DON'T WAIT UNTIL FIGHT NIGHT

IT TAKES A BCT TO SYNCHRONIZE FIRE SUPPORT

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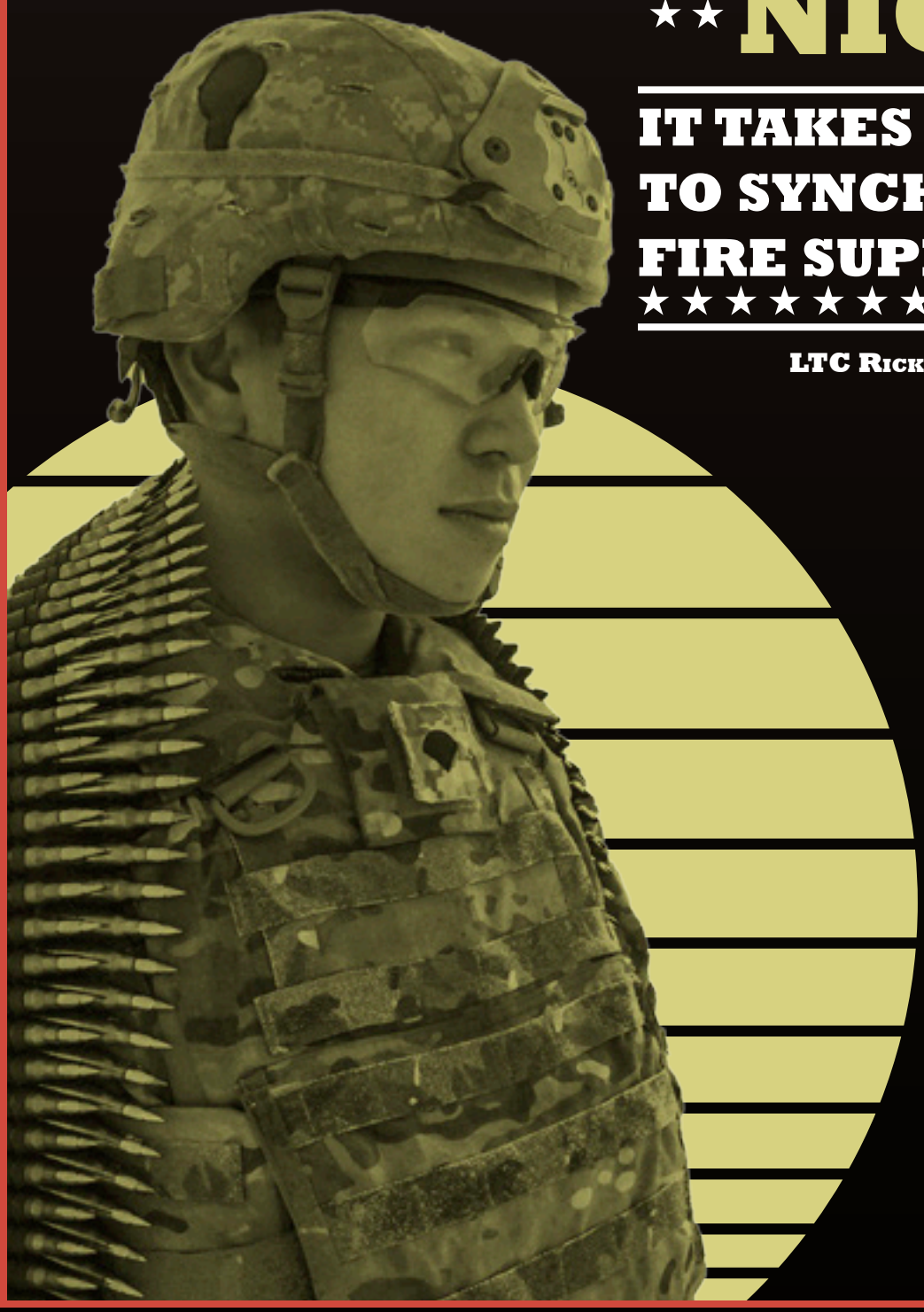

There are few things you can experience as an observer, coach or trainer that compares to the anticipation of a 'fight night' at JRTC. There is a palpable eagerness of the upcoming force-on-force battle with a trained infantry brigade combat team (IBCT) and the opposing force (OPFOR) in the demanding terrain of central Louisiana. Although the JRTC Operations Group carefully orchestrates the battle to optimize the IBCT's pursuit of their tailored training objectives for the rotation, no outcome is predetermined. The IBCT can win every attack or defense, and at times they do just that. But predominantly the OPFOR wins, regardless of force ratios. The OPFOR leaders over the past three years have offered the same insight into their ability to consistently defeat the latent power of a U.S. Army IBCT: the OPFOR fights as a combined arms team, whereas the IBCTs they face struggle to achieve that same synchronization in any meaningful mass. After action reviews (AARs) illustrate the salient learning points from each engagement, but they don't do much to reduce the sting of a proud, professional unit realizing the sobering fact that they endeavored greatly but lost.

Most IBCTs' Field Artillery (FA) battalions complete their tabled training at home station and arrive at JRTC with adequate technical gunnery skills. However, IBCTs struggle to mass responsive fires due to a relative lack of collective tactical training during that same progression. Rotational observations at JRTC yield three important trends regarding the underlying challenges to synchronize fire support with maneuver in the IBCT's fight. Primarily, IBCTs do not approach fire support as a holistic, organization-wide challenge; most rotational units will approach any inefficiency in the responsiveness or mass of fire missions as something for the FA battalion or the dual-hatted battalion commander/fire support coordinator (FSCOORD) to fix in relative isolation. Additionally, IBCTs rarely plan and prepare to mass fires since they have few chances to practice this during collective training events at home station. Lastly, FA battalions are generally not prepared to meet the challenges of sustainment and protection in the crucible of long-duration training at JRTC. These three challenges combine to cause unresponsive fires, with relatively low levels of battle damage inflicted upon the OPFOR.

If Artillery Tables XV (battery qualification) and XVIII (battalion qualification) are not adequately preparing our IBCTs for these challenges they encounter at JRTC, can we realistically create a different approach to training in an IBCT? Our discussion will review the existing professional discourse, and then present the current rotational observations for challenges in synchronizing fires within the IBCT. This provides relevant context to then examine each of the three aforementioned challenges in detail, identify best practices to address those challenges and finally recommend improvements to collective training progressions to reverse those trends.

A rich toolkit for the fire supporter

Collective tactical training which develops the synchronization of fire support within an IBCT is not a new challenge, nor does this challenge require the mindset of crisis management. The fire support community has a rich legacy of approaching challenges with a mixture of creative and critical thinking, as reflected both in published doctrine and professional discourse. The current effort to update FM 3-09, *Field Artillery Operations and Fire Support,* will result in a doctrine which will describe fire support and Field Artillery operations from the theater army to the BCT, but with enough specificity to be of value at each echelon. And while no fire supporter would claim that neither the current FM 3-09 nor FM 3-96, *The Brigade Combat Team*, are perfect, those two references do provide the requisite structure and common lexicon to fight as a combined arms team. The most influential publication on the effort to align artillery gunnery within a larger BCT training progression is the 2019 revision of Training Circular 3-09.8, *Fire Support and Field Artillery Certification and Qualification,* which critically establishes the guidelines to conduct and assess gunnery. Furthermore, TC 3-09.8 aligns the effort to train, certify and qualify the BCT's fire supporters and FA units as a Field Artillery gated training strategy within the larger framework of the Integrated Weapons Training Strategy (IWTS). However, the IWTS focuses on synchronizing fire support during successive maneuver collective live-fire training events, which results in a relative gap in regards to further training imperatives with the supported BCT, especially in the critical areas of planning, sustainment and protection. The IWTS has done well to sharpen IBCTs' collective training in the pursuit of lethality, as illustrated by steady improvements of platoons, companies and battalions in JRTC's live-fire exercises over the years. However, lethality alone is not sufficient to synchronize all combined arms into a fight of any meaningful duration.

Similarly, fire supporters' professional writing over the past decade expands the aperture beyond straightforward gunnery. For the unique context of fires fire support within the BCT, the Center for Army Lessons Learned (CALL) disseminated "Hunting with Fires," in 2018 which provides a great insight into one unit's approach to transitioning from an inherently restrictive environment for indirect fires to an inherently permissive and responsive environment. Within that discussion are several key concepts such as an effective BCT commander's guidance for massing fires, optimizing pre-emptive and unobserved fires, and integrating the FA battalion's

staff with the BCT targeting cycle. From the combat training centers, COL Jon Shine's widely-circulated "If I could do it over again," provides great passages regarding the rigor of Field Artillery Tables XII, XV, and XVIII from the unique perspective of the National Training Center (NTC) senior fire support trainer reviewing his challenges as a battalion commander. Recent and relevant contributions from NTC include the BCT counterfire operations section, "Setting conditions for effective counterfire," as distributed by CALL, focusing on the staff processes and command post considerations for counterfire operations within the BCT. JMRC's MAJ Kurt Knoedler recently published, "Building the confidence of maneuver commanders," which provides a detailed review of the rigor and detail required to maintain responsive fires with digital communications within a BCT. His 2020 *FA Journal* article contains the critical insight that "This is not solely a Field Artillery battalion problem, but a larger problem for the BCT." And as a confirmation that approaching the synchronization of fires from a BCT-wide perspective is not a new challenge to the force, then- LTC Janosko's "JRTC fire support observations," provides an example of similar challenges for brigades over two decades ago. While partially focused on the challenge of sustaining artillery operations within a brigade, he concluded in 1996 that, "there's still much to do – the impact of FA and other fires on the outcome of the battle and protection of the force is just too important."

The evidence

A study of JRTC's rotational counterfire trends highlight that there are some definite improvements across the force. The most positive trend deals with the IBCT's ability to clear air and ground during a counterfire drill. In August 2016, the rotational average for this task was 7:49, and today it averages 1:47. Furthermore, fire supporters and fire direction centers (FDCs) routinely demonstrate the ability to use the proper method of control to allow the FA battalion to process the fire mission concurrently so that nobody is waiting for this clearance before they proceed. However, overall rotational averages for fire missions have remained relatively stable in the 12:30 to 14:30 range since 2016.

It is also important to note that times at FDCs and on the gun line continue to improve. While rotational averages do not meet the exacting standards of TC 3-09.8, this should not come as a surprise since fire missions at JRTC oftentimes include environmental factors such as "too hot," "too wet," "too hungry," "too dark," "under fire," and at times, all five. This stands in stark contrast to the usual conditions for an Artillery Table V and VI (section certification and qualification) with well-rested and specifically prepared crews conducting a known variety of fire missions to isolate the technical aspects of the crew drill for assessment.

These rotational averages for fire mission processing are not perfect summations of the processing times at all stations. There are several reasons for this, with the two primary factors being communications and tactical fire direction. When all sensors and shooters are linked digitally, this 'slack time' between stations approaches zero. But that is rarely the case during force-on-force training at JRTC, where units revert to voice communications or a combination of both. The second factor which drives even more 'slack time' in the rotational average is poor tactical fire direction, as expressed in bad decisions regarding which firing unit should deliver fires. Out-of-traverse fire missions add considerable time, with some rotational units firing a third of their missions at JRTC after shifting the trails of their towed howitzers. Additional challenges include sending emergency fire missions ('hip shoots') to displacing units without selecting an alternate firing unit. As we will discuss later, often the challenges with tactical fire direction has its roots in the cascading effects of poor security, protection and sustainment – or the FA battalion's inability to enforce the reporting and command post practices required to overcome those issues.

In summary, the best opportunity to improve the responsiveness and synchronization of fires is to address this 'slack time.' The FA Gated Training Strategy, healthy digital sustainment training, and repetitions in crew drills provide a clear way for FA battalions to reduce approximately 4:30 worth of fire mission processing time by improving the technical aspects of fire support and howitzer operations. Rotational observations at JRTC indicate that there is about 5:30 of the aforementioned 'slack time' in fire missions due to insufficient collective tactical training. As such, we will focus on the tactical aspects of delivering responsive massed fires within the IBCT.

Fires as a BCT-wide challenge

Responsive fires are a primary measure of an IBCT's ability to plan and rehearse an operation in exacting detail. It represents the summation of an IBCT's ability to coordinate and synchronize across warfighting functions. Without harmony across multiple elements and echelons, fire support might be accurate due to technical mastery, but they will lack the requisite mass, responsiveness and relevancy due to shortcomings in the IBCT's tactical proficiency. One example to illustrate the difference in technical and tactical proficiency is to consider the trigger for a priority target in the defense. The forward observer might be able to meet all requirements for acceptable target location error, understand the specific spot on the terrain in front of them when they initiate the fire command and understand the exact fire mission

IBCT FIGHT

BCT COMMANDER'S GUIDANCE FOR FIRES

- *Does prudent risk balance risk-to-force with risk-to-mission, enabling responsive fires?*
- *Does the guidance enable detail wargaming to synchronize intelligence and fires?*

TERRAIN MANAGEMENT & BATTLEFIELD GEOMETRIES

- *Are PAAs distributed on common graphics across the BCT to prevent 'squatters?'*
- *Does the Target Working Group review and adjust the CFL, IHOL, and radar zones?*

AIRSPACE MANGEMENT

- *Does the Target Working Group review and adjust the CFL, IHOL, and radar zones?*
- *Can the BCT leverage AFATDS/AMDWS/TAIS connectivity to visualize the airspace?*

INTELLIGENCE COLLECTION PLAN

- *Does the IC Matrix include the BCT's target acquisition radars and synchronize them?*

COMMUNICATIONS

- *Do units plan a robust PACE for AFATDS and fight to get back on the primary means?*
- *Who synchronizes and validates AFATDS databases across the BCT regularly?*

ARTILLERY CL V SUSTAINMENT

- *Does the Target Working Group result in updated RSRs and resupply triggers?*
- *When demand exceeds BCT haul assets, does it coordinate for throughput distribution?*

FIRES CELLS (FIRE SUPPORT ELEMENTS, FIRE DIRECTION CENTERS, AND COUNTERFIRE CELLS)

- *Has the BCT analyzed the CF Cell's location; should it be at the BCT or the FA BN?*
- *Are the fires cells central aspects of CPs, or are they relegated to a separate tent or vehicle?*

FA BN FIGHT

FIRING UNIT MANAGEMENT

- *Do FATs balance counterfire & close supporting fires, w/ assigned BTRYs and allocations?*
- *Does the FA BN purposefully manage 'Hot' and 'Cold' firing units to mass fires?*

TACTICAL FIRE DIRECTION

- *Do the AGM & TSS enable rapid decision-making to send the fire mission to the right unit?*

TECHNICAL GUNNERY

- *Can FDCs and howitzer sections operate in FOC, degraded, and manual modes?*
- *Are fire supporters and radars qualified and capable of processing acquisitions digitally?*

RESPONSIVE MASSED FIRES ARE THE SUMMATION OF THE IBCT'S ABILITY TO COORDINATE AND SYNCHRONIZE ACROSS WARFIGHTING FUNCTIONS. WITHOUT THIS HARMONY ACROSS MULTIPLE ELEMENTS AND ECHELONS, FIRES MIGHT BE ACCURATE BUT THEY WILL LACK THE REQUISITE MASS AND RESPONSIVENESS.

Ten imperatives for responsive fires in the IBCT. (Rick Paape/Courtesy information)

processing time after an in-depth technical rehearsal earlier in the day. But the tactical employment of that fire mission is equally important; the fire mission must be synchronized within the maneuver force's engagement area development, and the enemy formation must meet the commander's engagement criteria.

One useful model to understand the relationships among tactical and technical aspects of synchronizing fires within the IBCT are 10 imperatives for responsive fires (see figure above).

The 10 imperatives for responsive fires

The most capable and savvy FSCOORDs can ensure that the IBCT addresses all 10 of these imperatives, but they only directly

influence the last four. Furthermore, the FA battalion is the exclusive action arm of only the last three. As such, it takes the collective training of an IBCT to truly develop and maintain a capability for responsive fires.

Given the limited resources and competing demands across the IBCT as it prepares for a JRTC rotation, approaching fires as a holistic IBCT training priority is perhaps the most challenging aspect. For some units, prioritizing the synchronization of fire support may require an inequitable distribution of time, physical resources, professional development sessions and collective training opportunities. Generally, rotational unit leaders report that they have one iteration in an IBCT command post-exercise, and one iteration in an IBCT field training exercise to prepare for JRTC. Conducting one of those collective training events concurrently with an Artillery Table XVIII provides a great opportunity to gain efficiency.

However, by the very nature of that arrangement, it requires a considerable amount of external support to provide the synchronized exercise control to protect the equities of both training audiences. Furthermore, it is a challenge at most installations to conduct artillery live fires required in Artillery Table XVIII while simultaneously replicating constructive fires for an IBCT's field training in adjacent areas. Absent of an opportunity to link an Artillery Table XVIII and the IBCT's culminating training event, the IBCT staff must be able to replicate a full response cell for Artillery Table XVIII and any BCT-level fire support coordination exercises. The effort for this multi-echelon training goes beyond making the FA battalion feel like there is an actual IBCT to support; the IBCT commander and their staff must understand what it takes for the IBCT (not just the FA battalion) to meet the 10 imperatives listed above.

A prudent review of any IBCT's training progression for JRTC should result in multiple opportunities to:

- Enable the IBCT and FA battalion staffs to refine their wargaming techniques as a means to synchronize intelligence collection and fires.
- Plan and adjust PAAs that are reflected on common graphics throughout the IBCT.
- Validate a PACE plan (an order of precedence list based on primary, alternate, contingency and emergency communications) for the IBCT Fires nets (voice and digital) at distance.
- Collaborate between the IBCT and FA battalion staffs to develop the complementary fire support coordination measures and airspace coordination measures required to mass joint fires.

Planning to mass fires as a BCT

Massing fires enables the IBCT to maximize effects with an economy of resources and improves the FA battalion's survivability by limiting the number of volleys required to achieve the desired effects. From the IBCT's perspective, massing fires may include the synchronization of close air support and Army attack aviation with the FA battalion's organic firepower. In large-scale combat operations, the division may require the FA battalion to periodically support other efforts in a reinforcing role, but massing the fires of the FA battalion is still a fixture in the IBCT's most effective means to concentrate all forms of combat power across the combined arms team. At JRTC, less than 10 percent of all fire missions are massed with multiple firing units during force-on-force training.

Massed fires across the IBCT have both proactive and reactive aspects. Successful IBCTs proactively plan to mass fires via the targeting process to relentlessly hunt and kill high payoff targets (HPTs), and balance that with requirements to mass close supporting fires for the maneuver force. The aforementioned "Hunting with Fires," is a good example of the detailed planning and coordination required to achieve that balance between HPTs and close supporting fires. Our observed trends and best practices during decisive action training environment rotations at JRTC indicate that successful IBCTs exhibit four common traits:

1. Utilize target pattern analysis to synchronize the limited assets in an IBCT.
2. Exhibit discipline in maintaining sensor-to-shooter pairings, most often through the use of a detailed Target Synchronization Matrix.
3. Relentlessly hunt and kill the top HPT formation until the IBCT meets destruction criteria; do not split sensors nor shooters (specifically, FA batteries) across several different HPT formations simultaneously.
4. Plan close supporting fires by purposefully allocating targets which mass the FA battalion, then disseminating bottom-up refinement to those targets.

Reactive fires provide the IBCT with an ability to mass joint fires in response to enemy HPTs as they are acquired. Our observed trends and best practices indicate a further four common traits for successful IBCTs to mass fires reactively, and thereby mass fires responsively. Although these four common traits enable reactive massed fires, they require detailed planning by the IBCT staff to:

1. Develop positioning guidance for firing units as an output of the Target Working Group.
2. Establish dedicated 'counter-fire shooters' with one of their firing units.
3. Utilize quickfire nets to reduce the 'to' in sensor-to-shooter during specified phases of the operation.
4. Centrally locate fire support elements, FDCs and coun-

terfire cells within applicable command posts.

Similar to the previous discussion regarding the ten imperatives for responsive fires, effective multi-echelon training requires representatives from across the IBCT to adequately train the proactive and reactive aspects of massing fires. In addition to validating the technical mastery required to mass the FA battalion during an Artillery Table XVIII, IBCT training progressions must also incorporate two aspects to ensure that the FA battalion can mass in support of the IBCT:

- Provide repetitions of the IBCT's targeting cycle, including the inputs from the FA battalion and dissemination of the outputs to the IBCT's current operations staff and subordinate battalion and squadron fires cells.
- Fully plan and rehearse a fire support plan for both an attack and a defense for the IBCT and each maneuver battalion or squadron.

Sustaining and protecting the FA battalion

FA battalions' challenges in security, protection and sustainment also create unfavorable conditions for responsive massed fires. Much like a cage fighter, even the most lethal combatant will not prevail if they can't protect themselves from a thinking opponent or sustain themselves for the duration of the fight. To extend this metaphor, our current tabled training methodology is resulting in fighters who can strike with more predictable accuracy and power owing to their technical skill, but it is not sufficient in and of itself to win the fight. Rotational units which train in accordance with TC 3-09.8's mandate to qualify in full operation capability, digitally degraded, and fully degraded can manage transitions between digital and degraded fires, and fight to get back to their primary means for determining and processing firing data. However, often the rotational unit finds themselves in a final AAR, realizing that their training progression through these tables did not prepare them for the additional challenges of sustainment and protection.

SUCCESSFUL ROTATIONAL UNITS UNDERSTAND THE OPPORTUNITY TO TAKE ADVANTAGE OF BOTH THE FIRING BATTERY'S HIGH DENSITY OF CREW-SERVED WEAPONS AND THE INFANTRY'S ABILITY TO EXTEND SECURITY BEYOND THE FIRST VISIBLE WOODLINE.

The first insight is that firing units will often displace and occupy multiple times in rapid succession during an Artillery Table XII, XVIII and XVIII. Multiple occupations are a great method to train and assess the unit's ability to survive by means of "shoot and move," but this frenetic pace provides an unintended challenge which is most pronounced in an IBCT owing to the longer occupation and displacement times inherent in towed artillery. If a battery has never occupied a position area for longer than eight hours during their training progression, the command team will be challenged by position improvement and expanding security after eight hours. Over time at JRTC, the OPFOR chips away at combat power via multiple forms of contact, since IBCTs struggle with the synchronization of terrain management and additional fuel required to support a constantly-moving FA battalion. Furthermore, a rotational unit untrained in battery defense will be less efficient in managing their ready platoons or howitzer sections, contributing to the aforementioned challenges for tactical fire direction.

Few IBCT staffs understand that critical assets such as the M777A2 and target acquisition radars will usually be the IBCT's priority defended assets, and they fail to develop some routine procedures to protect and secure them. While maintaining mobility and adhering to survivability move criteria are often the best means of surviving against OPFOR indirect fires, protecting these assets with prepared positions and dedicated security elements is an imperative to survive the other forms of contact. It is a supreme challenge if battery security operations are only a single page of checklists in a tactical standing operating procedure and not a practiced event. Engineer companies that have never dug in a firing battery are about as capable in rapidly planning, building and refining a firebase as firing batteries that have barely met their adjacent engineer company. The only thing more ineffective than a firing battery which has never occupied a fully developed set of howitzer parapets is the engineer company which has never received the constructive feedback to build suitable howitzer parapets. However, few IBCT training progressions make combined training with engineer assets a fixture, nor does a Field Artillery Table XV require it.

The time and combat power that firing batteries dedicate to self-securing their gun lines comes at an opportunity cost of keeping all howitzers in position and ready to fire, let alone addressing other priorities of work such as routine maintenance. Just as the FA battalion must train with engineer assets, they must also train with the infantry squads or platoons that may be tasked to

secure them periodically. The nuances of securing an artillery asset with inherent danger areas and specific hazards require close coordination, and coordinating with an adjacent unit at the battalion level is insufficient. Successful rotational units have practiced this coordination on the ground; they understand the opportunity to take advantage of both the firing battery's high density of crew-served weapons and the infantry's ability to extend security beyond the first visible woodline.

The second insight is that Field Artillery Tables XII, XV, and XVIII rarely last long enough or require enough commodities to truly stress platoon, battery and battalion sustainment. Unfortunately, if units expect to train for 72 hours in one of these qualification tables, they can deploy to the field at home station with three days of supplies on board and not require much in the way of external support. At JRTC, we see this sustainment challenge manifest itself most acutely in terms of Class V artillery munitions. The relatively low amount of high explosives, smoke and illumination rounds required to complete a table will not inherently stress the unit's ability to proactively manage combat loads. For context, most FA battalions will fire approximately 288 rounds during Artillery Table XVIII, which is only five percent of that battalion's combat load. In turn, rotational units at all echelons find themselves unfamiliar with the requirements to forecast, track and distribute the scope of replicated Class V at JRTC, where there is no such thing as a paper equivalent to facilitate training. During force-on-force training at JRTC, either you have a concrete-filled replicated round with the proper Department of Defense identification code, fuze and propellant, or you don't. An ineffective distribution of munitions serves to limit the number of available options for a fire direction officer, especially during planned operations when the FA battalion must balance the equities of multiple Field Artillery tasks.

As such, building capacity in protection and sustainment within the FA battalion requires an artful balance of field training opportunities and participation across the IBCT. As with the preceding discussion, shrewd FSCOORDs will seek opportunities to align sustainment training with existing field training for Artillery Tables XI, XV, and XVIII. "If I could do it over again" details several complementary activities to show that, "a live-fire FA Table has not been completed unless the unit has …," similarly, there is an opportunity to focus on protection and sustainment once the appropriate command team qualifies that echelon, and the training audience is still in the field.

Few rotational units arrive at JRTC understanding the critical aspects of sustaining FA battalions. Rotational units are not validating two key parts of their sustainment enterprise if they only train through short-duration gunnery tables and iteratively combined arms live fires. First, they do not understand their capacity to organize, haul and distribute combat loads. Although it leaves but a few cubic inches to spare, the first combat load to sustain a FA battalion will fit on the organic ammunition haulers and sections within the firing batteries, and the second combat load will fit on the forward support company's (FSC's) combined trains. The third combat load becomes a prudential decision for the sustainment leaders to carry with the brigade support battalion's (BSB's) limited assets or hold it in reserve to be called forward. However, this arrangement of combat loads assumes that there is full manning since firing batteries will generally fill howitzer sections first, then FDCs. In general, FA battalions and their FSCs will begin a rotation with the ability to move and distribute 25 percent to 50 percent of a single combat load, but continue to plan and shoot as if they have two combat loads available.

The second critical aspect of sustaining the FA battalion regards the effort to command and control that effort. Few FA battalions establish - let alone validate - command posts for both combat trains and field trains during their training progression for JRTC. The lack of practiced command posts to track and distribute artillery munitions is particularly evident when neither the FA battalion commander nor the BSB commander can articulate the artillery field trains' command support relationship, task organization and coordinated reporting requirements.

In some cases, training an IBCT to adequately protect and sustain their FA battalion may require additional venues to train the force. With a bit of rigor and detail, table-top exercises, tactical exercises without troops, and command post exercises all provide options for a complementary effect. When combined with a culminating training event in the field, these additional events within the IBCT's training progression should provide the IBCT opportunities to protect and sustain the FA battalion by:

- Identifying routinely prioritized defended assets within the FA battalion and allowing those tactical units to train with their protection and security elements.
- Developing a fires-protection team (firing batteries and engineer companies) through iterative digging exercises in a similar fashion to the way a maneuver-fires team develops through iterative live-fire exercises.
- Understanding the unit's carrying capacity for artillery Class V and identifying the best tactical opportunities for throughput distribution when demand exceeds the IBCT's limited haul capacity.
- Enabling the FA battalion to evaluate and standardize their prepackaged artillery Class V loads.

- Validating the FA battalion's combat trains command post and field trains command post in conjunction with BSB training.

Train as you fight: as a team

The Army's principles of training begin with the familiar exhortation to train as you fight as a realization that, "[i]n this way, units conduct training employing more than one echelon, multiple warfighting functions, and functional units in a manner that closely replicates how they will fight." Rotational unit leaders consistently cite time as the most fleeting resource during home-station training, but they do not appear to rush, circumvent, or sacrifice standards within the Field Artillery Gated Training Strategy. Fire supporters are well-versed in the commander's responsibilities and specific technical requirements within TC 3-09.8. However, the avenue of technical gunnery in TC 3-09.8 generally appears to be the only pathway that rotational units use in their quest to prepare for JRTC, with brief stops along the way to train in limited-duration scenarios with the supported IBCT and other warfighting functions.

If you're an FA battalion command team, arguably you have the first and most critical responsibility to continue the positive trends in artillery gunnery. Only you can command the effort to build and maintain a collective technical proficiency within the IBCT. Fire mission processing times must continue to improve apace. Units that remain disciplined to published attack guidance, standard fire orders and doctrinal radio transmissions are better-equipped to overcome the challenges in fire mission processing inherent in large-scale combat operations. These are aspects that FA battalions can train to a high degree of collective competency, by the means of digital sustainment training and periodic training minimums for each echelon. These are most effective when command teams (FA battalion, DIVARTY and the supported IBCT) clearly define their expectations, with an approach that the additional training complements the tabled certification and qualification requirements. But as outlined above, technical skill does not represent the largest opportunity for improvement when it comes to responsive massed fires.

The IBCT and DIVARTY commanders must ensure that those leaders in the FA battalion are not trying to solve the complex, resource-constrained challenge to synchronize fire support across the IBCT in isolation. Synchronizing fires with the other warfighting functions and among organic combat formations is demonstrably a challenge for an IBCT commander to address, with the support of the associated DIVARTY commander and their staff. Both staffs must approach this challenge together, in an acknowledgment that we are preparing FA battalions together for large-scale combat operations against a peer competitor, not tailored packages for the force-generation conveyor belt to Iraq and Afghanistan. And if you're a division commander and somehow this article makes its way into your hands (whether by some cosmic happenstance or an act of subterfuge), make your colonels and their staffs demonstrate how they will provide the IBCT with the opportunity to train as a combined arms team before JRTC, not just a team of talented sub-units which meets periodically for collective live-fire events.

Improving our tactical collective training is the first of many steps we will need to take if we want our IBCTs arriving at JRTC both willing and able to prevail against the OPFOR by synchronizing responsive massed fires. Ostensibly, it is the same approach to ensure that we are ready to answer the call for actual combat operations in the Sustainable Readiness Model. Commanders at all echelons must know how many training days it requires to get their units to an objectively trained status; we must approach this aspirational training status in terms of fighting as a combined arms team, not parallel tracks to build lethality across disparate warfighting functions. The IBCT commanders must ask themselves why (and at which echelon) they are directing the FA battalion to support live-fire exercises, owing to the inherent opportunity cost associated with each event. Fire supporters must ask themselves if the Field Artillery Gated Training Strategy precludes any realistic chance of matching the maneuver force's tempo through the training progression - lest critical aspects such as sustainment and protection are relegated to theory, and not practice across the IBCT.

The FA battalion's progression through Field Artillery Table XVIII provides a rigorous, demanding pathway to achieve lethality through technical gunnery. Properly augmented by digital sustainment training and other complementary activities, it can provide the IBCT with a dependable, accurate fire support capability. However, that is not enough in and of itself. We can no longer afford to wait until the IBCT finds itself in the unforgiving environment of a JRTC 'fight night' to learn these lessons regarding the collective tactical training required to synchronize and mass fires.

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