

So You Say You Want to Kill With Indirect Fires...

by Major John A. O'Grady

Somewhere in Vilslakia: It has been another long day in the box at the Combat Maneuver Training Center (CMTIC), and an even longer after action review (AAR). The senior observer controller (OC) asks, "So commander, how is your unit going to be more lethal next time with indirect fires?" As you are driving back to your tactical operations center (TOC) to start another military decisionmaking process (MDMP), that one nagging question is the only thing keeping you awake — like a strong cup of coffee brewed at the TOC. You are determined to fix the problem, but you just aren't sure how.

OCs on the fire support team witness this phenomenon rotation after rotation, and battle after battle. This article offers techniques that will increase your unit's success with indirect fires. It also serves as a primer for the first fire support coordinator (FSCOORD) or fire support officer (FSO) meeting with the supported maneuver commander.

Target = Resource Place Holder

Many fire supporters do not understand this concept. The moment a commander places a target on that clear overlay in his TOC, he has allocated resources. Some resources he owns, some he shares, and some he does not own at all. Nonetheless, for that target to achieve the desired effects, the commander has to properly allocate resources such as class V munitions, battlefield calculus, primary and alternate observers, and a communications infrastructure.

Essential Fire Support Tasks

U.S. Army Field Manual (FM) 3-09.31 (6-71) *Tactics, Techniques, and Procedures for Fire Support for the Combined Arms Commander*, defines essential fire support tasks (EFST) as a "task for fire support to accomplish what is required to support a combined arms operation."¹ Failure to achieve an EFST may require the commander to alter his tactical or operational plan. A fully developed EFST has task, purpose, method, and effects. At task force (TF) level

and below, the commander is merely executing the brigade commander's directed EFSTs. This is much like being tasked as the find-and-fix mechanism in a brigade movement to contact, while the other TF is the destroy/defeat mechanism. It is not optional. The FSCOORD/brigade combat team (BCT) FSO must clearly articulate the EFST to the commander and his staff during mission analysis in terms of task, purpose, method, and effects (this begins the integration of fires). It is critical to understand how the EFST supports or is "nested into" each commander's scheme of maneuver. If at battalion TF level, a commander disagrees or believes that he needs field artillery (FA) fires or close air support (CAS) to accomplish his mission, then he must convince the brigade commander early in the planning process. If he waits until the combined arms rehearsal, it will most likely further desync the plan. Typically, the commander tells his FSO to "fix it." The FSO can try to get additional brigade controlled assets, but will likely fail. Brigade commanders should consider developing an EFST playbook that addresses the most likely EFSTs for a particular mission. To ensure that the FA battalion accomplishes all its given tasks, this playbook should be developed by the brigade commander and the FSCOORD. The TF commander should develop the same thing for his mortar platoons or sections. The *CTC Quarterly Bulletin, 2d Quarter, FY96*, offers an excellent discussion on EFST that is still relevant today. This article is a must read for all maneuver leaders!

A fully developed EFST has a specific task, purpose, method, and effects.² Task describes what targeting objective, such as delay, disrupt, limit, or destroy, that fires must achieve on an enemy formation's function or capability. Purpose describes why and how the task contributes to maneuver. Method de-



scribes how the task will be accomplished by assigning responsibility to observers, including the brigade recon troop (BRT), colts, scouts, maneuver shooters, delivery assets, and providing amplifying information or restrictions. Effects quantify successful accomplishment of the task.

Observer Plans

Perhaps the most challenging thing for maneuver commanders is the observer plan, which must be developed to ensure that the target is resourced at the right time to support the scheme of maneuver. The targets and observers should be depicted in tasks to subordinate units so that it is clear in the order, and responsibility is further fixed on the subordinate maneuver commander. Too often, the only level of detail that is ever planned, briefed, or rehearsed is, "Scouts are the primary observer and 'X' company is the alternate for target #AH2001." Observer plans must be planned, in detail, during the MDMP. The best technique is a combined observer plan and target overlay that shows routes, numbered observer locations, and targets. Written on the bottom of the overlay is the emplacement criteria, the specific observer at each location, the fire support (FS) event or target he is responsible for, and the displace criteria. Some will argue that this is too centralized. It is unreasonable to think that doctrine is top-down fire planning and then allow the resources to properly execute that plan to be decentralized. Additionally, who bet-

ter than the commander and his battle staff to coordinate this critical aspect of the plan? Simply using the S2's situation template and route overlays of enemy recon will avoid poorly placed observations points (OPs) that directly conflict with these routes, which often happens when a company commander and FSO plan locations on their own. Using TerraBase products, or 1:25,000 over flight maps that engineers at brigade/battalion TF level typically have, can help identify covered and concealed routes, and OPs with the best line of sight to the target area. Consider the routes and OP locations like they are targets. They can be refined during planning or execution by the company FSO or company commander, but must still achieve the same task and purpose. Refinement during planning must be received at the TOC 2 hours prior to the combined arms rehearsal (CAR).

Know the Enemy and Terrain

Units typically talk and plan in terms of doctrinal enemy formations, sometimes using actual numbers and vehicle types in those formations. This is sufficient for initial planning; however, at some point the FSO, engineer, and S2 need to determine how the enemy will enter our battlespace, at what rate of speed (it will not be the standard 20 km/hr), and how he will use the terrain to his advantage and disadvantage. This analysis should include determining the type of enemy and doctrinal formations he will use in his attack; determining the actual routes he will use, given his most likely course of action; analyzing the terrain in details such as IV lines, chokepoints or defiles, roads or tank trails, areas the enemy would determine as high risk and how he might mitigate risk by using smoke, diversion tactics, or robust counterrecon; and placing on the map the enemy's probable line of contact (PLC) as he would determine it.

Below is a hypothetical example of an OPFOR attack:

During the initial analytical process, certain things will begin to become evident about the enemy and terrain. You may find that the enemy will travel in column formation from his line of departure (LD) to his PLC, along roads and tank trails, at a speed of 20 to 25 km/hr. Then, in the north, he will remain in column through canalized and hilly terrain from phase line "X" to phase line "Y," but his speed will be slowed to 15km/hr. In the south, be-

FIRE UNIT ASSIGNMENT	FORCE PROTECTION	SPECIAL MSNs / MUNITIONS	C2
POSITIONING (RG)	Q36 PROTECTION	SEAD (TIME HACK)	RETRANS PLAN
AMMO DISTRIBUTION	Q36 MVT TRIGGERS	CPHD (OBSV PSN)	MSU / JUMP TOC
AMMO RESUPPLY TRIGGERS	ZONE ACTIVATION	SMK (BUILD / DURATION)	FSCM
BATTERY MVT TRIGGERS	CF SHOOTER DESIGNATION	FASCAM (MULTIPLE AIM POINTS)	POF / TRIGGERS
MET SCHEDULE	COORD W/ DIVARTY	RAP (HE ONLY / HIGH VOLUME)	HASTY vs DELIBERATE
SURVEY PLAN		RED BAG (QUANTITIES)	OBSERVATION PLAN
TECH REHEARSAL		ILLUM	R&S PLAN
BATTERY REHEARSAL		OUT OF TRAVERSE	
BTRY AZ OF FIRE		HIGH ANGLE	

Figure 1. Scheme of Fires

REF: White Paper and FM 3-09.31

tween the same two phase lines, the enemy will use the rolling terrain and go into column formation of approximately 3 to 6 vehicles per formation. He will use the traveling movement technique in the "low-ground" that runs in the direction of his advance that was created by the numerous IV lines, until he reaches the PLC where he will transition to the traveling overwatch.

Using this TTP, you can better target the enemy. We would no longer put targets in the middle of our engagement areas, where the enemy will not go, but perhaps place linear targets in the low ground, or we may attempt to surprise him by targeting roads as he travels in column at a point prior to his PLC. We see units at the CMTC typically place targets in areas that they can easily observe, and place triggers that allow for a constant 20km/hr rate of movement, regardless of terrain. Units must improve at knowing the enemy and visualizing his use of terrain, if we hope to better place targets and observers to achieve the effects stated in the commander's EFST.

Scheme of Fires

FM 3-09.31 defines scheme of fires as "the detailed, logical sequence of targets and fire support events to engage the enemy in time and space."³ It should mirror the scheme of maneuver. Units rarely use a scheme of fires, or use it in the level of details necessary to make it a worthwhile product.

The scheme of fires is developed initially during the COA development and refined during wargaming. The BCT/TF FSO should be filling it out throughout the process. It serves as an on-the-spot checklist and as a reality check. By being disciplined and thinking through how to accomplish and resource each

task, the unit must focus and prioritize what it will and will not do with fires above and beyond EFSTs (which must appear on the scheme of fires). Instead, units simply place targets on an overlay without any real critical thought as to how the targets will be executed. Ultimately, they end up with too many targets, little or no focus, and unresourced events/targets. Had they used the scheme of fires during planning, they would have known to address the execution of fires in enough detail to develop a plan that might work. Additionally, at the time of the OPORD briefing, the scheme of fires is a 90 percent solution and the only remaining refinements are the observer call signs, refined observer location, and refined target locations from subordinate commanders and FSOs. These refinements should be received by the fire support element (FSE) and incorporated into the final plan prior to the combined arms rehearsal. The scheme of fires is not only a necessary planning and execution tool, but it is important to the FA battalion that is supporting the brigade. The scheme of fires drives much of the planning and execution factors within the FA battalion (See Figure 1). These factors, if not properly planned and executed, may adversely affect the maneuver plan.

Battle Calculus

Know the limitation and capabilities of the FA battalion and your FSE and, more importantly, the relevance of those calculations to your unit. Figure 2 is one example of the type of information you, your FSO, and battle staff must understand. It provides a realistic vision of what an FA (155mm) battalion can accomplish.

Figure 2 shows that in the fire-for-effect (FFE) mode, it takes the FA battalion approximately 28 minutes (in 7-

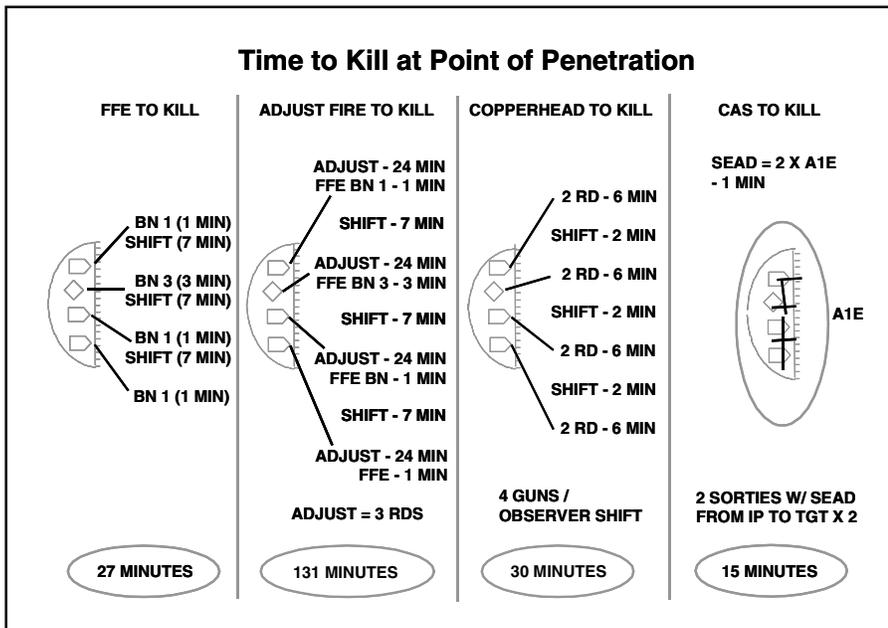


Figure 2

minute shifts) to kill a platoon using the proper volume of fire. It is important to understand that an observer, who can accurately identify each vehicle, provides accurate 6-8 digit grids to each FFE mode. Those are some difficult conditions to meet and resource. Too often, during the planning process, maneuver commanders give unrealistic guidance to their staff and/or FSO. For example, "I want fires to destroy the platoon at the point of penetration." It is probably not because this is unrealistic, but because the commander and the FSO do not really understand the resources — not the least of which is time — that it will take to destroy the platoon. Additionally, during the 28 minutes that you are attempting to destroy the platoon at its point of penetration, what are your subordinate maneuver units doing? What is the enemy doing? What else do you expect indirect fires to do in support of the assault on the objective? Some of the problems with fires not being synchronized with the maneuver plan can be directly related to not understanding the capabilities and limitations of the assets that the field artillery brings to the fight. The FSCoord/FSO or battalion fire direction officer (FDO) can brief you on other means of engagement and time standards associated with them such as group targets and special sheafs.

Incorporating Mortars

Mortars are the TF commander's indirect fire support asset, which equates to four 120mm mortar tubes in heavy units. Unfortunately, they are one of the most underused combat multipliers in

the TF. The most prevalent reasons for this include poor understanding of capabilities and limitations; no ownership by anyone else in the TF, other than the mortar platoon leader; no standard tactical mission assigned, only priority of fires that shift too many times during the fight, with no way of knowing when that priority shifts, which results in no focus of fires; no essential tasks directed to mortars; too many tasks to allow for movement, resupply, and friction; poor visibility at TF level of maintenance, communications, and class V, including resupply vehicles, during the plan, prep, or execute phase; and little or no support from the FA battalion with survey and meteorological (MET) data to ensure accurate predicted fires.

To fix or mitigate some of these issues, a commander must understand the capabilities and limitations of his mortar platoon, such as rates of fire, ammo capacity on the track and resupply vehicle; and mission training plan standards for emplacement and displacement, both mounted and dismounted. This data should be used to overlay the training level of the mortar platoon.

We often see units with unrealistic expectations, and as a result, they overtask the mortar platoon. Much like the battle calculus that was addressed with the FA battalion, you need to do the same thing with the mortars. The mortar platoon leader must be a part of the MDMP process. This ensures visibility of the mortar platoon and its status. Too often, potential issues that were initially ignored become undeniable during the combined arms rehearsal, or worse

yet, execution. No more than two essential tasks should be given to the average mortar platoon. This allows the mortar platoon leader to focus on quality mounted rehearsals, manage class V effectively, provide flexibility for battlefield friction, and still accomplish these tasks to standard.

The mortar platoon leader must be included in the back brief to the commander to ensure he understands essential mortar tasks (EMT) and scheme of maneuver to support those tasks. There is no doctrinal definition for EMT; however, just like an EFST, the EMT has a task, purpose, method, and effects. Failure to achieve an EMT may require the commander to alter his tactical plan. Developing potential EMTs by mission type should be part of the SOP. Additionally, as part of the SOP, the mortar platoon leader should give the S3/XO a more specific brief prior to the OPORD briefing, as well as some required prep for combat reports to ensure the mortar platoon is progressing and ready for combat.

The XO/S3 should have oversight of the mortar platoon. By placing a field grade officer as the oversight agent for the mortar platoon, it relieves the mortar platoon leader of staff burdens, such as logistics and maintenance, allowing him to focus on troop leading procedures. During execution, the mortar platoon leader should report to the S3 his slant, location, and essential task that he is executing or the next task he will execute. The S3 should have the mortar internal net loaded on his vehicle radio. This way the mortar platoon is not overlooked, out of range, desynced with the rest of the TF, or unable to support at the proper time and place. In this same vein, the FSO should brief the S3 and mortar platoon leader prior to the OPORD on how he has coordinated with the FA battalion for survey and MET support for the mortars. If the plan is not coordinated by that time, it will most likely not be coordinated by LD.

Another reason the mortar platoon is overtasked or loses focus is because of the failure to assign support relationships for mortars. When support relationships are clear, then the standard tactical missions and inherent responsibilities are also clear. Instead, units only address priority of fires and nothing more. Become familiar with FM 7-90, *Tactical Employment of Mortars*, specifically, paragraph 3-2 and table 3-1.4

Copy table 3-1 and put it in your smart book — refer to it during MDMF.

Using Artillery Delivered Family of Scatterable Mines (FASCAM)

This discussion is clearly directed to brigade commanders. If war is a thinking man's sport, then FASCAM is a thinking man's munition. Often units try to time the employment of FASCAM to separate the FSE from the advanced guard main body, or a similar use. However, there are other options:

Fire short duration FASCAM early in the deliberate attack (DATK). Fire on the templated motorized rifle platoon (MRP) farthest from the point of penetration in a 200 x 800, medium density, aerial-denial artillery munitions (ADAM) and remote antiarmor mine systems (RAAMs) configuration with the attitude (orientation) along the general orientation of the vehicles as you suspect them to be on the ground. This requires the S2 and engineer to template down to individual vehicle positions, using TerraBase and other products for assistance. Attempt to confirm with scouts or the BRT actual fighting positions. Shoot the FASCAM so that it is complete well prior to your first EFST after LD. Employing FASCAM in this fashion will likely deny the enemy fighting positions, making him less survivable; force him to decide to either fight above ground or use his engineers to clear paths to fighting positions; limit or deny routes from hide positions to fighting positions, or alternate positions; deny favorable terrain to the enemy; and potentially cause him to attempt to enter fighting positions early to bypass FASCAM. Even if you are successful in achieving just one of these effects, this maneuver forced the enemy to fight on your terms, and you have not caused the guns to be tied up at another critical point of the battle.

Fire short duration FASCAM on prep days of a DATK. Firing on templated OPFOR obstacles will require the S2 and engineer to conduct detailed analysis of when and where the enemy is likely to place obstacles and dig motorized rifle platoon (MRP) fighting positions. Putting FASCAM at these locations potentially "catches" engineers working in and around that area and effectively stops, delays, or limits, the enemy's ability to work, thereby reducing the robust obstacle plan. Additionally, you may choose to place FASCAM on the templated MRP where you intend to penetrate, which may limit the enemy's ability to prepare vehicle

fighting positions to standard. Either way, you have once again affected his decision cycles and scheme of maneuver.

Fire FASCAM along templated most likely dismounted and mounted recon routes. Again, the S2's level of detail goes up, but the potential payoff is huge. More planning on the FA side is required since we would likely shoot unconventional dimensions and composition of FASCAM. Consider ADAM only along dismounted routes and RAAM only along mounted routes. The size of these would be more like 50 x 50, 100 x 100, 100 x 50, and 200 x 100. At best, the division track and regimental recon may have an engineer recon patrol with it or near by. Otherwise, minefields placed at the proper places and the proper times can kill, delay, or disrupt an unsuspecting enemy and significantly limit his ability to get an early read of your disposition. Couple this with some effective use of illumination along these same routes, linked to times the S2 has said he will enter sector, and we have potentially further limited his recon effort. Imagine the conversations on the enemy's radio nets during the night as they start to encounter an enemy who is thinking! You have potentially caused blind spots that he now must reseed, divert other assets to, or accept risk with. Either way, you have entered his decision cycle and brought the fight to him.

Granted, there is some risk associated with employing FASCAM and illumination. However, acceptance of risk and to what level will always remain a commander's business. Have the FSCO-ORD/FSO or FA battalion fire direction officer explain, in detail, the technical intricacies of proper employment and ensure that the engineer is included in this meeting.

Fire Support Rehearsals

Suffice it to say, if you do not rehearse well, you will not execute well. Since fires are a BCT asset, the BCT commander should participate in the rehearsal. The BCT commander/S3 and TF commander/S3 should observe the rehearsal with the FSO to confirm the communications structure. This will ensure the observers are set and can observe the trigger and target area. It is best to use frequency modulated (FM) communications to conduct the rehearsal just as it will be executed. By doing so, you confirm your communications structure with all key participants. Whoever is listed as an alternate

or primary observer must be on the net during rehearsal. Ensure that your fire support rehearsal is on the BCT, TF, and company timelines, and does not conflict with subordinate rehearsals and road marches. Getting all observers, especially scouts and maneuver shooters, to participate seems to be the biggest challenge for the FSO. When I say observers, I mean the actual private, sergeant, and lieutenant, with his radio on the net and participating. No other standard is acceptable! Be a ruthless commander and support this!

This article offers some suggestions to the commander on how to successfully assess how well fires are getting into the fight. If I have at least stimulated thought and discussion between commanders and fire supporters, then I have been successful. The commander has to make it work — good luck.

Notes

¹U.S. Army Field Manual (FM) 3-09.31 (6-71), *Tactics, Techniques, and Procedures (TTP) for Fire Support for the Combined Arms Commander*, U.S. Government Printing Office, 29 September 1994, Washington, DC.

²Ibid.

³Ibid., p. A-4.

⁴FM 7-90, *Tactical Employment of Mortars*, U.S. Government Printing Office, Washington, DC, 9 October 1992, paragraph 3-2, table 3-1.

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