name:CF1
Local Address:20
Protocol: AFCS
Data Encoding: FSK 1200/2400
Security: Secure
Data Rate: 1200
Media Device: SINCGARS Radio
Preamble: Default
Key Time (sec): 2.1

When MORE is selected the window generated will also have default values entered. However, these entries cannot be changed unless customize is clicked in the upper right corner. When editing the route for the destination unit a Hostname and IP address must also be entered and again the designated destination address must be assigned if you anticipate assigning the unit to a TACFIRE net.
When assigning channels for the 188-220A network the only channels that support this configuration is channel 1 if there is only one TICM or 1 and 3 if there are two TICMs. Pkg. 11 units can be assigned to ELAN EPLRS and TACFIRE nets also just by selecting that unit as a destination unit and editing the route. When using a TACFIRE net no IP address and host name are required.

6-4. Establishing a AFATDS GDU Network

GDU units do not need to be added into the GDU communication network. All that is needed is to establish the GDU's from the Weapons Fire Unit window.

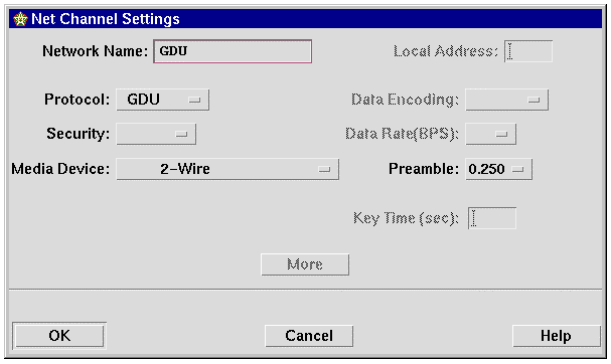


Figure 6-5 Establishing a AFATDS GDU Network

Establishing a AFATDS GDU Network Procedure

NETWORK NAME is the text name assigned to the network. Type GDU.
PROTOCOL Select the field to display a list of AFATDS supported protocols. Click GDU from the list. This causes the majority of the fields as well as the MORE button to become inactive. This is because GDU communications do not require the range of adjustment necessary to tailor a more long range and complex radio communications protocol.
MEDIA DEVICE The most common media device 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). Select on the field and select TWO wire when talking over wire communications.
PREAMBLE is the amount of time after keying the communications device and before the transmission of the first part of the message given in seconds. This setting is heavily dependent upon the communications medium. The default is 0.250 seconds, which is adequate for wire and most radios. Click on the field and select 0.250.
Click OK to store the Network data.

6-5. Adding units to a AFATDS Communication Network

Add the Units to your communications unit configuration window.

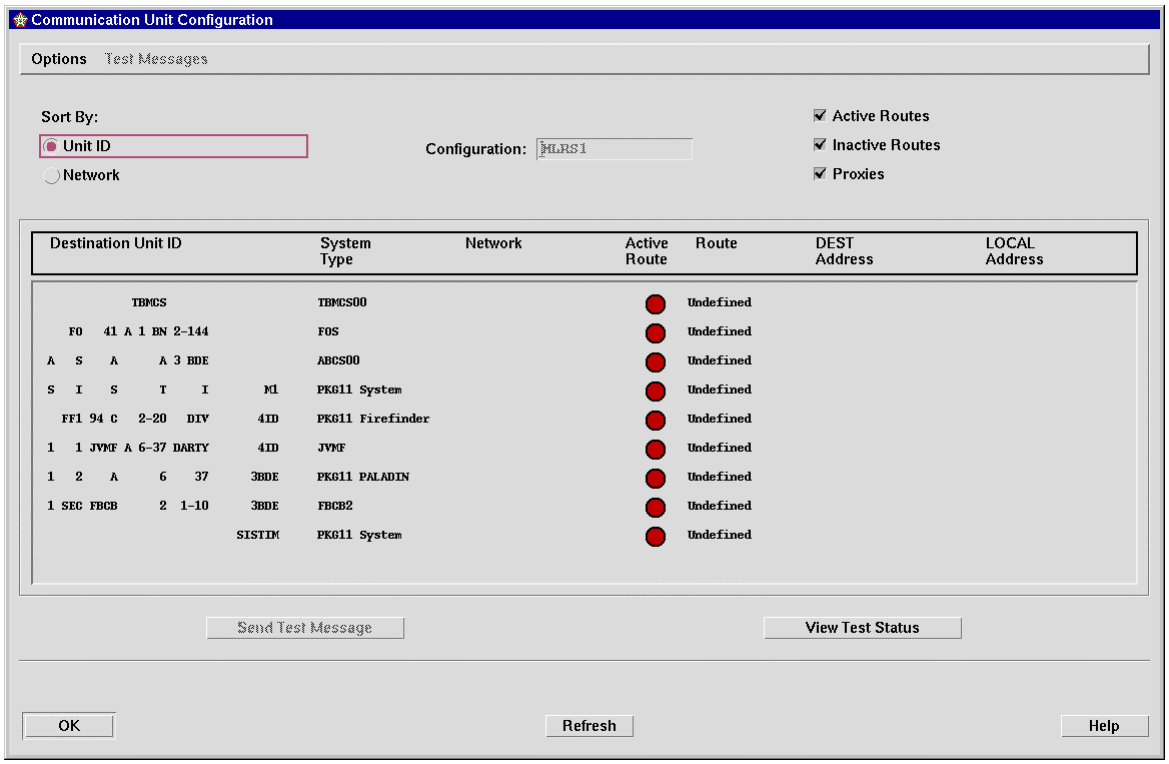


Figure 6-6 Adding units to a AFATDS Communication Network

6-6. Edit the SISTIM Unit LAN routes in AFATDS

The First unit to assign a channel to is the SISTIM unit. The SISTIM unit will always be Primary and Direct. The IP Address used is the same IP address when the SISTIM software was loaded and the IP that was setup in the SISTIM LAN configure settings.

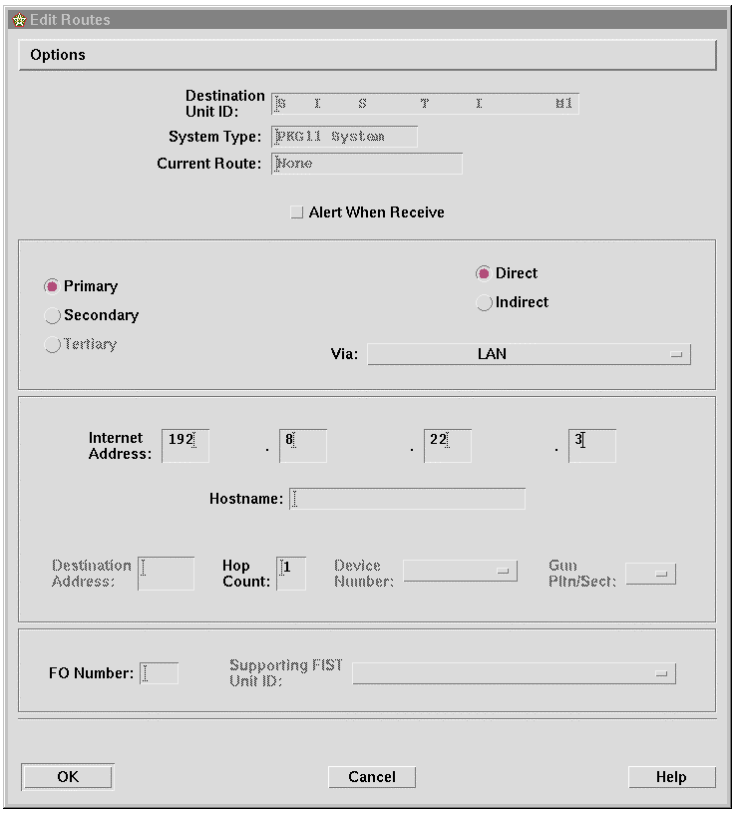


Figure 6-7 Edit the SISTIM Unit LAN routes in AFATDS

Edit the SISTIM Unit LAN routes in AFATDS Procedure

Select edit routes Window:
PRIMARY
DIRECT
VIA: LAN
INTERNET ADDRESS: Input 192.8.22.3

6-7. Edit the SISTIM Unit 188220A routes in AFATDS

The IP Address used is the Same IP address that was inputted into SISTIM for the CF1 TCIM 188220A network.

Figure 6-8 Edit the SISTIM Unit 188220A routes in AFATDS

Edit the SISTIM Unit 188220A routes in AFATDS Procedure

Select edit routes Window:
PRIMARY
DIRECT
VIA: CF1
INTERNET ADDRESS: Input 165.50.50.30
HOSTNAME: Input n-CF1.u-132179
DESTINATION ADDRESS: Input 50
To set up the simulated package 11 units they will be set primary indirect

6-8 Edit the Package 11 FireFinder Unit LAN routes in AFATDS

Set up the Firefinder (package 11) unit as primary indirect an IP Address will not be used in AFATDS. SISTIM tracks communication messages by units URN's.

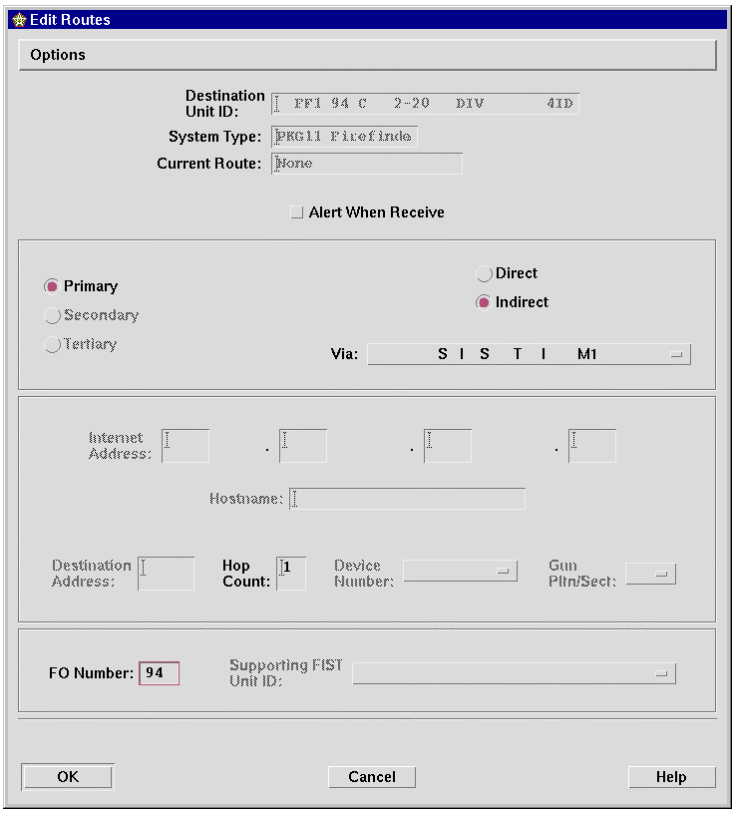


Figure 6-9 Edit the Package 11 FireFinder Unit LAN routes in AFATDS

Edit the Package 11 FireFinder Unit LAN routes in AFATDS Procedure

Select edit routes Window:
PRIMARY
INDIRECT
VIA: SISTIM
INTERNET ADDRESS: Not required
HOSTNAME: Not required
DESTINATION ADDRESS: Not required
FO Number: 2

6-9. Edit the Package 11 FOS Unit 188220A routes in AFATDS

Set up the FOS (package 11) unit as primary indirect an IP Address will not be used in AFATDS. SISTIM tracks communication messages by units URN's.

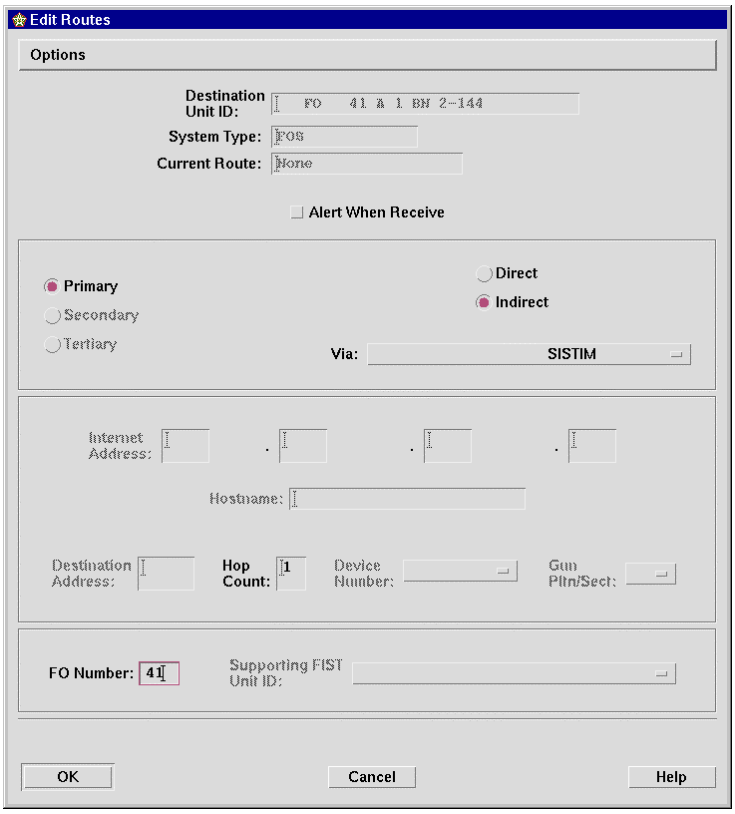


Figure 6-10 Edit the Package 11 FOS Unit 188220A routes in AFATDS

Edit the Package 11 FOS Unit 188220A routes in AFATDS Procedure

Select edit routes Window:
PRIMARY
INDIRECT
VIA: SISTIM1
INTERNET ADDRESS: Not required
HOSTNAME: Not required
DESTINATION ADDRESS: Not required
FO Number: 1

6-10. Edit the Package 11 Paladin Unit AFCS routes in AFATDS

When editing the routes for Paladin units up to eight guns can be associated using the same destination address. They also must have associated a unique platoon/gun number.

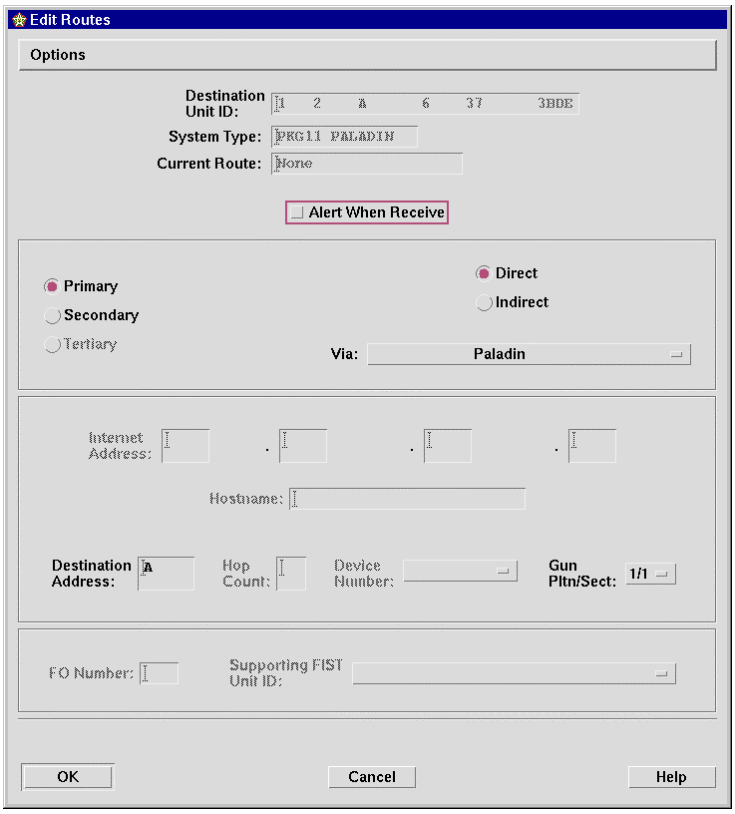


Figure 6-11 Edit the Package 11 Paladin Unit AFCS routes in AFATDS

Edit the Package 11 Paladin Unit AFCS routes in AFATDS Procedure

Select edit routes Window:
PRIMARY
DIRECT
VIA: AFCS_PAL
INTERNET ADDRESS: Not required
HOSTNAME: Not required
DESTINATION ADDRESS: b
Gun/ Plt/Sect: 1/1

6-11. Edit the JVMF IFCS Unit routes in AFATDS

Set up the JVMF SPLL unit as primary indirect an IP Address will not be used in AFATDS. SISTIM tracks communication messages by units URN's.

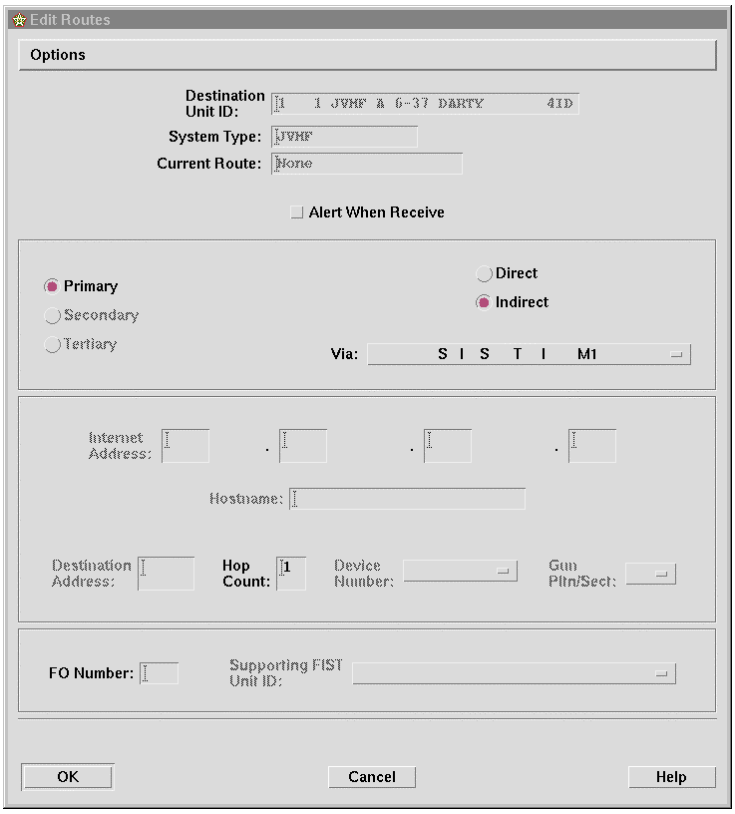


Figure 6-12 Edit the JVMF IFCS Unit routes in AFATDS

Edit the JVMF IFCS Unit 188220A or LAN routes in AFATDS Procedure

Select edit routes Window:
PRIMARY
INDIRECT
VIA: SYSTIM
INTERNET ADDRESS: Not required
HOSTNAME: Not required
DESTINATION ADDRESS: Not required

6-12. Edit the ABCS00 ASAS Unit routes in AFATDS

Set up the ABCS00 unit as primary indirect an IP Address will not be used in AFATDS.

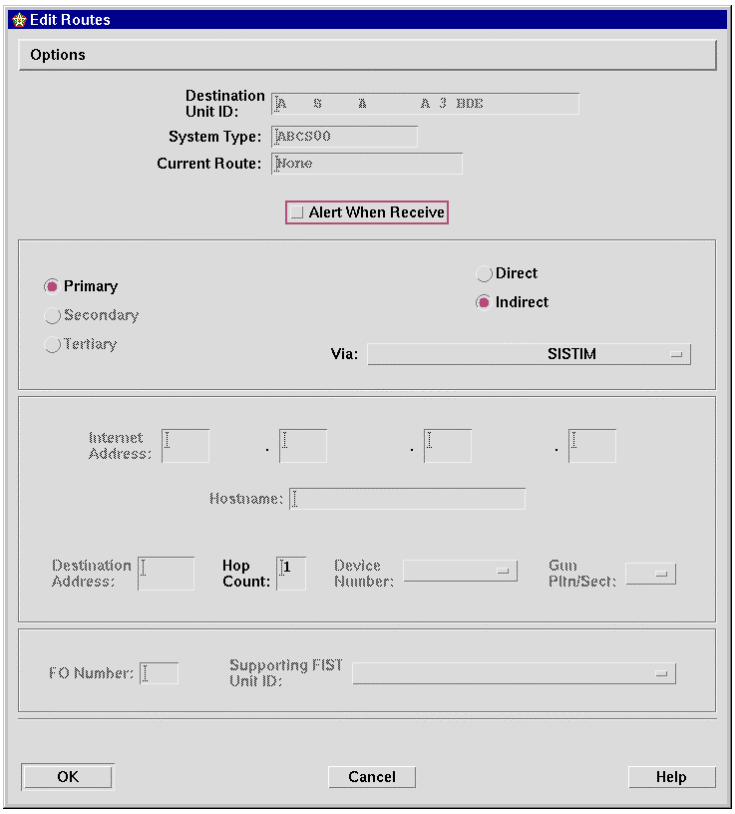


Figure 6-13 Edit the ABCS00 ASAS Unit routes in AFATDS

Edit the ABCS00 ASAS Unit routes in AFATDS Procedure

Select edit routes Window:
PRIMARY
INDIRECT
VIA: SISTIM 1
INTERNET ADDRESS: Not required
HOSTNAME: Not required

6-13. Edit the TBMCS00 TBMCS Unit routes in AFATDS

In AFATDS setting up the TBMCS communications network is direct. That is because SISTIM has the TBMCS unit in the USMTFMail network, which is indirect. The IP address has to have the same address that was setup in SISTIM in the USMTFMail network.

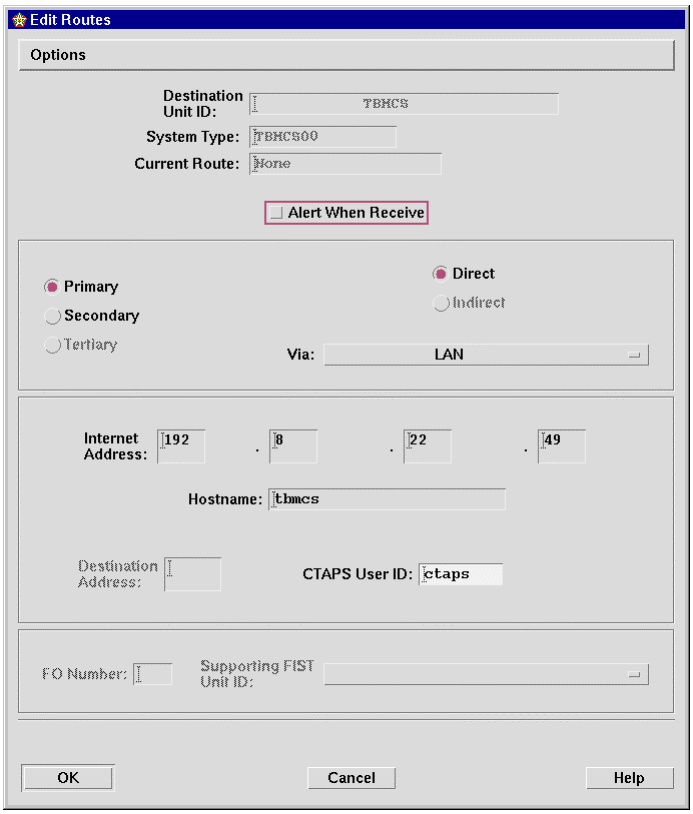


Figure 6-14 Edit the TBMCS00 TBMCS Unit routes in AFATDS

Edit the TBMCS00 TBMCS Unit routes in AFATDS Procedure

Select edit routes Window select:
PRIMARY
DIRECT
VIA: LAN
INTERNET ADDRESS: 192.8.22.49
HOSTNAME: tbmcs
CTAPS USER ID: ctaps

6-14. Edit the FBCB2 Unit routes in AFATDS

In AFATDS setting up the FBCB2 communications network is direct. That is because SISTIM has the FBCB2 unit in the MultiCast network, which is indirect. The IP address has to have the same address that was setup in SISTIM in the UDPLAN network.

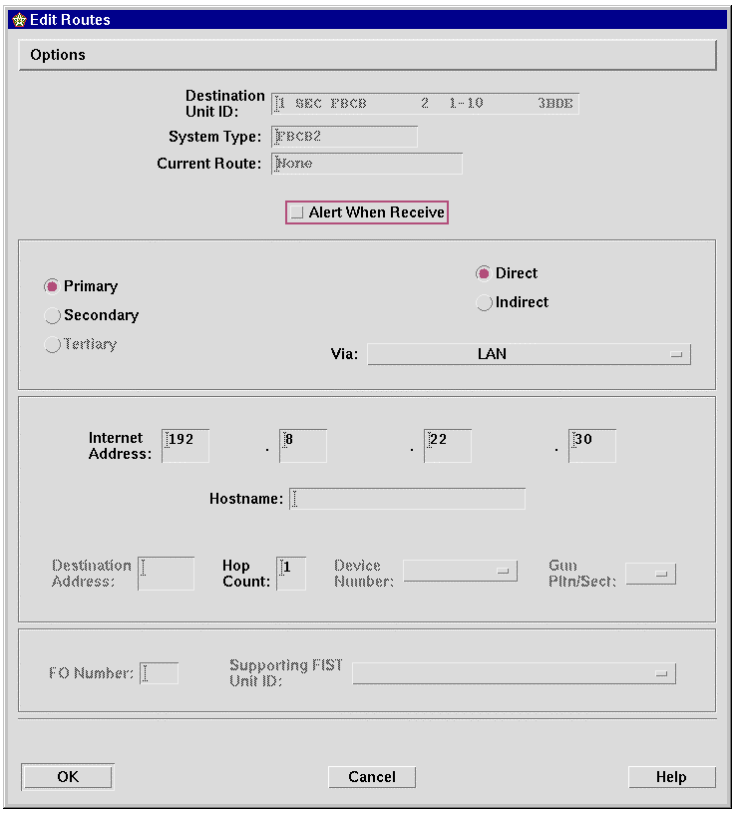


Figure 6-15 Edit the FBCB2 Unit routes in AFATDS

Edit theFBCB2 Unit routes in AFATDS Procedure

Select edit routes Window:
PRIMARY
DIRECT
VIA: LAN
INTERNET ADDRESS: 192.8.22.30
HOSTNAME: NA
CTAPS USER ID: NA

6-15 Communications Network setup in AFATDS

This Figure shows the different AFATDS configured networks.

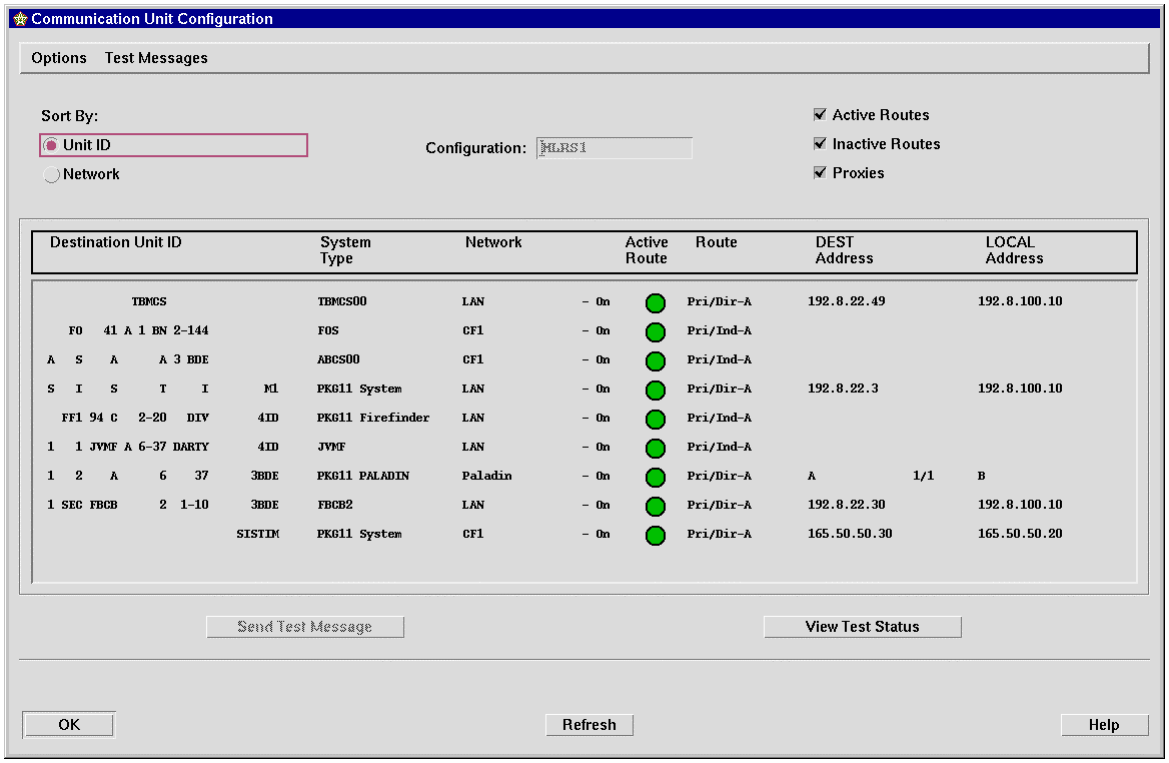


Figure 6-16 Communication Network setup in AFATDS

6-16. Build IFCS and AFATDS HQ controlling unit Map Symbol

AFATDS HQ controlling the IFCS Map Symbol

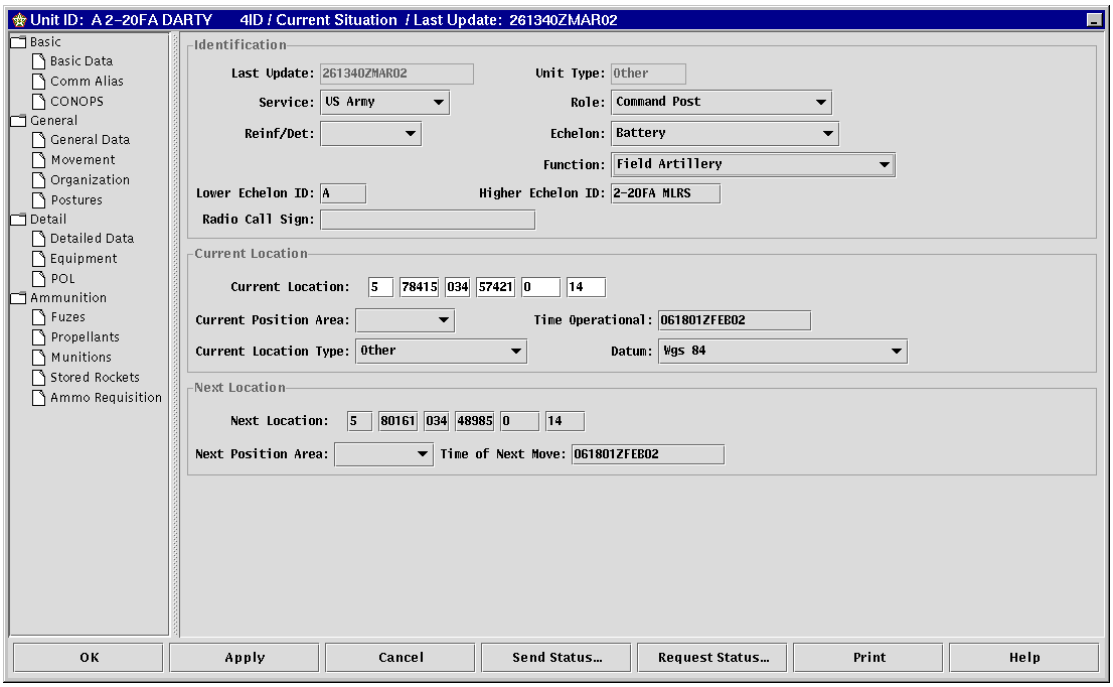


Figure 6-17 AFATDS Command Post Symbol

In AFATDS the map symbol must be set up in current situation correctly for Fire Mission processing to flow accurately. The controlling Headquarters unit symbol role, echelon and function must be set to determine valid message interfaces between that unit and other units. This is to communicate with the JVMF IFSC unit; it should not be used with the Army FCS system. The operator must change the controlling HQ unit first and then change the IFCS Map symbol. From the IFCS unit Confirm the settings in the General Data that the command and support of the controlling unit is correct. This will organization the FSC weapon status with the correct IFCSs available for missions. If the FCS weapon status fails to display the IFCSs, edit the JVMF unit General Data; under Command and Support, select a different unit and select OK. Reopen the IFCS unit and select the General Data and in the command and support select AFATDS that is in charge of the IFCS, select OK. Make the changes to the remaining IFCS launchers, and reopen the FCS Weapon Status. It will display the launchers.

Edit AFATDS controlling the IFSC HQ Unit Procedure

Edit the unit controlling the IFCS's :
ROLE: COMMAND POST
ECHELON: BATTERY
FUNCTION: FIELD ARTILLERY

6-16-1. IFCS Map Symbol

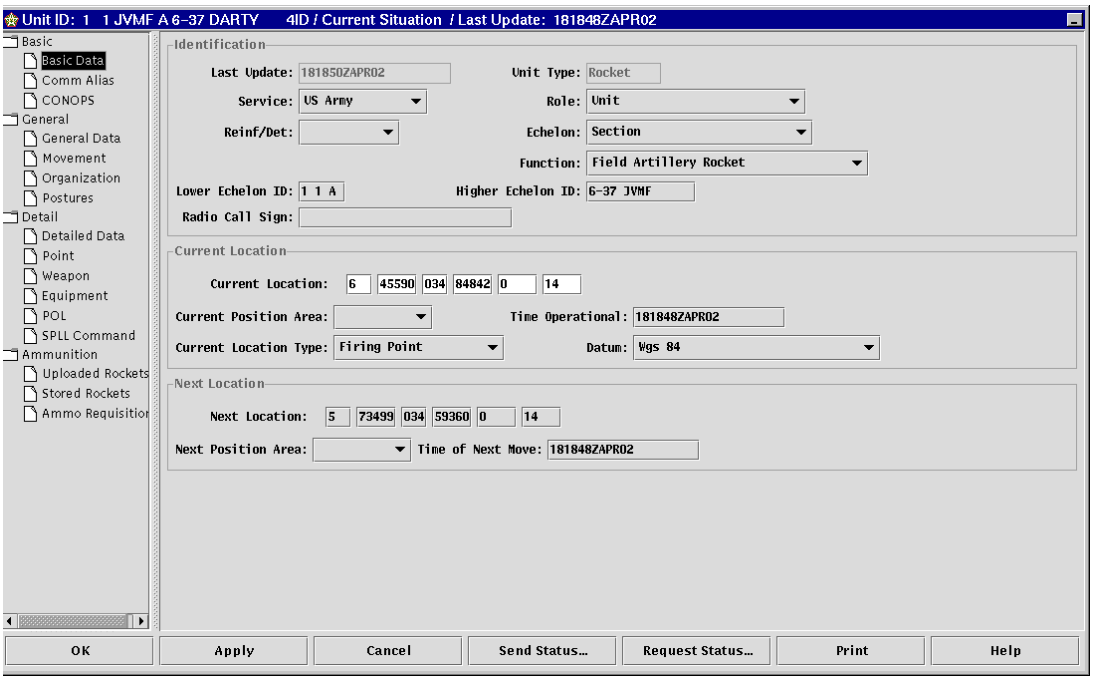


Figure 6-18 IFCS Unit Symbol

In AFATDS the map symbol must be set up in current situation correctly for Fire Mission processing to flow accurately. The controlling Headquarters unit symbol role, echelon and function must be set first to determine valid message interfaces between that unit and other units. This is to communicate with the JVMF IFSC unit, it should not be used with the Army FCS system. The operator must change the controlling AFATDS HQ unit first and then change the IFCS Map symbol. From the IFCS unit window Confirm that the General Data of the command and support of the controlling unit is correct. This will set the organization the FSC weapon status with the correct IFCSs available for missions. If the FCS weapon status fails to display the IFCSs, edit the JVMF unit General Data in the command and support select a different unit and select OK. Reopen the IFCS unit and select the General Data and in the command and support select the AFATDS that is in charge of the IFCS. Select OK and Reopen the FCS weapon status it will display the launcher, make the changes to the remaining IFCS launchers and reopen the FCS weapon status. Each IFCS unit must have a associated at list one of each of the following types of geometry's, Firing Point, Hide Point and Rearm Point. This is in order to make the launchers automatically move to the rearm and hide points.

Edit the IFSC Unit Procedure

Edit the IFCS:
ROLE: UNIT
ECHELON: SECTION
FUNCTION: FIELD ARTILLERY ROCKET

CHAPTER 7.
BUILD A SCENARIO IN SISTIM

SECTION 1
BUILD A SCENARIO IN SISTIM

Creating a scenario in SISTIM allows for the simulation of FO and Fire Units if the actual assets are not available to send in target information and shot, splash and rounds complete. SISTIM will create a scenario based on your parameters and the generic capabilities of the simulated sensors you have created. After you create the generic scenario you may access / modify it to better meet the unit training requirements. You may access the Scenario Setup from by clicking on “Setup” on the SISTIM main menu bar and then selecting “Scenario Setup…”.

7-1. Build a Scenario in SISTIM

This screen (Fig 7-2) allows the SISTIM operator to set the configuration parameters in preparation for generating a scenario. The scenario window is divided into major areas.
The first is the Alert area, which prompts the SISTIM operator for incomplete commands.
The second area is the FLOT, Battlefield Setup Area. The FLOT Center is one point on the map that uses easting/northing (UTM) coordinates. This is used for a starting point in determining where the targets are generated on the battlefield. The Battlefield width and depth is how wide, up to 99 Km’s, the operator would like the targets generated on the battlefield. Simulated Units have a maximum range that they will generate targets to. The forward observer PK 11 has the target generator closest to the FLOT with a distance of 4.5 Km. The Air Observer and JSTARS have the target generator with the farthest from the FLOT of up to 99Km.

Unit Type	Device	Distance From FLOT (Km)
Forward Observer	FOS	0.0 - 4.5
Fire Support Team	FOS	0.0 - 7.5
FIREFINDER Counter-Artillery Section	FF	10.0 - 50.0
FIREFINDER Counter-Mortar Section	FF	4.0 - 24.0
Air Observer	ATHS	0.0 - 99.0
JSTARS	JSTARS	15.0 - 99.0

Figure 7-1 Units Distance from FLOT

Battlefield Orientation (mils) indicates the direction in which friendly forces are oriented. The value entered here must be between 0 and 6399, with 0 depicting north and 3200 depicting south. If the orientation is reversed either add 3200 if the number is smaller the 3200 or subtract 3200 if the number is greater than 3200. This allows you to establish the area in which your targets will be located. The "FLOT Center" is the midpoint of the side of the rectangular target area closest to the friendly troops. A sensor must be behind the FLOT line for it to be used during Target Generation. Enter a full UTM grid coordinate, including grid zone into the "FLOT Center" field. Enter a value in the "Width" field that meets your requirements. The "Depth" field serves several purposes. If you have long range sensors, such as JSTARS, you can limit their acquisition by using a depth that is shallower than their capability. The Depth is also use when drawing the Target Map, so a greater depth effectively increases the scale of the Target Map. Enter an appropriate value in the "Depth" field to meet your training requirements. The orientation of the target box is from the perspective of the sensors. Enter an appropriate value in the "Orientation" field.

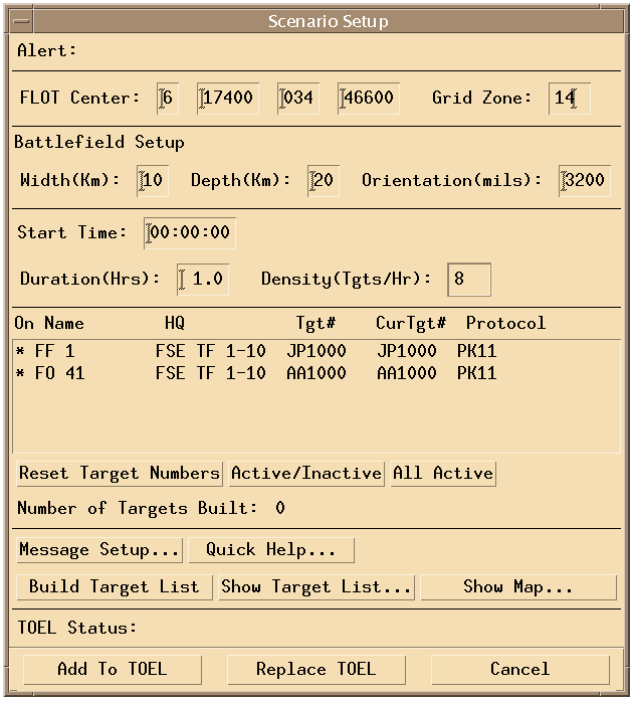


Figure 7-2 Build a Scenario in SISTIM

Start Time-Used to set the start time (HH: MM: SS) of the Time Ordered Events List (TOEL) for the current target list. This Time tool has several advantages that the Operator can utilize having certain units generating targets only for certain time blocks in the exercise.
Duration (Hrs) The operator enters the length, in tenth of hours, that the scenario is to last. This value must be between 1 and 99. When making duration over 15 hours the target density should not be over one hundred targets an hour. SISTIM can support up to six thousand targets (fifteen-hour period with 600 targets). There is a way to establish more than six thousand targets with no problem the operator can link exercise. When linking exercises the SISTIM program saves memory. When one exercise ends the other exercise starts with no operator intervention. When linking exercises the first exercise will be stopped and the second exercise will be loaded and run automatically.

The units target area is the accessible unit area that will be available to generate targets. The first area in the unit window is the asterisk it tells the operator if that unit is active for building target lists. The name area is the actual unit itself that is simulated. The HQ area is the simulated unit higher headquarters. This area links specific targets to be generated and transmitted to selected AFATDS.

The target number area is the simulated unit target block number. The current target number is the simulated units next targeting number. The protocol area displays the simulated unit and what message protocol type that the unit is assigned.
***Reset Target Numbers*,** when pressed this button will recycle the target numbers starting with the initial number entered.
***Active/Inactive*,** this button will change the state of a unit-generating target from Active to Inactive or Inactive to Active.
***All active button*,** pressing this button will make all units generating targets built in the Scenario Active.
Number of targets built, this field will display the number of targets generated in Target List. This field uses the duration and density to come to the calculation of number of targets built.

The **Quick Help button**, launches a help document devoted to Scenario Setup only (Fig 7-3). This document is very helpful with pertinent information to assist the operator in creating a scenario.

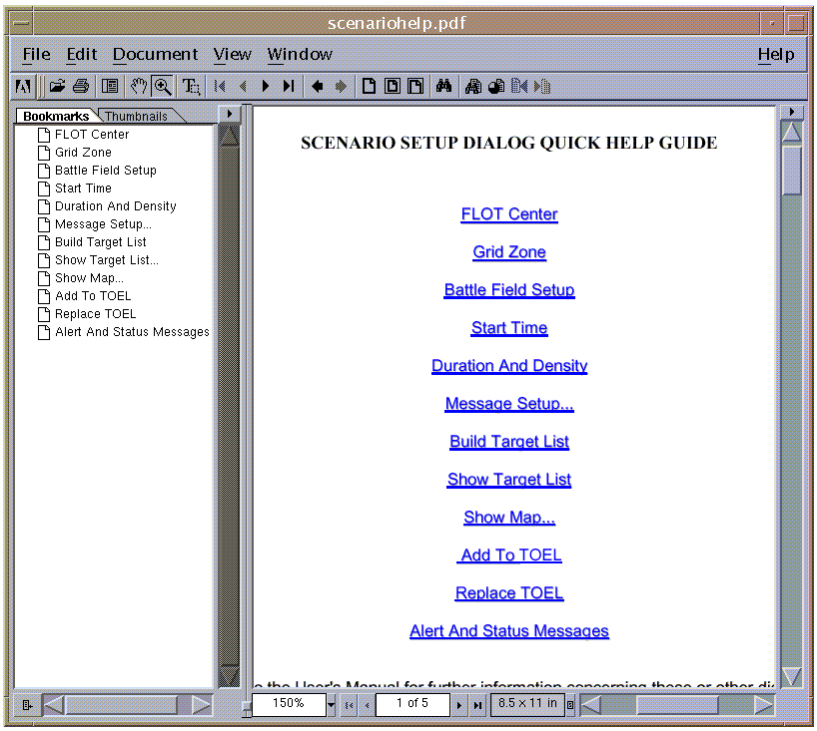


Figure 7-3 Quick Help

7-2. Message Setup

The next area (Fig 7-4) is the message setup button. Pressing this button launches the Message Setup window. This window allows the user to select/deselect Call For Fire and Target Data messages for both PK11 and JVMF protocols. Each message selection contains a density field that enables the user to select the percentage of each message allocated during target generation. The combined percent values selected must be equal to 100 percent or an error will be generated.

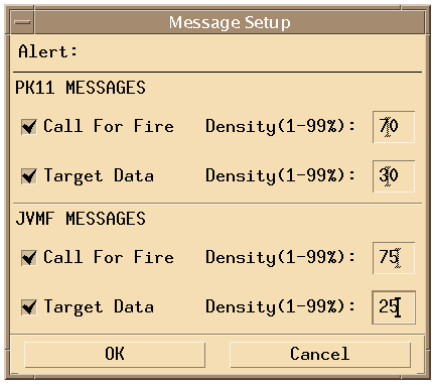


Figure 7-4 Message Setup

7-3. Build Target List

Build Target List, pressing this button automatically generates a new target list (Fig 7-5). After the list is generated a window is displayed showing the target list. Depending on the number of targets being generated may take some time. The "Density" field lets you set the intensity of the scenario. The targets will be evenly distributed between all of the sensors. Enter an appropriate number in the "Density" field. By default, SISTIM will send in all of the targets as fire requests. You can modify this and have a percentage of the targets submitted as intelligence

reports. To do this click on "Message Setup…". The Message Setup form lets you set the mix of Calls for Fire and Intelligence inputs. Enter the percentage of each type of input into the appropriate "Density (%)" field. The two numbers must total 100. If you want to revert to all Calls for Fire, either uncheck the Target Data box or click on "Cancel". Set the appropriate values to meet your training requirements and then click on "OK" to close the form.

The Show Target List button, allows the operator to view the target list constructed during the automatic scenario generation. When this button is activated, a window is displayed showing the target list. The operator can select a target to edit or move a target by changing the grid.

Target List

Easting	Northing	Unit Type/Device	Description	Message
6 13250	034 42649	Forward Observer/FOS	Personnel, Patrol	PK11 Call For Fire
6 18250	034 33350	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Target Data
6 19150	034 44150	Forward Observer/FOS	Vehicle, Light Wheeled	PK11 Call For Fire
6 13950	034 34849	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Call For Fire
6 16850	034 43049	Forward Observer/FOS	Armor, Vehicle	PK11 Call For Fire
6 21350	034 28450	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Call For Fire
6 19250	034 43650	Forward Observer/FOS	Armor, Vehicle	PK11 Call For Fire
6 20750	034 30550	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Call For Fire
6 18550	034 43750	Forward Observer/FOS	Armor, Vehicle	PK11 Call For Fire
6 14750	034 30249	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Call For Fire
6 22350	034 46550	Forward Observer/FOS	Personnel, Patrol	PK11 Target Data
6 19350	034 34250	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Target Data
6 16250	034 43749	Forward Observer/FOS	Armor, Vehicle	PK11 Target Data
6 18650	034 28650	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Target Data
6 12850	034 43049	Forward Observer/FOS	Mortar, Unknown	PK11 Call For Fire
6 18050	034 36150	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Target Data
6 19850	034 42950	Forward Observer/FOS	Artillery, Unknown	PK11 Target Data
6 14650	034 35249	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Call For Fire
6 16250	034 44149	Forward Observer/FOS	Vehicle, Light Wheeled	PK11 Call For Fire
6 19550	034 35150	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Call For Fire
6 16050	034 42349	Forward Observer/FOS	Personnel, Infantry	PK11 Target Data
6 16250	034 36049	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Call For Fire
6 17550	034 43050	Forward Observer/FOS	Mortar, Unknown	PK11 Call For Fire
6 15250	034 28549	FIREFINDER Counter-Arty/FF	Artillery, Medium	PK11 Target Data
6 21750	034 45150	Forward Observer/FOS	Artillery, Medium	PK11 Target Data

OK | Show Map | New | Edit | Delete | Copy | Print List

Figure 7-5 Target List

Each time you want to build a target list you have to click on "Build Target List" This will build a new target list based on the construction parameters you have entered. You can view the Targets as a list, on a map or a combination of both. Normally you should use the combination. To do that you click on "Show Target List…". This will create the Target List form. This shows all of the information for the target. If you click on "Show Map" the graphical map will be created as a child of the Target List. When you do this each target you place your cursor over will highlight the target in the Target List and scroll the list so the target is at the top of the form. To select a target, click on it. The selected target turns red. You can Edit, Copy, or Delete the selected target by clicking the appropriate button. You can change the target's location by either editing it or dragging it. To drag a selected target, click and hold on it with the middle button and then drop it where you want it. The Target List will immediately update to show you the new location. When you are satisfied with your changes, click "OK" on the Target Map form and on the Target List form to save your changes. Now that you have created a Target List that meets your needs you need to replace your existing TOEL (blank or previous creation) with this one. Click on "Replace TOEL" to implement your changes, click on "Cancel" to discard them. Either button click will close the Scenario Setup form.

The Show Map button allows the operator to view the target list graphically in a window (Fig 8-6). The FLOT orientation, width, and depth using the parameters previously entered by the operator are displayed.

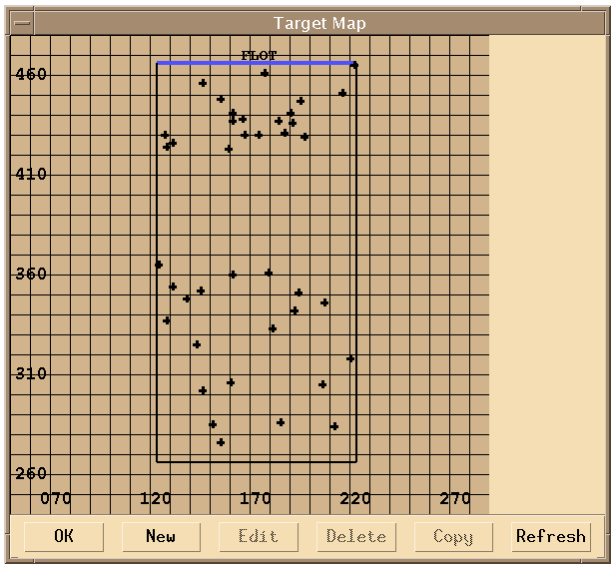


Figure 7-6 Target Map

To move a target click and hold the middle mouse/trackball button on the desired target. Move the target to the desired location on the map and release the mouse trackball button.

7-4. Edit a Target

To edit a target, double clicking on a target will open the Target Editor window (Fig 7-7). This window allows the operator to view TGT type/subtype and location. The operator can change the target location and modify the target in the database.

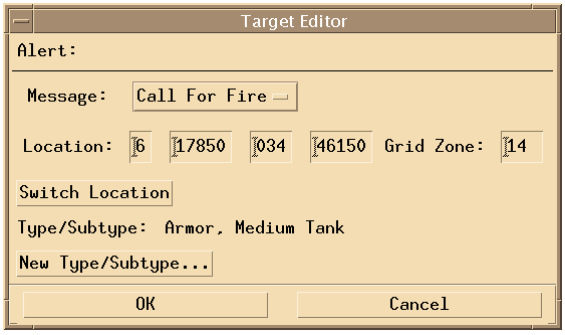


Figure 7-7 Edit a Target

The "**Add to**" **TOEL button**, adds new targets to the existing TOEL. This tool is useful when the operator is managing different unit's targets. The targets will be added to the existing TOEL with the time that was specified above in the start time window.
The **Replace TOEL button**, replaces the current TOEL with a newly implemented TOEL. Information created in the current TOEL will be overwritten with information from the new TOEL.

7-5. Configure OPFAC Responses Times

This window (Fig 7-8) allows the operator to view and modify the time that SISTIM will delay a transmission before sending out an OPFAC generated response for the events listed on the window. This window is broken down into three areas. The first area contains response times for PK11/JVMF, e.g., Paladins, GDU. Response times for some messages include Shot, Splash and Rounds Complete to name a few. Response times for IFCS originated messages include MFR and Move Time. The second is the USMTF units that include air units like TBMCS and CTAPS. The ASR Approval radio buttons allow the operator to specify whether ASR missions with odd, even or all request numbers will be approved. The third area is GDU/MCA unit that includes messages as shot, splash, and rounds complete to name a few. When the operator clicks inside any parameter field, a more detailed description of that message will be displayed at the bottom of the OPFAC Response screen.

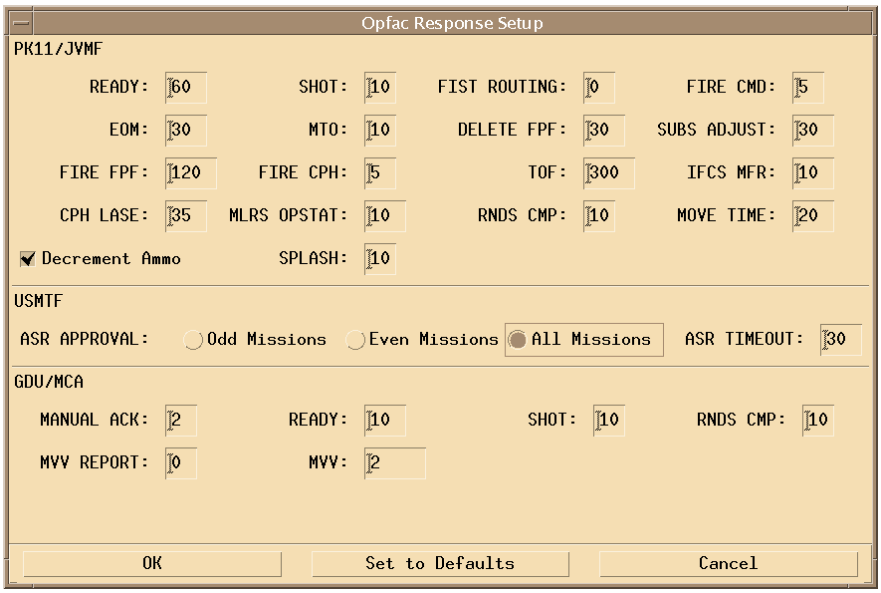


Figure 7-8 OPFAC Response Times

7-6. Configure Mission Logging Times

Mission Logging – Selecting this option displays the window, which allows the operator to track all messages generated by the opfac logic during the mission.

Figure 7-9 Mission Logging

Perform Mission Logging This button allows the operator to turn Mission Logging On/Off.
Mission Log File This field allows the operator to specify a Log Name.
Sort by This pull-down allows the operator to select a method of sorting. The options are: Mission ID, Source Unit, Dest Unit, Real Time, and TOEL Time.
OK This button saves the Mission Logging Setup window setting and closes the window.
Generate Report This button allows the operator to select to either Print directly to a file or printer or preview the log generated.

CHAPTER 8.
RUN/EDIT THE EXERCISE CONTROLLER

SECTION 1
EXERCISE CONTROLLER

8-1. View Run/Edit the Exercise Controller

Primary selecting either Add or Replace to TOEL from the Scenario Menu window you have the option of editing the event list to add new messages or make changes. Another option is running the scenario that was just created. When selecting the run scenario option the SPTCIMS/TCIMS become available and the exercise controller is ready to be started.

Figure 8-1 Run/Edit the Exercise Controller

8-2. Edit the Event list

This window (Fig 8-2) allows the operator to edit the event list that has been generated for the scenario. This window also allows the operator to add messages from the new button.
The Time/Net/Originator/Destination/Message shows a list of the messages that have been generated for the current scenario. The list shows the scenario time that the message will be transmitted, on which net it will be transmitted, the originating unit of the message, the destination unit, and a brief synopsis of the message type and message name.

Event List

Time	Net	Originator	Destination	Message	
00:00:00	CF1	FO 41	FSE TF 1-10	PK11	K02.04 Call For Fire AA1000 PERSONNEL
00:01:30	LAN	FF 1	FSE TF 1-10	PK11	K02.09 Target Data JP1000 ARTILLERY
00:03:00	CF1	FO 41	FSE TF 1-10	PK11	K02.04 Call For Fire AA1001 VEHICLES
00:04:30	LAN	FF 1	FSE TF 1-10	PK11	K02.04 Call For Fire JP1001 ARTILLERY
00:06:00	CF1	FO 41	FSE TF 1-10	PK11	K02.04 Call For Fire AA1002 ARMOR
00:07:30	LAN	FF 1	FSE TF 1-10	PK11	K02.04 Call For Fire JP1002 ARTILLERY
00:09:00	CF1	FO 41	FSE TF 1-10	PK11	K02.04 Call For Fire AA1003 ARMOR
00:10:30	LAN	FF 1	FSE TF 1-10	PK11	K02.04 Call For Fire JP1003 ARTILLERY
00:12:00	CF1	FO 41	FSE TF 1-10	PK11	K02.04 Call For Fire AA1004 ARMOR
00:13:30	LAN	FF 1	FSE TF 1-10	PK11	K02.04 Call For Fire JP1004 ARTILLERY
00:15:00	CF1	FO 41	FSE TF 1-10	PK11	K02.09 Target Data AA1005 PERSONNEL
00:16:30	LAN	FF 1	FSE TF 1-10	PK11	K02.09 Target Data JP1005 ARTILLERY
00:18:00	CF1	FO 41	FSE TF 1-10	PK11	K02.09 Target Data AA1006 ARMOR
00:19:30	LAN	FF 1	FSE TF 1-10	PK11	K02.09 Target Data JP1006 ARTILLERY
00:21:00	CF1	FO 41	FSE TF 1-10	PK11	K02.04 Call For Fire AA1007 MORTAR
00:22:30	LAN	FF 1	FSE TF 1-10	PK11	K02.09 Target Data JP1007 ARTILLERY
00:24:00	CF1	FO 41	FSE TF 1-10	PK11	K02.09 Target Data AA1008 ARTILLERY

OK | New | Edit | Delete | Copy | Print | Delete All

Figure 8-2 Edit the Event list

The **New button,** allows the operator to create new events for the scenario. When this button is activated a window is displayed that allows the operator to choose the protocol for the new message.
The **Edit button,** allows the operator to edit an event that currently exists in the Event List

NOTE

A message must be highlighted before this button can be activated.

When this button is activated, the appropriate window is displayed depending on the message type and protocol. A double click action defaults to this Edit operation.
The **Delete button,** deletes the highlighted event from the Event List (Note: a message must be highlighted before this button can be activated). When the message has been deleted, the event is removed from the Event List.
The **Copy button,** allows the operator to copy an event that currently exists in the Event List when this button is activated, a copy of the highlighted message is added to the Event List. The copy of the message is added to the Event List in the position immediately following the highlighted message.
The **Delete All button**, allows the operator to remove all of the events from the current Event List for the current exercise. When this button is selected the operator is presented with the following confirmation window (Fig 8-3).

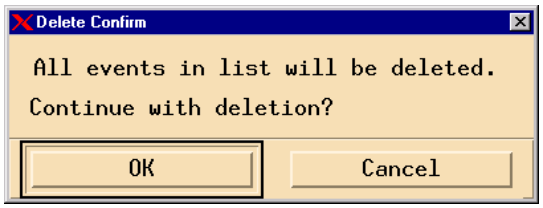


Figure 8-3 Delete Confirm button

8-3. Package 11 Call for Fire

This section is designed to give an example of how to setup a PK11 message. (Fig 8-4, 8-5, 8-6, 8-7, 8-8 8-9) Common fields are described below, further information on valid data can be obtained from the PK11 Message Specification or by activating the help feature inside each field. Most PK11 messages continue beyond the visible window, therefore be sure to use the scroll bar for additional fields. The **Message Set Quick Link** is a feature on the left side of all message windows. These screens can be resized by dragging a box in the corner of the window. When selecting a link it will take the operator to that field in the message. The PK11 interface will display an error message if the operator attempts to activate the “OK” button with an invalid message.
The **Xmit Time** field shows the time (hh:mm:ss format) at which the message will be transmitted to the destination unit.
The **Origin field** allows the operator to select the transmitting unit for the message. By selecting the “Select” button the Select Units window below (Fig 8-4) is displayed that prompts the operator to select from a list of available units.

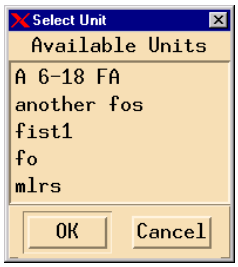


Figure 8-4 Select Units

The **Destinations field** allows the operator to select the unit/units that will receive the message. By selecting the “Add” button the Select Units window below is displayed that prompts the operator to select from a list of available units. Selecting the “Delete” button will remove a highlighted unit from the destination list.
The **Message Case PK11** (Fig 8-5) message specification contains many different cases, which allows one message to accomplish several different meanings. Therefore SISTIM has included the Message Case feature to assist an operator in creating a message based on one specific case. By choosing the desired case, SISTIM will assist the operator by specifying the fields that should and should not be used.

The Option List Example (Fig 8-6) has several fields in PK11 messages, which contain pull down buttons. Selecting the button will activate a window that will allow the operator to choose a selection from a list.(Fig 9-6) In this type of window selection once the operator mouse clicks on the desired choice the window closes and that value is entered into the field.

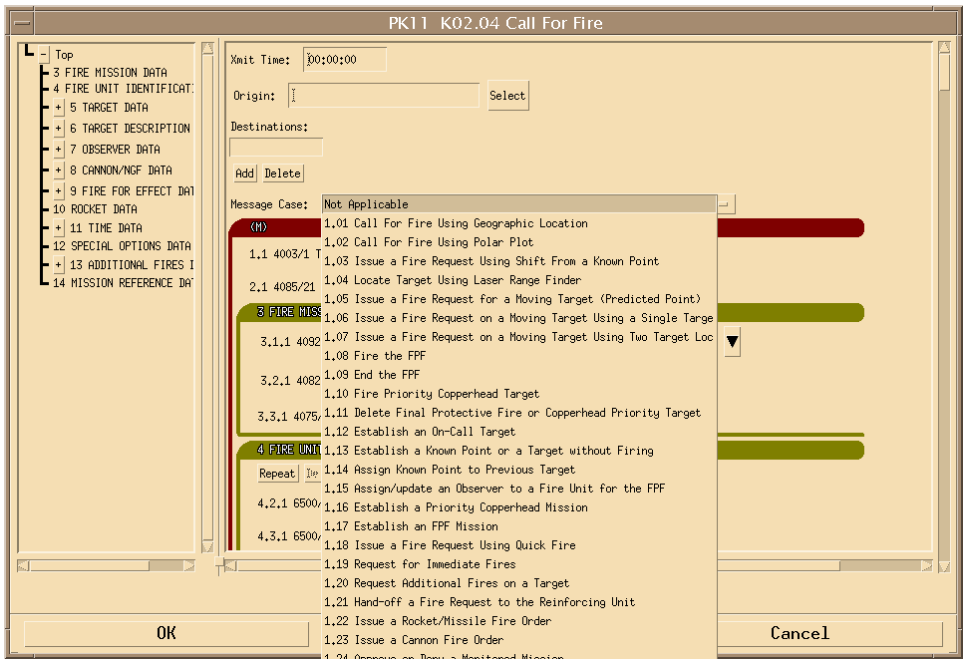


Figure 8-5 Option List Example

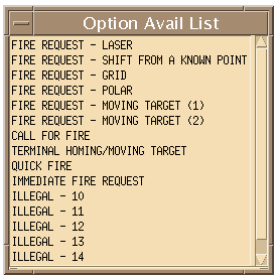


Figure 8-6 Option List pull down buttons

The **Coordinate Example** on several PK11 messages contains a location or coordinate field. In order to assist in entering location, the operator can activate the LAT/LONG Setup window by selecting “BUTTON 3” and clicking on the location field.

In order to assist the operator with entering proper data into messages the message templates have a help interface. By activating “SHIFT + BUTTON3” on a field, a window will be displayed which shows the valid data for that field (Fig 8-7).

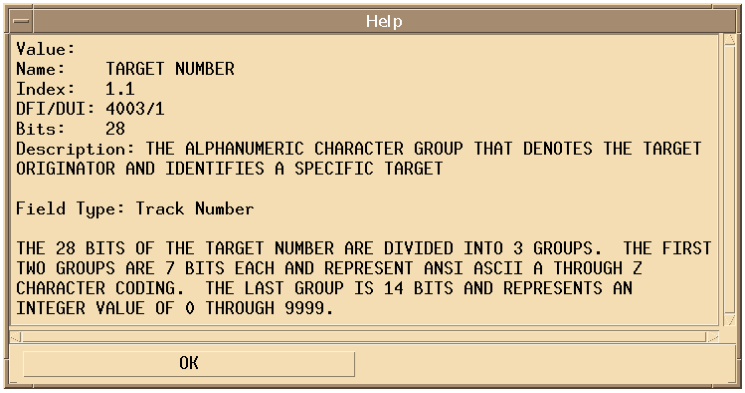


Figure 8-7 Help Window

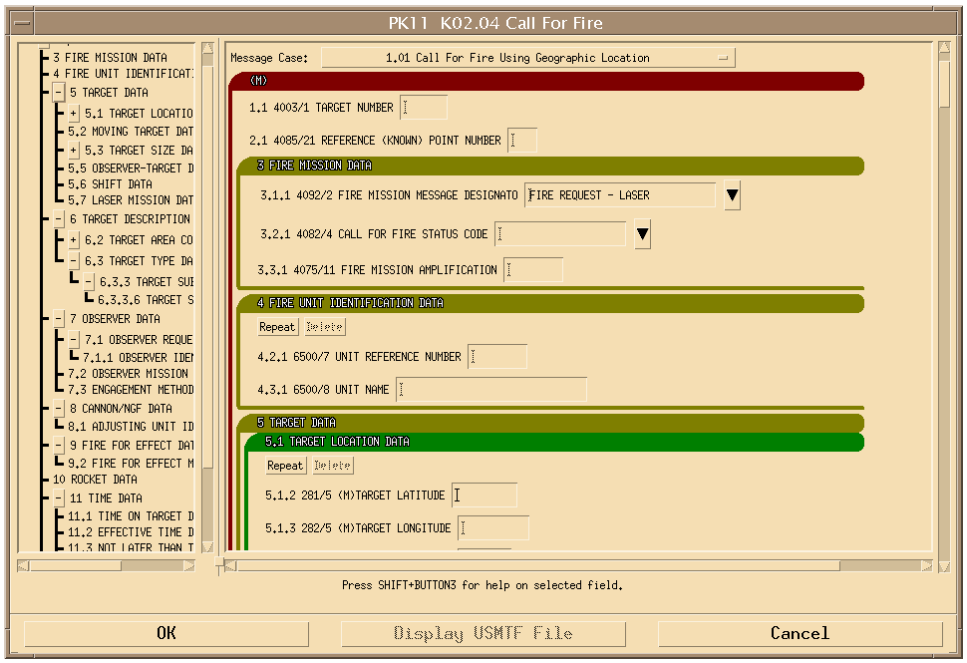


Figure 8-8 Package 11 Call for Fire

8-4. The Exercise Controller

This window (Fig 8-9) allows the operator to manipulate an exercise that is in process. From this window the operator may start or stop the execution of the exercise, view/edit outgoing messages, view incoming messages, check on failed transmissions, load/reload, and generally control the operation of the exercise.

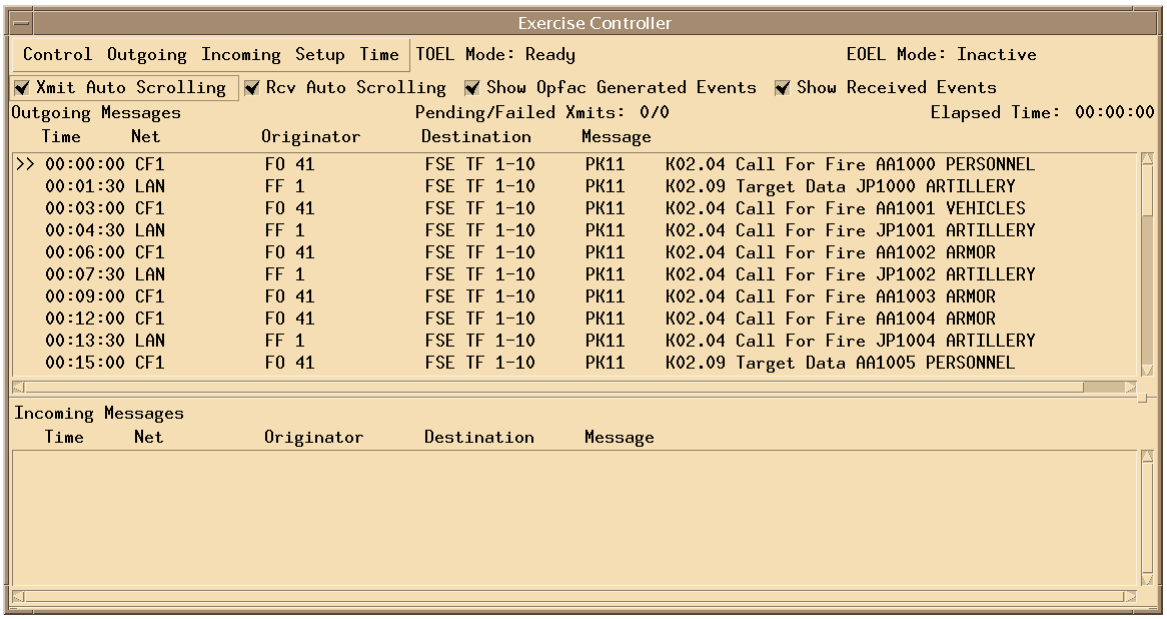


Figure 8-9 The Exercise Controller

SISTIM can also be run from a blank scenario with no sensors established. It is used with the units of the GDU's and Paladins. All that is required in this configuration is that the higher headquarters is established for the GDU's, Paladins and the communication networks are configured to support these units.
The **Exercise Controller Window** is broken down onto four major areas.
The first area is the **Menu Bar**, which is broken down into five additional areas. They are the Control, Outgoing, Incoming, Setup and Time.
The Second area is the **Action Buttons/Menu**. These buttons/Menus show the operator the Status of the exercise. They are the Mode, Xmit Auto Scrolling, Rcv Auto Scrolling, Show Opfac Generated Events, Show Received Events, Failed Xmits, Elapsed Time and Event Time.
The Third area is the **Outgoing Messages Area**. This area is broke down into Time, Net, Originator, Destination and Message. The Scenario generator originally initiated these messages but the operator can add or delete messages from this window.
The Fourth area is the **Incoming Messages Area**. This area is broke down into Time, Net, Originator, Destination and Message. These Incoming messages are received from units that were built in the communication networks. Event changes made with the Exercise Controller are kept in the TOEL until either a new exercise is loaded, or when the operator exits SISTIM. Although when the exercise is saved, changes made become permanent, except OPFAC generated events that are never saved.

8-5. Control Menu Window

The **Start button option** begins execution of the exercise (Fig 9-10). Once an exercise has begun, it can be stopped at any time. This option transitions the TOEL mode from ready to run.
The **Stop button option** stops the execution of the exercise. Once an exercise has been stopped the operator can select "Start" to re-start the exercise from the point at which it was stopped. This option transitions from Run to Ready mode.
The **Close button option** will close the Exercise Controller window. The exercise must be stopped to close the Exercise Controller window. This option returns SISTIM to configure mode.
TOEL/EOEL, - This option displays a pull-down menu that displays the options the operator has when manipulating the TOEL and EOEL.
Start TOEL And EOEL, - This option allows the operator to put both the TOEL and EOEL into running mode.
Start EOEL, - This option allows the operator to put only the EOEL into running mode.

Abort Run EOEL, - This option allows the operator to put the EOEL into Inactive mode without disrupting the TOEL.

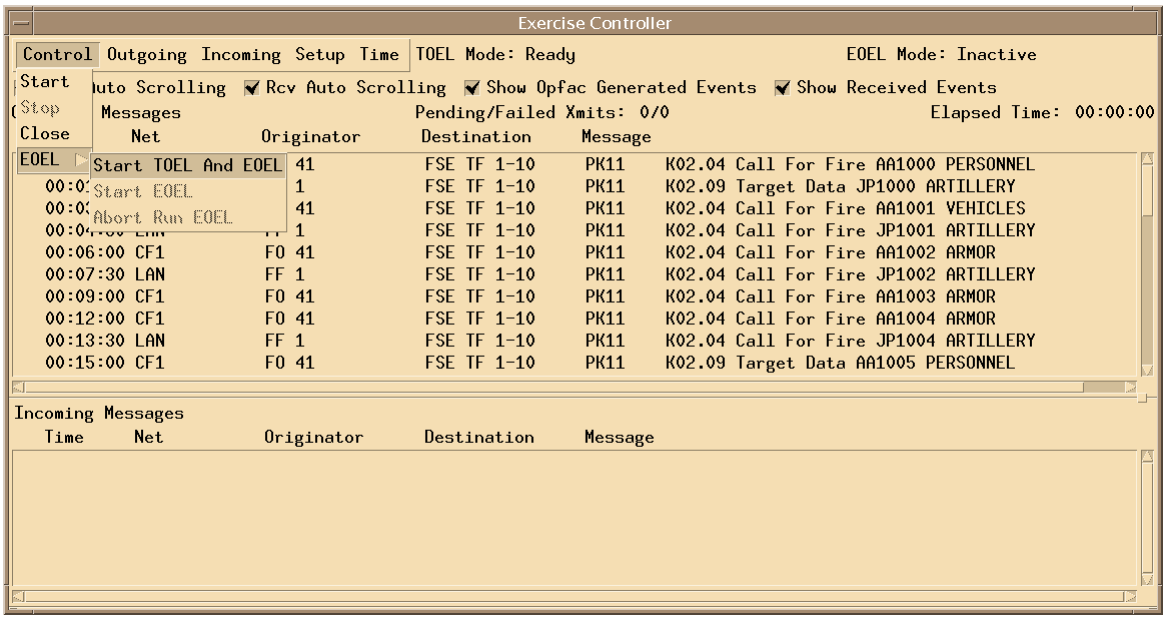


Figure 8-10 Control Menu Window

8-6. Outgoing Menu Window

The Edit option gives the operator the ability to edit any event in the Outgoing Messages list

NOTE

An event must be highlighted before this option can be activated.

When this option is selected (Fig 8-11), the message template for the event highlighted will be displayed. If the transmit time for the event occurs while the message is being edited, the message will be transmitted as soon as the editing is complete. Double clicking the message invokes the Edit function.

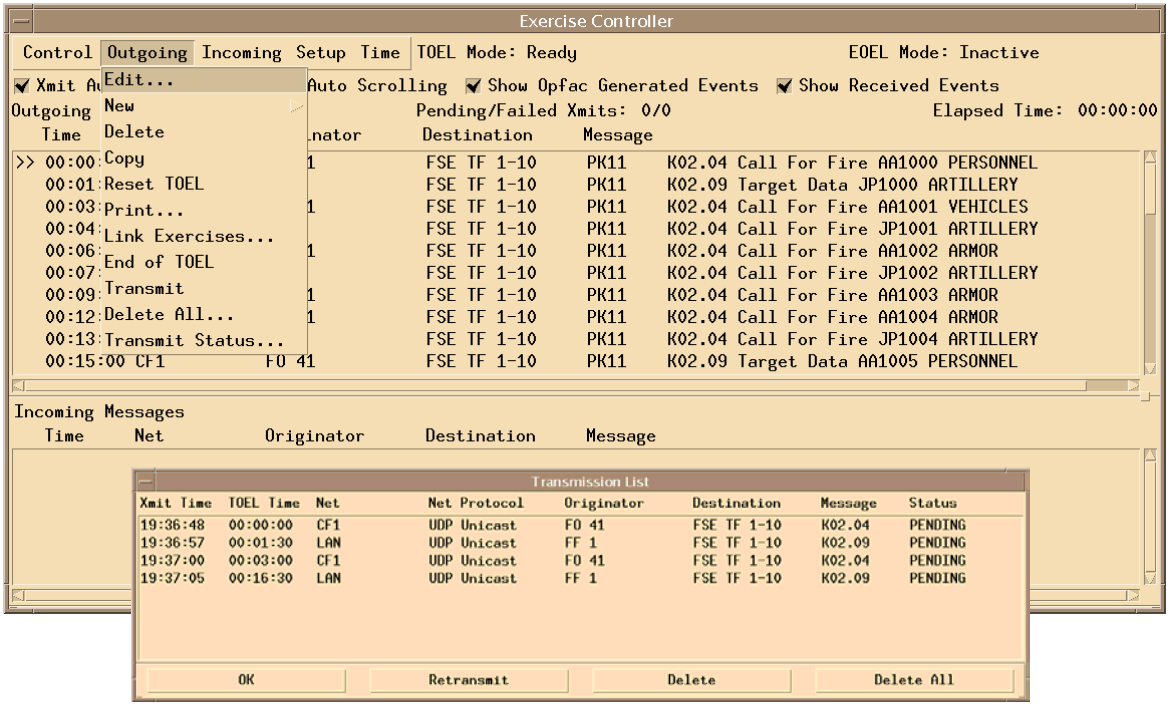


Figure 8-11 Outgoing Menu Window

The **New option,** allows the operator to add new message type into the Outgoing Messages list. A cascade menu appears for the operator to select a PK11, JVMF, or USMTF type. Selecting PK11, the PK11 Available Message List window is displayed. Selecting JVMF, the JVMF Available Message List window is displayed. Selecting USMTF, the USMTF Available Message List window is displayed. Selecting GDU/MCA, the GDU/MCA Available Message List window is displayed. Selecting Generic, the Generic Available Message List Window is displayed.
The **Delete option,** allows the operator to delete any event in the Outgoing Messages list (Note: an event must be highlighted before this option can be activated).
The **Copy option** copies a highlighted event and places it in the list immediately following the selected event.
The **Reset TOEL**, option allows the operator to reset the TOEL to the beginning at Elapse Time: 00:00:00.
The **Print option,** allows the operator to print the highlighted event.
The **Link Exercises option**, allows the operator to link two or more exercises together. When exercises are linked, the exercises will run one after the other, to simulate multi-phase exercises. Linking exercises allows the operator to begin execution of a second exercise as soon as the first has completed. If the operator creates multiple exercises with the same units in different locations and then links the exercises, movement of the units can be simulated.
The **End of TOEL option,** allows the operator to go to the end of TOEL.
The **Transmit option** transmits a highlighted message from the Outgoing Message List.
The **Delete All option**, will delete all events in the event list.
The **Transmit Status option,** allows the operator to view messages that have failed transmission. When this option is selected, the Transmission List window is displayed. It notifies the operator of the cause of failure and offers the opportunity to retransmit the message. **Time/Net/Originator/Destination/Message/Failure** - this is a list of messages that failed transmission during the execution of the currently running TOEL. This list will be empty if all the messages have transmitted successfully.
Event Type is the events that originate from the EOEL. They are denoted by *E and events that are prompted by Opfac Logic are denoted by *O on the Exercise Controller window in the Outgoing message section.

8-7. Incoming Menu Window

The View option (Fig 8-12) allows the operator to view a highlighted message from the Incoming Message List.

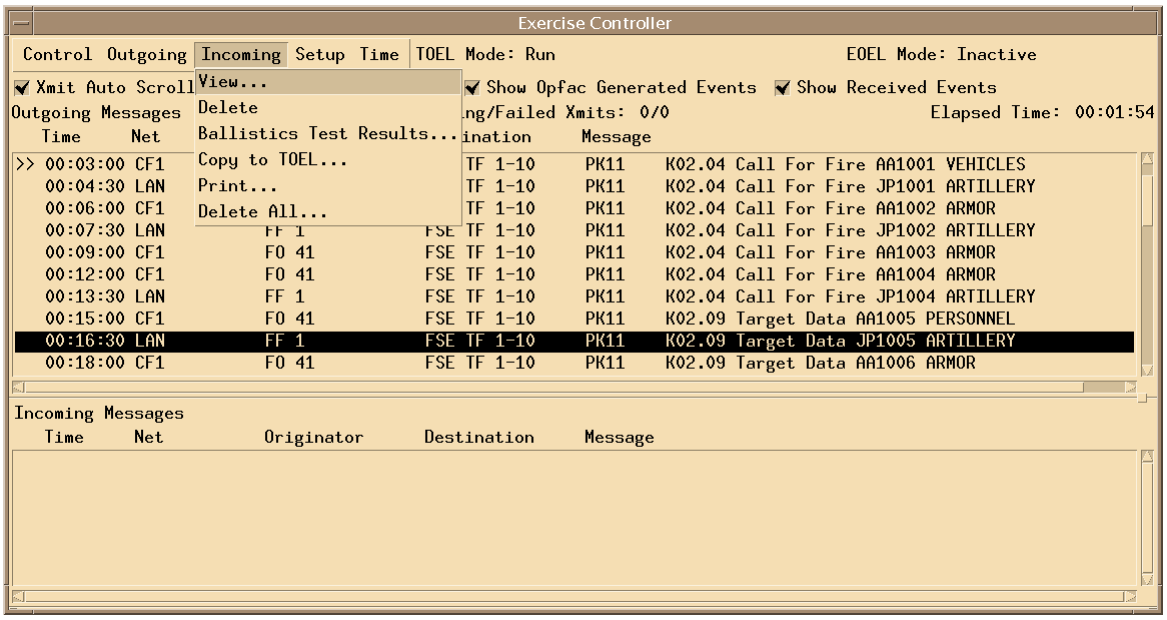


Figure 8-12 Incoming Menu Window

These messages are view only. Double clicking an incoming message invokes this function.
The **Ballistics Test Results option,** will display the results of the current Ballistics test. This only works when the controller is in Ballistics test mode only.
The **Copy to TOEL option,** allows the operator to copy a highlighted incoming message to TOEL, by first bringing up the appropriate Message Template and allowing the operator to choose the origin and destination of the new message.
The **Print option,** allows the operator to print incoming events.
The **Delete All option,** clears all messages from the Incoming Messages List.

8-8. Setup Menu Window

The **Networks option** (Fig 8-13), allows the operator to edit an existing network. This feature does not allow the operator to create, copy, delete, or print a highlighted network.
If the networks display ENABLE you are now ready to save your configuration, and start your exercise. However, if any Networks fail to enable you must exit the TOEL and reconfigure those Nets, or exit SISTIM and run SISTIM again.
The **Units option**, allows the operator to edit an existing unit. This feature does not allow the operator to create, copy, delete, or print a highlighted unit.
EOELs Selecting this option will display a window, which allows the operator to setup an EOEL list

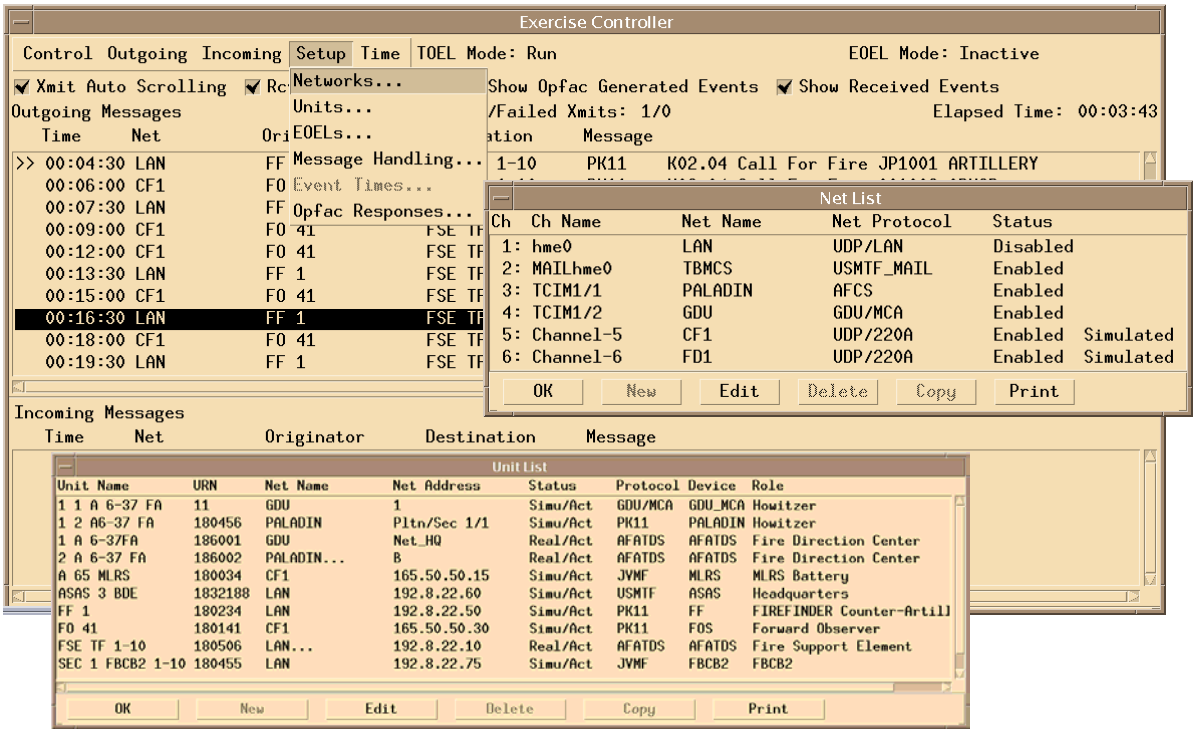


Figure 8-13 Setup Menu Window

8-9 Setup Menu Window

The **Event Times option**, displays the Event Times window. This option is not available when SISTIM is in run mode.

8-10 Message Handling

The Message Handling option (Fig 8-14) displays the Message Handling Setup window.

Figure 8-14 Message Handling Setup

The message handling setup window allows the operator to select how to handle message validation and viewing for both incoming and outgoing messages, of all formats.
The Log 47001B Headers, if selected the command 47001B headers will be written to the message log.
The **Outgoing Messages Hide/Delete Sent Opfac Generated Events**, if selected commands those messages generated by SISTIM for simulated units not to be displayed on the Outgoing TOEL.
The **Incoming Messages Delete Incoming Events**, when selected commands Incoming Events not to be displayed on the TOEL.
The **PK11 Validate Conditions Cases,** these selections, for both incoming and outgoing messages, allow the operator to choose whether to check messages against the PK11 conditions and cases database. Often this can be helpful to assist the operator to ensure a correct message.
The **JVMF Validate Conditions/Cases,** these selections, for both incoming and outgoing messages, allow the operator to choose whether to check messages against the JVMF conditions and cases database. This can be helpful to assist the operator to ensure a correct message.
The **USMTF Validate Conditions,** this selection for both incoming and outgoing messages allows the operator to choose whether to check messages against the USMTF conditions database. Often this can be helpful to assist the operator to ensure a correct message.
The **USMTF View as Text,** this selection allows the operator to view the USMTF Messages in the formatted text only. This is often helpful to quickly view incoming messages and to allow pasting existing text messages for outgoing use.
The **USMTF Prompt for Screen Mode.** This selection allows the operator to choose whether to view a message as text when each message is opened. Each time a USMTF message is opened the following window is displayed. (Although the operator may choose to view USMTF messages in “Screen Mode”, SISTIM by default will not display any message over 5000 bytes in screen mode. The message can still be parsed for correctness.)
The **Max Parse Size**, on some occasions SISTIM may receive a very large message, which can sometimes take a lot of time to parse. Therefore SISTIM has included this feature to allow the operator to specify the largest message SISTIM will parse. Any message larger than this size received by SISTIM will not be parsed.
The **Display GDU Requests** selection allows the operator to choose whether to display GDU Requests received from AFATDS. It is often a good idea to turn off this selection since AFATDS sends Requests 1 every 2 to 3 seconds, approximately.

The **Display MCA Commands** this selection allows the operator to choose whether to display MCA Commands received from AFATDS.

8-11. OPFAC Responses

The OPFAC Responses window (Fig 8-15) allows the operator to view and modify the time in seconds that SISTIM will delay a transmission before sending out an OPFAC generated response for the events listed on the window.

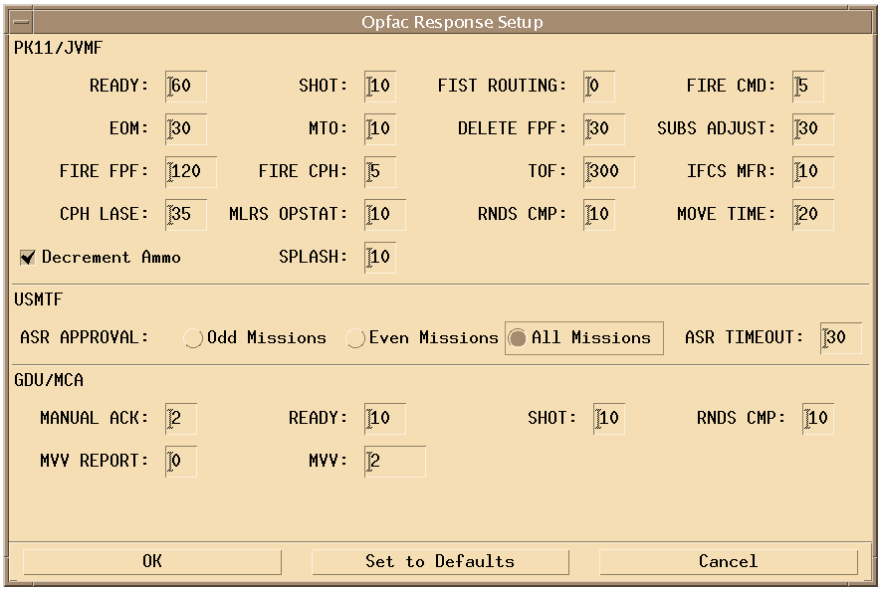


Figure 8-15 Opfac Responses

This window is divided into three areas.
The first is area is the **PK11/JVMF**, this area includes Paladins units with some messages i.e. shot, splash and rounds complete. This also includes IFCS messages i.e. IFCS MFR and Move Time.
The second is the **USMTF units** that include air units like TBMCS and CTAPS. The messages that are included are Air Support Request and Request Status Tasking to name a few. The ASR Approval radio buttons allow the operator to specify whether ASR missions with odd, even or all request numbers will be approved.
The third area is **GDU/MCA unit**, that includes messages as shot, splash, and rounds complete to name a few.
When the operator clicks inside of any parameter field a more detailed description of that message will be displayed at the bottom of the Opfac Response screen.

8-12. Time Menu Window

The Set time option (Fig 8-16) allows the operator to set the exercise time. The operator may select specified times to run an exercise therefore, events scheduled before the specified time may be skipped.

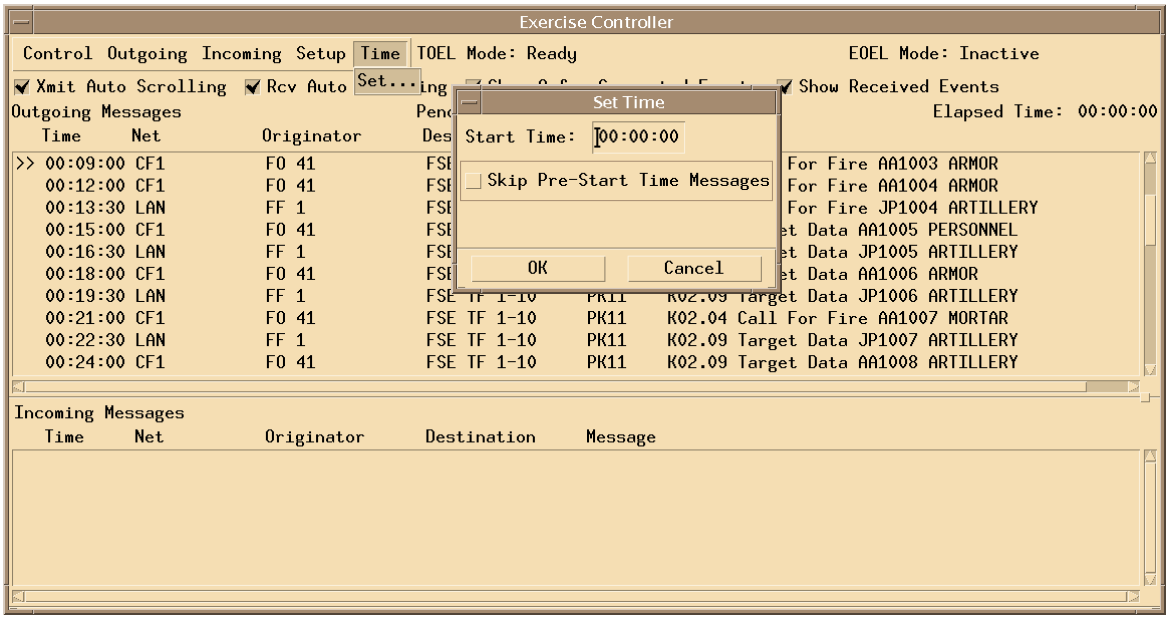


Figure 8-16 Time Menu Window

8-13 Action Buttons/Menu Window

The **Mode Label,** states whether the Controller is currently in ready or running state.
The **Xmit Auto Scrolling**, when selected the Outgoing Messages list will scroll in the run mode.
The **Rcv Auto Scrolling**, when selected the Incoming Messages list will scroll in the run mode.
The **Show Opfac Generated Events**, when selected messages generated by SISTIM for opfac logic response will be displayed.
The **Show Received Events**, when selected incoming messages will be shown in the Incoming Message list.
The **Failed Xmits**, this number indicates the number of messages that did not reach their destination. The operator can view a list of these messages by Selecting Outing Transmit Status
The Elapsed Time is the time in hours/minutes/seconds that has elapsed in the TOEL

NOTE

This may not reflect the time from the beginning of the TOEL if the time has been edited.

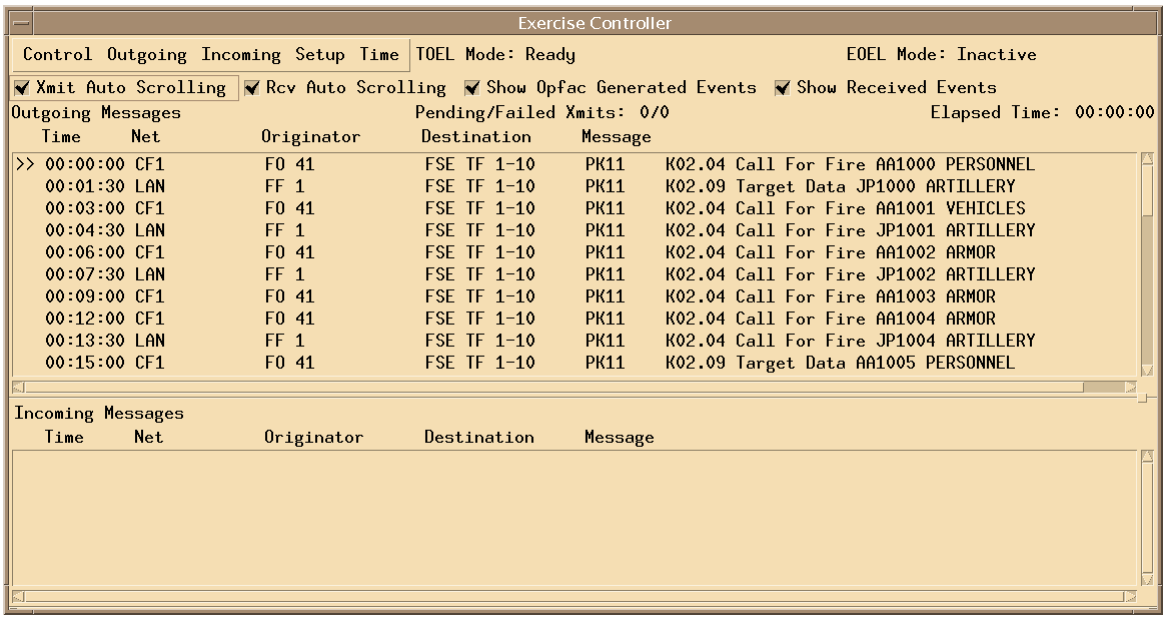


Figure 8-17 Action Buttons/Menu Window

8-14. Outgoing and Incoming Messages

The Outgoing and Incoming message area (Fig 8-17) shows the Time/Net/Originator/Destination/Message columns with a list of the messages that have been generated for the current running scenario. The list shows the scenario time that the message will be transmitted, on which net it will be transmitted, the originating unit of the message, the destination unit, and a brief synopsis of the message type and message name. To edit the outgoing message the operator must stop the exercise, make changes and then restart the current exercise. It is best to close the run Exercise Control and make changes from the Edit Event List Window. When the changes have been made start the Run Exercise again.

8-15 Monitoring the Outgoing Message List

Unlike previous versions of SISTIM, messages that are transmitted are not removed from the outgoing list. The list scrolls so the next message to be transmitted is at the top of the viewable portion of the list. In addition, there is a double “Arrowhead” in the left margin that marks the next message to be transmitted.

8-16 Establish Communications

First thing you typically want to do is establish communications from SISTIM to the live units to verify connectivity. From AFATDS you can do a Test Message. From SISTIM you can create and send a Free Text message. You do not want the exercise running. Click on the Outgoing menu and select "New" and then "Package 11". This will create the Package 11 Available Message form. Select Free text from the list and then click on "OK". Select an Origin Unit that is common to as many of the live units as possible and select one of the live units as the Destination, add a short message and then click on "OK". This will place the message into the outgoing list. If you need to communicate with multiple units, highlight the message, click on the Outgoing menu and select "Copy". This will create a copy of the message. Highlight the message again, click on the Outgoing menu and select "Edit". This will open the message in the Package 11 message format. You can change the Origin and Destination units. Click on "OK" to close the message and save the changes. To individually verify communications, highlight the message and then click on the Outgoing menu and select "Transmit". This will send out the message. When you transmit the message, it is not removed from the list. This allows you to reuse a message if you want to.

8-17. Maintain Communications

During the course of the exercise you need to periodically verify that there are no lost messages. Within SISTIM you can monitor if any messages have failed by checking the "Pending/Failed Xmits" counters located above the outgoing message list. The second subfield lists the number of messages that have failed. To review and resend the messages, click on the Outgoing menu and select "Transmit Status…". This will open the Transmission List form. This form shows the status of all messages that have not reached their destination units. When this form is open you can not access any other portions of the Exercise Controller form. If a failed message is in the Transmission List and you want to try and resend it, highlight it and then click on "Retransmit". Before doing this make sure the cause of the communications failure is fixed.

CHAPTER 9.
CREATING AN EOEL

SECTION 1
BUILD A EOEL

NOTE

Creating an EOEL is only for an experienced SISTIM operator

Creating an EOEL (Event Ordered Event List) (Fig 9-1) in SISTIM allows the operator to run a complete thread or series of threads without the intrusiveness of Opfac Logic. An EOEL is a thread in which the operator defines both incoming and outgoing messages. When an EOEL is created the operator uses triggers to help control the thread. Triggers place conditions on the messages so that outgoing messages will only be transmitted if and only if they meet the criteria of the triggers set. No Opfac Logic is used during the processing of an EOEL. The EOEL strictly follows the flow predetermined by the operator. EOELs can only be put into the running mode when the TOEL is in fact running. Once the TOEL is placed in running mode the EOEL can be “turned on” as well (It is very important that you verify that the EOELs you want to be “running” are selected). When the observer is placed on the EOEL and excluded from fire missions in the TOEL. When the observer is finished with mission threads from the EOEL the observer will be placed back on the TOEL for Fire Missions.
This window allows the operator to create a list comprised of **E**vent **O**rdered **E**vent **L**ists. After the EOELs have been created they may be ordered to the satisfaction of the operator and then displayed with a brief description of each EOEL

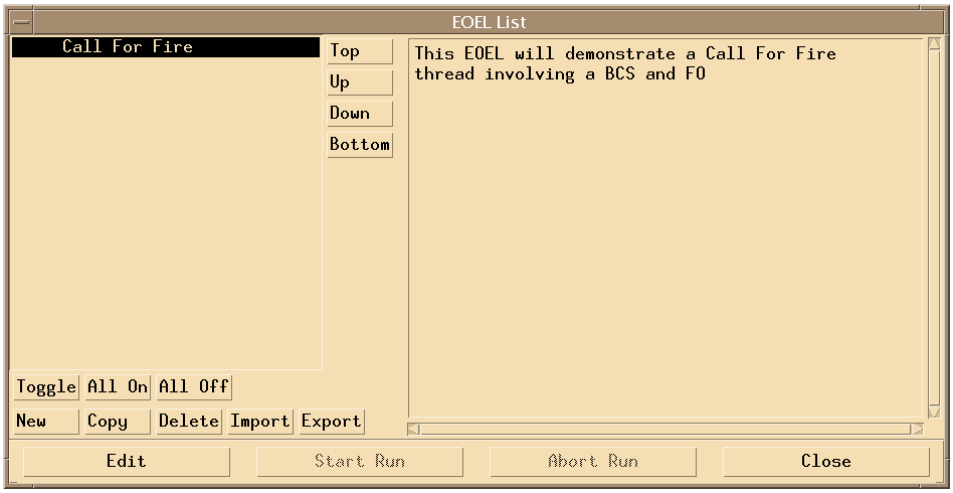


Figure 9-1 EOEL

Name/Description, The large block on the top left contains the names of each EOEL already created. Each EOEL name must be unique. The large block on the top right contains the brief description of the corresponding (highlighted) EOEL
Top/Up/Down/Bottom, selecting these buttons allows the operator to move selected events within the list to perform the desired purpose. To move an EOEL to the top of the list, the EOEL must be highlighted then the “Top” button must be selected. To move an EOEL to the bottom of the list, the EOEL must be highlighted and the “Bottom” button must be selected. The Up and Down buttons allow the EOEL to be moved Up or Down one EOEL at a time.

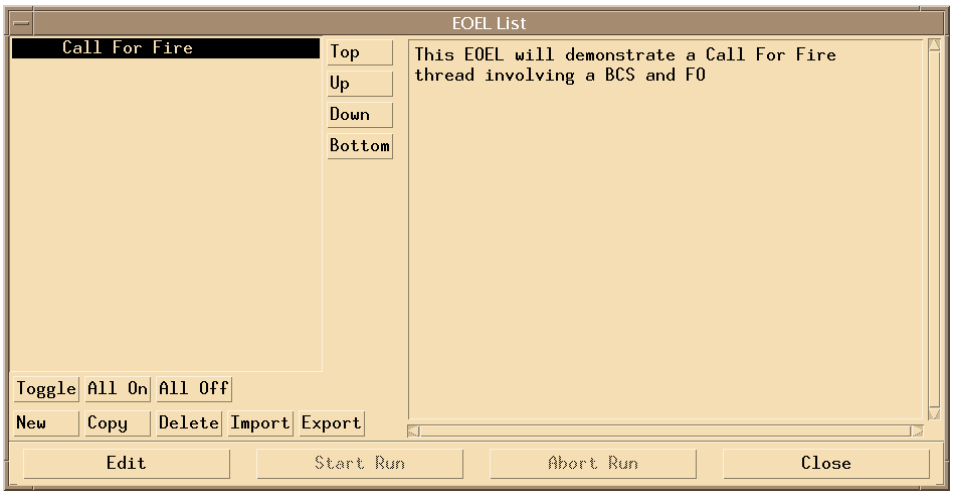


Figure 9-2 Toggle Switches

Toggle, selecting this button allows the operator to enable an EOEL. The operator must highlight the desired EOEL then select Toggle this will select that EOEL so that once the TOEL and EOEL are started the selected EOEL will be enabled. Once an EOEL is selected it is marked with an "X".
All On, allows the operator to enable all the EOELs on the EOEL List.
All Off, allows the operator to disable all the EOELs on the EOEL List.
New, starts the procedure so that the operator can add a new EOEL to the list.
Copy, allows the operator to copy the contents of an existing EOEL into a new EOEL with a unique name.
Delete, allows the operator to delete an EOEL from the EOEL List.
Edit, allows the operator to edit an existing EOEL on the list.
Start Run, allows the operator to put the EOEL in running mode (This button will only activate if the TOEL is already in run mode).
Abort Run, allows the operator to put the EOEL in inactive mode (This button will only activate if the TOEL and EOEL are already in run mode).
Close, allows the operator to close the EOEL List window.
Export, starts a procedure similar to the Export TOEL. Export EOEL allows the operator to export a current EOEL into a formatted text file.
Import, this button starts a procedure similar to the Import TOEL. Import EOEL allows the operator to choose a pre-formatted text file and create a new EOEL with a unique name.

9-1. EOEL SETUP

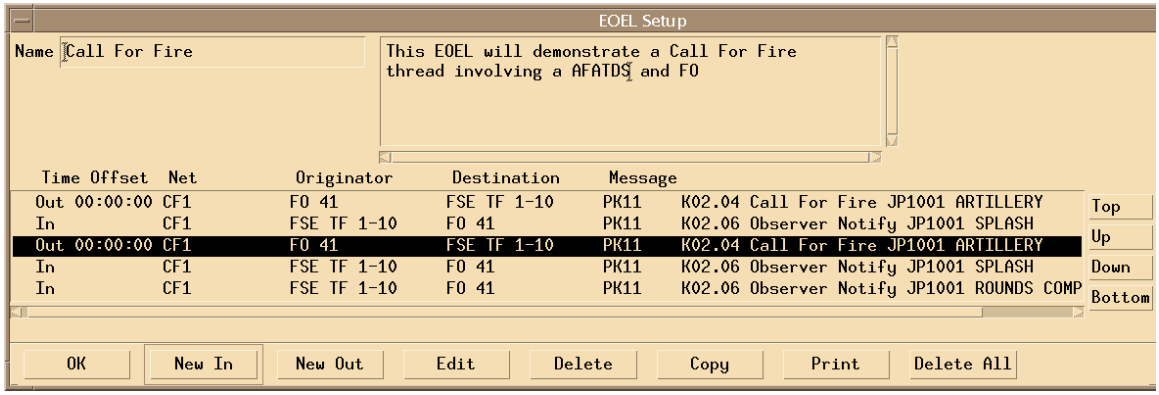


Figure 9-3 EOEL SETUP

EOEL Setup Procedure (Fig 9-3)
Name, up to 30 alpha/numeric characters, is valid in this field.
Description, this text field allows the operator to input a brief functional description of the EOELs.
OK, closes the EOEL Setup window and the new EOEL will appear in the EOEL List window.
New In, gives the operator the opportunity to configure a new Incoming event with the option of specifying triggers. When this button is activated a window is displayed (See Message Protocol Available) that allows the operator to choose the protocol for the new message. Once a Message Protocol is selected an Available Message List will appear allowing the operator to view and select the valid message for PKG11, JVMF, USMTF, GDU/MCA, and Generic. Once a message has been selected the template will appear (See EOEL IN-Event Setup).
New Out, gives the operator the opportunity to configure a new Outgoing event. When this button is activated a window is displayed (See Message Protocol Available) that allows the operator to choose the protocol for the new message. Once a Message Protocol is selected an Available Message List will appear allowing the operator to view and select the valid message for PKG11, JVMF, USMTF, GDU/MCA, and Generic. Once a message has been selected the message template will appear.
Edit, allows the operator to edit an event that currently exists in the EOEL (A message must be highlighted before this button can be activated). When this button is activated, the appropriate window is displayed depending on the message type and protocol.
Delete, deletes the highlighted event from the EOEL (Note: a message must be highlighted before this button can be activated). When the message has been deleted, the event is removed from the EOEL.
Copy, allows the operator to copy an event that currently exits in the EOEL (A message must be highlighted before this button can be activated). When this button is activated, a Message Format window appears allowing the operator to specify whether or not they want the same protocol as the original (highlighted) message or a Generic copy of the highlighted message added to the EOEL. The copy of the message is added to the bottom of the EOEL.
Top/Up/Down/Bottom. Selecting these buttons allows the operator to arrange their list to suit their desired purpose. To move an event to the top of the list, the event must be highlighted then the “Top” button must be selected. To move an event to the bottom of the list, the event must be highlighted and the “Bottom” button must be selected. The Up and Down buttons allow the event to be moved Up or Down one event at a time.

9-2. EOEL IN-EVENT SETUP

This section is designed to give an example of how to setup an EOEL In-Event.(Fig 9-4) The setup is extremely similar to composing an In/Outgoing message in the TOEL (PK11 Message Template), the distinct difference is the introduction of the “trigger”.

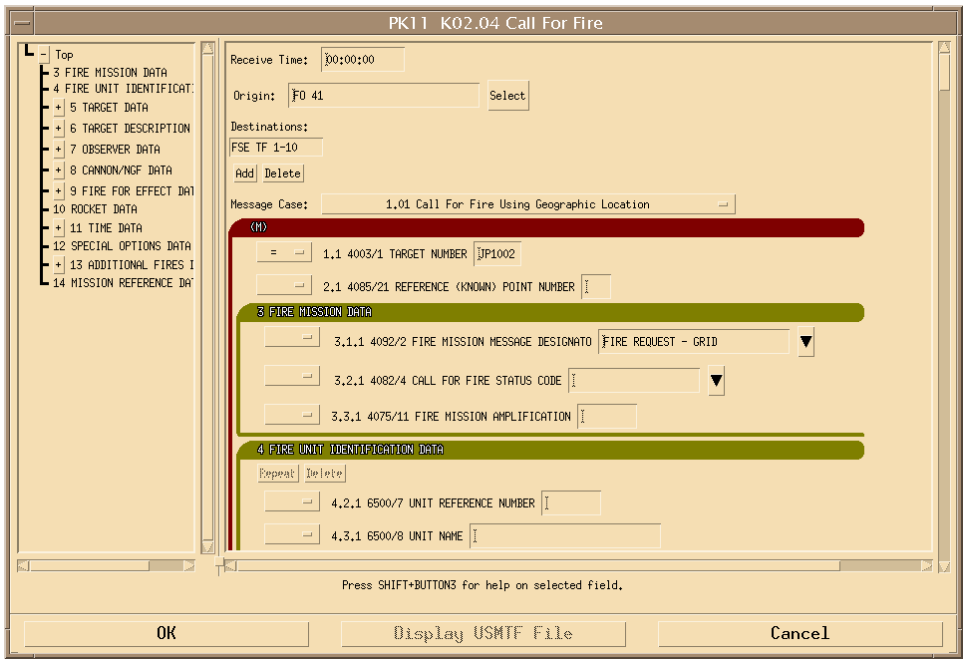


Figure 9-4 EOEL CFF

Trigger, the button located to the left of each field is called a trigger.(Fig 9-5) Triggers are conditions placed on incoming messages. When an incoming message meets all the criteria set by the operator's trigger, the next outgoing message is transmitted. Example: If the Target Number field has a trigger of "=" that means that no outgoing events will be transmitted until a message of the same protocol and message template comes in with the same Target Number.

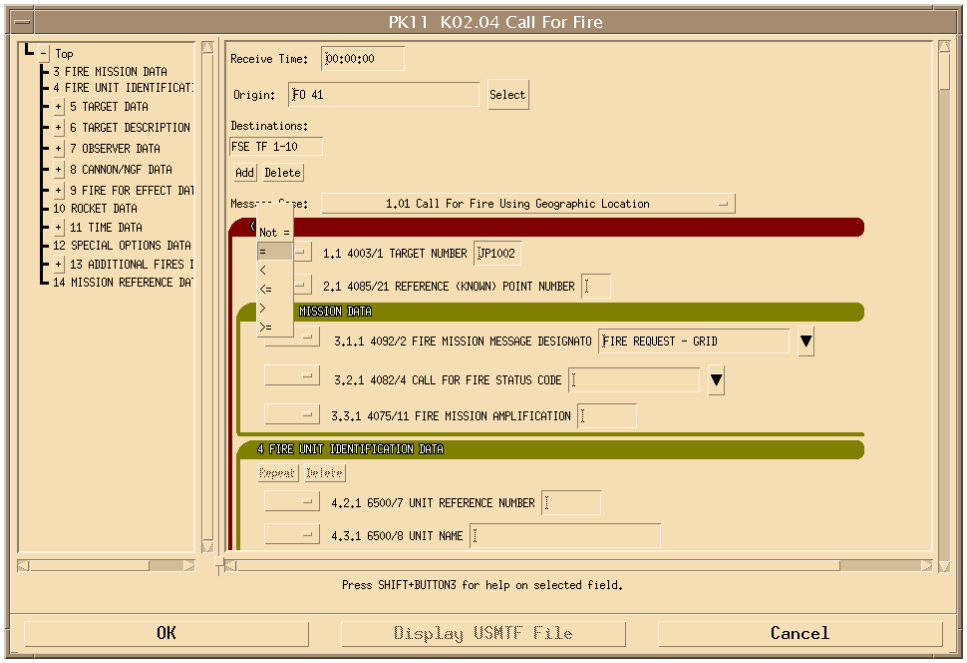


Figure 9-5 Trigger Options

Trigger Options EOEL In-Events give you the options to set a trigger or condition from the preceding list.

CHAPTER 10.
MANAGING THE SISTIM MAP

SECTION 1
MANAGING THE MAP

10-1. SISTIM MAP

This window shows a graphical representation of the units, targets, and geometries created by the user as well as received from AFATDS. The elements generated are automatically placed on the map unless otherwise specified. Map elements may be manipulated through the map or through the Event List.

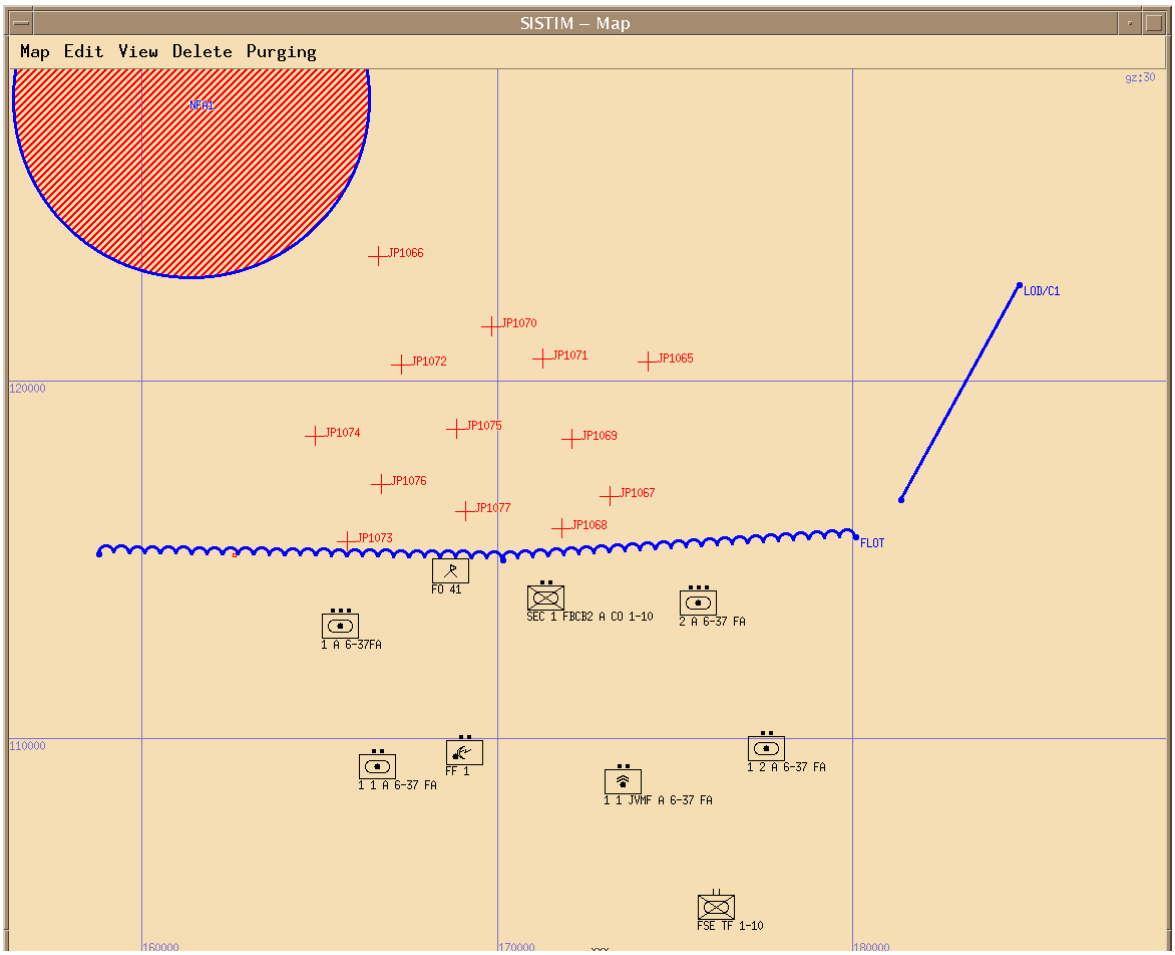


Figure 10-1. SISTIM MAP

MAP HOT KEYS

In order to operate in the map window display, below are a list of hot keys and their functions.

Left Mouse Button By selecting the left mouse button while operating within the map will simply relocate the focus of your selection indicator (the small red circle). The selection indicator allows you to highlight elements on the map.

Middle Mouse Button By depressing (and holding down) the middle mouse button allows you to drag the map.

Right Mouse Button The right mouse button is only effective if an element on the map has already been selected (See Left Mouse Button). Once an element has been selected from the map it can be Edited and Deleted from the map via a pop-up that is activated by depressing the right mouse button.
Shift+Right Mouse Button Depressing both the shift key and the right mouse button allows the operator to grab a location off the map. This location can either be used to center the map or to specify a target or unit location.
Shift+Left Mouse Button Depressing both the shift key and the left mouse button allows the operator to paste a location taken from the map into its respective field (See Shift+Right Mouse Button).

10-2. Record/Playback This option displays a Record/Playback Controller dialog**.**
This window allows the operator to record a sequence of events from the map as well as play them back at various speeds. The Record/Playback feature will capture geometry, unit, and target creation as well as moves/updates.

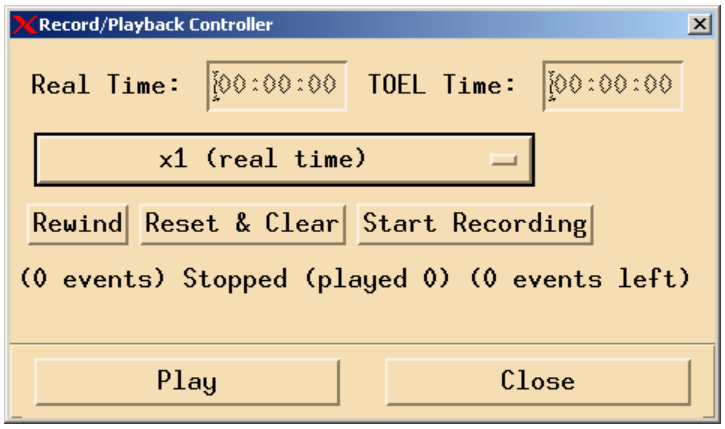


Figure 10-2 Record/Playback

Real Time This field represents the “real” time of the events reproduced.
TOEL Time This field represents the TOEL time of the events reproduced.
Playback Scale Pulldown This pull-down allows the operator to specify the rate at which the events are played back.
Rewind This button allows the operator to rewind the events.
Reset & Clear This button will clear the Record/Playback buffer.
Start Recording This button must be depressed in order to begin recording.
Stopped (Events, Played, Events Left) Play There fields track the progress of the playback.
Play This button will play as well as pause the playback sequence.
Close This option will close the Record/Playback Controller.

10-3. EDIT

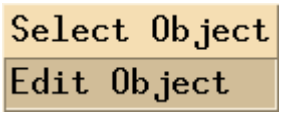


Figure 10-3 Edit

Select Map Object
This window displays all the targets, units and geometries displayed on the map. Through the use of this window the operator has the capability to highlight and center the map around the selected map element.
Center – This option will allow you to center the map according to the highlighted element.
Close – This option will close the Select Map Object
Select Map Object – This option displays a window that allows the operator to select an element from a list. Once an element is selected it will be highlighted on the map.
Edit Map Object – This option allows the operator the edit the element highlighted on the map..

10-4. VIEW MENU

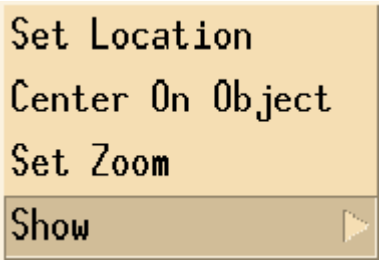


Figure 10-4 View Menu

Set Location – This option displays the following dialog so that the operator may specify the center of the map.
Center On Object – This option allows the operator the center the map according to the location of the highlighted element.

Set Zoom – This option provides a pop-up menu for the operator that allows the operator to set the resolution of the map by zooming in or out from the map.

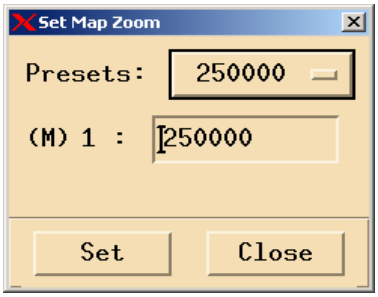


Figure 10-4 Set Map Zoom

Show – This options provides a pull-down that displays the various layers that can be displayed on the map

10-5. DELETE MENU

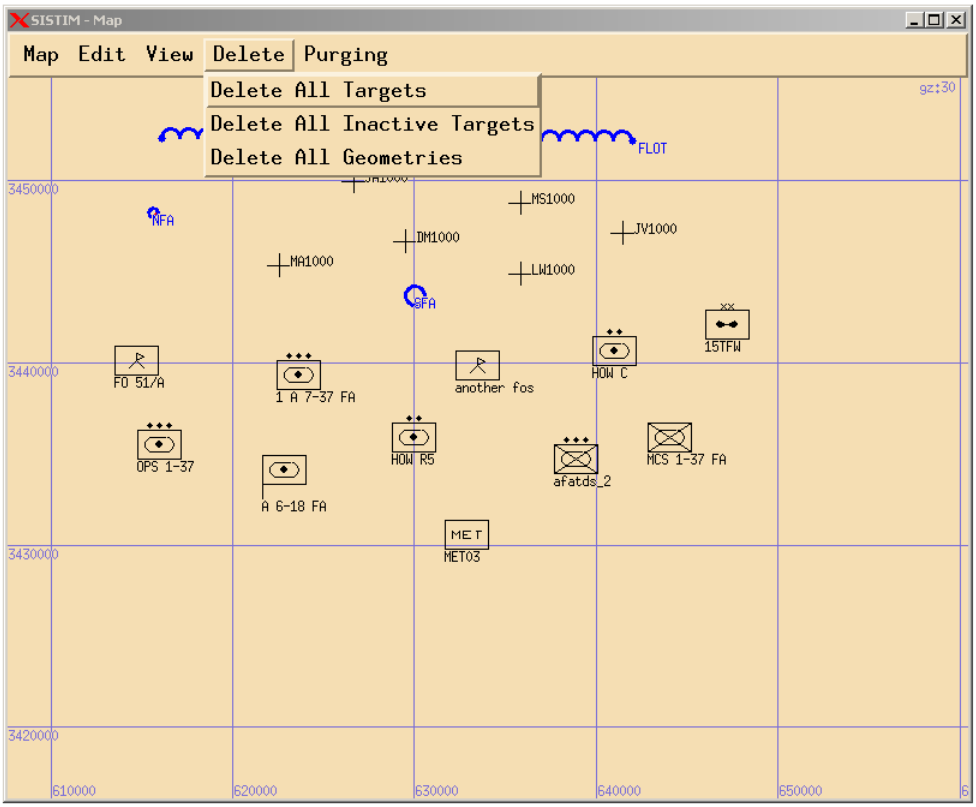


Figure 10-5 Delete Menu

Delete All Targets – This option allows the operator to delete all targets from the map.
Delete All Inactive Tagets – This option allows the operator to delete inactive targets only, from the map.
Delete All Geometries – This option allows the operator to delete all geometries from the map

10-6. Purging

Inactive Targets – This option will the operator the option to purge targets from the map as they become inactive.

CHAPTER 11.
INCORPORATE THE LAN/LOCAL PRINTER

SECTION 1
INSTALL A NETWORK PRINTER

The network printer must be installed with no other SISTIM programs running e.g., SISTIM. All that should be available is the Toolbar at the bottom of the SISTIM screen. (Fig 11-1)
There is an advantage to loading the LAN printer over a Local Printer. The first reason is that any system can print over the LAN printer and the second reason is that the LAN Printer can print postscript graphics or screen captures.

11-1. Add LAN Printer

Select on the menu of the SISTIM window ADD LAN printer.

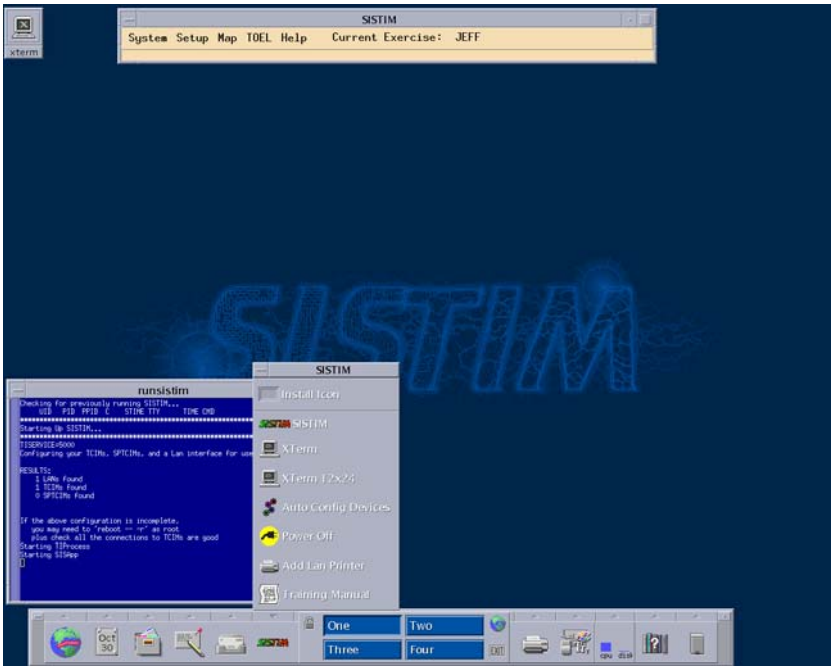


Figure 11-1 Add LAN Printer

11-1-1 Add the IP to the LAN Printer

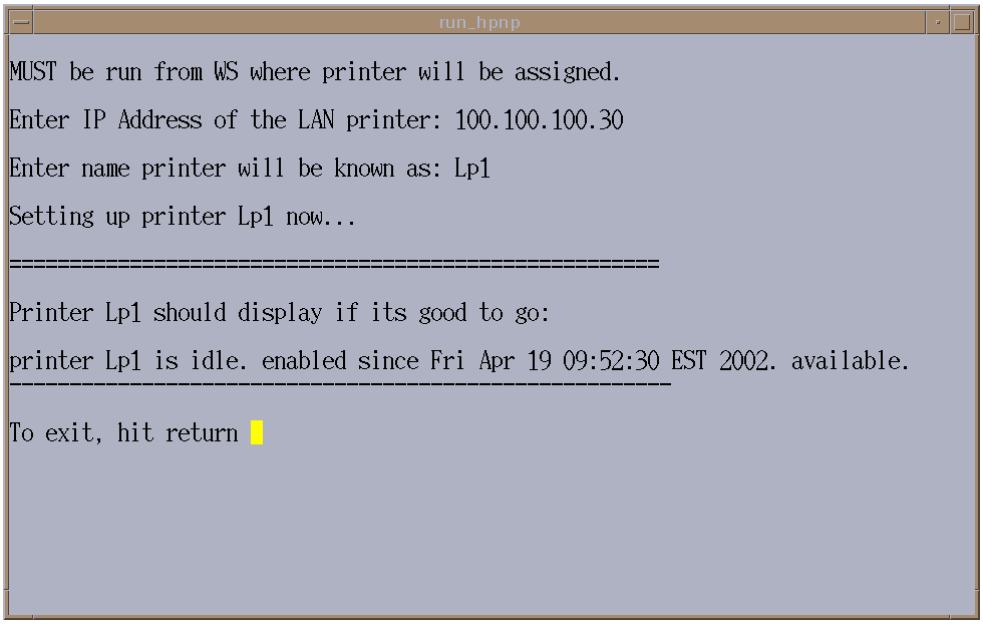


Figure 11-2 Add the IP to the LAN Printer

Add the IP to the LAN Printer Procedure (Fig 11-2)
Enter the LAN Printer IP address and printer name. The name must begin with Lp.
Select KEYBOARD Enter. The LAN Printer IP and the printer default gateway must have the same IP set if this does not happen failure to print will be the outcome. The IP address of the printer can be any octets as long as the IP and the default gateway are the same.
The response that the operator should see is “printer Name is Good to GO” and on the next line say IDLE.
The operator should now hit Enter or carriage return and the window will go away. The operator now must start the SISTIM program.

10-1-2. Add LAN Printer to Setup

After the SISTIM program is up and running, the operator must associate the SISTIM Program with the printer. The operator will select System/Print and Setup. (Fig 11-3)

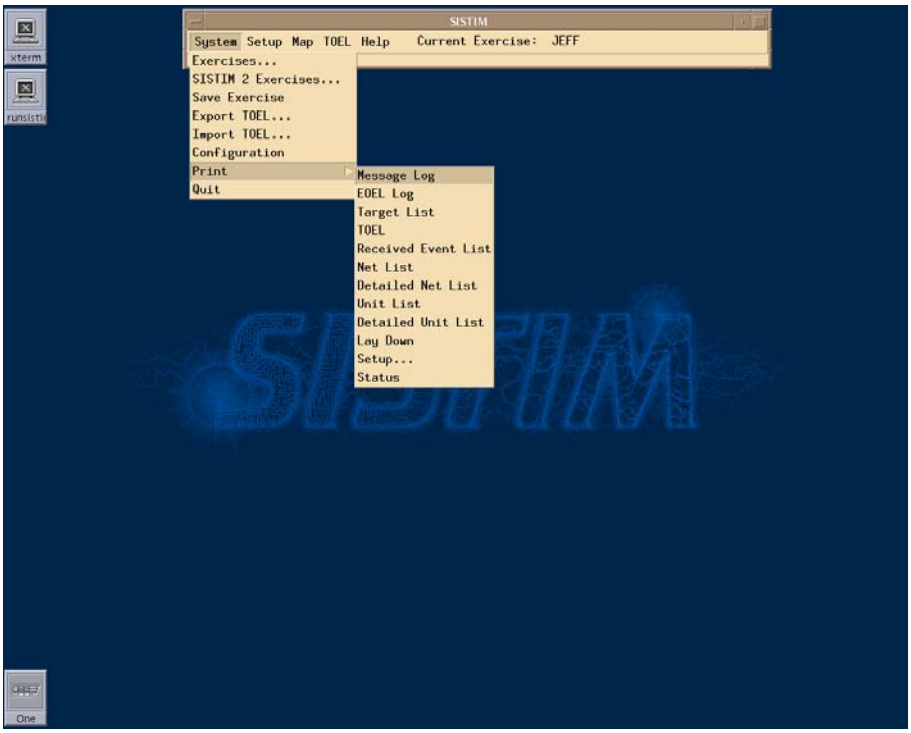


Figure 11-3 Add LAN Printer to Setup

11-1-3. Add LAN Printer Setup

At the Print Setup window (Fig 11-4) select the Postscript button and select the print command *a2ps –1 –Mletter –l120 –P(*printername.) The LAN printer is now associated with SISTIM.

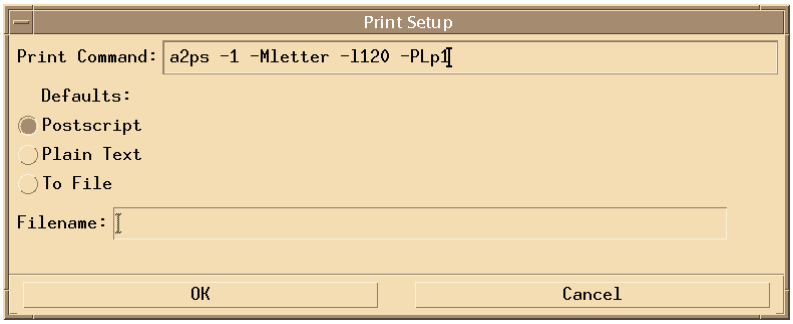


Figure 11-4 Add LAN Printer Setup

11-1-4. Print Files

There are numerous ways to print files to manage the database with reviewing Units and communications Networks. (The operator can print from the TOEL the Outgoing and Incoming message logs. Also the operator can print from the System/Print window. The following messages from the print window can be printed: The Message Log, Target List, TOEL, Received Event List, Net List, Detailed Net List, Unit List, Detailed Units List and Lay Down the Status of the printer shows the current print jobs.)

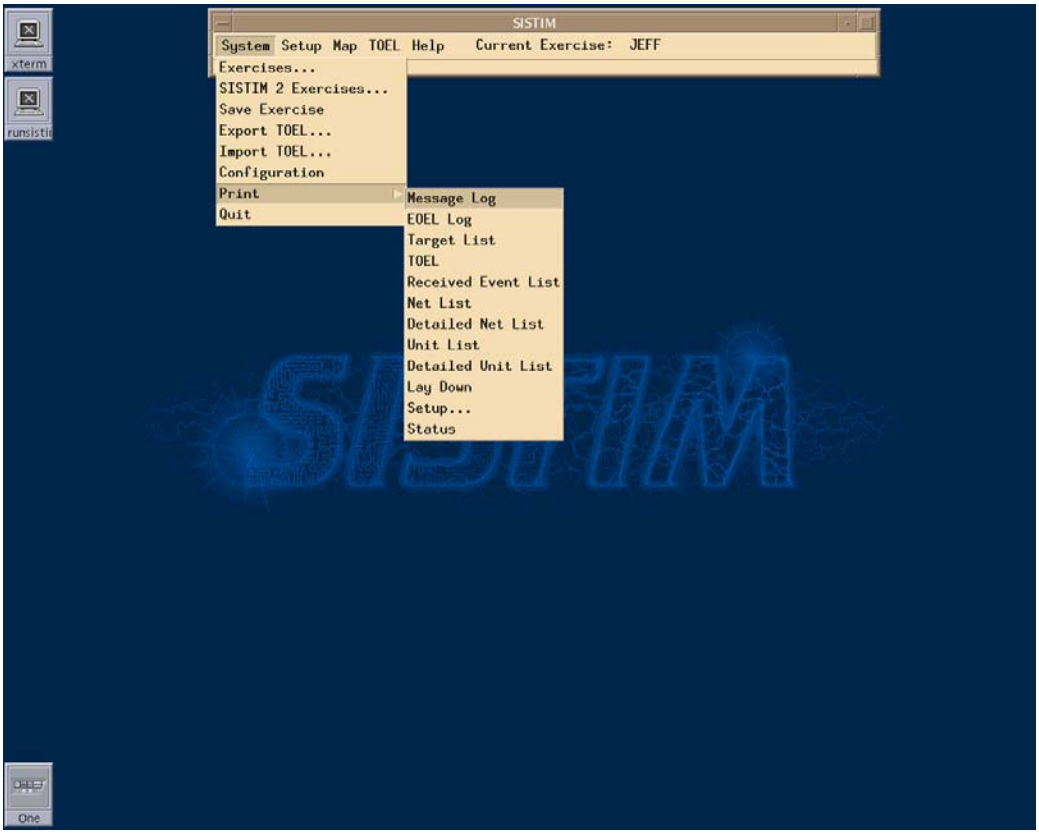


Figure 11-5 Print Unit Files

11-1-5. Print Unit Event List

One of the files from the print window that can be printed is the unit event list. (Fig 11-5) Before the file is printed there is a preview print command that allows the operator to show all the information in the window. The information that is shown (Fig 11-6) was input from the unit list. In this case it has the Unit Name, URN, Net Name, Net Address, Status, Protocol, Device and Role.

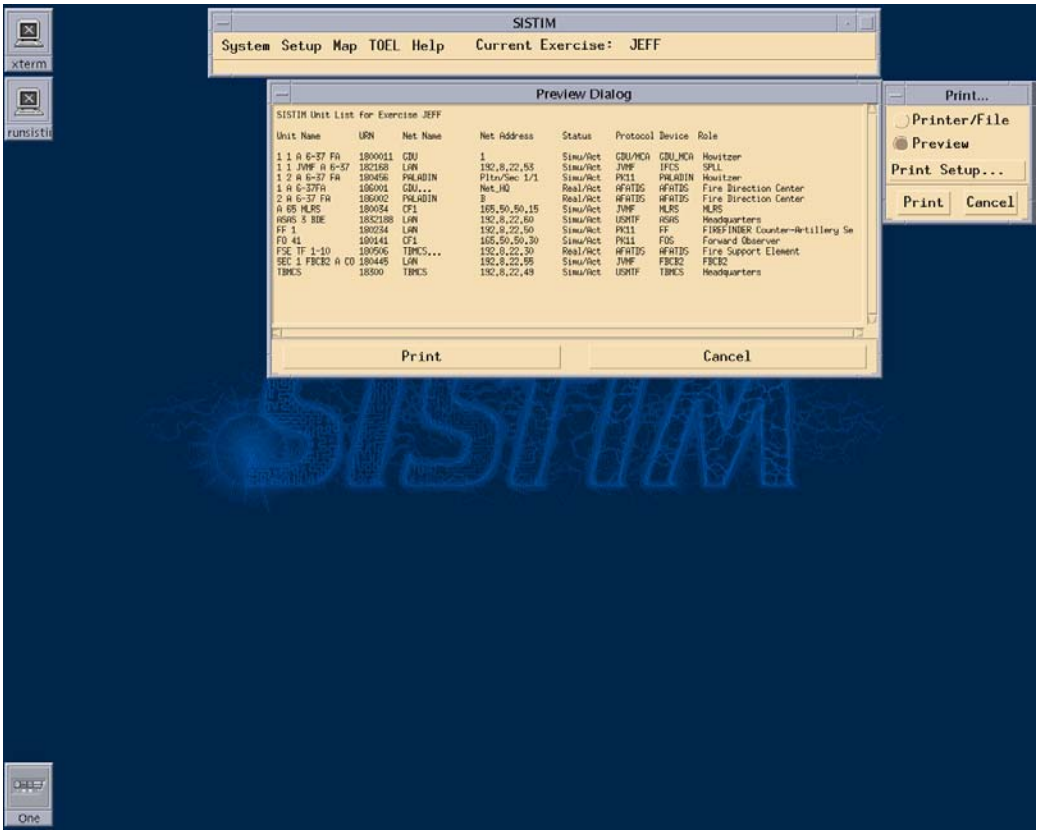


Figure 11-6 Print Unit Event List

11-1-6. Print Detailed Unit Event List

This option prints a detailed description of all of the Units in the current exercise. (Fig 11-7)
One of the files from the print window that can be printed is the detailed unit event list. Before the file is printed there is a preview print command that allows the operator to show all the information in the window. The information that is shown was input from the unit list.

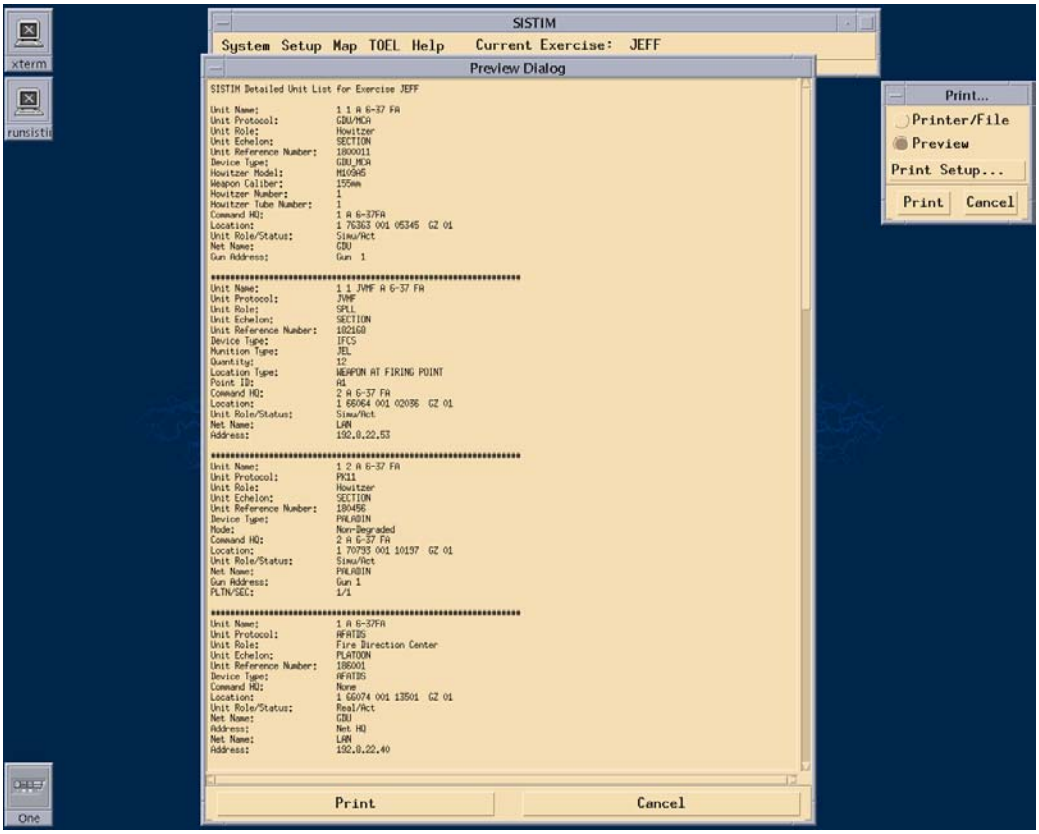


Figure 11-7 Print Detailed Unit Event List

11-1-7. Print Network Lay Down list

Another one of the files from the print window that can be printed is the SISTIM Network Lay Down Report. (Fig 11-8) The operator has the choice of what communication networks to print. Before the file is printed there is a preview print command that allows the operator to view all the information in the window. The information that is shown was input from the network window. In this case the Network Names, IP's Unit Name, Command HQ, Tactical role/Device, Protocol, Role/status, OB and IP Address.

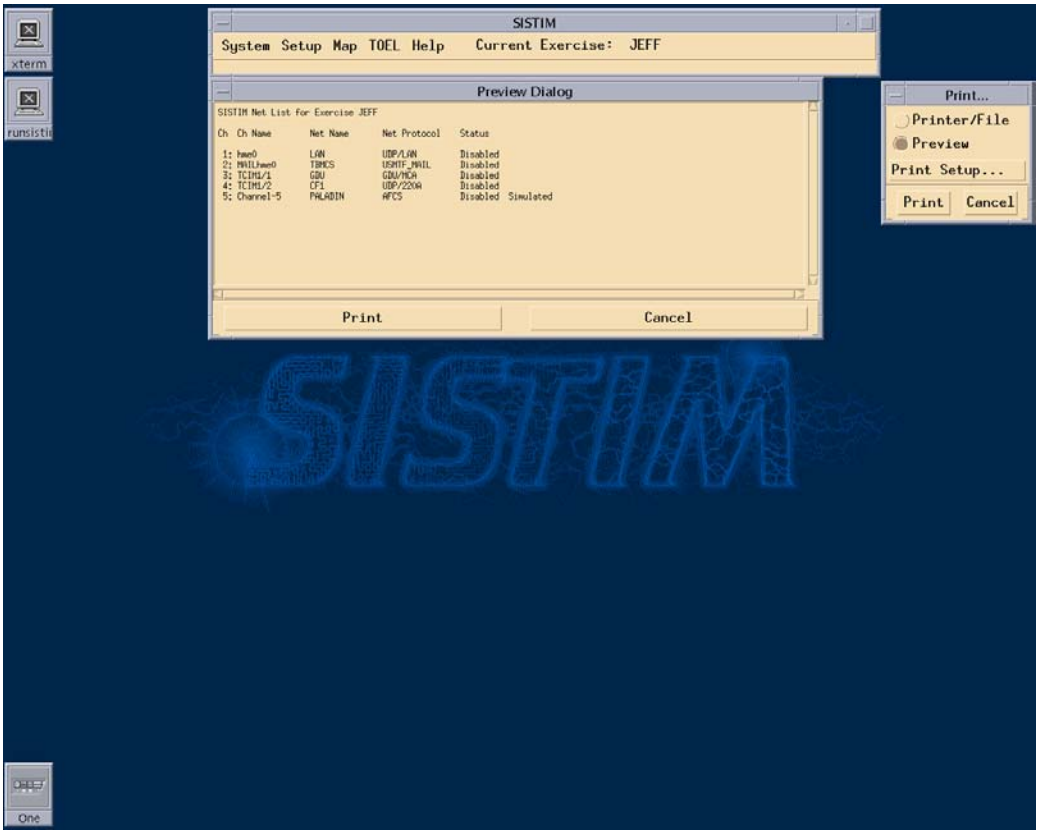


Figure 11-8 Print Network Lay Down list

11-1-8. Detailed Net List.

This options (Fig 11-9) prints a detailed description of all of the Networks in the current exercise. Another one of the files from the print window that can be printed is the SISTIM Detailed Network Lay Down Report. Before the file is printed there is a preview print command that allows the operator to show all the information in the window. The information that is shown was input from the detailed network window. In this case the Network Names, IP's Unit Name, Command HQ, Tactical role/Device, Protocol, Role/status, OB and IP Address.

```
Preview Dialog

SISTIM Detailed Net List for Exercise JEFF

Net Name:         LAN
Net Protocol:     UDP/LAN
Channel Name:     1 hme0
Status:           Disabled
Host IP Address:  100.100.100.10
Host Net Mask:    255.255.0.0

Net Name: LAN IP Address: 100.100.100.10
Unit Name            Command HQ          Tactical Role/Device      Protocol  Role/Sta  Ob  IP Address
---------            ----------          --------------------      --------  --------  --  ----------
2 A 6-37 FA          None                Fire Direction Center/AF  AFATDS    Real/Act      192.8.22.40
ASAS 3 BDE           FSE TF 1-10         Headquarters/ASAS         ABCS      Simu/Act      192.8.22.60
FF 1                 FSE TF 1-10         FIREFINDER Counter-Artil  PK11      Simu/Act  21  192.8.22.50
FSE TF 1-10          None                Fire Support Element/AFA  AFATDS    Real/Act      192.8.22.10
SEC 1 FBCB2 1-10     FSE TF 1-10         FBCB2/FBCB2               JVMF      Simu/Act      192.8.22.55

MCGroup Name      MCGroup Type    Multicast IP
------------      ------------    ------------
 BDE_ALL           BDE_ALL         225.10.10.251
   Group Members
  FSE TF 1-10


#################################################################
Net Name:         TBMCS
Net Protocol:     USMTF_MAIL
Channel Name:     2 MAILhme0
Status:           Disabled
Host IP Address:  192.8.22.3
Host Net Mask:    255.0.0.0

Net Name: TBMCS IP Address: 192.8.22.3
Unit Name            Command HQ          Tactical Role/Device      Protocol  Role/Sta  Ob  IP Address
---------            ----------          --------------------      --------  --------  --  ----------
FSE TF 1-10          None                Fire Support Element/AFA  AFATDS    Real/Act      192.8.22.30
..afatds@fse
TBMCS                FSE TF 1-10         Headquarters/TBMCS        TBMCS     Simu/Act      192.8.22.49
..ctaps@tbmcs

#################################################################
Net Name:                 PALADIN
Net Protocol:             AFCS
Channel Name:             3 TCIM1/1
Status:                   Disabled
Media Device:             2-Line Wire Broadcast
Security:                 Clear
Data Encoding:            FSK 1200/2400
Data Rate (BPS):          1200
Error Control:            EDC/TDC
Block Mode:               Single
Key Time (sec):           0.2
Hold Time (sec):          0.16
Broadcast Host Address:   A
High Initial:             1.00
Low Initial:              1.00
High Subsequent:          1.00
Low Subsequent:           1.00

Print                                   Cancel
```

Figure 11-9 Detailed Net List

SECTION 2
ADD A LOCAL PRINTER

The advantage of adding a local printer is that it's only for the SISTIM and it only prints plain text not graphic images.

First open a Xterm from the Programs Menu. In the Xterm type the following commands.(Fig 11-10 and 11-10.1) These Xterm commands will work from either a UCU or CCU2. This opens the Admintool Window. (Fig 11-11)

DISPLAY	COMMAND	ACTION
	su	(enter)
Password:	root	(enter)
	export DISPLAY=:0	(enter)
	admintool	(enter)

Figure 11-10 Open the Admintool Window

Figure 11-10.1 Add a Local Printer

At the Admintool Window follow the procedure listed below: (Fig 11-11)

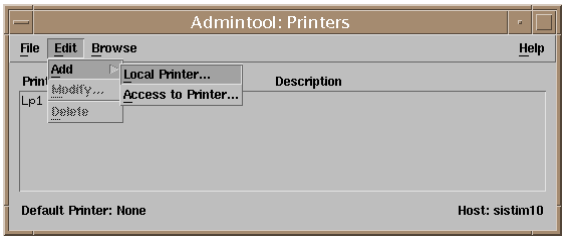


Figure 11-11 Admintool: Printers

Select Browse, Select Printers. Then select Edit, Select Add, Local Printer. Next you will enter the appropriate data for the type of machine you are on (UCU, CCU2). (Fig 11-12 and 11-12.1)

UCU		CCU2 (AXI)	
Printer Name:	*Lp*	Printer Name:	*lp*
Description:	*Lp*	Description:	*lp*
Printer Port:	*/dev/bpp0*	Printer Port:	*/dev/ecpp0*
Printer Type:	*HP Printer*	Printer Type:	*HP Printer*
File Contents:	*ASCII*	File Contents:	*ASCII*
Fault Notification:	*Mail Superuser*	Fault Notification:	*Mail Superuser*

Figure 11-12 Admin tool Commands

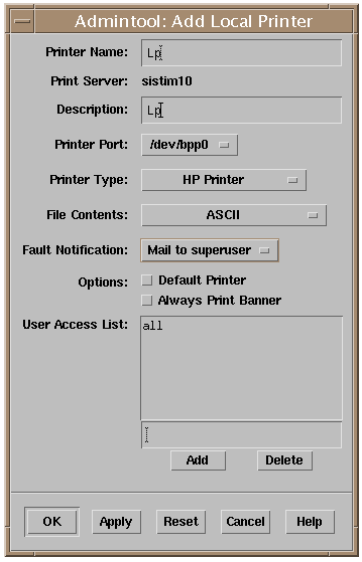


Figure 11-12.1 UCU Admin tool Commands

No other modifications are needed, so press OK. On the Admintool: Printers window Select: *File, Exit*.

11-2. Local Printer Added

The Admintools Printers screen (Fig 11-13) now shows a LAN and Local Printer. At the Menu Select: *File, Exit*.

Figure 11-13 Printer Added

The xterm window screen (Fig 11-14) type *exit* and the text shows SISTIM10:sistim:/usr/sistim>. SISTIM can now be closed. At the Menu Select: *File, Close*.

Figure 11-14 Exit xterm

11-2-1. Add Local Printer Setup

The operator will select System/Print and Setup. At the Print Setup window (Fig 11-15) select the Plaintext button and select the print command *pr | lp –d(*printername.) The Local printer is now associated with the SISTIM software program. There are no different procedures for printing the text windows from the LAN or Local port. If SISTIM has two different printers available, just remember to change back to the LAN printer to print graphics.

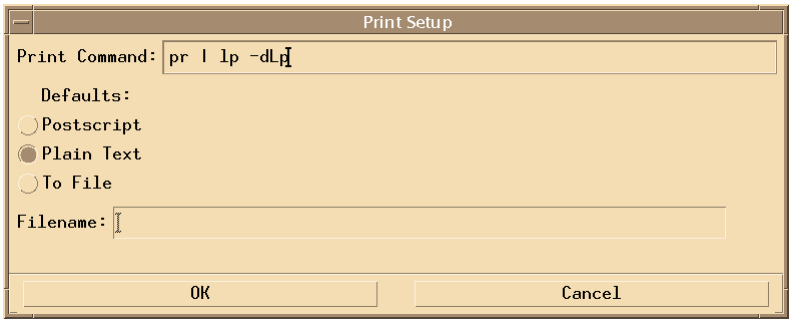


Figure 11-15

CHAPTER 12.
LOAD/SAVE AN SISTIM EXERCISE

SECTION 1
SAVE AN EXERCISE

The system exercises pull down menu window (Fig 12-1) allows the operator to manage SISTIM exercises. The option allows the operator to display and select from a list of the exercises that have already been created to load into the current data base.

12-1. Save a SISTIM Exercise

The default database now is loaded with communication networks, units and targets but the name is still default. To change the name of the database select System Exercise. The Exercise List window will be launched. Highlight the Default database and select the copy button that will open a message screen. Rename the default SISTIM exercise. A good idea how to name an exercise, is what the exercise was made for or what special units are in the database and date. An example is 15 Jan III CORPS RADAR and JSTAR or something to the effect.
The “New” button gives the operator the opportunity to create a new exercise. When activated a window is displayed asking for the name of the new exercise. When selected a message window is displayed asking whether the changes should be saved before the new exercise is created.
The “Delete” button deletes the highlighted exercise from the exercise list

NOTE

An exercise must be highlighted before this button can be activated. When the exercise has been deleted, the exercise name is removed from the list.

CAUTION:

Make sure you have a backup copy of your exercises before deleting any exercises. The exercise cannot be retrieved after it is removed.

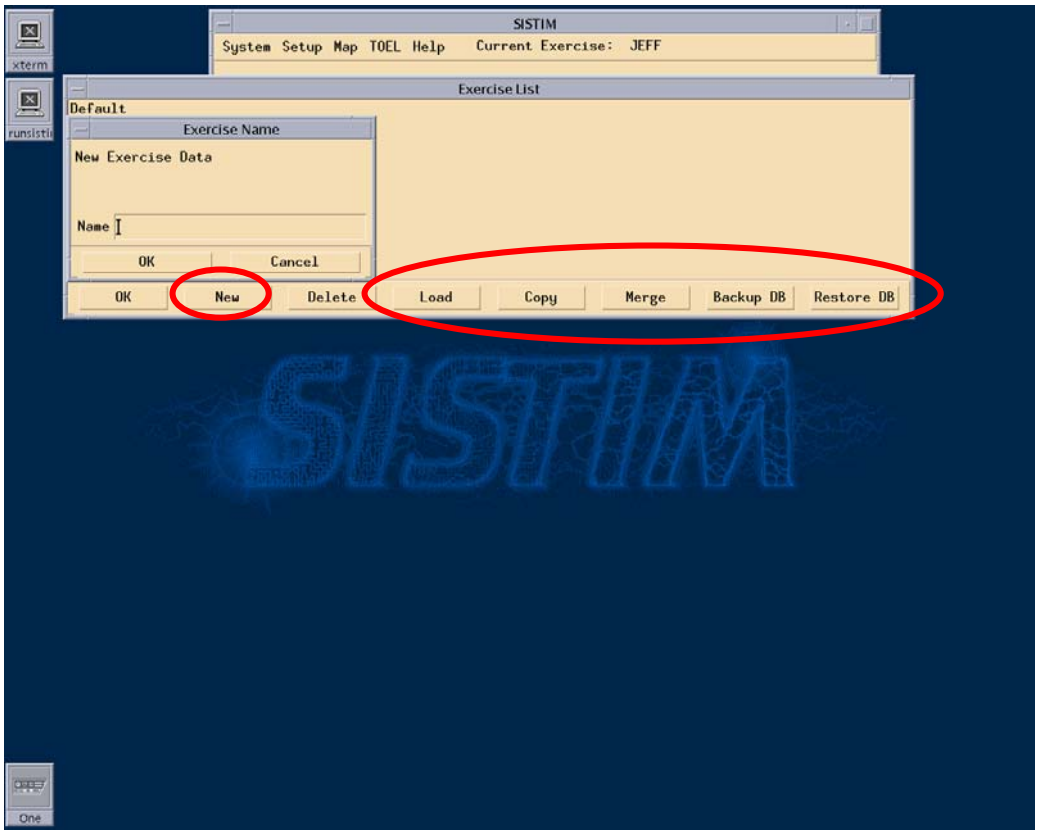


Figure 12-1 Load/Save a SISTIM Exercise

12-2. Load a SISTIM Exercise

The load button loads the highlighted exercise for execution or editing. If a currently loaded exercise has been edited when another exercise is highlighted for loading, a message screen is displayed asking whether the changes should be saved before the new exercise is loaded. When the loading of the exercise is complete, the Current Exercise label on the main window bar changes to reflect the new exercise name. The old exercise will return to the exercise list to be loaded at a later date.

NOTE

If using the LAN to communicate, the SISTIM box IP (from the software load) and the current exercise IP must match in order to communicate over the LAN.

12-3. Copy a SISTIM Exercise

The Copy button when selected, displays a window asking for the name of the copied exercise. Then a message window is displayed asking whether the changes to the currently loaded exercise should be saved before the newly selected exercise is copied.

12-4. Merge a SISTIM Exercise

The Merge button allows the operator to add one exercise at a time from another database into the current database. (Note: This operation requires a 3.5” floppy disk that already has a SISTIM database on it). The merge will only move one file at a time from the floppy into the Exercise List.

12-5. Backup a SISTIM Exercise

The **Backup DataBase** button activates the SISTIM Data Backup Procedure. This procedure saves the exercise to 3.5” floppy disk. Follow the on-screen instructions. This takes all of the exercises from the exercise list and saves them to floppy.

To backup a floppy the operator enters the selection of four “Archive Database to Formatted Floppy”. Once the backup is complete, enter the selection one to eject the floppy.

12-6. Restore a SISTIM Exercise

The Restore DB button allows the operator to reload a previously saved exercise from the floppy. This command will overwrite all of the existing exercise in the exercise list.

NOTE

If restoring from an older database, channels must be reassigned as follows: LAN channel one, Sendmail channel two, and SPTCIMS and TCIMS channel 3 through 18 or, however many channels remaining that are disabled. If using the LAN to communicate, the SISTIM box IP (from the software load) and the current exercise IP must match in order to communicate over the LAN and remember to change the unit Net/Address Pairs for each of the units that are communicating on the LAN channel.

CHAPTER 13.
SHUTDOWN THE COMPUTER

To shut down the computer select Power-Off from the SISTIM menu bar.(Fig 13-1) SISTIM will go to the boot prompt and the operator can power off the computer unit.
The **Exit Button,** on the SISTIM menu bar will take the operator to the SISTIM log on screen.
The **File Quit button,** will shut down the current SISTIM program. This can be used when operator has to load a printer.
Another way to reach the **Shut Down and Exit button**, is to right click (on the track ball or mouse) on the blue background. From that selection the Workspace Menu has the selections of Power Off and Exit menu.

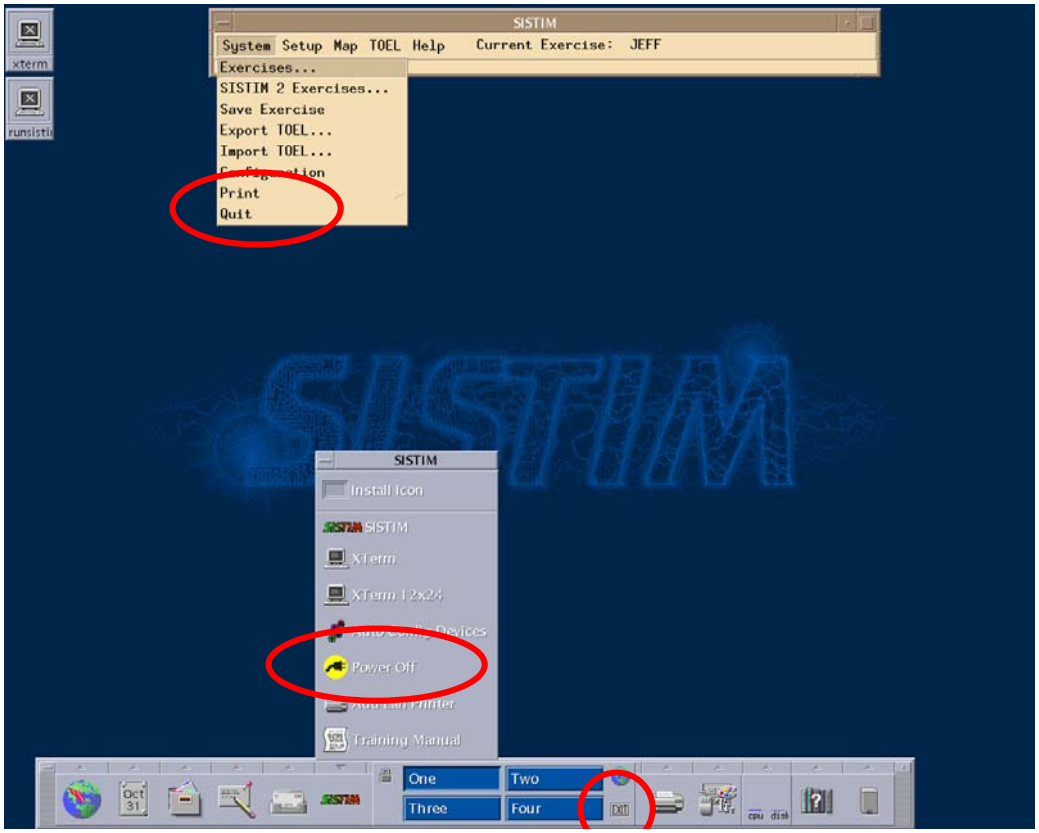


Figure 13-1 Shutdown the Computer

CHAPTER 14.
TROUBLESHOOT THE SISTIM

SECTION 1
TROUBLESHOOT COMMS

14-1. No TCIMS / SPTCIMS

The SISTIM operator started the SISTIM program and found that there were no TCIMS or SPTCIMS loaded. There is no need to reload software: 1. On TCIMS check all cables, terminators and cycle power. For the SPTCIMS eject and reseat the SPTCIMS. 2. Open a Xterm window by selecting the arrow above the SISTIM menu and select Xterm 12.x24. This will bring up an Xterm window. Enter su and select keyboard enter. The next line will be asking for the Password select root and keyboard enter. The last step is to type the command of "***reboot -- -r***." This will cause the system to reboot and locate any external devices. Log on to and restart the SISTIM application, in the RUNSISTIM window there will now be the SPTCIMS and TCIMS. The second channel of the SPTCIM is not used.

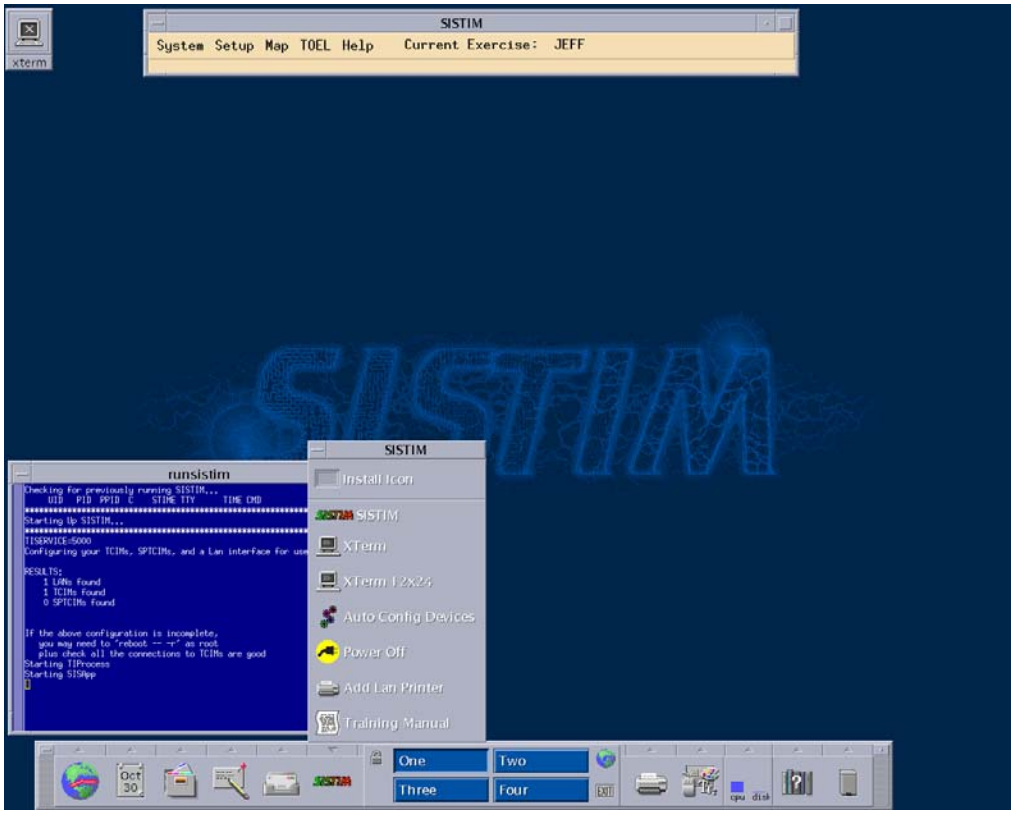


Figure 14-1 No TCIMS / SPTCIMS

14-2. LAN is Simulated

LAN is Simulated or Disable. Check IP of LAN, it has to be the same from the software load procedures. There might be another type of net built on the first channel. If that is the case, move that net on Channel One to the appropriate network. To check the LAN IP, call up a Xterm and input netstat –nr. The *Gateway IP address* is on the second line that is the LAN card ID address. The first line of the Gateway IP address if different is operator selectable from what is currently entered from the setup LAN IP. Input the LAN IP form the Gateway IP in the LAN

communication network. The operator can also select set to channel defaults and the IP will change to the LAN card ID address. Now select 1 hme0 channel one for the LAN channel. The LAN should now display External.

14-3. AFATDS test message fails

AFATDS test message fails when transmitted to a simulated unit in SISTIM. Check that the URN in AFATDS is the VMF Unit Reference Number. In AFATDS the AFATDS Unit Number can be the same as the VMF URN but if doubtful edit the unit from the MUL to make sure that VMF URN is correct at both the AFATDS and SISTIM computers.

AFATDS can send a test message to a unit made in SISTIM but the message fails to be received in AFATDS. In AFATDS the UNIT was not built as a Package 11 Unit. Delete the unit and rebuild it as a PK11 unit.

14-4. GDU ring message fails

GDU ring message fails in AFATDS. In SISTIM check the AFATDS unit that is controlling the GDU's. Make the AFATDS in net address the Net HQ and ring gun again.

14-5. TBMCS00 can not communicate

TBMCS00 cannot communicate with the AFATDS unit. In SISTIM insure that the TBMCS was built as a TBMCS00 unit and is on the second channel, the Mailhme0 net. The Host IP address of Mailhme0 net has to be the same as the LAN channel IP address. Insure that the controlling AFATDS and the TBMCS00 is on the Mailheo0 network and has the correct user and host name for each system. An example of a user ID for AFATDS is "afatds". To locate the user ID it is on the status bar (the top right hand corner after the first AFATDS and before the @). For TBMCS "ctaps" and an example of a hostname for AFATDS is "fse2-7". This entry is found on the AFATDS system. Edit the LAN Network that the TBMCS is communicating on and enter the Hostname into the Net address pair Hostname in SISTIM. For TBMCS is "tbmcs". In order to communicate the same user and host name has to match what was built in the AFTDS. Retry to send a test or F002 Genadmin message to communicate with the TBMCS device.

14-6. Scenario generator is blank or no targets

Check to ensure that the real AFATDS is on the net that the simulated unit is on. Verify on the simulated unit that the command support relationship is established. Ensure that both units are on the same net.

14-7. ASAS/MCS can not communicate

ASAS/MCS cannot communicate with the AFATDS unit. Insure in AFATDS that the units were built as ABCS00 units and are set up indirect through the SISTIM unit.

14-8. AFCS transmit message fails

AFCS transmit message fails in AFATDS. Check the local and destination address in AFATDS. Confirm that they are unique for each unit. In the SISTIM, check the broadcast host address in the AFCS net. In AFATDS this goes into the edit routes for the Paladin. Again check in SISTIM the controlling FDC unit Net/Address pairs in use. The AFCS Subscriber is the same as the AFCS net in AFATDS. Retry a test message.

14-9. One Paladin unit transmission/fire order fails

One Paladin unit transmission/fire order fails in AFATDS. Check the way the Paladin units were built in AFATDS. Confirm in AFATDS the communications; edit routes, the Gun/Platoon Section number for each Paladin unit. If one FDC is in charge of 6 guns the numbering in AFATDS is 1/1, 2/1 and 3/1 for three guns and 1/2 , 2/2 and 3/2 for the

second three guns. In SISTIM the Paladins are made as one to three skip number four because of the FDC is in charge of only six guns (three from each platoon) and continue with guns five to seven. Refire and retransmit all six Paladins guns fire commands.

14-10. SPTCIM not communicating

SPTCIM not communicating on the second channel. Change channel because the SPTCIM of the second channel is not enabled.

14-11. No IFCS Weapon Status

If the FCS weapon status fails to display the IFCSs, edit the JVMF unit General Data in the command and support select a different unit and select OK. Reopen the IFCS unit and select the General Data and in the Command and Support select the AFATDS that is in charge of the IFCS. Select "**OK.**" Reopen the FCS weapon status it will display the launcher, make the changes to the remaining IFCS launchers and reopen the FCS weapon status.

CHAPTER 15.
MESSAGES

SECTION 1
PK11/JVMF/USMTF/GDU/ MESSAGES

There is two was to access messages, the first way is to Select TOEL / Edit Events List and Select New or Select TOEL / Run Exercise and Select Outing and Select New That will bring up (fig 14-1) Messages Protocol window. From this message window allows the operator to select the protocol desired for the Event List.

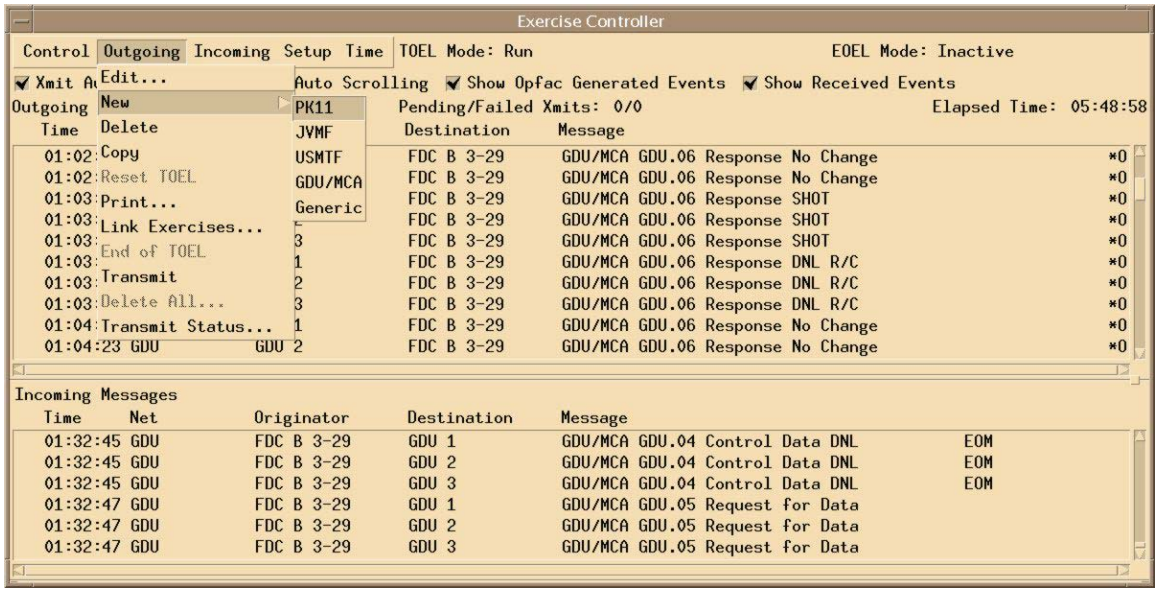


Figure 15-1 Message Protocol

This message window shows the operator the Protocol Available List window and displays the Available Message List window associated with the protocol type highlighted.

15-1. Package 11 Messages

Mostly you will create new messages. To create a new message select from two ways to access messages, the first way is to Select TOEL / Edit Events List and Select New or Select TOEL / Run Exercise and Select Outing and select "New", which will create the Message Protocol Available form. Highlight Package 11 and then on "OK", which will create the Package 11 Available Message List. The actual message creation is almost identical to using the CMP within AFATDS. For SISTIM messages you need create an "Origin"(sender) and "Destinations" (receivers). They both must be on the same network. To set the Origin click on "Select" to create the Select Unit Form. Highlight the simulated unit you want to initiate the message and then click on "OK". To set the destination unit(s) you click on "Add" which creates the Select Unit form again. Highlight the unit and then click on "OK". If you select multiple units and want to review them, click on the Destination Units field and use the up and down arrows to "scroll" through the list. If there are multiple destination units, on the Event List you will see a "…" after the first unit listed. You should also establish the Xmit Time, hours, minutes, and seconds, that you want the message sent out. The time will default to 00:00:00, which is the beginning of the scenario.

Figure 15-2 Package 11 Messages

Message Case is the PK11 message specification contains many different cases, which allows one message to accomplish several different meanings. Therefore SISTIM has included the Message Case feature to assist an operator in creating a message based on one specific case. By choosing the desired case SISTIM will assist the operator by specifying the fields that should and should not be used.

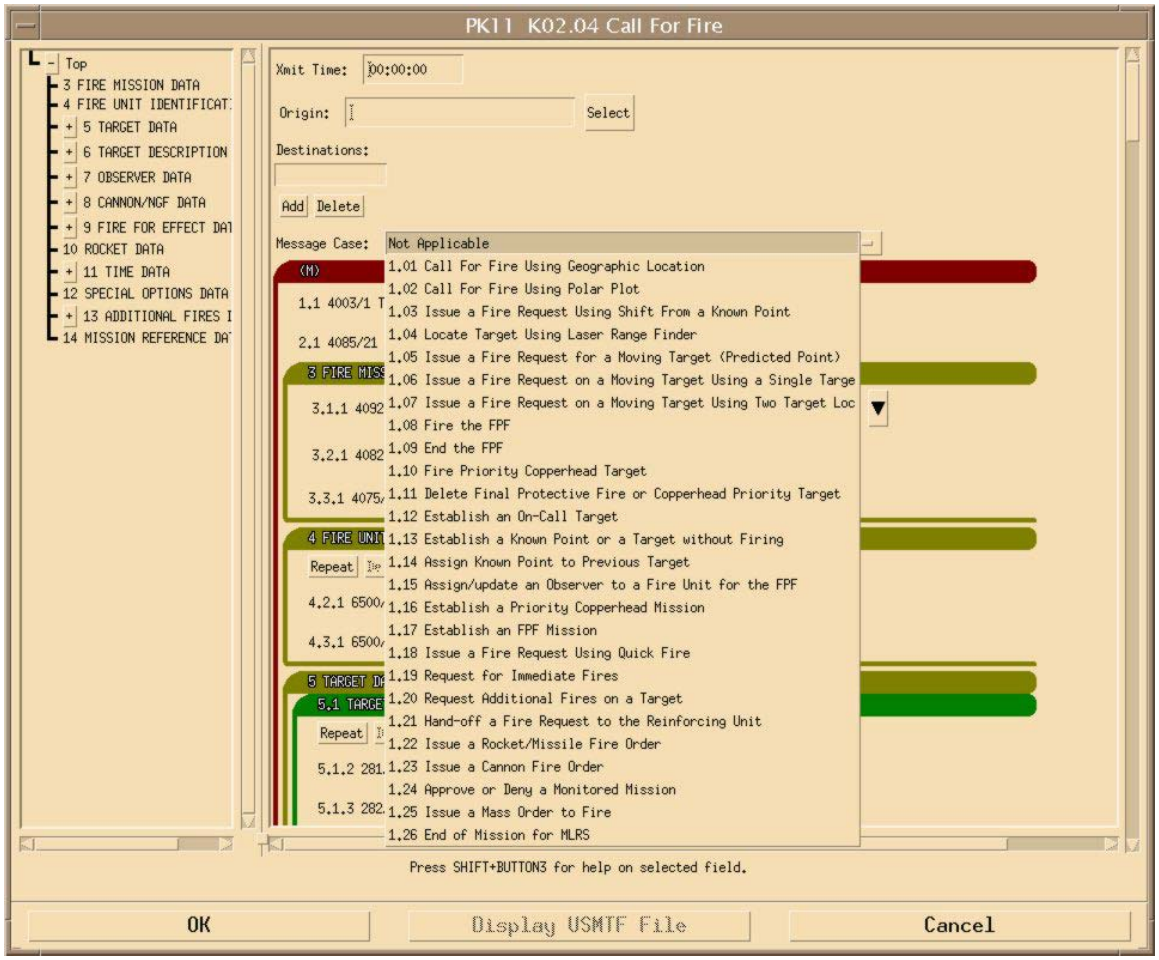


Figure 15-3 Message Case

15-1-1 Validate Message

One of the ways to select the required entries when filling out a window is to select the OK button (1st) on the bottom of the message window (fig 15-4). The failed test case (2nd) will display the next entry, which in this case the selection would be 4.2 the Crater Location Data (3rd). Continue by following the failed test case entry until the window returns to the Event List Window. This is the minimal required enters for this message. This message is now ready to transmit.

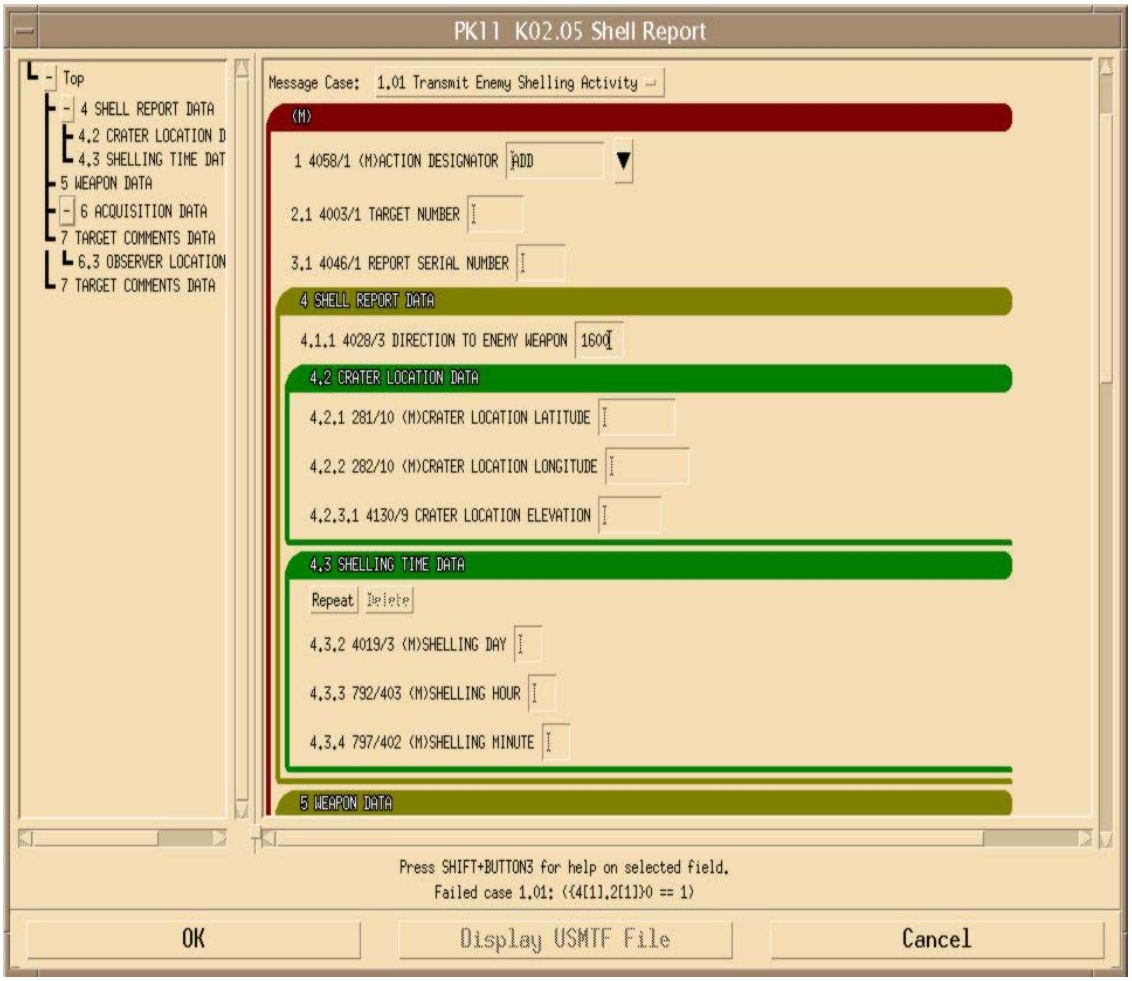


Figure 15-4 Validate Message

The Package 11 Case Messages are broke down with the minimal required entries. Remember that some entries for the specific message cases will not work in other messages cases.

1.2.2. PK11 K01.50 Free text

Index DFI/DUI Data Field Label Data Value
1.2 4075/001 COMMENTS : This is a Free Text Message

1.2.2. PK11 K02.01 Check Fire

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4001/001 CHECK FIRE/CANCEL CHECK F: CHECK FIRE ORDER
3.1 4003/001 TARGET NUMBER : AA1000

Message:
PK11 K02.01 Check Fire
Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1 4001/001 CHECK FIRE/CANCEL CHECK F: CHECK FIRE ORDER
6.1.1 6500/007 UNIT REFERENCE NUMBER : 6000
6.2.1 6500/008 UNIT NAME : AFATDS OPS 6-37

11 K02.01 Check Fire

Message Case 1.03
Index DFI/DUI Data Field Label Data Value
1 4001/001 CHECK FIRE/CANCEL CHECK F: CHECK FIRE ORDER
3.1 4003/001 TARGET NUMBER : AA1000
6.1.1 6500/007 UNIT REFERENCE NUMBER : 6000
6.2.1 6500/008 UNIT NAME : AFATDS OPS 6-37

PK11 K02.01 Check Fire
Message Case 1.04
Index DFI/DUI Data Field Label Data Value
1 4001/001 CHECK FIRE/CANCEL CHECK F: CHECK FIRE ALL

PK11 K02.01 Check Fire
Message Case 1.05
Index DFI/DUI Data Field Label Data Value
1 4001/001 CHECK FIRE/CANCEL CHECK F: CANCEL CHECK FIRE

1.2.2. *PK11* K02.02 Reg Data

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4058/001 ACTION DESIGNATOR : ADD
2 4079/059 MUTUAL SUPPORT INDICATOR : NO STATEMENT
4.1.1 6500/007 UNIT REFERENCE NUMBER : 6000
5.1.1 4005/004 REGISTRATION PROJECTILE : HEA - 105MM, 155MM, 203MM
5.1.2 4006/001 PROJECTILE LOT DESIGNATOR: A
5.1.3 4008/001 PROPELLANT CHARGE : 7
5.1.4 4010/001 TRAJECTORY TYPE : LOW
5.1.9.1 4013/002 REGISTRATION FUZE : TIB - M577, M577A1
5.2.1 0757/401 REGISTRATION RANGE : 12000
5.2.2 4106/001 RANGE CORRECTION : 100
5.2.3 4009/001 DEFLECTION CORRECTION : 2
5.2.4 4015/001 STANDARD MET : CURRENT MET
5.3.1 0380/401 FUZE SETTING CORRECTION : 2
5.3.2 0380/004 FINAL FUZE SETTING : 3

Message:
PK11 K02.02 Reg Data
Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1 4058/001 ACTION DESIGNATOR : DELETE
2 4079/059 MUTUAL SUPPORT INDICATOR : NO STATEMENT
4.1.1 6500/007 UNIT REFERENCE NUMBER : 6000
5.1.1 4005/004 REGISTRATION PROJECTILE : HEA - 105MM, 155MM, 203MM
5.1.2 4006/001 PROJECTILE LOT DESIGNATOR: A
5.1.3 4008/001 PROPELLANT CHARGE : 7
5.1.4 4010/001 TRAJECTORY TYPE : LOW
5.1.9.1 4013/002 REGISTRATION FUZE : TIB - M577, M577A1
5.2.1 0757/401 REGISTRATION RANGE : 12000
5.2.2 4106/001 RANGE CORRECTION : 100
5.2.3 4009/001 DEFLECTION CORRECTION : 2

5.2.4 4015/001 STANDARD MET : CURRENT MET
5.3.1 0380/401 FUZE SETTING CORRECTION : 2
5.3.2 0380/004 FINAL FUZE SETTING : 3

Message:
PK11 K02.02 Reg Data
Message Case 1.03
Index DFI/DUI Data Field Label Data Value
1 4058/001 ACTION DESIGNATOR : DELETE
2 4079/059 MUTUAL SUPPORT INDICATOR : NO STATEMENT
4.1.1 6500/007 UNIT REFERENCE NUMBER : 6000

1.2.2. PK11 K02.03 Met Data

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4168/001 MET DATA DESIGNATOR : COMPUTER MET
2.1 4016/001 GLOBAL OCTANT : NINE OCTANT
3.1 4020/001 MET VALIDITY DURATION : 3
3.2 4019/005 MET VALIDITY START DAY : 1
3.3 0792/401 MET VALIDITY START HOUR : 6
6.1 4130/002 MET STATION ELEVATION : 300
7.1 4018/001 MET STATION ATMOSPHERIC P: 898
8.1 4054/016 MET STATION NAME : 111112
10.2 4021/001 COMPUTER MET ALTITUDE ZON: ZONE 0
10.3 4028/013 MET WIND DIRECTION : 180
10.4 0367/401 MET WIND SPEED : 5
10.5 4023/001 AIR VIRTUAL TEMPERATURE : 300
10.6 4018/002 AIR PRESSURE : 898
10.2 4021/001 COMPUTER MET ALTITUDE ZON: ZONE 1
10.3 4028/013 MET WIND DIRECTION : 181
10.4 0367/401 MET WIND SPEED : 6
10.5 4023/001 AIR VIRTUAL TEMPERATURE : 301
10.6 4018/002 AIR PRESSURE : 898
10.2 4021/001 COMPUTER MET ALTITUDE ZON: ZONE 2
10.3 4028/013 MET WIND DIRECTION : 180
10.4 0367/401 MET WIND SPEED : 5
10.5 4023/001 AIR VIRTUAL TEMPERATURE : 303
10.6 4018/002 AIR PRESSURE : 899
10.2 4021/001 COMPUTER MET ALTITUDE ZON: ZONE 3
10.3 4028/013 MET WIND DIRECTION : 183
10.4 0367/401 MET WIND SPEED : 9
10.5 4023/001 AIR VIRTUAL TEMPERATURE : 305
10.6 4018/002 AIR PRESSURE : 900

Message:
PK11 K02.03 Met Data
Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1 4168/001 MET DATA DESIGNATOR : FORECAST MET
3.1 4020/001 MET VALIDITY DURATION : 3
3.2 4019/005 MET VALIDITY START DAY : 1
3.3 0792/401 MET VALIDITY START HOUR : 6
6.1 4130/002 MET STATION ELEVATION : 300

7.1 4018/001 MET STATION ATMOSPHERIC P: 898
11.1.1 4115/004 TEMPERATURE GRADIENT : LAPSE
11.8.1 4019/004 EFFECTIVE DAY : 1
11.8.2 0792/404 EFFECTIVE HOUR : 1
11.8.3 0797/403 EFFECTIVE MINUTE : 6
11.9.1 0281/021 MET STATION LATITUDE : 2400186
11.9.2 0282/021 MET STATION LONGITUDE : -18342457
11.9.3.1 4130/020 FORECAST MET STATION ELEV: 120
11.10.2 0365/006 SURFACE WIND ALTITUDE : 15 METERS
11.10.3 0372/010 SURFACE WIND DIRECTION : 10
11.10.4 0367/003 SURFACE WIND SPEED : 6
11.11.2 4021/003 FORECAST MET ALTITUDE ZON: ZONE 0
11.11.3 0367/405 EFFECTIVE WIND SPEED : 7
11.11.4 0372/006 FORECAST WIND DIRECTION : 10
11.11.2 4021/003 FORECAST MET ALTITUDE ZON: ZONE 1
11.11.3 0367/405 EFFECTIVE WIND SPEED : 8
11.11.4 0372/006 FORECAST WIND DIRECTION : 11
11.11.2 4021/003 FORECAST MET ALTITUDE ZON: ZONE 2
11.11.3 0367/405 EFFECTIVE WIND SPEED : 10
11.11.4 0372/006 FORECAST WIND DIRECTION : 13

PK11 K02.03 Met Data
Message Case 1.03
Index DFI/DUI Data Field Label Data Value
1 4168/001 MET DATA DESIGNATOR : FALLOUT MET
2.1 4016/001 GLOBAL OCTANT : NINE OCTANT
3.1 4020/001 MET VALIDITY DURATION : 3
3.2 4019/005 MET VALIDITY START DAY : 1
3.3 0792/401 MET VALIDITY START HOUR : 6
6.1 4130/002 MET STATION ELEVATION : 300
7.1 4018/001 MET STATION ATMOSPHERIC P: 898
8.1 4054/016 MET STATION NAME : 111112
14.2 4021/002 FALLOUT MET ALTITUDE ZONE: ZONE 0
14.3 4028/013 MET WIND DIRECTION : 12
14.4 0367/405 EFFECTIVE WIND SPEED : 15
14.2 4021/002 FALLOUT MET ALTITUDE ZONE: ZONE 1
14.3 4028/013 MET WIND DIRECTION : 13
14.4 0367/405 EFFECTIVE WIND SPEED : 15
14.2 4021/002 FALLOUT MET ALTITUDE ZONE: ZONE 2
14.3 4028/013 MET WIND DIRECTION : 14
14.4 0367/405 EFFECTIVE WIND SPEED : 16
14.2 4021/002 FALLOUT MET ALTITUDE ZONE: ZONE 3
14.3 4028/013 MET WIND DIRECTION : 16
14.4 0367/405 EFFECTIVE WIND SPEED : 17

PK11 K02.03 Met Data
Message 1.04
Index DFI/DUI Data Field Label Data Value
1 4168/001 MET DATA DESIGNATOR : TARGET ACQUISITION MET
2.1 4016/001 GLOBAL OCTANT : NINE OCTANT
3.1 4020/001 MET VALIDITY DURATION : 3
3.2 4019/005 MET VALIDITY START DAY : 1
3.3 0792/401 MET VALIDITY START HOUR : 6

6.1 4130/002 MET STATION ELEVATION : 300
7.1 4018/001 MET STATION ATMOSPHERIC P: 898
8.1 4054/016 MET STATION NAME : 111112
13.1.1.1 6500/007 UNIT REFERENCE NUMBER : 6000
13.1.2.1 6500/008 UNIT NAME : AFATDS OPS 6-37
13.3.2 4021/004 TA MET ALTITUDE ZONE : ZONE 0
13.3.3 4028/013 MET WIND DIRECTION : 120
13.3.4 0367/401 MET WIND SPEED : 5
13.3.5 4023/001 AIR VIRTUAL TEMPERATURE : 300
13.3.6 4142/002 RELATIVE HUMIDITY : 89
13.3.2 4021/004 TA MET ALTITUDE ZONE : ZONE 1
13.3.3 4028/013 MET WIND DIRECTION : 121
13.3.4 0367/401 MET WIND SPEED : 7
13.3.5 4023/001 AIR VIRTUAL TEMPERATURE : 302
13.3.6 4142/002 RELATIVE HUMIDITY : 90

Message:
PK11 K02.03 Met Data
Message Case 1.05
Index DFI/DUI Data Field Label Data Value
1 4168/001 MET DATA DESIGNATOR : TARGET AREA LOW LEVEL MET
2.1 4016/001 GLOBAL OCTANT : NINE OCTANT
3.1 4020/001 MET VALIDITY DURATION : 3
3.2 4019/005 MET VALIDITY START DAY : 1
3.3 0792/401 MET VALIDITY START HOUR : 6
6.1 4130/002 MET STATION ELEVATION : 300
7.1 4018/001 MET STATION ATMOSPHERIC P: 898
8.1 4054/016 MET STATION NAME : 111112
12.1 4114/001 TALL MET IDENTIFICATION : 21
12.2.1 4058/009 MET TALL ACTION DESIGNATO: FIRST IN/FIRST OUT
12.3.1 4115/008 PRECIPITATION TYPE : SNOW
12.3.2 4144/005 PRECIPITATION RATE : 3
12.3.3 0365/007 MET CLOUD BASE HEIGHT : 150
12.3.4 4170/001 MEAN REFRACTIVE INDEX : 25
12.3.5.2 4021/006 TALL MET ALTITUDE ZONE : ZONE 0
12.3.5.3 4028/013 MET WIND DIRECTION : 140
12.3.5.4 0367/401 MET WIND SPEED : 10
12.3.5.5 4023/001 AIR VIRTUAL TEMPERATURE : 299
12.3.5.6 4142/002 RELATIVE HUMIDITY : 98
12.3.5.2 4021/006 TALL MET ALTITUDE ZONE : ZONE 1
12.3.5.3 4028/013 MET WIND DIRECTION : 142
12.3.5.4 0367/401 MET WIND SPEED : 12
12.3.5.5 4023/001 AIR VIRTUAL TEMPERATURE : 298
12.3.5.6 4142/002 RELATIVE HUMIDITY : 99
12.3.5.2 4021/006 TALL MET ALTITUDE ZONE : ZONE 2
12.3.5.3 4028/013 MET WIND DIRECTION : 141
12.3.5.4 0367/401 MET WIND SPEED : 13
12.3.5.5 4023/001 AIR VIRTUAL TEMPERATURE : 297
12.3.5.6 4142/002 RELATIVE HUMIDITY : 99

K11 K02.03 Met Data
Message Case 1.06
Index DFI/DUI Data Field Label Data Value

1 4168/001 MET DATA DESIGNATOR : FIRING POINT LOW LEVEL MET
3.1 4020/001 MET VALIDITY DURATION : 3
3.2 4019/005 MET VALIDITY START DAY : 1
3.3 0792/401 MET VALIDITY START HOUR : 6
6.1 4130/002 MET STATION ELEVATION : 300
7.1 4018/001 MET STATION ATMOSPHERIC P: 898
15.1 4079/045 DELETE INDICATOR : NO STATEMENT
15.2.1 4011/001 FIRING POINT IDENTIFIER : A1
15.3.1.1 6500/007 UNIT REFERENCE NUMBER : 6000
15.3.2.1 6500/008 UNIT NAME : AFATDS OPS 6-37
15.4.1 4085/064 FPLL MET IDENTIFICATION : 1
15.5.2 4021/005 FPLL MET ALTITUDE ZONE : ZONE 0
15.5.3 4028/013 MET WIND DIRECTION : 14
15.5.4 0367/004 HORIZONTAL WIND SPEED : 7
15.5.5 0367/005 VERTICAL WIND SPEED : 10
15.5.2 4021/005 FPLL MET ALTITUDE ZONE : ZONE 1
15.5.3 4028/013 MET WIND DIRECTION : 15
15.5.4 0367/004 HORIZONTAL WIND SPEED : 8
15.5.5 0367/005 VERTICAL WIND SPEED : 11
15.5.2 4021/005 FPLL MET ALTITUDE ZONE : ZONE 2
15.5.3 4028/013 MET WIND DIRECTION : 15
15.5.4 0367/004 HORIZONTAL WIND SPEED : 9
15.5.5 0367/005 VERTICAL WIND SPEED : 12

K11 K02.03 Met Data
Message Case 1.07
Index DFI/DUI Data Field Label Data Value
1 4168/001 MET DATA DESIGNATOR : SURFACE OBSERVATION MET
2.1 4016/001 GLOBAL OCTANT : NINE OCTANT
3.1 4020/001 MET VALIDITY DURATION : 3
3.2 4019/005 MET VALIDITY START DAY : 1
3.3 0792/401 MET VALIDITY START HOUR : 6
6.1 4130/002 MET STATION ELEVATION : 300
7.1 4018/001 MET STATION ATMOSPHERIC P: 898
8.1 4054/016 MET STATION NAME : 111112
16.1 4115/009 CLOUD TOTAL AMOUNT : OVERCAST
16.2 0371/405 SURFACE WIND HEADING : EAST
16.3 4115/010 WIND FORCE : LIGHT BREEZE
16.4 4175/003 SURFACE VISIBILITY : 10 - 20 KM
16.5 4115/011 PRESENT WEATHER : NO SIGNIFICANT WEATHER
16.6 4115/012 PRESENT WEATHER AMPLIFICA: NO PRECIPITATION OCCURRING
16.7 4115/013 ROAD STATE : WET
16.8 4115/014 TERRAIN STATE : WET
16.9 4115/015 WATER SURFACE STATE : WATER LEVEL HIGH, BUT NOT OV
16.10 4023/004 AIR TEMPERATURE : 34
16.11 4018/003 SURFACE PRESSURE : 899
16.12 0372/007 WIND DIRECTION : 15
16.13 0367/008 WIND SPEED : 10
16.14 4029/076 CLOUD AMOUNT : 6/8
16.15 0365/011 LOWEST CLOUD HEIGHT : 800 - 899 METERS
16.16.1 4115/016 BREAKER AVERAGE HEIGHT : 1 - 2 METERS
16.16.2 4037/016 BREAKER INTERVAL : 20 - 30 SECONDS
16.16.3 4115/017 WAVE APPROACH DIRECTION : RIGHT

16.16.4 4033/004 SURF ZONE WIDTH : 20 - 30 METERS

1.2.2. PK11 K02.04 Call For Fire

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
5.1.2	0281/005	TARGET LATITUDE	: 2377089
5.1.3	0282/005	TARGET LONGITUDE	: 23382000
5.1.4.1	4130/004	TARGET ELEVATION	: 100
5.5.1	4079/026	GUN-TARGET LINE INDICATOR	: NO STATEMENT

Message:
PK11 K02.04 Call For Fire
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
5.5.1	4079/026	GUN-TARGET LINE INDICATOR	: NO STATEMENT
5.5.2.1	4028/001	OBSERVER-TARGET AZIMUTH	: 121
5.5.3.1	0757/402	OBSERVER ESTIMATED DISTAN	: 2000
7.1.1.1.1	6500/007	UNIT REFERENCE NUMBER	: 1232
7.1.1.2.1	6500/008	UNIT NAME	: F01
7.2.1.1	4085/048	OBSERVER NUMBER	: 1

Message:
PK11 K02.04 Call For Fire
Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
2.1	4085/021	REFERENCE (KNOWN) POINT N	: 1
5.5.1	4079/026	GUN-TARGET LINE INDICATOR	: NO STATEMENT
5.5.2.1	4028/001	OBSERVER-TARGET AZIMUTH	: 121
7.1.1.1.1	6500/007	UNIT REFERENCE NUMBER	: 1232
7.1.1.2.1	6500/008	UNIT NAME	: F01
7.2.1.1	4085/048	OBSERVER NUMBER	: 1

Message:
PK11 K02.04 Call For Fire
Message Case 1.04

Index	DFI/DUI	Data Field Label	Data Value
5.5.1	4079/026	GUN-TARGET LINE INDICATOR	: NO STATEMENT
5.5.2.1	4028/001	OBSERVER-TARGET AZIMUTH	: 121
5.7.1.1	4108/001	LASER MISSION TYPE	: STATIONARY TARGET
5.7.2.1	0757/404	SLANT RANGE	: 1500
5.7.3.1	4028/011	VERTICAL ANGLE	: 10
7.1.1.1.1	6500/007	UNIT REFERENCE NUMBER	: 1232
7.1.1.2.1	6500/008	UNIT NAME	: F01
7.2.1.1	4085/048	OBSERVER NUMBER	: 1

PK11 K02.04 Call For Fire
Message Case 1.05

Index	DFI/DUI	Data Field Label	Data Value
3.1.1	4092/002	FIRE MISSION MESSAGE DESI	: FIRE REQUEST - MOVING TARGET
5.1.2	0281/005	TARGET LATITUDE	: 2399935
5.1.3	0282/005	TARGET LONGITUDE	: 24239767
5.1.4.1	4130/004	TARGET ELEVATION	: 100
5.2.1	4028/010	MOVING TARGET AZIMUTH	: 1400

5.2.2 0367/402 MOVING TARGET SPEED : 15
5.5.1 4079/026 GUN-TARGET LINE INDICATOR: NO STATEMENT
7.1.1.1.1 6500/007 UNIT REFERENCE NUMBER : 1232
7.3.7.1 4040/001 METHOD OF ATTACK : TIME ON TARGET
11.1.2 0792/402 HOUR ON TARGET : 6
11.1.3 0797/401 MINUTE ON TARGET : 0
11.1.4.1 4019/002 DAY ON TARGET : 1

PK11 K02.04 Call For Fire
Message Case 1.06
Index DFI/DUI Data Field Label Data Value
3.1.1 4092/002 FIRE MISSION MESSAGE DESI: FIRE REQUEST - MOVING TARGET
5.1.2 0281/005 TARGET LATITUDE : 2381354
5.1.3 0282/005 TARGET LONGITUDE : 23896208
5.1.4.1 4130/004 TARGET ELEVATION : 100
5.1.5.1 0792/416 FIXED POINT HOUR : 5
5.1.5.2 0797/415 FIXED POINT MINUTE : 0
5.1.5.3 0380/402 FIXED POINT SECOND : 0
5.2.1 4028/010 MOVING TARGET AZIMUTH : 1500
5.2.2 0367/402 MOVING TARGET SPEED : 20

Message:
PK11 K02.04 Call For Fire
Message Case 1.07
Index DFI/DUI Data Field Label Data Value
5.1.2 0281/005 TARGET LATITUDE : 2379108
5.1.3 0282/005 TARGET LONGITUDE : 23553481
5.1.4.1 4130/004 TARGET ELEVATION : 90
5.1.5.1 0792/416 FIXED POINT HOUR : 6
5.1.5.2 0797/415 FIXED POINT MINUTE : 5
5.1.5.3 0380/402 FIXED POINT SECOND : 0
5.1.2 0281/005 TARGET LATITUDE : 2379110
5.1.3 0282/005 TARGET LONGITUDE : 23553483
5.1.4.1 4130/004 TARGET ELEVATION : 95
5.1.5.1 0792/416 FIXED POINT HOUR : 6
5.1.5.2 0797/415 FIXED POINT MINUTE : 7
5.1.5.3 0380/402 FIXED POINT SECOND : 0
5.2.1 4028/010 MOVING TARGET AZIMUTH : 1700
5.2.2 0367/402 MOVING TARGET SPEED : 13

PK11 K02.04 Call For Fire
Message Case 1.08
Index DFI/DUI Data Field Label Data Value
7.2.1.1 4085/048 OBSERVER NUMBER : 1
12.1 4079/010 QUICK FIRE INDICATOR : NO STATEMENT
12.2 4079/009 COPPERHEAD PRIORITY MISSI: NO STATEMENT
12.3 4079/045 DELETE INDICATOR : NO STATEMENT
12.4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
12.5 4079/023 MISSION DENIED INDICATOR : NO STATEMENT
12.6 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
12.7 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
12.8 4058/025 MISSION APPROVAL DESIGNAT: NO STATEMENT
12.9.1 4058/003 FPF DESIGNATOR : FIRE FINAL PROTECTIVE FIRE

PK11 K02.04 Call For Fire
Message Case 1.09

Index	DFI/DUI	Data Field Label	Data Value
7.2.1.1	4085/048	OBSERVER NUMBER	: 1
12.1	4079/010	QUICK FIRE INDICATOR	: NO STATEMENT
12.2	4079/009	COPPERHEAD PRIORITY MISSI	: NO STATEMENT
12.3	4079/045	DELETE INDICATOR	: NO STATEMENT
12.4	4058/002	END OF MISSION DESIGNATOR	: NO STATEMENT
12.5	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
12.6	4079/060	RECORD AS TARGET INDICATO	: NO STATEMENT
12.7	4079/085	SPECIAL APPLICATIONS INDI	: NO STATEMENT
12.8	4058/025	MISSION APPROVAL DESIGNAT	: NO STATEMENT
12.9.1	4058/003	FPF DESIGNATOR	: END FINAL PROTECTIVE FIRE

PK11 K02.04 Call For Fire
Message Case 1.10

Index	DFI/DUI	Data Field Label	Data Value
1.1	4003/001	TARGET NUMBER	: AS1000
7.2.1.1	4085/048	OBSERVER NUMBER	: 1
12.1	4079/010	QUICK FIRE INDICATOR	: FIRE THE SPECIFIED TARGET
12.2	4079/009	COPPERHEAD PRIORITY MISSI	: COPPERHEAD MISSION
12.3	4079/045	DELETE INDICATOR	: NO STATEMENT
12.4	4058/002	END OF MISSION DESIGNATOR	: NO STATEMENT
12.5	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
12.6	4079/060	RECORD AS TARGET INDICATO	: NO STATEMENT
12.7	4079/085	SPECIAL APPLICATIONS INDI	: NO STATEMENT
12.8	4058/025	MISSION APPROVAL DESIGNAT	: NO STATEMENT

PK11 K02.04 Call For Fire
Message Case 1.11

Index	DFI/DUI	Data Field Label	Data Value
1.1	4003/001	TARGET NUMBER	: JJ1000
7.1.1.1.1	6500/007	UNIT REFERENCE NUMBER	: 1232
7.2.1.1	4085/048	OBSERVER NUMBER	: 1
12.1	4079/010	QUICK FIRE INDICATOR	: NO STATEMENT
12.2	4079/009	COPPERHEAD PRIORITY MISSI	: NO STATEMENT
12.3	4079/045	DELETE INDICATOR	: DELETE
12.4	4058/002	END OF MISSION DESIGNATOR	: NO STATEMENT
12.5	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
12.6	4079/060	RECORD AS TARGET INDICATO	: NO STATEMENT
12.7	4079/085	SPECIAL APPLICATIONS INDI	: NO STATEMENT
12.8	4058/025	MISSION APPROVAL DESIGNAT	: NO STATEMENT

PK11 K02.04 Call For Fire
Message Case 1.12

Index	DFI/DUI	Data Field Label	Data Value
5.1.2	0281/005	TARGET LATITUDE	: 2381581
5.1.3	0282/005	TARGET LONGITUDE	: 24068545
6.3.2	4025/001	TARGET GENERIC TYPE	: SPECIAL
6.3.3.2	4026/001	TARGET SUBTYPE	: ON CALL

PK11 K02.04 Call For Fire

Message Case 1.13

Index	DFI/DUI	Data Field Label	Data Value
5.1.2	0281/005	TARGET LATITUDE	: 2381581
5.1.3	0282/005	TARGET LONGITUDE	: 24068545
12.1	4079/010	QUICK FIRE INDICATOR	: NO STATEMENT
12.2	4079/009	COPPERHEAD PRIORITY MISSI	: NO STATEMENT
12.3	4079/045	DELETE INDICATOR	: NO STATEMENT
12.4	4058/002	END OF MISSION DESIGNATOR	: END OF MISSION - RECORD AS T
12.5	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
12.6	4079/060	RECORD AS TARGET INDICATO	: NO STATEMENT
12.7	4079/085	SPECIAL APPLICATIONS INDI	: NO STATEMENT
12.8	4058/025	MISSION APPROVAL DESIGNAT	: NO STATEMENT

PK11 K02.04 Call For Fire

Message Case 1.14

Index	DFI/DUI	Data Field Label	Data Value
1.1	4003/001	TARGET NUMBER	: JJ1001
12.1	4079/010	QUICK FIRE INDICATOR	: NO STATEMENT
12.2	4079/009	COPPERHEAD PRIORITY MISSI	: NO STATEMENT
12.3	4079/045	DELETE INDICATOR	: NO STATEMENT
12.4	4058/002	END OF MISSION DESIGNATOR	: END OF MISSION - ASSIGN KNOW
12.5	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
12.6	4079/060	RECORD AS TARGET INDICATO	: NO STATEMENT
12.7	4079/085	SPECIAL APPLICATIONS INDI	: NO STATEMENT
12.8	4058/025	MISSION APPROVAL DESIGNAT	: NO STATEMENT

PK11 K02.04 Call For Fire

Message Case 1.15

Index	DFI/DUI	Data Field Label	Data Value
4.2.1	6500/007	UNIT REFERENCE NUMBER	: 1232
7.1.1.1.1	6500/007	UNIT REFERENCE NUMBER	: 6000
7.1.1.2.1	6500/008	UNIT NAME	: AFATDS OPS 6-37
7.2.1.1	4085/048	OBSERVER NUMBER	: 1
12.1	4079/010	QUICK FIRE INDICATOR	: NO STATEMENT
12.2	4079/009	COPPERHEAD PRIORITY MISSI	: NO STATEMENT
12.3	4079/045	DELETE INDICATOR	: NO STATEMENT
12.4	4058/002	END OF MISSION DESIGNATOR	: NO STATEMENT
12.5	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
12.6	4079/060	RECORD AS TARGET INDICATO	: NO STATEMENT
12.7	4079/085	SPECIAL APPLICATIONS INDI	: NO STATEMENT
12.8	4058/025	MISSION APPROVAL DESIGNAT	: NO STATEMENT
12.9.1	4058/003	FPF DESIGNATOR	: UPDATE FINAL PROTECTIVE FIRE

PK11 K02.04 Call For Fire

Message Case 1.16

Index	DFI/DUI	Data Field Label	Data Value
5.1.2	0281/005	TARGET LATITUDE	: 8772396
5.1.3	0282/005	TARGET LONGITUDE	: -18670103
7.1.1.1.1	6500/007	UNIT REFERENCE NUMBER	: 1232
7.1.1.2.1	6500/008	UNIT NAME	: F01
7.2.1.1	4085/048	OBSERVER NUMBER	: 1
7.3.2.1	4036/001	METHOD OF FIRE	: FIRE FOR EFFECT
9.1.1	4029/003	NUMBER OF MUNITIONS	: 1

9.2.2.1 4005/003 FIRE FOR EFFECT PROJECTIL: CPH - 155MM
12.1 4079/010 QUICK FIRE INDICATOR : NO STATEMENT
12.2 4079/009 COPPERHEAD PRIORITY MISSI: NO STATEMENT
12.3 4079/045 DELETE INDICATOR : NO STATEMENT
12.4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
12.5 4079/023 MISSION DENIED INDICATOR : NO STATEMENT
12.6 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
12.7 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
12.8 4058/025 MISSION APPROVAL DESIGNAT: NO STATEMENT
12.9.1 4058/003 FPF DESIGNATOR : ASSIGN FINAL PROTECTIVE FIRE

PK11 K02.04 Call For Fire
Message Case 1.17
Index DFI/DUI Data Field Label Data Value
5.1.2 0281/005 TARGET LATITUDE : 2381356
5.1.3 0282/005 TARGET LONGITUDE : 23896800
5.1.4.1 4130/004 TARGET ELEVATION : 100
7.1.1.1.1 6500/007 UNIT REFERENCE NUMBER : 1232
7.1.1.2.1 6500/008 UNIT NAME : F01
7.2.1.1 4085/048 OBSERVER NUMBER : 1
9.1.1 4029/003 NUMBER OF MUNITIONS : 3
9.2.2.1 4005/003 FIRE FOR EFFECT PROJECTIL: HEA - 105MM, 155MM, 203MM
12.1 4079/010 QUICK FIRE INDICATOR : NO STATEMENT
12.2 4079/009 COPPERHEAD PRIORITY MISSI: NO STATEMENT
12.3 4079/045 DELETE INDICATOR : NO STATEMENT
12.4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
12.5 4079/023 MISSION DENIED INDICATOR : NO STATEMENT
12.6 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
12.7 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
12.8 4058/025 MISSION APPROVAL DESIGNAT: NO STATEMENT
12.9.1 4058/003 FPF DESIGNATOR : ASSIGN FINAL PROTECTIVE FIRE

PK11 K02.04 Call For Fire
Message Case 1.18
Index DFI/DUI Data Field Label Data Value
1.1 4003/001 TARGET NUMBER : JJ1001
12.1 4079/010 QUICK FIRE INDICATOR : FIRE THE SPECIFIED TARGET
12.2 4079/009 COPPERHEAD PRIORITY MISSI: NO STATEMENT
12.3 4079/045 DELETE INDICATOR : NO STATEMENT
12.4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
12.5 4079/023 MISSION DENIED INDICATOR : NO STATEMENT
12.6 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
12.7 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
12.8 4058/025 MISSION APPROVAL DESIGNAT: NO STATEMENT

PK11 K02.04 Call For Fire
Message Case 1.19
Index DFI/DUI Data Field Label Data Value
5.1.2 0281/005 TARGET LATITUDE : 2549019
5.1.3 0282/005 TARGET LONGITUDE : -18778372
5.1.4.1 4130/004 TARGET ELEVATION : 100
7.1.1.1.1 6500/007 UNIT REFERENCE NUMBER : 1232

7.1.1.2.1 6500/008 UNIT NAME : F01
7.1.3.1 4112/002 OBSERVER EFFECTS REQUEST : IMMEDIATE SUPPRESSION

Message:
PK11 K02.04 Call For Fire
Message Case 1.20

Index	DFI/DUI	Data Field Label	Data Value
1.1	4003/001	TARGET NUMBER	: AQ1234
3.2.1	4082/004	CALL FOR FIRE STATUS CODE	: CANNOT COMPLY
5.1.2	0281/005	TARGET LATITUDE	: 1
5.1.3	0282/005	TARGET LONGITUDE	: 2
5.1.4.1	4130/004	TARGET ELEVATION	: 3
5.3.1.1	4032/001	LENGTH	: 2
5.3.1.2	4033/001	WIDTH	: 3
5.3.1.3.1	4028/002	ATTITUDE	: 4
6.3.2	4025/001	TARGET GENERIC TYPE	: ARTILLERY
6.3.3.2	4026/001	TARGET SUBTYPE	: LIGHT
7.3.1.1	4041/001	METHOD OF CONTROL	: ADJUST FIRE
7.3.2.1	4036/001	METHOD OF FIRE	: ADJUST FIRE
7.3.4.1	4068/003	EFFECTS DESIRED	: 5
13.1.1	4068/002	FIRE UNIT EFFECTS ACHIEVE	: 5

PK11 K02.04 Call For Fire
Message case 1.21

Index	DFI/DUI	Data Field Label	Data Value
1.1	4003/001	TARGET NUMBER	: JJ1001
3.1.1	4092/002	FIRE MISSION MESSAGE DESI	: CALL FOR FIRE
3.2.1	4082/004	CALL FOR FIRE STATUS CODE	: HAND-OFF MISSION
5.1.2	0281/005	TARGET LATITUDE	: 2380531
5.1.3	0282/005	TARGET LONGITUDE	: -18777182
5.1.4.1	4130/004	TARGET ELEVATION	: 75
5.3.2.1	4031/001	RADIUS	: 100
6.3.2	4025/001	TARGET GENERIC TYPE	: ARTILLERY
6.3.3.2	4026/001	TARGET SUBTYPE	: MEDIUM
7.3.1.1	4041/001	METHOD OF CONTROL	: FIRE WHEN READY
7.3.2.1	4036/001	METHOD OF FIRE	: FIRE FOR EFFECT

Message:
PK11 K02.04 Call For Fire
Message Case 1.22

Index	DFI/DUI	Data Field Label	Data Value
1.1	4003/001	TARGET NUMBER	: JJ1001
4.2.1	6500/007	UNIT REFERENCE NUMBER	: 6000
4.3.1	6500/008	UNIT NAME	: AFATDS OPS 6-37
5.1.2	0281/005	TARGET LATITUDE	: 2380531
5.1.3	0282/005	TARGET LONGITUDE	: -18777182
5.1.4.1	4130/004	TARGET ELEVATION	: 100
5.3.1.1	4032/001	LENGTH	: 1200
5.3.1.2	4033/001	WIDTH	: 1400
5.3.1.3.1	4028/002	ATTITUDE	: 1600
6.3.2	4025/001	TARGET GENERIC TYPE	: ROCKET/MISSILE
6.3.3.2	4026/001	TARGET SUBTYPE	: MEDIUM
7.3.1.1	4041/001	METHOD OF CONTROL	: FIRE WHEN READY

7.3.2.1 4036/001 METHOD OF FIRE : FIRE FOR EFFECT
10.1.1 4005/007 ROCKET MUNITIONS TYPE : JED
10.2.1 4029/014 NUMBER OF ROCKET MUNITION: 4

Message:
PK11 K02.04 Call For Fire
Message case 1.23
Index DFI/DUI Data Field Label Data Value
1.1 4003/001 TARGET NUMBER : JP1000
3.2.1 4082/004 CALL FOR FIRE STATUS CODE: FIRE ORDER
4.2.1 6500/007 UNIT REFERENCE NUMBER : 6000
4.3.1 6500/008 UNIT NAME : AFATFS OPS 6-37
5.1.2 0281/005 TARGET LATITUDE : 2381356
5.1.3 0282/005 TARGET LONGITUDE : 23896800
5.1.4.1 4130/004 TARGET ELEVATION : 100
5.3.2.1 4031/001 RADIUS : 100
6.1.1 4034/001 TARGET AIR DEFENSES : NOT DEFENDED
6.3.2 4025/001 TARGET GENERIC TYPE : ARTILLERY
6.3.3.2 4026/001 TARGET SUBTYPE : MEDIUM
7.1.1.1.1 6500/007 UNIT REFERENCE NUMBER : 1232
7.1.1.2.1 6500/008 UNIT NAME : F01
7.3.1.1 4041/001 METHOD OF CONTROL : FIRE WHEN READY
7.3.2.1 4036/001 METHOD OF FIRE : FIRE FOR EFFECT
9.1.1 4029/003 NUMBER OF MUNITIONS : 4
9.2.2.1 4005/003 FIRE FOR EFFECT PROJECTIL: HEA - 105MM, 155MM, 203MM
9.2.3.1 4006/001 PROJECTILE LOT DESIGNATOR: A
9.2.4.1 4007/001 PROPELLANT TYPE : WHITE BAG
9.2.5.1 4006/002 PROPELLANT LOT DESIGNATOR: W

Message:
PK11 K02.04 Call For Fire
Message Case 1.24
Index DFI/DUI Data Field Label Data Value
1.1 4003/001 TARGET NUMBER : JP1000
3.2.1 4082/004 CALL FOR FIRE STATUS CODE: MONITORED MISSION
12.1 4079/010 QUICK FIRE INDICATOR : NO STATEMENT
12.2 4079/009 COPPERHEAD PRIORITY MISSI: NO STATEMENT
12.3 4079/045 DELETE INDICATOR : NO STATEMENT
12.4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
12.5 4079/023 MISSION DENIED INDICATOR : NO STATEMENT
12.6 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
12.7 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
12.8 4058/025 MISSION APPROVAL DESIGNAT: MISSION APPROVED

11 K02.04 Call For Fire
Message Case 1.25
Index DFI/DUI Data Field Label Data Value
1.1 4003/001 TARGET NUMBER : JP1222
3.2.1 4082/004 CALL FOR FIRE STATUS CODE: MASS FIRE ORDER
4.2.1 6500/007 UNIT REFERENCE NUMBER : 6000
4.3.1 6500/008 UNIT NAME : AFATDS OPS 6-37
5.1.2 0281/005 TARGET LATITUDE : 2381356
5.1.3 0282/005 TARGET LONGITUDE : 23896800

5.3.2.1 4031/001 RADIUS : 250
6.3.2 4025/001 TARGET GENERIC TYPE : ARTILLERY
6.3.3.2 4026/001 TARGET SUBTYPE : MEDIUM
7.1.1.1.1 6500/007 UNIT REFERENCE NUMBER : 1232
7.1.1.2.1 6500/008 UNIT NAME : F01
7.3.1.1 4041/001 METHOD OF CONTROL : FIRE WHEN READY
7.3.2.1 4036/001 METHOD OF FIRE : FIRE FOR EFFECT

Message:
PK11 K02.04 Call For Fire
Message Case 1.26

Index	DFI/DUI	Data Field Label	Data Value
1.1	4003/001	TARGET NUMBER	: JP1234
12.1	4079/010	QUICK FIRE INDICATOR	: NO STATEMENT
12.2	4079/009	COPPERHEAD PRIORITY MISSI	: NO STATEMENT
12.3	4079/045	DELETE INDICATOR	: NO STATEMENT
12.4	4058/002	END OF MISSION DESIGNATOR	: END OF MISSION
12.5	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
12.6	4079/060	RECORD AS TARGET INDICATO	: NO STATEMENT
12.7	4079/085	SPECIAL APPLICATIONS INDI	: NO STATEMENT
12.8	4058/025	MISSION APPROVAL DESIGNAT	: NO STATEMENT

1.2.2. PK11 K02.05 Shell Report

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4058/001	ACTION DESIGNATOR	: ADD
2.1	4003/001	TARGET NUMBER	: JP1000
4.1.1	4028/003	DIRECTION TO ENEMY WEAPON	: 1640
4.2.1	0281/010	CRATER LOCATION LATITUDE	: 2380531
4.2.2	0282/010	CRATER LOCATION LONGITUDE	: 23725097
4.2.3.1	4130/009	CRATER LOCATION ELEVATION	: 50
5.2.1	0700/402	WEAPON USED	: ARTILLERY
5.3.1	4048/001	HOSTILE WEAPON SUBTYPE	: MEDIUM
5.4.1	4049/001	WEAPON CALIBER	: 122MM
6.7.1	4119/001	TARGET LOCATION ERROR	: 2

Message:
PK11 K02.05 Shell Report
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4058/001	ACTION DESIGNATOR	: CHANGE
2.1	4003/001	TARGET NUMBER	: JP2000

Message:
PK11 K02.05 Shell Report
Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1	4058/001	ACTION DESIGNATOR	: DELETE
2.1	4003/001	TARGET NUMBER	: JP2000

1.2.2. PK11 K02.06 Observer Notify

Index DFI/DUI Data Field Label Data Value
1 4003/001 TARGET NUMBER : JP1111
2 4053/001 OBSERVER NOTIFICATION : END OF MISSION
3.1 4085/048 OBSERVER NUMBER : 1
4.1.1 6500/007 UNIT REFERENCE NUMBER : 1232

1.2.2. PK11 K02.07 Survey Control Point

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4092/026 SURVEY MESSAGE DESIGNATOR: SURVEY POINT
2 4079/051 LAST SCP INDICATOR : NO STATEMENT
3.1 4058/001 ACTION DESIGNATOR : ADD
7.2 4168/013 SURVEY POINT TYPE DESIGNA: SURVEY CONTROL POINT
7.3 4054/001 SCP NAME : surveypoint0001
7.5.1 0281/002 LATITUDE : 152406763
7.5.2 0282/002 LONGITUDE : -1190750692
7.5.3.1 0283/001 GRID ZONE DESIGNATOR : 14
7.5.4.1 4130/012 SCP ELEVATION : 75

Message:
PK11 K02.07 Survey Control Point
Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1 4092/026 SURVEY MESSAGE DESIGNATOR: SURVEY POINT
2 4079/051 LAST SCP INDICATOR : LAST SCP
3.1 4058/001 ACTION DESIGNATOR : DELETE

Message:
PK11 K02.07 Survey Control Point
Message Case 1.03
Index DFI/DUI Data Field Label Data Value
1 4092/026 SURVEY MESSAGE DESIGNATOR: SURVEY POINT
2 4079/051 LAST SCP INDICATOR : LAST SCP
3.1 4058/001 ACTION DESIGNATOR : CHANGE
7.2 4168/013 SURVEY POINT TYPE DESIGNA: SURVEY CONTROL POINT
7.3 4054/001 SCP NAME : surveypoint0001
7.4.1.1 4055/001 ORDER OF SURVEY : FIRST ORDER SURVEY

1.2.2. PK11 K02.08 Schedule of Fires

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : SEAD01
2 4058/001 ACTION DESIGNATOR : ADD
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: TARGET UPDATE
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT

9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.11.2 4003/001 TARGET NUMBER : JP0001

Message:
PK11 K02.08 Schedule of Fires
Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : SEAD01
2 4058/001 ACTION DESIGNATOR : DELETE
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: TARGET UPDATE
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.11.2 4003/001 TARGET NUMBER : JP1000

Message:
PK11 K02.08 Schedule of Fires
Message Case 1.03
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : SEAD01
2 4058/001 ACTION DESIGNATOR : ADD
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: TARGET INSTRUCTIONS
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: SCHEDULE AS FIRE PLAN TARGET
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.11.2 4003/001 TARGET NUMBER : JP1001

Message:
PK11 K02.08 Schedule of Fires
Message Case Message Case 1.04
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : SEAD01
2 4058/001 ACTION DESIGNATOR : ADD
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT

5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: TARGET INSTRUCTIONS
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: SCHEDULE AS FIRE PLAN TARGET
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.11.2 4003/001 TARGET NUMBER : JP1001

Message:
PK11 K02.08 Schedule of Fires
Message Case 1.05
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : MINE01
2 4058/001 ACTION DESIGNATOR : ADD
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: FASCAM
6.1 4054/027 COORDINATING AGENCY NAME : JSTAR
8.1 0792/023 H-HOUR : 6
8.2 0797/023 H-HOUR MINUTE : 0
8.3.1 4019/022 H-HOUR DAY : 1
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : ARTILLERY MINEFIELD
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.19.1 0281/005 TARGET LATITUDE : 2380531
9.19.2 0282/005 TARGET LONGITUDE : -18777182
9.19.3.1 4130/004 TARGET ELEVATION : 100
9.22.1.1 4032/001 LENGTH : 200
9.22.1.2 4033/001 WIDTH : 200
9.22.1.3 4028/002 ATTITUDE : 100
10.1.1 4162/001 MINEFIELD DENSITY : LOW
10.2.1 0792/414 NOT LATER THAN HOUR : 6
10.2.2 0797/413 NOT LATER THAN MINUTE : 20
10.2.3.1 4019/011 NOT LATER THAN DAY : 1
10.3.2 4005/017 MINEFIELD MUNITIONS TYPE : AMS - 155MM
10.3.3 4013/001 FUZE TYPE : TIME
10.3.2 4005/017 MINEFIELD MUNITIONS TYPE : APS - 155MM
10.3.3 4013/001 FUZE TYPE : TIME

Message:
PK11 K02.08 Schedule of Fires
Message Case 1.06
Index DFI/DUI Data Field Label Data Value

1 4054/003 FIRE PLAN NAME : FASCA1
2 4058/001 ACTION DESIGNATOR : CHANGE
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: FASCAM
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : ARTILLERY MINEFIELD
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT

PK11 K02.08 Schedule of Fires
Message Case 1.07
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : HAPPY1
2 4058/001 ACTION DESIGNATOR : NO STATEMENT
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: RESERVE FIRE UNIT
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.24.2 4060/001 TIME RELATIVE TO H-HOUR : 5
9.32.2.1.1 6500/007 UNIT REFERENCE NUMBER : 6000
9.32.2.2.1 6500/008 UNIT NAME : AFATDS OPS 6-37

K02.08 Schedule of Fires
Message Case 1.08
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : Happy1
2 4058/001 ACTION DESIGNATOR : DELETE
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: RESERVE FIRE UNIT
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION

9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.24.2 4060/001 TIME RELATIVE TO H-HOUR : 10
9.32.2.1.1 6500/007 UNIT REFERENCE NUMBER : 6000
9.32.2.2.1 6500/008 UNIT NAME : AFATDS OPS 6-37

PK11 K02.08 Schedule of Fires
Message Case 1.09
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : Happy2
2 4058/001 ACTION DESIGNATOR : NO STATEMENT
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: RESERVE FIRE UNIT
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.24.2 4060/001 TIME RELATIVE TO H-HOUR : 15

PK11 K02.08 Schedule of Fires
Message Case 1.10
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : Happy2
2 4058/001 ACTION DESIGNATOR : DELETE
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: RESERVE FIRE UNIT
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.24.2 4060/001 TIME RELATIVE TO H-HOUR : 0

PK11 K02.08 Schedule of Fires
Message Case 1.11
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : Happy1
2 4058/001 ACTION DESIGNATOR : NO STATEMENT
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: TARGET DATA TRANSMISSION
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT

9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.11.2 4003/001 TARGET NUMBER : JP1000
9.13.1 4129/005 TARGET PRIORITY : PRIORITY 1
9.14.1 4119/001 TARGET LOCATION ERROR : 10
9.19.1 0281/005 TARGET LATITUDE : 2381356
9.19.2 0282/005 TARGET LONGITUDE : 23896800
9.19.3.1 4130/004 TARGET ELEVATION : 100
9.22.2.1 4031/001 RADIUS : 150
9.23.2 4025/001 TARGET GENERIC TYPE : ARTILLERY
9.23.3.2 4026/001 TARGET SUBTYPE : MEDIUM

Message:
PK11 K02.08 Schedule of Fires
Message Case 1.12
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : GOLD01
2 4058/001 ACTION DESIGNATOR : NO STATEMENT
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: TARGET DATA TRANSMISSION
9.2 4079/027 ON-CALL TARGET INDICATOR : TARGET IS ON-CALL
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.11.2 4003/001 TARGET NUMBER : JP2005
9.13.1 4129/005 TARGET PRIORITY : PRIORITY 1
9.14.1 4119/001 TARGET LOCATION ERROR : 10
9.19.1 0281/005 TARGET LATITUDE : 2381581
9.19.2 0282/005 TARGET LONGITUDE : -18433735
9.22.2.1 4031/001 RADIUS : 150
9.23.2 4025/001 TARGET GENERIC TYPE : ROCKET/MISSILE
9.23.3.2 4026/001 TARGET SUBTYPE : MEDIUM MISSILE

Message:
PK11 K02.08 Schedule of Fires
Message Case 1.13
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : green1
2 4058/001 ACTION DESIGNATOR : NO STATEMENT
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: TARGET DATA TRANSMISSION

9.2 4079/027 ON-CALL TARGET INDICATOR : TARGET IS ON-CALL
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: TARGET SCHEDULED AS FIRE PLA
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.11.2 4003/001 TARGET NUMBER : AA1000
9.13.1 4129/005 TARGET PRIORITY : PRIORITY 1
9.14.1 4119/001 TARGET LOCATION ERROR : 5
9.19.1 0281/005 TARGET LATITUDE : 2380531
9.19.2 0282/005 TARGET LONGITUDE : -18777182
9.22.2.1 4031/001 RADIUS : 200
9.23.2 4025/001 TARGET GENERIC TYPE : ARTILLERY
9.23.3.2 4026/001 TARGET SUBTYPE : MEDIUM
9.27.2.1 4068/004 REQUIRED EFFECTS : 2
9.32.2.1.1 6500/007 UNIT REFERENCE NUMBER : 6000
9.32.2.2.1 6500/008 UNIT NAME : AFATDS OPS 6-37
9.32.3.1 0700/401 WEAPON TYPE : 155MM
9.32.4.1 4068/002 FIRE UNIT EFFECTS ACHIEVE: 2
9.32.6.1 4010/002 FU TRAJECTORY TYPE : LOW
9.32.7.1 4037/003 REACTION TIME : 1
9.32.9.1 4005/007 ROCKET MUNITIONS TYPE : NO STATEMENT
9.32.9.2.14029/014 NUMBER OF ROCKET MUNITION: 0

PK11 K02.08 Schedule of Fires
Message Case 1.14
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : GOLD01
2 4058/001 ACTION DESIGNATOR : NO STATEMENT
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: TARGET DATA TRANSMISSION
8.1 0792/023 H-HOUR : 6
8.2 0797/023 H-HOUR MINUTE : 0
8.3.1 4019/022 H-HOUR DAY : 1
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.16.2 4085/033 PHASE NUMBER : PHASE 1
9.19.1 0281/005 TARGET LATITUDE : 2381586
9.19.2 0282/005 TARGET LONGITUDE : 24045221
9.22.2.1 4031/001 RADIUS : 200
9.23.2 4025/001 TARGET GENERIC TYPE : ARTILLERY
9.23.3.2 4026/001 TARGET SUBTYPE : MEDIUM

9.24.2 4060/001 TIME RELATIVE TO H-HOUR : 10
9.32.2.1.1 6500/007 UNIT REFERENCE NUMBER : 6000
9.32.2.2.1 6500/008 UNIT NAME : AFATDS OPS 6-37
9.32.9.1 4005/007 ROCKET MUNITIONS TYPE : NO STATEMENT
9.32.9.2.14029/014 NUMBER OF ROCKET MUNITION: 0

K11 K02.08 Schedule of Fires
Message Case 1.15
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : Green1
2 4058/001 ACTION DESIGNATOR : NO STATEMENT
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: END OF MISSION
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: TARGET DATA TRANSMISSION
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT

Message:
PK11 K02.08 Schedule of Fires
Message Case 1.16
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : Black1
2 4058/001 ACTION DESIGNATOR : NO STATEMENT
3 4079/024 LAST TARGET INDICATOR : NO STATEMENT
4 4058/002 END OF MISSION DESIGNATOR: NO STATEMENT
5.1 4092/003 FIRE PLAN MESSAGE DESIGNA: CALL FOR FIRE
8.1 0792/023 H-HOUR : 6
8.2 0797/023 H-HOUR MINUTE : 0
8.3.1 4019/022 H-HOUR DAY : 1
9.2 4079/027 ON-CALL TARGET INDICATOR : SCHEDULED
9.3 4079/015 MISSION FIRED INDICATOR : NO STATEMENT
9.4 4079/063 FIRE PLAN TARGET INDICATO: NO STATEMENT
9.5 4079/064 TARGET IN SCHEDULE OF FIR: NO STATEMENT
9.6 4079/031 MINEFIELD INDICATOR : NO STATEMENT
9.7 4079/079 SADARM SEGMENTATION INDIC: NO STATEMENT
9.8 4079/060 RECORD AS TARGET INDICATO: NO STATEMENT
9.9 4079/030 TARGET LOCATION STATUS IN: CONFIRMED LOCATION
9.10 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT
9.11.2 4003/001 TARGET NUMBER : JP2222
9.16.2 4085/033 PHASE NUMBER : PHASE 1
9.19.1 0281/005 TARGET LATITUDE : 2381356
9.19.2 0282/005 TARGET LONGITUDE : -18605479
9.19.3.1 4130/004 TARGET ELEVATION : 150
9.22.2.1 4031/001 RADIUS : 150
9.24.2 4060/001 TIME RELATIVE TO H-HOUR : 15
9.32.2.1.1 6500/007 UNIT REFERENCE NUMBER : 6000

9.32.2.2.1 6500/008 UNIT NAME : AFATDS OPS 6-37
9.32.8.2.1 4005/003 FIRE FOR EFFECT PROJECTIL: HEA - 105MM, 155MM, 203MM
9.32.8.3.1 4029/003 NUMBER OF MUNITIONS : 6
9.32.8.4.1 4013/004 FIRE FOR EFFECT FUZE : POINT DETONATING

1.2.2. PK11 K02.09 Target Data

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1.1 4092/019 TARGET DATA MESSAGE DESIG: COORDINATE REPORT
2.1 4058/001 ACTION DESIGNATOR : ADD
4.4.2.1 0281/005 TARGET LATITUDE : 2381356
4.4.2.2 0282/005 TARGET LONGITUDE : 23896800
4.4.3.1 4130/004 TARGET ELEVATION : 100
4.10.2.1 4119/001 TARGET LOCATION ERROR : 0

Message:
PK11 K02.09 Target Data
Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1.1 4092/019 TARGET DATA MESSAGE DESIG: AZIMUTH REPORT
2.1 4058/001 ACTION DESIGNATOR : ADD
4.10.2.1 4119/001 TARGET LOCATION ERROR : 0
4.13.2.1 0281/007 OBSERVER LOCATION LATITUD: 2381356
4.13.2.2 0282/007 OBSERVER LOCATION LONGITU: 23896800
4.13.3.1 0757/402 OBSERVER ESTIMATED DISTAN: 1500
4.13.3.2 4028/001 OBSERVER-TARGET AZIMUTH : 1200

Message:
PK11 K02.09 Target Data
Message Case 1.03
Index DFI/DUI Data Field Label Data Value
1.1 4092/019 TARGET DATA MESSAGE DESIG: AZIMUTH REPORT
2.1 4058/001 ACTION DESIGNATOR : CHANGE
4.2.1 4003/001 TARGET NUMBER : JP2002
4.5.2 4025/001 TARGET GENERIC TYPE : ARTILLERY
4.5.3.2 4026/001 TARGET SUBTYPE : UNKNOWN

Message:
PK11 K02.09 Target Data
Message case 1.04
Index DFI/DUI Data Field Label Data Value
1.1 4092/019 TARGET DATA MESSAGE DESIG: TARGET INTELLIGENCE MISSION
4.2.1 4003/001 TARGET NUMBER : AB1000
4.4.1.1 0281/023 IMPACT POINT LATITUDE : 2381356
4.4.1.2 0282/023 IMPACT POINT LONGITUDE : 23896800
4.4.2.1 0281/005 TARGET LATITUDE : 2381356
4.4.2.2 0282/005 TARGET LONGITUDE : -17486998

Message:
PK11 K02.09 Target Data
Message Case 1.05
Index DFI/DUI Data Field Label Data Value

4.2.1 4003/001 TARGET NUMBER : AB1234
4.3.1 4168/003 TARGET DESCRIPTOR : TARGET REPORT
4.4.1.1 0281/023 IMPACT POINT LATITUDE : 2381356
4.4.1.2 0282/023 IMPACT POINT LONGITUDE : -17486998
4.4.2.1 0281/005 TARGET LATITUDE : 2381337
4.4.2.2 0282/005 TARGET LONGITUDE : -17486998
4.4.3.1 4130/004 TARGET ELEVATION : 75
4.5.2 4025/001 TARGET GENERIC TYPE : ARTILLERY
4.5.3.2 4026/001 TARGET SUBTYPE : UNKNOWN
4.9.2.1 4031/001 RADIUS : 50
4.10.2.1 4119/001 TARGET LOCATION ERROR : 0
4.10.3.1 4050/001 TARGET ACQUISITION SOURCE: COUNTER BATTERY RADAR

Message:
PK11 K02.09 Target Data
Message Case 1.06

Index	DFI/DUI	Data Field Label	Data Value
4.2.1	4003/001	TARGET NUMBER	: JM1000
4.3.1	4168/003	TARGET DESCRIPTOR	: COORDINATE REPORT (SINGLE)
4.4.3.1	4130/004	TARGET ELEVATION	: 100
4.5.2	4025/001	TARGET GENERIC TYPE	: ARTILLERY
4.5.3.2	4026/001	TARGET SUBTYPE	: UNKNOWN
4.9.2.1	4031/001	RADIUS	: 100
4.10.2.1	4119/001	TARGET LOCATION ERROR	: 0
4.10.3.1	4050/001	TARGET ACQUISITION SOURCE	: SHELL REPORT
4.13.1.1	4085/048	OBSERVER NUMBER	: 1
4.14.1.1	4028/012	ATTACK DIRECTION	: 1200

1.2.2. PK11 K02.10 Mission/Cancellation

Index	DFI/DUI	Data Field Label	Data Value
1.2	4054/003	FIRE PLAN NAME	: GOLD01
1.3.2	4003/001	TARGET NUMBER	: AA1000

1.2.2. PK11 K02.11 Ammo Inventory

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4079/059	MUTUAL SUPPORT INDICATOR	: NO STATEMENT
2	4079/045	DELETE INDICATOR	: NO STATEMENT
3.1.1	6500/007	UNIT REFERENCE NUMBER	: 6000
3.2.1	6500/008	UNIT NAME	: AFATDS OPS 6-37
6.1	4058/006	INVENTORY CODE DESIGNATOR	: ON-HAND
8.2	4005/001	MUNITIONS TYPE	: HEA - 81MM, 105MM, 107MM, 12
8.3	4029/003	NUMBER OF MUNITIONS	: 100
8.4	4006/001	PROJECTILE LOT DESIGNATOR	: H
8.6.1	4176/001	PROJECTILE COUNTRY OF ORI	: US
9.2	4013/001	FUZE TYPE	: QUICK
9.3	4029/004	NUMBER OF FUZES	: 100
10.2	4007/001	PROPELLANT TYPE	: WHITE BAG
10.3	4006/002	PROPELLANT LOT DESIGNATOR	: W
10.4	4029/010	NUMBER OF PROPELLANTS	: 100

PK11 K02.11 Ammo Inventory

Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4079/059	MUTUAL SUPPORT INDICATOR	: NO STATEMENT
2	4079/045	DELETE INDICATOR	: NO STATEMENT
3.1.1	6500/007	UNIT REFERENCE NUMBER	: 6000
3.2.1	6500/008	UNIT NAME	: AFATDS OPS 6-37
11.1.1	4085/030	AMMUNITION SITE NUMBER	: 1
11.1.2.1	4011/003	PLATOON OPERATIONAL AREA	: AREA A
11.2.1	0281/024	AMMUNITION SITE LATITUDE	: 2381356
11.2.2	0282/024	AMMUNITION SITE LONGITUDE	: -18605479
11.2.3.1	4130/007	AMMUNITION SITE ELEVATION	: 50
11.3.2	4005/007	ROCKET MUNITIONS TYPE	: JED
11.3.3	4029/027	NUMBER OF MUNITIONS ON TH	: 60
11.3.4	4029/028	NUMBER OF MUNITIONS ON WH	: 30
11.4.1	4037/008	ON GROUND RESPONSE TIME	: 10
11.5.1	4037/009	ON WHEELS RESPONSE TIME	: 20

Message:
PK11 K02.11 Ammo Inventory
Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1	4079/059	MUTUAL SUPPORT INDICATOR	: NO STATEMENT
2	4079/045	DELETE INDICATOR	: DELETE
3.1.1	6500/007	UNIT REFERENCE NUMBER	: 6000
3.2.1	6500/008	UNIT NAME	: AFATDS OPS 6-37
11.1.1	4085/030	AMMUNITION SITE NUMBER	: 1
11.1.2.1	4011/003	PLATOON OPERATIONAL AREA	: AREA A

Message:
PK11 K02.11 Ammo Inventory
Message Case 1.04

Index	DFI/DUI	Data Field Label	Data Value
1	4079/059	MUTUAL SUPPORT INDICATOR	: NO STATEMENT
2	4079/045	DELETE INDICATOR	: DELETE
3.1.1	6500/007	UNIT REFERENCE NUMBER	: 180148
3.2.1	6500/008	UNIT NAME	: A 2-18 FA

1.2.2. PK11 K02.12 On-Call Fire Req

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
2.1	4054/003	FIRE PLAN NAME	: sead01
3.2	4003/001	TARGET NUMBER	: AA1000

Message:
PK11 K02.12 On-Call Fire Req
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1.1	4092/024	FIRE COMMAND MESSAGE DESI	: FIRE
3.2	4003/001	TARGET NUMBER	: AA1000

1.2.2. PK11 K02.13 Mission Clearance

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value

1 4063/001 DISPOSITION ACTION : APPROVED
2 4003/001 TARGET NUMBER : AA1000

1.2.2. PK11 K02.14 MTO

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA1000
2	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
6.1.1	4058/003	FPF DESIGNATOR	: NO STATEMENT
6.1.7.1	4041/001	METHOD OF CONTROL	: ADJUST FIRE
6.1.12.1	4037/002	TIME OF FLIGHT	: 34
6.1.13.1	4037/005	TIME BETWEEN ROUNDS	: 30
6.1.14.1	0365/009	RADAR MAXIMUM ORDINATE	: 5000
6.1.14.2	4028/046	RADAR QUADRANT ELEVATION	: 1600
6.1.14.3	4041/002	RADAR SUBMODE CONTROL	: ARTILLERY AIR BURST
6.2.1	0281/005	TARGET LATITUDE	: 5749870
6.2.2	0282/005	TARGET LONGITUDE	: -18430767
6.2.3.1	4130/004	TARGET ELEVATION	: 120
6.4.2.1	4005/002	ADJUSTING PROJECTILE	: HEA - 105MM, 155MM, 203MM
6.4.2.2.1	4013/003	ADJUSTING FUZE	: TIME
6.4.2.3.1	4029/013	NUMBER OF ADJUSTING ROUND	: 2
6.4.3.1	0281/025	ADJUSTING PIECE LATITUDE	: 5768428
6.4.3.2	0282/025	ADJUSTING PIECE LONGITUDE	: -18430845
6.4.3.3.1	4130/011	ADJUSTING PIECE ELEVATION	: 80

Message:
PK11 K02.14 MTO

Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA1231
2	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
4.1	4085/048	OBSERVER NUMBER	: 41
6.1.1	4058/003	FPF DESIGNATOR	: FINAL PROTECTIVE FIRE/COPPER
6.1.2.1	4085/023	OBSERVER FIRE MISSION NUM	: MISSION NUMBER 1
6.1.7.1	4041/001	METHOD OF CONTROL	: AT MY COMMAND
6.1.10.1	4010/001	TRAJECTORY TYPE	: LOW
6.5.3.2	4005/001	MUNITIONS TYPE	: CPH - 155MM
6.5.4.1	4029/002	NUMBER OF FIRE FOR EFFECT	: 4
6.5.5.1	4029/006	NUMBER OF FIRE UNITS	: 1
6.6.1	4151/001	GUN OBSERVER-TARGET RELAT	: RIGHT
6.6.2	0757/007	GUN-TARGET RANGE	: 650
6.6.3	4028/015	COPPERHEAD ANGLE T	: 50 - 149 MILS
6.6.4	4037/015	LASER ALERT TIME	: 30

Message:
PK11 K02.14 MTO

Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA1234
2	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
6.1.1	4058/003	FPF DESIGNATOR	: ASSIGN FINAL PROTECTIVE FIRE
6.1.10.1	4010/001	TRAJECTORY TYPE	: LOW

Message:
PK11 K02.14 MTO
Message Case 1.04

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA1000
2	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
4.1	4085/048	OBSERVER NUMBER	: 41
6.3.1	4079/016	REGISTRATION TYPE INDICAT	: MEAN POINT OF IMPACT REGISTR
6.3.2	4079/034	VERTICAL ANGLE INDICATOR	: REPORT VERTICAL ANGLE
6.3.3.1	4028/021	REFERENCE DIRECTION	: 120
6.3.4.1	4028/019	REFERENCE VERTICAL ANGLE	: 150

Message:
PK11 K02.14 MTO
Message Case 1.05

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA2345
2	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
6.1.1	4058/003	FPF DESIGNATOR	: NO STATEMENT
6.1.7.1	4041/001	METHOD OF CONTROL	: AT MY COMMAND
6.1.8.1	4036/001	METHOD OF FIRE	: FIRE FOR EFFECT
6.1.10.1	4010/001	TRAJECTORY TYPE	: LOW
6.5.3.2	4005/001	MUNITIONS TYPE	: HEA - 81MM, 105MM, 107MM, 12
6.5.3.3.1	4013/004	FIRE FOR EFFECT FUZE	: PDA - M557, M524, M567, M51A
6.5.4.1	4029/002	NUMBER OF FIRE FOR EFFECT	: 2
6.5.5.1	4029/006	NUMBER OF FIRE UNITS	: 2

Message:
PK11 K02.14 MTO
Message Case 1.06

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA2222
2	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
6.1.1	4058/003	FPF DESIGNATOR	: NO STATEMENT
6.1.3.1	4085/021	REFERENCE (KNOWN) POINT N	: 1

Message:
PK11 K02.14 MTO
Message Case 1.07

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA1212
2	4079/023	MISSION DENIED INDICATOR	: DENIED

Message:
PK11 K02.14 MTO
Message Case 1.08

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: JP1005
2	4079/023	MISSION DENIED INDICATOR	: NO STATEMENT
6.1.1	4058/003	FPF DESIGNATOR	: NO STATEMENT
6.1.11.1	4040/001	METHOD OF ATTACK	: AIR

1.2.2. PK11 K02.15 Coord Measures

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4058/001	ACTION DESIGNATOR	: ADD
2	4079/033	PROPOSED/APPROVED INDICAT	: APPROVED POINT
3	4079/052	PRESENT/PROPOSED LOCATION	: PRESENT
4	4079/056	FRIENDLY/ENEMY INDICATOR	: FRIEND
5	4079/087	INCOMPLETE GEOMETRY INDIC	: NO STATEMENT
7.1	4065/001	COORDINATION MEASURE	: FORWARD LINE OWN TROOPS
12.2.1.1	6500/007	UNIT REFERENCE NUMBER	: 180156
12.2.2.1	6500/008	UNIT NAME	: FO 42
13.1.2	4085/028	COORDINATE POINT NUMBER	: 1
13.1.3	0281/018	POINT LOCATION LATITUDE	: 714097
13.1.4	0282/018	POINT LOCATION LONGITUDE	: -18602103
13.1.5.1	0283/001	GRID ZONE DESIGNATOR	: 14
13.1.6.1	4130/003	POINT LOCATION ELEVATION	: 120
13.1.2	4085/028	COORDINATE POINT NUMBER	: 2
13.1.3	0281/018	POINT LOCATION LATITUDE	: 714110
13.1.4	0282/018	POINT LOCATION LONGITUDE	: -18602150
13.1.5.1	0283/001	GRID ZONE DESIGNATOR	: 14
13.1.6.1	4130/003	POINT LOCATION ELEVATION	: 130
13.3.1	4054/002	LINE OR AREA NAME	: FLOT

Message:
PK11 K02.15 Coord Measures

Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4058/001	ACTION DESIGNATOR	: ADD
2	4079/033	PROPOSED/APPROVED INDICAT	: APPROVED POINT
3	4079/052	PRESENT/PROPOSED LOCATION	: PRESENT
4	4079/056	FRIENDLY/ENEMY INDICATOR	: FRIEND
5	4079/087	INCOMPLETE GEOMETRY INDIC	: NO STATEMENT
13.11.2	0281/019	ACA LATITUDE	: 5749186
13.11.3	0282/019	ACA LONGITUDE	: -18625812
13.11.4.1	0365/402	UPPER ALTITUDE FLIGHT LEV	: 3000
13.11.4.2	0365/403	LOWER ALTITUDE FLIGHT LEV	: 1500
13.11.4.3	4033/002	ACA WIDTH	: 1000
13.11.2	0281/019	ACA LATITUDE	: 5749590
13.11.3	0282/019	ACA LONGITUDE	: -18625812
13.11.4.1	0365/402	UPPER ALTITUDE FLIGHT LEV	: 3000
13.11.4.2	0365/403	LOWER ALTITUDE FLIGHT LEV	: 1500
13.11.4.3	4033/002	ACA WIDTH	: 1000

K11 K02.15 Coord Measures

Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1	4058/001	ACTION DESIGNATOR	: DELETE
2	4079/033	PROPOSED/APPROVED INDICAT	: APPROVED POINT
3	4079/052	PRESENT/PROPOSED LOCATION	: PRESENT
4	4079/056	FRIENDLY/ENEMY INDICATOR	: FRIEND
5	4079/087	INCOMPLETE GEOMETRY INDIC	: NO STATEMENT
7.1	4065/001	COORDINATION MEASURE	: NO FIRE AREA
12.2.1.1	6500/007	UNIT REFERENCE NUMBER	: 180123

12.2.2.1 6500/008 UNIT NAME : FO 02
13.1.2 4085/028 COORDINATE POINT NUMBER : 1
13.1.3 0281/018 POINT LOCATION LATITUDE : 5749186
13.1.4 0282/018 POINT LOCATION LONGITUDE : -18625812
13.1.5.1 0283/001 GRID ZONE DESIGNATOR : 14
13.2.1 4031/001 RADIUS : 600
13.3.1 4054/002 LINE OR AREA NAME : NFA1

1.2.2. PK11 K02.16 EOM

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4003/001 TARGET NUMBER : AA1221
2 4058/002 END OF MISSION DESIGNATOR: END OF MISSION

PK11 K02.17 Mission Summary
Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1.1 4003/001 TARGET NUMBER : AA1221
3.1 4085/048 OBSERVER NUMBER : 41
6.1 0281/005 TARGET LATITUDE : 2381356
6.2 0282/005 TARGET LONGITUDE : -18605479
6.3.1 4130/004 TARGET ELEVATION : 120
9.2 4025/001 TARGET GENERIC TYPE : ARTILLERY
9.3.2 4026/001 TARGET SUBTYPE : MEDIUM MISSILE
11.4.2 4005/001 MUNITIONS TYPE : JEN - ROCKET
11.4.3 4029/003 NUMBER OF MUNITIONS : 14

K11 K02.18 Fire Unit Cap
Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4058/001 ACTION DESIGNATOR : ADD
2 4079/059 MUTUAL SUPPORT INDICATOR : NO STATEMENT
4.1.1 6500/007 UNIT REFERENCE NUMBER : 12345
4.2.1 6500/008 UNIT NAME : 1 A 2-18 FA
6.1 4071/001 FIRE UNIT MISSION : DIRECT SUPPORT
8.1 4028/009 AZIMUTH OF FIRE : 1600
11.1.1 0700/401 WEAPON TYPE : SELF PROPELLED 155MM HOWITZE
11.2.1 4070/002 WEAPON MODEL : M109A6
11.3.1 4029/008 NUMBER OF FIRE SUPPORT WE: 1
11.4.2 4005/008 PROJECTILE TYPE DESIGNATO: ALL
12.1 4079/029 GUN ORDER INDICATOR : GUN ORDER COMPUTED BY PLATOO
12.9.2 4005/012 AMMUNITION IDENTITY CODE : HIGH EXPLOSIVE, NORMAL
12.9.3 0757/012 PROJECTILE MAXIMUM RANGE : 1800
13.2.1 0281/026 FIRE UNIT LATITUDE : 5749186
13.2.2 0282/026 FIRE UNIT LONGITUDE : -18625812
13.2.3.1 0283/001 GRID ZONE DESIGNATOR : 14
13.2.4.1 4130/005 FIRE UNIT ELEVATION : 85
13.2.5.1 0757/005 MINIMUM RANGE : 500
15.1.1 4054/015 ZONE OF RESPONSIBILITY : 3 BDE

Message:
PK11 K02.18 Fire Unit Cap
Message Case 1.02

Index DFI/DUI Data Field Label Data Value
1 4058/001 ACTION DESIGNATOR : CHANGE
2 4079/059 MUTUAL SUPPORT INDICATOR : NO STATEMENT
4.1.1 6500/007 UNIT REFERENCE NUMBER : 12345
4.2.1 6500/008 UNIT NAME : 1 A 65
6.1 4071/001 FIRE UNIT MISSION : GENERAL SUPPORT
11.1.1 0700/401 WEAPON TYPE : MULTIPLE LAUNCH ROCKET SYSTE
11.2.1 4070/002 WEAPON MODEL : M270
11.3.1 4029/008 NUMBER OF FIRE SUPPORT WE: 3
13.2.1 0281/026 FIRE UNIT LATITUDE : 2381356
13.2.2 0282/026 FIRE UNIT LONGITUDE : -18605479
13.2.3.1 0283/001 GRID ZONE DESIGNATOR : 14
13.2.4.1 4130/005 FIRE UNIT ELEVATION : 120
15.1.1 4054/015 ZONE OF RESPONSIBILITY : 3 BDE

1 K02.18 Fire Unit Cap
Message Case 1.04
Index DFI/DUI Data Field Label Data Value
1 4058/001 ACTION DESIGNATOR : DELETE
2 4079/059 MUTUAL SUPPORT INDICATOR : NO STATEMENT
4.1.1 6500/007 UNIT REFERENCE NUMBER : 180146
4.2.1 6500/008 UNIT NAME : A 65

1.2.2. PK11 K02.19 Arty Intel Qry

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4058/005 RETRIEVAL LEVEL DESIGNATO: NO STATEMENT
2 4058/031 SRI STATUS DESIGNATOR : NO STATEMENT
3.1.1 6500/007 UNIT REFERENCE NUMBER : 180467
3.2.1 6500/008 UNIT NAME : 1 A 2-18 FA
4.1 4092/007 TARGET QUERY MESSAGE DESI: PREPARE A FIREPLAN
5.1 4058/001 ACTION DESIGNATOR : ADD
7.1 4054/003 FIRE PLAN NAME : SEAD01
8.1 4003/001 TARGET NUMBER : AA1232
9.2 4025/001 TARGET GENERIC TYPE : ARTILLERY
9.3.2 4026/001 TARGET SUBTYPE : MEDIUM
10.1.2 0281/018 POINT LOCATION LATITUDE : 5749166
10.1.3 0282/018 POINT LOCATION LONGITUDE : -18625812

1.2.2. PK11 K02.20 Survey Control Point

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1.1 4055/001 ORDER OF SURVEY : FIRST ORDER SURVEY
4.1 4168/002 SEARCH COMMAND DESIGNATOR: ALL

Message:
PK11 K02.20 Survey Control Point
Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1.1 4055/001 ORDER OF SURVEY : FIRST ORDER SURVEY
2.2 4054/001 SCP NAME : SCP1A218FA00011
4.1 4168/002 SEARCH COMMAND DESIGNATOR: SINGLE POINT

Message:
PK11 K02.20 Survey Control Point
Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1.1	4055/001	ORDER OF SURVEY	: FIRST ORDER SURVEY
4.1	4168/002	SEARCH COMMAND DESIGNATOR	: CIRCULAR
8.1.1	4031/003	POINT LOCATION RADIUS	: 7000
8.2.2	0281/018	POINT LOCATION LATITUDE	: 2381356
8.2.3	0282/018	POINT LOCATION LONGITUDE	: -18605479

1.2.2. PK11 K02.21 Clearance to Fire

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AB1212
2	0281/005	TARGET LATITUDE	: 2381356
3	0282/005	TARGET LONGITUDE	: 23896800
4.2	0700/401	WEAPON TYPE	: SELF PROPELLED 155MM HOWITZE
4.5.2	4005/001	MUNITIONS TYPE	: ICM DUAL PURPOSE

1.2.2. PK11 K02.22 Subsequent Adjust

Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA1001
2	4079/035	SHIFT CORRECTION INDICATO	: NO STATEMENT
8.1	4079/026	GUN-TARGET LINE INDICATOR	: NO STATEMENT
8.4.1.1	4012/001	LATERAL SHIFT	: 200
8.4.2.1	4106/002	RANGE SHIFT	: 100

Message:
PK11 K02.22 Subsequent Adjust
Message Case 1.04

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA1000
2	4079/035	SHIFT CORRECTION INDICATO	: NO STATEMENT
9.1	0281/005	TARGET LATITUDE	: 2383218
9.2	0282/005	TARGET LONGITUDE	: -18605485
9.3.1	4130/004	TARGET ELEVATION	: 120

1.2.2. PK11 K02.23 Execute Fire Plan

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4054/003	FIRE PLAN NAME	: SEAD01
2	4079/126	FIRE ORDERS INDICATOR	: NO STATEMENT
3.1	4092/023	FIRE PLAN ORDERS MESSAGE	: COMPUTE FIRE PLAN
7.1	4079/067	COMPUTE ON-CALL TARGETS I	: ONLY ON-CALL TARGETS
7.2	4079/066	PRELIMINARY TARGET LIST I	: NO STATEMENT
7.3	4079/068	CURRENT SITUATION INDICAT	: USE CURRENT RESOURCES
7.4	4079/085	SPECIAL APPLICATIONS INDI	: SPECIAL APPLICATIONS PREVIOU

Message:
PK11 K02.23 Execute Fire Plan
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value

1 4054/003 FIRE PLAN NAME : SEAD01
2 4079/126 FIRE ORDERS INDICATOR : GENERATE FIRE ORDER
3.1 4092/023 FIRE PLAN ORDERS MESSAGE : COMPUTE FIRE PLAN
4.1 0792/404 EFFECTIVE HOUR : 6
4.2 0797/403 EFFECTIVE MINUTE : 0
4.3.1 4019/004 EFFECTIVE DAY : 1
7.1 4079/067 COMPUTE ON-CALL TARGETS I: NO STATEMENT
7.2 4079/066 PRELIMINARY TARGET LIST I: NO STATEMENT
7.3 4079/068 CURRENT SITUATION INDICAT: USE CURRENT RESOURCES
7.4 4079/085 SPECIAL APPLICATIONS INDI: SPECIAL APPLICATIONS PREVIOU

Message:
PK11 K02.23 Execute Fire Plan
Message Case 1.04
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : SEAD03
2 4079/126 FIRE ORDERS INDICATOR : GENERATE FIRE ORDER
3.1 4092/023 FIRE PLAN ORDERS MESSAGE : COMPUTE FIRE PLAN
4.1 0792/404 EFFECTIVE HOUR : 5
4.2 0797/403 EFFECTIVE MINUTE : 0
4.3.1 4019/004 EFFECTIVE DAY : 1
7.1 4079/067 COMPUTE ON-CALL TARGETS I: NO STATEMENT
7.2 4079/066 PRELIMINARY TARGET LIST I: ALL TARGETS USED FOR LIST
7.3 4079/068 CURRENT SITUATION INDICAT: USE CURRENT RESOURCES
7.4 4079/085 SPECIAL APPLICATIONS INDI: NO STATEMENT

Message:
PK11 K02.23 Execute Fire Plan
Message Case 1.05
Index DFI/DUI Data Field Label Data Value
1 4054/003 FIRE PLAN NAME : SEAD05
2 4079/126 FIRE ORDERS INDICATOR : GENERATE FIRE ORDER
3.1 4092/023 FIRE PLAN ORDERS MESSAGE : EXECUTE FIRE PLAN
4.1 0792/404 EFFECTIVE HOUR : 5
4.2 0797/403 EFFECTIVE MINUTE : 0
4.3.1 4019/004 EFFECTIVE DAY : 1

1.2.2. PK11 K02.24 Mission Notification

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4003/001 TARGET NUMBER : AA1001
4.2.1.1 6500/007 UNIT REFERENCE NUMBER : 1800120
5.1 4005/007 ROCKET MUNITIONS TYPE : JEN
5.2.1 0365/013 AIR WARNING AREA CEILING : 20000
5.3.1 0757/026 PERIMETER DISTANCE : 500
5.4.1 4029/080 NUMBER OF ROUNDS TO BE FI: 4
5.5.1 0281/028 PLATOON LATITUDE : 5749186
5.5.2 0282/028 PLATOON LONGITUDE : -18625812
5.7.2 0281/030 AIR WARNING AREA LATITUDE: 5749190
5.7.3 0282/030 AIR WARNING AREA LONGITUD: -18625813
5.8.2 4168/014 DISPERSAL PATTERN DESIGNA: DISPERSAL PATTERN AREA A
5.8.3 4068/014 DISPERSAL PATTERN EFFECTS: 15

Message:
PK11 K02.24 Mission Notification
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA1002
2.1	4092/014	MISSION NOTIFICATION MESS	: FIRE UNIT AIR WARNING
3.1	0281/005	TARGET LATITUDE	: 5765632
3.2	0282/005	TARGET LONGITUDE	: -18625969
4.2.1.1	6500/007	UNIT REFERENCE NUMBER	: 180121
5.1	4005/007	ROCKET MUNITIONS TYPE	: JED
5.2.1	0365/013	AIR WARNING AREA CEILING	: 20000
5.6.1	0281/029	BURST POINT LATITUDE	: 5747020
5.6.2	0282/029	BURST POINT LONGITUDE	: -18820726
5.7.2	0281/030	AIR WARNING AREA LATITUDE	: 5747019
5.7.3	0282/030	AIR WARNING AREA LONGITUD	: -18820681

1.2.2. PK11 K02.25 EOM Notification

Index	DFI/DUI	Data Field Label	Data Value
1	4003/001	TARGET NUMBER	: AA1001
2.2.1	6500/007	UNIT REFERENCE NUMBER	: 180123

1.2.2. PK11 K02.27 TAR

Index	DFI/DUI	Data Field Label	Data Value
1	4003/002	TACAIR REQUEST NUMBER	: AAA55
2	4058/007	IMMEDIATE/PREPLANNED DESI	: IMMEDIATE
6.1	0281/005	TARGET LATITUDE	: 16777215
6.2	0282/005	TARGET LONGITUDE	: -17571619
7.2.1	4025/001	TARGET GENERIC TYPE	: ROCKET/MISSILE
7.4.2.1	4026/001	TARGET SUBTYPE	: HEAVY MISSILE

1.2.2. PK11 K02.31 Mission Req/Rej

Index	DFI/DUI	Data Field Label	Data Value
2.2	4003/002	TACAIR REQUEST NUMBER	: ASW12
2.3.1	4003/001	TARGET NUMBER	: AS1234

1.2.2. PK11 K02.32 TAR Acceptance

Index	DFI/DUI	Data Field Label	Data Value
1	4003/002	TACAIR REQUEST NUMBER	: AAQ12
4.2	4003/003	MISSION NUMBER	: 12345
4.3.1	4029/011	NUMBER OF AIRCRAFT	: 2
4.4.1	4132/001	CLOSE AIR SUPPORT AIRCRAF	: A-10 WARTHOG

1.2.2. K02.33 Aircrew Briefing

Index	DFI/DUI	Data Field Label	Data Value
1.1	0281/033	CONTACT POINT LATITUDE	: 5737985
1.2	0282/033	CONTACT POINT LONGITUDE	: -19209876
3.1	0281/038	INITIAL POINT LATITUDE	: 5747021
3.2	0282/038	INITIAL POINT LONGITUDE	: -18820681

4.1 4054/004 INITIAL POINT NAME : GREEN
5.1 0372/003 INITIAL POINT TO TARGET D: 20
6.1 4109/002 NAUTICAL DISTANCE : 30
7.2.1 4025/001 TARGET GENERIC TYPE : ARTILLERY
7.4.2.1 4026/001 TARGET SUBTYPE : HEAVY MISSILE
8.1 0281/005 TARGET LATITUDE : 5739298
8.2 0282/005 TARGET LONGITUDE : -19166689
8.3.1 4130/001 ELEVATION : 120
15.1 4105/002 TARGET POSITION MARKING : COLORED SMOKE
16.1 4118/003 TARGET MARKING COLOR : BLUE
19.1 0371/402 DIRECTION OF FRIENDLIES : SOUTHEAST
20.1 0757/011 DISTANCE TO FRIENDLIES : 3000
21.1 0371/403 EGRESS : SOUTHEAST
22.1 0371/404 PULL-OUT DIRECTION : RIGHT
25 4003/003 MISSION NUMBER : AAQ12

1.2.2. PK11 K02.34 Aircraft On-Station

Index DFI/DUI Data Field Label Data Value
1 4003/003 MISSION NUMBER : AAQ12
2 4132/001 CLOSE AIR SUPPORT AIRCRAF: OA-10 WARTHOG
3.1 4029/011 NUMBER OF AIRCRAFT : 4
4 4037/004 STATION TIME : 50
5.1 4054/006 ABORT CODE : 22
7.2.1 4005/005 ORDNANCE TYPE : MK-81
7.3.1 4029/001 QUANTITY OF ORDNANCE : 300

1.2.2. 11 K02.35 Aircraft Depart IP

Index DFI/DUI Data Field Label Data Value
1 4003/003 MISSION NUMBER : AQA12
2.1 4054/006 ABORT CODE : 22

1.2.2. PK11 K02.36 Air Mission Update

Index DFI/DUI Data Field Label Data Value
1 4003/003 MISSION NUMBER : AAQ12
2 4003/002 TACAIR REQUEST NUMBER : AQA12
3 4134/001 MISSION CHANGE ORDER : CONTINUE

1.2.2. PK11 K02.40 Launcher Orders

Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1.1 4003/001 TARGET NUMBER : AA1200
5.1 0281/005 TARGET LATITUDE : 5580987
5.2 0282/005 TARGET LONGITUDE : -18624258
10.10.1.1 4029/034 NUMBER OF AIMPOINTS : 2
10.10.2.2 4012/002 AIMPOINT EASTING SHIFT : 120
10.10.2.3 4106/003 AIMPOINT NORTHING SHIFT : 120
10.10.2.4 4130/015 AIMPOINT ELEVATION : 80
10.10.2.5 4029/032 NUMBER OF AIMPOINT MUNITI: 2
10.12.1.1 4011/010 FIRING POINT LOCATION TYP: FIRING POINT

Message:
PK11 K02.40 Launcher Orders
Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1.1	4003/001	TARGET NUMBER	: AA1003
5.1	0281/005	TARGET LATITUDE	: 5747021
5.2	0282/005	TARGET LONGITUDE	: -18820681
10.10.1.1	4029/034	NUMBER OF AIMPOINTS	: 2
10.10.2.2	4012/002	AIMPOINT EASTING SHIFT	: 400
10.10.2.3	4106/003	AIMPOINT NORTHING SHIFT	: 400
10.10.2.4	4130/015	AIMPOINT ELEVATION	: 150
10.10.2.5	4029/032	NUMBER OF AIMPOINT MUNITI	: 2
10.12.1.1	4011/010	FIRING POINT LOCATION TYP	: FIRING POINT
10.12.2.1	4011/001	FIRING POINT IDENTIFIER	: A1
10.14.1.1	4011/006	MOVE LOCATION TYPE	: REARM POINT
10.14.2.1	4011/007	MOVE LOCATION IDENTIFIER	: A2
10.14.3.1	0281/032	MOVE LOCATION LATITUDE	: 2379108
10.14.3.2	0282/032	MOVE LOCATION LONGITUDE	: -18948800
10.14.3.3	4130/016	MOVE LOCATION ELEVATION	: 120

1.2.2. PK11 K02.41 Geographic Ref

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4079/078	EXTENDED MAP INDICATOR	: EXTENDED MAP AREA
4.1	0281/003	MAP MOD NORTH EDGE LATITU	: 4325415
4.2	0281/004	MAP MOD SOUTH EDGE LATITU	: 4356483
4.3	0282/003	MAP MOD EAST EDGE LONGITU	: 2088453
4.4	0282/004	MAP MOD WEST EDGE LONGITU	: 2084736
5.2	0283/001	GRID ZONE DESIGNATOR	: 14
6.1	4165/002	ELLIPSOID	: WE WGS 1984
7.1	4165/001	GEOGRAPHIC DATUM	: WE: WORLD GEODETIC SYSTEM 19

1.2.2. PK11 K02.42 Fire Unit Guidance

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4058/001	ACTION DESIGNATOR	: CHANGE
2	4079/040	CRITICAL LEVELS INDICATOR	: NO STATEMENT
4.1.1	6500/007	UNIT REFERENCE NUMBER	: 180123
7.1	4046/002	POSTURE REPORT NUMBER	: 3
14.2	4005/001	MUNITIONS TYPE	: JED - ROCKET
14.4.1.1	4029/022	NUMBER OF MUNITIONS 2 MIN	: 12
14.4.2.1	4029/023	NUMBER OF MUNITIONS 5 MIN	: 6
14.4.3.1	4029/024	NUMBER OF MUNITIONS 20 MI	: 6
14.4.4.1	4029/025	NUMBER OF MUNITIONS GREAT	: 12

Message:
PK11 K02.42 Fire Unit Guidance
Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1	4058/001	ACTION DESIGNATOR	: ADD
2	4079/040	CRITICAL LEVELS INDICATOR	: NO STATEMENT
4.1.1	6500/007	UNIT REFERENCE NUMBER	: 180123
8.1	4029/035	CONTROLLED SUPPLY RATE	: 12

1.2.2. PK11 K02.43 Fire Mission Guide

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4079/041	IGNORE AMMUNITION INDICAT	: NO STATEMENT
2	4079/083	PURGE INDICATOR	: NO STATEMENT
4.1	4092/010	FIRE MISSION GUIDANCE MES	: FIRE DIRECTION SYSTEM MODIFI
5.1.2.1	6500/007	UNIT REFERENCE NUMBER	: 180233
14.5.1	4079/061	RELOAD LEVEL INDICATOR	: RELOAD WHEN BOTH PODS EMPTY
14.5.8.1	4037/012	UPDATE REPORT TIME	: 20

K11 K02.43 Fire Mission Guide

Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4079/041	IGNORE AMMUNITION INDICAT	: NO STATEMENT
2	4079/083	PURGE INDICATOR	: NO STATEMENT
3.1	4058/001	ACTION DESIGNATOR	: DELETE
4.1	4092/010	FIRE MISSION GUIDANCE MES	: FIRE DIRECTION SYSTEM MODIFI

Message:

PK11 K02.43 Fire Mission Guide

Message Case 1.04

Index	DFI/DUI	Data Field Label	Data Value
1	4079/041	IGNORE AMMUNITION INDICAT	: NO STATEMENT
2	4079/083	PURGE INDICATOR	: NO STATEMENT
4.1	4092/010	FIRE MISSION GUIDANCE MES	: SELECTION CRITERIA
12.2	4025/001	TARGET GENERIC TYPE	: ARTILLERY
12.3	4026/001	TARGET SUBTYPE	: HEAVY MISSILE
12.8.4.2	4005/010	ROCKET MUNITIONS SELECTIO	: JED

Message:

PK11 K02.43 Fire Mission Guide

Message Case 1.09

Index	DFI/DUI	Data Field Label	Data Value
1	4079/041	IGNORE AMMUNITION INDICAT	: NO STATEMENT
2	4079/083	PURGE INDICATOR	: NO STATEMENT
3.1	4058/001	ACTION DESIGNATOR	: ADD
4.1	4092/010	FIRE MISSION GUIDANCE MES	: ATTACK METHOD

Message:

PK11 K02.43 Fire Mission Guide

Message Case 1.16

Index	DFI/DUI	Data Field Label	Data Value
1	4079/041	IGNORE AMMUNITION INDICAT	: NO STATEMENT
2	4079/083	PURGE INDICATOR	: NO STATEMENT
4.1	4092/010	FIRE MISSION GUIDANCE MES	: FIRE UNIT SELECTION
6.1	0700/401	WEAPON TYPE	: MULTIPLE LAUNCH ROCKET SYSTE
6.2.1	4029/038	NUMBER OF VOLLEYS, MAXIMU	: 6

K11 K02.43 Fire Mission Guide

Message Case 1.19

Index	DFI/DUI	Data Field Label	Data Value

1 4079/041 IGNORE AMMUNITION INDICAT: NO STATEMENT
2 4079/083 PURGE INDICATOR : NO STATEMENT
3.1 4058/001 ACTION DESIGNATOR : ADD
4.1 4092/010 FIRE MISSION GUIDANCE MES: FIRE UNIT EXCLUSION
5.1.2.1 6500/007 UNIT REFERENCE NUMBER : 180122
11.2.1 4005/001 MUNITIONS TYPE : JEK - ROCKET

Message:
PK11 K02.43 Fire Mission Guide
Message Case 1.21
Index DFI/DUI Data Field Label Data Value
1 4079/041 IGNORE AMMUNITION INDICAT: NO STATEMENT
2 4079/083 PURGE INDICATOR : NO STATEMENT
3.1 4058/001 ACTION DESIGNATOR : CHANGE
4.1 4092/010 FIRE MISSION GUIDANCE MES: FIRE UNIT EXCLUSION
5.1.2.1 6500/007 UNIT REFERENCE NUMBER : 180134

1.2.2. PK11 K02.44 Target Acquire Guide

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4058/001 ACTION DESIGNATOR : ADD
3.1.1 6500/007 UNIT REFERENCE NUMBER : 180121
4.1 4079/022 TARGET INTELLIGENCE FILE : TARGET INTELLIGENCE FILE
4.2.2 4054/019 TARGET VALUE AREA NAME : 10
4.6.1 4079/047 FIRE MISSION INDICATOR : NO STATEMENT
4.6.2 4085/040 REQUEST NUMBER : 1
7.1 4019/004 EFFECTIVE DAY : 1
7.2 0792/404 EFFECTIVE HOUR : 5
7.3 0797/403 EFFECTIVE MINUTE : 1

Message:
PK11 K02.44 Target Acquire Guide
Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1 4058/001 ACTION DESIGNATOR : DELETE
3.1.1 6500/007 UNIT REFERENCE NUMBER : 180111
4.1 4079/022 TARGET INTELLIGENCE FILE : TARGET INTELLIGENCE FILE
4.2.2 4054/019 TARGET VALUE AREA NAME : 25
4.6.1 4079/047 FIRE MISSION INDICATOR : NO STATEMENT
4.6.2 4085/040 REQUEST NUMBER : 1
7.1 4019/004 EFFECTIVE DAY : 1
7.2 0792/404 EFFECTIVE HOUR : 5
7.3 0797/403 EFFECTIVE MINUTE : 0

Message:
PK11 K02.44 Target Acquire Guide
Message Case 1.04
Index DFI/DUI Data Field Label Data Value
1 4058/001 ACTION DESIGNATOR : ADD
3.1.1 6500/007 UNIT REFERENCE NUMBER : 180123
5.1 4028/035 SEARCH AZIMUTH : 1600
5.2 4104/005 RADAR FREQUENCY LIMIT, MI: 3
5.3 4104/006 RADAR FREQUENCY LIMIT,MAX: 5

5.4 4028/036 SECTOR EDGE, LEFT : 100
5.5 4028/037 SECTOR EDGE, RIGHT : 700
5.6 0757/019 SEARCH RANGE, MINIMUM : 10
5.7 0757/020 SEARCH RANGE, MAXIMUM : 60
7.1 4019/004 EFFECTIVE DAY : 5
7.2 0792/404 EFFECTIVE HOUR : 1
7.3 0797/403 EFFECTIVE MINUTE : 0

1.2.2. PK11 K02.45 Howitzer Command

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1.1 4003/001 TARGET NUMBER : AA1001
3.1 4058/028 RECORD AS TARGET DESIGNAT: NO STATEMENT
3.2.1 0281/005 TARGET LATITUDE : 5749186
3.2.2 0282/005 TARGET LONGITUDE : -18625812
3.2.3.1 4130/004 TARGET ELEVATION : 120
3.3.1 4025/001 TARGET GENERIC TYPE : ARTILLERY
3.3.2 4026/001 TARGET SUBTYPE : HEAVY
3.7.2.1 6500/007 UNIT REFERENCE NUMBER : 180340
3.9.1 4043/001 DISTRIBUTION OF FIRE : BATTERY

Message:
PK11 K02.45 Howitzer Command
Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1.1 4003/001 TARGET NUMBER : AA1002
2.1 4092/022 HOWITZER COMMAND MESSAGE : FIRING COMMANDS
3.1 4058/028 RECORD AS TARGET DESIGNAT: NO STATEMENT
7.2 4041/001 METHOD OF CONTROL : FIRE WHEN READY
7.3 4029/045 NUMBER OF ROUNDS : 3
7.4 4005/003 FIRE FOR EFFECT PROJECTIL: HEA - 105MM, 155MM, 203MM
7.5 4006/001 PROJECTILE LOT DESIGNATOR: A
7.6 4006/002 PROPELLANT LOT DESIGNATOR: A
7.7 4008/001 PROPELLANT CHARGE : 6
7.8 4028/024 DEFLECTION : 3200
7.9 4028/014 QUADRANT ELEVATION : 1800
7.14.1.1 6500/007 UNIT REFERENCE NUMBER : 180123
Message Case 1.03
DFI/DUI Data Field Label Data Value
1.1 4003/001 TARGET NUMBER : AA1003
4.3.1.1 6500/007 UNIT REFERENCE NUMBER : 180234
8.1.1 6500/007 UNIT REFERENCE NUMBER : 180234
10.1 4067/004 SUBSCRIBER FUNCTIONS REST: NO RESTRICTION
10.2 4003/012 FIRST TARGET NUMBER : AB1003

Message:
PK11 K02.45 Howitzer Command
Message Case 1.04
Index DFI/DUI Data Field Label Data Value
1.1 4003/001 TARGET NUMBER : AA1004
9.1 4079/010 QUICK FIRE INDICATOR : NO STATEMENT
9.2 4079/009 COPPERHEAD PRIORITY MISSI: NO STATEMENT
9.3 4079/036 CEASE LOAD INDICATOR : NO STATEMENT

9.4 4079/062 REPORT INDICATOR : NO STATEMENT
9.5 4079/045 DELETE INDICATOR : NO STATEMENT
9.6 4079/124 DELETE ALL TARGETS INDICA: NO STATEMENT

1.2.2. PK11 K02.46 Reply/Remarks

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4079/062	REPORT INDICATOR	: NO STATEMENT
5.1	4003/001	TARGET NUMBER	: AA1001
6.1.1	6500/007	UNIT REFERENCE NUMBER	: 180234
10.1	4029/048	TARGET SIGNATURE DATA SIZ	: 10
13.2	4075/001	COMMENTS	: COMMENTS AREA

Message:
PK11 K02.46 Reply/Remarks
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4079/062	REPORT INDICATOR	: NO STATEMENT
3.1	4058/010	TIME ON TARGET REQUEST DE	: REQUEST TIME ON TARGET EXTEN
5.1	4003/001	TARGET NUMBER	: AA1002
12.1	4019/002	DAY ON TARGET	: 1
12.2	0792/402	HOUR ON TARGET	: 6
12.3	0797/401	MINUTE ON TARGET	: 0

1.2.2. PK11 K02.47 R/M Ops Update

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1.1	4079/045	DELETE INDICATOR	: NO STATEMENT
1.2.1	6500/007	UNIT REFERENCE NUMBER	: 180122
4.4.1	4085/043	NUMBER OF PRIORITY MISSIO	: 1
4.5.1	4085/044	NUMBER OF NORMAL MISSIONS	: 2
5.2	4005/007	ROCKET MUNITIONS TYPE	: JED
5.3	4029/022	NUMBER OF MUNITIONS 2 MIN	: 12
5.4	4029/023	NUMBER OF MUNITIONS 5 MIN	: 6
5.5	4029/024	NUMBER OF MUNITIONS 20 MI	: 6

1.2.2. PK11 K02.48 Assignment Data

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4079/075	NEW CURRENT SITUATION IND	: BUILD NEW CURRENT SITUATION
2	4079/076	DEFAULT CRITERIA INDICATO	: NO STATEMENT
3	4079/077	CRITERIA MODIFICATION IND	: NO STATEMENT
4	4079/083	PURGE INDICATOR	: NO STATEMENT
5.1	4092/013	FIRE PLAN ASSIGNMENT MESS	: AMMUNITION AND FIRE UNIT ASS
6.1	4054/003	FIRE PLAN NAME	: SEAD01
8.1	4058/004	AMMUNITION STORAGE SITE D	: AMMUNITION STORAGE SITE DATA
8.2.1.1	6500/007	UNIT REFERENCE NUMBER	: 180123
8.3.1	0700/401	WEAPON TYPE	: SELF PROPELLED 155MM HOWITZE
8.4.1	4005/008	PROJECTILE TYPE DESIGNATO	: ALL
8.5.1.1	6500/007	UNIT REFERENCE NUMBER	: 180123

Message:
PK11 K02.48 Assignment Data

Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4079/075	NEW CURRENT SITUATION IND:	BUILD NEW CURRENT SITUATION
2	4079/076	DEFAULT CRITERIA INDICATO:	NO STATEMENT
3	4079/077	CRITERIA MODIFICATION IND:	NO STATEMENT
4	4079/083	PURGE INDICATOR :	NO STATEMENT
5.1	4092/013	FIRE PLAN ASSIGNMENT MESS:	GEOMETRY ASSETS
6.1	4054/003	FIRE PLAN NAME :	SEAD02
9.1	4079/094	AIRSPACE COORDINATION ARE:	AIRSPACE COORDINATION AREA
9.2	4079/095	COORDINATED FIRE LINE IND:	COORDINATED FIRE LINE
9.3	4079/096	CHEMICAL HAZARD AREA INDI:	NO STATEMENT
9.4	4079/097	CROSSOVER GEOMETRY INDICA:	CROSSOVER GEOMETRY
9.5	4079/098	DEAD SPACE AREA INDICATOR:	NO STATEMENT
9.6	4079/099	FORWARD LINE OWN TROOPS I:	FORWARD LINE OF OWN TROOPS
9.7	4079/100	FIRE SUPPORT COORDINATION:	NO STATEMENT
9.8	4079/101	LAID MINE SAFETY ZONE IND:	NO STATEMENT
9.9	4079/102	PLANNED MINE SAFETY ZONE :	PLANNED MINE SAFETY ZONE
9.10	4079/103	RESTRICTIVE FIRE AREA IND:	RESTRICTIVE FIRE AREA
9.11	4079/104	RESTRICTIVE FIRE LINE IND:	NO STATEMENT
9.12	4079/105	TARGET GEOMETRY INDICATOR:	TARGET GEOMETRY
9.13	4079/106	TARGET VALUE AREA INDICAT:	TARGET VALUE AREA
9.14	4079/107	ZONE OF RESPONSIBILITY IN:	ZONE OF RESPONSIBILITY
9.15	4079/108	PHASE LINE INDICATOR :	PHASE LINE
9.16	4079/109	LINE OF DEPARTURE INDICAT:	NO STATEMENT
9.17	4079/110	LINE OF CONTACT INDICATOR:	NO STATEMENT
9.18	4079/111	OBJECTIVE AREA INDICATOR :	OBJECTIVE AREA
9.19	4079/112	LANDING ZONE INDICATOR :	NO STATEMENT
9.20	4079/114	MINED AREA INDICATOR :	NO STATEMENT
9.21	4079/115	MINEFIELD INDICATOR :	MINEFIELD
9.22	4079/116	LINE OF DEPARTURE/LINE OF:	LINE OF DEPARTURE IS LINE OF
9.23	4079/119	BOUNDARY LINE INDICATOR :	NO STATEMENT
9.24	4079/120	FORWARD EDGE OF BATTLE AR:	FORWARD EDGE OF BATTLE AREA

Message:
PK11 K02.48 Assignment Data
Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1	4079/075	NEW CURRENT SITUATION IND:	BUILD NEW CURRENT SITUATION
2	4079/076	DEFAULT CRITERIA INDICATO:	NO STATEMENT
3	4079/077	CRITERIA MODIFICATION IND:	BUILD MODIFICATION DATA
4	4079/083	PURGE INDICATOR :	NO STATEMENT
5.1	4092/013	FIRE PLAN ASSIGNMENT MESS:	COMMANDER'S CRITERIA
6.1	4054/003	FIRE PLAN NAME :	SEAD03

1.2.2. PK11 K02.50 Observer Status

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1.1	4085/048	OBSERVER NUMBER :	41
3.1	0281/007	OBSERVER LOCATION LATITUD:	2381356
3.2	0282/007	OBSERVER LOCATION LONGITU:	-18605479
3.3.1	0283/001	GRID ZONE DESIGNATOR :	14

Message:
PK11 K02.50 Observer Status
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1.1	4085/048	OBSERVER NUMBER	: 42
3.1	0281/007	OBSERVER LOCATION LATITUD	: 2380531
3.2	0282/007	OBSERVER LOCATION LONGITU	: -18777182
3.3.1	0283/001	GRID ZONE DESIGNATOR	: 14
5.1	4019/004	EFFECTIVE DAY	: 5
5.2	0792/404	EFFECTIVE HOUR	: 12
5.3	0797/403	EFFECTIVE MINUTE	: 15

1.2.2. PK11 K02.51 Unit SitRep

Message Case 1.05

Index	DFI/DUI	Data Field Label	Data Value
1	4079/045	DELETE INDICATOR	: NO STATEMENT
2.1.1	6500/007	UNIT REFERENCE NUMBER	: 189022
4.3.1	0281/018	POINT LOCATION LATITUDE	: 5749186
4.3.2	0282/018	POINT LOCATION LONGITUDE	: -18625812
4.4.1.2	4019/004	EFFECTIVE DAY	: 5
4.4.1.3	0792/404	EFFECTIVE HOUR	: 6
4.4.1.4	0797/403	EFFECTIVE MINUTE	: 15
4.4.1.2	4019/004	EFFECTIVE DAY	: 5
4.4.1.3	0792/404	EFFECTIVE HOUR	: 6
4.4.1.4	0797/403	EFFECTIVE MINUTE	: 45
5.1	4079/055	HEADQUARTERS INDICATOR	: NOT HEADQUARTERS
5.2	4079/056	FRIENDLY/ENEMY INDICATOR	: FRIEND
5.3	4079/052	PRESENT/PROPOSED LOCATION	: PRESENT
5.5.1	4168/012	SUPPORTED UNIT EQUIPMENT	: NO STATEMENT
5.8.1	0700/004	SUPPORTED UNIT EQUIPMENT	: TANK

Message:
PK11 K02.52 Request for Report
Message Case 1.06

Index	DFI/DUI	Data Field Label	Data Value
1	4079/084	AMMUNITION STORAGE SITE I	: NO STATEMENT
2	4079/092	TARGET REPORT RESET INDIC	: NO STATEMENT
3	4079/093	TRANSMIT ALL SCHEDULED TA	: NO STATEMENT
4	4058/032	ACTIVE TARGET DESIGNATOR	: NO STATEMENT
5.1	4092/016	REQUEST MESSAGE DESIGNATO	: AMMUNITION/FIRE UNIT COMMAND
10.1	4058/022	REQUEST DESIGNATOR	: AMMUNITION DATA
11.1.1	6500/007	UNIT REFERENCE NUMBER	: 18023

Message:
PK11 K02.52 Request for Report
Message Case 1.11

Index	DFI/DUI	Data Field Label	Data Value
1	4079/084	AMMUNITION STORAGE SITE I	: NO STATEMENT
2	4079/092	TARGET REPORT RESET INDIC	: NO STATEMENT
3	4079/093	TRANSMIT ALL SCHEDULED TA	: NO STATEMENT
4	4058/032	ACTIVE TARGET DESIGNATOR	: NO STATEMENT
5.1	4092/016	REQUEST MESSAGE DESIGNATO	: FIRE MISSION COMMAND
6.1	4085/048	OBSERVER NUMBER	: 42

1.2.2. PK11 K02.53 Target Data Entry

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4079/083	PURGE INDICATOR	: NO STATEMENT
4.1	4025/001	TARGET GENERIC TYPE	: ARTILLERY
4.2.1	4026/001	TARGET SUBTYPE	: MEDIUM MISSILE
5.1.1	4110/006	PRIMARY TARGET SUBTYPE EL: X	- 122MM MRL RM70
5.1.2	4029/012	NUMBER OF TARGET SUBTYPE	: 3

Message:
PK11 K02.53 Target Data Entry
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4079/083	PURGE INDICATOR	: NO STATEMENT
2.1	4058/001	ACTION DESIGNATOR	: DELETE
4.1	4025/001	TARGET GENERIC TYPE	: ARTILLERY
4.2.1	4026/001	TARGET SUBTYPE	: HEAVY
5.1.1	4110/006	PRIMARY TARGET SUBTYPE EL: S	- 203MM GUN M1975
5.1.2	4029/012	NUMBER OF TARGET SUBTYPE	: 3

ssage:
PK11 K02.53 Target Data Entry
Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1	4079/083	PURGE INDICATOR	: PURGE
4.1	4025/001	TARGET GENERIC TYPE	: ARTILLERY

1.2.2. PK11 K02.54 Deployment Command

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4079/062	REPORT INDICATOR	: NO STATEMENT
2	4079/045	DELETE INDICATOR	: NO STATEMENT
4.2	0281/032	MOVE LOCATION LATITUDE	: 2380531
4.3	0282/032	MOVE LOCATION LONGITUDE	: -18777182
5.1	4058/023	MOVEMENT TYPE DESIGNATOR	: FIRING AREA
6.1	4031/007	FIRING AREA RADIUS	: 400
6.2	4028/043	CENTER OF SECTOR	: 300
7.1	4019/004	EFFECTIVE DAY	: 1
7.2	0792/404	EFFECTIVE HOUR	: 6
7.3	0797/403	EFFECTIVE MINUTE	: 15

Message:
PK11 K02.54 Deployment Command
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4079/062	REPORT INDICATOR	: NO STATEMENT
2	4079/045	DELETE INDICATOR	: NO STATEMENT
4.2	0281/032	MOVE LOCATION LATITUDE	: 2380531
4.3	0282/032	MOVE LOCATION LONGITUDE	: -18777182
5.1	4058/023	MOVEMENT TYPE DESIGNATOR	: INITIALIZATION POINT
7.1	4019/004	EFFECTIVE DAY	: 6
7.2	0792/404	EFFECTIVE HOUR	: 5

7.3 0797/403 EFFECTIVE MINUTE : 30

Message:
PK11 K02.54 Deployment Command
Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1	4079/062	REPORT INDICATOR	: NO STATEMENT
2	4079/045	DELETE INDICATOR	: NO STATEMENT
4.2	0281/032	MOVE LOCATION LATITUDE	: 3915297
4.3	0282/032	MOVE LOCATION LONGITUDE	: -18771572
5.1	4058/023	MOVEMENT TYPE DESIGNATOR	: LOGISTICS RESUPPLY POINT
7.1	4019/004	EFFECTIVE DAY	: 10
7.2	0792/404	EFFECTIVE HOUR	: 6
7.3	0797/403	EFFECTIVE MINUTE	: 15

Message:
PK11 K02.54 Deployment Command
Message Case 1.04

Index	DFI/DUI	Data Field Label	Data Value
1	4079/062	REPORT INDICATOR	: NO STATEMENT
2	4079/045	DELETE INDICATOR	: NO STATEMENT
5.1	4058/023	MOVEMENT TYPE DESIGNATOR	: STAY

Message:
PK11 K02.54 Deployment Command
Message Case 1.05

Index	DFI/DUI	Data Field Label	Data Value
1	4079/062	REPORT INDICATOR	: NO STATEMENT
2	4079/045	DELETE INDICATOR	: NO STATEMENT

1.2.2. PK11 K02.55 Mutual Data Xchange

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
4.2	4085/054	SUBSCRIBER NUMBER	: 20
4.3	4082/007	SUBSCRIBER STATUS CODE	: ON
4.4	4085/055	SUBSCRIBER NET ADDRESS NU	: 2
4.5	4054/026	SUBSCRIBER PHYSICAL ADDRE	: 1
4.6	4177/001	SUBSCRIBER DEVICE TYPE	: IFSAS/LT TACFIRE
4.7	4085/056	SUBSCRIBER RECEIVE SERIAL	: 0
4.8	4085/057	SUBSCRIBER TRANSMIT SERIA	: 0
4.9.1	4082/008	SUBSCRIBER COMSEC DEVICE	: SUBSCRIBER USING KY DEVICE
4.10	4050/002	SUBSCRIBER AGENCY TYPE	: FORWARD OBSERVER WITHOUT LAS
4.11.1.1	6500/007	UNIT REFERENCE NUMBER	: 183123

Message:
PK11 K02.55 Mutual Data Xchange
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
6.1	4177/003	MEMBER DEVICE TYPE	: AFATDS
6.2	4054/023	MEMBER ADDRESS	: 2

1.2.2. PK11 K02.56 Fire Unit Tac Sched

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1.1.1	6500/007	UNIT REFERENCE NUMBER	: 183123
2.1	4079/045	DELETE INDICATOR	: NO STATEMENT
2.2	4029/047	NUMBER OF ASSOCIATED ASSE	: 2
2.3	4005/007	ROCKET MUNITIONS TYPE	: JEE
2.4.2	4019/019	TASK DAY	: 5
2.4.3	0792/027	TASK HOUR	: 6
2.4.4	0797/027	TASK MINUTE	: 0
2.5.1	4054/031	CONTINGENCY FIRE MISSION	: JB0001
2.12.1.1	6500/007	UNIT REFERENCE NUMBER	: 18323

Message:
PK11 K02.56 Fire Unit Tac Sched

Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
3.2.1.1	6500/007	UNIT REFERENCE NUMBER	: 180234
3.3.2	4005/007	ROCKET MUNITIONS TYPE	: JED

Message:
PK11 K02.56 Fire Unit Tac Sched

Message Case 1.03

Index	DFI/DUI	Data Field Label	Data Value
1.1.1	6500/007	UNIT REFERENCE NUMBER	: 16782
2.1	4079/045	DELETE INDICATOR	: DELETE
2.2	4029/047	NUMBER OF ASSOCIATED ASSE	: 2
2.3	4005/007	ROCKET MUNITIONS TYPE	: JED
2.4.2	4019/019	TASK DAY	: 7
2.4.3	0792/027	TASK HOUR	: 6
2.4.4	0797/027	TASK MINUTE	: 0
2.5.1	4054/031	CONTINGENCY FIRE MISSION	: AQ1234
2.12.1.1	6500/007	UNIT REFERENCE NUMBER	: 181233

1.2.2. PK11 K02.58 Abrn Fire Mission

Message Case 1.01

Index	DFI/DUI	Data Field Label	Data Value
1	4092/025	AIRBORNE FIRE MISSION MES	: AIRBORNE FIRE REQUEST
3.1	4085/036	OBSERVER MISSION NUMBER	: 1
5.1	0281/005	TARGET LATITUDE	: 185175
5.2	0282/005	TARGET LONGITUDE	: -19104051
5.3.1	4130/004	TARGET ELEVATION	: 120
6.1	4025/001	TARGET GENERIC TYPE	: ARTILLERY
7.1	4029/085	NUMBER OF AIR ATTACK TARG	: 2
8.1	4117/001	TARGET ACTIVITY	: STATIONARY
11.1	4058/030	HELLFIRE MISSION TYPE DES	: RIPPLE
11.2	4079/122	HELLFIRE MISSION INDICATO	: HELLFIRE MISSION
11.3	4058/027	LOCK MODE DESIGNATOR	: LOCK ON BEFORE LAUNCH, DIREC
11.4	4079/123	AIR FIRE CONTROL INDICATO	: AT MY COMMAND
12.2	4085/050	AIRBORNE LASER CODE	: 1234
12.3	4058/029	G/VLLD CONTROL DESIGNATOR	: OBSERVER LASING
12.4.2	4029/015	NUMBER OF AIRBORNE MUNITI	: 5

17.1 0281/017 ORIGINATOR LATITUDE : 186878
17.2 0282/017 ORIGINATOR LONGITUDE : -19085480
17.3 4130/017 ORIGINATOR ELEVATION : 130

Message:
PK11 K02.58 Abrn Fire Mission
Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4092/025 AIRBORNE FIRE MISSION MES: AIRBORNE MISSION UPDATE
3.1 4085/036 OBSERVER MISSION NUMBER : 1
5.1 0281/005 TARGET LATITUDE : 16777215
5.2 0282/005 TARGET LONGITUDE : -19807705

Message:
PK11 K02.58 Abrn Fire Mission
Message Case 1.03
Index DFI/DUI Data Field Label Data Value
1 4092/025 AIRBORNE FIRE MISSION MES: AIRBORNE MISSION COMMAND
3.1 4085/036 OBSERVER MISSION NUMBER : 1
4.1 4053/002 AIRBORNE MISSION COMMAND : SHOT

1.2.2. PK11 K05.02 NBC1

Message Case 1.06
Index DFI/DUI Data Field Label Data Value
1 4155/002 NBC EVENT TYPE : BIOLOGICAL
2 1768/001 TYPE OF BURST : AIR
3.2 4019/032 ATTACK DAY : 5
3.3 0792/424 ATTACK HOUR : 5
3.4 0797/422 ATTACK MINUTE : 30
3.2 4019/032 ATTACK DAY : 5
3.3 0792/424 ATTACK HOUR : 7
3.4 0797/422 ATTACK MINUTE : 45
6.1 4079/117 LOCATION QUALIFIER : ACTUAL
6.2.2 0281/415 ATTACK LOCATION LATITUDE : 2040996
6.2.3 0282/415 ATTACK LOCATION LONGITUDE: -19078073
7.1.1 4115/002 TERRAIN DESCRIPTION : WOODS
7.2.1 4115/005 VEGETATION TYPE : SHRUB

1.2.2. PK11 K05.03 NBC2

Message Case 1.01
Index DFI/DUI Data Field Label Data Value
1 4155/002 NBC EVENT TYPE : CHEMICAL
2 4003/013 STRIKE SERIAL NUMBER : chem1
3.2 4019/032 ATTACK DAY : 5
3.3 0792/424 ATTACK HOUR : 6
3.4 0797/422 ATTACK MINUTE : 30
3.2 4019/032 ATTACK DAY : 5
3.3 0792/424 ATTACK HOUR : 7
3.4 0797/422 ATTACK MINUTE : 45
4.1 1768/001 TYPE OF BURST : AIR
4.2 4079/117 LOCATION QUALIFIER : ACTUAL
4.3.2 0281/415 ATTACK LOCATION LATITUDE : 226751
4.3.3 0282/415 ATTACK LOCATION LONGITUDE: -18752590

5.1.1 4115/002 TERRAIN DESCRIPTION : SAND
5.2.1 4115/005 VEGETATION TYPE : BARE
5.3.2 4138/002 AGENT TYPE : BLISTER AGENT
5.4.2 4138/003 AGENT PERSISTENCY TYPE : PERSISTENT
7.1 4079/118 SUSPECTED/OBSERVED INDICA: OBSERVED EVENT
7.2.2 0700/404 DELIVERY MEANS : AIRCRAFT (AIR)
9.1 4115/018 AIR STABILITY : STABLE
9.2 4023/004 AIR TEMPERATURE : 17
9.3 4142/001 NBC RELATIVE HUMIDITY : 78
9.4 4115/019 WEATHER PHENOMENA : RAIN
9.5 4115/007 CLOUD COVER : BROKEN CLOUDS

Message:
PK11 K05.04 NBC3
Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1 4155/002 NBC EVENT TYPE : BIOLOGICAL
2 4003/013 STRIKE SERIAL NUMBER : BIO1
3.2 4019/032 ATTACK DAY : 6
3.3 0792/424 ATTACK HOUR : 6
3.4 0797/422 ATTACK MINUTE : 0
3.2 4019/032 ATTACK DAY : 6
3.3 0792/424 ATTACK HOUR : 7
3.4 0797/422 ATTACK MINUTE : 45
4.1 4079/117 LOCATION QUALIFIER : ACTUAL
4.3.2 0281/415 ATTACK LOCATION LATITUDE : 5743078
4.3.3 0282/415 ATTACK LOCATION LONGITUDE: -18820601
5.1 1768/001 TYPE OF BURST : AIR
5.2.2 4138/002 AGENT TYPE : NERVE AGENT
5.3.2 4138/003 AGENT PERSISTENCY TYPE : NON-PERSISTENT
6.1.1 4031/012 HAZARD AREA RADIUS : 1000
7.2 4019/033 ATTACK AREA HAZARD DAY : 5
7.3 0792/425 ATTACK AREA HAZARD HOUR : 7
7.4 0797/423 ATTACK AREA HAZARD MINUTE: 30
7.5.2 4019/035 HAZARD AREA HAZARD DAY. : 5
7.5.3 0792/426 HAZARD AREA HAZARD HOUR : 8
7.5.4 0797/426 HAZARD AREA HAZARD MINUTE: 15
9.1 0371/407 NBC CLOUD DOWNWIND DIRECT: 12
9.2 0367/404 DOWNWIND SPEED : 5
11.1 4115/018 AIR STABILITY : SLIGHTLY STABLE
11.2 4023/004 AIR TEMPERATURE : 18
11.3 4142/001 NBC RELATIVE HUMIDITY : 65
11.4 4115/019 WEATHER PHENOMENA : RAIN
11.5 4115/007 CLOUD COVER : BROKEN CLOUDS

1.2.2. PK11 K05.05 NBC4

Message Case 1.02
Index DFI/DUI Data Field Label Data Value
1 4155/002 NBC EVENT TYPE : CHEMICAL
2.1 4003/013 STRIKE SERIAL NUMBER : CHEM02
3.2 0281/418 READING LOCATION LATITUDE: 2380522
3.3 0282/418 READING LOCATION LONGITUD: -18777191
3.4.1 1768/001 TYPE OF BURST : AIR

3.4.2 4115/002 TERRAIN DESCRIPTION : ROCKY
3.4.3 4115/005 VEGETATION TYPE : SHRUB
3.4.4.2 4138/002 AGENT TYPE : BLISTER LEWISITE
3.4.5.2 4138/003 AGENT PERSISTENCY TYPE : PERSISTENT
3.6.1 4019/034 READING/SAMPLE DAY : 5
3.6.2 0792/427 READING/SAMPLE HOUR : 5
3.6.3 0797/424 READING/SAMPLE MINUTE : 30

Message
K11 K05.06 NBC5
Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4155/002	NBC EVENT TYPE	: BIOLOGICAL
2.1	4003/013	STRIKE SERIAL NUMBER	: BIO11
3.1	1768/001	TYPE OF BURST	: AIR
3.2.2	4138/002	AGENT TYPE	: NERVE G AGENT
3.3.2	4138/003	AGENT PERSISTENCY TYPE	: NON-PERSISTENT
8.1	4098/011	LATEST SURVEY YEAR	: 95
8.2	4099/011	LATEST SURVEY MONTH	: AUGUST
8.3	4019/027	LATEST SURVEY DAY	: 15
8.4	0792/423	LATEST SURVEY HOUR	: 20
8.5	0797/420	LATEST SURVEY MINUTE	: 15
10.2	0281/422	BLACK/YELLOW CONTOUR LATI	: 185502
10.3	0282/422	BLACK/YELLOW CONTOUR LONG	: -18601805

1.2.2. PK11 K05.07 NBC6

Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4155/002	NBC EVENT TYPE	: BIOLOGICAL
2	4003/013	STRIKE SERIAL NUMBER	: BIO13
5.2	4075/001	COMMENTS	: THIS IS A BIO ATTACK FOR

1.2.2. PK11 K05.08 BWR

Message Case 1.02

Index	DFI/DUI	Data Field Label	Data Value
1	4079/125	FORECAST/REPORT INDICATOR	: REPORT
2	4054/054	VALIDITY AREA	: CITY
3	4019/029	OBSERVATION DAY	: 5
4	0792/419	OBSERVATION HOUR	: 5
5	0797/418	OBSERVATION MINUTE	: 30
7.2	4021/008	BWR MET ALTITUDE ZONE	: ZONE 0
7.3	0371/408	BWR MET WIND DIRECTION	: 12
7.4	0367/401	MET WIND SPEED	: 5

Index	DFI/DUI	Data Field Label	Data Value
1	4079/125	FORECAST/REPORT INDICATOR	: REPORT
2	4054/054	VALIDITY AREA	: CITY
3	4019/029	OBSERVATION DAY	: 5
4	0792/419	OBSERVATION HOUR	: 5
5	0797/418	OBSERVATION MINUTE	: 30
7.2	4021/008	BWR MET ALTITUDE ZONE	: ZONE 0
7.3	0371/408	BWR MET WIND DIRECTION	: 12
7.4	0367/401	MET WIND SPEED	: 5

1.2.2. PK11 K05.11 STRIKEWARN

Index	DFI/DUI	Data Field Label	Data Value
1	4079/072	CONVENTIONAL/NUCLEAR WARN:	NUCLEAR
2.2	4019/026	STRIKE DAY	: 5
2.3	0792/420	STRIKE HOUR	: 5
2.4	0797/419	STRIKE MINUTE	: 15
2.2	4019/026	STRIKE DAY	: 5
2.3	0792/420	STRIKE HOUR	: 7
2.4	0797/419	STRIKE MINUTE	: 45
3.1	4054/037	WARNING CODEWORD	: BIGBANG
6.1.1	4031/008	MINIMUM SAFE DISTANCE (MS:	5
6.2.2	0281/414	GROUND ZERO LOCATION LATI:	185329
6.2.3	0282/414	GROUND ZERO LOCATION LONG:	-18936814
7.1.1	4031/009	MINIMUM SAFE DISTANCE (MS:	4
8.1.1	4031/010	MINIMUM SAFE DISTANCE (MS:	3

1.2.2. PK11 K05.15 FIELD ORDERS

Index	DFI/DUI	Data Field Label	Data Value
1	4054/058	PLAN NAME	: SEAD01
2	4054/059	OPLAN/OPORD NAME	: BIGATTACKWITHBIGBANG00000000
3.1	4075/016	PARAGRAPH 1, SITUATION	: CURRENT

15-2. JVMF Messages

This window shows the JVMF Available Message List window and displays the message template. These windows work the same as the Package 11 windows.

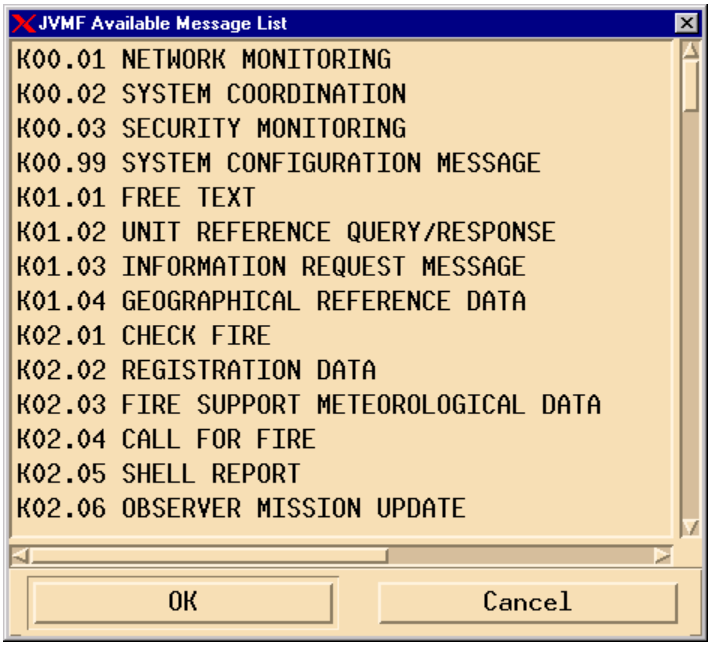


Figure 15-5 JVMF Available Message

Msg Number	JVMF Message Name
K01.01	Free Text
K01.03	Information Request Message
K01.04	Geographic Reference Data
K02.01	Check Fire
K02.02	Registration Data
K02.03	Meteorological Data
K02.04	Call For Fire
K02.05	Shell, Bomb, Mortar Report
K02.06	Observer Notification
K02.07	Survey Control Point
K02.08	Schedule Of Fires
K02.09	Target Data
K02.10	Fire Plan Mission/Fire Plan Cancellation
K02.11	Ammunition Inventory
K02.12	On-Call Fire Command
K02.13	Mission Clearance
K02.14	Message To Observer
K02.15	Fire Support Coordination Measures
K02.16	End Of Mission and Surveillance
K02.18	Fire Unit Status
K02.19	Target Query/Standing Request for Information
K02.20	Survey Control Point Information Request
K02.22	Subsequent Adjust
K02.23	Fire Plan Orders
K02.24	In Progress Mission Notification
K02.27	Close Air Request
K02.28	CAS Mission Battle Damage Assessment Report
K02.31	Mission Request Rejection
K02.32	Close Air Request (TAR) Acceptance
K02.33	CAS Aircrew Briefing
K02.34	Aircraft On-Station
K02.35	Aircraft Depart Initial Point
K02.36	Aircraft Mission Update
K02.37	Observer Readiness Report
K02.38	Airborne Fire Mission
K02.39	Fire Support Mission Planning
K02.40	Howitzer Message
K02.41	Fire Unit Deployment Command
K02.42	Fire Plan Assignment Data
K02.43	Rocket/Missile Munitions Effects Data
K02.44	Target Element Data Entry
K02.45	Rocket Missile Launch Order

K02.46	Rocket/Missile Operational Status Update
K02.47	Launcher Configuration Update
K02.48	Commander's Fire Unit Guidance
K02.49	Commander's Fire Mission Guidance
K02.50	Commander's Target Acquisition Guidance
K02.51	Fire Support Reply/Remarks
K02.54	Howitzer Communication Initialization Data
K03.03	Forecast Met Data
K05.01	Position Report
K05.14	Situation Report
K05.15	Field Orders

15-3. USMTF Messages

This window shows the USMTF Available Message List window and displays the message template. These windows work the same as the Package 11 windows.

Figure 15-6 USMTF Available Message

Msg Number	USMTF Message Name
A423	ORDER
A659	ATO
A661	REQSTATASK
B220	AFU.FUS
C120	MIJIFEEDER
C121	TACELINT
C130	MISREP
C241	AFU MFR
C281	ATI ATR

C400	SITREP
C443	NBC3
C447	NBC4
C488	NBC1
C501	NBC5
C506	NBC6
C507	NBC CDR
D210	FM CFF
D281	ATI.TCRIT
D670	AIRSUPREQ
E400	PLANORDCHG
E500	AIREWARN
F002	GENADMIN
F014	RI
F015	RRI
F541	AKNLDG
F756	ACO
G131	INTSUM
G489	NBC2
S201	SPRT.GEOM
S202	FP ATL
S305	TIDAT
S308	ATI IEWTC
S309	ENSIT
S507	RESOURCES
S508	SUPCONSTRAINT
S509	CTIL

15-4. GDU/MCA Messages

This window shows a list of the GDU/MCA types of messages available for the operator to enter into the Event List and displays the message template associated with the message type highlighted. The double click action defaults to this edit operation.

NOTE

Those messages that Bold are denoted with "VIEW ONLY" can only be viewed and will not be able to be saved and transmitted, but the fields available in the message can be examined

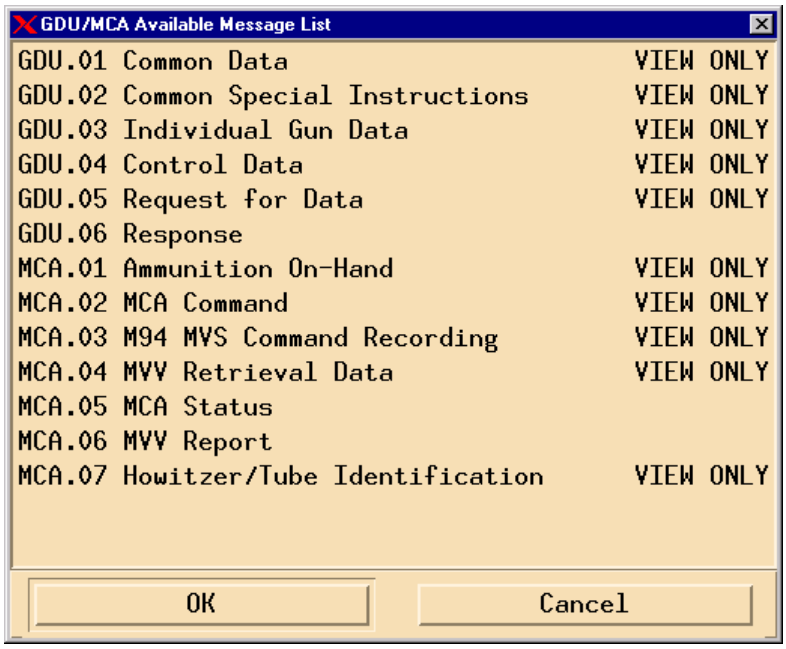


Figure 15-7 GDU/MCA Messages

This section is designed to give an example of how to setup a GDU/MCA message. Further information on valid data can be obtained by activating the help feature inside of each field. The GDU/MCA interface will display an error message if the operator attempts to activate the "OK" button with an invalid message.

Msg Number	Message Name
GDU.01	Common Data
GDU.02	Common Special Instructions
GDU.03	Individual Gun Data
GDU.04	Control Data
GDU.05	Request for Data
GDU.06	Response
MCA.01	Ammunition On-Hand
MCA.02	MCA Command
MCA.03	M94 MVS Command Recording
MCA.04	MVV Retrieval Data
MCA.05	MCA Status
MCA.06	MCA Report
MCA.07	Howitzer/Tube Identification

15-4-1. GDU/MCA GDU.04 Control Data

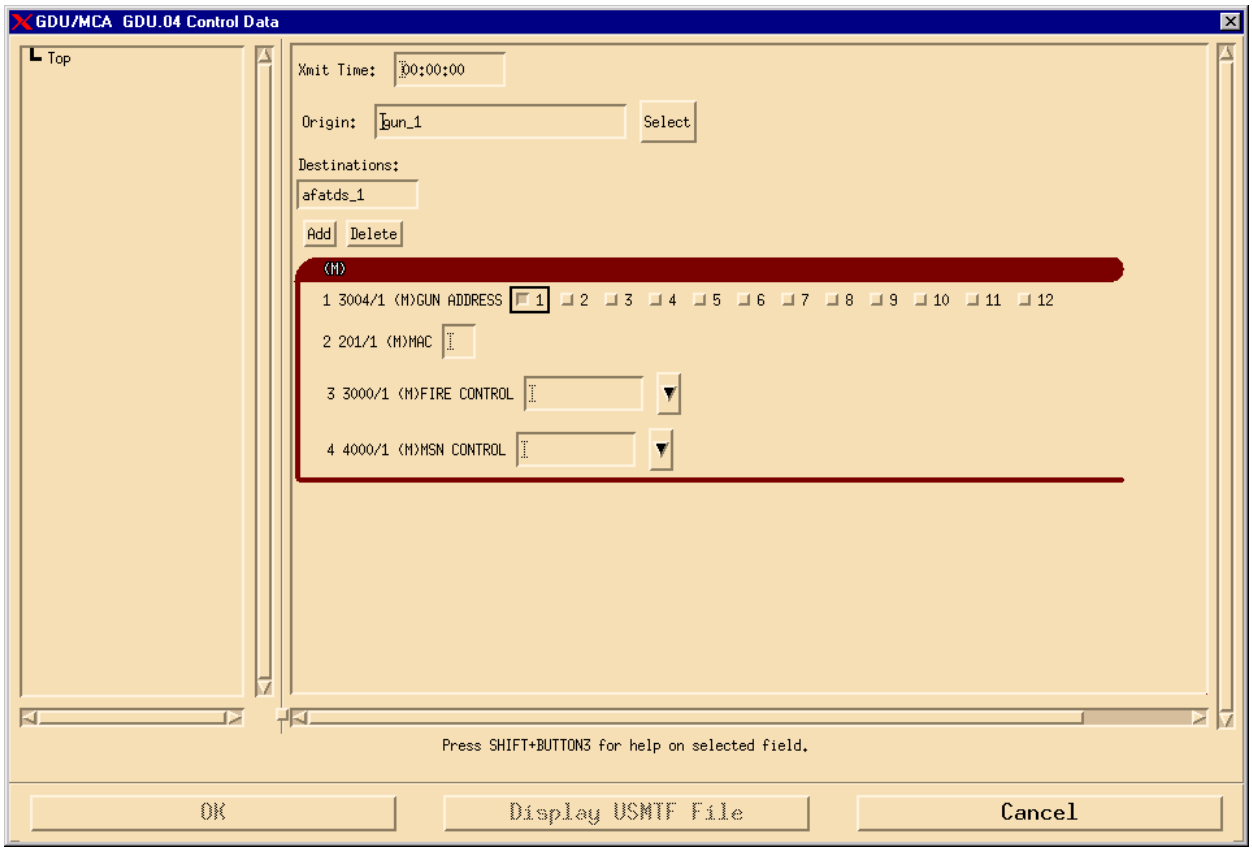


Figure 15-8 GDU Control Data

15-5. GENERIC Messages

The Generic Message was designed with ease of use in mind. Several of the most common PK11 and JVMF messages were chosen and combined into the Generic Message type. The interface is less complicated than the traditional PK11 and JVMF message formats. The operator need only enter a few basic fields and when chosen for transmission a valid message will be generated and sent. The interface does not allow for every single type of any specific message to be created, nor is it intended to test specific field requirements of AFATDS. It has been designed to allow an operator to easily simulate the most basic capabilities of SISTIM messages.

Generic Messages can also be copied to the Originating Units message specification using a very simple interface. From the Event List the operator should choose copy.

The operator can then choose whether to copy to another Generic Message or to PK11 or JVMF depending on what the Originating Unit of that message is. After selecting the message type and selecting “OK” a new message will be placed on the TOEL.

SECTION 2
GENERIC MESSAGES

15-5-1. Generic Fire Request

The Generic Fire Request is made up of the PK11 K02.04 Call for Fire and the JVMF K02.04 Call for Fire. This message has been designed to allow the operator to send a simple Call for Fire message to AFATDS with some of the most common fields. The sections for Target Type and Shell/Fuze Data have been made simpler by using the common AFATDS types. Also the message has been broken up into logical sections to hopefully alleviate any confusion on what data is required in order to have the information necessary to transmit a valid message.

15-5-2. Generic ATI or Artillery Target Intelligence

The Generic ATI or Artillery Target Intelligence is made up of the PK11 K02.09 Target Data and the JVMF K02.09 Target Data. This message was designed to allow simple creation and transmission of targets. Similar to the generic Fire Request the ATI uses AFATDS Target Types.

15-5-3. Generic EOM

The Generic EOM is made up of the PK11 K02.16 End of Mission and the JVMF K02.16 End of Mission. This message is intended to simplify the sending of a “End Mission” case of the End of Mission message. In most cases if the operator enter the target number of the mission he wishes to end this is enough information. The other fields have been included to allow for a little more flexibility but are not required.

15-5-4. Generic Geometry

The Generic Geometry is made up of the PK11 K02.15 Coordination Measures and the JVMF K02.15 Fire Support Coordination Measures. This message was designed to allow the operator to easily enter and transmit some of the most common Fire Support Geometries used by AFATDS. Not all of the PK11 and JVMF geometry types can be transmitted via this message.

15-5-5. Generic FO Command

The Generic FO Command is made up of the PK11 K02.01 Check Fire, the PK11 K02.06 Observer Notify, the PK11 K02.12 On-Call Fire Request, the JVMF K02.01 Check Fire, the JVMF K02.06 Observer Mission Update and the JVMF K02.12 On-Call Fire Command. This message was designed to easily transmit some of the most common Forward Observer commands without having to search for the specific message, which contains that type of command. The Observer Commands that the message allows are SHOT, SPLASH, ROUNDS COMPLETE, READY, CHECK FIRE, CHECK FIRE ALL, CANCEL CHECK FIRE, CANCEL CHECK FIRE ALL, and FIRE

15-5-6. Generic Unit Status

The Generic Unit Status is made up of the PK11 K02.51 Unit Situation Report, the PK11 K02.18 Fire Unit Capabilities, the JVMF K02.18 Fire Unit Status, and the K02.37 Observer Readiness Report. This message is intended in most cases to allow the operator to move a unit on the map via the Unit Status messages. There are other fields that allow for weapon range manipulation, but these should be used for Fire Units only.

15-5-7. Generic MET Template

The Generic MET is made up of the PK11 K02.03 Met Data, JVMF K02.03 Fire Support Meterological Data, JVMF K03.03 Forecast Meterological Data, JVMF K05.08 Basic Wind Report, and the JVMF K03.05 Observed Weather Information and Effects messages. This message is intended to allow the operator to send meteorological data.

CHAPTER 16.
ACRONYMS

- A -

ACO	Airspace Control Order
AFATDS	Advanced Field Artillery Tactical Data System
AFCS	Automatic Fire Control System
AFU FUS	Ammunition Fire Unit-Fire Unit Status
AFU MFR	Ammunition Fire Unit-Mission Fired Report
AIRSUP REQ	Air Support Request
ASAS	All Source Analysis System
ATHS	Airborne Target Hand-off System
ATI ATR	Artillery Target Intelligence-Artillery target Report
ATI IEWTC	Artillery Target Intelligence-Intelligence and Electronic Warfare Target Coordination Message
ATO	Air Tasking Order

- B -

BCS	Battery Computer System
BDE	Brigade
BN	Battalion
BOM	Bit Oriented Message format

- C -

CBRR	Counter Battery Radar Q-37
CCU	Compact Computer Unit
CFF	Call For Fire
CFL	Coordinated Fire Line
CHA	Chemical Hazard Area
Cn Btry	Cannon Battery
CNO	Can Not Observe
COLT	Combat Observation/Lasing Teams
COM	Character Oriented Message format
COMINT	Communications Intelligence
CP/FDC	Command Post/Fire Direction Center
CPH	Copperhead
CRI	Coordinated Illumination
CROS	Crossover Geometry

- D -

DAA	Damage Avoidance Area
DC	Danger Close
DCT	Digital Communication Terminal
DMD	Digital Message Device
DNL	Do Not Load
DNO	Did Not Observe
DSA	Dead Space Area

- E -

ELINT	Electronic Intelligence
EOM	End of Mission
EPLRS	Enhanced Position Location and Reporting System

- F -

FASCAM	Family of Scatterable Mines
FBCB2	Future XXI Battle Command Brigade and Below
FCS	Fire Control System
FDDM	Fire Direction Data Manager
FDS	Fire Direction System
FED	Forward Entry Device
FF	FireFinder
FFE	Fire For Effect
FIST	Fire Support Team
FL	Flash Ranging
FL	Front Line
FLOT	Front Line of Troops
FM	Fire Mission
FO	Forward Observer
FOCMD	Forward Observe Command
FOS	Forward Observer Station
FOWOL	Forward Observer Without Laser
FSCL	Fire Support Coordination Line
FSCM	Fire Support Coordination Measure
FSE	Fire Support Element
FSO	Fire Support Officer

- G -

GDU	Gun Display Unit
GSM	Ground Station Module
GSRA	Ground Surveillance Radar
GT	Gun Target
G/VLLD	Ground/Vehicular Laser Locator Designator

- H -

HE	High Explosive

- I -

ICM	Improved Conventional Munitions
IFCS	Improved Fire Control System
IR	Airborne Infrared

- J -

JSTARS	Joint Surveillance Target Attack Radar System
JVMF	Joint Variable Message Format

- L -

LRRP	Long Range Reconnaissance Patrol
LSFZ	Laid FASCAM Safety Zone

- M -

MBC	Mortar Ballistic Computer
MLRS	Multiple Launch Rocket System
MMS	Mass Mounted Sight
MTO	Message To Observer

- O -

OBCO	Observer Location
OBSR	Observer Not Artillery
OPFAC	Operational Facilities
OPS	Operations

- P -

PI	Photo Interpretation
Plt FDC	Platoon Fire Direction Center
POW	Prisoner of War
PRAND	Prone and Standing troops in target area
PROVER	Prone with overhead Cover troops in target area
PRUG	Prone and Dug-in
PSFZ	Planned FASCAM Safety Zone

- Q -

Q36	Counter Mortar Radar Model Number
Q37	Counter Battery Radar Model Number

- R -

RAAMS	Remote Anti Armor Mine System
RFA	Restrictive Fire Area
RFFE	Repeat Fire For Effect
RFL	Restrictive Fire Line
RKTMSL	Rocket Missile
RPV	Remotely Piloted Vehicle

- S -

SISTIM	Simulator/Stimulator
SORING	Sound Ranging
SLAR	Side Looking Airborne Radar
SPLL	Self-Propelled Launcher Loader

- T -

TA	Target Acquisition
TACAIR	Tactical Air
TACFIRE	Tactical Fire Direction System

TBMCS	Theater Battle Management Core System
TCIM	Tactical Communication Interface Module
TGTB	Target Base
TOEL	Time Ordered Events List
TOF	Time of Flight
TOT	Time On Target
TTF	Time to Fire

- U -

UCU	Ultra Computer Unit
USMTF	US Message Text Format
UDP	User Datagram Protocol

- V -

VA	Vertical Angle
VI	Vertical Interval
VT	Variable Time Fuse

- W -

WP	White Phosphorus