

January/February 2017

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# REDLEG Update

The United States Army Field Artillery Branch's Newsletter

**Happy New Year!**  
**From the FA CMDT's Desk**

**Redefining the Field Artillery Task**

**If I Could Do It Over Again:**

Lessons from the Future and Reflections on Failures in FA Battalion Command

**Reinventing the Wheel:**

Operational Lessons Learned by the  
101st Division during Two Warfighter Exercises

**Winning at the NTC: A Fire Support Perspective**

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**Purpose:** Founded in 2011, the *Redleg Update* provides past and present Field Artillery leaders with a monthly update of informational highlights to assist in their individual, collective and professional training efforts, as well as report on activities occurring throughout the Field Artillery community.

**Official Distribution:** The *Redleg Update* is distributed by the Commandant of the U.S. Army Field Artillery to key members of the Field Artillery chain of command across the U.S. Army. The current edition can be found @

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Stephen J. Maranian  
Colonel, U.S. Army  
Commandant,  
United States Army Field Artillery School

*Stephen J. Maranian*

**RFIs, Notes, and Notices:** To submit a Request for Information (RFI), please email the POC listed below.

**Points of Contact:**

We appreciate those who have provided announcements, notices, articles and lessons learned.

Additionally, if you have a story of interest or wish to initiate a discussion on any topic or issue facing the Field Artillery community, contact Mr. John Folland, (580) 558-0831, or the editor of the *Redleg Update*, Ms. Sharon McBride, Field Artillery Public Affairs officer, (580) 558-0836.

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# From the Commandant's desk

# Happy New Year!

2017 will be a great year for our Army and will also be a great year to be in the Field Artillery! I am excited with the direction we are taking the branch, and want to make sure we carry the momentum we gained in 2016 into 2017.

2016 was a significant year for the Field Artillery (FA) branch and the United States Army Field Artillery School (USAFAS). During the past year we've made a significant impact improving our core competencies. Several developments and initiatives came to fruition; at the heart of which was the publication of our Field Artillery Vision.

**“Be the world’s premier Field Artillery force; modernized, organized, trained, and ready to integrate and employ Army, Joint, and Multinational Fires, across multiple domains, enabling victory through Unified Land Operations.”**

To name all the FA and USAFAS programs that had a successful start or met significant milestones in 2016 would take up too much space, but some highlights include inserting Joint Fires Observer (JFO) training into our professional military education, building a foundation for a more robust Master Gunner Course, embracing the Joint Air Ground Integration Cell (JAGIC) concept, bringing back and securing funding for the Joint Operational Fires and Effects Course (JOFEC), and developing the Brigade Combat Team Fires Orientation Course.

Also in 2016, the CSA approved the designation of the Fires Targeting Center as the Army Targeting Center (ATC). The ATC is now the Army’s proponent for targeting with a primary focus of Joint training policy, doctrine, and integration. The ATC provides significant outreach to operational units by assisting

them in implementing and sustaining Joint targeting accreditation and certification programs. Creating the ATC is great news, as it now gives the FA branch a voice in the Joint Targeting Enterprise. It also gives us representation in Joint, Interagency, and Multinational commands.

In 2016, the role of our Field Artillery Warrant Officers has once again expanded. As our premiere targeting technicians, they will have a comprehensive knowledge of all the technical data and resources available on the battlefield and how to pull it all together in the targeting process. As our newly defined Mission Command Targeting Systems and Sensors integrators, our 131As will be experts with the newly fielded Advanced Field Artillery Tactical Data System (AFATDS) v6.8.1.1. and all supporting ABCS systems to provide a remarkable 3-D COP for targeting and the permissive employment of Cross Domain Fires.

This initiative will give us increased capabilities to dramatically improve integration of organic and joint targeting sensors and effective data sharing of Army and Joint Mission Command systems. This will further enable the targeting process and fire support planning to deliver accurate and timely fires in support of the Commander’s scheme of maneuver.

Additionally, we have witnessed the sustained impact the Division Artilleries have made on the fires and maneuver forces. They are invaluable to divisions as Force Field Artillery headquarters, and in aiding BCT commanders with the training, certification, and talent management of our Redlegs in BCT formations.

We continue to make progress in our transition back to a greater need and focus on our Decisive Action skill sets. Integrating fires with maneuver is hard work and the center of what makes us a true profession. We are seeing tremendous effort by units regain-

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## FA CMDT ...Continued from Page 3

ing our field artillery core skills. It is imperative we share our lessons learned and best practices to accelerate growth across the force.

The art and science of our profession is synchronizing fire support and the supporting arms in the maneuver command post. We effectively design battlefield geometries, Fire Support and Air Space Control Measures, and the electromagnetic spectrum that enable permissive cannon and rocket fires AND air support at critical times and locations to allow the maneuver commander to bring all assets to bear simultaneously and win decisively.

In order to achieve this, we will train – hard and repetitively to rebuild muscle memory. Our Redlegs must get the repetitions under their belts to inherently know how to do routine things routinely.

We are starting to see the rewards of our re-focused training at the Combat Training Centers, during Warfighter exercises, and training at home station. Our leaders and Soldiers are beginning to get the repetitions needed to build our fires profession muscle memory.

For example, in this edition of the Redleg Update, there is a great lessons learned article from 101st Division Artillery (DIVARTY) regarding what they learned during two, division-level warfighting exercises (WFXs) about battlefield geometry, the division counterfire fight, unmanned aircraft system (USA) integration, and fires planning [{See Page 12, “Reinventing the Wheel: Operational Lessons Learned by the 101st Division during Two Warfighter Exercises}](#).

The ability to manage ACMs and FSCMs is a point of either success or failure for many units at the National Training Center (NTC). Additionally, in this edition there is another good lessons learned article from the leaders of 2-17 Field Artillery Regiment, 2nd Infantry Division (DIVARTY) about what they encountered during their NTC rotation. [{See Page 18, “Winning at the NTC: A Fire Support Perspective”}](#).

Both articles note that, although we have seen visible improvements across our force in getting back to core competencies, essential habits need to be re-

formed and new procedures developed to improve on our collective fires skills.

Sharing opportunities for improvement, the lessons we’ve learned, and how we’ve applied them is important, and I encourage other units going through CTCs, WFXs, through the MCTP, or home station training to distribute what they have learned with us here at the USAFAS and across the force.

These lessons in turn will allow us to put together solid training strategies and unit training programs that will ensure we are able to meet the demands placed on our Soldiers and on the FA branch – throughout 2017 and beyond.

In closing, I would like to say that ultimately the Field Artillery branch is about our people.

No matter how technical our operations become or how wide our global missions expand, our people continue to be our most treasured resource. I am excited about the future and about where we as a branch are headed. The Field Artillery has never been more needed or more relevant than it is today.

All of our Redlegs should be proud of what they have accomplished in 2016, and where they are headed in 2017. We are and will continue to build trust and confidence in the hearts of our maneuver brethren.

**24/7/365.**

**Regardless of weather.**

**In any terrain.**

**Quickly, and accurately, and Danger Close.**

**King of Battle!  
Redleg 6**

*COL Stephen J. Maranian*

# Redefining the Field Artillery Task

By MAJ Loreto V. Borce, Jr, CPT Justin P. Thorkildsen and CPT Gordon D. Rutledge,  
Fire Support Division, JRTC Operations Group

The United States Army has been fighting the Global War on Terrorism for over 14 years, and the direct support (DS) field artillery battalion's ability to conduct proper fires planning leading to accurate and timely fires has suffered. Many field artillery battalions have conducted more non-standard missions than doctrinal field artillery missions during the past decade of combat. They have conducted everything from counterinsurgency operations to assuming the responsibilities of land owners and to being used as transportation companies. Many field artillery Leaders are unfamiliar with and inexperienced in developing a Field artillery Support Plan (FASP). When brigade combat teams (BCTs) execute Decisive Action Training Environment (DATE) rotations at the Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana, the field artillery battalion plays an increasingly prominent role in the BCT and its effects (or lack of effects) are felt across all aspects of the mission. Unified Land Operations (ULO) are defined as "the continuous, simultaneous combinations of offensive, defensive, and stability or defense support of civil authorities' tasks" (Army Doctrine Publication 3-0, 2011). The field artillery battalion supports this by facilitating the brigade commanders' ability to seize, retain, or exploit the initiative in an offensive, defensive or stability operation. However, after observing numerous field artillery battalions at the JRTC, a common trend is that field artillery battalions are not timely and accurate in providing fires. During mission analysis and through course of action development, the most important portion of the FASP is often undervalued and overlooked: the Field Artillery Task (FAT). Every function of the field artillery battalion is driven to ensure that each FAT can be successfully supported with timely and accurate fires.

This article will discuss the importance of developing meaningful FATs around which a feasible, acceptable, suitable, distinguishable and complete FASP can be created to support the brigade commander in achieving his overall objectives.

## *How Fire Support Tasks (FSTs) are developed*

Critical to understanding how a FAT is developed, we also need to understand how Fire Support Tasks (FST) are developed and the intrinsic relationships be-

tween the two. Both the FAT and FST are created during the Military Decision Making Process (MDMP). In our doctrine, fires planning is a continuous process and central to this process is the development of FSTs to support the brigade mission.

After the mission analysis brief is concluded, the brigade commander (BDE CDR) will issue his initial planning guidance for fires (including desired tactical tasks and concerns that will drive restrictions on employment of fires). The Brigade Fire Support Officer (BDE FSO) can then develop and propose to the field artillery battalion commander/fire support coordinator (FSCOORD) FSTs that support each of the BDE CDR's desired tactical tasks for fires. During the development of the FSTs, the BDE FSO must have a direct and open line of communication with the field artillery battalion operations officer (BN S3) to ensure that each FST to be assigned to the field artillery battalion is individually and collectively supportable based upon positioning, timing, ammunition availability, and combat power remaining.

The importance of the relationship between the BDE FSO and battalion S3 cannot be over stressed, especially in a DATE rotation. They should over communicate with each other to ensure that brigade and the field artillery battalion share a Common Operational Picture (COP) for field artillery assets (including general support and reinforcing units). This dialogue between the BDE FSO and BN S3 occurring early in the brigade MDMP process will ensure that the field artillery battalion will achieve the BDE CDR's desired effects. Failure to achieve a FST may require the brigade commander to alter his tactical or operational plan; each FST is a critical task that must be accomplished to prevent risk of failure.

Simultaneous with the development and approval of each FST, the BDE FSO and his staff will develop target description, trigger, location, observer, delivery asset, attack guidance, and communications plan (TTLODAC) for each FST ensuring that each is executable and synchronized with the other brigade warfighting functions in both time and space. In this way the FST, with included TTLODAC, is handed off to the maneuver battalions for target refinement and to the field artillery battalion to

*Continued on Page 6, See FAT*



**FAT** ...Continued from Page 5

enable parallel planning during FAT and FASP development.

## Example of a fully developed FAT

**No FAT in Doctrine?**  
**Why FATs are good for you.**

Understanding the importance of a FAT means understanding the role of the field artillery on the battlefield. “The field artillery has the role of destroying, defeating, or disrupting the enemy with integrated fires to enable the maneuver commanders to dominate in unified land operations.” (Army Techniques Publication 3-09.23, 2015) A FAT is a task, purpose, and execution whose success can be assessed. The task is a type of fire to be provided. The purpose is a tactical effect to be placed on an enemy formation or unit. The execution is simply TTLODAC data and the assessment is described in terms of methods of performance and effectiveness.

The brigade operations order and annex D provide the field artillery battalion the FSTs to support the brigade scheme of maneuver. During mission analysis the field artillery battalion staff must take each FST and develop them into a FAT to allow the commander to visualize all of his required tasks and provide guidance for development of the FASP. The most important portion of the FASP details when, where, and with what ammunition the brigade’s field artillery assets must be in order to support the brigade commander’s FSTs.

Phase 2: Attack							
Phase 2a: Build up of Combat Power in PAA BLUE							
FAT 1: Provide Suppressive Fires on 841 <sup>st</sup> Armored Formations JAAT (support BDE FST 1);							
PURPOSE 1: Allow CCA and CAS to destroy enemy motorized formations crossing international border, along PL Betty							
EXECUTION:							
FA POF: 1-71, 1-87, 2-22							
C BTRY POF to 1-71, B BTRY POF to 2-22; POF to 1-87							
FAT	T	T	L	O	D	A	C
FAT1	KC0001	Identification of 30% of 841 <sup>st</sup> Motorized Elements Crossing PL Betty	18T VP 506 856	P: 1-71 A: CCA	P: C BTRY A: A BTRY C: B BTRY	P: BTRY 2 HE/PD (155mm) A: BTRY 4 HE/PD 105mm	P: 3-6 Fires Dig A: 3-6 Fires Voice
FAT1	KC0005	Identification of 30% of 841 <sup>st</sup> Motorized Elements crossing PL Betty	18T VP 521 824	P: 1-71 A: CCA	P: C BTRY A: A BTRY C: B BTRY	P: BTRY 2 HE/PD (155mm) A: BTRY 4 HE/PD 105mm	P: 3-6 Fires Dig A: 3-6 Fires Voice
FAT1	KC0010	Identification of 30% of 841 <sup>st</sup> motorized Elements crossing PL Betty	18T VP 536 805	P: 1-71 A: CCA	P: C BTRY A: A BTRY C: B BTRY	P: BTRY 2 HE/PD (155mm) A: BTRY 4 HE/PD 105mm	P: 3-6 Fires Dig A: 3-6 Fires Voice
Position Guidance: C BTRY PAA BLUE 18T VP 4089 7612 AOF 1000; A BTRY PAA BLUE 18T VP 4089 7612 AOF 1300 O/O RED 18T VP 4755 8085 AOF 2200; B BTRY PAA BLUE 18T VP 4089 7612 AOF 0600 O/O PAA PURPLE 18T VP 4450 8200 AOF 0800							
Restrictions/FSCMs: FSCL along PL Betty; CFL along PL Archie; NFA and CFZ over all friendly unit locations; RFA over villages of Razish, Guba, Barasu, and Nabran							
ASSESSMENT:							
MoE1: 30% of 841 <sup>st</sup> Motorized BTG vehicles mobility or firepower kills. MoP: Suppression of 841 <sup>st</sup> Motorized vehicles achieved in under 10 minutes							

Phase 2a: Build up of Combat Power in PAA BLUE							
FAT 2: Provide counter-fire on enemy fire support assets in AO WARRIOR							
PURPOSE 2: Deny 841 <sup>st</sup> Motorized BTG fire support assets the ability to mass indirect fires on 1BCT							
EXECUTION:							
FA POF: 1-71, 1-87, 2-22							
C BTRY POF to 1-71, B BTRY POF to 2-22, POF to 1-87							
FAT	T	T	L	O	D	A	C
FAT2	KC 0020	Identification of 841 <sup>st</sup> MRL units	18T VP 578 858	P: Q36 A: UAS	P: C BTRY A: A BTRY C: B BTRY	P: BTRY 3 HE/PD (155mm) A: BTRY 3 HE/PD (105mm)	P: 3-6 Fires Dig A: 3-6 Fires Voice
FAT2	KC 0025	Identification of 841 <sup>st</sup> 155mm SP units	18T VP 588 871	P: Q36 A: UAS	P: C BTRY A: A BTRY C: B BTRY	P: BTRY 3 HE/PD (155mm) A: BTRY 3 HE/PD (105mm)	P: 3-6 Fires Dig A: 3-6 Fires Voice
FAT2	KC 0030	Identification of 841 <sup>st</sup> MRL units	18T VP 505 910	P: Q36 A: UAS	P: C BTRY A: A BTRY C: B BTRY	P: BTRY 3 HE/PD (155mm) A: BTRY 3 HE/PD (105mm)	P: 3-6 Fires Dig A: 3-6 Fires Voice
FAT2	KC 0040	Identification of 841 <sup>st</sup> 155mm SP units	18T VP 515 915	P: Q36 A: UAS	P: C BTRY A: A BTRY C: B BTRY	P: BTRY 3 HE/PD (155mm) A: BTRY 3 HE/PD (105mm)	P: 3-6 Fires Dig A: 3-6 Fires Voice
Position Guidance: C BTRY PAA BLUE 18T VP 4089 7612 AOF 1000; A BTRY PAA BLUE 18T VP 4089 7612 AOF 1300 O/O RED 18T VP 4755 8085 AOF 2200; B BTRY PAA BLUE 18T VP 4089 7612 AOF 0600 O/O PAA PURPLE 18T VP 4450 8200 AOF 0800							
Restrictions/FSCMs: FSCL along PL Betty; CFL along PL Archie; NFA and CFZ over all friendly unit locations; RFA over villages of Razish, Guba, Barasu, and Nabran							

ATP 3-09.23 (that supersedes FM 3-09.23) does not mention development of FATs. The current doctrine only talks about the development of FSTs. While similar in structure and language, the intent between the two is different and this short gap in our doctrine is preventing units from achieving the brigade commander’s intent.

Continued on Page 7, See FAT



*“The field artillery has the role of destroying, defeating, or disrupting the enemy with integrated fires to enable the maneuver commanders to dominate in unified land operations.” (Army Techniques Publication 3-09.23, 2015) U.S. Army photo released.*

## **FAT**...Continued from Page 6

Using the Decide, Detect, Deliver, Assess (D3A) framework, brigade FSTs drive the various warfighting functions of brigade to decide, detect and assess, while the FAT is focused entirely on delivery and assessment.

ATP 3-09.23 needs to re-address the lack of FAT development and place back into our doctrine how to develop FATs to support the brigade mission. In addition, it needs to explain why it is critical to both field artillery and maneuver mission accomplishment.

### **Conclusions**

During numerous rotations at the JRTC, observations indicate that units develop ad hoc and incomplete FASPs resulting in subordinate units not knowing their specified tasks or the intent backing them. The importance of developing a FASP based upon clear and achievable FATs is crucial for the success of the field artillery battalion and brigade combat team in the DATE.

In conclusion, the field artillery battalion must be able to provide a clear and concise intent, task, and purpose to its subordinate firing units. The FAT thoroughly

achieves this requirement. Using FATs derived from brigade FSTs, a FASP that is feasible, acceptable, suitable, distinguishable and complete can be developed by the field artillery battalion that wholly supports the brigade commander’s intent and requirements.

Finally, without FATs being included into doctrine, a critical process within the field artillery battalion remains missing that will ultimately degrade the effectiveness of the branch as we move back towards synchronized massed fires against a near-peer competitor. Hopefully, this article will spark discussion within the field artillery community to bridge this doctrinal gap. 

### **References**

*Army Doctrine Publication 3-0. (2011). Unified Land Operations. Washington, DC: United States Department of the Army.*

*Army Techniques Publication 3-09.23. (2015). Field Artillery Cannon Battalion. Washington, DC: United States Department of the Army.*

# If I Could Do It Over Again

**Introduction.** My time as Senior Fire Support Trainer (“Wolf 07”) at the National Training Center has given me the tremendous privilege of seeing other FSCOORDs in action and of looking back with a critical eye on my own performance in command. The below is a hypothetical memo to the me who was getting ready to assume command two years ago, in the hopes that it will prove useful to current and incoming Field Artillery Battalion Commanders as you think about where to focus your energies and prioritize your staff’s efforts.

MEMORANDUM FOR: LTC Jon Shine, Incoming Battalion Commander, May 2014

FROM: LTC Jon Shine, Senior Fire Support Trainer (“Wolf 07”), National Training Center, December 2016

SUBJECT: Lessons from the Future and Reflections on Failures in FA Battalion Command

1. Congratulations on your impending assumption of command. It’s going to be every bit as awesome as you are anticipating. You’re ready – mostly. The purpose of this memo is to identify the ways you’re not, which will result in failures to prepare both yourself and the battalion to do what they’re really supposed to do: provide synchronized, timely, and accurate fires to enable the Brigade win the first fight of the next conflict. My post-command assignment as Wolf 07 has given me ample opportunities both to observe other FSCOORDs struggling as you did, and to reflect on my failings and what you should do differently.

2. First off, there are a number of things you are thoroughly prepared for and are going to do well in command. The Pre-Command Courses (both at Ft Leavenworth and Ft Sill) have prepared you well for the transition to organizational leadership. You’re fully competent in the technical aspects of delivering fires and maintaining the Five Requirements for Accurate Fires. In terms of managing systems and doing routine things routinely well, you know what you’re doing – even if you will sometimes allow yourself to get bogged down by some of this. Remember to inspect what you expect, and hold the XO accountable for the systems. One thing that took too long to figure out along these lines: your CSM is looking for areas to focus his attention on, so tell him what systems or processes you are concerned about and let him loose to address them. If it’s going to keep you up at night, tell CSM. Choosing a single, simple message and repeating it often was fairly effective (“We exist for one purpose: to destroy the army of another country!” Meh, fine. You’re no Patton, but for some in the unit it was valuable as standing guidance and intent).

3. It’s the tactical side where I fell short, and based on observations from the NTC, so do many of our peers in FA Battalion Command. You are not just the FA Battalion Commander, you’re the BCT’s FSCOORD; wrap your head around the 40/30/30 rule of thumb. That means in execution you should generally spend 40% of your time as the FSCOORD, a senior staff Officer to the BCT, 30% as a BN CDR and 30% with the Brigade Commander at meetings and forward in the BCT TAC or Mobile Command Group. That ratio may not sound fun, but it’s your job and nobody else can do it. You must drive the BCT’s targeting process and own the IC/Fires Rehearsal (or at least co-own it with the RSTA Squadron Commander). If you don’t lead these critical events personally and make the staff do them over when they’re substandard, they will fail because the BCT will not fight a deep fight and fires will be unresponsive.

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**Memo**...Continued from Page 8

4. As FSCOORD you have to wrap your arms around the ADAM/BAE cell from the first phase of MDMP and ensure they are fully integrated in the planning and execution of the fight, including development, deconfliction, and rehearsal of airspace control measures for every airspace user that can operate in the BCT's AO. Ensure the TOC and TAC staff know how to network the TAIS, DSGS-A, and AFATDS through the DDS Server, facilitating rapid digital transfer of targets (from DCGS to AFATDS) and trajectories (from AFATDS to TAIS) to strike the BCT's High Payoff Target's as they are acquired and effectively clear airspace both for fires and for aviation maneuver.

5. The IC/Fires Rehearsal is imperative if you want to actually engage targets for the BCT. Make it a goal to graduate from a backbrief (with each participant standing on a terrain model by him/herself briefing their task and purpose from a script) to a true rehearsal of each critical event, including all of the observers (especially the BCT's Recon Squadron – your best and most often-forgotten target acquisition asset!), all of the shooters, and all of the airspace users. I know you can't visualize this yet: get on Fire Knowledge Network for ideas or go TDY to a CTC to observe other units doing it well. At the end of the rehearsal, reiterate the target cutoff time and the time that everyone must be on the net for the Fires Technical Rehearsal. Announce them again after the BCT CAR so your maneuver brothers can ensure their Fire Supporters participate.

6. Make the Fires Technical Rehearsal the standard for your weekly Digital Sustainment Training (DST). It will only get good when it becomes muscle memory for the whole team, so get the SOP in place and make the fires enterprise exercise it every week. As soon as possible, force the various elements to move farther and farther out from the motor pool and each other to build the team's retrans planning and communications troubleshooting skills. Force yourself to attend personally, even if it takes forever and is immensely boring the first few times. Induce friction by shutting down various communications platforms to force the team to truly learn and rehearse the PACE plan (do they really know which JCR address is the one they send their Call For Fire to? Does the operator sitting behind that JCR know what to do with it? Are JCR's built as observers in the AFATDS to receive digital CFFs?). Have the CSM or another trusted agent check each echelon to ensure the targets are actually being generated by the FOs and FISTs and not in BN or the BDE FSE. Put a clock on the different types of missions so you know how long it actually takes our BCT to process them using our own systems. Make the BCT FSO use a realistic tactical scenario to drive the event. Begin with a BCT IC/Fires Rehearsal so that everyone understands the scenario you are rehearsing, and to build muscle memory for that event as well – and invite the SCO and your maneuver brothers to attend and participate, including their scouts and mortars in the event as well.

7. Speaking of communications, you and the rest of the fires force need to get better in a hurry or our maneuver brothers will appropriately lose faith in us. We often tell ourselves, "if we're not talking, we're just camping," but it's worse than that because we are allowing our brothers to fight fair fights without the benefit of fires to weight their efforts, and we're sucking down resources that warfighters are supposed to be using. I wasted too much effort on HF as a long range voice option. It's not great at that. It is an excellent option for long range digital communications. HIMARS battalions are using it as a matter of routine. You don't have enough

*Continued on Page 10, See Memo*

HF radios on your MTOE in a BCT, but I asked the commander for support, and he prioritized the Fire Supporters over everyone except RSTA squadron - and the maneuver battalion commanders were happy to give up HF radios in exchange for responsive fires. Send someone to a HIMARS unit that is doing it well, and then integrate the HF digital net into your DST – ideally it becomes the P in your PACE for everyone not connected via LAN, making FM the Alternate due to the range and bandwidth challenges of the ASIPs. JCR is great in many ways, but it has challenges, too: find them out through rigorous DST and decide what to do about them.

8. For certification and gunnery tables, I did fairly well, but not well enough to ensure effectiveness when we went to NTC. I was right in identifying a lack of proficiency in basic gunnery above the section level, and in focusing initially on howitzer gunnery and fighting for every mil; you have to have confidence that the guns will hit what they're aiming at. But you need to quickly move beyond that shaving every possible second from the process. In general, your Soldiers are too risk averse, resulting in too much hesitation to send the mission down or hook up the lanyard, and too quick a readiness to call themselves (or their Platoon or Battery) out of a mission. That costs both time and mass on the user end, and it reduces, rather than increasing, confidence in ourselves and our equipment. Establish and enforce fundamental gunnery standards in accordance with your DIVARTY Red Book and TC 3-09.8 Annex D, but then put a stopwatch on every mission you can and challenge everyone to be faster. Shave mils AND seconds. On FIST Certifications, schedule them in the field over multiple days and force FOs to demonstrate the ability to set up all their equipment and process a mission digitally from their own FS3 before they can be considered certified. This not only underscores the premium you place on digital fires, but it also will help you and your FS NCOs truly "see yourselves" in terms of what FIST equipment is actually on hand and operational in every FIST and FSE. Make the BCT FSO maintain this status as a running estimate and have the XO manage and report FISTs as complete systems (NMC unless they can lase a target and send a digital CFF – if you rely on the 026 report you will only know when they can't roll out of the motorpool). Report yourself as Red in Command and Staff until you've truly fixed it. Give the S3 planning guidance that ensures rigor in Table XIIIs (and ask DIVARTY to do the same for Table XV and XVIII): a live fire FA Table has not been completed unless the unit has executed an R3SP, reacted to indirect and direct fire contact, treated casualties and executed both CASEVAC and MEDEVAC, reacted to IED, conducted a live hip shoot, executed multiple survivability moves, conducted an operational decon, and transferred control of the guns (including MVVs) to another FDC. You must personally lead every AAR for Platoon and above Tables, and never be afraid to re-train when they fall short of your expectations. Keep the times that the unit achieves on each mission and provide it as feedback.

9. When you fight with the Brigade, part of your 30% "with the BCT CDR" time should include discussion of the Decisive Point for every operation. He can define it for you as he visualizes the battle; take that as guidance for when and where to mass joint effects, then give guidance to the FSO to do the science to make it happen. When time runs short, that is your critical event that must be rehearsed prior to LD, even if nothing else can be. The commander should also approve or modify the Fire Support Tasks (FSTs) that you recommend before you give planning guidance to the FSO. For the FSO and the Battalion FDO; tell them to mass the Battalion. Their experience to this point has led them to think in terms of Platoon and Battery missions as

# Memo...Continued from Page 10

the standard; train them to default to BN mass and use Priorities of Fire to get effects to the right unit at the right time. Empower the FDO, publicly and frequently, to deny fire missions that don't meet Target Selection Standards and to change the fire order to BN mass for any mission. Develop a Fires Warfighting Function Pre-Battle Conditions Check for the BCT FSO to report back to you prior to LD. This should include the running estimate of FIST capabilities, confirmation that FSCMs have been pushed to every AFATDS in the BCT and confirmation received at the FSE, primary comms have been checked with every sensor and shooter in the FA Tech Rehearsal, and which targets were rehearsed, digital comms status with the ADAM/BAE and the counterfire cell, Radars are IPRTD, and your combat power. If something is not right, you owe the BCT CDR a risk decision on whether to fight degraded or give you time to fix it. Update your CCIR after every field problem as you identify what you actually need to know and what you don't to fight as the FSCOORD. You don't really need to know when every CAT goes down, or even every gun; you need to know when any element is at risk of failing to accomplish a FAT (for the BN) or FST (for the FISTers). In execution, those may be the only CCIR you really need to know, and they will keep the team focused on those tasks you've told them are critical.

10. The PCC's help you think a lot about leader development and character. Still, you should make your LPDs more tactical than I did. We did some great ones on ethical decision making, database management, and the board process, but you waited too long to get your leaders thinking and learning about the tactical execution of fires. Take your FSOs off post for a Fire Support TEWT: find some interesting terrain (both rural and urban), move to an OP location, give them an enemy and friendly scheme of maneuver, and have them tell you how they would plan observation and fires. Critique each other's plans. Then do the same thing with the FS NCOs. Lead LPDs on planning and executing fires in support of the Offense (including breaches) and the Defense. As FSCOORD, get the BCT XO and S3 to attend and support a LPD for the TOC and TAC staff on Targeting and Proactive Counterfire, which you personally need to lead. I did this very effectively, but only in the final month of command, which was far too late. Help the staff understand the difference between the Brigade's fight (which we, the BCT staff, help the CDR fight) and the Battalions' fights (which we may enable with Brigade assets, but only as directed by the CDR's visualization). Targeting is how we, the BCT staff (again, 40% of the time you're a staff guy, Mr. FSCOORD), synchronize the assets that only the BCT has (and Battalions don't) to achieve the visualization that the Commander described to us.

*For all the preparation I had, nobody told me how much fun command would be. I treasure every day I had, but being here at the NTC forces me to also acknowledge that I should have been much better. Too often I allowed "urgent" events to overtake truly "important" ones; at the end of the day, it has to be about readiness. I could have made the Brigade's fires system so much more lethal, but only experience, both in command and as Wolf 07, have given me the perspective to see it. Looking back at AARs over the years, it is clear that we as an Army have struggled to deliver effective fires since the founding of the NTC. Our business is hard, but we owe it to our Soldiers and the maneuver forces we support to get better, so that we force future OC/Ts to come up with new topics to AAR us on. More importantly, we owe it to our nation to ensure we are ready to win the first fight of the next conflict with massed, timely, and effective fires.*



# Reinventing the Wheel

## Operational Lessons Learned by the 101st Division during Two Warfighter Exercises

By MAJ Travis Robison and CPT Alex Moen

The U.S. Army reactivated active component division artillery (DIVARTY) units in 2014 after a ten-year hiatus. Although the DIVARTY is not a new organizational structure, its latest incarnation comes at a period when critical operational-level fires skills have atrophied. DIVARTY members now find themselves relearning skills that were once common artillery competencies. Additionally, incorporating tactics, techniques, and procedures that operationalize technological innovations and lessons learned in combat during the past fourteen years is a learning challenge.

The 101st DIVARTY reactivated in 2014 and participated in two division-level warfighter exercises (WFXs) in one year. During these exercises, the 101st DIVARTY relearned essential skills, developed new procedures, and had the unique opportunity to reevaluate lessons learned to identify best practices for dealing with organizational and operational challenges. This article provides a brief background of WFXs and common fires issues, outlines the context of the 101st DIVARTY's training scenarios, and summarizes four important lessons learned as best practices.

### Warfighter Exercise Background and Commonly Observed Issues

WFXs are distributed, multiechelon, and multicomponent events focused on training mission command to brigade, division, and corps-level commanders and staffs in unified land operations scenarios.<sup>1</sup> These scenarios focus on mission-essential tasks and core warfighting competencies using an adjustable operating environment against a hybrid, near-peer adversary in an austere theater of operations.

1 United States Army Combined Arms Center (CAC), *Mission Command Training Program (MCTP) Overview Brief*, Mission Command Training Program website (10 March 2016), accessed 28 April 2016, [https://combinedarmscenter.army.mil/orgs/cact/MCTP/Front\\_Page/MCTP\\_CMD\\_Brief.pdf](https://combinedarmscenter.army.mil/orgs/cact/MCTP/Front_Page/MCTP_CMD_Brief.pdf) (login required).

The U.S. Army Combined Arms Center Mission Command Training Program (MCTP) at Fort Leavenworth, Kansas, is the principal combat training center for mission command training and hosts WFXs.<sup>2</sup> Observer/controller/trainers are subject-matter experts who coach, teach, and mentor participating staffs, while MCTP senior mentors coach commanders during the training events.

Experience has shown that MCTP trainers and mentors consistently note common issues experienced by units they observe. For example, across the warfighting functions, most issues stem from challenges associated with integrating and synchronizing division efforts at the operational level of war. Divisions typically struggle to delineate fights within the deep-close-security operational framework, to synchronize combined arms maneuver, and to effectively target. They also consistently underestimate sustainment needs and insufficiently plan protection efforts. Focusing on fires, MCTP observers frequently note that DIVARTYs labor to weight the main effort with artillery assets, conduct insufficient planning, and produce limited assessments during the decide, detect, deliver, and assess (D3A) targeting process.<sup>3</sup>

In contrast, The 101st DIVARTY minimally experienced these deficiencies during its two WFXs. This allowed the organization to focus instead on improving its collective fires skills and developing techniques needed to support the division.

### 101st DIVARTY Training Scenarios

The 101st DIVARTY participated in WFXs 15-05 and 16-02. The first occurred in support of the

2 Army Regulation 350-50, *Combat Training Center Program* (Washington, DC: U.S. Government Printing Office, 3 April 2013), 2, accessed 28 April 2016, [http://armypubs.army.mil/epubs/pdf/r350\\_50.pdf](http://armypubs.army.mil/epubs/pdf/r350_50.pdf).

3 CAC, MCTP Overview Brief, 18.



101st Division Artillery soldiers process a counterfire mission during the November 2015 Warfighter Exercise 16-02 at Fort Campbell, Kentucky. U.S. Army Photo.

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36th Infantry Division (Texas National Guard) less than eight months after the DIVARTY's activation. This event served as the 101st DIVARTY's validation exercise. It also provided an opportunity to test the DIVARTY's modularity by having it serve as the force fires headquarters (FFHQ) for a National Guard division in accordance with the Army Total Force initiative.<sup>4</sup>

DIVARTY's second exercise supported the 101st Airborne Division (Air Assault), and was the first time it fully integrated within its parent division as the FFHQ.

Both scenarios replicated a decisive-action environment in a fictional country. The primary adversary possessed near-peer capabilities (i.e., combat systems with capabilities similar to or better than our own) and presented itself as a hybrid threat combining conventional and irregular forces.

4 John McHugh, Army directive 2012-08 (Army Total Force Policy), 4 September 2012, accessed 16 May 2016, [http://www.apd.army.mil/pdffiles/ad2012\\_08.pdf](http://www.apd.army.mil/pdffiles/ad2012_08.pdf).

Each scenario contained similar elements, such as a forward passage of lines held by host-nation forces, offensive operations, a contested river crossing, and rear-area security operations. The main differences between the scenarios centered on the impacts of terrain, the enemy's defensive capabilities, and friendly-force task organization for combat.

Overall, the similarities between the scenarios allowed the 101st DIVARTY to relearn doctrine and validate its decisive action proficiency. Scenario differences facilitated the development of new tactics, techniques, and procedures supported by doctrine.

### Key Lessons Learned

The following discussion highlights the 101st DIVARTY's four key lessons learned regarding battlefield geometry, the division counterfire fight, unmanned aircraft system (UAS) integration, and fires planning.

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**Battlefield geometry.** Coordinating and synchronizing fires is one of a DIVARTY's primary duties as the FFHQ. Although there had been limited DIVARTY participation in WFXs since reactivation, initial MCTP observations highlighted difficulties DIVARTY and division headquarters had with establishing, disseminating, and tracking permissive fire support coordination measures (FSCMs). These expedite, as opposed to restrict, attacking targets with fire and provide graphic control measures.<sup>5</sup>

These observations did not apply to the 101st DIVARTY during either of its WFX experiences because it had established and monitored FSCMs in the Advanced Field Artillery Tactical Data System and Joint Automated Deep Operations Coordination System. Instead, the primary battlefield geometry challenge resulted from the planned placement and trigger-based movement of FSCMs.

The two most important FSCMs were the coordinated fire lines (CFLs) and fire support coordination lines (FSCLs). The former is the line beyond which the establishing headquarters may fire surface-to-surface munitions without additional coordination. Corps headquarters typically establish the latter within its area of operations to coordinate the expeditious attack of targets beyond the line by joint weapons systems. Since these FSCMs were permissive, any unit could shoot beyond them after coordinating with the establishing headquarters.

Besides their importance in facilitating fires, CFLs and FSCLs helped delineate the areas of responsibility for attacking targets (see figure). The corps "owns" the area beyond the FSCL, the area between the FSCL and CFL defines the division's deep fight, and areas short of the CFL belong to brigade combat teams (i.e., the division's close fight). During WFX 15-5, the 101st DIVARTY learned that these permissive control measures were too far apart if planned for based on the maximum range of conventional munitions. Planning FSCMs based on the maximum range of cannon and rocket systems inadvertently allowed the enemy to position where DIVARTY could not fire without using its limited supply of extended-range or precision munitions. As a result, doing so created safe havens in which the enemy operated with limited disruption.

<sup>5</sup> CAC, MCTP Overview Brief, 17.

Although rocket munitions such as guided multiple launch rocket systems and Army tactical missile systems might have been available to range targets within these artificial safe havens, their limited availability and attack guidance criteria made it impractical to do so. As a result, the division had to request or "re-role" air support assets to engage enemy formations in order to continue shaping its deep fight.

Similar issues arose when planning the CFL at the maximum range of cannon systems. Doing so forced the 101st DIVARTY to use general support fire assets in the close fight instead of to shape future operations.

CFLs should be as close as possible to the forward line of troops (FLOT). The DIVARTY planned CFLs at two-thirds of the maximum range of direct-support cannon battalions (a variation of the one-third–two-thirds rule of thumb for artillery positioning).

DIVARTY also allocated general support reinforcing assets to brigades with an enumerated number of rockets available for reinforcing fires. This allowed brigade combat teams to attack enemy formations short and long of the CFL.

Similarly, the DIVARTY planned FSCLs based on the range of the most commonly available rocket munition type instead of extended-range or precision munitions. Both techniques denied enemy safe havens and allowed DIVARTY elements to achieve effects throughout the operational area in support of the division's counterfire fight. Battlefield geometry also plays an important role in a DIVARTY's ability to conduct counterfire.

**Counterfire.** Poorly placed FSCMs hinder effective friendly fires and magnify the impact of artillery range advantages enjoyed by WFX enemies as well as real-world enemies and adversaries. Many enemy artillery systems out range U.S. systems, and enemies are technically capable of achieving a greater volume of fire. Both WFXs highlighted this operational reality and challenged the 101st DIVARTY's ability to destroy, defeat, and disrupt enemy artillery systems.

A DIVARTY is its division's counterfire headquarters, so the counterfire fight was the 101st DIVARTY's focus during its WFXs. This mission-critical task



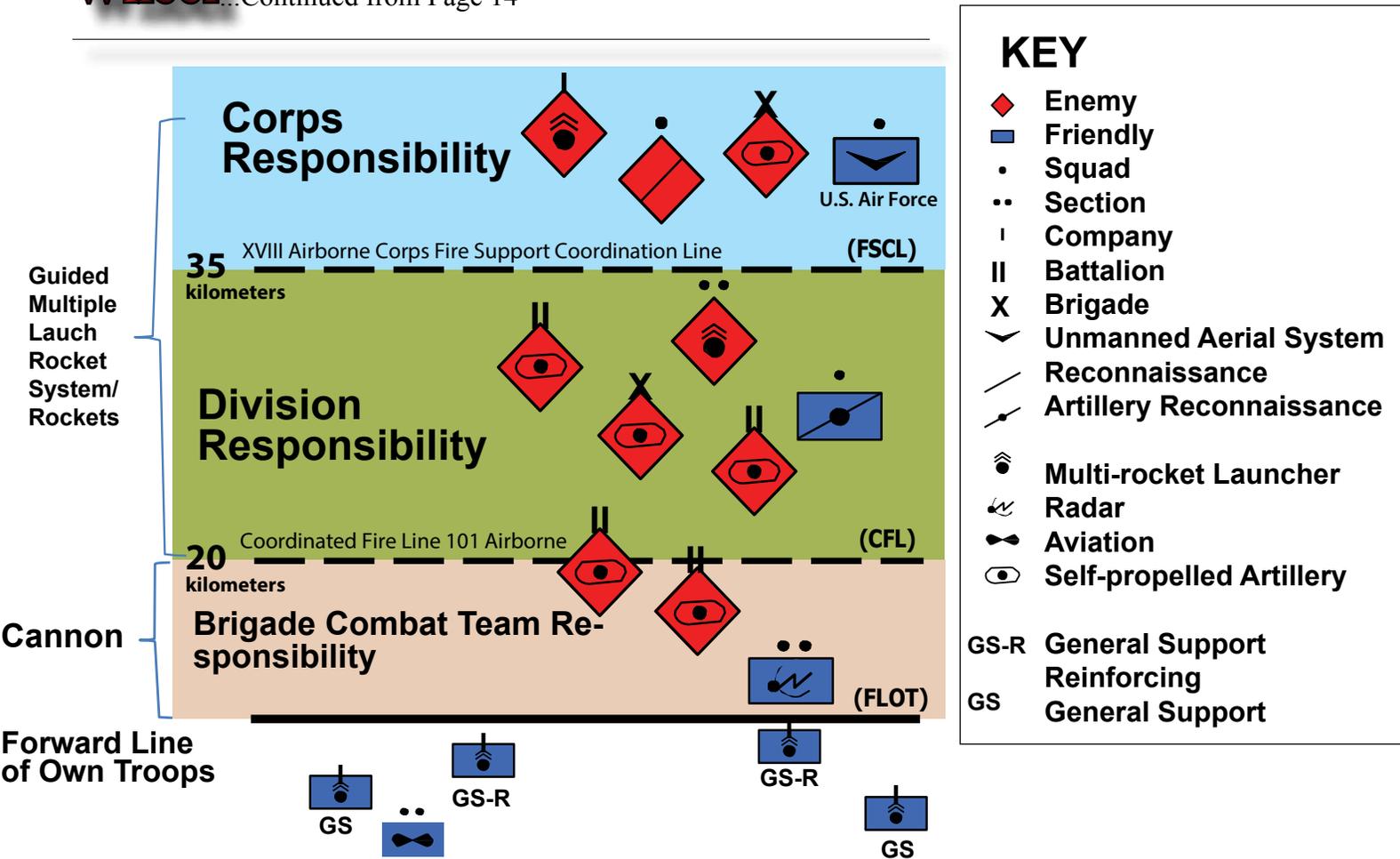


Figure. Delineation of Responsibility Using Fire Support Coordination Measures

sets the conditions for future division operations by attiring enemy indirect-fire systems before friendly maneuver forces come within range. This task has two components that become separate fire support tasks. First, reactive counterfire focuses on engaging enemy indirect fire systems following target acquisition. The 101st DIVARTY positioned its Q-37 Firefinder radar systems so they could detect surface fires between the FLOT and the FSCL. Due to the large volume of counterfire, DIVARTY split responsibility for fire mission processing. The target processing section (TPS) processed acquisitions for counterfire, while the fire control element remained focused on processing planned targets and targets of opportunity.

Dividing responsibility significantly improved fire mission processing times and responsiveness. The targeting officer and the S-2 (intelligence staff officer) then applied predictive battle-damage assessment to determine likely effects on the enemy that facilitated

subsequent targeting, positioning, and task organization decisions.

Second, the next counterfire task involves actively targeting enemy indirect fire systems, referred to as “proactive counterfire” in doctrine. However, since counterfire by definition is always reactive, the 101st DIVARTY opted to assign the task of “strike” or “interdiction” fires. It accomplished this task by analyzing patterns in radar acquisitions and ground-movement target indicators (GMTIs). The targeting officer and the S-2 determined what type of indirect fire system was engaging friendly forces based on the range at which the enemy fired. The S-2 mapped patterns of acquisitions and GMTI routes between firing positions to create target areas of interest (TAIs), which the division observed with UAS assets.

Once a UAS asset detected enemy artillery for-

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mations, the DIVARTY initiated fire missions against the target and conducted immediate battle damage assessments. Strike fires that integrated UAS and dedicated fires assets proved to be the most effective counterfire technique during both WFXs. These fires maximized the DIVARTY's extended-range and precision-munition capabilities, while mitigating enemy range advantages.

### Unmanned aircraft system integration.

Integrating UAS and fires assets into a direct sensor-to-shooter link is fast, responsive, and effective. The ability of UASs to loiter over TAIs and provide highly accurate target locations makes them ideal for leveraging advantages in precision-guided munitions against enemy indirect fire systems. UASs are also capable of providing immediate battle damage assessments to inform intelligence collection and targeting processes.

During its WFXs, the 101st DIVARTY replicated recent Russian tactics in Ukraine with similar success. The 101st DIVARTY developed techniques and procedures for integrating UASs into the counterfire fight during WFX 15-5, and it perfected dynamic retasking procedures and fire-mission processing during WFX 16-2. Both experiences proved that UAS integration in support of counterfire strike operations works.

**Planning.** The DIVARTY should assist in coordinating, integrating, and synchronizing the division's UASs during the targeting process. The DIVARTY S-2's development of TAIs based on artillery acquisitions and GMTI analysis not only informed these efforts, but it also supported the development of triggers for retasking UAS to the DIVARTY during critical phases of the counterfire fight. During these periods, the DIVARTY performed as a functional joint air-ground integration cell focused on counterfire within a defined TAI. It located targets, cleared ground and airspace, and processed fire missions against identified targets in accordance with the attack guidance matrix. DIVARTY's ability and authority to coordinate directly with corps and adjacent divisions assisted these efforts.

The primary challenge to integrating UASs is the extra steps involved in fire mission processing. Within the 101st DIVARTY, the lethal fires section was responsible for coordinating the necessary steps. Integrating UAS and artillery during key points in the

counterfire fight proved to be highly effective, and the processes developed by the 101st DIVARTY filled a void in existing doctrine regarding artillery interdiction (i.e., proactive counterfire).

MCTP observers routinely note that poor fires planning results in insufficient support to the ground scheme of maneuver.<sup>6</sup> In contrast, the 101st DIVARTY's experiences at WFXs 15-05 and 16-02 highlighted the value of detailed plans, and the unit received recognition for expertly meeting doctrinal fires planning requirements.

The key to the unit's success was the implementation of a plans synchronization meeting for fires planning aligned with division planning horizons. The 101st DIVARTY plans synchronization meeting enabled the staff to conduct field artillery planning that synchronized efforts across all warfighting functions. As the maneuver headquarters, the division was responsible for fire support planning and the DIVARTY was responsible for fires planning to support the scheme of maneuver.

The DIVARTY's planning framework created and facilitated a link between the division and DIVARTY staffs. Current doctrine does not clearly define this link, so DIVARTY's implementation of this framework helped delineate the specified and implied responsibilities of each organization.

The division target working group, enabled by the staff, used the D3A targeting process to facilitate fire support planning that developed fire support tasks (FSTs), a high-payoff target list and target synchronization matrix, an information collection plan, and target refinements. The 101st DIVARTY staff conducted fires planning that developed a synchronized plan that achieved assigned FSTs.

During the plans synchronization meeting, operations planners, staff-section representatives, and

6 Edward T. Bohnemann, *MCTP Trends in a Decisive Action Warfighter Exercise*, Mission Command Training Program website (2014), 29, accessed 28 April 2016, <https://combine-darmscenter.army.mil/orgs/cact/MCTP/Documents/MCTP%20Trends%20in%20a%20Decisive%20Action%20WFX.pdf> (login required).

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Soldiers from Battery A, 2nd Battalion, 320th Field Artillery Regiment, 1st Brigade Combat Team, 101st Airborne Division, fire rounds from their M119A2 howitzer at enemy targets 13 January 2008 during Operation Fulton Harvest in the Al-Jazirah region of Iraq. U.S. Army Photo.

participating brigade fire support officers refined FSTs into field artillery tasks, developed courses of action for artillery and radar positioning, determined effects and requirements, synchronized sustainment, and assigned planning responsibilities to direct support artillery battalions.

In addition to developing field artillery tasks and other supporting planning requirements, another output of the meeting was recommendations for target refinement, the high-payoff target list, and airspace control measures submitted into the division targeting process.

Once the DIVARTY began operations, planners in the synchronization meeting identified enemy artillery positions and planned coordinated attacks against those locations. The plans section developed a system to perform course-of-action development, wargaming, and target refinement for the next five days of the air-tasking order cycle, with inputs from the entire DIVARTY staff.

The plans staff transitional efforts to current

operations using a detailed transition brief twenty-four to thirty-six hours before planned execution. Proactive coordination between plans and current operations staffs aided the 101st DIVARTY's ability to execute a rapid decision making and synchronization process, which enabled the DIVARTY commander and staff to adjust plans as operational changes developed.

The 101st DIVARTY did not experience the majority of commonly noted fires-related issues during two WFXs. Instead, the organization had an invaluable opportunity to relearn fires skills needed to support the division at the operational level of war. The DIVARTY also developed new procedures for dealing with systemic organizational and operational challenges. The 101st DIVARTY's lessons learned regarding battlefield geometry, the division counterfire fight, UAS integration, and fires planning were critical to preparing the organization for success in future decisive action conflicts.



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# Winning at the NTC: A Fire Support Perspective

By LTC Timothy Mungie and MAJ Jason E. Turner

**“No one gets my things! Don’t ask for my guns, my helicopters, my fighter jets, my UAVs or my rockets. You get nothing. You fight with what you have and I’ll fight with what I have.”**

**COL Jerry Turner, 2-2 SBCT Commander**

The brigade commander provided clear guidance to the 2-2 Stryker Brigade Combat Team (SBCT) fires team as it prepared for its National Training Center Rotation (NTC) 16-03; “I want to be permissive to fires and restrictive to aviation.” That was clear enough guidance for the Brigade Fire Support Officer (FSO) and the brigade Fire Support Coordinator (FSCOORD) to go forward with how the fire supporters and field artillery can best support the SBCT. Our task was to unify efforts across the brigade’s Warfighting Functions (WfF) to achieve the commander’s vision. The successful application of fires and maneuver requires specific ingredients mixed together at the right time to achieve the desired effect. The path to effectively shaping the close fight for maneuver battalions in a Decisive Action Training Environment (DATE) starts with a sound Fire Support Plan, continues through the application of the brigade’s Targeting Process, requires unity of effort between key brigade Warfighting Function leads, is solidified by a detailed Brigade Fire Support and Intelligence Surveillance and Reconnaissance (ISR) Rehearsal, and requires multiple repetitions of Brigade level exercises.

## The Fire Support Plan

The Fire Support Plan is a comprehensive and collaborative amalgamation uniting lethal and non-lethal effects platforms, in time and space, to shape and win the brigade deep fight. Success in the brigade fight enables subordinate maneuver commanders to achieve favorable coefficient of forces and means (COFM) in decisive and supporting operations through effective synchronization and unity of effort. The Fire Sup-

port Plan (FSP), with the nested Field Artillery Support Plan (FASP), is the brigade’s tool to achieve this synchronization across all WfF and is the responsibility of the FSCOORD to produce. Success then begins with a clear and shared understanding of the commander’s vision and guidance.

Commander’s vision and guidance is the foundation for the operations process, and is the first step toward developing the FSP. The commander helps the staff understand his vision at deliberate gates in Military Decision Making Process (MDMP). During MDMP, the brigade commander’s first formal opportunity to provide guidance by WfF comes during Mission Analysis with the presentation of the Commander’s Guidance worksheet. This tool proved to be valuable in creating shared understanding of the commander’s long-term end states, which enabled the staff to develop running estimates needed for the brigade’s Targeting cycle.

Often WfF staff leads needed to create recommendations for the brigade commander’s guidance worksheet, because the specific verbiage each WfF utilizes is often based on emerging doctrine and lessons identified during recent rotations or combat deployments. The Commander’s Guidance worksheet provides a key conduit between the commander’s visualization and targeting priorities for the brigade. This worksheet also provided the FSO with conversation starters between lethal and non-lethal effects planners. This was the first opportunity for the FSO and FSCOORD to bring all the targeting WfFs onto common terms of understanding. One good practice was to use Joint Doctrinal terms from the Joint Targeting Manual (JP 3-60). This TTP helped create common and shared understanding among the staff. Also, with the commander’s guidance worksheet, the brigade FSO was

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able to start the targeting process, which helps refine the FSP and FASP.

Finally, the collaboration between the Field Artillery Battalion Operations Officer (S3) and the brigade FSO was vital to creating a FSP that was feasible, acceptable, suitable, and complete. The brigade FSO began collaborative planning with the FA BN staff from receipt of the mission through rehearsals. The brigade FSO and FA BN S3 established scheduled meeting times over the CPOF system where the two would collaborate on many things to include Possible Artillery Areas, Logistical Lines of Communications, Observer locations, movement triggers and radar locations. The deliberate and dynamic communications enabled the FA BN to provide the brigade commander with realistic expectations for the Fire Support Plan as well as the Field Artillery Support Plan. The FSO to S3 relationship is vital to the success of the Fire Support Plan.

### TARGETING

While the FSP was under development, targeting had been initiated, the fight was on, and targeting processes were underway. One key to developing a useful FSP is accurate Target Value Analysis (TVA) in both MDMP and during the targeting cycle. Whatever time frame MDMP or targeting cycle falls into, TVA cannot be undervalued. During MDMP, the brigade intelligence section (S2) identified elements of enemy combat power by formation and function. It is the duty of the targeting team to evaluate the enemy's combat power, conduct TVA, and provide the commander with an initial estimate of High Value Targets (HVT) the enemy needs to achieve his task and purpose. During the targeting process, TVA is a battle rhythm event, again which cannot be overlooked. The brigade S2 provided Predictive Analysis of enemy Courses of Action which the targeting team used to synchronize assets in time and space. This Predictive Analysis also refines the FSP through doctrinal analysis of enemy practices.

The brigade's entire fight was synchronized and approved through the targeting process. The NTC uses a truncated timeline to simulate the stress of war. One successful practice used was to keep our perspective in the same time frame as our environment. We ran a

24 hour targeting cycle, because it matched up with our higher headquarters Air Tasking Order/Air Control Order cycle (ATO/ACO). The targeteers came together every morning at 1030 and conducted the brigades targeting meeting. The brigade S3 or Executive Officer (XO) would chair the meeting, the brigade FSO would drive the discussion, while the brigade targeting Warrent Officer kept the meeting on track, ensuring the groups inputs and outputs achieved synchronization of effort for the next 24 and 48 hours events.

The targeting meeting acted as a daily wargame for the brigade fight. The brigade S2 would present enemy courses of action for a 24 and 48 hour window based on predictive analysis and TVA. Also, the brigade S2 provided analog overlays, depicting in time and space, enemy formations and functions. With these key points of data, the brigade targeting group war-gamed, using clearly identified time-frames, how all the assets the brigade possessed and requested could achieve the desired effects to shape the environment. The brigade FSO was the key leader in this meeting who ensures the Decide, Detect, Deliver, and Assess (D3A) process achieves synchronization for the designated time frames. As the timeline goes forward, the S2 identified HVTs, the FSO nominated HPTs, NAIs, TAIs, Attack Guidance (AGM) and Target Selection Standards (TSS) for not only the lethal artillery assets, but the non-lethal assets as well.

The inclusion of non-lethal assets in a DATE NTC rotation was just as important as the lethal assets. Years of Counter-Insurgency operations re-enforced the value of enablers to the maneuver fight. Electronic Attack, Offensive Cyber Operators, Defensive Cyber Operators, and Psychological Operations teams all play a key role in offensive, defensive, and stability operations. It is the FSOs duty to ensure every measure of combat power is considered when massing on our enemy, whether lethal or non-lethal.

During the targeting process, the brigade FSO presented to the brigade S3 or XO targeting nominations with all the enablers synchronized, intelligence and targeting collection efforts clearly defined. The brigade S3 or XO approved the nominations, attack

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guidance, target selection standards and collection plan during the meeting. The key output was a synchronized plan for the brigade fight that required the approval of the commander through his nightly targeting decision board, which was nested within the brigade Commander's Update Brief (CUB).

In this decision board, normally three slides on the (CPOF), the targeting team updated the brigade commander on how his fight, the brigade deep fight, was progressing, identified targets for re-attack and new targets to attack, and received approval/guidance. If the brigade commander approved the targeting recommendations, the brigade fires cell published a consolidated HPT/AGM/TSS worksheet with version number in a Daily Targeting Fragmentary Order (FRAGO). An important TTP used to maintain a current targeting picture was the targeting team would collect the previous versions and destroyed them to avoid confusion.

This approved product was what the brigade fought off of for the next 24 hours. All the targets on this worksheet were pre-approved, engagements were streamlined, and allocation of resources were clearly understood. This method provided shared understanding for decision-makers throughout the brigade TOC and enabled rapid execution of dynamic and deliberate targeting. While the targeting process is continual and starts during MDMP, the FSP is the formal product produced by the FSCoord and gave the force the initial plan approved by the commander. This plan, which had been refined through MDMP and targeting, provided key leaders initial orders and guidance from the FSCoord. Finally, the brigade Targeting Process, when executed and synchronized with the FSP, will yield the effects on enemy HPTs the maneuver need to achieve the COFMs necessary to win their fight.

### UNIFYING WARFIGHTING FUNCTIONS (THE AIR PICTURE)

During the Operations process, as well as targeting, it was critical for the brigade Aviation Officer (BAO) and the brigade FSO to come together and create both a digital and analog Unified Air Picture (UAP). The UAP combined Airspace Coordination Measures (ACM) and Fire Support Coordination Mea-

asures (FSCM) onto a single analog and digital map. The ability to manage ACMs and FSCMs is a point of either success or failure for many units at the NTC. The ability to manage these systems and maintain an accurate common operating picture enabled the fires chain to provide accurate and timely fires with both indirect, rotary wing and fixed wing platforms.

The UAP enabled one of the major training objectives for the brigade, conducting a Coordinated Attack using the Joint Air Attack Team (JAAT) method. The JAAT was a culminating event for the live fire that was hinged upon successful demonstration of ACM and FSCM management and the sustainment of a perpetual and accurate UAP. Without those two factors, the JAAT event at the NTC was a go/no-go event. It was the direct responsibility of the BAO and the FSO to work out the details of the UAP and ensure both future and current operations elements understood the plan and were able to manage the plan as it unfolded.

One last key to this area was key leaders being at the point of friction during decisive points in the battle. The FSO and BAO must be on the current operations floor when fight is on. When the key times, as identified during targeting, were upon us, the key warfighters were present to ensure effective execution. During the JAAT, during the artillery live fire, or during the brigades maneuver decisive operation, the FSO must be where the fight is controlled to enable flexibility, provide clarity to the FSCoord, and ensure that all fires efforts are being executed in accordance with the commander's guidance.

### REHEARSALS

The final key to fire support success are rehearsals. The conduct of rehearsals of the Fire Support Plan happened at every echelon and ensured shared understanding from the sensor to the shooter. The brigade fire support rehearsal was conducted before the brigade Combined Arms Rehearsal (CAR) to ensure the details of the plan were synchronized in time and space before demonstrating the plan to the entire brigade leadership. The brigade fire support rehearsal

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was a detailed rehearsal of the Fire Support Tasks (FST) and Field Artillery Tasks (FAT) as it fits into the maneuver mission. It was critical for the brigade S2, the brigade S3, and all brigade staff officers from both the future operations planners and the current operations executioners to see the plan together. This hand-off enabled the commander's vision to manifest on the battlefield. The FSCOORD actively supervises the rehearsals keeping it focused on rehearsing the synchronizing of assets in time and space, while the FSO executes the actions.

The key component of the brigade Fire Support Rehearsal was its focus on the brigade echelon of fighting. Maneuver battalion FSOs kept their scope to the Task, Purpose, Execution and Assessments, by key time block, for their battalion mortar missions, while the Cavalry Squadron Fire Supporters, who are the eyes for the brigade, briefed in TTLODAC format their observer plan. Rule number one was, always plan for human eyeballs as primary observers on all Target Areas of Interest and against everything we intend to engage with indirect fires.

The brigade's fight, in space, started at 2/3 max range of the maneuver's most devastating direct fire weapon system and went out to its largest supporting indirect fire weapon system. It synchronized the brigade's assets intelligence collection, rotary wing, fixed

wing, cyber warfare, and all forms of indirect fire platforms over a map together. In time, the brigade's fight was focused managing effects at the desired time to meet the commander's intent. There are three main tasks whose executions must be rehearsed: the observer plan and collection plan, fixed/rotary wing tasks, and indirect fire tasks.

With these tasks rehearsed, the fires team was prepared to engage in the brigade's CAR and demonstrate how the brigade's deep fight shapes the close fight.

## CONCLUSION

To conclude, the enemy will always have a vote as to how he chooses to fight. His application of combat power will fit his objectives and we can only predict his courses of action. As fire supporters, it is our duty to place proper target value analysis on the enemy, find them, affect them through lethal or non-lethal means, and assess the effects of our engagements. The Fire Support Plan developed during MDMP, exercised and refined during the habitual Targeting Process will enable the brigade to shape the close fight and win the deep fight. But only once all WfF have shared understanding of the plan and have rehearsed their roles.



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# THIS MONTH IN HISTORY

## “JANUARY & FEBRUARY”

**1 January 1957**, The Department of the Army re-designated The Artillery and Guided Missile School as The U.S. Army Artillery and Guided Missile School.

**1 January 1969**, The U.S. Army Artillery and Missile School was officially redesignated as the U.S. Army Field Artillery School.

**4 January 1993**, The Fort Sill stood up Training Command as part of a major reorganization. The reorganization abolished the Target Acquisition Department, made it a division in the Fire Support and Combined Arms Department, eliminated the Communications and Electronics Department because the Army moved field artillery signal MOS training to Fort Gordon, and merged the Directorate of Training and Doctrine and Directorate of Evaluation and Standardization to create the Directorate of Training and Evaluation.

**8 January 1869**, The site of Fort Sill was staked out by MG Philip H. Sheridan who led a campaign into Indian Territory to stop hostile Native American tribes from raiding white settlements in Texas and Kansas.

**16 January 1953**, The Department of the Army established the Army Aviation School at Fort Sill to train Army aviators. The school moved to Fort Rucker in 1954 because the Army Aviation School grew so rapidly that it required additional facilities that could not be provided on Fort Sill.

**22 January 1947**, War Department General Order Number 11, dated 22 January 1947, officially redesignated the Coast Artillery School as the Seacoast Artillery School as a branch of The Artillery School, the Antiaircraft Artillery School as a branch of The Artillery School, and Field Artillery School as The Artillery School. Reorganization gave the School two teaching departments: Gunnery and Fire Support and Combined Arms Operations in Training Command.

**2 February 1901**, A Congressional act increased the size of the Army to 100,000 and discontinued the artillery regimental system that dated back to 1821

by creating the Corps of Artillery composed of Coast Artillery of 126 companies and Field Artillery of 30 batteries. Congress recognized the radical different missions of the Coast Artillery and the Field Artillery but created a corps of artillery with two artillery sub-branches. The act also provided for a Chief of Artillery.

**13 February 1991**, The 1-27th Field Artillery conducted an artillery raid under the direction of the 1st Cavalry Division in the build up to Operation Desert Storm's ground war. In less than five minutes, three hundred MLRS rockets destroyed twenty-four Iraqi targets.

**15 February 1918**, The War Department established the Office of the Chief of Field Artillery to train and equip the Field Artillery for combat in World War I. Major General William J. Snow, a former commandant of the School of Fire for Field Artillery, was the first chief.

**21 February 1951**, Korean War mobilization caused The Artillery School to reactivate the Field Artillery Officer Candidate School (OCS) with fifty-three officer candidates attending the first course. The 23-week Field Artillery OCS course graduated 3,517 second lieutenants during the Korean War.

**24 February 1991**, The 42nd, 76th, and 142nd Field Artillery Brigades launched a fiery bombardment to support the breaching operation to start the ground war in Operation Desert Storm. More than 350 field artillery pieces fired 11,000 rounds and 414 MLRS rockets in a field artillery preparation of 30 minutes. Besides crushing Iraqi morale, this massed fire destroyed 50 tanks, 139 armored personnel carriers, and 152 field artillery pieces.

**28 February 1991**, The Gulf War ended by driving Iraq out of Kuwait. During the 100-hour ground war, American field artillery fired 57,168 rounds. Of that total the Americans shot 32 Army Tactical Missile System (ATACMS) missiles.