



A Day in the Life of a Brigade FSO at the NTC

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The brigade fire support officer (FSO) looked with bleary eyes at the division planners issuing the division order to the brigade staff. It was 1300. He had been up since 0300, and the brigade combat team (BCT) had fought a defense-in-sector in the vicinity of Whale Gap all morning. The BCT had just issued a new order for a movement-to-contact to the task forces; the planners at the National Training Center (NTC), Fort Irwin, California, were giving the BCT staff an order for a security zone attack.

After receiving the order, the BCT staff members get into their high-mobility multipurpose-wheeled vehicles (HMMWVs) to find the tactical operations center (TOC). The TOC is moving 20 kilometers to Hill 720 for the BCT to initiate the movement-to-contact through the central corridor. The staff arrives ahead of the TOC, but the S3 had sent the plans section forward with the quartering party, and the section is set up for the staff to begin the military decision-making process (MDMP). It's 1430.

Mission Analysis Briefing/Issue WARNO. The S3 allots an hour for the mission analysis and schedules a mis-

sion analysis briefing to the BCT commander at 1600. The brigade FSO understands from the white paper "Fire Support Planning for the Brigade and Below" (16 September 1998) that fire support planning must be effective, integrated and executable, and he understands the division's maneuver and fire support plan.

The brigade FSO and the targeting officer dissect the information in the order. They conduct a time analysis, organize facts and assumptions, identify the specified and implied tasks, translate assets into capabilities and, finally, conduct an analysis of the effects of the intelligence preparation of the battlefield (IPB) on fire support. The FSO briefs the mission analysis, covering the topics in Figure 1 on Page 12.

The BCT commander then issues his intent and guidance for fires, including the information listed in Figure 1. The brigade commander also issues guidance for the combat observation lasing team (COLT) platoon leader and reconnaissance and surveillance (R&S) preparations.

Armed with the initial guidance, the brigade FSO issues a fire support warning order (WARNO) to the subordinate

units, including the direct support (DS) and reinforcing battalion S3s. The WARNO communicates the outputs from the mission analysis with the approved essential fire support tasks (EFSTs) and the fire support timeline, at a minimum. This allows the FSO's subordinate units to conduct concurrent planning to support the plan.

COA Development. At 1900, the staff begins the course of action (COA) development. The process is short, as the commander already has outlined two detailed concepts in his intent.

The FSO and the targeting officer begin the COA development to determine the "how" of fires execution from the "what" of mission analysis. They begin planning the method of how to accomplish the EFSTs—determining where to find and attack the enemy formations, identifying the high-payoff targets (HPTs) in those formations and quantifying the effects required.

The FSO and the targeting officer in concert with the brigade staff begin planning a method for each EFST. They allocate assets to detect and attack each formation to achieve the desired effects. The entire staff works together to integrate the fire support events or actions into a maneuver plan.

At the completion of the COA development, the assistant brigade FSO conducts feasibility testing using battle calculus and doctrine to validate the plan. The outputs from the COA development are listed in Figure 1. The FSO issues a WARNO 2 that covers the outputs of the COA development.

Wargame. The brigade executive officer (XO) scheduled the wargame to start at 2100. The FSO, assistant FSO and targeting officer are prepared with initial position areas for artillery (PAAs) and the outputs of COA development. The wargame helps the FSO finalize the plan through to the targeting decisions, visualize and synchronize the plan with maneuver, test and refine the plan and finally modify it, as necessary. (See Figure 2 on Page 13.)

After the wargame ends at 0200, the fire support NCO (FSNCO) conducts a quality control check of the wargame outputs. This ensures the annex has the wargame products listed in Figure 1. Figure 3 on Page 14 shows an example of the brigade scheme of fires product based on the scheme of fires visualized in Figure 2. After the brigade XO approves the annex, it's included in the orders production set for 0600.

Rehearsals. At 1000, the brigade FSO conducts roll call for the brigade fire support rehearsal for the movement-to-contact. The attendees are listed in Figure 1. The FSO gives the BCT commander's intent and the operation overview before handing it over to the fire support coordinator (FSCOORD) for comments.

After the FSCOORD gives his guidance, the FSO begins the rehearsal by covering the EFSTs, fire support coordinating measures (FSCM) and priorities of fire for the operation. The S2 then sets the enemy situation, and per the BCT rehearsal agenda, each player states his actions, correlating maneuver and fires in turn. Each task force FSO and the COLT platoon leader state the maneuver action and how fires are synchronized, briefing each of his EFSTs, including the primary and alternate observers, target, trigger and effects for each critical event.

The air liaison officer (ALO) gives the aircraft time on station and number of sorties, close air support (CAS) targets and airspace coordination areas (ACAs). He also covers suppression of enemy air defenses (SEAD) and marking round procedures.

The S3s for both FA battalions discuss movement, triggers, range requirements and positioning issues. The targeting officer covers critical friendly zones (CFZs), call-for-fire zones (CFFZs) and radar positioning and movement. The fire direction officer (FDO) covers each EFST by method of attack, systems and rounds fired, shift times and ammunition issues.

The briefers repeat the process for each phase and discuss coordinating instructions and issues. The FDO also reviews the target list. The FSCOORD makes concluding comments to ensure everyone is prepared for the combined arms rehearsal.

It is 1100, and the BCT combined arms rehearsal for the movement-to-contact is underway. The S3 briefs the BCT maneuver action, and then the FSCOORD briefs BCT fires. The FSO stands by with the fire support execution matrix (FSEM) to assist with any questions or issues. As each task force commander completes his briefing of his maneuver action, the task force FSO briefs the corresponding fires event.

Because the fire support rehearsal had been very detailed, the synchronization of fires and maneuver goes very well. At the end of the combined arms rehearsal, the scheme of fires has been

confirmed with a clear understanding of what the EFSTs are, how they are tied to the scheme of maneuver, who the observer is, what the target is and what the trigger is.

At 1700, after issues are resolved from the rehearsals and the task forces have refined the targets and CFZs, the assistant FSO begins the net call for the fire support FM rehearsal. This is the final opportunity to verify the target list, no fire areas (NFAs) and FSCMs for the BCT. This is an essential event to make final refinements to the plan. It also allows the company FSOs to monitor the BCT-level rehearsal and hear the scheme of fires.

Execution. The brigade FSO is in the TOC at 0300 to prepare the battle update brief for the movement-to-contact. He meets the targeting officer and the FSCOORD and reviews the target list one last time, verifying the status of the

COLTs, reviewing target intelligence updates from the S2 and making final target refinements. He also reviews the combat power of the subordinate fire support elements (FSEs) and firing units.

At 0330, the BCT commander is updated in the TOC. Then he and the FSCOORD get in the commander's M113 armored personnel carrier to move to the tactical command post (TAC), which is positioned forward.

The BCT crosses the line-of-departure (LD) at 0400 to execute the movement-to-contact. In the TOC, the FSO remains at the battle board with the XO, ALO, S2, battle captain and assistant brigade engineer (ABE).

Initially, the information flow is slow. The FSO uses his remote handset to talk to the FSCOORD and the task force FSOs to keep accurate situational awareness. The brigade XO and the brigade FSO conduct several informal targeting

<p>FSO's Mission Analysis Fire Support Briefing</p> <ul style="list-style-type: none"> • Fire Support Status, Capabilities and Limitations • Number of Missions per Munition Type • Mission Timeline • Mission Constraints and Restrictions • Recommended Essential Fire Support Tasks (EFSTs)
<p>Brigade Commander's Guidance for Fires</p> <ul style="list-style-type: none"> • Approved EFSTs (Includes Specific Effects on Enemy Formations) • Use of Special Munitions • Force Protection Considerations • Rules of Engagement (ROE) Considerations and Other Amplifying Data
<p>Course of Action (COA) Development Fire Support Products</p> <ul style="list-style-type: none"> • Concept of Fires • Draft of Fire Support Execution Matrix (FSEM) • Draft Target List Worksheet with Overlay • Draft Scheme of Fires • Collection/Reconnaissance and Surveillance Plan (R&S)
<p>COA Wargame/Fire Support Annex Products</p> <ul style="list-style-type: none"> • Fires Paragraph • FSEM • Scheme of Fires • Target List with Overlay • High-Payoff Target List (HPTL) • Attack Guidance Matrix (AGM) • Target Selection Standards (TSS) Matrix
<p>Brigade Fire Support Rehearsal Attendees</p> <ul style="list-style-type: none"> • Fire Support Coordinator (FSCOORD) • Brigade FSO and S3 • Task Force FSOs • Combat Observation Lasing Team (COLT) Platoon Leader • Direct Support (DS) Battalion S2, S3, Fire Direction Officer (FDO) and Signal Officer • Reinforcing FA Battalion Commander and S3.

Figure 1: Brigade FSO's Checklist for the Military Decision-Making Process (MDMP)

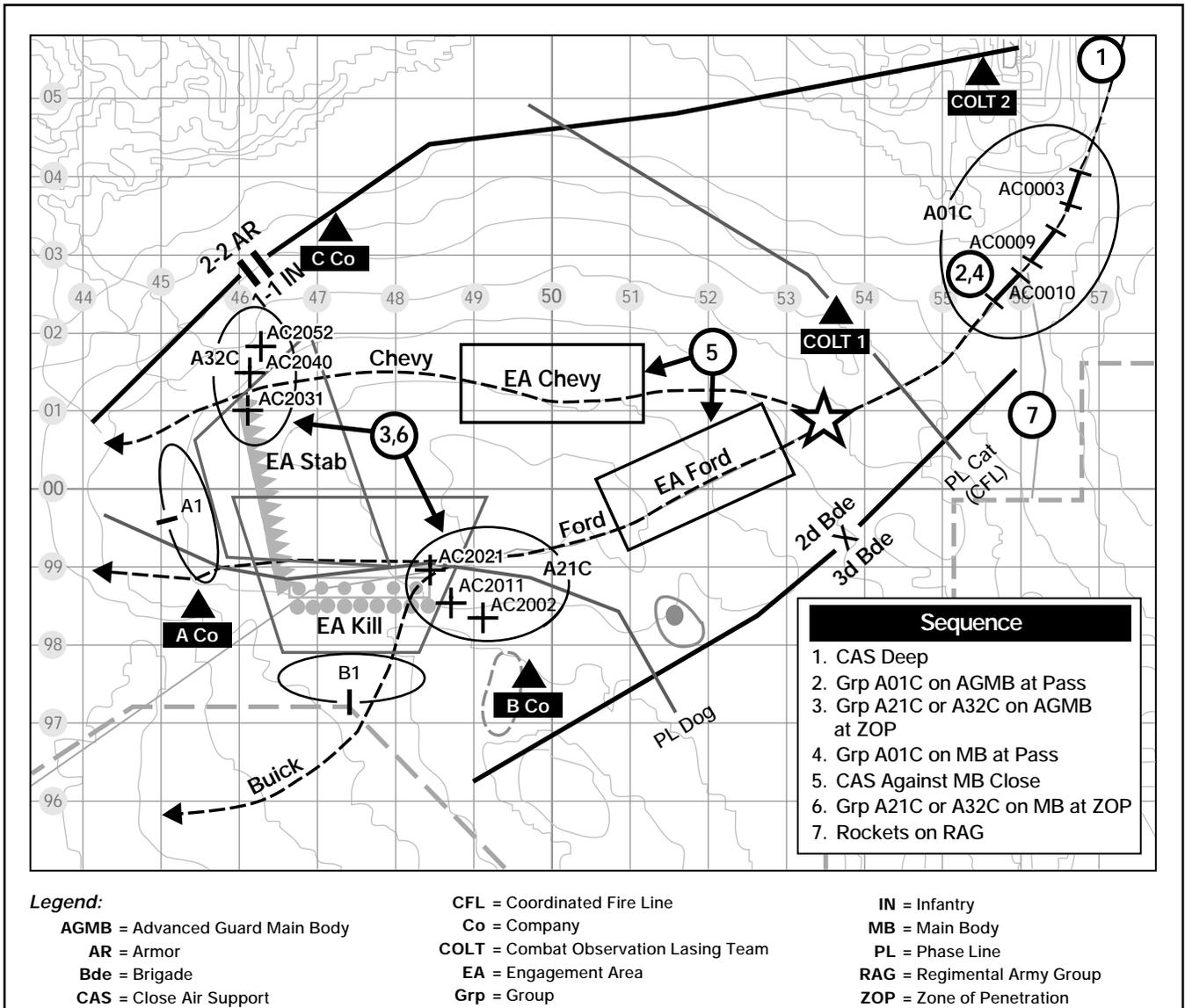


Figure 2: Brigade Scheme of Fires Visualized

meetings to synchronize all aspects of fires to the current friendly situation.

At one point, the brigade ALO gives the 20-minute warning as CAS reaches the initial point (IP). The brigade XO, S2 and FSO, along with the air defense officer (ADO), work closely with the brigade ALO to ensure CAS has the proper focus and pilots know the target locations and formation sizes. The staff also ensures SEAD is accomplished and the correct ACAs are in effect. As the CAS departs the IP, the brigade FSE executes its battle drill for initiating the marking round for the SEAD fires and activating and inactivating the appropriate ACAs.

Receives New Order. After the change of mission, the FSCoord and BCT commander are involved in the commander of the operations group's (COG) post-battle review. The staff arrives at

the TAC at 1200 to issue the order for a security zone attack.

Once all subordinate commanders are present, the S3 and FSO brief the plan using a maneuver and fires format for each phase. At the conclusion of the order, if there are no issues, the FSO huddles with the task force FSOs for 10 minutes to ensure all understand the scheme of fires and responsibility for EFSTs.

After the staff issues the order to the task forces at 1330, the division planners prepare to issue the order for the deliberate attack. And so the MDMP cycle begins again.

Developing the FSO. To have a successful rotation at the NTC, the DS battalion must train its FSEs on critical tactics, techniques and procedures (TTPs) at home station and prepare them for the NTC battle rhythm.

The BCT and task force staffs must conduct the MDMP and orders process multiple times with all participants who will be involved in the NTC deployment. This is essential for developing the standing operating procedures (SOPs), division of duties for FSE personnel and the FSE battle drill. The process must be conducted under constrained conditions to get the staff used to producing a good product while working under pressures similar to those at the NTC.

There are several key relationships the brigade FSO has to develop to succeed. First among these is the BCT S2, then the ALO, the ABE and the aviation liaison officer (LNO). The FSO, S2 and targeting officer have to work closely to ensure the targeting team functions effectively and constantly update one an-

Phase	1	1	1	1	2
Fire Support Event	CAS with SEAD	A01C	A21C or A32C	A21C or A32C	A01C
Task	Disrupt AGMB east of pass.	Disrupt AGMB east of PL Cat.	Disrupt AGMB at obstacle.	Disrupt AGMB at obstacle.	Disrupt MB east of PL Cat.
Purpose	Attrit AGMB to allow TF improved COFM.	Attrit AGMB deep to allow TF direct fire advantage.	Allow TF to destroy with direct fires in EA Kill.	Allow TF to destroy with direct fires in EA Kill.	Attrit MB deep to allow TF direct fire advantage.
Trigger	AGMB at NAI 1	AGMB at NAI 3	AGMB at EA Ford or EA Chevy	AGMB at EA Ford or EA Chevy	MB at NAI 3
Method	MLRS	155/MLRS	155	155	155/MLRS
Target Number	AC1000	AC0003, AC0009, AC0010	A21C = AC2002, AC2011, AC2021	A32C = AC2031, AC2040, AC2052	AC0003, AC0009, AC0010
Target Location	59821433	57010346 56740281 56120221	49239819 49829836 48789886	46000089 46010122 46230151	57010346 56740281 56120221
Unit	2x A-10 4-7 FA (R)	1-51 FA (DS) 4-7 FA (R)	1-51 FA (DS)	1-51 FA (DS)	1-51 FA (DS) 4-7 FA (R)
Munitions	GBU-82 DPICM	DPICM	DPICM	DPICM	DPICM
Volume	6 Rockets	Battery 6 and 6 Rockets per Target	Battery 6 per Target	Battery 6 per Target	Battery 6 and 6 Rockets per Target
Priority Observer	COLT 2	COLT 2	B Company	C Company	COLT 2
Observation Post Location	55910489	55910489	49899739	47210292	55910489
Alternate Observer	AFAC	COLT 1	A Company	A Company	COLT 1
Observation Post Location		53940189	45489847	45489847	53940189
Effects	2x BMP 4x T-80 Destroyed	3x BMP 6x T-80 Destroyed	2x BMP 4x T-80 Destroyed	2x BMP 4x T-80 Destroyed	3x BMP 6x T-80 Destroyed
FSCM	FSCL PL Bob CFL PL Cat	FSCL PL Bob CFL PL Cat	FSCL PL Bob CFL PL Cat	FSCL PL Bob CFL PL Cat	FSCL PL Bob CFL PL Cat
ACA	ACA Blue				
Remarks	CFZ established over TF BPs.	CFZ established over TF BPs	CFZ established over TF BPs.	CFZ established over TF BPs.	CFZ established over TF BPs.

Legend:

ACA = Airspace Coordination Area AFAC = Airborne Forward Air Controller AGMB = Advanced Guard Main Body BMP = Tracked Infantry Combat Vehicle BPs = Battle Positions CAS = Close Air Support CFL = Coordinated Fire Line CFZ = Critical Friendly Zone	COFM = Correlation of Forces Matrix COLT = Combat Observation Lasing Team DPICM = Dual-Purpose Improved Conventional Munition (DS) = Direct Support EA = Engagement Area FSCL = Fire Support Coordination Line FSCM = Fire Support Coordinating Measures	GBU = Guided Bomb Unit MLRS = Multiple-Launch Rocket System MB = Main Body NAI = Named Area of Interest PL = Phase Line (R) = Reinforcing SEAD = Suppression of Enemy Air Defenses TF = Task Force
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Figure 3: Example of Brigade Scheme of Fires

other to refine targets and battlefield situational awareness.

The ALO must be integrated into each training event the BCT conducts. The FSO must be aggressive in developing a relationship with the ALO and include him in training if the ALO is not aggressive in involving himself. It is critical

the BCT staff and the FSE specifically develop a simple and effective CAS battle drill, including the FA battalion for SEAD operations and marking rounds. If at all possible, the FSO should start planning six to eight months in advance to request live CAS at home station to train the methodology for

airspace deconfliction and SEAD and marking round timing.

One member of the FSE should become the expert and point-of-contact for CAS and artillery integration. The aviation LNO also must have a close relationship and develop good SOPs with the FSE to establish Army airspace

command and control (A²C²) procedures and SEAD drills for the BCT and integrate Army aviation operations.

The ABE has to understand the relationship of fires and obstacles. He briefs the FSO on the obstacle plan and coordinates indirect fires and the observers the BCT wants on those obstacles. He also either must understand how a family of scatterable mines (FASCAM) minefield affects the delivery of fires or at least know that any FASCAM he plans has to be coordinated with the FSO—not planned in isolation.

The FSE should develop an easily understood annex that can be used at all levels to execute the scheme of fires. It can be a matrix, a sketch with notes, written or a combination of those. Most of all, it must be extremely detailed, listing EFSTs, targets, primary observers, alternate observers, triggers, firing units, method of attack, quantified effects, FSCMs, priority of fires (POFs), coordinating instructions and remarks, at a minimum.

Units must have an SOP that lays out detailed rehearsals with a clear agenda. Rehearsals generally should be conducted before the BCT combined arms rehearsal so the FSCOORD can ensure fires are synchronized ahead. It's imperative that fire support rehearsal attendees are there on time and prepared to brief.

The fire support rehearsal is run by the FSO as he planned the operation and understands it best. This allows the FSCOORD to absorb the plan, see problems and identify issues. The FM rehearsal is the confirmation of the fire support plan after refinements from the combined arms rehearsal and intelligence updates are completed. It also rehearses the communications net and includes the verification of the target list and FSCM.

The targeting meeting is the most neglected event of the planning process. Often, it is a "hand wave" or a token meeting. The maneuver leaders need to take ownership of this event. This is not only where fire supporters develop the HPTL, but also where they set priorities and develop a collection plan to support their targeting priorities.

The targeting team plans fires for the brigade to engage the enemy. The brigade staff must forecast and anticipate events to attack the enemy simultaneously throughout the battlefield.

The targeting effort is the critical *decide* element in the *decide-detect-de-*

live-assess methodology. The *decide* function is important and requires close integration between the commander, S2, S3 and the FSE cell.

The targeting team includes, but is not limited to the brigade commander, brigade XO, brigade S2, brigade S3, DS FA battalion commander (FSCOORD), brigade FSO, targeting officer and intelligence and electronic warfare support element (IEWSE) personnel. Also included are other staff members, as necessary, including the ALO, chemical officer, S3 air, ADO, engineer and, if the unit has a brigade reconnaissance troop (BRT), its commander.

The targeting meeting takes many forms, both formal and informal, that include combinations of the targeting team members, depending on mission, enemy, terrain, troops and time available (METT-T) throughout the planning and execution cycle of battle.

The brigade, task force and company FSOs train on building engagement areas (EAs) as part of a combined arms team. This includes developing good targets, getting the grids of the targets using the precision lightweight global positioning system receivers (PLGRs) and identifying triggers in the same way. FSOs should use battle calculus to develop technical and tactical triggers, triggers for the transition of fires deep to close and triggers or criteria for the commander to shift priorities of fire.

The unit should develop standardized trigger and target marking kits and train fire support teams (FISTs) to use them at home station—important tools for FSOs. The fire supporters also must learn how the enemy fights, how he uses terrain, and how to target and plan observation posts (OPs) based on the enemy's doctrine.

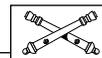
A performance trend at the NTC is units are not planning OPs that support the scheme of fires. Units need to train on placing observers to execute the EFSTs and planned targets. Too often, the FISTs or COLTs are behind terrain or in the wrong place to see the target, erect the targeting head and execute the mission.

First, the observer responsible for a target must be identified and OPs planned that support attacking that target using terra-base products. Additionally, units must train FSOs and commanders that observers must get to terrain where they can see the target on time and have their equipment ready to observe and execute.

The art of fire support is hard and, unlike the science aspects of gunnery and battle calculus, requires judgment and experience to be successful. To help develop the FSO's fire support art, we have outlined some TTPs for success at the NTC or on any battlefield.

What makes the difference in unit performance is a rigorous, well-planned home-station training program that anticipates the missions and battle rhythm of the NTC. Ultimately, the key to success is a standardized method of planning, preparation and execution tied to solid SOPs that have been practiced under various conditions and constraints.

As observer/controllers (O/Cs), our mandate is to coach, train and mentor fire supporters who come to the NTC. We are committed to helping units learn to fight most effectively on the NTC battlefield. *Train the Force!*



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