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Ground Clearance of Fires : Part I

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Ground Clearance of Fires: Part I

By LTC Pat Proctor, PhD

"Maneuver commanders clear fires. Normally, managing this is delegated to their main command posts and executed by the battle staff under the lead of the FSE. In either analog or digital operations, silence is not consent - clearance of fires requires positive action."

--FM 3-09.31

Tactics, Techniques, and Procedures for Fire Support for the Combined Arms Commander

While the Field Artillery has made great strides over the past two years at the Section and Platoon level in improving its proficiency in gun line procedures and technical fire direction, Fire Supporters continue to struggle to integrate fires into the combined arms fight. Among the biggest challenges the Fires community faces is in executing the basic clearance of fires battle drill — both ground and air clearance.

Admittedly, this is a combined arms problem; while the ground tactical commander owns the ground and airspace and the aviation commander owns the airframes traveling through the airspace. However, Fire Supporters are entrusted by maneuver commanders with the clearance of fires process. Fire Support officers, NCOs, and Soldiers are embedded in maneuver formations at every level from the Platoon through the Brigade specifically to integrate fires into combined arms maneuver and clearance of fires is a key part of that integration.

This article will address only the first part of the clearance of fires equation: ground clearance of fires. The next article in this series, Part II, will address airspace clearance of fires.

The State of the Field Artillery

Infantry Brigade Combat Teams (BCTs) executing combined arms maneuver at the Joint Readiness Training Center (JRTC) struggle to deliver timely Field Artillery fires in support of their operations. Tables 1 and 2 show average fire mission processing times, from receipt at the Brigade Fires Cell (FC) to firing of the first round of a fire mission. These two tables provide times for counterfire and other fire missions (pre-planned and targets of opportunity), respectively.

This data is taken from the last four Decisive Action rotations executed by active component Army BCTs at the JRTC. However, BCTs vary widely in their ability to deliver timely Field Artillery fires; some BCTs take an average of 19 minutes or longer to process fire missions while others process fire missions at an average of 10 minutes or less. Moreover, the trend over the past four Decisive Action rotations is toward shorter fire mission processing times. Still, there is much room for improvement.

What immediately stands out from this data is that a great deal of the total fire mission processing time is consumed at the Brigade Fires Cell (FC). This time directly equates to the amount of time required to obtain air and ground clearance of fires. In the over two years since the JRTC resumed habitually training combined arms maneuver, two issues have consistently slowed the process of ground clearance of fires. First, BCTs have struggled to effectively manage and employ fire support coordination measures (FSCMs). Second, BCTs have struggled to maintain situational

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Table 1: Counterfire Average Mission Processing Times

Echelon	Average	TC 3-09.8 Standard (Digital)	Delta
Brigade FC	08:47	N/A	
Battalion FDC	5:14	00:35	+04:39
Platoon FDC	03:57	00:35	+03:22
M119A3 section	01:13	00:30	+00:43
M777A2 section	5:31	01:00	+04:31
Average Total Time	**13:01**		

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Table 2: Pre-Planned and Target of Opportunity Average Mission Processing Times

Echelon	Average	TC 3-09.8 Standard (Digital)	Delta
Brigade FC	08:06	N/A	
Battalion FDC	03:32	00:35	+ 02:57
Platoon FDC	04:17	00:35	+ 03:16
M119A3 section	02:47	00:30	+ 02:17
M777A2 section	02:11	01:00	+ 01:11
Average Total Time	11:12		

understanding of where their Soldiers are on the ground.

Fire Support Coordination Measure (FSCM) Management

BCTs consistently struggle to maintain a common picture of FSCMs across all of the elements in their formation. From no-fire areas (NFAs) to coordinated fire lines (CFLs) to restricted fire areas (RFAs), every element and echelon in the Brigade frequently has a

"Proper use of FSCMs…facilitates the clearance of fires…if positioned correctly and disseminated to all higher, adjacent, and subordinate units."

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different understanding of what FSCMs are in effect. During the execution of fires, this creates friction which slows down fire mission processing times, as one fire direction center (FDC) or one FC intervenes because — correctly or incorrectly — it believes that a fire mission violates an FSCM. Or, worse, no element intervenes because they are unaware of an FSCM, resulting in collateral damage to civilian infrastructure, civilian casualties, or fratricide. In the aftermath of such a traumatic incident, tactical operations centers (TOCs) across the Brigade become hesitant to clear fires, unsure of their understanding of the currently active FSCMs, further slowing the clearance of fires process.

Units are frequently surprised to experience these problems at the JRTC because they arrive believing that the Advanced Field Artillery Tactical Data System (AFATDS) has already solved the problem of maintaining a common picture of FSCMs across the Brigade. But in practice, this is not the case. Communications that might be relatively easy to maintain in a simulation center or in the field during home station training are very difficult to maintain in the complex terrain and competitive environment of the JRTC. At any given time during a rotation, some AFATDS in a BCT are communicating over the secret internet protocol router (SIPR) network, some are communicating over frequency modulation (FM) radio, and some are not communicating at all. FSCMs created or deleted in this patchwork communications environment are frequently not disseminated to every element and every echelon in the Brigade. In such an environment, the AFATDS alone cannot be relied upon to sustain a common understanding of FSCMs across the Brigade; backup procedures are required.

The first and most effective way to fix this problem is to put a leader in charge of fixing it. The Brigade Fire Support Coordinator (FSCOORD, the Field Artillery Battalion Commander) must designate one person in the Brigade as the "CINC-FSCM." The Brigade Fire Support NCO (FSNCO) is probably the right person for the job; he works in the Brigade FC, supervises the AFATDS operators and the Fire Support Specialists, and has the rank and experience for the task.

The CINC-FSCM's duties and responsibilities are, simply put, managing the FSCM system for the Brigade. First, the CINC-FSCM (the Brigade FSNCO) should be the only person in the Brigade authorized to add or delete an FSCM from the AFATDS database. Thus, other elements, whether a platoon Forward Observer (FO), a Company Fire Support Team (FiST), or a Battalion FC, should never input or delete an FSCM from their digital systems. Instead, they should contact the CINC-FSCM to establish or delete the FSCM. The CINC-FSCM will then make sure that the change is made in his AFATDS and dis-

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seminated digitally to all of the other AFATDS in the Brigade. For those AFATDS that are not communicating digitally, the CINC-FSCM ensures that they receive the change via voice communications over FM or SIPR voice-over-IP (SVOIP).

The CINC-FSCM is also responsible for periodically checking to ensure that FSCMs are common across all of the AFATDS in the Brigade through a Fire Support synchronization meeting. Multiple times every day, the CINC-FSCM should run a meeting attended by every element in the Brigade that has an AFATDS to ensure that they all have a common understanding of what FSCMs are currently in effect. This meeting can be conducted over SVOIP, FM, or some other means of communication. During the meeting, the CINC-FSCM should, as a minimum, review the number of active FSCMs by type that he is tracking for the Brigade. If an element has a different number of any category of FSCM, the CINC-FSCM can talk to that element separately, reviewing each FSCM by name or number, to identify which FSCM that element is missing or incorrectly tracking as active.

A few additional notes are in order about the Fire Support synchronization meeting. First, the more frequently a Brigade conducts this meeting, the shorter it will be; frequent maintenance of the fires common operating picture (COP) will ensure that there are fewer discrepancies during each review. Second, the Fire Support synchronization meeting is also a great venue to review other elements of the fires COP. During this meeting the Brigade Fire Support Officer (FSO) could review the current target list or the current Fire Support tasks (FSTs). The Counterfire Officer could review active radar zones and the search azimuth for each radar. The Field Artillery Battalion Fire Direction Officer (FDO) could review the current tube strength for each Battery. This meeting is a useful venue not just to synchronize FSCMs, but to synchronize every element of the fires COP.

The Most Important FSCM

One final and very important note is in order before leaving the subject of FSCMs.

"The first step in effective clearance of fires is the use of maneuver control measures. Any time you can procedurally depict ownership of land the better for clearing fires. If no boundaries are established, all fires short of the CFL (if established) must be cleared by the higher headquarters instead of the headquarters closest to the fires…. Serious consideration should be given for establishing areas of operation for each subordinate maneuver unit, consistent with the scheme of maneuver."

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Another trend that is consistently seen at the JRTC is that Brigades are failing to establish and employ the most fundamental and essential FSCM of all: the unit boundary. The *FM 3-09,* Field Artillery Operations and Fire Support (dated April 2014) notes that a unit boundary is "both permissive and restrictive in nature." It is permissive in that a unit may use direct and indirect fires inside its own boundary without external coordination. A boundary is restrictive in that "units do not fire across boundaries unless the fires are coor-

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dinated with the adjacent unit or the fires are allowed by a permissive fire support coordination measure, such as a coordinated fire line."

Yet, BCTs executing combined arms maneuver at the JRTC frequently do not establish boundaries between subordinate maneuver battalions and squadrons. The BCT is left with one massive Brigade area of operations (AO) and every fire mission must be cleared with every subordinate unit before it can be fired. By contrast, if individual Battalion AOs have been designated with unit boundaries, only the Battalion that "owns" the ground where the fire mission is to be fired must be contacted for clearance of fires. If the tactical situation permits, this Battalion AO could be further segregated into company AOs, speeding ground clearance of fires even more.

Establishing unit boundaries is a maneuver responsibility; it is the BCT or maneuver Battalion S3 who will actually establish a unit boundary. However, Brigade and Battalion FSOs must be actively engaged, advocating for the establishment of these boundaries. While the ground tactical plan for a Brigade attack or defense might not require unit boundaries, Fire Supporters must remind their maneuver counterparts that integrating Fires into the ground tactical plan does; unit boundaries facilitate the rapid clearance of fires during execution of the combined arms fight.

Second, unit boundaries need to be managed by the Brigade just as do other FSCMs. And here, again, Fire Supporters have a responsibility to reminding their maneuver counterparts of their role in facilitating the integration of fires into the combined arms fight. Even after the establishment of a Battalion AO, a maneuver Battalion cannot effectively own this ground without help from the Brigade S3 and Battle Captain. While the Battalion owns the ground in its AO, there will be many other Brigade elements present in that AO, including Field Artillery Platoons, elements of the Brigade Support Battalion, and many other elements of the BCT's combined arms team. It is the responsibility of the Brigade S3 to, as much as possible, add graphical control measures to restrict the movement and positioning of these elements, including main supply routes (MSRs), position areas for artillery (PAAs), and a Brigade support area (BSA), just to name a few. Likewise, it is the Brigade Battle Captain's job to ensure that these Brigade elements are adhering to these control measures and, more importantly "checking in"— coordinating with maneuver Battalion TOCs — as they enter and leave each Battalion's AO. Fire Supporters, embedded in each maneuver element at every echelon can assist in this process by tracking the locations of Brigade Fires assets as part of the fires COP.

Keeping Track of Where We Are

The introduction of Army battle command systems (ABCS) to BCTs over the last two decades has revolutionized warfare. But it has also caused an atrophy of some of the U.S. Army's most basic mission command skills. Moreover, nearly a decade and a half of the Global War on Terrorism has further atrophied those mission command skills that are specific to combined arms maneuver. Nowhere is this atrophy more acutely felt than in the task of tracking the location of individual Soldiers on the battlefield.

The family of Army systems that are used to communicate unit locations from lower to higher—ranging from the Force XXI Battle Command Brigade and Below (FBCB2) through Blue Force Tracker (BFT) to the Joint Battle Command-Platform (JBC-P)—have increased by orders of magnitude the fidelity with which a BCT can "see itself" in its TOC. But these systems have also accelerated the atrophy of a procedure that is critical to ground clearance of fires in combined arms maneuver: tracking the front line trace of subordinate units.

JBC-P and its predecessors do not replace these tracking procedures. While a JBC-P will provide a "blue dot" to indicate the location of itself on the battlefield, this icon will almost certainly not accurately reflect the location of every Soldier in that element. Rather, this icon indicates the location of the single vehicle or TOC in which that system is installed. And, while JBC-P communications are considerably more reliable than the patchwork of SIPR and FM networks that connect AFATDS, JBC-P and global positioning systems (GPS) do occasionally break, shut down, or lose connectivity. Thus, these systems cannot be relied on alone to clear ground for fires.

Without a system in place to track the front line trace of subordinate units, the ground clearance of fires slows to a crawl. The Brigade FC must call the subordinate maneuver Battalion (or every subordinate maneuver Battalion if no Battalion boundaries have been established). The Battalion FC or Battle Captain must then call every subordinate Company to clear the fire mission. And each Company Commander must call the affected Platoon Leaders to ensure that they are clear of the fire mission location. Each of these communications might only take a few seconds, but these seconds quickly add up to the more than eight

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U.S. Army photo released.

minutes that it is currently taking to clear a fire mission at the Brigade FC prior to firing.

The Fires community used to know how to do this. In fact, a large part of the reason that Fire Supporters are embedded in maneuver units at every level from the Platoon to the Brigade is to help their maneuver counterparts execute this process. Before the Global War on Terrorism, there were numerous techniques for tracking the front line trace of subordinate units. Standard operating procedures (SOPs) varied from unit to unit, but generally involved periodic voice transmissions from lower to higher to communicate unit locations. At the JRTC, the Fire Support Division recommends an SOP of every 200 meters or phase line or every 15 minutes during a fight. That is, every time an element moves 200 meters or crosses a phase line, its Fire Supporter provides an updated six-digit grid for its front line trace to the Fire Support element at the next higher echelon. Likewise, if the element is not moving, it calls every 15 minutes to communicate that there is no change to its front line trace. Note that the reported six-digit grid is not necessarily the location of the Fire Supporter making the report; it is the location of the forward-most Soldier in the reporting element, whether the point-man in a platoon formation or the point-man of the lead platoon in a company movement. Platoon FOs report their front line trace to their Company FiST. The Company FiST reports its front line trace to the Battalion FC. The Battalion FC keeps track of these reports on an analog map and, as possible, updates digital systems such as AFATDS or JBC-P with manually input icons to reflect these front line traces.

If every element in the clearance of fire chain is using such a procedure to track the front line trace of its subordinates, ground clearance of fires can be significantly streamlined. In fact, if all of the techniques suggested in this article are employed, the ground clearance of fires process can be reduced to a single communication between the Brigade Battle Captain and the Battle Captain for the Battalion that owns the ground in which a fire mission is being called. When called to clear ground, the Battalion Battle Captain simply verifies the front line traces of subordinate Companies with the Battalion FC and verifies the locations of Brigade assets inside his Battalion AO. He then replies to the Brigade Battle Captain with "clear" or "not clear."

No matter how much the Field Artillery improves its proficiency in its core competencies on the gun line and in FDCs, it will not be able to provide timely fires in support of maneuver if Fire Supporters, on behalf of their maneuver commanders, cannot rapidly

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clear these fires. None of the tactics, techniques, or procedures (TTPs) described in this article are new. In fact, when BCTs habitually executed combined arms maneuver at our combat training centers (CTCs) in preparation for war, these TTPs were SOPs. These skills have simply eroded over the nearly 15 years of the Global War on Terrorism. Nor are any of these TTPs complicated or hard to learn. The Fire Support community simply needs to reinstate these practices as SOPs and integrate them into their training at home station and at the CTCs. With training and repetition in these simple techniques, the Field Artillery can reclaim its title as the King of Battle in the combined arms fight.

Note: Special thanks to MAJ Matt Childers and MAJ JR Borce for their help in editing later drafts of this article.

About the Author

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