

he direct support (DS) battalions of the 82d Airborne Division Artillery, Fort Bragg, North Carolina, always have played a significant role in training, assessing and employing task force (TF) mortars. During forced entry or stability and support operations (SASO), it is critical for each brigade to have positive, central control maintained over all its indirect fire systems. To command and control ( $\mathbb{C}^2$ ) and integrate these systems more easily, the 82d Airborne Division developed tactics, techniques and procedures (TTP) called "Team Fires." The task organization of Team Fires normally includes placing one or more of a brigade's 81-mm mortar platoons under the operational control (OPCON) of its direct support (DS) artillery battalion.

This article explains how the 82d's 1st Battalion, 319th Airborne Field Artillery Regiment (AFAR), DS to the 505th Parachute Infantry Brigade, is "taking" responsibility for training the TF mortars by organizing all indirect fire assets into Team Fires.

Team Fires for the Brigade Task Force. The Team Fires organization begins during the alert, marshal and deploy phase with the mortar platoons' attending 1-319 AFAR's orders briefing, rehearsals, rock drills and communication exercises. This ensures the mortar platoons are synchronized with the DS battalion and scheme of fires.

Before executing an airborne assault, the platoons "coffin" (pack) the mortar tubes and ammunition on the artillery heavy drop platforms. This ensures the indirect assets are assembled together on the ground. Depending on the mission, Team Fires also may task organize with elements from air defense and military intelligence.

Conceptually, Team Fires can be considered something akin to a Vietnamera firebase, once on the ground. Generally the task organization during the initial airborne assault remains in effect until friendly units have moved outside the 81-mm mortar maximum range (5,800 meters). Team Fires greatly facilitates interaction and coordination among all types of lethal and nonlethal fire supporters.

According to "Training Circular (TC) 82d Airborne Division Airfield Seizure," the primary purpose of Team Fires is to "facilitate clearance of fires, assist in local security of fire support assets and simplify fire support nets to provide responsive fires." Not only is 1-319 AFAR attempting to meet the division TC's intent, but also expand the concept beyond airborne assaults.

Under Team Fires, a close working relationship with TF mortars allows the FA battalion fire direction center (FDC) to assert positive control over all the brigade's indirect assets and direct the best method of target engagement in accordance with the commander's high-payoff target list (HPTL). See Figure 1. The battalion fire direction officer (FDO) is able to take the commander's guidance for fires and more effectively apply it to targets.

When all assets are centralized, the FDO easily can identify an asset that is available to fire. A simple rule of thumb for using mortars vice artillery is "If a target is within three kilometers, it is generally a mortar target; if it is outside three kilometers, the mission is sent to the cannon battery." Team Fires allows the FDO to pass the mission to a 81-mm mortar platoon in the same manner as sending a mission to a cannon battery.

When the mortar platoons collocate with the batteries, the DS battalion com-

mander can ensure the mortars can account for non-standard conditions. The mortars can receive and implement survey, meteorological messages (Met) and declinate aiming circles more rapidly and accurately.

Also the FDO can compensate rapidly for the range limitations of each weapon system (minimum and maximum) and relieve the TF fire support elements (FSEs) from performing tactical fire direction. The result is more responsive fires for the maneuver commander.

1-319 AFAR assumes responsibility for tracking the mortar ammunition status and tube and personnel strength. The battalion helps transport mortar equipment, ammunition and personnel until the follow-on air-land vehicles arrive. Even after the mortar platoons return to their parent infantry units' control, the FA tactical operations center (TOC) continues to battle track their locations and their status and ensure the mortar platoons receive survey and Met data. To accomplish this, the DS battalion must play an active role in mortar home-station training.

**Integrated Training.** 1-319 AFAR is refining the brigade mortarmen's gunnery skills and integrating mortarmen into artillery and fire support training, whenever possible. As artillerymen, we impress upon the mortarmen the value of crew drill and isolating non-standard conditions. This is done through the use of survey, Met and aiming circles.

The parent infantry battalion focuses the mortar platoon on its core infantry tasks, movement and occupation drills, as well as indirect fire tasks. This integrated training concept capitalizes on the expertise and resources of the three infantry battalions and the DS FA battalion.

Garrison Training. This training begins at the individual and section levels for the mortars. Gun crews and mortar FDCs train as separate components, sharpening their individual skills.

The mortar sections train to a time standard; mortar crew drills can be found in FM 7-90 Drills for the Infantry Mortar Platoon, Section and Squad (3 March 2000) and Army Training and Evaluation Program(ARTEP) Mission Training Plan (MTP) 7-90 Infantry Mortar Platoon, Section and Squad (3 March 2000).

Infantry commanders need to understand that the individual time standards outlined in MTP 7-90 do not support the collective task time standard. For example, the 81-mm MTP standard for an adjust-fire mission is five minutes. However, if the standard of four corrections is used, the mortar FDC will require three minutes and 30 seconds while the mortar sections will need an additional five minutes. Subsequently, the adjustfire mission with four adjustments will take 8 minutes and 30 seconds, which is three minutes and 30 seconds longer than the MTP allows. The mortar MTP accurately reflects required mission processing times.

The Infantry and Fire Support communities should address the MTP short-comings.

By assessing crew drills against a time standard, the mortars will be able to isolate weaknesses (FDC or section, initial or subsequent data) and focus training on those weaknesses. Maneuver commanders, with the help of artillerymen, must identify specific shortfalls and then train to eliminate those

shortfalls. When mortar units are ready to come together and execute collectively as a section or platoon, the DS battalion steps in to help.

An effective training tool has been the forward observer training site (FOTS) equipped with the training set fire observation (TSFO). The fire support team (FIST) or FO party is in the FOTS with radios, and its mortar section (or platoon) occupies a field outside the FOTS. The observer is presented a target on the TFSO screen and sends his call-for-fire (CFF) via FM radio to the mortar FDC. The mortar section executes the mission dry, and when the FDC transmits "Shot," the mission is fired on the TSFO. Soldiers follow normal observed-fire procedures until the mission ends. This training has been extremely beneficial to the mortars and observers and capitalizes on having the entire gunnery team at one location for an after-action review (AAR).

The ability of either element, infantry or artillery, to focus the training is what makes the training most beneficial. This integrated training has been a good way to work out standing operating procedures (SOPs) between the elements to ensure rapid fires. Additionally, mortarmen participate in the FA battalion's Big-Three Training (executive officer, chief of firing battery and gunnery sergeant), focusing on the aiming circle, establishing position and direction control, and rigging tasks.

1-319 AFAR ensures the integrated mortar-artillery training is a major event for the DS battalion. The artillery battalion can provide mortarmen a level of instruction and insight they would not

receive otherwise. This training has enhanced the mortar leaders' confidence and abilities. Additionally, it reinforces the team concept. This close relationship between the artillerymen and mortars allows the mortarmen to observe units that routinely train to achieve the five requirements for accurate predicted fires. Subsequently, the mortars are now more responsive and more accurate with first rounds.

Field Training. 1-319 AFAR has taken an active role in developing not only the mortar sections/platoons, but also the maneuver commanders. 1-319 AFAR validates the training through a rigorous external evaluation (EXEVAL). The program has caused mortar crews to focus their training, significantly improving their combat readiness.

The brigade TF has rolled up the evaluation procedures and format in a published document: "3d Brigade Mortar Training and Evaluation Program." The document outlines procedures for command safety certification, FDC certification, gunner certification, live-fire evaluations, EXEVALs and section certification.

The manual's format for the evaluation is, more or less, standard: an external evaluation lasting 48 to 72 hours driven by the brigade for 81-mm mortars and battalion for 60-mm mortars. Tasks, conditions and standards are taken from the mortar MTP 7-90.

Additionally, the MTP outlines the observer/controller (O/C) package that has been the cornerstone of and key to the success of the program. For the 81-mm EXEVAL, the maneuver battalion

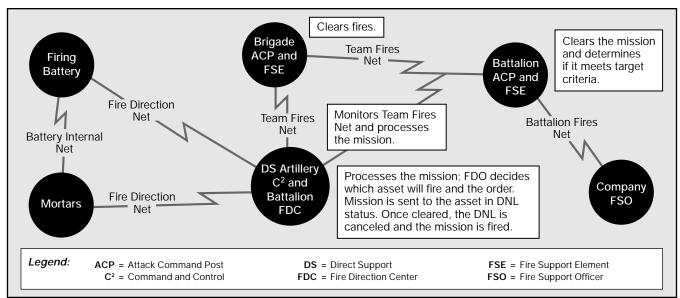


Figure 1: Fire Mission Processing with the Team Fires Net

**Adjust Fire Mission.** For this example, the standard is four adjustments, starting with a 400-mm bracket. The mortar MTP does not specify the number of adjustments. The artillery MTP/STP standard for adjusting fire is four adjustments.

81-mm				M119 105-mm			
	Initial	Subseq.	Total	Initial	Subseq.	Total	
FO	_	_	_	:45	:10	1:35	
FDC	2:00	:30	3:30	:45	:45	3:50	
Guns	2:00	1:00	5:00	:30	:30	2:30	
Total			8:30			7:55	
MTP Standard			5:00 Min.	MTP Standa	rd	7:55 Min.	
Legend: FDC = Fire Direction Center FO = Forward Observer				MTP/STP = Mission Training Plan/Soldiers Training Plan			

Figure 2: Comparison of MTP Standards in an Adjust Fire Mission for the 81-mm Mortar and M119 Howitzer

commander is the evaluation officerin-charge and the headquarters and headquarters company (HHC) commander is the senior evaluator who coordinates the O/C effort, issues a company order, evaluates all maneuver tasks and drives the AAR. The HHC commander also has the latitude to retrain on any task, as needed.

Three additional O/Cs work for the HHC commander: a sister battalion's mortar platoon leader, mortar platoon sergeant and mortar FDC chief. These O/Cs evaluate all tasks by capturing times on the gun line and FDC.

The battalion fire support officer (FSO) coordinates the training and evaluation effort on the observation post (OP) with observers sending CFFs to the platoon and then captures accuracy feedback using the X and Y axis in *ARTEP MTP 6-137-30 Field Artillery Cannon Battery*.

The 60-mm evaluation is much the same with the respective company commander as the senior O/C and the battalion mortar platoon supplying the gun line and FDC O/Cs. The AARs cover procedures, time standards and accuracy for each mission.

The EXEVALs have reinforced the necessity for Met and survey support, and the mortar platoons have learned to expect survey in all positions and have their battalion FSEs forward Met messages during live-fire training.

Training Shortcomings. In reviewing the standards described in MTP 7-90 for mortar fire missions, there is a contradiction between section time standards and total time standards. According to the MTP, FDC and mortar section time standards are not part of the total collective time standard. The MTP does not clearly state the standards for the

mortar platoon's conduct of fire missions. Each individual section in the platoon could achieve its respective MTP time standard and the platoon would not attain the total mission time necessary for it to be rated as trained.

Additionally, Appendix A, which states the guidelines for the time standards, does not clarify the timing of missions. A mortar platoon leader should be able to look at the time standard for mission processing and know how it is broken down by component. This would allow each section to train toward a specific goal to better accomplish the collective task of conducting fire missions.

Figure 2 is an example of how an 81-mm mortar section time standard (five minutes) for low-angle adjust fire does not support the collective tasks time standard (eight minutes and 30 seconds). The figure also compares the mortar time standard to an M119A1 time standard.

Training our Maneuver Commanders in Fire Support. The brigade uses fire planning exercises (FPX) and fire coordination exercises (FCX) to expose the infantry company leadership to fire planning and execution and to emphasize their responsibility in the process. FPXs are routinely conducted in or using FOTS. Battalion FSOs conduct FOTS training, to include CFF procedures, fire support communications architecture, graphic control measures used to echelon fires on the objective and final protective fires (FPF) planning and execution. After completing the FOTS training, the company-team plans and rehearses the company fire plan using a prepared terrain model in accordance with battalion and company tactical SOPs.

The FCXs, or "walk and shoots," are conducted during daylight and consist of a company movement-to-contact and a deliberate attack. These exercises are commonly tactical exercises without troops (TEWTs). The movement-to-contact phase of the FCX uses an opposing force (OPFOR) and fire markers. Companies react to a series of situational targets during their movements-to-contact by calling for and adjusting fires to suppress or destroy enemy targets.

The exercise transitions into live fire during the deliberate attack phase. Company FISTs echelon mortar and artillery fires in support of the attack. The FCX culminates with an attack aviation dry-fire exercise.

These training exercises increase the maneuver leaders' awareness of and ability to employ fire support assets and other battlefield operating systems effectively before committing troops in a direct fire fight.

The ultimate goal of the integrated mortar-artillery training for Team Fires is to ensure all indirect fire assets can provide the most responsive, accurate fires possible for the maneuver commander. Mortars are already the maneuver commander's most responsive fire support asset. Our challenge, as fire supporters and artillerymen, is to make mortar fires as accurate as our cannon fires.

By 1-319 AFAR's "adopting" the brigade's mortars during garrison training, many live fires, FCXs and Combat Training Center (CTC) rotations, the battalion truly is prepared to support the regimental commander's plan—with all assets available to him.



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