

Fires



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Speaking Truth to maneuver

Over-Promising Is Crippling Our Ability to Get Field Artillery Fires into the Fight

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Brigade combat teams (BCT) in decisive action rotations at the Joint Readiness Training Center (JRTC), Fort Polk, La., typically go into battles—offense and defense—with as many as 100 targets or more on their target list worksheets, vastly more than the Field Artillery (FA) battalion can shoot in a single fight. We, as a FA community, are lying to our maneuver brethren about our true capacity to support them with Fires.

Not only is this huge volume of targets physically impossible to deliver in a single battle, it overwhelms brigade and battalion Fires cells (FC) and FA battalion staffs, crippling their ability to deliver any Fires at all. Because there are so many targets, battalion fire support officers (FSO) do not have time to properly plan or synchronize them with the maneuver plan. Either the maneuver battalions have no observers in position to see the targets with the ability to communicate back to the FA battalion or the airspace or ground is not clear when the target is needed by maneuver. Moreover, because their brigades have given them so many targets, FA battalions are not able to properly plan to shoot them all. In exasperation, FA battalion staffs typically default to simply positioning their firing platoons in the best location on the

battlefield to cover most of the targets, hoping that they will be in position to shoot the targets that end up being fired. When the battle begins, FA battalions are frequently on the move, in the wrong position, or have the wrong ammo on hand to shoot needed targets. This inability to deliver Fires breaks trust with maneuver and erodes the entire brigade's confidence in the FA's ability to contribute to the fight.

The root cause of this problem is not difficult to identify. Brigade FSOs are not limiting the number of targets that their subordinate maneuver battalion FSOs plan. As a result, each maneuver company and battalion FSO plans every target that could possibly be needed, over-promising to their maneuver commanders what the FA can deliver during the fight. With three infantry battalions and one cavalry squadron all planning as many targets as they want, target list worksheets rapidly swell to pages in length. The Artillery battalion staff, which is planning the FA support plan (FASP) concurrently with the brigade's maneuver plan, is invariably swamped by this deluge of targets, frequently well after its plan is complete. The Artillery battalion staff can't figure out which targets are essential to meeting the brigade commander's intent for FA Fires. Moreover, because it is physically impossible for the FA battalion to shoot so many targets in a single battle, the Artillery

battalion staff cannot possibly build a plan to execute them all.

The solution is equally simple: we as a FA community must re-learn how to tell maneuver commanders, “No.” Or, more precisely, we must do a better job of providing maneuver commanders with a realistic assessment of what FA Fires can—and cannot—do to support them. And it all starts with the brigade FSO setting limits on how many FA targets get planned.

The Root of the Problem

One of the first things every FA lieutenant learns about fire support planning is “top-down planning, bottom-up refinement.” However, over the past 14-years of the Global War on Terrorism, we as a FA community have forgotten what this time-tested maxim really means.

Today’s junior field grade officers and mid-grade captains have been conditioned by their experiences executing fire support planning in support of wide area security in Iraq and Afghanistan; assets from FA, close combat attack (CCA) and close air support (CA) were plentiful and there was no competition for these Fires. In fact, maneuver battalions often had a Platoon of howitzers dedicated to supporting them, frequently on their own forward operating base. Every unit in contact with the enemy received as much fire support as it could handle (and rightfully so). To be prepared to rapidly employ Fires when they were needed, the prudent FSO planned targets all along his patrol route. Targets were habitually planned on easily identifiable terrain features such as hilltops and road

intersections so that, if the FSO or his forward observers became incapacitated, maneuver leaders could easily call for and adjust fire from these known points.

But in combined arms maneuver, there are many more enemy than there are fire support assets to shoot at them. FA, CCA, and CAS are scarce resources and there is intense competition for these assets. Moreover, the FA battalion is not divided amongst the maneuver battalions; it is the brigade commander’s asset, in direct support of the entire brigade. In this environment of intense competition for fire support assets, all of the tools of fire support planning—not just targets—suddenly become vitally important. High payoff target lists (HPTL), target selection standards (TS), attack guidance matrices (AGM), and priorities of fire settle arguments when two or more elements are both calling for FA Fires. Brigade and battalion FSOs seem to understand this and are generally using these tools reasonably well to prioritize the employment of FA Fires against targets of opportunity.

Yet, targets of opportunity are only half of the FA fight. Equally important is the planning of pre-planned targets. And here is where we as a FA community are setting expectations unreasonably high for our maneuver brethren. Brigade FSOs are generally effective at planning a realistic number of targets in support of the brigade’s “deep” fight (which shape the conditions for the maneuver battalions’ “close” fight). However, they fail to set any limits on how many targets their

subordinate battalion FSOs develop in support of their battalions' maneuver plans. Battalion FSOs, in turn, set no limits on how many targets their Company FSOs plan. Fifteen Company Fire Support Teams and four battalion/squadron FCs can rapidly generate 80 targets or more, way more than the FA battalion could possibly shoot in a single battle. And the unfortunate trend observed at the JRTC is that, as long as these targets arrive at the brigade FC before the target cut-off time, they end up on the brigade's target list worksheet.

How Many Targets Can a FA battalion really Shoot?

The answer to this question lies in the lost art of “battlefield calculus,” simple math and educated guesses based on expected friendly and enemy capabilities. If all of its Fire Support systems are working well, the typical BCT on rotation at the JRTC takes about ten minutes to shoot a single FA mission (from the call for fire through “shot” on the first volley, including the communication from the sensor through the brigade to the gun line and the clearance of airspace and ground). The typical battle (offense or defense) at the JRTC lasts about four hours, from line of departure (LD) to the culmination of friendly or enemy force. FA battalions training at the JRTC generally have three batteries. This provides enough information to do some rough math:

$$(4 \text{ hour battle} \div 10 \text{ minutes per fire mission}) \times 3 \text{ firing batteries} = 72 \text{ fire missions}$$

To be sure, this is rough math. Every time the FA battalion masses all three batteries on one target (which could happen frequently if the battalion is shooting at armored target), three fire missions must be subtracted from this total rather than one. But, more importantly, nearly half of the fire missions shot during a typical battle will be targets of opportunity such as high payoff targets identified by information collection assets or counter-fire missions against enemy indirect fire assets detected by friendly counter-fire radars. This leaves the FA battalion with the capacity to fire only around 30 pre-planned fire missions in a typical battle at the JRTC. Thus, only around 30 targets should be planned by all of the FSOs in the brigade and appear on the target list worksheet that the BCT takes into a fight.

This estimate can be further refined with a little more mission analysis by the brigade FSO and the FA battalion staff. How much smoke does the FA battalion have? Do they have a family of scatterable mine (FASCAM) capability? Does the FA battalion have precision munitions and, if so, how many? How much longer does it take to employ these special munitions than it does to fire high explosive (HE) rounds? All of these facts, which can be provided by the FA battalion staff during parallel planning, will help the brigade FSO refine the number of FA missions, by type, that his brigade should plan for an operation.

How does the brigade FSO Limit the Number of Targets the brigade Plans?

The simple answer to this question is that the brigade FSO plans all of the FA targets, not just the targets for the brigade's "deep" fight. Put another way, the brigade FSO plans targets in support of the brigade-level fight during the brigade's course of action (COA) analysis (war game) and then apportions the rest of the pre-planned targets the FA battalion can feasibly fire to the maneuver battalion/squadron FSOs, probably weighting the main effort. He then ruthlessly enforces this limit, forcing subordinate FSOs—and their maneuver commanders—to decide which targets are the most important.

However, the art lies in how this limit is communicated to subordinate FSOs. Of course it is communicated in Annex D (the Fire Support annex) to the brigade operations order (OPORD). In fact, it should be sent to battalion FSOs and the FA battalion staff as a draft version of Annex D included with the warning order (WARNORD) published by the brigade staff as an output of war gaming so that subordinate battalions can execute parallel planning. However, the best way to communicate this allocation of FA targets is not simply to say, "battalion X, you are apportioned Y number of FA targets during phase Z."

Why isn't this the best method? One answer is that the FA battalion, which is planning in parallel, is a critical audience

for the apportionment of targets published in this draft version of Annex D. Telling the FA battalion staff how many targets are apportioned to each maneuver battalion does not provide them with enough information (specifically where in each battalion area of operations (AO) the target falls, when each target will be shot, and what type and how many rounds should be shot at each target) to effectively plan to support the brigade commander's intent for Fires.

Another reason that this is not the most effective way to apportion FA targets is that it gives no guidance to the battalion FSOs as to how to employ the apportioned targets in accordance with the brigade commander's intent for FA Fires. For example, in the defense, FA smoke is a great way to silhouette the enemy inside the engagement area to make them easier to engage with direct fire weapon systems. FA smoke is also a great way to conceal a maneuver element's move from a primary to an alternate battle position. But if the brigade commander's guidance for FA Fires is that they be massed at obstacles to suppress the enemy while he is attempting to breach, these planned smoke targets are outside the brigade commander's intent. The brigade FSO must provide battalion FSOs with guidance on how to plan their apportioned targets within the brigade commander's intent for FA Fires.

For this reason, the best way for the brigade FSO to apportion FA targets is to plan the targets for the battalion FSOs and then allow the battalion FSOs to refine

them—top-down planning, bottom-up refinement!

Top-Down Planning

It is enshrined in our doctrine because it works. When executing the war game as part of the military decision-making process (MDMP), staffs at each level war game two levels down. As FM 6-0, Change 1 (dated 11 May 2015) puts it, during war gaming a staff “identifies tasks that the force one echelon below it must accomplish, using assets two echelons below the staff.” In other words, the brigade staff assigns tasks to its subordinate maneuver battalions in the COA sketch and COA statement produced during COA development. Then, during the war game, the brigade staff makes educated guesses as to how subordinate companies will execute these tasks. Where needed, the brigade staff allocates brigade assets—including FA targets—to the maneuver battalions to assist their companies in winning these war gamed fights.

For the brigade FSO, this means planning all of the FA battalion’s pre-planned targets, not just the ones that support the brigade’s “deep” fight. While participating in the war game, the brigade FSO should plan targets to support the battalion and Company fights and record these targets on a working copy of the brigade synchronization or execution matrix as well as the draft fire support execution matrix and the draft target list worksheet. At the end of the war game, the brigade FSO sends these draft products out to his subordinate battalion FSOs and the

FA battalion staff as part of a draft Annex D attached to the brigade’s WARNORD 3 (published at the end of war gaming). This is top-down Fires planning.

The more detail the brigade FSO can provide for these targets in this draft Annex D the better. Ideally, the FSO should have already produced draft fire support tasks (FST), each complete with a task and purpose, during COA development. Now, with all of the FA targets (as well as the other fire support assets such as CAS, CCA, and electronic warfare attack) apportioned, the brigade FSO can fill in some of the detail of the method for these FSTs. Each target can be given a munition type and a volume/duration of fire. Tactical triggers and phases can be given for each target. This information will provide the FA battalion staff with enough information (where, what, when, and how much fire) to allow it to begin doing its own COA development to develop a FASP to support the brigade with FA Fires.

But, more importantly, communicating these planned targets to the maneuver battalion FSOs as part of FSTs gives battalion FSOs an understanding of the purpose for each target they have been apportioned. This “why” allows them to do bottom-up refinement while remaining within the brigade commander’s intent for FA Fires.

Bottom-Up Refinement

The “why” is the critical component of bottom-up refinement. It tells subordinate maneuver battalion and Company FSOs what they can and cannot do in refining

each target. The target can be moved, its method of engagement can be changed, or its tactical trigger can be refined. However, changes cannot be so extensive that they change the purpose of the target. The purpose is the anchor that keeps the target tied to the brigade commander's intent for FA Fires.

How does a battalion FSO know that a FA target is his to refine? The brigade's draft Annex D will provide plenty of queues. The purpose in each FST should be focused on friendly forces; if the purpose of a smoke target is, for example, "allow Task Force X to complete the breach," then the battalion FSO for that Task Force knows that the target is theirs to refine. If the purpose is less obvious, or applies to multiple maneuver battalions, the brigade FSO can provide other clues. If his battalion is assigned as the primary observer, or if the target is in his maneuver battalion's AO, then a battalion FSO knows that the target is probably his to refine. Most brigades have standard operating procedures that provide "target blocks" designating which target numbers are to be used by each element in the brigade. The brigade FSOs can indicate which targets may be refined by which maneuver battalion by using numbers corresponding to each battalion's target block. If all else fails, the brigade FSO can simply explain in the coordinating instructions of his draft Annex D which targets may be refined by each maneuver battalion FSO.

Once the battalion FSO identifies that a FA target is his to refine, he takes the target

into his own maneuver battalion staff's war game as an asset available to support the plan. As the staff war games the event for which the target was envisioned (smoke for the breaching operation, suppressive or disruptive Fires for an enemy stuck in an obstacle, etc.), the battalion FSO adjusts the target location or fire order so that it better fits his battalion's scheme of maneuver.

If, during the maneuver battalion's war game, the battalion FSO identifies a need for FA Fires for a purpose not envisioned by the brigade FSO, he must not use one of the allocated FA targets, allocated for a different purpose, to fill this gap; altering a target to this extent will de-synchronize the brigade's fire support plan, since the FA battalion is already planning against this target with its original purpose, location, trigger, and fire order. More importantly, refining a target to such an extent will place it outside of the brigade commander's intent for FA Fires.

Likewise, the battalion FSO must not plan a new FA target to cover a need not filled by an allocated target; this is over-promising to maneuver. This new target is not being planned for by the FA battalion and will not be ready to shoot when the maneuver battalion commander needs and is expecting it. If the battalion FSO cannot fill this gap with organic internal fire support assets (battalion or Company mortar), the maneuver battalion staff must alter its maneuver plan or find some other way, such as a maneuver asset, to fill this gap in capability. If the need is so critical that not having an additional FA target will result in mission failure, the maneuver

battalion commander must talk directly to brigade commander and the brigade fire support coordinator (FSCOORD) along with the FA battalion commander and convince them to change the brigade's entire fire support plan.

How does the brigade FC decide whether to accept a refinement to a FA target from a subordinate maneuver battalion FC? The first and most important measure is whether the refined target still meets the original purpose articulated in the FST for which it was planned. The brigade FC is the first, most important line of defense in ensuring that revisions to pre-planned FA targets still meet the brigade commanded intent for FA Fires. Another important factor in deciding whether to accept a revision is whether the refinement arrived before the target cut-off time published in Annex D of the brigade OPORD. Refinements that arrive too late are likely to be ineffectively disseminated throughout the brigade and may well de-synchronize the brigade fire support plan during execution. Equally important is whether the refinement is feasible. Is the refined location still inside the FA battalion's range at the time it will be shot? Does the FA battalion have enough ammunition to fire the refined fire order? The brigade FC has to ask these questions and more before it accepts any refinement to a FA target.

At target cut-off time, when all of the refinements have been reviewed and accepted or denied, the overriding concern of the brigade FSO must become building

a common, shared understanding of the final target list. While the Advanced Field Artillery Tactical Data System (AFATD) can manage target lists, updated target list worksheets should still be handed out at the brigade fire support rehearsal. The FA battalion fire direction officer (FDO) should also review the target list worksheet at the FA technical rehearsal to make sure all participants have received all of the refined targets. Brigade FSOs can also use "tricks of the trade," such as numbering targets in increments of fives (e.g., AB1000, AB1005, AB1010, etc.) and replacing refined targets by adding one to the target number (e.g., AB1000 is refined to AB1001, AB1005 is refined to AB1006) to eliminate target duplication.

None of the ideas presented here are new. Before the Global War on Terrorism, combined arms maneuver was the only core competency of the United States Army. The techniques described above are only some of the many tools Field Artillerymen routinely used to integrate FA Fires into the maneuver fight. Frankly, even at the height of the American Army's competence in combined arms maneuver—during the Gulf War and during the initial invasion in the war in Iraq—BCTs still struggled to do this well. But, the core concept described here—top-down fire planning, bottom-up refinement—was a universally understood and generally well executed method to keep FA Fires focused on the brigade commander's intent and avoid over-promising to maneuver at all levels.

As our Army became more practiced and more effective in wide area security, we forgot how to use these tools. But as we return to a focus on training in combined arms maneuver at the JRTC and other combat training centers, we will re-learn these lessons. And, as the FA community regains these skills, we will once more reign as the King of Battle.

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