NEWSLETTER

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OPERATIONS IN THE DECISIVE ACTION TRAINING ENVIRONMENT AT THE JRTC VOL. IV:

BCT WARFIGHTING

Lessons and Best Practices

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Operations in the Decisive Action Training Environment at the JRTC, Volume IV: BCT Warfighting

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Foreword

The Art of the Decisive Action Training Environment

Rotation 13-09 marked the third time since 2010 that an airborne brigade combat team (BCT) entered the box at the Joint Readiness Training Center (JRTC). The 3rd BCT, 82nd Airborne Division (3/82) Panthers was the rotational training unit (RTU) for the first such rotation (Rotation 11-01) and this last one. Rotation 11-01 was a full spectrum operations rotation exercising decisive action. Rotation 13-09, like Rotation 13-01 just nine months earlier, was a decisive action training environment (DATE) rotation using the DATE to drive the scenario. In terms of warfighting and decisive action, all three rotations were both similar and therefore comparable.

This newsletter serves as a further milestone for such comparisons. The Center for Army Lessons Learned (CALL) and the JRTC have teamed after each rotation to complete a series of newsletters. JRTC Rotation 11-01 resulted in CALL Newsletters 11-24 and 11-32. JRTC Rotation 13-09 produced three CALL newsletters — 13-13, 13-15, and 13-17 — that covered that DATE rotation from BCT to company level. We will do the same for Rotation 13-09.

This is the first of three newsletters for Rotation 13-09. This volume looks at the BCT level of warfighting. The second discusses battalion and company warfighting. The third targets BCT special operations forces interagency interdependence.

Rotation 13-09 was the third decisive action and the second DATE rotation; our team felt it time to begin addressing the art emerging from the science of warfighting in unified land operations (ULO). Thus far, a triad of common issues have surfaced to challenge commanders and staffs in decisive action rotations:

- The doctrinal challenges of ULO.

- The challenge in bridging digital-to-analog communications.

- The organizational challenges of modularity.

This newsletter, like those before, addresses those areas. In past rotations, the RTUs dealt with the issues as matters of military science. In this third decisive action rotation, we saw the emergence of military art based on that science. Art in military operations comes from the experienced-based application of judgment and intuition, taking science to the next level. This newsletter addresses such art as it touches on the common issues above.

LTC Jeremy Schroeder examines the challenge of balancing the doctrinal demands of combined arms maneuver with those of wide area security when facing a hybrid near-peer enemy. LTC Steven Cho looks at similar issues and discusses the art of securing a lodgment when forces available fall short of demand.

Several articles in this newsletter explore various means for easing the tensions of mission command while switching between analog and digital communications. MAJ Shane Carpenter provides an especially relevant chapter on the art of the G-Man in targeting RTUs as they struggle with the digital-analog transition. More importantly, he offers how Geronimo uses a blend of analog and digital processes to apply the art of mission command.

Other articles look at the art and science of integrating, synchronizing, and sustaining a BCT in a DATE rotation.

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COL, IN
Director, Center for Army Lessons Learned

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The Secretary of the Army has determined that the publication of this periodical is necessary in the transaction of the public business as required by law of the Department.

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Chapter 1

Wide Area Security in the Decisive Action Training Environment: Finding the Balance

LTC Jeremy Schroeder, Task Force 2 Senior, Operations Group, Joint Readiness Training Center

"[We must] (r)ebuild the Army's combined arms maneuver and wide area security capabilities employing our CTCs to challenge and certify Total Army formations in a comprehensive and realistic decisive action training environment." — GEN Raymond T. Odierno, 38th Chief of Staff of the Army (CSA) (excerpt from the CSA Strategic Priorities, October 2013)

Joint Readiness Training Center (JRTC) Rotation 13-09 challenged the rotational training unit (RTU) in many ways days before the first paratrooper exited over Atropia. Those challenges did not stop until the exercise ended. The 3rd Brigade Combat Team (BCT), 82nd Airborne Division (3/82) Panthers met them all as a BCT ready for global response force duty. The Panthers mustered and deployed to the intermediate staging base (ISB) in neighboring Gorgas, where they configured for a joint-forced entry into a semipermissive operational environment (OE). On the ground in Atropia, the BCT conducted days of stability operations with low-intensity and unconventional threat engagements. The BCT dealt with a hybrid threat that included chemical, biological, radiological, and nuclear (CBRN) weapons of mass destruction. Ultimately, the Panthers executed large-scale force-on-force operations and defended against a near-peer conventional opposition force (OPFOR) and then went on the offensive to seize critical sites and defeat an enemy force.

A decisive action training environment (DATE) at the JRTC by any measure is a dynamic, complex, mental and physical challenge for Soldiers, leaders, and RTUs. This exercise covered the spectrum of varying enemy, neutral, and friendly host nation security forces (HNSF); offered numerous special operations forces-conventional forces (SOF-CF) interdependence opportunities while stressing an expeditionary mindset; and replicated the complexity and dynamic nature of current and future OEs. That is the core function of the JRTC: to prepare leaders for combat. As such, BCT leaders will be challenged to execute the Army core competencies and apply them in the appropriate balance to successfully accomplish the mission at hand.

Army Core Competencies

The Army's two core competencies — combined arms maneuver (CAM) and wide area security (WAS) — balance the application of Army warfighting functions (WfFs) within the tactical actions and tasks inherent in offensive, defensive, and stability operations. The integrated application of these two core competencies enables Army forces to defeat or destroy an enemy, seize or occupy key terrain, protect or secure critical assets and populations, and prevent the enemy from gaining a position of advantage. WAS is the application of the elements of combat power in unified action to protect populations, forces, infrastructure, and activities; to deny the enemy positions of advantage; and to consolidate gains in order to retain the initiative. Offensive, defensive, and stability operations each require a combination of CAM and WAS; neither core competency is adequate in isolation. (Army Doctrine Publication [ADP] 3-0, *Unified Land Operations,* Oct 2011)

With the balance and integration of these competencies, our complement of BCT WfF capabilities, and the re-establishment of DATE rotations as the BCT capstone "template of choice," there is a unique opportunity for Army BCTs. We have the operational conditions set to demonstrate that we have maintained the expertise gained from lessons learned over a decade of fighting the Global War on Terror (GWOT) in the core competency of WAS while planning and executing the CAM aspects that we crave to exercise.

Many tasks and skills learned and honed in the GWOT fall under the WAS umbrella. Some of these tasks and skills include:

- Partnered patrolling and advising with HNSF.

- Route clearance patrols.

- Counter-improvised explosive device and counter-indirect fire (C-IED/C-IDF) operations.

- Company intelligence support team (CoIST) bottom-up contributions and refinements to situational understanding of the OE.

- Counterinsurgency methodologies and experience with social and tribal dynamics and networking.

- Targeting of lethal and nonlethal targets and planning and executing them along near- and mid-range time horizons.

- The inherent adaptive and agile nature of our small-unit formations to which we have entrusted significant responsibility to our junior leaders.

These are just some of the "gains" from the GWOT that should be sustained. We have to couple these hard-won lessons learned with our priority on relearning and reapplying the "lost arts" of certain fundamentals and collective tasks associated with the other core competency of CAM. These skills include:

- Analog battle tracking and the limited use of Army Battle Command Systems (ABCS)-based mission command due to expeditionary operations.

- Field craft, patrol base, and dismounted operations under austere conditions for extended durations with limited resources and resupply.

- A host of other individual and small-unit skills that build into larger tactical tasks that have atrophied over time. Some of these tasks include:

  ○ Engagement area (EA) development.

  ○ Reconnaissance and surveillance (R&S) operations.

  ○ Deliberate attack-and-defend operations that integrate and synchronize all the elements of CAM.

Army leaders widely agree that we must not "time travel" back to the pre-9/11 days and immediately reimplement all our old practices. When we take a holistic view of where we have been and what we have learned, and contrast that with where we are trying to go, then we are safe in assuming that some portion of our past is a prologue for our future. So as units decide what to focus on at home station, at JRTC, and in combat, a balanced mindset throughout the formation is a precursor for success.

The Balanced Mindset

The Army's two core competencies define what our contribution to unified land operations (ULO) will be. CAM and WAS provide the means for balancing the application of WfFs within the tactical actions and tasks in offensive, defensive, and stability operations. Every operation has a mix of these attributes in varying percentages. Accordingly, training efforts and priorities should judiciously balance sustaining our current expertise in WAS with a renewed focus on relearning our atrophied skills in the integration of WfFs in CAM. Clearly, some decisions on priorities will have to be made. The DATE frames those decisions.

Military leaders need that framework to feed our "Alpha-type" personalities. When presented a problem, we attack it for a solution. In this case, the challenge of regaining proficiency in the atrophied skill sets associated with conducting CAM against a near-peer, hybrid threat drives the Alpha in all of us to focus on fixing what we know we must fix. Meanwhile, our comfort with WAS tempts us to neglect the aspects of the OE that are already familiar and the skill sets that are ready for immediate application. It seems counterintuitive not to execute appropriate actions as a function of recent combat muscle-memory. But this happens when unit leaders fixate on the larger tactical tasks that are unrehearsed, unfamiliar, and untested, such as conducting a brigade-level defense against a mechanized force with supporting artillery and aviation. In short, we must take care not to ignore or forget WAS while operating in any OE, but especially when confronting a potential hybrid threat that can easily cause us to focus solely on the application of the WfF for CAM and neglect rear-area security, active reconnaissance and security patrolling, and the troops-to-tasks associated with conducting WAS. The DATE framework builds those traps for the unwary Alphas. Look in the mirror and you will see one.

Focusing on the Threat: The Enemy Order of Battle

At P-hour, the Panthers executed a nighttime parachute assault into the eastern side of the zone of separation (ZoS) in the sovereign nation of the Republic of Atropia (RoA). The airborne operation triggered ground assault convoys into the RoA to support the establishment and expansion of the lodgment. On the ground, the Panthers coordinated with the HNSF while honoring the United Nations' (U.N.)-sanctioned ZoS by staying to the east on the "friendly" side to deter future hostile incursions while protecting U.S. allies and interests in the region.

The hostile breakaway actor, the People's Democratic Republic of Atropia (PDRA), held the Peoples' Democratic Army (PDA) to the west of the ZoS. Meanwhile, the PDRA continued to coordinate its proxy, insurgent, and unconventional warfare (UW) forces on the eastern side of the ZoS in the RoA. These forces gathered intelligence and disrupted HNSF and U.S. Army operations while setting conditions for their own PDA combined arms operations. The South Atropian People's Army (SAPA) comprised the enemy's insurgent and UW elements operating on the eastern side of the ZoS. With its direct coordination and reporting ties to the PDA, the SAPA was the enemy's shaping operation in the BCT rear area, performing the deep-fight disruption for the PDA. Immediately upon entering the semipermissive area of operations (AO)

at P-hour, the Panthers found themselves fighting the SAPA, the long-range reconnaissance and deep operations executors of the PDA's order of battle (OOB).
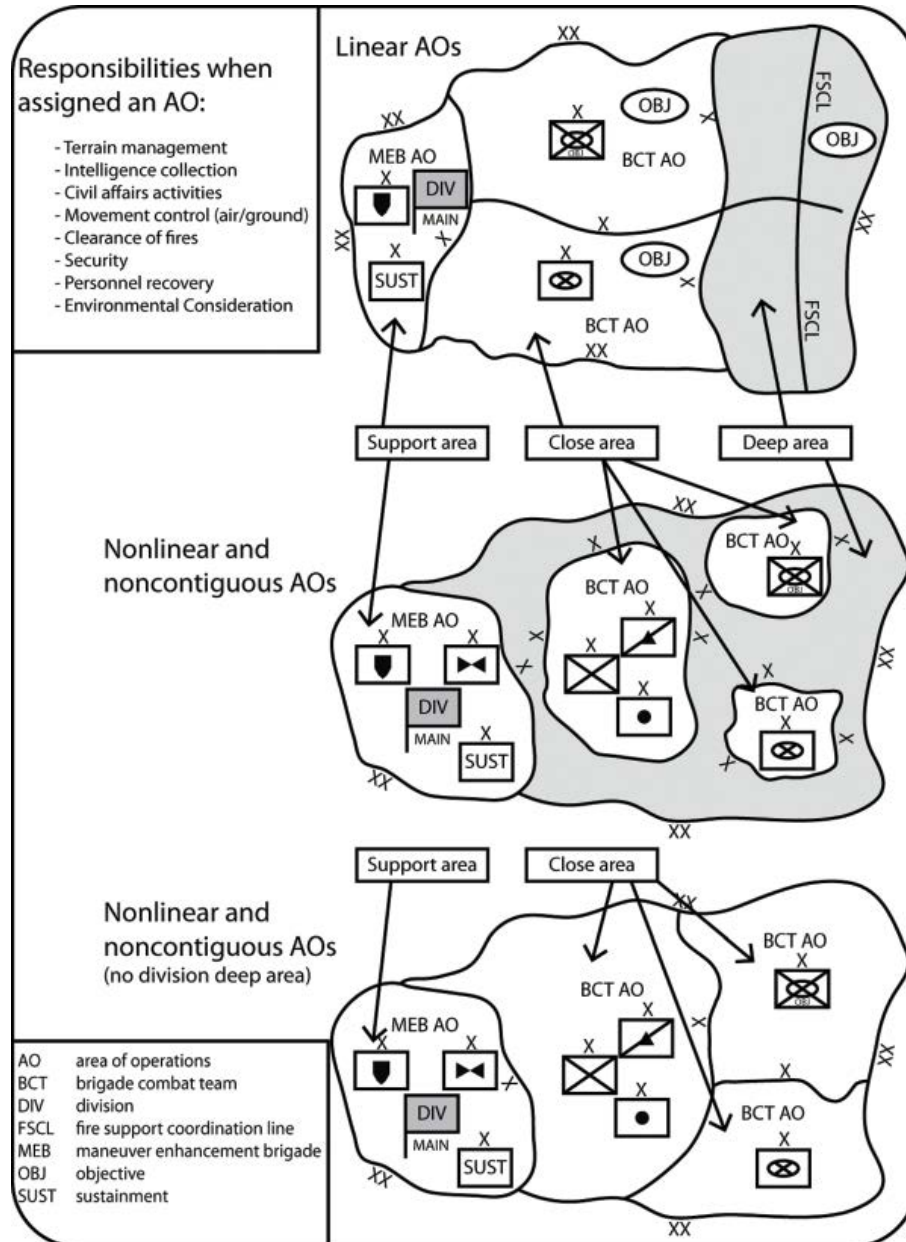
Figure 1-1. Army Doctrine Reference Publication (ADRP) 3-0,
***Unified Land Operations* (May 2012)**

The enemy was not the only actor on the UW stage. The Panthers had similar UW and SOF partners working interdependently with them in the enemy's rear area to disrupt and collect intelligence requirements, while other SOF worked with HNSF elements on the friendly side of the ZoS. The friendly SOF-CF interdependence over the course of the rotation was generally very successful. But without question, 3/82 was significantly more disrupted in its rear area than the PDA was on the other side of the ZoS. When viewed as the reconnaissance and counterreconnaissance fights that underpinned the entire rotation, the enemy was the decisive winner.

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Over the duration of the exercise, 3/82 had more than 70 indirect- or direct-fire (IDF/DF) engagements on the "friendly" side of the ZoS. The Panthers only initiated two of those contacts. SAPA or other threats initiated all the rest.

How did this happen? The U.S. Army has been conducting WAS in Iraq and Afghanistan for years. We know how to patrol and how to work and fight with HNSF in low-intensity conflict, especially when we overmatch our enemy's capabilities, just as 3/82 overmatched the SAPA.

The BCT commander stated in the key tasks of his commander's intent that he wanted to:

- Find, fix, and finish the enemy.

- Leverage all the enabling assets at hand to do so.

- Start with a smile when engaging the local population.

- Keep things simple.

The commander's intent was clearly articulated guidance that was applicable for the OE and proved to be very well disseminated throughout the entire BCT. Then why did the SAPA enjoy freedom of maneuver throughout the BCT AO on the "friendly" side of the ZoS for the entire duration of the exercise? A combination of friendly and enemy actions and attributes contributed to this dynamic.

Figure 1-2. The PDA as a near-peer enemy was a very real threat that eventually materialized.

The Traps of an Unbalanced Mindset and Target Fixation

The Alpha trap

The mentality of fighting a hybrid, conventional threat superseded the BCT's focus on the low-intensity and unconventional threat of the SAPA in its own rear area. As a result, the BCT subsequently placed all its organizational effort on the CAM tasks of defend and attack with little attention to WAS. But the high-intensity fight was not the immediate threat. SAPA had inflicted serious casualties before the PDA pushed across the ZoS.

Figure 1-3. SAPA operated in small teams with a very flat command structure using commander's intent.

Geronimo has the best partners

The OPFOR at the JRTC has mastered the art of flattened mission command. Its mastery makes its integration of SOF-CF superior. Because the OPFOR's task organization aligns SOF elements under conventional commanders, it does not require interdependence and unity of effort because it already has unity of command. This allows clear reporting channels and nested commander's critical information requirements (CCIR).

Figure 1-4. The U.N.-sanctioned ZoS was virtually open to anyone willing to violate U.N. agreements.

The force field was a one-way mirror

Because the United States and the host nation respected the ZoS, it was easy to consider the ZoS a physical boundary between a conventional threat force and the area defended by the HNSF. That perspective led BCT planners to assume the near "semipermissive" side was safer than the far "nonpermissive" side.

Assets flow toward priorities

The available friendly combat power to align troops-to-tasks for WAS patrolling operations while planning for imminent, conventional defend-and-attack missions may have been an impetus for preserving combat power. When available combat power is at a premium and something has to give, R&S patrols are trumped by preparations to defend against a full-scale attack. The economy-of-force operation can easily get economized to the point of nonexistence.

Fight the enemy

The effects realized by the SAPA were very real for the BCT. The enemy's intent was to keep the BCT off balance with sustained, small disruptive attacks until the main offensive — the classic purpose of deep-fight operations.

A BCT-level operation plan (OPLAN) and subordinate battalion/squadron plans were built before arrival to the ISB and were not refined or updated as the situation changed. This plan created inertia that was compounded by constrained timelines and high operational tempo. The unit stuck to the plan because it was a good and detailed plan built around preparation for and execution of CAM operations, but it lacked fidelity in addressing WAS operations in the BCT's rear area.

Figure 1-5. Compromise of communications security (COMSEC) is always a possibility, one that SAPA was ready to exploit.

COMSEC is not a problem until it's a problem

The SAPA successfully compromised the BCT's COMSEC on several occasions, causing COMSEC changeovers to occur and impeding communications. This is especially significant when conducting analog-centric mission command. U.S. forces have become used to having fixed-based communications that are not as exposed to loss and compromise.

DUSTWUN is a SAPA win

Several detained U.S. troops whereabouts unknown (DUSTWUN) events occurred, forcing BCT-wide battle drills to occur to secure routes, stop movement, and lock down units in their positions to gain accountability. Nothing draws more attention from U.S. forces than having a Soldier go missing. Capturing a U.S. Soldier aligned perfectly with the enemy commander's intent for SAPA operations in the BCT's rear area.

Figure 1-6. Six DUSTWUNs strained the BCT.

Homefield is an advantage

SAPA was operating on its native ground. The insurgent force was able to pick the time and place for its attacks with little impediment from the HNSF. Once the force seized the initiative, it kept it. SAPA operations were executed inside of the planning and decision cycles of the battalions and squadrons and resulted in numerous react-to-contact scenarios at the platoon and company levels. The Panthers demonstrated their proficiency at small-unit actions on numerous occasions, but almost entirely as reactions to enemy initiatives and never on desirable terms.

Slow and steady (sets the conditions to) win the race

SAPA was outmatched by the BCT in terms of overall, conventional combat power. It lacked the ability to challenge the BCT in a direct fight. But the SAPA did have the resources to punish the unwary platoon or company and proved it could expertly disrupt key command and logistic

nodes time and again. The BCT was steadily bled of its combat power from the near continuous engagements and resultant exacerbations, such as timely casualty evacuation, and the stress put on the overburdened and under-practiced logistic systems for personnel replacements and battle-damage/battle-loss vehicle and equipment repairs.

Figure 1-7. SAPA was very quick to exploit COMSEC and related disclosures.

This resulted in less combat power for future operations and, when coupled with mission command nodes that struggled to "see themselves" through unpracticed staff systems, led to inaccurate self-assessments, false assumptions for planning, and increased tactical risk in operations. SAPA's effectiveness was the proximate cause for numerous second- and third-order effects on friendly systems. While the BCT's paratroopers were diligent in their efforts once confronted with SAPA forces, the enemy had already seized the initiative and was able to successfully maintain it through persistent, disruptive operations in the BCT AO, thus affecting and shaping the conventional CAM fight that would later ensue.

Recommendations

Having the right mindset is essential. The Army's core competencies of WAS and CAM are complementary and cannot be conducted in isolation. All operations have components of offense, defense, and stability operations, and the mission determines the relative weight of effort among the components. A unit must identify how much effort — staff planning, combat power, enablers, tactical risk assumption — to put against each component depending on the mission, and understand what strengths, weaknesses, opportunities, and threats are inherent when we mass or minimize any one aspect.
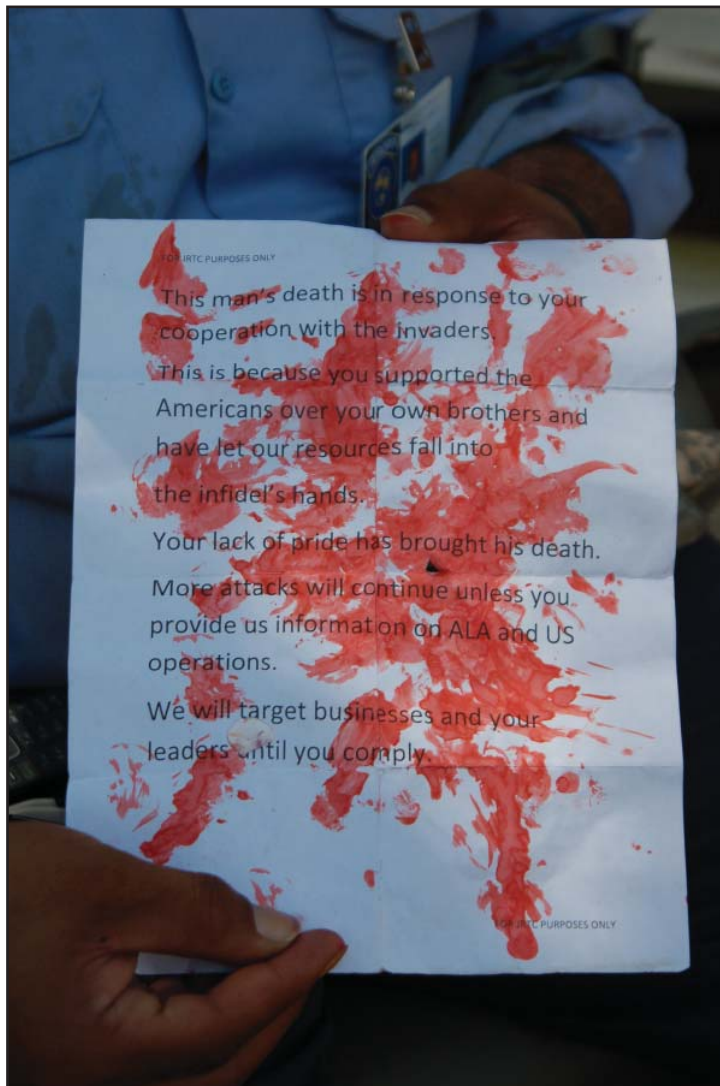
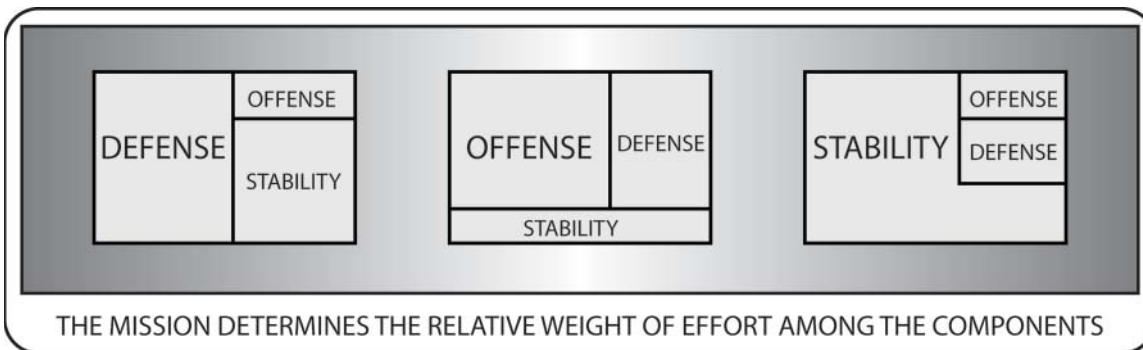**Figure 1-8. SAPA used terror as a weapon, especially against RoA police.**

Figure 1-9. FM 3-07 (Oct 2008)

The staff process never stops

The first step in every military or civilian problem-solving methodology is to identify the problem. Commanders must lead and drive the operations process for the staff. That is a foundation for success. Even better is an organization whose commander and staff have an iterative system to continuously assess and reframe the problem to adjust their operational approach to better understand, visualize, and describe the OE and ultimately to achieve the end state. Asking the right questions throughout this process is critical. In this instance, each echelon's commanders and staff should have a means to inform themselves, update staff assessments and estimates, and define the OE. This portion of the process is the linkage between the military decisionmaking process (MDMP) and intelligence preparation of the battlefield (IPB). It develops situational understanding for the commander and his staff.

Applying the Army's design methodology is "a way" to support the commander's visualization and complement the MDMP. Design is a methodology for applying critical and creative thinking to understand, visualize, and describe problems and approaches to solving them (ADP 6-0) and typically precedes the MDMP. Having a diverse design team and iterative framing sessions keeps the problem-solving at the forefront and is "a way" to defeat our own Alpha-type nature and the mission-creep of fighting a plan instead of understanding the OE and fighting the enemy.

A hybrid enemy follows a common intent

The enemy order of battle was well known, and the effects of SAPA operations were effective from the start. The BCT would have benefited from focusing on the threat and implementing a mechanism to better see the enemy and how enemy actions shaped the OE. Having a BCT OPLAN before entering the OE was a great initial step toward common understanding across the BCT, but the lack of a system led by commanders and conducted by staffs to assess and reframe the problem contributed to the stasis of the BCT's mindset and inability to adjust its operational approach.

The enemy is not static

The IPB portion of MDMP must be continually assessed and refined, and having an accurate enemy situational template (SITTEMP) for WAS is something the Army has proved its proficiency in executing. Just as an enemy event template is ideal for tracking enemy formations over time and space based on their OOB and movement and maneuver over terrain, a SITTEMP to apply across a BCT's AO is appropriate and proven.

Use of the "horse blanket" across an area to assign responsibility to friendly units to conduct reconnaissance and security patrolling operations, route clearance patrols, and counter-IDF and counter-IED patrols really works. Partnered, combined operations with an HNSF element have proved successful in recent operational deployments. Depending on the OE, the BCT and subordinate units should provide combat power and enabling assets to their assigned areas for protection to preserve friendly combat power; defeat or deny enemy reconnaissance; support personnel recovery; collect intelligence; and ensure freedom of maneuver of friendly, HNSF, and civilian populations. Whether the AO is linear or contiguous, these principles and responsibilities will apply. They will ultimately prevent the enemy's forces from disrupting friendly planning efforts, mission command, and logistical nodes, and from gaining intelligence about friendly operations.
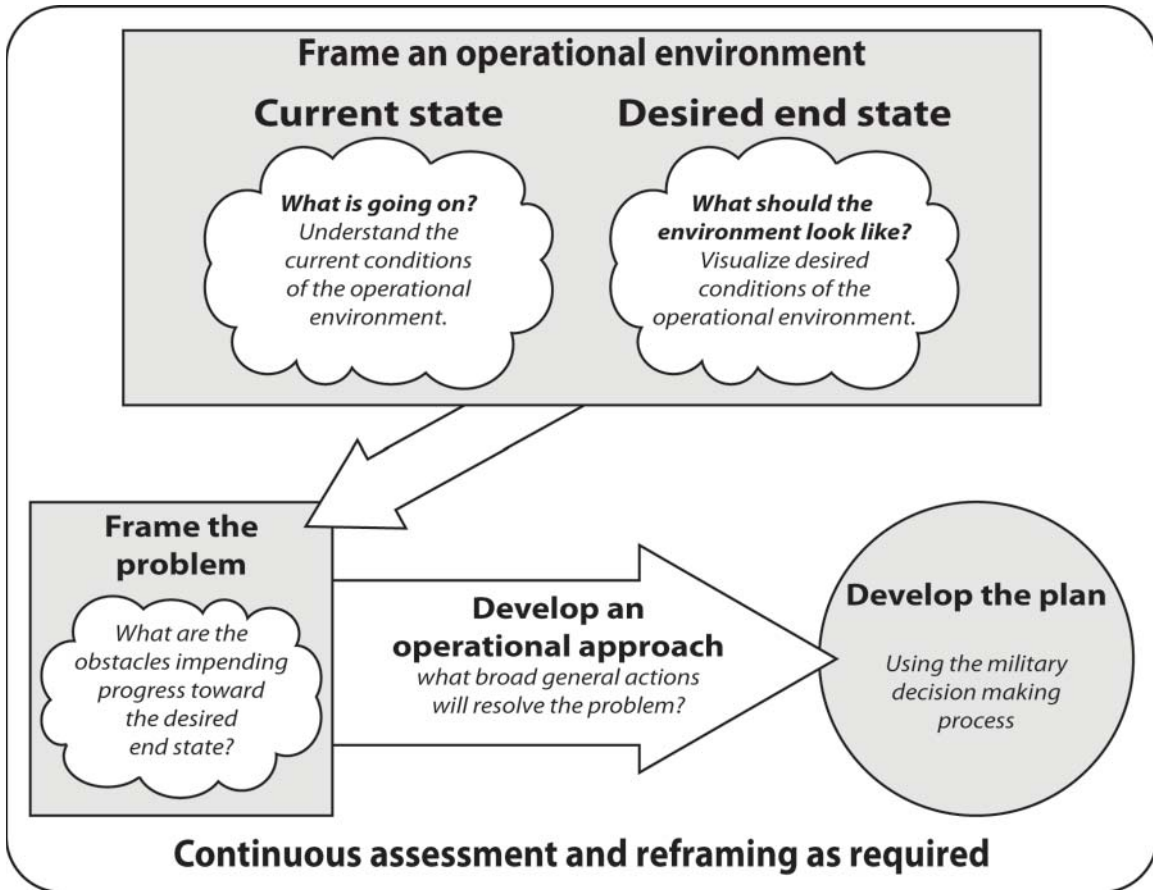
Figure 1-10. ADRP 5-0, *The Operations Process* (May 2012)

Either you fix the enemy or he fixes you

The BCT commander said in his intent that he envisioned the tasks of finding, fixing, and finishing the enemy as a BCT priority. Having a BCT focal point to achieve that goal is a good practice. Establishing a BCT working group to consolidate trends and patterns, provide analytic support, and make recommendations for allocation of intelligence, surveillance, and reconnaissance and combat power elements has proven successful in recent combat deployments and would have proved helpful in this OE. CoISTs across the BCT were ready and willing to contribute to this effort but did not get out in front of the SAPA's actions in their respective AOs and lacked the overarching prioritization and coordination for this effort.

Conclusion

Conducting WAS in the face of a hybrid threat battle will likely remain an economy-of-force operation, especially as the U.S. Army relearns the skills associated with CAM. But no matter the operational situation, WAS must be part of the equation and not an afterthought, even and especially when preparing and executing CAM. Conducting WAS in future OEs that present a potential for CAM operations may not win the fight decisively, but neglecting it can certainly lose the fight. These are the Army's two core competencies, and they complement one another.

The U.S. Army has proven proficiency in WAS; we should look for the OE conditions to exist so we can apply these proven skills. They may be obvious or they may be discreet, but they will have a place on the battlefield of today and tomorrow.

Similarly, our balanced mindset and focus must prioritize our atrophied abilities at executing CAM, but not to the detriment of losing our gains in WAS proficiency. JRTC Rotation 13-09 showed the difficulties with finding the balance in implementing wide area security into all operations.

Chapter 2

Rapid Expansion of the Lodgment: How a Brigade Commander Can Quickly Achieve the Effects of Offensive Operations While Performing an Inherently Defensive Mission

LTC Steven N. Cho, Task Force 3 (Reconnaissance Squadron) Senior Trainer, Joint Readiness Training Center

In 1944 Anzio taught U.S. commanders a hard lesson: If you wait in one place long enough, the enemy will surround you. Grenada in 1983 offered another: An airhead must be defended from direct and indirect fires. Adding depth to the lodgment reduces direct fires and limits observation for indirect fires.

U.S. forces parachute onto an airfield in the dead of night in a restrictive or semipermissive operational environment (OE) at the request of a friendly government challenged by both insurgent activity and conventional threat. Understandably, most commanders would hesitate to extend the defensive perimeter and thereby enlarge the area between friendly units in a potentially hostile environment. However, accepting some inherent risk to quickly expand the lodgment can enable commanders to maintain the initiative and seize short-lived opportunities that would not be afforded to units in a defensive posture.

In accordance with Joint Publication (JP) 3-18, *Joint Forcible Entry Operations*:

"Joint forcible entry operations seize and hold lodgments against armed opposition. A lodgment is a designated area in a hostile or potentially hostile operational area that, when seized and held, makes the continuous landing of troops and materiel possible and provides maneuver space for subsequent operations (a lodgment may be an airhead, a beachhead, or a combination thereof). The lodgment and the means of seizing will depend upon the objectives of the operation or campaign. In most operations, forcible entry secures the lodgment as a base for subsequent operations. It often has facilities and infrastructure if the joint commander plans to use the lodgment to receive large follow-on forces and logistics. In some operations, seizure of the lodgment may be the primary objective, and its retention lasts only until the mission is complete, at which time the assaulting forces withdraw. Forcible entry operations are inherently risky and always joint. Forcible entry demands careful planning and thorough preparation; synchronized, violent, and rapid execution; and leader initiative at every level to deal with friction, chance, and opportunity. See Figure 2-1."

Forcible entry operations seize and hold a lodgment against armed opposition. As Figure 2-1 illustrates below, key tasks for forcible entry operations include the following:

- Gain and maintain operational access.

- Defeat enemy area denial.

- Seize bases for subsequent operations.

- Introduce follow-on forces.

- Destroy specific enemy capability.

- Evacuate personnel and equipment.

- Employ military deception.

- Support joint special operations.

- Gain intelligence.
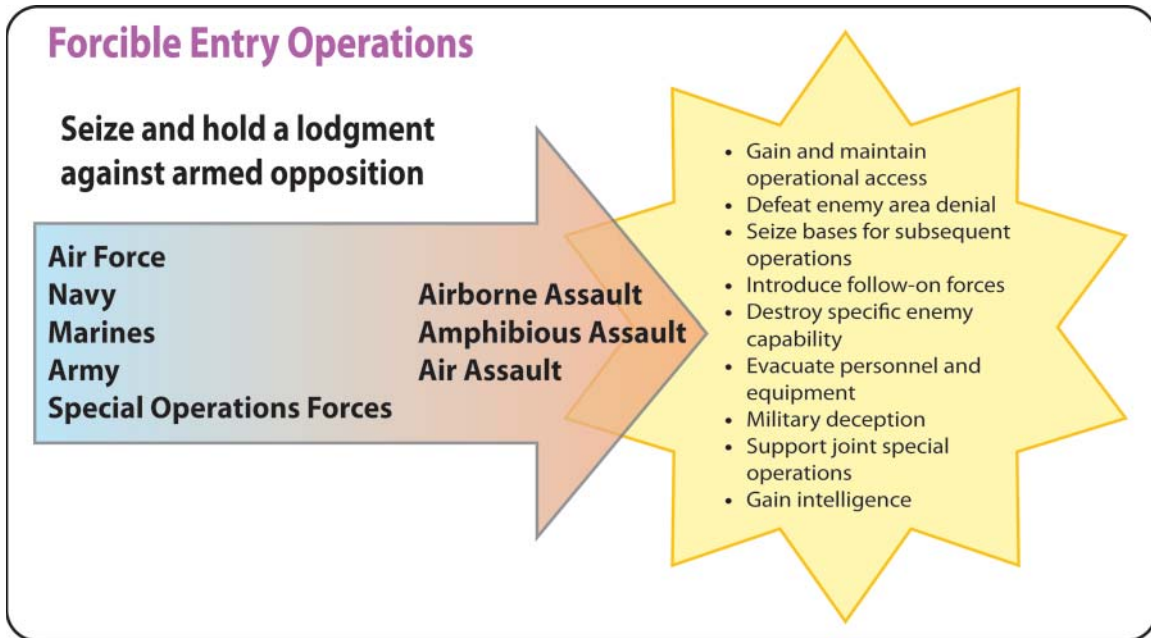
Figure 2-1. Forcible entry operations

As seen in a recent decisive action training environment (DATE) rotation at the Joint Readiness Training Center (JRTC), an airborne brigade learned to capitalize on expansion of the lodgment to reap several significant benefits. The most important benefit was the brigade's ability to achieve its overarching purpose for the mission: to prevent damage to the field landing strip (FLS) that would disrupt the division's ability to build combat power and provide continuous logistical support to the OE.

In Figure 2-2 below, the blue icons represent the locations of friendly vehicles and personnel within the brigade shortly after the airborne assault. The green icons represent the locations of host nation security forces' (HNSF) vehicles and personnel. Notice that the icons form a tight albeit shallow security perimeter around the FLS, signifying that proper expansion of the lodgment has not yet been achieved (highlighted by the large blue arrows pointing outward). The red explosions represent direct fire contact made by enemy forces along the perimeter; clearly, enemy forces demonstrated their ability to influence the FLS with both direct and indirect fires. Although enemy forces did not crater the FLS, they conveyed their knowledge of the airhead line (AHL) and their ability to influence the FLS by staging a chemical attack against the brigade tactical operations center.
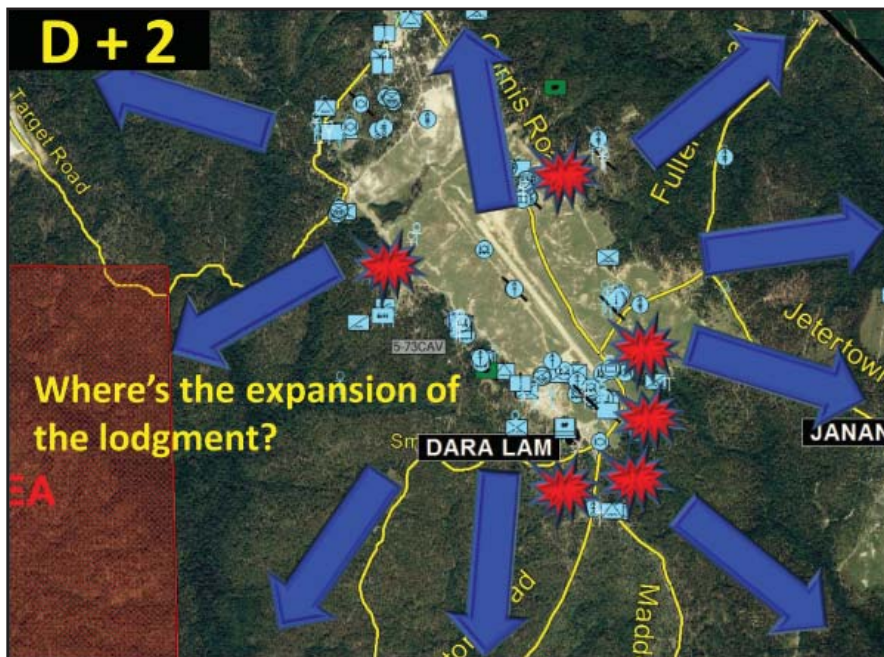
Figure 2-2. D+2

Contrast this figure with Figure 2-3 below, which depicts the array of forces in the brigade after expansion of the lodgment. In Figure 2-3, the red icons represent the locations of enemy vehicles and personnel. The dashed red lines signify enemy indirect fires against friendly forces and the FLS. In this figure, proper expansion of the lodgment has occurred in the south (highlighted by the yellow arrows); however, enemy forces are still able to influence the FLS because enemy personnel are still in close proximity to the FLS and are therefore free to call and observe fires.
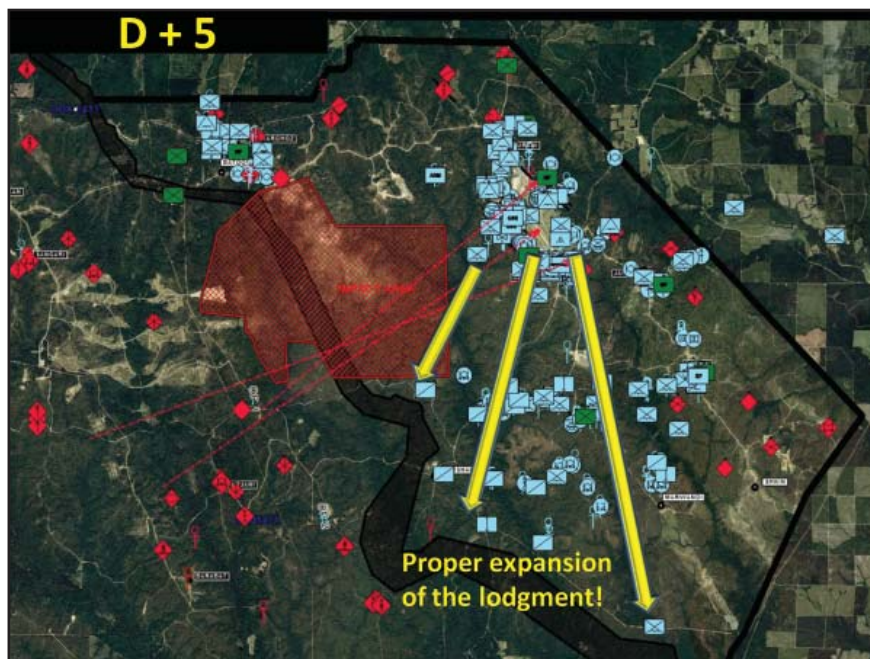
Figure 2-3. D+5

Acknowledging the obvious need for the brigade to conduct roving patrols along the AHL perimeter in Figure 2-3 to eliminate enemy observers, notice what the brigade has achieved by expanding the lodgment. The unit in the south is the brigade's reconnaissance squadron, which conducted an area reconnaissance within its boundaries as it expanded into the security zone to the south. Not only did the area reconnaissance provide knowledge of the terrain, but also it ensured that the security zone was free of enemy forces (notice the lack of red icons to the south in Figure 2-3). This type of deliberate reconnaissance did not occur in the southeast (notice the red icons) because that area was designated as the brigade's engagement area. Moreover, deliberate reconnaissance during the expansion did not occur in the north (notice the red icons), because friendly forces in the northern battalion conducted an air assault into their forward positions.

Not only did expansion of the lodgment limit the enemy's ability to affect the FLS, but also it provided two other critical windows of opportunity for the brigade that would have been missed without the expansion. In Figure 2-2, the brigade has access to only one population center (Dara Lam), which is located within the AHL perimeter. The brigade also has the opportunity to partner with only two HNSF units (depicted by the green icons), also located within the AHL perimeter. As seen in Figure 2-3, however, expansion of the lodgment extends not only the brigade's spatial realm, but also it expands the brigade's ability to influence the battlefield. After the expansion, the brigade's access to population centers jumps from one to eight; furthermore, its opportunities to partner with HNSF jumps from two to 10. Fortunately, the brigade learned of these opportunities before the windows for them closed, although damage had already occurred from the initial hesitation as evidenced by the feedback provided by an enemy troop commander. When asked what the brigade could have done to have achieved a greater effect on enemy forces, the enemy commander replied with the following insight:

> *"Insurgent forces had free reign to maneuver in local villages. Friendly forces did not engage the local crime family; therefore, the local crime family was forced to turn to enemy forces. The crime family provided supplies and information to enemy special purpose forces for money."*

In accordance with JP 3-18 (page IV-7), "The joint force must avoid an unnecessary operational pause. The tempo of operations directed against the enemy must be maintained to prevent the enemy from reorganizing and effectively countering the establishment of the lodgment." As demonstrated above, rapid expansion of the lodgment enables the brigade to interact with the local population, conduct key leader engagements, and ask for HNSF and government assistance — all of which are venues for information operations (IO) — before enemy forces have a chance to counter the airborne assault with their own IO campaign. Rapid expansion also puts pressure on enemy forces by interfering with the enemy planning/decision cycle, by limiting enemy freedom of maneuver, and by preventing enemy observation of the lodgment as well as the ability to employ direct and indirect fires against it — all of which are the effects of offensive operations. Ultimately, these benefits may well outweigh the risks incurred by the rapid expansion.

Fortunately for this brigade, the lesson was learned in time to foil the enemy's attempt to overrun the lodgment, crater the FLS, and eliminate the country's only means to receive friendly forces. Had the brigade delayed expansion by a day, the outcome may have been tragically different.

Chapter 3

Synchronizing Brigade Operations During the Prepare Phase of the Operations Process

MAJ Ryan Wylie, Brigade Mission Command, Joint Readiness Training Center Operations Group

"To achieve harmony in battle, each weapon must support the other. Team play wins. You 'musicians' of Mars must not wait for the band leader to signal to you. You must, each of your own volition, see to it that you come into this concert at the proper time and at the proper place." — MG George S. Patton, Jr., Fort Benning, GA, 1941

The complexity and intensity of the decisive action training environment (DATE) is designed to challenge a brigade combat team (BCT) commander and staff to synchronize operations and be the band leader of the "musicians" of Mars. In fact, the principal lesson learned from the BCT commander who conducted the first Joint Readiness Training Center (JRTC) DATE rotation in 2010 (then termed "full spectrum operations") was the need for the BCT to focus on synchronization.

The experience of the 3rd Brigade Combat Team (BCT), 82nd Airborne Division (3/82) during JRTC Rotation 13-09 was no different; the BCT was stretched to conduct simultaneous offense, defense, and stability operations. As an example, less than four days after the BCT conducted a forcible entry operation into Atropia, the BCT was engaged in offensive operations against an insurgent threat, preparing to defend the lodgment against a mechanized conventional threat and conducting stability operations in numerous population centers in Atropia, to include the provincial capital of Dara Lam. Other continuing activities included securing the lodgment and main supply route and counterreconnaissance. In this environment, BCT success depends on the brigade's ability to synchronize its actions and effects in time and space. This is always a difficult task.

Synchronization has long been and continues to be a cornerstone of Army doctrine and victory in combat. Army Doctrine Reference Publication (ADRP) 3-0, *Unified Land Operations (ULO),* includes synchronization as one of the six tenets of ULO. Synchronization is defined as "the arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time." Synchronization is further explained as "the ability to execute multiple related and mutually supporting tasks in different locations at the same time, producing greater effects than executing each in isolation." The concept of combined arms is closely related and is essentially the synchronization of different warfighting functions (WfFs) and capabilities to achieve effects. The concept of combined arms underpins the doctrine of ULO.

Execution of ULO through decisive action requires, among other things, combat power applied through combined arms. Importantly, commanders achieve combined arms effects through effective mission command enabled by the mission command system: personnel, information systems, facilities and equipment, networks, processes, and procedures. The staff working on behalf of the commander uses the mission command system to control BCT operations and to assist the commander in decision making and dissemination of the commander's intent.

Prior to 9/11, the topic of synchronization dominated the Army's professional discussions. In 1992, then Chief of Staff of the Army GEN Gordon Sullivan wrote an article titled, "Delivering Decisive Victory: Improving Synchronization." In the article, he argued that in the post-Cold War era the key to future Army victory in war would be to "better synchronize our battlefield operating systems while denying the enemy the ability to synchronize his." In many respects, the DATE returns the Army to an environment similar to the post-Cold War era where synchronization is paramount.

Arguably, synchronizing operations at the BCT level has never been more challenging than in the present DATE. The complexity of the environment is unparalleled and requires a BCT to fight a hybrid enemy that includes an insurgent, criminal, and conventional threat with chemical, biological, radiological, and nuclear (CBRN), cyber, and air capabilities. At the same time, the BCT must partner with host nation security forces and a host of other unified action partners. DATE is different from the counterinsurgency (COIN)-dominated environments in Afghanistan and Iraq, where the mantra for success was autonomous action and initiative at the lowest level. Many of the most critical operations that a BCT will conduct in DATE require a high degree of BCT control to synchronize effects in small windows of time and space.

Think, for example, of the synchronization of BCT effects in an engagement area during the defense or during a BCT attack into a built-up area. Moreover, the BCT is larger than ever before and growing with BCT 2020. As a result, it has more capabilities to synchronize. During Rotation 13-09, 3/82 deployed to the JRTC with over 5,200 paratroopers, which included its six organic battalions, an aviation task force, a Stryker and mechanized company, and six additional companies of enablers from air defense to chemical. While it is true that current digital mission command systems give the BCT an important tool in overcoming the above mentioned challenges to synchronization, the DATE forces the BCT to transition between analog and digital mission command systems and to typically operate off a degraded digital backbone, often negating this digital advantage.

Traditionally, professional discussions on synchronization center on actions the BCT conducts during the planning phase of the operations process:

- Intelligence preparation of the battlefield (IPB).

- Military decisionmaking process (MDMP).

- Targeting process.

- Combined arms rehearsal (CAR).

- Fires rehearsal.

Each of these is critically important to the brigade's ability to synchronize operations. However, there are three critical processes or events that occur during the preparation phase of the operations process, the importance of which is often overlooked by the brigade staff and the commander. These are:

- The plans-to-operations transition.

- The operations synchronization (OPSYNCH) meeting.

- The current operations (CUOPS) integration cell internal rehearsal.

Together, these three processes or events ensure that CUOPS is prepared to effectively synchronize BCT operations during the execution phase. When ignored or overlooked, all of the important work toward the synchronization the brigade staff accomplished during the planning phase is potentially lost prior to execution.

Plans-to-Operations Transition

The plans-to-operations transition is a critical step in the brigade staff effort at synchronizing BCT operations. According to ADRP 5-0, *The Operations Process,* the purpose of the transition is to facilitate the effective handover of brigade planning efforts between the brigade's two integrating cells to ensure that CUOPS understands the plan prior to execution and that responsibility for developing and maintaining the plan shifts from plans to CUOPS in a timely manner. It is important that the brigade staff establish a deliberate and formal process, one that is captured in the brigade tactical operations center standing operating procedure (TOCSOP) for conducting this transition. Conducted correctly, this process reinforces disciplined adherence to planning horizons within the staff and ensures that CUOPS is prepared to synchronize and control brigade operations during execution. Without a deliberate transition, the plans cell can be consumed by planning efforts that exist in the CUOPS planning horizon (usually 72 hours). As a result, the plans cell cannot focus on the BCT's next fight and conduct the proper steps in the planning process that provide for synchronization and detailed planning. Likewise, CUOPS receives the plan late and is unprepared to synchronize operations in execution.

While the formal transition between the plans cell and CUOPS generally occurs during the preparation phase of the operations process, effective transition begins with CUOPS involvement in the plans cell planning process. Ideally, CUOPS should designate a member of the CUOPS cell to act as a liaison to the plans cell and attend all important brigade planning and targeting events, to include the plans working group and the daily targeting working group. This individual should provide a daily update to the chief of operations on the status of all brigade planning efforts, to include planning timelines. The chief of operations should plan to attend all of the decision briefs that occur during the planning and targeting process, to include the mission analysis brief, the course of action (COA) decision brief, the brigade operation order (OPORD), and the targeting decision board. Combined with information the chief of operations receives from the CUOPS liaison to plans, chief of operations' participation at critical decision briefs helps CUOPS anticipate requirements for upcoming operations and prepare for future transitions.

The brigade must carefully consider the timing of the plans cell to CUOPs transitions; it will vary by operation. ADRP 5-0 states that the transition should occur before the CAR. This is not always feasible or optimal. Generally, the transition should occur around either the brigade OPORD or the brigade CAR. The transition should not occur before the brigade OPORD is published. If planned around the brigade CAR, there are advantages and disadvantages to conducting the transition either before or after the CAR. Transitioning before the CAR ensures that CUOPS takes ownership of the plan and participates in the rehearsal. However, having responsibility for the CAR will stress the CUOPS staff and pull personnel away from the immediate CUOPS fight. It will also make the CUOPS staff responsible for publishing the fragmentary order (FRAGO), which captures changes to the plan from the CAR. The CUOPS cell will need sufficient staff to be successful at this task. If the brigade does not conduct a CAR

and transition is not feasible at the time of the OPORD, then the transition needs to occur at least 24 hours prior to execution to ensure that CUOPS has time to conduct necessary coordination and rehearsals. Lastly, while the specific timing of the transition is important, most important is that the transition time is established and is known by both the plans cell and CUOPS. The brigade operations officer (S-3) or executive officer (XO) should establish this time upon receipt of the mission and it should be included in the planning timeline.
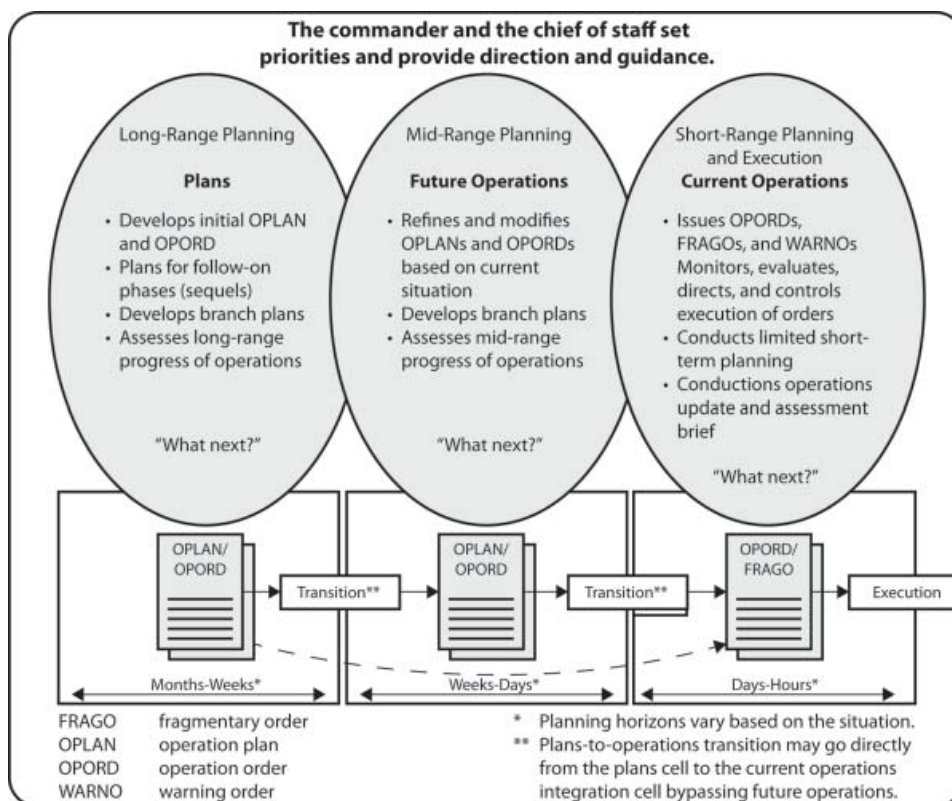
Figure 3-1. Integration of Plans, Future Operations, and Current Operations, Army Tactics, Techniques, and Procedures (ATTP) 5.0-1, *Commander and Staff Officer Guide*

The formal transition of a plan from the plans cell to the CUOPS cell should occur in conjunction with a briefing to the entire CUOPS cell from the lead planner. The briefing should occur immediately before or after shift change to ensure that both the day and night shifts from CUOPS are present. The briefing should generally follow the five-paragraph OPORD format and additionally address outstanding requests for information and critical ongoing adjacent unit or higher headquarters coordination. It is important to note that this briefing cannot provide the level of detail required to effectively transition the plan by WfF. Members of the CUOPS staff need to be linked in with the planners from their WfFs and conduct a more detailed WfF-specific transition at another time. The formal briefing should be followed by a meeting between the lead planner and the key members of the CUOPS staff to review the most current commander's guidance and inputs into the next FRAGO. Additionally at this meeting, the lead planner should review essential execution tools that came out of the planning process, to include:

- Decision support template (DST).

- Decision support matrix (DSM).

- Execution matrix.

- Event template.

- Intelligence, surveillance, and reconnaissance (ISR) collection matrix.

- Attack guidance matrix (AGM).

- Target synchronization matrix (TSM).

- Commander's critical information requirements (CCIR).

- Updated operations graphics.

It may be advisable to leave a member of the planning staff in the CUOPS cell for a period of time to facilitate the transition and help the CUOPS staff complete any of the above mentioned products not yet finished.

Operations Synchronization Meeting

The OPSYNCH meeting is another critical event that facilitates synchronization during the preparation phase. This meeting should occur daily as part of the brigade battle rhythm typically placed in the evening to allow the staff time to "make sausage" during the day by producing the key inputs to the meeting. ATTP 5-0.1, *Commander and Staff Officer Guide,* states that the OPSYNCH meeting is the "key event in the battle rhythm in support of the current operation." The purpose of the meeting is to synchronize all operations and activities by WfF that are in the short-term planning horizon. In many cases, this meeting serves as the first opportunity the brigade has to synchronize the outputs of the brigade MDMP, targeting process, and continuing activities, such as route security, logistics patrols and resupply operations, and security in and around the lodgment. To highlight the importance of this task, take the following example:

> On day three of a DATE rotation, the brigade planning staff has just published an OPORD detailing the BCT defense with a no later than defend time approximately 72 hours in the future. The BCT staff should already be generating asset requests for this mission. Meanwhile, the brigade targeting process, while synchronizing lethal effects for the defense, has likely developed proactive counter-fire guidance to defeat insurgent mortar teams that are disrupting operations on the lodgment. The protection working group has developed a plan for counter-improvised explosive device (C-IED) patrols along the main main supply route. While not planned in isolation, the detailed planning required to effectively prioritize, resource, and synchronize each of these important events has not yet occurred and needs to occur as a result of the OPSYNCH meeting.

Critical to the success of the OPSYNCH meeting is having the right members of the staff attend who have the right information as inputs into the meeting. That means that key members of the brigade staff must regularly attend. Having the brigade deputy commander or XO chair the OPSYNCH with the S-3 or chief of operations as facilitator is a best practice that enforces attendance and preparation. A representative from each WfF and all battalion liaison officers (LNOs) should attend. Specific staff members in attendance should include the S-2, S-3, chief of

operations, brigade aviation officer (BAO), air liaison officer (ALO), brigade targeting officer, and inform and influence activities (IIA) lead. Battalion LNO involvement is critical to the success of the meeting, especially in DATE where distributed meetings over the brigade digital backbone are often not possible.

BDE OPSYNCH MTG

Purpose: Synchronize all BCT operations and activities by WFF that are occurring in the short-term planning horizon

Frequency: Daily

Duration: 60 minutes

Location: BDE Conference Rm Tent

Chair: DCO or S3

Facilitator: CHOPs

Membership: BCT S2, BCT S3, FSO, Targeting Officer, BAO, Collection Manager, ALO, BN LNOs, S4 rep, S6 rep, IIA rep, CBRN rep, ADA rep, Eng rep

Inputs:
- Commander's Priorities (to include CCIR, HVTL)
- SIGACTs and OPSUM (last 24hrs)
- Weather (next 72hrs)
- Enemy SITEMP
- ISR, CAS, Aviation requests and matrices
- BDE planned operations (next 72hrs)
- BN planned operations (next 72hrs)
- Targeting Synch Matrix and AGM

Outputs:
- OPSYNCH Matrix (next 72hrs)
- BCT Daily Operations FRAGO

Agenda:
- Roll Call (CHOPs)
- SIGACTs and OPSUM last 24hrs (BTL CPT)
- Light and Weather – Effects on Operations (SWO)
- Intel Update (S2)
- Operational Priorities (S3)
- Synchronization of BCT Operations D+1-D+3
  - BN Operations (BN LNOs)
  - Fires (FSO)
  - ISR (Collection Manager)
  - CAS (ALO)
  - Aviation (BAO)

Figure 3-2. Example brigade OPSYNCH meeting "7-minute" agenda.

The inputs into the meeting directly feed the meeting agenda and should include:

- Friendly and enemy significant activities over the last 24 hours.

- Weather for the next 72 hours.

- CCIR.

- Updated enemy most likely course of action (COA) for the next 72 hours and the accompanying intelligence assessment.

- The ISR synch matrix with pending ISR requests.

- Commander's priorities.

- Brigade planned operations for the next 72 hours, to include execution matrices from planned operations.

- Battalion planned operations for the next 72 hours.

- TSM.

- The exiting AGM.

- The IIA synch matrix.

- Assets available by WfF, to include the current air tasking order (ATO); pending Department of Defense 1972, *Joint Tactical Air Strike Request* forms; and pending and approved air mission requests (AMRs).

The meeting should begin with a review of the last 24 hours and then an intelligence update. Next should be a review of the current CCIR, commander's priorities, and the high-value target list (HVTL). A clear understanding of the commander's priorities is the critical input into this meeting. During the last decade of COIN and stability operations, many brigades began to use the targeting process as their primary planning process, and commander's priorities came in the form of targeting priorities approved during the target decision board. A key consideration in DATE is what forum the commander will issue guidance and formally publish priorities. A recommendation is that the BCT commander's update brief (CUB) serves as this forum either every 24 to 48 hours. With these priorities in hand, the brigade S-3 can prioritize and subsequently resource appropriately the entirety of BCT operations.

Following a review of the commander's guidance, the meeting should review operations and assets available in 24-hour segments going out to 72 hours. During this process, the staff will have the opportunity to accomplish two important synchronization tasks:

- Ensure that the brigade is getting all of its assets into the fight and allocating those assets based on the commander's priorities (key here is that the BCT weights the main effort).

- Ensure that planned operations are deconflicted in space and time, that they are mutually supporting, and that they support the commander's priorities.

It is important to note that in DATE the CUOPS planning horizon should extend 48 to 72 hours into the future and should be pegged against asset request cycles, to include the ATO cycle, the ISR request cycle, and the rotary wing AMR cycle.

The last agenda item during the OPSYNCH meeting should be required decisions. These decisions will likely result from existing resource conflicts or required changes to the scheme of maneuver or targeting matrix. In making these decisions, it is important that the brigade staff has a clear understanding of decision authority guidance from the commander and that the right decision maker is in the meeting so that needed decisions are not postponed.

There are two critical outputs from the OPSYNCH meeting that directly contribute to the synchronization of BCT operations. The first output is the OPSYNCH matrix. This matrix is divided into 24-hour segments and provides the chief of operations and the CUOPS cell a single point of reference for the execution of operations. The OPSYNCH matrix should be a compilation of products from the inputs mentioned above, to include execution matrices, the

ISR collection matrix, the ATO, the AMR matrix, and the TSM. The OPSYNCH matrix should describe, by hour, tasks for all maneuver units and allocation of all available BCT assets.
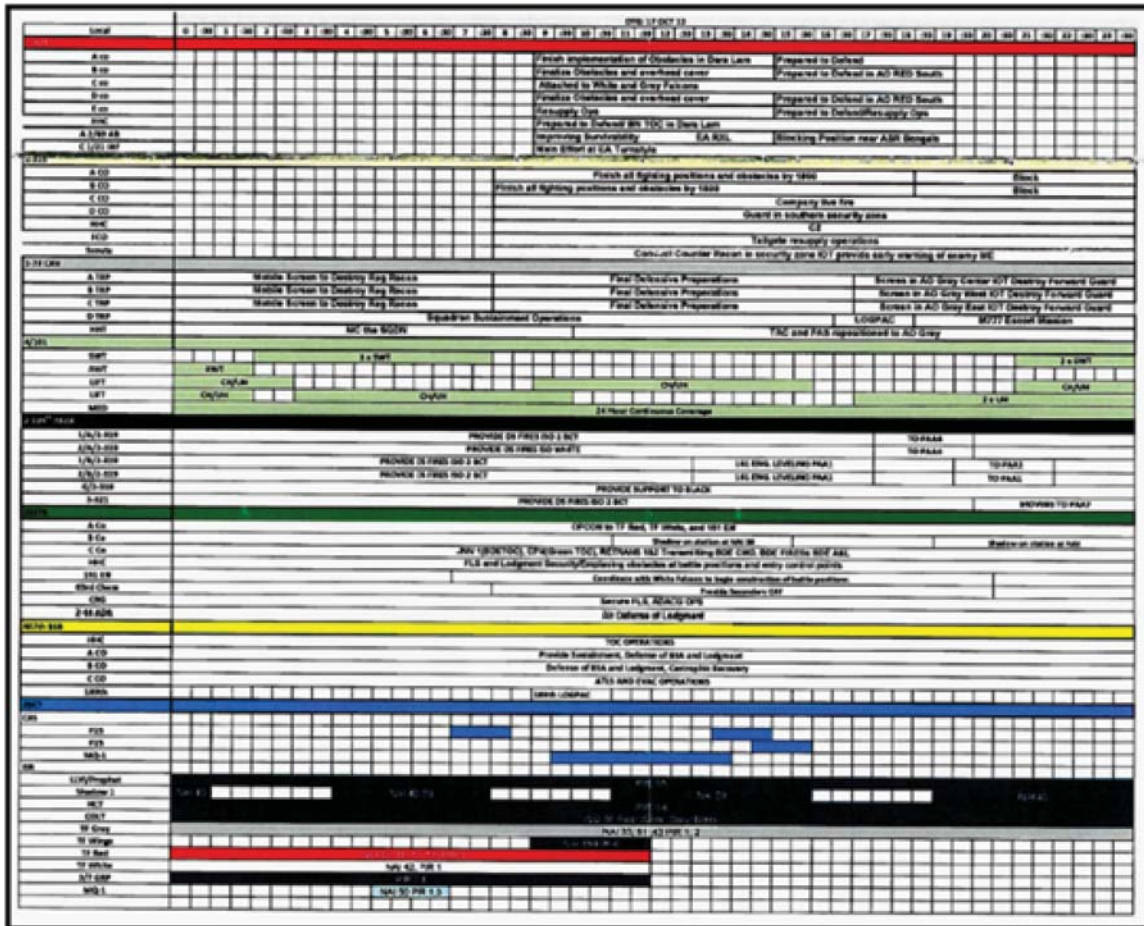
Figure 3-3. Sample OPSYNCH matrix

The second output of the OPSYNCH meeting is the daily operations fragmentary order (FRAGO). As described in ATTP 5.0-1, this FRAGO should address "any required changes to maintain synchronization of current operations and any updated planning guidance for upcoming working groups or boards." More specifically, the FRAGO should assign tasks to maneuver units that result from both the OPSYNCH meeting and the targeting process. It is important that this FRAGO incorporate the results of the targeting process (as opposed to publishing a stand-alone targeting FRAGO) to ensure targeting efforts are synchronized with the BCT operations and published as orders and instructions through the BCT maneuver WfF. It is important that the OPSYNCH meeting look out at least 48 hours so that subordinate units have time to react to the tasks that come out of the meeting and get published in the FRAGO. Additionally, the FRAGO should include updated commander's guidance, to include changes to the CCIR; the OPSYNCH matrix for the next 72 hours; updates to Annex A Task Organization; Annex C Operations, particularly any changes to the Operations Graphics; and Annex D Fires.

If the brigade is operating using analog mission command systems, it is important that the FRAGO get disseminated over FM radio. A good practice is to establish a time on the BCT battle rhythm for publishing the FRAGO over FM so subordinate unit S-3s and staffs know to be on the net to listen and provide feedback. This would also be an appropriate time to conduct an operations synch meeting over FM radio.

CUOPS Cell Internal Rehearsal

Although not described in doctrine, the preparations the CUOPS cell undertakes prior to entering the execution phase of an operation are critical to successful synchronization. All too often the CUOPS cell takes responsibility for an operation hours before execution and collectively has little understanding for the concept of the operation, asset allocation, critical events, and decision points. Many times when that information is known, it is only known by the chief of operations, operations sergeant major (OPS SGM), and a few members of the CUOPS staff. While the plans cell to CUOPS transition briefing is a significant step in preparing the CUOPS cell for execution, it should not be the final step. Just as units conduct precombat checks and inspections and rehearsals during the prepare phase of the operations process, the CUOPS cell needs to conduct its own specific preparations prior to execution.

CUOPS should conduct a pre-execution check of the execution and decision tools and the common operational picture (COP) and conduct a rehearsal of the execution matrix or the execution checklist. Ideally, this check and rehearsal is timed around a shift change brief so that both the day and night shifts are present. If that is not possible, the event should take place several hours prior to execution. The pre-execution check should be captured as a checklist in the brigade TOCSOP. The check should consist of a review of analog and digital execution and decision tools to ensure they are present, updated, and positioned correctly in the command post.

In addition, the check should include an examination of the analog and digital COP. When preparing to execute an operation, CUOPS needs to change the COP to incorporate critical information requirements for the mission while still maintaining the BCT's overall COP. The CUOPS method for managing two COPs should be captured in the brigade TOCSOP. Regarding the analog COP, a consistent trend in DATE is that CUOPS struggles to build and maintain an effective analog COP. It is important that the chief of operations and OPS SGM focus the CUOPS staff's attention on maintaining this critical system. The last item of the checklist should be a test of the brigade primary, alternate, contingency, and emergency plan for the operation to ensure all required communication systems are functioning.

Following the pre-execution check, the CUOPS cell should rehearse the execution matrix or execution checklist. The focus of the rehearsal should be decision points and critical BCT-level events that will occur during the operation. The rehearsal should follow the execution checklist to ensure that it reflects changes to the plan since its last update. The rehearsal of decision points should be conducted using the decision support matrix or decision support template so that all WfFs understand the conditions and CCIR that drive the decision. Lastly, the rehearsal should include a discussion of likely contingencies during the operation and the associated TOC battle drills. If the BCT is utilizing multiple command posts for the operation, this rehearsal should include both command posts, and a key point of review should be the conditions for transferring the fight from one command post to the other.

Conclusion

Synchronization is a central tenet of Army doctrine and was a primary focus of professional discussion in the Army's not so distant past. Synchronizing operations at the BCT level is critically important to mission accomplishment; it is also more difficult than ever before to achieve. Only through deliberate focus will the BCT staff achieve the level of synchronization required to succeed in DATE.

To improve synchronization, many units focus their efforts in the planning phase of the operations process on the MDMP and targeting or in the preparation phase on brigade rehearsals. While each of these is important, often overlooked but equally important are three brigade staff events that occur during the preparation phase: the plans-to-operations transition, the OPSYNCH meeting, and the CUOPS rehearsal. Each of these events helps to ensure that the synchronization the brigade did during the planning phase and later in key BCT-level rehearsals gets carried forward into execution by CUOPS.

The CUOPS cell is charged with aiding the commander in decision making and controlling the BCT fight during execution. Absent the three processes described in this chapter, the CUOPS staff is usually unprepared and unable to perform these critical tasks.

Chapter 4

Intelligence Estimates and the Analog-to-Digital Transition

MAJ Jason Mcanally, CW4 Michael Diehl, and MSG Brian Schwartz, Brigade Mission Command, Joint Readiness Training Center Operations Group

For the intelligence warfighting function (WfF), the decisive action training environment (DATE) starts with developing an analog intelligence estimate (IE) that must then transition to a digital common operational picture (COP). The IE is considered the most important tool developed during the mission analysis portion of the military decisionmaking process (MDMP); the IE is the foundation for subsequent intelligence tools and products to aid in defining the enemy threat.

Prior to and during a unit's Joint Readiness Training Center (JRTC) DATE rotation, questions arise envisioning the development of an analog IE versus a digital IE tool: How is the COP shared, and how is it updated? Are the IE a map with acetate overlays and computer disks earmarked for courier distribution? Is the IE Army Battle Command System products stored on a unit Web portal designed to be shared digitally? Or both? How and when do we transition from analog to digital? What is expected or occurs when forced to switch from digital to analog? Where and how will rehearsals take place? These are fundamental questions that need to be addressed months prior to mission execution.

The IE is the central hub for all other staff planning efforts and estimates. As intelligence professionals, the most important question is, "What does the commander need to know to make key decisions?"

Figure 4-1. S-2 intelligence briefing

Army Doctrine Reference Publication 2.0, *Intelligence,* defines the IE as an assessment about a specific situation and the courses of action (COAs) available to the respective enemy or threat. The IE has become a catch-all phrase that encompasses everything that describes the enemy and the operational environment (OE) via political, military, economic, social, infrastructure, information-physical environment, and time (PMESII-PT) or area, structures, capabilities, organizations, people, and events (ASCOPE). Tools and products needed to describe the OE have evolved over the past decade to meet specific needs of commanders engaged in counterinsurgency (COIN) operations. For the brigade, this evolution has produced a lean intelligence WfF extremely adept at analyzing and scrutinizing threat networks through technical means that were only possible at the division level or higher 10 years ago. The net loss in this technical acceleration is the ability of intelligence analysts at the brigade level in a communication-constrained environment to produce timely and actionable intelligence that supports planning and targeting efforts down to the battalion, company, and platoon. Until recently, the terms modified combined obstacle overlay (MCOO) and event template were not often heard in brigade and battalion command posts.

Figure 4-2. Analog MCOO

The MCOO and event template are the cornerstone products needed to conduct operational planning and execution at all echelons in DATE. Over time, intelligence analysts have tended to think of weather effects as it pertains to either intelligence, surveillance, or reconnaissance or aviation capabilities, not the effects on the OE and enemy situation. Tools used to develop an MCOO are often rudimentary depending on whether derived from analog or digital systems. Their impact is extremely significant in the planning and execution at all levels in DATE. How these products are produced, disseminated, refined, and operationalized are critical questions

brigade S-2s must address in their standing operating procedures pertaining to training, equipping, manning, and executing their combat missions.

Over the past decade of COIN, intelligence estimates have become stale assessments used to describe seasonal trends within a somewhat predictable combat environment. The terms "predictable" and "combat environment" do not go together well, but in describing combat operations from the past 12 years, there are well-known or at least highly predictable data points about the enemy and environment to plan against. The facts that enemy operations peak during the "summer fighting season" and that many foreign fighters withdraw to support zones during the "winter exodus" are well known. These planning norms do not make the enemy any less potent or the weather and terrain any less of a hindrance to operations, but our familiarity often breeds complacency when dealing with the rigors of staff processes. This is especially true as it pertains to the MDMP.
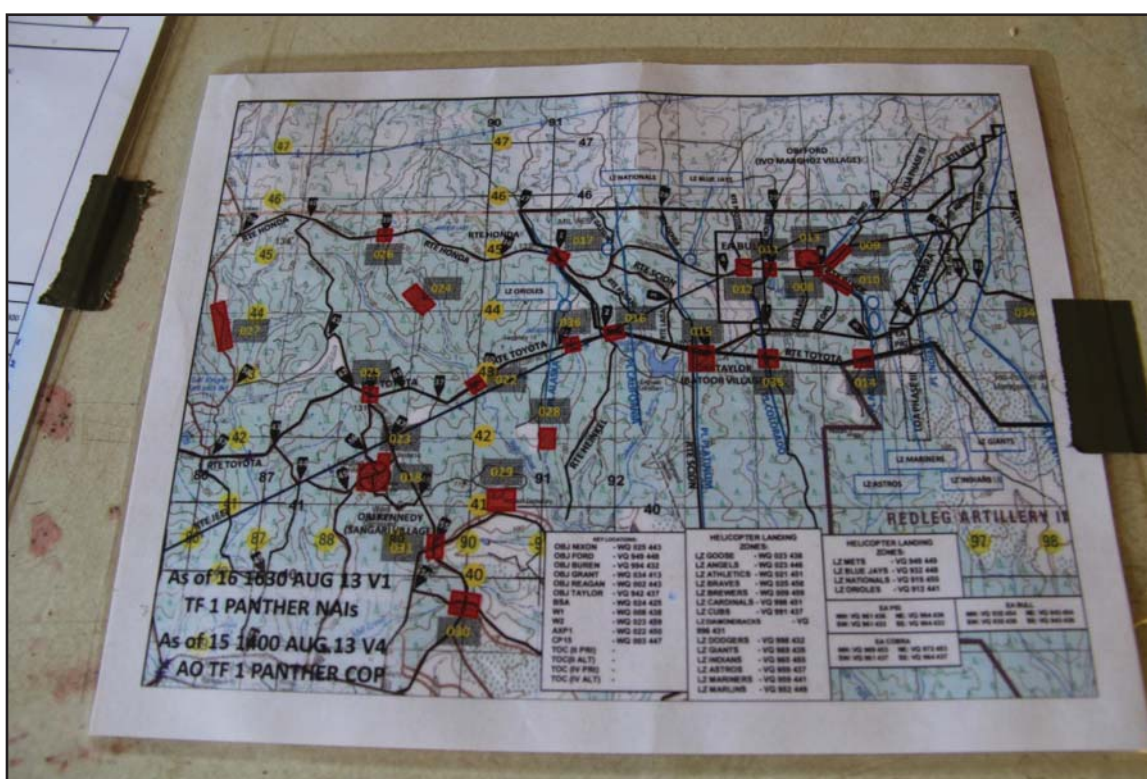
Figure 4-3. Task Force (TF) 1 Panther named areas of interest

Analog to Digital Comparison

In DATE Rotation 13-09, the Panthers' situational awareness and understanding throughout the command depended on their ability to communicate. The brigade assistant S-2 (AS-2), equipped with an FM/tactical satellite radio, hardcopy laminated map, pens, paper, protractor, red lens flashlight, and little else, jumped into the Geronimo drop zone as a representative to the assault CP team. Huddled under a poncho, he immediately began to receive reports from subordinate S-2s on the ground. Within an hour the first actual COP began to take shape. Reports of enemy activity enabled the AS-2 to provide situational awareness and understanding to the commander.

Figure 4-4. A battalion analog intelligence display

Compare the first 36 hours on the battlefield in an analog environment to what most intelligence professionals are comfortable with today. We have become accustomed to a robust communications infrastructure that empowers commanders and their staffs with numerous voice and data networks that afford an almost unlimited ability to communicate. A primary, alternate, contingency, and emergency plan is often based on personal preference and not military necessity. The brigade operations and intelligence net can be a secure video teleconference, Adobe Connect, SECRET Internet Protocol Router Breeze, or a Secure Voice Over Internet Protocol conference call. The ability to share and manipulate information within the Distributed Common Ground System-Army (DCGS-A) construct is limited only by the operator's willingness to use the system. Contractors and field service representatives are available to troubleshoot systems, support the targeting process, and physically oversee tactical site exploitation and biometrics. But when these support systems are not available and the communication architecture shrinks, the true planning and execution requirements needed by the staff and commander become very clear and the process becomes very lean.

The IE is normally the end product derived from mission analysis within the MDMP. It is an examination of the intelligence factors that may affect the proposed mission. The IE aids in determining the COAs the enemy may choose to take. IE provides for the understanding of the battlefield and enemy composition, disposition, capabilities, and vulnerabilities.
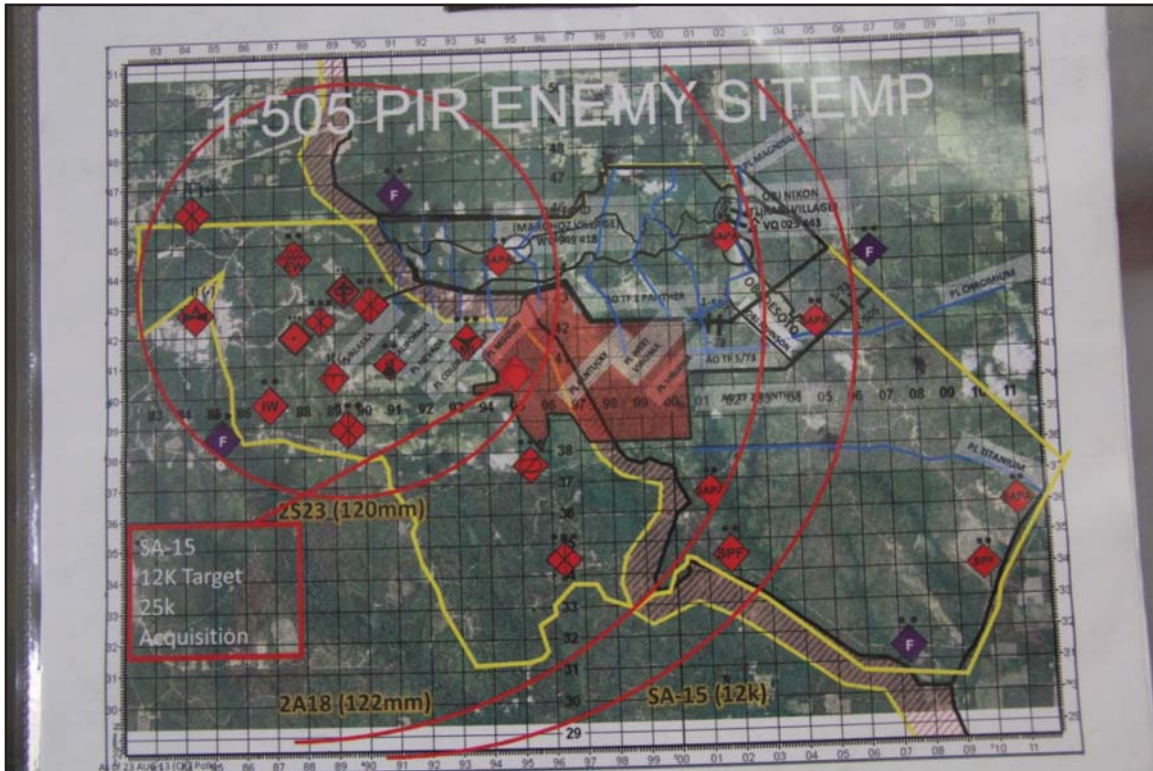
Figure 4-5. TF 1 Panther situation template

The S-2 section must maintain a current, continuing IE to be able to alert the commander of any significant changes to the enemy situation. The IE provides critical intelligence to the commander in deciding how to shape the battlefield, array his forces, and help decide COAs to take in response to enemy activity. At a minimum, Appendix 1 (Intelligence Estimate) to Annex B (Intelligence) should restate the mission; describe/depict the area of operation (AO); detail the enemy situation to include disposition, composition, strength, recent and significant enemy activities, peculiarities and weaknesses, and capabilities; as well as include the most likely/ dangerous enemy COA.

Within Appendix 1, also included are Tabs A-D, which describe and/or depict terrain considerations within the AO, historical weather trends, civil consideration of the local populace, and intelligence preparation of the battlefield products in support of pending friendly operations. As to whether the estimate and corresponding updated running estimates are in digital format or analog does not matter as long as the critical data points are accurately answered/depicted. Of course, how in-depth an S-2 wishes to display the IE depends on systems and processes available. IE depictions can range from handwritten text and sketches, to hardcopy map products with acetate overlays in austere conditions, to elaborate digital mapping products. Ultimately, IE end-product information is generally the same, just in different formats.

Analog products provide for ease of development and understanding of the OE but are hindered by dissemination capabilities and generally take much longer to update. The advantage of digital systems, such as DCGS-A, the U.S. Army's intelligence program of record, is that vast amounts of information can be obtained, analyzed, and chronicled within minutes and can be shared with a wide array of users. Disadvantages include users requiring continuous access to stable electrical power, something not always possible in DATE (and ease of functionality of such

system is nonexistent). Knowledge of complex digital intelligence systems is a perishable skill. Intelligence analysts must receive formal training, followed by routine exercise of the system by users to maintain skills learned.

Figure 4-6. Analog map display
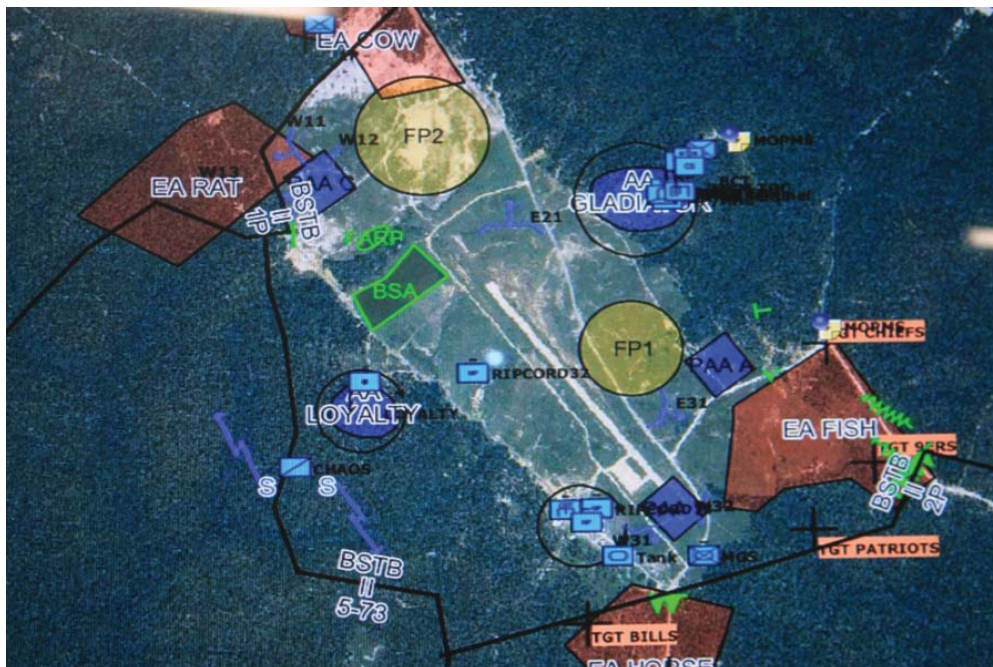
Figure 4-7. A digital COP. The information is the same.

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Conclusion

Two U.S. Army airborne BCTs have had a DATE rotation at the JRTC in the past year. Many young paratroopers can attest that it was a new experience, one the observer/controller-trainers see as a return "to the old Cold War era training days." An intelligence analyst may find himself on the first contingency aircraft to land in an austere combat theater or deploy to replace an already existing unit. Whatever the situation, intelligence analysts must train to operate in both an analog and a digital environment. Without that dual competency, the command team will lack a full understanding of the COP, which hinders the commander's ability to make sound and timely decisions. The commander has to know the current enemy situation at all times to ensure unit success. The IE must be developed to provide the commander, staff, and subordinate commands an understanding of COAs the enemy may choose dependent on the critical information contained within the estimate.

IEs can be produced in text and sketch analog format and delivered by courier or high-resolution 3-D digital map depictions that are easily accessible, providing communication and electrical infrastructure exist. Ultimately, both methods are just as effective; but often time, means, and methods are determined by the environment where we fight.

Chapter 5

Validating the Fire Support Coordinator in Unified Land Operations

LTC Chris Taylor, Fires Senior, Joint Readiness Training Center Operations Group

Center for Army Lessons Learned (CALL) Newsletter 13-13, *Operations in the Decisive Action Training Environment (DATE), Volume I: The Brigade Combat Team,* examined the role of the fire support coordinator (FSCOORD) in unified land operations (ULO). Chapter 3, "The Fire Support Coordinator in Unified Land Operations: Decisive Changes for Decisive Action," welcomed the re-emergence of the FSCOORD role for the fires battalion commander and considered that role in ULO. Recent rotations at the Joint Readiness Training Center (JRTC) continue to validate those ideas as well as the importance of trained fire supporters at every level. Brigade combat teams (BCTs) that man, train, equip, and use their fire supporters at each echelon in their doctrinal roles are much more successful in combined arms operations than units that do not.

Years of counterinsurgency (COIN) operations gave our maneuver commanders confidence in an artillery battalion commander's ability to conduct a maneuver mission and perform mayoral duties or nonlethal coordinator, albeit at the cost of performing his primary duties. The mission of the field artillery is to destroy, defeat, or disrupt the enemy with integrated fires to enable maneuver commanders to dominate in ULO (Army Doctrinal Reference Publication [ADRP] 3.09, *Fires*). To facilitate this mission, fire support personnel are assigned to each echelon, from platoon through the strategic level. At the JRTC, we often see units use fire support personnel in nonstandard or nondoctrinal roles, which affect the entire fire support system. While we are seeing corrections in these trends, we have developed bad habits in not only our fire supporters but our maneuver commanders as well.

Figure 5-1. Soldiers doing the artillery dance.

At the platoon and company levels, we seldom see fire support teams (FISTs) and their forward observers (FOs) utilized in their primary military occupational specialty. Typically, we see them form or augment company intelligence support teams or in the role of information officers or riflemen. These temporary jobs cost us in short-term execution and long-term proficiency of basic fire support skill sets. We lose the ability to plan and execute fires at the company and platoon levels, and these FISTs and FOs are the base of our observation plans. These teams are equipped with precision target location equipment and laser designators as well as voice and digital communications. Properly trained and utilized, these teams provide the ability to plan fires at the company level and execute brigade-level fire support tasks. Regardless of the type of rotation — DATE, security force advise and assist, or theater enabling force — we seldom see companies plan or execute fire support, either ground-to-ground or air-to-ground.

We see similar trends at the battalion level. Battalion-level fire support officers (FSOs) and noncommissioned officers are often utilized as planners or battle captains, giving them little time to plan, prepare, and execute fires. These battalion fires cells are the key conduit between the fire support planners at the BCT and executers at the company and troop levels. Units that do not refine targets, validate communication plans, and rehearse have little chance for success.

Figure 5-2. Gun crews work the line in a JRTC live fire.

At the JRTC, we coach top-down planning with bottom-up refinement; if the BCT FSO is not decisively engaged integrating fires with maneuver from the beginning of the planning process, the BCT's ability to have a synchronized, executable plan is significantly compromised. As the officer in charge of the fires cell and in coordination with the field artillery battalion S-3, the FSO is responsible for leading the section in developing the fire support plan, refining it as the subordinate battalion conducts its planning and the maneuver plan changes, and rehearsing the plan. All too often we see the fires cell utilized as crisis action planners, as the BCT chief of operations, or for other tasks to the extent that it cannot complete its primary duties.

The FSCOORD is the BCT's organic field artillery battalion commander and the primary adviser on planning for and employing fires. Suggested responsibilities from ADRP 3-09 include:

- Provide for consolidated and focused fire support-specific training certification, readiness, and oversight (personnel management, equipment issues, and training).

- Facilitate establishing standing operating procedures across the brigade (to save time and ensure a single standard).

- Ensure efficiently resourced training packages (limit requirements for unit tasking and reduce coordination requirements between units).

- Oversee the professional development of 13-series career management field Soldiers assigned to the BCT.

- Mentor, train, and educate junior fires leaders, and maintain a habitual supervisory role for the brigade and battalion FSOs.

Figure 5-3. This is the beginning of the end state — steel on target.

Conclusion

Accomplishing the above tasks is crucial to success in a JRTC rotation and ULO. Being the FSCOORD is a full-time job, and BCTs that employ their field artillery battalion commander as the FSCOORD are much more successful employing fires than those that do not. The FSCOORD is responsible for not only training the battalion but a BCT staff section as well. Once deployed, the FSCOORD is responsible for ensuring the fires support plan is feasible, acceptable, and suitable for each aspect of the fire support system — from the platoon FO to the FA battalion and joint assets, such as close air support. To accomplish this job, commanders at all levels must

ensure their fire supporters have the time, resources, and subject matter expertise to prepare the next generation of fire supporters. Not only do we have to train our fire supporters, but as the fire support subject matter experts with our formations, we must ensure that our maneuver partners understand what fires can bring to the fight.

Chapter 6

Fire Support in Decisive Action: The Lost Art of Integrating Fires with Maneuver

MAJ Daniel Threlkeld, CW4 Dana Dennis, MSG Damon Woolever, SFC Jason Landre, and SFC David Jessup, Fires Division, Joint Readiness Training Center Operations Group

Army fires systems deliver fires in support of offensive and defensive tasks to create specific lethal and nonlethal effects on a target. The fires warfighting function includes the following tasks:

- *Deliver fires.*

- *Integrate all forms of Army, joint, and multinational fires.*

- *Conduct targeting.*

Over the last decade of counterinsurgency (COIN) operations in Iraq and Afghanistan, doctrinal fire support planning and targeting have been lost to tactics, techniques, and procedures (TTP); best practices; and lessons learned. The Army has always been good at finding out what works best and creating a TTP to streamline operations, but as we move forward with decisive action, we must take a hard look at the doctrinal foundations of fire support planning and targeting to successfully integrate fire support with maneuver. Not only that, we must still take what was learned during COIN operations and integrate those lessons into current operations as the battlefield morphs from one phase to the next.

According to Army Doctrinal Reference Publication (ADRP) 3-0, *Unified Land Operations,* "Decisive action requires simultaneous combinations of offense, defense, and stability or defense support of civil authorities tasks." The complexity of today's battlefield during a decisive action operation can be daunting, and the new hybrid threat, with a combination of conventional and nonconventional enemy forces, makes the situation that much more precarious.

During the last 12 months, the Joint Readiness Training Center (JRTC) conducted two distinctly different decisive action training environment (DATE) rotations. The first scenario, designed around a contested environment, focused on lethal operations. The most recent scenario involved a request from the Atropian government for U.S. assistance, triggering the deployment of a U.S. brigade combat team (BCT) and portions of a special forces group. The BCT entered a sovereign country where the environment was considerably more restrictive. This scenario also involved a breakaway region of Atropia that formed a near-peer threat to U.S. forces. A United Nations (U.N.) zone of separation (ZoS) divided the breakaway region from Atropia proper. The ZoS added a layer of complexity to the brigade's targeting process and ultimately affected the brigade's fire support plan.

This chapter examines JRTC fires trends during DATE rotations and suggests ways to improve fire support planning and targeting within a BCT. Our recommendations are grounded in doctrine, but also contain best practices and TTP that complement doctrine and add efficiency to

operations. Success for the King of Battle is the ability to provide timely, accurate, predicted fires to our maneuver counterparts.

Figure 6-1. The business end of targeting.

Integrating Fires with Maneuver

Ineffective integration and synchronization of fires across the BCT is the dominant fires trend in the DATE. There are a number of factors that contribute to this problem. Most begin with the lack of a published commander's guidance for fires and a misunderstanding of the targeting process. These two trends become more apparent during decisive action rotations than in COIN. During a decisive action, centralized planning drives operations, but COIN revolves around target nominations and/or other operations that are fed from the bottom up. In COIN, battalions plan operations within their operational environment based off minimal guidance and then push the plan up to the BCT for approval and resourcing. The synchronization of the BCT's operations in a decisive action environment requires a detailed plan that is developed and distributed from the top down. The fires plan includes specific tasks and guidance with a timeline for bottom-up refinement from each of the BCT's subordinate battalions. This is the fires classic mantra of top-down planning and bottom-up refinement.

Commander's Guidance for Fires

Commander's intent and guidance drives the operations process to plan, prepare, execute, and assess. Commanders must develop specific guidance to focus targeting and fire support planning within that operations process. A good commander's guidance for fires provides the BCT staff, fires personnel, and subordinate units with the general guidelines and restrictions for

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the employment of fires and desired effects. Such guidance emphasizes when, where, and how the commander intends to synchronize the effects of fires with other elements of combat power. It typically includes priorities along with the commander's vision of how fires will support operations. The commander's guidance for fires sets the foundation for fire support planning and the targeting process. All too often units come to the JRTC without a commander's guidance for fires; this gap significantly hinders their entire fires planning and/or targeting process. The BCT fire support officer (FSO) and fire support coordinator (FSCOORD) should draft the commander's guidance for fires upon initial receipt of a mission. Once an acceptable draft is complete, the BCT commander can review and approve it for timely publication.

The Targeting Process

> *"The fires warfighting function is the related tasks and systems that provide collective and coordinated use of Army indirect fires, air and missile defense (AMD), and joint fires through the targeting process."* (ADRP 3-0)

Key outputs from the targeting process feed the overall fire support plan. Targeting is not its own planning process and does not take the place of the military decisionmaking process (MDMP). Ten years of COIN operations created TTP where targeting replaced MDMP as a unit's formal planning process. As defined by Joint Publication (JP) 3-0, *Joint Operations,* "Targeting is the process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities." ADRP 5-0, *The Operations Process,* further states that "the purpose of targeting is to integrate and synchronize fires into operations," and that "targeting begins in planning, and it is an iterative process that continues through preparation and execution." As the pendulum swings from COIN back to decisive action, units have realized that targeting is not a planning process in itself, though the main problem still lies with learned habits from targeting in a COIN environment. There is a time and place for COIN targeting in decisive action, but we cannot find ourselves using targeting to replace MDMP. The bottom line is that targeting must integrate and synchronize fires using the decide, detect, deliver, and assess (D3A) methodology per Field Manual 3-60, *The Targeting Process.*

The Army's 131A field artillery targeting technicians are responsible for the integration and synchronization of joint fires assets through the targeting process. Targeting officers work with the plans section, brigade FSO, and the targeting working group during the MDMP to determine which targets to engage and the desired effect for each engagement to achieve the commander's intent. Brigade targeting officers provide invaluable expertise when integrating the fires warfighting function (WfF) into the maneuver plan.

Supporting the operations process and the mission command WfF

Targeting cannot be truly understood without a codified connection to the operations process and the mission command WfF. D3A are integrated with the operations process of plan, prepare, execute, and assess. The mission command WfF "integrates the other warfighting functions into a coherent whole to mass the effects of combat power at the decisive place and time" (ADRP 6-0, *Mission Command*). Targeting is one of the three integrating processes that integrate and synchronize the fires WfF into the "coherent whole." The targeting methodology is structured to integrate or complement the MDMP and methodically connect with the operations process of plan, prepare, execute, and assess.

Stuck in the "decide" phase of D3A

Targeting continues to challenge rotational units at the JRTC. D3A are only understood at a conceptual level and rarely integrated into the operations process. Rotational units achieve the "decide" phase of D3A; however, they rarely follow through to support the commander's objectives with detect, deliver, and assess. MDMP and targeting have become convoluted through the many years of COIN operations in Iraq and Afghanistan. Terms like "targeting tasking FRAGO" and "pre-targeting meeting" have become accepted TTP that improperly invert targeting into a planning process.

The Army's targeting methodology, in conjunction with the MDMP, is the basis for fire support planning and ultimately how BCTs integrate and synchronize the fire support system into maneuver plans. Without embracing the principles of mission command, targeting becomes one dimensional. Targeting is integrated into the operations process through an understanding of the targeting principles. The targeting principles, defined in Field Manual 3-60, reinforce the importance of integrating targeting within the operations process. Field Manual 3-60 states, "Adhering to four targeting principles should increase the probability of creating desired effects while diminishing undesired or adverse collateral effects." These principles must be understood by all members of the targeting team.

D3A complement the development, planning, execution, and assessment of the effectiveness of targeting and weapons employment. The delivery and integration of fires is executed through three critical capabilities: target acquisition, target discrimination, and target engagement. These three capabilities encompass fire support planning through the integration of targeting within the operations process and the MDMP. When coupled with the commander's guidance for fires, the three capabilities provide focus on enemy capabilities and functions that could interfere with the achievement of friendly objectives.

Targeting outputs from the MDMP drive the fire support plan

Conceptually, targeting bridges identified tactical tasks to operational objectives, with desired effects, that gain or maintain a position of relative advantage during operations. Targeting supports detailed planning and mission command principles with the development of specified products. As stated earlier, fire support planning begins with the commander's guidance for fires. This narrative is supported and executed with the scheme of fires, attack guidance matrix (AGM), target selection standards (TSS), target synchronization matrix (TSM), and high-payoff target list (HPTL). Through the MDMP steps and the application of D3A, these products feed fire support planning and coordination. Product development systematically builds the fire support plan from the conceptual narrative to the detailed coordination of fire, so that targets are adequately covered by a suitable weapon or group of weapons in support of maneuver plans.

Target acquisition permits the effective employment of joint fires through timely detection of enemy assets. Once the HPTL is approved (DECIDE/DETECT), target acquisition provides the plan to detect each respective enemy asset. The acquisition plan is in concert with the information collection plan. What do we need to acquire for target development or engagement? Target discrimination (DETECT/DELIVER) provides the baseline for attack guidance. When more than one target is available for attack, target discrimination provides the criteria for the identification and engagement of enemy systems through the application of a system, action, or function. What targets do we need to attack and when do we need to attack them? Target engagement (DELIVER/ASSESS) facilitates the delivery of a specific weapon system in time

and space to achieve a defined desired effect (lethal or nonlethal) in support of the commander's objectives.

Targeting demands thorough intelligence preparation of the battlefield (IPB)

Targeting begins with the IPB and is the basis for the decide phase of D3A. The fires WfF is inherently connected to the intelligence WfF, and both systems complement each other through D3A. Without a solid IPB, targeting is one dimensional, and achieving specific objectives becomes very difficult, if not impossible. Through target value analysis (TVA), targeting officers and intelligence personnel develop a relative ranking of target sets. The TVA process identifies potential high-value target (HVT) sets associated with critical enemy functions that could interfere with the friendly course of action (COA) or that are vital to enemy success. TVA is a process that migrates into COA development and war gaming, and then develops into high-payoff targets (HPTs). HVTs are developed and analyzed into HPTs during COA development. Concurrently, friendly developments are analyzed in terms of their impact on enemy operations and likely responses during COA development and war gaming.

Target selection standards and attack guidance are refined from mission analysis through COA development and an output of the war game. Each COA provides means and criteria of target acquisition, target discrimination, and target engagement of HPTs. During the war game, the scheme of fires, scheme of maneuver, and friendly decision support template are codified. Ultimately, the purpose of war gaming is to solidify respective WfFs' running estimates.

MDMP helps refine targeting products

The intelligence WfF, the targeting officer, and the maneuver planner meet during the war game portion of the MDMP. The commander and his staff analyze critical friendly battlefield functions with regard to a specific COA. The best places to attack HPTs are further refined during war gaming of friendly options. HVTs are identified and prioritized during the war gaming phase of the MDMP. HVTs are further developed into target subsets and can be nominated to become an HPT. HVTs may be nominated as HPTs when they can be successfully acquired and are vulnerable to attack in a manner that supports the commander's scheme of maneuver. Once identified and nominated, HPTs are grouped into a list identifying them for a specific point in the battle. The completed HPTL is submitted to the commander for approval. The approved HPTL, along with the attack guidance and target selection standards, become a formal part of the fire support plan.

Targeting permeates the MDMP and integrates the fires WfF into the planning process through the outputs of targeting. Conversely, the MDMP outputs, along with the commander's targeting guidance, drive targeting. The complementary relationship between this planning process and the integrating process must maintain their independent yet collaborative purpose. Targeting is not a planning process, nor is it a problem-solving methodology. Targeting bridges plans to objectives through the identification and creation of desired effects that change the right characteristic of a target, at the right place and time, which supports the commander's objectives.

Fire Support Planning (OPS Process: PLAN)

The brigade fires cell develops a brigade scheme of fires with a clear understanding on how it supports the brigade maneuver plan so that battalions can execute their portion of the plan. A critical input to the brigade plan is a refinement cutoff time to allow ample time for troop leading

procedures, which includes rehearsals. The battalions also develop their own schemes of fires with battalion and brigade targets. The schemes of fires are then given to the companies or troops for an additional level of refinement. Once this level of refinement is reached, the plans go back to the battalions for consolidation and inclusion into the battalion scheme of fires. Finally, all the battalions' schemes of fires and target refinements are forwarded to brigade to be added to the brigade plan.

Planning for attachments

Rotational units struggle when integrating all forms of fire support assets (HIMARS/M777) into the fires plan. Continually, questions arise on where these assets should stage, when they should move forward, and what their position and ammunition requirements are. Early planning and coordination with these units identifies key factors, such as capabilities, positioning of assets, and sustainment requirements. It also temporarily embeds these outside assets into brigade standing operating procedures (SOPs), which forces the fire direction center (FDC), ammunition platoon, and brigade fires cell to plan, support, and track them during each phase of the operation. Including these elements into all technical and tactical rehearsals is critical to ensure shared understanding of the plan. This variable is critical for brigade organic fires battalions to understand as the Army migrates to composite field artillery battalions.

Bringing it all together: Synchronization

Once a plan has been developed, whether it is a concept of fires or SOP, it must be disseminated to ensure every element executing that plan has a shared understanding of how the operation will occur. Planning must be collaborative and continuous to ensure all elements understand what decisions are necessary and what the priorities of effort are. Units routinely develop SOPs and battle drills during home station training but fail to reference them while at the JRTC. This leads to a clear disconnect throughout the brigade in regard to fires.

Battalions also routinely develop a concept of fires without synchronizing it with the brigade plan. Not only are operations affected, but everyday business is hindered due to the lack of synchronization between brigade, battalions, and companies. Timely reporting, digital communications, and bottom-up refinement are also a continuous struggle due to the lack of SOP enforcement. A necessary collaborative battle rhythm event is to conduct a fires synchronization meeting. Fires synchronization meetings ensure all changes to the mission, FRAGOs, or just administrative business is discussed and disseminated. Fires synchronization meetings do not require face-to-face communications; they can occur via Transverse, Ventrillo, or Advanced Field Artillery Tactical Data System (AFATDS) chat. As the mission evolves, so does the importance of communication between each echelon. Each synchronization meeting should take 20 to 30 minutes for the brigade fires cell to communicate the necessary information to the battalions. The battalions can then conduct their own synchronization meeting with the companies/troops.

Refining the plan

When the brigade completes the scheme of fires, the FSO should ensure each task force receives the plan. This plan should include an established cutoff time for the battalions to return their fire support requests and refinements to brigade so the plan can be finalized. This will foster synchronization between all echelons and allow necessary rehearsal time. Once the plan is complete, the brigade fires cell should distribute the final products to the respective elements.
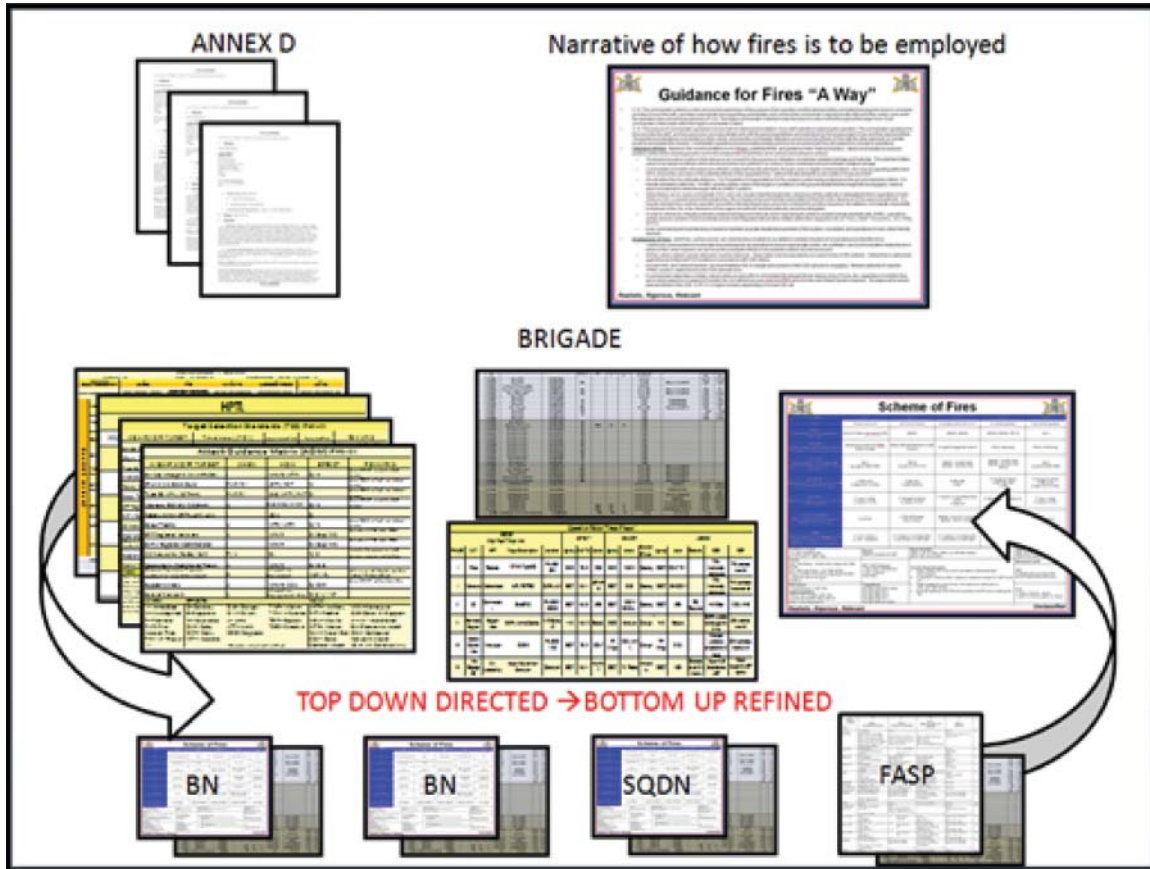
Figure 6-2. Top down directed — bottom up refined.

Rehearsals (OPS Process: PREPARE)

A fire support rehearsal, in coordination with the field artillery technical rehearsal, should be conducted prior to the combined arms rehearsal (CAR) and, if possible, include members of the operations and intelligence staff and other members of the targeting working group (Field Manual 3-09). In conducting the fire support rehearsal, the S-3 should head the rehearsal using a synch matrix or execution checklist. The FSO/FSCOORD should conduct the rehearsal, briefing by phase. The fire support execution matrix (FSEM) is validated during the fire support rehearsal. The fire support rehearsal should coincide with the FSEM. At a minimum, the information to be rehearsed should include:

- Maneuver plan.

- Target list (TTLODAC).

- Observation plan.

- Scheme of fires:

  - Trigger points verified.

  - Engagement criteria.

○ Task and purpose of target.

○ Method of engagement.

○ Attack guidance.

Technical rehearsals may be conducted in conjunction with the CAR/fire support rehearsal or may be conducted as its own rehearsal. The purpose of this rehearsal is to validate sensor-to-shooter communications and processing time. The technical rehearsal should be conducted by phase, with the rehearsal led by the FSO over the fires net, covering the following information:

- FSTs for that phase. FSTs are related in time and space. Therefore, FSTs should be discussed in relation to each other. Information should also include:

  ○ Target number and grid coordinates.

  ○ Purpose of the target and alternate triggers, to include periods of limited visibility and description of how triggers are related in time and space to the scheme of maneuver.

  ○ Primary and backup sensors/observers.

  ○ Delivery unit(s).

  ○ Time-space relationship between unit response time, duration of fires, and scheme of maneuver.

- After review of each FST, missions should be processed from the sensor/observer to the delivery system level. In particular, validate the following:

  ○ Mission value.

  ○ System preferences (AFATDS recommends the fire support attack asset).

  ○ Delivery system attack methods (shell, fuze, unit, volleys).

  ○ Proper intervention points functioning.

  ○ Target coordination requirements.

  ○ Mission routing functions.

A trend at JRTC has been that fires cells are not conducting fire support rehearsals; if conducted, they are not to a standard to properly coordinate fire support with the maneuver. All elements must be represented, including observers, to fully synchronize the fire support plan. Some of the key shortfalls often seen in rehearsals are: observation plan not briefed or not fully developed, fire support control measures (FSCMs) not identified or known, and attack guidance not fully developed. These facets of the plan not being rehearsed have led to delays in indirect support and targets being unobserved.

Confirm observer plan, asset allocation, and PACE (primary, alternate, contingency, and emergency) communications plan

A properly executed fire support rehearsal helps to identify points of friction or illuminate operational gaps and correct them prior to execution. The most difficult aspect of fire support planning (where the majority of friction occurs) is the development of the observer plan. This is primarily due to disjointed fires planning and loose connection with the maneuver plan. Underdeveloped observer plans place little thought on whether the primary or alternate observers will actually be in position to observe and prosecute the target. If rehearsals are conducted properly, observers brief their actions as listed on the scheme of fires. This allows for the identification of friction points, which can then be noted and adjusted on the appropriate product.

Another consideration that needs to be illuminated is asset allocation to prosecute targets. The questions that need to be asked are: What assets are available, and what asset is most effective? The answer to these questions should be available in the AGM, which is developed through the targeting process. The AGM identifies what asset should be utilized to prosecute a designated target at a specified time and the desired effect. When developed and executed properly, the AGM permits the attack of the right target, at the right time, to achieve the desired effect, while using the minimal amount of ammunition.

As part of rehearsals, the PACE plan is included for both the fire support and technical rehearsal. The PACE plan is often a cut-and-paste product that does not consider, or best utilize, the equipment available to the unit. The PACE plan is developed to best support the mission and limit any confusion on what platform information is to be passed. Consideration as to the type of operation, skill level of the fire supporters, and logistical considerations need to be laid out. Often, digital communications are listed as the primary means of communication but are beyond the rotational training unit's level of proficiency on the equipment. Digital communications allow for the fastest transmission and help to eliminate error in reception of information; however, the operation of the equipment requires more training than traditional FM communications. The range of the equipment may also require the use of another means of transmission beyond FM. These are all reasons the PACE plan must be rehearsed and worked through.

Is it a rehearsal or a back brief?

Field Manual 3-09.12, *TTP for Field Artillery Target Acquisition,* states that support rehearsals are normally performed within the framework of a single or limited number of WfFs. Examples include the fire support rehearsal or the sustainment rehearsal. Although these rehearsals differ slightly by WfF, they achieve the same results:

- Ensure the Soldiers responsible for a particular WfF can support the higher commander's plan.

- Ensure all assigned missions will be performed.

- Synchronize the particular WfF support plan with the maneuver plan.

Field Manual 3-09.12 further states that the back brief is normally performed throughout the MDMP. This rehearsal allows the commander to clarify his intent early in the subordinate's tactical estimate process. The higher commander uses back briefs to:

- Identify problems in his concept of operation.

- Identify problems in the subordinate unit commander's concept of operations.

There has been a trend of back briefs being used in place of rehearsals within fire support elements at the JRTC. The personnel executing the mission need to go beyond briefing their understanding of the mission to higher by using the fire support rehearsal to validate synchronization and coordination of assets. Conducting a proper fire support rehearsal exposes flaws in the plan and allows for issues to be corrected. While the battalion and company FSO will be the ones to talk through the units' mission phase by phase, the observers should brief targets they will be prosecuting using the targets, triggers, locations, observers, delivery systems, attack guidance, and communications networks (TTLODAC) format. This permits the observer to understand the mission as well as work through the thought process of how to best prosecute the target, which is defined in the AGM and FSEM. Rehearsals also identify flaws in the fire support plan. Throughout the rehearsal when these flaws are identified, they should be corrected on the respective product: AGM, TSS, or FSEM.

Fighting the Plan (OPS Process: EXECUTE)

Well-formed plans and products expedite execution at all levels. Are there still things that we can do to help further speed up our process or enhance our means of engaging targets? Ultimately, who is observing these missions to destroy, defeat, or disrupt the enemy with integrated fires to enable maneuver commanders to dominate in ULO? Is it our FSCOORD, the senior fire supporter in the BCT, or the young private forward observer (FO) at the platoon with less than two years as a field artillery fire supporter? Whomever is the observer for the fire mission, it is essential to understand the commander's guidance for fires, whether it is for close supporting fires or the precision strike on a rooftop in a stronghold building. We also need to know if fires will be centralized/semi-centralized/decentralized, as this can have a significant impact on fire mission execution. Knowing if fires will be centralized allows us to understand that we will need to prepare for a little extra time before fires are approved on a target. Conversely, if fires are decentralized, we must strive to be professional fire supporters engaging targets with utmost diligence, ensuring that we are mindful of collateral concerns and resource management.

Brigade reliance on centralized fires continues to limit its ability to quickly place fires on enemy forces. For example, during the defense, units sent fire missions to brigade to obtain clearance to fire, but the tempo of the opposition force (OPFOR) was quicker than the clearance process. Ultimately, this inhibits a brigade's ability to quickly provide fires that limit the enemy's ability and permits maneuver forces freedom of maneuver. Additionally, the lack of a detailed observer plan hinders units with the responsibility of overwatching brigade and battalion targets for quick engagement.

Another key element that affects execution is refinement of products. Battalions receive target list worksheets (TLWS) from brigade and submit them to companies, but little or no refinement is typically received. The process of "top-down planning and bottom-up refinement" is essential when in any new operational environment. Once observers are on the ground, they can finalize targets to ensure that what their higher headquarters has planned is feasible, acceptable, and suitable for the observer to shoot.

Using our digital systems

In the grand scheme of things, do our digital systems help or hinder our ability to conduct engagements on targets? If we are in the middle of heavy contact, is it easier to press the button on a laser locator that feeds to our pocket-sized forward entry device (PFED) and then tap send, or do we look through our binoculars, pull up our compass, estimate the distance, then do our best map spot? Units repeatedly do not maximize the use of their digital systems from sensor to shooter. The table below compares digital fire mission processing to voice processing:

Digital Concept	Voice Conept
• Single Net-Single Radio • No human error in transcribing target locations that can increase target • location error (TLE) Routing options - allows battalion and brigade FCs the option to deny or accept missions prior to them being foward to the FDC • Fire Support coordination measures (FSCM) and airspace coordination measures (ACM) are automatically checked against the mission • Removes the guess work as to what weapon system will be utlizied and proper acquisition equipment is used to engage the target. Automatically selects weapon system based on TSS/AGM/HPTL • Allows for Precision munitions when appropriate imagery is utilized and proper acquisition equipment is used	• Possible multiple nets (FA, battalion mortar, company mortat) for single radio • Possible target location errors as heard incorrectly over fires net • Possible retransmission needed for distant stations • Longer fire mission transmission times • Manual check for FSCM/ACM violations • Possible inappropriate weapon system usage (60mm for armored vehicle) • Higher echelon FC needed for precision munitions • Need in-depth understanding of OPORD, Annex D and related FS planning products

Figure 6-3. Digital versus voice.

Trends

The following trends were gleaned from offensive operations during past DATE rotations. All stem from the failure to use digital equipment.

Observation #1: Units are not utilizing the modified table of organization and equipment (digital systems laser range finder, lightweight laser designator rangefinder, defense advanced Global Positioning System receiver).

Observation # 2: Units sent up fire missions using 6-digit grids, increasing target location error. Observers have the digital equipment to obtain a 10-digit grid; this equipment must be trained on and carried to be used effectively. A 6-digit grid only results in fires within 100 meters of a target. Using digital equipment to get a more accurate grid helps to ensure that we are hitting our target and lowers any potential collateral concerns.

Observation #3: Guns and mortars not registered to meet the five requirements. As fire supporters, we own the first requirement for accurate predicted fires: accurate target location and size. If our weapon systems are not registered, then we can be assured that we will be accurately hitting the incorrect grid on every mission.

Observation #4: Fire missions shot unobserved. TLWS missing primary and alternate observers. With as many constraints that we see on the modern battlefield (civilians, infrastructure, religious sites), firing unobserved missions should be the last option for any fire supporter. Every target should always have a primary and an alternate observer who knows where the target is, along with the trigger for the target.

Observation # 5: Asking for "repeat" instead of making adjustment on ineffective fires. If we have eyes on our target and have a good target location, we can generally have first-round effects on the target. We should utilize the command "repeat" when we do not get the desired effects on the target. If we are off the target, making a bold or minor adjustment and then re-firing the same mission will have better effects on the target than firing the same volley of rounds that are missing the target.

Observation #6: Many units leave their home station with the intention of utilizing digital systems (PFED to AFATDS and AFATDS to AFATDS). Once operations commence, units rarely utilize the PFED. Some units never attempt to use their systems, but once they are in various positions within the training area, communication issues hinder the usage of these systems.

Knowing your environment, or using the equipment more often prior to a deployment to the JRTC, likely would have identified potential communication issues. Most of the company and troop fires cells have OE-254 or COM-201 antennas but still lack the ability to communicate with their higher headquarters. Using simple kits, such as a field expedient antenna, could minimize some of these downfalls. Using the terrain to your advantage can help as well. The table below lists what equipment an FO should have to successfully execute his mission.

What we must have	What we should have	What we can have
• Map • Compass • Radio • Protractor and OF Fan • Writing devices and notepad	• TLWS • FS Overlay with FSCM, targets and maneuver graphics • GPS device • JFIRE • Crater Analysis Kit	• Laser Locator/Designators • Field Expedient Antenna Kit (directional antenna) • IZLID • Digital ABCS • Annex D with all FS products • Rebook/SOP/FS doctrine • Harris 152/PRC-148 • ROVER 5

Figure 6-4. FO equipment

At the end of the day, the sole purpose of a fire supporter is to bring accurate and lethal fires onto enemy formations. We cannot do this without using the state-of-the-art equipment the Army has provided.

Streamlining air and ground clearance

Whether conducting a DATE rotation or a mission readiness exercise for deployment, most brigades initially struggle with clearance of fires.

Throughout the majority of rotations, brigades have a 12-minute average for clearance of fires. Units also systematically improve their processes and become more efficient and faster. By the end of rotations, units are as quick as 1.5 minutes. This still does not account for any process that might slow down the mission prior to receipt of the mission from brigade. If missions are voice and have to be retransmitted, expected total times will continue to be lengthy.

Utilizing digital systems speeds up total mission times across the entire fire support system. The table below lists procedures to streamline air clearance times.

What we must do	What we should do	What we can do
• Timely position updates to higher headquarters • Know your terrain and battle space • Know and identify our target triggers • Rehearse and practice ground and air clearance battle drills	• Know adjacent unit locations • Timely (early) requests for UAS operations • Preplanned requests for close combat attack (CCA) and close air support (CAS) • Utilize airspace coordination measures • Know weapon system locatiosn and gun target lines (GTL) • Be proficient in lateral de-confliction	• Know rotary wing and fixed wing assets available daily air tasking order (ATO) • Know weapon systems MAXORD for planned targets and targets under our responsibility • Technical rehearsals for weapon systems (60mm-Cannon Fires)

Figure 6-5. Procedures to streamline air clearance times.

Use of FSCMs/airspace coordination measures (ACMs)

As part of the targeting process, well-planned FSCMs and ACMs allow weapon systems to engage targets as well as allow air assets to support maneuver. There should be no need to cease firing of indirect systems when aircraft is on station, as long as they are within well-defined FSCMs and ACMs respectively. Understanding how FSCMs can affect your ability to fire missions is crucial if you have a no-fire area (NFA) near your defensive position. If you need to engage a target just outside the boundary of that NFA, you might have your mission denied because the weapon system's effects might breach the restrictions for the NFA. Therefore, knowing the FSCMs allows us to make recommendations for adjustments to those FSCMs within the operational environment.

For example, consider a brigade NFA that is near one of the company defensive positions. This NFA has a 400-meter radius that covers almost all of the company area of operation. This large, restrictive FSCM likely would not allow the company to engage targets with indirect fires, ultimately limiting the company to the use of direct-fire systems. Additionally, when rotary-wing

aircraft are within the airspace where a fire mission will be executed, units consistently cease surface-to-surface fires. Rather than permitting the ground unit to laterally deconflict the fires and aircraft, brigades routinely cancel the fire mission altogether. If during the planning process we can identify potential air corridors, we can utilize ACMs that will have minimal impact on the request-for-fire missions.

Knowing what asset to call for

We have great capabilities, including mortars, field artillery, naval gunfire, close combat attack (CCA), and close air support (CAS). How do we know what asset and associated munition(s) will result in achieving the desired effect? Units at the JRTC routinely over rely on CAS because they refer back to what they are comfortable with, whether it is organic mortars, BCT fires, battalion fires, or CCA. Being well-versed on the capabilities of all available systems heightens the ability to select the appropriate weapon system for the effects needed to engage targets. Utilizing the tools (JFIRE, Redbook) and products (AGM, TSS, HPTL) that are available allows us to maximize those assets we have and assists with the management of Class V resources.

Figure 6-6. Battery in bermed position.

Attack guidance and target selection standards not only have to be defined, but also they must be rehearsed through each phase of the operation. Each fire support task associated with specific targets must be completely understood — from attack guidance, target selection, observer plan, and the PACE plan. During rotations, units receive many counter-fire missions. Through the early phases of the operation, digital communications are operational and being utilized, but routing is not completely understood. At times, radar acquisitions do not go directly to the field artillery battalion FDC and, at times, are manually sent to the brigade fires cell. The brigade fires cell clears air and ground, then resends the mission back to the FDC. Consistently, one system

is over used while others stay idle. M777, HIMARS, or M119 batteries are being solely used for counter-fire missions. Relooking the AGM to allow the M777 or M119 batteries to execute counter-fire missions, instead of relying on one specific system, can alleviate and apportion some of the load across team fires. Throughout the MDMP and targeting, these issues should be discussed and planned through top-down planning and bottom-up refinement, which solidifies shared understanding and permits disciplined initiative. Weapons effects, range, ammunition management, technical fire control, and observer plans must be codified to truly meet the commander's guidance for fires.

Observed throughout other rotations, use of CCA and CAS is at both ends of the spectrum, either too much or not enough. Basic to both extremes is the lack of planning for these assets. In a near-peer threat, the expectation that fixed-wing and rotary-wing assets will have full freedom of maneuver should not be relied upon. Detailed planning and requests of these assets need to be more than just an afterthought. Redundant coverage, or at least a plan to attack a target with different assets, must be planned for and explained in the attack guidance.

Conclusion

Fire support in a decisive action operation is extremely complex and requires detailed planning and analysis. Plan, prepare, execute, and assess are the foundation of mission command, and when nested properly into fire support planning and targeting, units are more likely to develop a solid plan. Targeting is the key integrating process within the operations process that drives fire support planning by way of the MDMP. Unlike COIN, decisive action operations demand a detailed brigade "top-down plan" with battalion/squadron "bottom-up refinement." The planning process describes how fires are used to facilitate the actions of the maneuver force. Targeting bridges the fire support task with a maneuver objective through desired effects, which gains or maintains a position of relative advantage during operations. If we follow the operations process, MDMP encompasses the planning phase for fires, while rehearsing and synchronizing fires within the brigade includes the prepare phase. Planning and preparing are crucial for synchronization, integration, and execution of fires into the concept of operation, which happens to be the third phase of the operations process.

The last part of the operations process, assess, was not discussed in this chapter, but it is just as important. We must always assess the effectiveness of our operations. In the end, understanding these principles will allow us to properly plan fires in a decisive action environment.

Chapter 7

Air Defense Airspace Management and Brigade Aviation Element Combat Multiplier in a Decisive Action Training Environment

MAJ Timothy P. Parrish, CPT Travis J. Easterling, and CW3 Wesley Dohogn

The air defense airspace management (ADAM) and brigade aviation element (BAE) support the brigade combat team (BCT) through joint, interagency, intergovernmental, and multinational (JIIM) sensors; communications systems; JIIM airspace users; and aerial situational awareness. The ADAM/BAE provides early warning, planning, and execution of airspace management and air and missile defense (AMD)/aviation planning and coordination requirements across unified land operations (ULO).[1] ADAM/BAE cells must be proactive to enable a BCT to succeed during a decisive action training environment (DATE) rotation. ADAM/BAEs must emphasize personnel and equipment, preparation, operations focus, and reviewing the lessons identified from the other DATE rotations.

Figure 7-1. Air defense is a challenge.

Personnel and Equipment

Personnel and equipment are interrelated areas' critical first steps toward mission accomplishment. An ADAM/BAE that puts time and emphasis on predeployment tasks will be set for success. The three personnel and equipment issues with the largest dividends to the unit are personnel, standing operating procedures (SOPs), and precombat checks and inspections (PCCs/PCIs).

Personnel

Personnel are vital to the ADAM/BAE. The BCT and the ADAM/BAE must ensure that the cell is manned, trained, and cross-trained prior to arrival at the Joint Readiness Training Center (JRTC). Units traditionally either arrive with no air defense officer (ADO) or the ADO has been tasked to fill other critical BCT positions. Part of this issue lies in the fact that the United States has not faced an adversary with a capable air threat in recent history. During DATE rotations, the ADO is critical in planning both air defense and airspace.

In Rotation 13-09, the 3rd BCT, 82nd Airborne Division (3/82) Panthers were without their 140A Systems Integrator warrant officer. The lack of a 140A warrant officer hindered the BCT's ability to integrate all systems that provided the BCT an air common operational picture. The 3/82 ADAM/BAE team was like the majority of ADAM/BAEs in that they lack the institutional training to conduct their duties effectively. This fuels a consistent trend that ADAM/BAEs learn on the job through trial and error.

The Fires Center of Excellence (FCoE), in coordination with the Aviation Center of Excellence (ACoE), established an ADAM/BAE course to provide the requisite training. Currently, only 5 percent of the ADAM/BAEs have attended the course.[2] The ADAM/BAE course started in 2012 to address this issue, with one class per quarter. The goal of both the FCoE and ACoE is that new personnel will attend prior to arriving at their next unit. Additionally, BCTs can send their entire ADAM/BAE to the course TDY or send select personnel, who then return and train the remainder of the cell. Future Rotation 14-04 (3rd Stryker Brigade, 25th Infantry [3/25]) sent personnel to the October 2013 course. The 3/25 also had personnel at the JRTC for Rotation 13-09 with 3/82. Until this course was established, the only official training was from field service representatives when a BCT received the ADAM shelter. The training did not provide any instruction on how to be an ADAM/BAE Soldier or officer and focused only on the Tactical Airspace Integration System (TAIS) and the Air Defense Systems Integrator (ADSI).

Additional measures ADAM/BAE leadership can take to ensure individual and collective training occur include working with their parent division aviation and AMD cells to provide blocks of training and oversight. The proper manning and training of personnel within the ADAM/BAE cells are vital to ensure those cells are force multipliers.

SOPs

Outdated or nonexistent SOPs have been a recurring trend at the JRTC. Battle drills, duties and responsibilities, and continuity books are critical components of these needed SOPs. The ADAM/BAE's ability to operate quickly and efficiently during current operations (CUOPS) requires a thorough understanding of the brigade battle drills and what that entails. At a minimum, the SOP battle drills need to address the following:

- Air medical evacuation.

- Counter-fire.

- Call for fire.

- Downed aircraft/unmanned aircraft systems (UAS).

- Hostile aircraft.

- Indirect fire sense and warn.

- Immediate close air support (CAS).

- Immediate close combat attack (CCA).

- Mass casualty.

- Personnel recovery.

- Tactical ballistic missile (many nations, to include Syria, Russia, Egypt, Iran, North Korea, and China, have ballistic missile programs).

Published duties and responsibilities ensure that everyone knows what is expected of them. Part of the SOP within the duties and responsibilities section should entail who is cross-trained and in what areas. A prime example is that all personnel working in CUOPS should be cross-trained, meaning that the 14Gs should be trained on the 15Q duties and vice versa. This would improve effectiveness of the section.

As mentioned in the Oct-Dec 2006 issue of the *Air Defense Artillery Journal,* cross-training "… greatly enhances the cell's effectiveness if ADAM cell Soldiers are cross-trained to operate all the cell's systems."[3] The brigade aviation officer (BAO) is unable to execute all aviation and airspace planning obligations himself. He needs to use either the assistant BAO or the ADO to alleviate some of the aviation and airspace planning responsibilities. This means cross-training the ADO on BAO duties and aviation planning. The continuity book portion is the "how business is done" portion of the SOP. This enables new personnel to quickly integrate into the team and understand how to execute their positions to standard.

PCCs/PCIs

PCCs and PCIs ensure that all the ADAM/BAE equipment deploys in working order and that all the necessary basic inventory items (BII) are present and fully mission capable. Units frequently failed to bring all the necessary BII for the communications equipment, resulting in the ADAM/BAE experiencing communications difficulties throughout its rotation. Rotational units that fail to pack battery boxes are unable to use any communications capabilities besides FM on the drop zone. This has led to several instances where the ADAM/BAE lacked the necessary communications requirements at critical junctures to control/manage airspace for the BCT. The ADAM/BAE leadership needs to ensure that thorough PCCs and PCIs are executed so they have working equipment when they arrive at the JRTC.

Preparation

The ability of the ADAM/BAE to thoroughly conduct reception, staging, onward movement, and integration (RSOI) and develop an airspace control plan (ACP) that is understood throughout the brigade are critical pieces to preparation for a JRTC rotation. Field Manual 3-52, *Airspace Control,* states that "brigades are responsible for airspace control of Army airspace users within their AO [area of operations]. The authority of the brigade over unified action partner airspace users varies and is specified in the higher headquarters airspace control annex."[4]

"The purpose of RSOI is to build combat power necessary to support the CCDR's concept of operation."[5] The critical portions of RSOI where the ADAM/BAE needs to place emphasis is on staging, onward movement, and integration. During the staging phase, the ADAM/BAE has to account for its equipment and ensure that all systems are operational prior to conducting onward movement. If time allows, the ADAM/BAE should use the staging time to set up its communications architecture (FM, ultra high frequency, very high frequency) and digital systems such as Air Defense Systems Integrator (ADSI), forward area air defense (FAAD), AMD warning system (AMDWS), and Tactical Airspace Integration System (TAIS). This will ensure connectivity with division and either the regional air defense commander (RADC) or combined air operations center. It will identify potential issues later on and provide a refresher on setup for the team. Most importantly, it will ensure that all the equipment works.

During onward movement for forcible entry or movement into an immature theater, the ADAM shelter and the Sentinel radar are valuable pieces of equipment for the BCT that enhance situational awareness of the third dimension. The ADAM/BAE must emphasize the ADAM shelter capabilities during the MDMP in the unit's movement plan to develop the brigade's ability to control airspace. The integration of air defense and aviation units into the BCT is crucial to RSOI and future operations. The ADAM/BAE must ensure that integration takes place. Liaison officers from both should be collocated with the brigade main and tied into both CUOPS and plans. The inability to fully integrate aviation units into planning prevents them from utilizing air assets to their complete capability.[6]

The brigade ACP should be completely synchronized with the brigade commander's intent and priorities. The ADAM/BAE must write the ACP in a clear and concise manner to ensure it is understood by all airspace and subordinate users who submit requests. To do that, the ADAM/BAE must thoroughly understand the higher headquarters' ACP and ensure that higher understands the BCT plan. In Rotation 13-09, the division aviation cell that managed the division airspace viewed the BCT's ACP as unsafe and incomplete. The division then placed additional control measures on the BCT to ensure the safety of all airspace users. Field Manual 3-52 states, "Airspace control planning is central to facilitating a shared understanding of air-ground integration."[7] An additional area of emphasis on the ACP that has been lacking is that the ADAM/BAE should identify the necessity for all airspace users to conduct a rehearsal. An airspace rehearsal will ensure that everyone understands the brigade's airspace plan and will identify shortfalls prior to execution.

ADAM/BAE Operations Focus

The ADAM/BAE with the proper personnel and equipment along with preparation typically has a leg up on units as they begin operations. CUOPS is the brigade's current fight. This is the area of focus for most in the ADAM/BAE. The running estimate is a great tool; most ADAM/BAEs fail to develop one before coming to the JRTC. The running estimate is a critical tool for the ADAM/BAE in the CUOPS fight. It enables battle tracking resources in the air flying through the BCT-controlled airspace. The running estimate provides a single picture of what aircraft are operating within the BCT's area of operations (AO) for a select period of time.

The ADAM/BAE should have an analog version to fight off of when the ADAM shelter is not operational. With a running estimate, map, and radios, the ADAM/BAE can manage airspace procedurally for a short period of time in analog mode. A digital running estimate is also important, since the BCT tactical operation centers (TOCs) operate digitally most of the time. It is imperative that the section battle tracks the brigade ground fight. Several times during

Rotation 13-09 and in previous rotations, the ADAM/BAE only focused on its lane of airspace management and was unaware of the fight around it. ADAM/BAE personnel must be aware of the ground fight to be able to make informed advisements to the brigade chief of operations for aircraft retasking. The cell relies on its digital systems without analog backups. This prevents the cell from managing airspace when the digital systems go down or when it jumps the TOC. Additionally, ADAM/BAEs have a hard time forecasting personnel and equipment requirements for the cell's mission when the brigade deploys a tactical command post (TAC). The ADAM/BAE needs to be ready to execute TAC operations with the goal of providing two to three personnel with FM and UHF radios, a running estimate, and a TACVIEW-loaded laptop to provide airspace situational awareness while being able to execute continuous operations.

Figure 7-2. Not everything in the sky is friendly.

The ADAM/BAE is critical in the CUOPS fight in that it conducts the current tasks, "continuously … control[s], and monitor[s] the operations of all airspace users to support their operations and those transiting through the air over their ground AOs. This continuous situational understanding is critical to ensure that the brigade can react to any situation requiring immediate use of airspace, such as immediate fires (offensive and defensive), CAS missions, unplanned unmanned aircraft system launches, or a diversion of aviation assets in real time."[8]

The brigade's future fight is in plans, and this is where the BAO spends most of his energy. The ADO also integrates into the brigade planning process, working the airspace management piece with the BAO and in developing the brigade's air defense plan. The ADO and BAO work together to ensure that the airspace control means request is submitted if requested. Additionally, the ADAM/BAE submits "airspace coordinating measures (ACMs) to facilitate the efficient use of airspace and simultaneously provide safeguards for friendly forces. The Army's airspace control methodology emphasizes procedural control of airspace."[9] The air mission requests are submitted to ensure the appropriate air assets required are resourced for a given operation. The ADAM/BAE cell must attend the necessary boards, cells, and working groups that the brigade staff executes to assist in the synchronization of the brigade fight.

A well-trained and doctrinally sound ADAM/BAE understands that it is not the only element that deals with airspace in a BCT. The ADAM/BAE must work with numerous staff sections, as Field Manual 3-52 identifies that staff interdependencies are required to manage airspace. The ADAM/BAE supports the maneuver commander. One interdependence issue that occurs regularly is that subordinate battalions have junior officers or noncommissioned officers serving as their S-3 Air. Their inexperience affects the brigade because they do not understand the ramifications of airspace control and cannot properly forecast air assets for future operations in a timely manner. This makes airspace planning reactive.[10] The ADAM/BAE integrates the brigade airspace with the intent to maximize effective airspace control.[11] The ADAM/BAE must work closely with all other airspace users. An airspace control working group "facilitates and synchronizes contributions from all the elements that perform airspace collective tasks."[12]

The critical interdependencies the ADAM/BAE interacts with to control airspace include maneuver, fires, ALO/joint terminal attack control/tactical air control party, and the S-2 for intelligence, surveillance, and reconnaissance UAS. The passing of information from the staff sections improves airspace control and makes using the airspace more efficient during operations.

Conclusion

The JRTC, in coordination with the Center for Army Lessons Learned (CALL), published CALL Newsletter 13-13, *Operations in the Decisive Action Training Environment at the JRTC, Volume I: The Brigade Combat Team,* following DATE Rotation 13-01. Chapter 14, "Airspace Management with SHORAD Integration," specifically focused on how the brigade ADAM/BAE and Air Defense Artillery Short Range Air Defense (SHORAD) integrate and operate. Deficiencies identified in Rotation 13-01 were carried over into Rotation 13-09 — little to no integration or coordination occurring between the air defense unit and the BCT ADAM cell in terms of synchronization, coordination, and prioritization of air defense weapon systems. Additionally, the planning SHORAD for effective utilization of systems identified in Rotation 13-01 still hindered 3/82 in Rotation 13-09.[13] One improvement between rotations among ADAM/BAEs was the establishment of missile engagement zones and SHORAD engagement zones as ACMs. This was a positive step in the ADAM/BAE planning and integration of SHORAD into the unit airspace plan.

The BCT ADAM/BAE cell plays a critical role in ULO through the control/management of all users operating in the brigade airspace. Focusing on personnel and equipment, preparation, and ADAM/BAE operations will greatly improve the effectiveness of ADAM/BAEs.

Endnotes

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6. MAJ Matthew A. Hodges. Joint Readiness Training Center. 13.

7. FM 3-52. 3-5.

8. FM 3-52, 2-10.

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10. Ibid., 12.

11. FM 3-52, 2-4.

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Chapter 8

The Importance of Annex A in Signal Planning

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Army Doctrine Publication 5-0, *The Operations Process,* provides doctrine and guidance on Army orders production. It focuses on something that all battalion and brigade staff members should be familiar with — the five-paragraph operation order (OPORD) and specifically the associated annexes that go with the base order. All signal officers and noncommissioned officers (NCOs) who participate in Joint Readiness Training Center (JRTC) rotations understand the importance of the signal input to the OPORD as Annex H. Many signal Soldiers overlook a more important annex, one that all good staff officers must know — the task organization (TASKORG) Annex A.

Since the Army's transition to the modular brigade concept, the brigade combat team (BCT) has become the Army's unit of execution. Whether heavy, infantry, or Stryker BCT, the BCT is the main focus of operations at the JRTC. Field Manual 3-90.6, *Brigade Combat Team,* defines a BCT as the largest combined arms organization. The BCT task-organizes units and capabilities from every warfighting function to meet specific mission requirements. This means that BCTs can expect a whole menu of enablers for a operation, to include aviation, civil affairs, and sustainment units. By design, the modularity concept means that these enablers can come from anywhere in the Army, whether active or Reserve component, and may have never actually worked with the BCT before. Additionally, the command relationship of these enablers can be administrative control, operational control, general support, or direct support. Annex A TASKORG of the OPORD is the one document that lists both the enablers and their command and support relationship with the supported BCT.

In the last DATE rotation, the BCT had 30 separate enablers supporting its operation from many different geographical locations. The sheer number and variety of parent commands for these enablers created equally daunting signal challenges. We saw S-6s struggle to cover the TASKORG in Annex A as they prepared Annex H. Central in that struggle was understanding the requirements, capabilities, and shortfalls of enablers.

If Annex A identifies enablers as belonging to the BCT, then the BCT S-6 is responsible for integrating the enabler's communication requirements within the organic BCT structure. All too often an external enabler is an unfamiliar or even unknown enabler; neither the BCT as a whole nor the S-6 as an individual really understand the mission command signal support requirements for an enabler from a different command and geographical location. Which enabler reports to whom? Will the enabler stay in its organic TASKORG, or will its assets be split between separate BCT commands? These are operational questions that Annex A must define so the BCT and battalion S-6 can then develop a signal support plan (Annex H) to integrate the reporting and communications requirements within the BCT signal plan.

Another area BCT and battalion S-6s struggle with at the JRTC is not knowing the enablers' signal requirements. If the BCT is receiving a military intelligence enabler, do they have a specific TOP SECRET communications security (COMSEC) requirement? Is there a specific signal system the civil affairs team is bringing that requires frequency deconfliction? What are

the frequency and radio net identifications required? Has the BCT and battalion S-6 incorporated the enabler into the BCT communications card? These are questions the BCT S-6 may have to answer based upon the type of enablers the BCT gets.
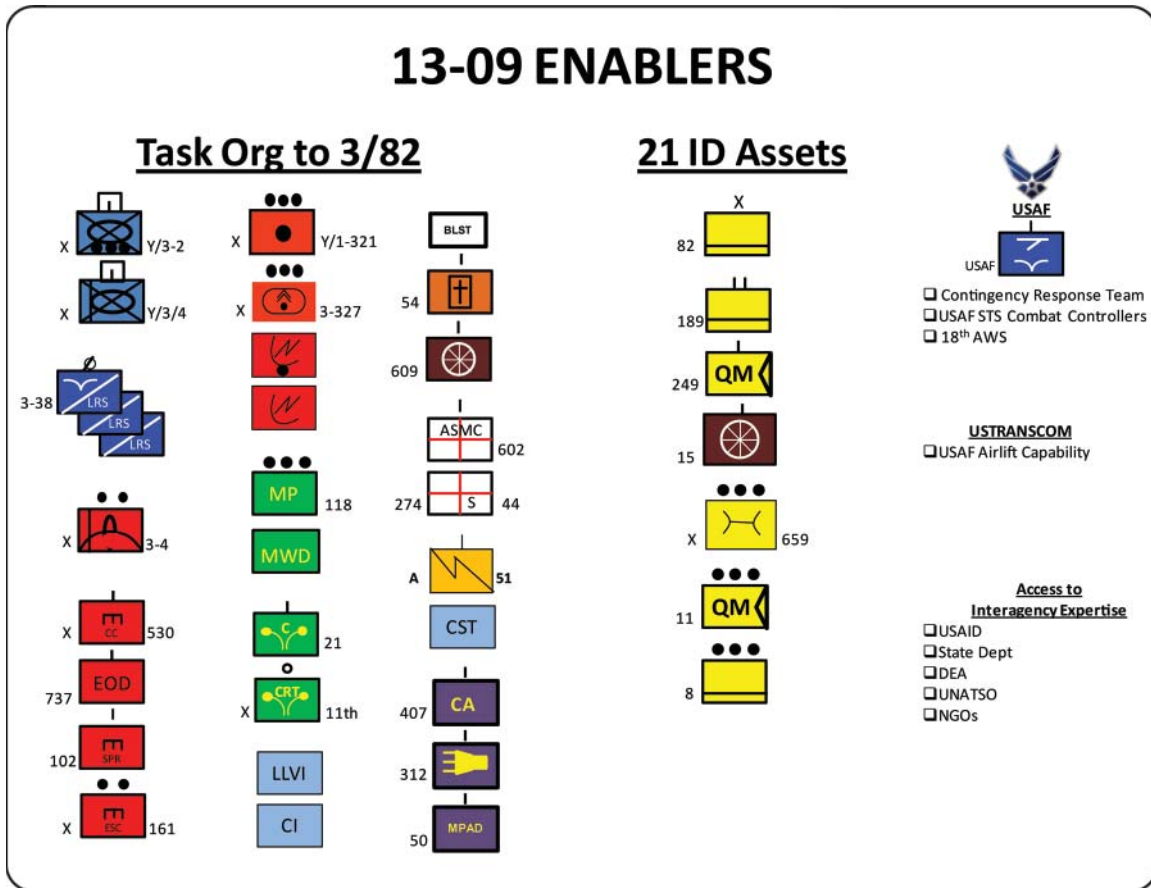

Figure 8-1. Annex A for Rotation 13-09

A final negative trend that reoccurs from rotation to rotation is based on the operations plan. There is always a delta between what the enabler needs to do for the missions in the rotation and what the enabler brings to perform the mission. The BCT and battalion S-6 first must calculate that delta and then try to fill it. If the BCT S-6 signal support plan determines an enabler needs 10 computers and five radios to conduct the mission, and the enabler brings two computers that are not information assurance compliant and three SINCGARS radios without hand microphones or antennas, the BCT is expected to make up these shortfalls. These shortages strain the BCT and battalion S-6s because they already have their own organic signal challenges. If you add 30 different external enablers, all of whom are short on signal equipment, to your organic signal delta, this is not an irritation. It is the proverbial show stopper. One of the most dreaded things a BCT S-6 can hear is "Hey, I'm from the 123rd Civil Affairs Company. Where do I sign for my radios and computers?"

Unfortunately, we see these problems all too often at the JRTC. DATE rotations are enabler heavy, and the problem gets severe. Fortunately, there are some very easy things that can be done to ensure that BCT enablers are completely supported by the BCT signal support plan.

The first is to understand who your enablers are and identify the support relationship. Annex A is a MUST for developing your signal support plan. If the S-6 has not already done so, he must embed himself with the brigade plans cell, not only for Annex A development but also for the OPORD production process.

Secondly, the S-6 must have a complete understanding and know ALL the enablers he is responsible for, how they fit into the operations plan, and how he will incorporate the enablers into the signal support plan.

That leads to the final and most important point — establish early communications and build mutual trust with the enablers. Army Doctrine Reference Publication 6-0, *Mission Command,* stresses the importance in building cohesive teams through mutual trust, and this is even more important to mission success if you are working with enablers outside your organization. In most cases, the start of the JRTC rotation is the first time the S-6 meets the enabler. That can lead to a lot of confusion.

Although there is a challenge with some enablers to identify a good signal point of contact (especially enablers coming from the Reserve component), it is absolutely essential that all efforts be made to do so. Even if you need to go through the S-3 to get the phone number of the S-4, who is a next door neighbor with the S-6, do it. The BCT S-6 and the enabler signal representative have got to talk if they are to communicate later. They must exchange signal requirements, discuss responsibilities, identify equipment shortfalls, and decide who will make up those shortfalls.

Conclusion

The first step in following the above recommendations is for the BCT S-6 to understand Annex A. Once the BCT S-6 understands the importance of Annex A in developing the signal support plan, he will produce a better signal Annex H. A good signal officer knows that it is just as important to be a good staff officer.

Chapter 9

Brigade Combat Team Integration of Chemical, Biological, Radiological, and Nuclear Enablers

MAJ Jonathan Zeppa and SFC Matthew Teal

During Joint Readiness Training Center (JRTC) Rotation 13-09, the Panthers of 3rd Brigade Combat Team (BCT), 82nd Airborne Division (3/82) deployed to support Atropia with a robust package of chemical, biological, radiological, and nuclear (CBRN) enablers. The BCT deployed with a full chemical company and an attached chemical response team (CRT) to assist the BCT with site exploitation, hazard mitigation, and decontamination. The 21st CBRN Company deployed with a reconnaissance platoon with four M93 vehicles and a reconnaissance and surveillance team, two decontamination platoons, and the company headquarters. The 11th CBRN Company also sent a CRT to assist with weapons of mass destruction (WMD) site exploitation and mitigation. These units added a decontamination capability, multiple units to conduct sampling, and CBRN reconnaissance capable of moving with maneuver units.

Recognizing some lessons learned from recent rotations, the 21st CBRN Company took a new approach and broke into platoon-size mission support packages (MSPs), with each having some decontamination and reconnaissance capabilities. This configuration also incorporated CRTs at the brigade and battalion level; traditionally, these units are at higher level. The following are some lessons learned from this and other recent rotations.

Figure 9-1. Training CBRN tasks.

Reception, Staging, Onward Movement and Integration

The effective integration of CBRN enablers into BCT operations is critical for many reasons. CBRN improves basic survivability needed to preserve combat power. Effective CBRN helps set the conditions for our nation to achieve strategic success for WMD policies and the international community. Still, JRTC trends show that units do not conduct effective integration of enablers and initially fail in operations using these units. To effectively integrate enablers during the plan-and-prepare phase of operations, BCT staffs must develop a comprehensive reception, staging, onward movement, and integration (RSOI) plan; appropriately task-organize; and ensure CBRN enablers and capabilities are synchronized into a maneuver BCT's mission plans.

When developing the plan to properly integrate CBRN enablers into RSOI, units must address to whom the enablers report or belong. Will the units eventually be attached to the BCT headquarters, the brigade special troops battalion (BSTB), or the battalion-level task force (TF)? Each choice has its own strengths and weaknesses.

BCT	BSTB	Battalion TF
Strengths: Enhanced reporting, availability for planning at BCT level	Strengths: Battalion staff and commander oversight	Strengths: Availability for tactical planning, integration
Weakness: Overwhelming headquarters company brigade and staff	Weakness: Availability for planning	Weakness: Visibility on combat power for BCT asset

Based on observations, the best practice is to keep the CBRN assets with the BSTB during RSOI. Upon arrival, the company commander and CRT leader work with BCT planners to develop the task organization, directed tasks, and anticipated missions. Once the task organization is developed, platoon leaders conduct similar planning activities with the battalion staff for the maneuver units. This plan gives the most time for planning but also provides the oversight and direction from a battalion staff and command team.

Integrating CBRN enablers starts during the predeployment planning process and continues through RSOI. RSOI allows units to exchange information on the mission and "may require interaction and familiarization among units and that arriving units meet certain standards before being completely integrated into the combat plan" (Field Manual [FM] 3-35, *Army Deployment and Redeployment*). Information that should be exchanged includes capabilities, limitations, critical pieces of equipment, unique resupply needs, and how to best utilize the enablers. It is not dependent on one staff section, but requires coordination between the CBRN officers, chemical units, and planners. During this phase of the operation, the task organization is reviewed and the enablers are aligned with the supported units based on anticipated missions for the first phases of the operation.

As the BCT continues to grow combat power during RSOI, the CBRN officer tracks the growth of CBRN defense capability. Numbers and raw data are important factors, but the CBRN staff needs to translate the raw data into information the commander can understand. Getting a certain percentage of the enablers into theater staging areas is important; it does not equal building combat power. Determining the combat power status of CBRN enablers requires detailed analysis with enabler unit leaders of what is on the ground, what is inbound, and when

to anticipate arrival of personnel and equipment. This analysis should answer the questions of "What missions can this unit perform right now?" and "What missions will it be able to perform in 24 hours?" Answering these questions allows BCT leaders to adjust priorities, anticipate capability growth, and project when the BCT will be fully combat ready. Specific items to be tracked include critical equipment such as decontamination equipment, reconnaissance assets, specific conex locations, and protection equipment status.

Conducting RSOI at the intermediate staging base offers the key benefit of consolidating unit leaders at one place. A best practice is to use this time as an opportunity for leaders, planners, and the CBRN staff to meet and discuss the best use of different CBRN teams. The BCT staff briefs commanders on the missions, and CBRN leaders can suggest the best way to employ their teams. A similar synchronization of planning should occur at the battalion TF level. Identify key capabilities and limitations for battalion TF MSPs using the platoon-level leadership as the subject matter experts.

Task Organization

As part of RSOI, developing the task organization is critical to effective integration and the success of support operations. The JRTC has a wide array of CBRN threats spread across the operational environment (OE). The numerous threat agents and capabilities of conventional (indirect fire and aerial spray) and nonconventional (infiltration and sabotage) delivery make the entire BCT area of operations a potential CBRN environment. Units often array CBRN enabler forces equally across the brigade to combat this risk.

During the last rotation, 21st Chemical Company split into MSPs, with some reconnaissance and surveillance as well as decon capabilities for each battalion TF. This is the first time CBRN enablers were used in this manner at the JRTC. This technique exercised the tenets of mission command and planning. Each battalion TF could use the MSP platoon leader to assist with mission planning. Every MSP had a platoon leader and platoon sergeant to enhance mission command. On the other hand, the MSP technique did not allow a deliberate decision-making process based on the main effort, critical units, or specific sets of CBRN tasks assigned to battalion TFs. Another lesson learned was that missions anticipated by the battalion TF often are not properly factored into the process.

A more deliberate method for developing the task organization for CBRN enablers is outlined in Army Tactics, Techniques, and Procedures (ATTP) 3-11.36, *Multi-Service Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Command and Control*. The factors to examine when task-organizing the force include but are not limited to "training, experience, equipment, sustainability, OE, enemy threat, and mobility." The key to employing effective enablers is determining the task organization and analyzing these factors.

Below are two examples of planning considerations for developing the task organization using sustainment and mobility factors.

First, CBRN enablers have unique requirements for sustainment. M93-series vehicles require uniquely qualified maintenance teams. CRTs have numerous commercial off-the-shelf items that are not typically addressed in established logistics or chemical defense equipment reporting. Chemical platoons are assigned limited force protection assets. Sustainment issues

must be addressed and planned for when establishing the task organization in order to provide commanders with fully-mission-capable assets. Examples are the unique pacing items for a CBRN company and expendable items for a CRT not organic to a BCT.

Second, mobility is another factor to consider when determining task organization. For example, the primary reconnaissance element for a BCT is the organic reconnaissance squadron. The mission of the reconnaissance squadron "progressively builds situational awareness (SA) of the operational environment for the higher commander." To do this, "The squadron employs unique combinations of reconnaissance and security capabilities to successfully meet the information challenges intrinsic to the spectrum of conflict." (FM 3-20.96, *Reconnaissance and Cavalry Squadron,* paragraph 1-8)

By taking mobility into account during task organization, a BCT can greatly enhance the effectiveness of both conventional and CBRN reconnaissance by pairing one of the most mobile and survivable CBRN reconnaissance assets the brigade has assigned to the reconnaissance squadron, the M93-series vehicles. The most mobile battalions need the most mobile and survivable enabler support.

Note: Task organization is not a static attachment. Each mission requires the staff to relook at the task organization and adjust it according to the factors of the mission and operational environment. Units need to be prepared to use any of the assets attached to the brigade, and the CBRN assets need to be prepared and flexible enough to adjust to any changes to the task organization.

Planning

In addition to RSOI and task organization, CBRN defense assets must be integrated into mission plans for effective use. A well-developed mission plan emerges from internal and collaborative planning. CBRN commanders interact with the brigade and battalion staffs and commanders to synchronize assets and details, such as site security, movement plans, and timelines. An example of how other warfighting functions execute collaborative planning is sustainment collaboration. Sustainment units often use a support operations officer to attend the unit military decisionmaking process (MDMP) or designate liaison officers (LNO) to attend the BCT MDMP sessions. These same techniques could be used by maneuver units to synchronize CBRN enablers into their planning process. While arrayed as MSPs, platoon leaders can dual-hat as LNOs and advise battalion staff and commanders on how to best use their capabilities, overcome the limitations of site security, assist in the development of exclusion zones, and coordinate for rehearsals.

BCT rehearsal participation at the completion of planning sessions is critical for CBRN enablers. Integrating the enablers into the combined arms rehearsals and sustainment rehearsals will validate the planning process and synchronize the operation. An example of sustainment rehearsal synchronization is decontamination operations sustainment. Decontamination is a resource-intensive operation that needs to be synchronized across all warfighting functions to be effective. It requires coordination between the CBRN unit, CBRN officers, engineers, medical, and logistics. Developing a detailed enduring concept of operations for this type of operation that is coordinated, vetted, and rehearsed at all levels has proved to be a challenge for units at the JRTC. CBRN enabler participation in sustainment rehearsals will confirm this synchronization.

Figure 9-2. Training pays off in the fight.

Conclusion

The plan-and-prepare phase of operations is often a time-constrained environment with many conflicting priorities. Ensure that BCTs and CBRN enablers plan for the time and effort required to integrate CBRN defense assets comprehensively. This plan should include tasks for RSOI, developing the task organization, and synchronizing CBRN enablers into a maneuver BCT's mission plans. The results of effective integration are survivability and ultimately mission success.

Chapter 10

The Art of Combat Engineering

CPT Steve Lanni, Task Force 4, Joint Readiness Training Center Operations Group

Rotation 13-09 at the Joint Readiness Training Center (JRTC) was the second time in Fiscal Year 2013 that a brigade combat team (BCT) employed engineer assets in a unified land operations (ULO) environment. This chapter reviews the engineer's role in a BCT's defense of the lodgment and the relationship between the BCT and engineer company to extract the maximum use of engineer assets.

The Engineer Fight in 13-09

The 3rd BCT, 82nd Airborne Division (3/82) had three engineer companies at its disposal during the rotation. These assets included:

- Alpha Company, 3rd Brigade Special Troops Battalion (3BSTB), consisting of two sapper platoons and one light equipment platoon.

- 102nd Sapper Company, consisting of three sapper platoons.

- 161st Engineer Support Company (ESC), consisting of three equipment platoons to include a light airfield repair package.

- 530th Clearance Company, consisting of three route clearance platoons.

A/3BSTB was attached to Task Force (TF) 5-73 and was given control of 2/A/3BSTB during the operation. 102nd Sapper was attached to TF 2 Panther and was given control of 3/102 Sapper. 161ESC was attached to 3BSTB and was given control of three equipment platoons and the light equipment platoon from A/3BSTB. The 530th Clearance Company retained operational control of all organic platoons. 1/A/3BSTB was assigned to TF 1 Panther and was given the responsibility as TF engineer.

Rotation 13-09 was broken down into five phases by 3/82:

- Phase I: Outload

- Phase II: Joint Forcible Entry

- Phase III: Expand the Lodgment

- Phase IV: Defense of Area of Operations Bear

- Phase V: Transition to Offensive Operations

The engineer role in the BCT fight during phase II and phase III focused on increasing the combat power of the maneuver TFs. Most of the engineer assets did not arrive on the battlefield until D+2, when the ground line of communication (GLOC) was opened from the intermediate staging base (ISB).

Figure 10-1. Carving the berms for the field artillery.

Phase IV commenced on or about D+3. By this point, the TFs had emplaced their tactical operations centers in their permanent positions for the defense. Each TF focused on its own defensive positions and established its own engagement areas (EAs). As phase IV progressed, these individual EAs were rolled into the brigade plan to develop the brigade EA that was south of TF 2 Panther.

The engineer teams had four days to plan and emplace their obstacles before the enemy force arrived. These obstacles included the Modular Pack Mine System, triple-strand concertina wire, 11-row concertina wire, tank ditches, hoax minefields, and artillery-delivered (air defense airspace management/remote anti-armor mine) minefields. Both tactical and protective obstacles were used throughout the battlefield. After completing its obstacles, each platoon merged into the defense of its associated TF to provide additional weapons for the defense. The four days included planning, resourcing, and emplacing the obstacles.

Obstacle emplacement was delayed throughout the preparation of the defense because the TFs had trouble acquiring the necessary Class IV. That difficulty was caused by the TF's lack of knowledge of material or issues they had drawing the supplies from the brigade support area.

The 161ESC had many of the same problems with delays because it was never given clear guidance on the priority of digs as its assets became available. Instead of moving from one

project to another, the platoons would come back to the company command post to receive further guidance.

Figure 10-2. The engineer capacity in Rotation 13-09 was larger than Rotation 13-01.

Improving the Art Form

As a whole, combat engineers learned a lot about the ULO fight during Rotation 13-09. Rotation 13-01 identified the following topics as the basic issues that need emphasis. These topics remain just as relevant following Rotation 13-09:

- Effective communication between the combat engineer company, its subordinate units, and supported units.

- Strong and trusting relationships between the combat engineer company, subordinate units, and supported units.

- Supported unit understanding of the most effective ways to utilize combat engineers in ULO.

Effective communication

As identified following Rotation 13-01, engineer leaders must communicate the art of engineering to the supported elements. Most maneuver commanders are not experts on engineering, and it falls on the company commanders and platoon leaders to present themselves to the maneuver units in such a way that they can understand. Even though combat engineers have an unofficial secondary military occupational specialty as infantrymen, their value in the fight is mobility, countermobility, and survivability.

The primary mission of the TF engineer during the countermobility fight is to advise the commander on how best to develop the EA and how to tie in the obstacles into the brigade plan. TF engineers must also ensure the obstacles that are emplaced have met the intent and that the obstacles are overwatched in accordance with Army Techniques Publication 3-90.8, *Combined Arms Countermobility Operations,* paragraphs 1-57 and 1-58. The TF engineer also needs to tie himself into the S-2 section during mission analysis to assist in the development of the modified combined obstacle overlay to ensure the maneuver commander has the correct picture of the terrain.

During the development of the EA, the TF engineers needed to maintain dialogue with the brigade engineer to ensure obstacle groups are helping to meet the intent of the overall obstacle belt as published by brigade. Throughout the rotation, no communication was conducted, up or down, to ensure EA development was being conducted correctly.

Communication is just as effective down as it is up. During Rotation 13-09, engineer platoons were scattered throughout the battlefield and were reporting to a plethora of commanders. Even if the subordinate units are not under the control of the headquarters section, it is still very important for the headquarters section to maintain daily communication (multiple times a day) with these groups. Regardless of the command relationship, there will always be functions that the headquarters section of any element will retain responsibility for, which makes communications a paramount element. The platoon leadership needs to be able to talk to the engineer company command team about any issues it may have.

Getting the command relationship right

Effective communications start with the correct command relationship. In a global response force mission, the engineer company has to maintain its command relationship with its platoons, even if the platoons are task-organized across the BCT. The JRTC coaches tactical control (TACON) as the best relationship between a platoon and the supported TF. TACON means the supported TF can assign all missions as needed but cannot break up the platoons. This limitation ensures that engineers are properly employed.

Understanding the role and capabilities of combat engineers

As stated before, engineer leaders are like door-to-door salesmen. They need to sell their product correctly to maneuver units to maximize their effectiveness. Engineer leaders need to ensure both their capabilities and limitations are highlighted. This will ensure the maneuver commander does not ask for something that cannot be produced. To help in this understanding, the engineer leader should produce a one-to-two-page document highlighting what their Soldiers can do to enhance the position of the maneuver TF.

Conclusion

During Rotation 13-09, engineer company commanders were very effective at selling themselves to the maneuver TFs. The issue arose at the platoon level, when the platoon was not attached to an engineer company. Even though EA development and obstacle planning is not taught during the Basic Officer Leader Course, engineer commanders need to ensure their subordinates are well-versed in the art of combat engineering during ULO.

Chapter 11

The Use of Liaison Officers in a Decisive Action Training Environment

CPT Caleb Hyler, Brigade Mission Command, Joint Readiness Training Center Operations Group

Liaison officers (LNOs) provide a critical conduit between subordinate and headquarters commands. When fully utilized during a decisive action training environment (DATE) rotation or in real-world operations, they represent an extension of their parent battalion and a combat multiplier for a brigade combat team (BCT). The critical components in using LNOs successfully include:

- Deliberate selection process.

- Defined roles and responsibilities from both the battalion and BCT.

- Planned integration into the BCT command post (CP) and operations process.

- Codifying established practices through unit standing operating procedures (SOPs) and an LNO handbook.

The result is effective LNOs assisting the BCT with situational awareness of battalion current and future operations, while providing their parent battalions with relevant information on BCT activities. More importantly, LNOs help commanders flatten their organizations and widen the span of control, supporting the BCT's ability to address the high tempo and dynamic nature of DATE rotations.

The content of this chapter is based on observations from the Joint Readiness Training Environment (JRTC) DATE Rotation 13-09 and doctrinal principles from Army Tactics, Techniques, and Procedures (ATTP) 5-0.1, *Commander and Staff Officer Guide.*

> *"Liaison is that contact or intercommunication maintained between elements of military forces or other agencies to ensure mutual understanding and unity of purpose and action... Liaison provides commanders with relevant information and answers to operational questions, thus enhancing the commander's confidence."* (Chapter 9-1, "Liaison Fundamentals," ATTP 5-0.1)

Liaison activities are a continuous process that begins with actions before departure and carry on during and after operations.

Actions Before Departure

Selecting and training its best qualified Soldiers as LNOs for the BCT is an essential battalion responsibility. Battalions are commonly reluctant to send experienced or knowledgeable officers as LNOs, a tasking that is sometimes seen as a less critical requirement. Instead, the battalions select newly arrived second lieutenants or junior officers to meet the staffing request. Those selected lack the operational experience and skills to serve as the commander's personal representative. During DATE Rotation 13-09, the most experienced battalion LNO was a first lieutenant, and the least experienced LNO was a second lieutenant just out of the basic course.

**Figure 11-1. 3rd BCT, 82nd Airborne Division (3/82) battalion LNOs
during JRTC DATE Rotation 13-09**

In contrast, the LNO to the special operations forces (SOF) command was a senior captain with over 10 years in the Army and troop command experience. Though one can argue that the area operations base only has experienced captains to serve as LNOs, that experienced LNO paid dividends to the SOF command the battalion LNOs could not match.

ATTP 5-0.1 recommends that at the BCT, the LNO hold the rank of captain in order to understand the complexity of operations and speak effectively on behalf of the commander. Battalions may hesitate to send a captain to serve as an LNO, but at a minimum they should select a first lieutenant with either company executive officer or battalion staff experience. The success of the LNO will be proportional to the quality and experience of the officer.

Another option for battalions to consider is selecting a senior noncommissioned officer whose years of experience and familiarity with Army operations may result in a more effective liaison than a junior officer. Ultimately, the unit will need to select an LNO based on experience, appropriate credentials, longevity, and, most importantly, the commander's full confidence.

After the selection process, both the battalion and brigade must give specific guidance and instructions to LNOs before, during, and after operations. As the sending unit, battalions need to ensure LNOs understand the commander's guidance and priorities; information requirements; reporting requirements and frequency; and reporting the primary, alternate, contingency, and emergency (PACE) communications plan. As the receiving unit, the brigade must clearly define LNO duties and responsibilities to outline its missions, functions, procedures, and expectations. LNOs must also be incorporated into the BCT battle rhythm well in advance of a DATE rotation to establish a rapport with the BCT staff and to understand the battle rhythm, to include meeting attendance and product requirements.

A helpful method to ensure LNOs understand their role is through home station training or through an LNO course. The LNO training should address knowledge and skills LNOs require, with an emphasis on accreditation of information systems used at the BCT level, to include appropriate security clearance and digital system proficiency. Incorporating an LNO course as part of BCT predeployment training will maximize the operational capacity of LNOs and allow the BCT to validate the LNO's role during operations.

Actions During Operations

One of the challenges observed during JRTC DATE Rotation 13-09 was the integration of battalion LNOs into the BCT CP. Issues included the location of LNOs on the CP, inadequate LNO workstations, limited use of LNOs to collect and disseminate accurate information, and LNOs not leveraged during the entire operations process.

The LNOs were placed at the far rear of the CP with a significant gap in space between the LNOs and the battle captain. The LNOs' placement hindered their synchronization with the current operations cell and diminished their role to that of an outlying enabler. Battalion LNOs need to be placed in a manner that facilitates information flow. By virtue of their position, LNOs can rapidly answer questions from the BCT, bypassing multiple layers of communication and saving the BCT critical planning time. This is especially the case during the clearance of fires battle drill.

Also during the rotation, the LNO workspace was limited to SECRET Internet Protocol Router (SIPR) computers provided by the sending battalions. LNOs must be able to effectively and continuously communicate with their parent battalions, whether through radio nets or digital/telephone systems. It is recommended that during a DATE rotation, LNOs have at least two forms of redundant communications with their parent battalion; at a minimum, a SIPR computer that can utilize the BCT digital backbone and FM radio.

Lastly, the BCT used Command Post of the Future (CPOF) to maintain mission command and the BCT's common operational picture. However, the LNOs did not have a dedicated CPOF station or access to existing CPOF stations in the CP, significantly reducing their ability to validate operational data or facilitate understanding of their battalions' activities. It is the receiving unit's responsibility to ensure LNOs are provided an adequate workspace with access to relevant digital systems and communication equipment. Deliberate placement of LNOs, adequate workspace, and access to applicable communication platforms will ensure LNOs are informed of their battalions' current situation and will maximize LNO cooperation with the BCT staff.

A final LNO challenge during operations is fully integrating battalion LNOs into the BCT's operations process. During Rotation 13-09, the battalion LNOs were not leveraged outside the current operations cell. For LNOs to be effective in the operations process, they must participate in the BCT battle rhythm. LNOs are a limited asset and cannot be in multiple locations at the same time. Therefore, BCTs must purposefully determine what key meetings or working groups LNOs attend and ensure there is a suitable balance. Further, BCTs must determine LNO inputs into each of these meetings, and LNOs must determine with their battalion leadership what guidance they need prior to going into each meeting. Battalions that select the best qualified LNOs and arm them with the correct information will significantly reduce the natural fog and

friction that exist between headquarters during a DATE rotation. In doing so, BCTs will better their organization by promoting a more robust LNO system that goes beyond just responding to battalion and brigade requests for information and assistance.

Actions After Operations

To ensure LNO continuity at the BCT level, LNO operations need to be incorporated and reinforced into a BCT SOP. The SOP should address all LNO activities before, during, and after operations and clearly define responsibilities of both the sending and receiving units. BCT LNOs should also have a continuity or LNO handbook on hand at all times and be charged with updating LNO procedures with lessons learned. ATTP 5-0.1 shows a sample outline for an LNO handbook, which is a great starting point for units prior to a DATE rotation. (See Figure 11-2.)

Table of contents, with the sending unit's proponency statement.
Purpose statement.
Introduction statement.
Definitions.
Scope statement.
Responsibilities and guidelines for conduct.
Actions to take before departing from the sending unit.
Actions to take on arriving at the receiving unit.
Actions to take during liaison operations at the receiving unit.
Actions to take before departing from the receiving unit.
Actions to take upon returning to the sending unit.
Sample questions. LNOs should be able to answer the following questions:
- Does the sending unit have a copy of the receiving unit's latest operation plan, operation order, and fragmentary order?
- Does the receiving unit's plan support the plan of the higher headquarters? This includes sustainment as well as the tactical concept. Are main supply routes and required supply rates known? Can the controlled supply rate support the receiving unit's plan?
- What are the receiving unit's commander's critical information requirements (CCIRs)? At what time, phase, or event are they expected to change? Are there any items the CCIRs do not contain with which the sending unit can help?
- Which sending commander decisions are critical to executing the receiving unit operation?
- What are the "no-later-than" times for those decisions?
- What assets does the unit need to acquire to accomplish its mission? How would the unit use them? How do they support attaining the more senior commander's intent? From where can the unit obtain them? Higher headquarters? Other Services? Multinational partners?
- How do units use aviation assets?
- How can the LNOs communicate with the sending unit? Are telephones, radios, facsimile machines, computers, and other information systems available? Where are they located? Which communications are secure?
- What terrain did the unit designate as key? Decisive?
- What weather conditions would have a major impact on the operation?
- What effect would a chemical, biological, radiological, and nuclear environment have on the operation?
- What effect would large numbers of refugees or enemy prisoners of war have on the receiving unit's operations?
- What is the worst thing that could happen during execution of the current operation?
- How would a unit handle a passage of lines by other units through the force?
- What conditions would cause the unit to request operational control of a multinational force?
- If the unit is placed under operational control of a larger multinational force, or given operational control of a smaller such force, what special problems would it present?
- If going to a multinational force headquarters, how do the tactical principles and command concepts of that force differ from those of U.S. forces?
What host-nation support is available to the sending unit?
Required reports from higher and sending units' standard operating procedures.

Figure 11-2. Example outline of an LNO handbook (ATTP 5-0.1)

Conclusion

Information becomes critical with the dynamic nature of operations during a DATE rotation, especially as the intensity level increases. Commanders at all levels must have reliable and dependable information to make timely and accurate decisions. When used successfully, LNOs bridge information gaps between headquarters and serve as an added dimension to the BCT organization and as a combat multiplier for commanders.

Chapter 12

Continuity of Mission Command During Transitions Between Command Posts in a Decisive Action Training Environment

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"At every echelon of command, each commander establishes a mission command system — the arrangement of personnel, networks, information systems, processes and procedures, and facilities and equipment that enable commanders to conduct operations."[1]

One of the most significant challenges a rotational unit experiences during decisive action training environment (DATE) exercises at the Joint Readiness Training Center (JRTC) is maintaining operational continuity while transitioning command posts (CPs). Units struggle to transition their technical capabilities and maintain continuity of mission command staff tasks. CP transitions challenge unit operations processes, knowledge management and information management, inform and influence activities (IIA), and cyber electromagnetic activities.[2]

The 3rd Brigade Combat Team (BCT), 82nd Airborne Division (3/82) transitioned several times throughout the 13-09 DATE rotation at the JRTC. Immediately after initial-entry operations, the BCT established an early-entry CP on the drop zone. The BCT then established its first tactical CP (TAC) just north of Dara Lam. The BCT sent a reconnaissance element to locate its first main CP a few hundred meters from the TAC. Just before the defense, the BCT established the second TAC. This TAC was located at the embassy in Dara Lam in preparation for the main CP's move to a final location just east of the drop zone. This new main CP was established because the BCT was concerned it had been compromised earlier by indirect fire.

Personnel

Manning of the BCT CP with sufficient, trained personnel is essential to success. During a past DATE rotation, some TACs were missing some key military occupational specialties (MOSs). A rest plan or shift change to have continuous operations is necessary to avoid Soldier burnout. The BCT should specify the key leaders or their reliefs within the TAC to maintain battlefield situational awareness. Prior to the main CP displacing, certain warfighting functions along with the "Big 5" locations need to be identified, and secondary personnel should help to maintain the rest plan and continuity of operations. 3/82 had certain staff members in place at the early-entry CP location for 48 hours before any relief from other staff members showed up. Secondary reliefs for the primaries in a TAC must be cross-trained or have experience in the current position to augment the primary in his absence.

"An effective mission command system requires trained personnel; commanders must not underestimate the importance of providing training."[3]

Figure 12-1. The 3/82 TAC in Dara Lam

Networks

Analog and digital communications architectures are equally important during a DATE rotation. During a main CP transition, the architecture must be clearly defined and rehearsed to be effective.[4] The BCT staff must know which systems will be operational at what times during a transition. The chief of operations (CHOPs) and operations center must fully understand what capability the BCT will have at any given time. Each staff section plans the timeline of the arrival of its mission command systems. Once this is complete, the next step is to produce an analog-to-digital transition plan the BCT can reference that depicts the phasing of critical mission command systems.

The analog-to-digital transition plan is critical for a BCT during DATE rotations. A valid analog-to-digital transition plan for the operation should describe how the BCT builds capability over time. The plan must incorporate each of the communications platforms a BCT is using. The plan should map out the approximate time that each system will be operational in the brigade main CP as well as in subordinate battalions. The lower Tactical Internet (T/I) and upper T/I platforms need to be validated across the brigade before the initial insertion. The BCT must monitor both primary, alternate, contingency, and emergency (PACE) communications plans throughout each phase.

Below is an example of a good analog-to-digital transition plan for the transition that occurs during forcible entry created by a BCT during its DATE rotation. It lays out what systems should be available during each phase. The plan also details a lower T/I and upper T/I PACE plan.

A product similar to this should be incorporated into BCT tactical operations center standing operating procedures and used for both the initial planning as well as any main CP transitions during the exercise.
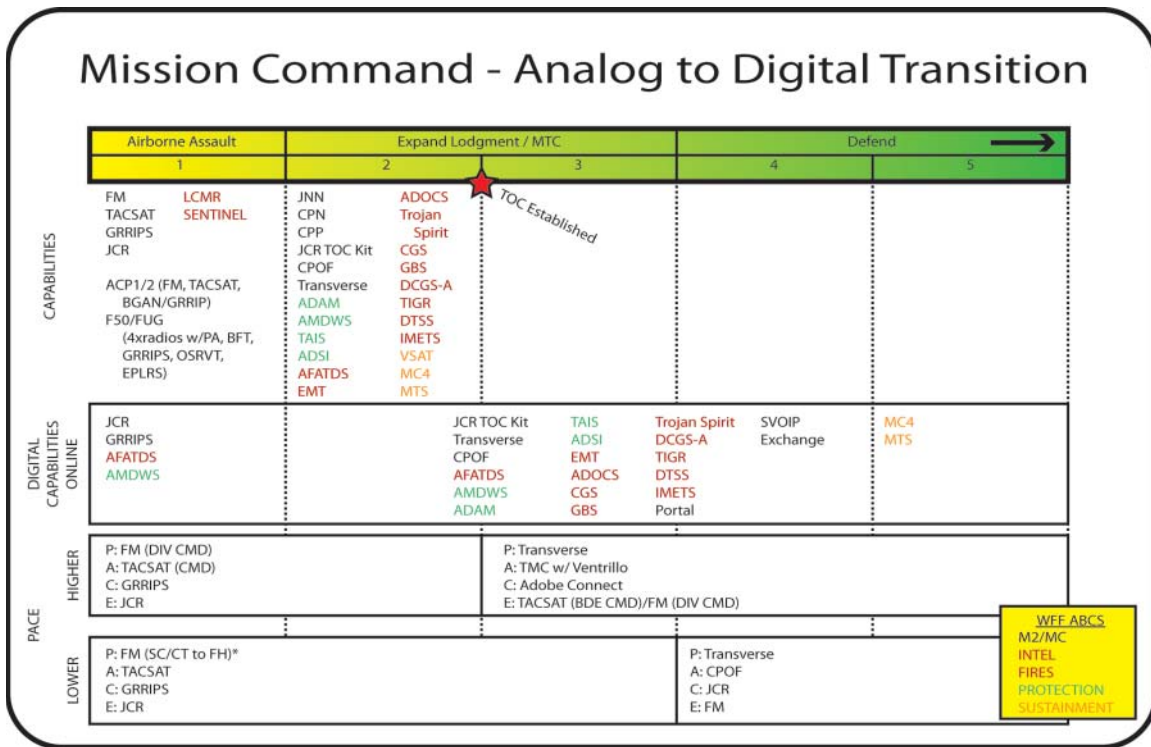

Figure 12-2

Information Systems

The BCT S-6 must keep the current operations floor updated with BCT and battalion communications capabilities. The PACE plan is critical throughout the exercise but even more so during a transition. Both the S-6 section and the current operations (CUOPs) floor should monitor the PACE. The main CP should display the PACE for each of the battalions to facilitate understanding of the BCT communications capability at any given time. This will alleviate a lot of confusion during the entire operation and more specifically during both battalion and BCT transitions.

The full BCT should rehearse and test information systems during the initial phases of the operations. The initial communications will be a heavy analog package that will consist of FM, high frequency, tactical satellite, Joint Capabilities Release, and possibly limited digital capabilities, such as GRiPPS, to provide SECRET Internet Protocol Router (SIPR) and Non-Secure Internet Protocol Router (NIPR) connectivity for the initial phase.[5]

During transitions, the BCT needs to have a valid plan, tested and rehearsed, with the mission command node that will pick up operations for the BCT. Granted, not all mission command systems will be available for the TAC if the brigade main CP moves, but most have alternate means of transmissions. For instance, the Advanced Field Artillery Targeting and Direction System can be networked using the radio network, and Enhanced Position Location and

Reporting System can provide an air picture through the Air Missile Defense Warning System)/ Tactical Airspace Integration System. If the brigade main moves, it will lose most BCT digital services during the move for at least a few hours. A BCT is only equipped with one set of servers and databases. Once the BCT moves, it will drop most digital services until the servers are re-established. It can still provide basic SIPR/NIPR and Voice Over Internet Protocol services, but the BCT should plan on utilizing its analog PACE during such moves. For this reason, it is imperative that a BCT practice conducting operations in a degraded environment before arriving at the JRTC.

Processes and Procedures

Sustaining the BCT battle rhythm during transitions is an issue with units during DATE rotations. Once the main CP begins to collapse, the BCT often loses sight of all battle rhythm events until the CP is re-established at its new location. Working groups, operations synchronization (OPSYNC) meetings, the military decisionmaking process, and targeting development are typically put on hold. While subordinate units continue to execute their assigned missions, the need for BCT intelligence, surveillance, and reconnaissance assets and its enablers remains. By not executing certain battle rhythm events, such as the OPSYNC meeting, these assets and enablers are not coordinated for to support these subordinate units. Continuous operations in a degraded environment should be rehearsed with limited equipment and personnel. A solution to executing the battle rhythm events is to have the executive officer develop a personnel transition plan that takes into account the battle rhythm.

Figure 12-3. 3/82 BCT main CP

Facilities and Equipment

Maintaining communication connectivity for the TAC or the administrative and logistics operations center and having a good transition plan for each move must be developed and understood by all elements during a transition. The BCT is equipped with two joint network nodes (JNNs) and six CP nodes (CPNs), plus additional equipment from its supporting expeditionary signal battalion. The S-6 needs to plan to have assets available to swing communications to a different platform while the main JNN is in transition. The BCT S-6 should appropriately allocate joint network transport capability equipment within the BCT to augment communications nodes during a move and have a reserve JNN/CPN tested and ready to support a TAC. The geographical location of the TAC needs to support the required equipment and personnel and have good line of sight of communications equipment to effectively communicate with subordinate units. 3/82 was extremely proficient at establishing all CPs during each transition throughout the rotation. Personnel management during transition is critical in order to maintain operations and communications in the main CP.

Conclusion

The BCT should rehearse continuous operations with limited personnel and equipment. The second in charge of each section should be able to provide the same oversight in the TAC during transitions. They should rehearse using analog communications and become proficient with these systems to maintain constant situational awareness in all aspects of the operation. Training the BCT to operate in degraded environments will pay dividends during a DATE rotation. The expectation of having digital connectivity through each phase of the operation is not very realistic. The BCT will rely heavily on analog platforms during the initial phase as well as during any transitions of the main CP.

Endnotes

1. ADP 6-0, *Mission Command,* May 2012, p. 11.

2. ADRP 6-0, *Mission Command,* p. 1-4.

3. ADP 6-0, p. 11.

4. Operations in the Decisive Action Training Environment at the JRTC, Volume II: The Battalion Task Force, June 2013, pp. 25–29.

5. Operations in the Decisive Action Training Environment at the JRTC, Volume I: The Brigade Combat Team, p. 105.

Chapter 13

Rotation 13-09 3/82nd BCT

"Sustainment in the First 72 Hours"

MSG Phillip Hollifield, MSG Edwin Clouse, and MSG Casey Kiernan, Task Force Sustainment, Joint Readiness Training Center Operations Group

Initial Entry Sustainment: Ammunition, Food, Water, Medical, and Fuel

In a previous decisive action training environment (DATE) rotation (Rotation 13-01) and a previous full spectrum operation rotation (FSO 11-01), brigade combat teams (BCTs) executing airborne operations experienced shortages in critical supplies within 24 hours, notably water and food. In DATE Rotation 13-09, the 3rd BCT, 82nd Airborne Division did well in delivering those supplies early and sustaining their flow in the following airland operations. The BCT initially dropped 40 bundles during the container delivery system (CDS) heavy drop that consisted of Class I, to include meals ready to eat (MREs) and 7,200 gallons of water, to sustain the paratroopers until P+48. The BCT used notional CDS and heavy drop to pre-position two M998s for the advanced trauma life support (ATLS) section for any real-world medical injuries. Class III consisted of a forward area refuel system with 2,000 gallons of JP8. Finally, the 680 jumpers each carried three days' worth of MREs and their basic ammunition load.

Manifest, Assembly, and Accountability

Once C Troop, 5-73 Cavalry cleared the field landing strip (FLS), the BCT began to meet at its planned assembly areas (AAs). Accountability of paratroopers on ground within the BCT at the arrival/departure airfield control group (ADACG) site located in the airhead was challenging due to the following events during the first P-12:

- There were multiple manifest changes at the intermediate staging base (ISB) that the jumpmasters tracked. Task force (TF) representatives at the ADACG did not track these changes.

- The S-1 representatives at the ADACG had difficulty communicating with the ATLS and higher headquarters to track real-world injuries of jumpers.

- The communications platform was affected by the utilization of Advanced System Improvement Program (ASIP) radios with short-whip antennas; this mode became heavily congested.

Paratrooper Loads

In earlier DATE rotations, paratroopers jumped with more than 100 pounds of equipment, which resulted in some severe injuries, including hip fractures and cracked sternums.

Rotation 13-09 had only 12 minor injuries among the nearly 700 jumpers. This could be the positive result of the BCT ensuring that each paratrooper had 30 pounds or less in his modular lightweight load-carrying equipment (MOLLE). The rest of the paratroopers' gear was inserted via land on the first initial pushes of the BCT's priority vehicle list (PVL).

Figure 13-1. Night CDS drop opens the forced entry.

Figure 13-2. The JRTC is a true joint and combined training center.

Airland Mission Command

The BCT chose not to establish a mission command element at the ISB to facilitate the airland. At approximately P+3.5, the BCT's first airland arrived at the ADACG. This met the intent of the BCT because it did not expect its first piece of rolling stock to arrive until P+4. However, at approximately P+8, the BCT's airland operation became backlogged because the PVL at the ISB was being changed continuously due to the PVL chalk. If the BCT had established a mission command element, it would have facilitated an easier flow of pushing the identified PVLs to make the BCT timeline for its airland into Atropia. The lack of a mission command element at the ISB meant that BCT elements already on the ground in Atropia received pieces of equipment that were not needed for the first 24 hours instead of receiving equipment that was needed.

Figure 13-3. Day CDS over the FLS

Communications Challenges

The BCT order stated that ATLS and ADACG operations would begin at P+4. This went according to the plan. However, the BCT intended to hand over ADACG operations to the U.S. Air Force no later than P+24. That did not go according to the plan due to challenges in accountability, push of equipment, and communication issues from the personnel at the ADACG to each corresponding TF, which were already establishing their tactical command posts (TACs) at their AAs.

At P+48, the BCT planned to conduct its first logistics synchronization (LOGSYNCH) meeting via FM. This was delayed because the brigade support area (BSA) did not get initially established until P+55. The BCT S-4 and the brigade sustainment battalion (BSB) support plans

officer (SPO) attempted to conduct a face-to-face LOGSYNCH meeting with whomever they could find, but there was minimal attendance.

This BCT had communications challenges. It had difficulty establishing digital communications to use its Battle Command Sustainment Support System (BCS3). With only FM communications, the lines of transparency for logistical status (LOGSTAT) reporting did not mature. Operating in an austere environment challenged this BCT tremendously, because the constant relocation of its battalion tactical operations centers (TOCs) and TACs meant it had to rely on FM.

In order for the BCS3 system to function properly, all data should be input at the TF level and transmitted digitally to the BCT S-4 and the SPO. The BCT S-4 and SPO reached out to the TFs and requested information either via Non-Secure Internet Protocol (NIPR), Secure Voice Over Internet Protocol (SVOIP), or FM. Information from the company levels was not reported accurately or daily. Once they received the information from the TF S-4s, the staffs at both levels began to manually input data into the system. The BCT had difficulty establishing a logistics common operational picture with the forcing function of receiving LOGSTATS from the TFs. Without a good LOGSYNCH established, reactive versus proactive logistics became the norm.

Figure 13-4. The BSA grew rapidly.

P+55, the Establishment of the BSA

The BCT changed the planned location of the BSA. Due to intelligence on the enemy and terrain in the southern end, the BCT decided to establish the BSA in the north.

At P+50, the BCT considered locating the BSA on the southern end as initially planned in the BCT's concept of support plans. However, at P+55 the final decision was made to establish the BSA at the northwest corner of the airhead.

The change had negative effects on the logistical mission. Positioning five forward support companies' worth of rolling stock into no more than a square mile area resulted in maintenance issues. Additionally, only one entry control point (ECP) was established, which caused congestion, a lack of a tactical exit plan if the BSA was overrun, and difficulty resupplying the BSA. The FSC needed to be spread out further across its AO. This would have allowed the CSSB to come in quickly and resupply with easy exit routes.

Figure 13-5. C130 departs the FLS.

Conclusion

Rotation 13-09 airborne and initial airland operations went well. As the operation progressed, the unit struggled with rehearsals, planning, and execution of sustainment operations. Given that all recent DATE rotations have involved airborne units, logisticians from the airborne community should come together and conduct a leader symposium in order to learn from each other and better accomplish their mission.

Chapter 14

Sustainment in a Decisive Action Training Environment

CPT Carlos G. Wandembergh, Brigade Sustainment OCT, Brigade Mission Command, Joint Readiness Training Center Operations Group

"You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics." – GEN Dwight D. Eisenhower

Sustainment operations in a decisive action training environment (DATE) are challenging due to the complexity of the operating environment (OE) and the simultaneous transitions between the different phases of the operation. The sustainment warfighting function (WfF) is essential to accomplishing the mission and can determine the depth and duration of operations. The OE has many variables, and success relies on how those variables are integrated into the plan.

The Panthers of the 3rd Brigade Combat Team (BCT), 82nd Airborne Division (3/82) deployed to Atropia under just such a complex scenario. 3/82 conducted an airborne assault forced entry as a BCT of more than 5,000 personnel. The Panthers entered an austere OE that made sustainment challenging. The 3/82 commander exercised mission command to develop operational reach, freedom of action, and endurance.

Figure 14-1. Panther 6 in planning at the intermediate staging base (ISB).

Mission Command of Sustainment Operations

"Sustainment through mission command enables decisive action."

A constantly changing OE demands adherence to mission command principles to ensure the commander's intent is met. The 82nd Brigade Sustainment Battalion (BSB) commander's mission statement highlighted the need to provide uninterrupted support through redundant capabilities nested with the BCT's operational plan. To do that, 3/82 had to be able to conduct decentralized planning while creating a shared understanding through communication.

Decentralized planning. The first principle of mission command is to build cohesive teams through mutual trust. 3/82 emphasized the importance for the task force (TF) S-4s and forward support company (FSC) commanders to operate within the commander's intent; develop support plans; and synchronized efforts, both vertically and horizontally. The ability to conduct decentralized planning enabled sustainment personnel to collaborate and develop the support plan in conjunction with the operational plan. This was critical, as time was limited due to the high operations tempo (OPTEMPO) and transition between the phases of the operation.

Communication and reporting. Creating shared understanding means units must be able to communicate. The BCT had some issues with digital communications, which made reporting difficult. As a result, the BCT was challenged to accurately define a logistical common operational picture and provide the commander with an accurate representation of sustainment across the OE. Subsequently, its ability to exercise disciplined initiative was degraded. Instead of anticipating support requirements, the BCT remained reactive until communication, reporting, and the sustainment working group meeting improved.

Operational Reach

"Operational reach is a necessity in order to conduct decisive action. Operational reach is the distance and duration across which a unit can successfully employ military capabilities."

The sustainment WfF enables a unit to extend its operational reach. The Panthers of 3/82 deployed to Gorgas and conducted reception, staging, onward movement, and integration (RSOI) operations at the ISB prior to their airborne assault into Atropia. Setting the conditions at the ISB can facilitate sustainment operations, project operational reach, and make possible a seamless transition to endurance. Units must execute their established battle rhythm in regard to reporting and targeting meetings, finalizing the priority vehicle listing (PVL), preparing for airland operations, and coordinating with echelon above brigade (EAB) units to assist with both the air and ground distribution.

Executing the battle rhythm at the ISB. The Panthers struggled with their sustainment battle rhythm while at the ISB. As a result, the brigade sustainment cell was not able to fully establish all of its systems and processes; subsequently, the cell experienced difficulties with communication and reporting after the airborne assault. Setting the conditions at the ISB would have enabled a seamless transition from the ISB to the objective.
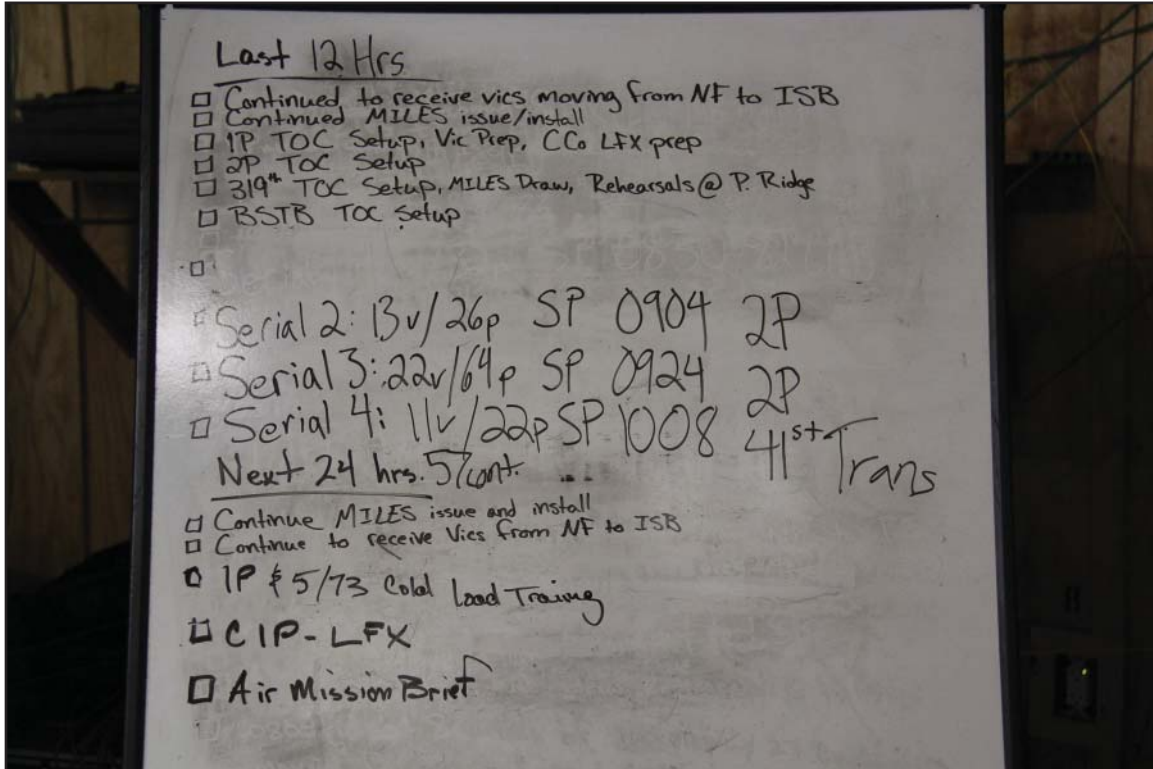
Figure 14-2. Convoy control was a challenge.

Priority vehicle listing. The PVL is one of the most important pieces of the puzzle when trying to set the conditions for onward movement. The Panthers' PVL was revised numerous times prior to P-Hour. Not finalizing the PVL can result in bottlenecks that affect equipment and personnel flow into the objective. An inaccurate PVL can result in chalks not being properly staged and prepared prior to joint inspection. The PVL should be scrubbed as early as possible to ensure that the right equipment and supplies get to the fight at the right time. The Panthers were able to maximize their secondary loads with additional supplies to augment their forces.

Coordination with EAB units. The coordination with EAB units while at the ISB is vital to extending operational reach and facilitating endurance. The 3/82 S-4 and BSB support operations officer (SPO) were able to tie into the 21st Division and develop a working relationship with the 189th Combat Sustainment Support Battalion (CSSB). The 189th CSSB was instrumental in supporting 3/82 throughout the rotation by providing ground distribution support once the ground lines of communication (GLOCs) were established.

Freedom of Action

> *"Freedom of action enables commanders with the will to act, to achieve operational initiative and control, and maintain operational tempo."*

Simply put, sustainment preparation enables freedom of action. The preparation of sustainment in support of operations can determine where the line in the sand is drawn. Sustainment must be synchronized with the operational plan in order to keep the initiative. Supported commanders must be able to operate freely and not be hindered by the lack of resources and support. In order

to facilitate freedom of action, sustainers must continue to refine the support plan, conduct rehearsals, and synchronize support requirements prior to execution.

Refine the plan. Conditions in the OE can change, resulting in refinements to the brigade plan. As a result, the support plan must be refined to maintain initiative and support brigade operations. Sustainment commanders must remain flexible and adapt to the situation, adjusting the plan to account for the changing environment. 3/82 developed an initial concept of support prior to deploying into Atropia. Its ability to refine the plan enabled it to facilitate freedom of action. 3/82's ability to build up combat power and establish redundant capabilities made it possible to support both offensive and defensive operations. Three questions that everyone must be able to answer are:

- Who has priority for support?

- What is the priority of supply?

- Who supports what element?

Rehearsals. Every plan needs to be rehearsed. Rehearsals help to ensure that everybody understands the plan and friction points have been identified and resolved. Sustainment rehearsals need to be conducted prior to each phase of the operation or after the conditions have changed and the support plan has been refined. 3/82 conducted a sustainment rehearsal at the ISB for the airborne assault and expand the lodgment phase.

Sustainment working group. Sustainment synchronization is essential to ensure commanders are able to execute without limitations and can maintain the initiative and OPTEMPO. Without effective synchronization, units remain more reactive than proactive. The BCT was challenged to develop a fully functional and truly effective sustainment working group meeting. The meeting was to occur at 1400 daily, with the intent of using Adobe Breeze when digital systems were available. Due to the high OPTEMPO, the Panthers struggled with their sustainment battle rhythm, which caused them to remain more reactive when executing support requirements. The Panthers experienced difficulties with synchronization due to digital communications issues, not having a set agenda, and not having all key personnel present.

Endurance

> *"Endurance refers to the ability to employ combat power anywhere for protracted periods."*

Continuity of support is critical to maintaining the initiative and OPTEMPO. The sustainment principles of continuity and responsiveness are paramount in a DATE. In order to achieve endurance, units must anticipate support requirements, coordinate for the distribution of supplies, and have the ability to store combat loads. 3/82 worked closely with the 189th CSSB, 1/82 Aviation, and its FSCs to provide both air and ground support along the lines of communication.
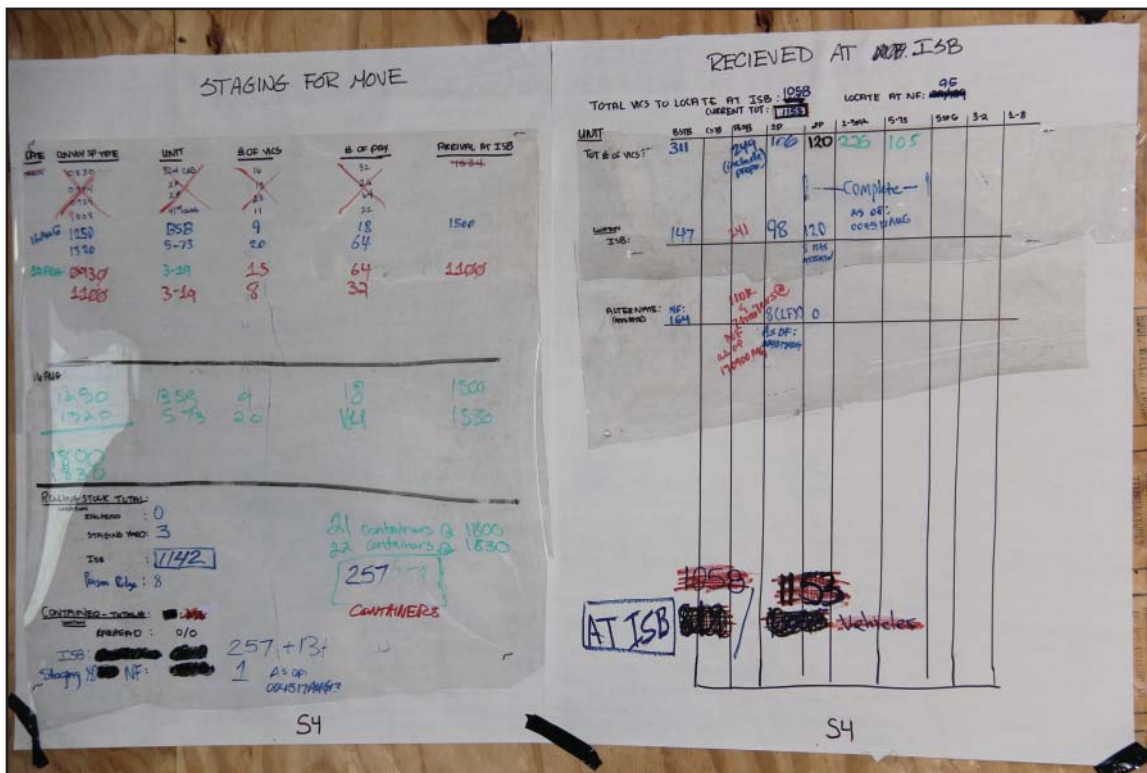
Figure 14-3. Analog tracking

Ground transportation. Establishing the GLOC was essential for 3/82 to transition between phases. The BSB SPO did an excellent job of communicating through division to exercise the 189th CSSB to deliver critical supplies to the brigade support area (BSA). Without the use of EAB elements and having the GLOC open, 3/82 would have had to rely more heavily on air for support.

Air transportation. The Panthers brigade relied heavily on both fixed-wing and rotary-wing assets to deliver supplies until the GLOC was open. The use of air assets helped to pre-position some key commodities and provide immediate resupply. Once the GLOC was open and the 189th CSSB was able to conduct tactical convoy operations, 3/82 continued to use air assets to help augment distribution efforts.

Combat train command post (CTCP) and forward logistics element (FLE). As the brigade transitioned to the offense, it was determined that the supply lines had to be extended to achieve operational reach and facilitate endurance. The BCT S-4 and BSB SPO, with guidance from the BCT commander, developed a support plan to implement the CTCP to support elements as they moved forward in the battle. The CTCP enabled them to position additional assets and supplies to provide more responsive support to the maneuver element, allowing it to maintain the OPTEMPO. Additionally, the plan included the culmination of an FLE that combined the different CTCPs, providing support in the austere environment for follow-on missions.

Conclusion

Sustainment operations can dictate operational limits. As a result, the sustainment WfF must be integrated into the mission command process to enable decisive action. Due to the complexity of a DATE, mission command in sustainment is required to account for all the variables in the changing OE and maintain the initiative, remaining proactive instead of reactive. In order to facilitate uninterrupted support through redundant capabilities, sustainment operations must be synchronized to enable operational reach, freedom of action, and endurance.

Chapter 15

Geronimo Mission Command: The Opposition Force Analog Fight at the Joint Readiness Training Center

MAJ Shane M. Carpenter

For a decade U.S. Army units deploying downrange have fallen in on well-established tactical operations centers (TOCs) loaded with digital mission command capabilities. Units are used to having established SECRET Internet Protocol Router (SIPR) Voice-Over Internet Protocol phones, Command Post of the Future (CPOF), Blue Force Tracker (BFT) systems, unmanned aircraft system (UAS) feeds, live television feeds, and unit-level portal websites filled with gigabytes of data. In these TOCs, units have substituted large PowerPoint (PPT) concept of the operations (CONOPs) for tactical operation orders (OPORDs). Targeting cycles lock into a calendar-based rhythm instead of the phases of a tactical operation. Units have built knowledge management practices in tactical standing operating procedures (TACSOPs) based solely around the application of CPOF, BFT, and PPT. Unit commanders depend on inputs from these digital systems when forming an understanding of the common operational picture (COP) to make timely and accurate decisions.

Geronimo, 1-509th Battalion (Airborne) Infantry, the opposition force (OPFOR) at the Joint Readiness Training Center, targets these mission command practices. Geronimo's objective is to disrupt the rotational training unit (RTU) commander's decision cycle. The RTU's digital-to-analog and analog-to-digital transitions during the fight make for an especially vulnerable and rewarding target.

Figure 15-1. Geronimo (G-Man) in the conventional fight.

Let's take a moment to peel back the years and reflect on the times when theater-provided equipment did not exist. Recall if you can when the only mission command systems that deployed forward were dropped from an aircraft on a jump, hauled out of a helicopter on a landing zone, or fit in the small confines of a turret. Think about executing a unit's TACSOP under a poncho in the rain while prone at the edge of the drop zone. Recall executing a battle rhythm in a small tent while targeting intermediate objectives in the next phase of an operation with units in contact without automation. Can units establish a COP, apply combat power, leverage enablers, and synchronize resources without generators, tying into city power, using automation, and communicating on a computer network? How does an organization staff or its company commanders provide their commander a COP of the operational environment (OE) without automated systems during the initial hours and days that follow a forced entry? Units may find transitioning to 1:50,000 scale maps in the analog fight difficult if they are working off a PPT CONOP.

The Geronimo Way

To develop and maintain strong mission command capabilities for upcoming decisive action training environment (DATE) rotations, the OPFOR staff received simple guidance: Develop the Geronimo COP on 1:50,000 and 1:25,000 scale maps. Provide simple mission orders with clear tasks and purposes nested within the commander's intent and desired end state coupled with clear targeting priorities. Simplify formats used to present staff running estimates during mission analysis, course of action (COA) development, decision briefs, and battle update briefs (BUBs) that translate into usable products with only relevant information for the subordinate companies. Target the RTU mission command, intelligence collection assets, counter-fire assets, attack aviation, and major sustainment capabilities. Establish a TACSOP with a TOCSOP and a planning SOP that function effectively at any stage in the operation while using limited FM communications under initial or degraded deployment conditions. Pass down enablers, focus intelligence-collection assets, and provide clear gridded reference graphics (GRGs) for a COP refined from the map. Focus staff presentations on briefing the analyzed information, not data, required to provide the commander knowledge and an understanding of the "so what" about relevant information so that he can make decisions quickly. Ultimately, the Geronimo TOC or tactical command post (TAC) must possess the capability to operate in any OE using analog mission command systems where companies can plan, prepare, and execute any phase of the operation with severely degraded communications, if any at all.

Army Doctrine Publication (ADP) 6-0, *Mission Command,* and Army Doctrine Reference Publication (ADRP) 6-0, *Mission Command,* define the practice of mission command:

> *Mission command is the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of unified land operations (ADP 6-0). Mission command emphasizes centralized intent and dispersed execution through disciplined initiative....Adaptive leaders realize that concrete answers or perfect solutions to operational problems are rarely apparent. They understand that there may be periods of reduced uncertainty as the situation evolves. Agile and adaptive leaders use initiative to set and dictate the terms of action. They accept they will often have to act despite significant gaps in their understanding. Agile and adaptive leaders make timely adjustments in response to changes in their operational environment.*

In the DATE, conventional OPFOR operate near peer with the RTU following the command and control (C2) practices as defined in Training Circular (TC) 7-100.2, *Opposing Force Tactics,* from December 2011:

> *The OPFOR defines command and control as the actions of commanders, command groups, and staffs of military headquarters to maintain continual combat readiness and combat efficiency of forces, to plan and prepare for combat operations, and to provide leadership and direction during the execution of assigned missions. It views the C2 process as the means for assuring both command (establishing the aim) and control (sustaining the aim).*

TC 7-100.2 outlines three key principles that apply to OPFOR C2:

- Mission tactics that keep OPFOR commanders focused on the purpose of their tactical mission despite many changes in the situation.

- Flexibility through battle drills makes OPFOR actions on the battlefield second nature. Commanders perform operations in any environment without the need of additional orders, while possessing the freedom to change their plan during execution based off their understanding of targeting priorities.

- Accounting for mission dynamics begins with the recognition that the situation will continue to change. OPFOR commanders and subordinate leaders must continually evaluate the situation and remain flexible to change their task and task organization to meet the commander's intent and achieve the desired end state.

The Geronimo Staff Process

Keeping in line with the commander's intent for mission command and adhering to both contemporary U.S. doctrine and OPFOR doctrine, the staff produces a format for mission order COA sketches that easily transitions into a warning order (WARNO) or fragmentary order (FRAGO) for subordinate companies. All staff TOCSOP formats include a clear task and purpose nested within the commander's intent and desired end state. Within each phase, a company's task and purpose does not change until the staff publishes a FRAGO or change of mission. Through plain and clear mission orders, subordinate commanders can operate and seize the initiative within simple targeting priorities. Throughout all planning and targeting, the battalion staff gears all products for company teams to use in their own planning and execution. Every product transfers directly to the analog COP for either a 1:50,000 or 1:25,000 map.

As stated earlier, OPFOR targeting in DATE attacks the RTU mission command, intelligence collection assets, counter-fire assets, attack aviation, and major sustainment capabilities. First, the OPFOR seeks to eliminate the RTU's eyes and quickly disrupt its mission command before it can establish and synchronize enablers. Subordinate commanders execute a plan in a decentralized manner, while the battalion staff focuses on pushing enablers and assets down to the company level to maximize effects against the RTU.

Figure 15-2. Mission analysis brief or COA brief

The G-Man has Many Faces

Geronimo (G-man) employs insurgent, special purpose forces, the criminal network, and OPFOR UAS to look for generators, antennas, and big TOCs, and identify targets. They operate with the understanding that the RTU can and will shoot down OPFOR UAS. Additionally, G-man leverages cyber attacks to get into RTU portal sites and acquire access to their UAS feeds.

Throughout each rotation, the OPFOR fights to retain the initiative to attack the RTU battle rhythm and synchronization of assets. Furthermore, recognizing that RTU operates with great dependence on point-to-point communications such as email and portal distribution of information, the OPFOR targets the RTU's communications networks and operates on a premise that information does not get out regularly across the formation through units monitoring a shared FM command network.

Geronimo Does Do Digital

Ironically, Geronimo conducts OPFOR mission command with many of the same communications capabilities as the RTU in the DATE, both digitally over a network and analog over FM across the formation. Despite the digital capability, G-man communicates primarily over FM, managing a command, fires, administration and logistics, and an orders and intelligence network. The TOC performs the mission command functions with FM communications networking information flow and situational awareness down to the company level and across the organization. Understanding first and foremost that the RTU can and most likely will jam OPFOR FM communications, Geronimo plans to operate throughout crucial phases of any major operation without the ability to talk. Plans include simple tasks and purposes

that require limited communications, which when enabled by a combined arms rehearsal (CAR), allows subordinate units to operate independently while mutually supporting where necessary to achieve the desired end state.
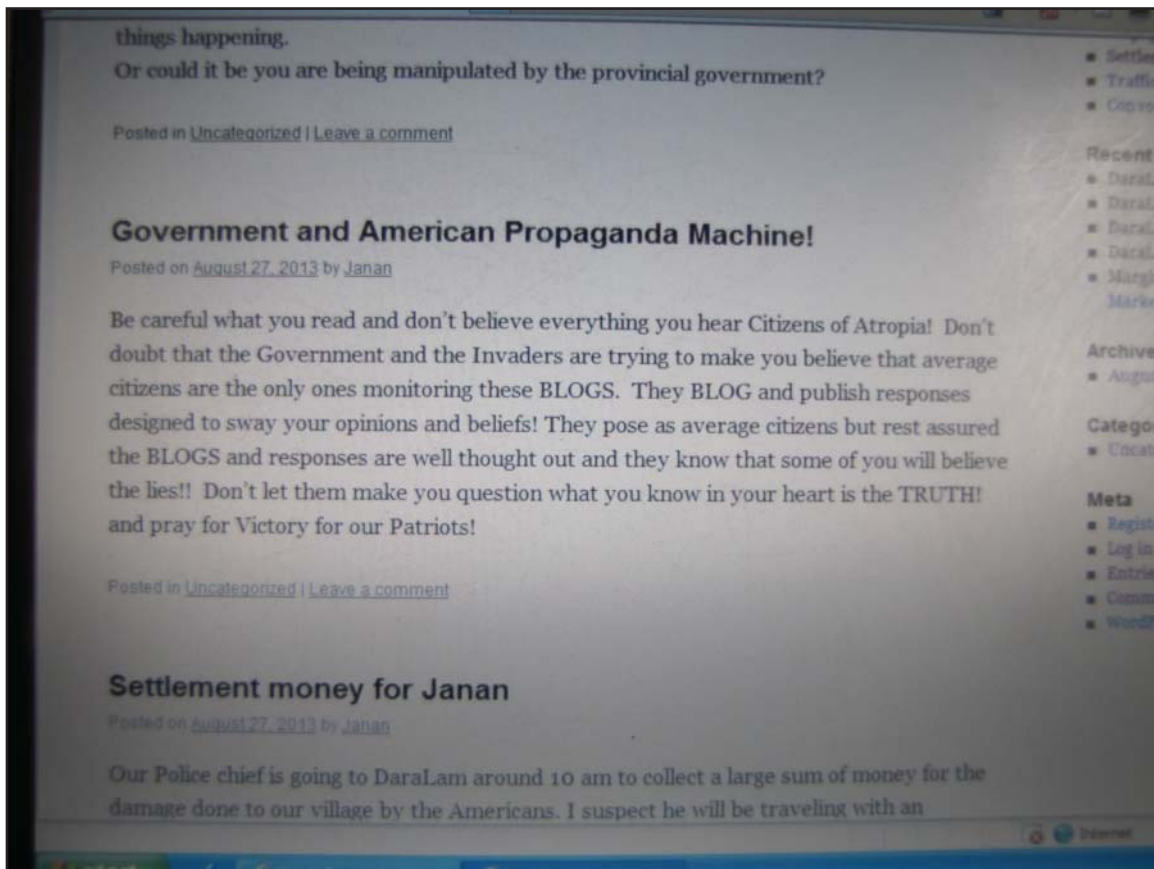

Figure 15-3. G-Man fights for influence via cyber.

Analog is Always Up

Throughout the analog fight, the Geronimo TOC establishes the COP and tracks the battle on map boards with acetate overlays and status boards. The battle staff manages the organization's combat power using an analog system instead of digital systems such as CPOF or BFT. Thus, despite any losses in power, transitions to a TAC, requirement to jump the TOC, or efforts by the RTU to attack digital capabilities, the Geronimo TOC maintains an understanding of the OE two levels down. The Geronimo TACSOP requires subordinate units to send regular status reports and to update the situation when possible with any changes to a unit's position or disposition. Initial contact reports from the companies allow the TOC to bring enablers on line, but subordinate units develop the situation and submit SALUTE and ACE reports to provide both the TOC and adjacent unit situational awareness when able. Both the battalion TOC and company command posts (CPs) maintain handwritten significant activities boards and combat power trackers for both friendly and enemy assets to provide commanders the information necessary to understand the situation at any time during the fight.

Figure 15-4. Analog battle tracking in the Geronimo TOC.

Less Can Be More

While digital battle tracking systems, chat boxes, and live feeds pumped into every TOC and CP provide a powerful capability that gives the RTU a significant information advantage over Geronimo, these systems also require a significant amount of overhead during the initial hours and days of the fight, which can distract from the battle at hand. Battle tracking based on an analog system provides flexibility and can easily transition from one OE to another. Like the command and control systems used in the 1990s, Geronimo's analog mission command systems function shortly after assembly following an airborne assault and can continue to function throughout many transitions. Under a poncho, in a tent, down in a basement, or in a hardened, well-established building, Geronimo takes the analog fight to the RTU with simple tools, a series of basic FM communications networks, and an uncomplicated battle rhythm.

Battle-Driven Battle Rhythm

While the analog fight does not leverage chat rooms, video conference calls, and portal-driven BUBs, it does permit the commanders and staffs to operate, manage, and share information synchronized in time with a regularly moderate battle rhythm. The Geronimo battle rhythm does not include many meetings that dominate either the commander's or the staff's time during the fight. When the battalion transitions into the preparation phase of the operations process, the commander and staff initiate a targeting battle rhythm to assess, continue analysis, and execute the targeting process. Integrated with the rapid decision and synchronization process (RDSP), the staff presents its running estimates at a morning BUB in the TOC, the commander receives an update brief (CUB) via an FM conference call in the afternoon, and the battalion executive officer synchronizes logistics (LOGSYNC) with the battalion's sustainment elements and company executive officers when necessary to prepare for upcoming operations. Each battle rhythm event, although capable of digital presentation when possible, utilizes analog updates to the running estimates, map boards with overlays, murder boards, and trackers to manage information.

The staff manages and presents knowledge to the commander with a focus on only relevant information. This synthesis of only significant and necessary information from the situation enables the staff to develop and maintain a shared understanding. For instance, Geronimo

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BUBs use the tactical COP in current operations, and the staff briefs its running estimates with only relevant information bulletized to focus the commander's attention without unnecessary distraction. Although many commanders can digest extreme amounts of data during a BUB and manage to understand and provide guidance to the staff using very busy PPT slides, this practice requires many man-hours of staff work to create, update, and maintain when both the commander and staff have little time to spare. The challenge remains to train the staff to process and present accurate, timely, usable, complete, precise, and reliable information based on their warfighting function (WfF) knowledge and experience. The cognitive hierarchy model (illustrated in Figure 15-5) from ADRP 6-0 focuses the Geronimo staff on presenting important information from its analysis.
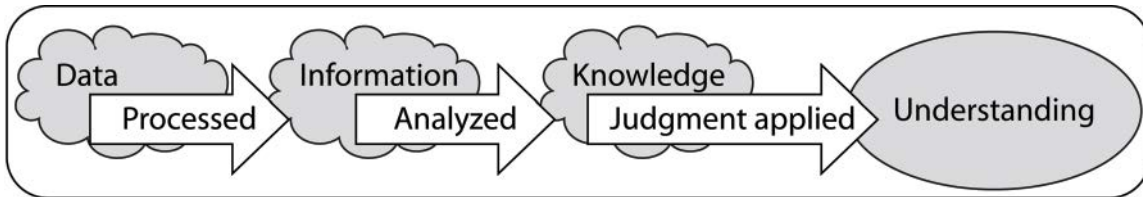

Figure 15-5. Achieving understanding (ADRP 6-0)

To maintain a regularly moderate battle rhythm in the analog fight, Geronimo simply conducts RDSP in the initial step of the targeting process. After publishing the OPORD following the military decisionmaking process (MDMP), Geronimo executes a targeting cycle to decide, detect, deliver, and access during each phase of the operation, starting with the preparation phase. While dynamic unplanned or unanticipated targets receive attention when required, the Geronimo staff begins the RDSP for each phase to decide how to allocate resources and refine targeting against the information requirements, objectives, and conditions initially identified to achieve the commander's desired end state. To accomplish this, the staff updates analog running estimates, conducts a rapid decision-making process integrated into the battle rhythm, and publishes a series of targeting WARNOs followed by a FRAGO to enable the troop leading procedures (TLPs) at the company level. At times, the morning BUB may include a targeting brief for the mission analysis, a COA, or a decision brief from the staff following the usual brief of its running estimates.

The targeting working group conducts its mission analysis, COA development, COA analysis, and orders production at periods throughout the day and presents the orders brief to the company commanders during the afternoon CUB. When possible, the CAR for each phase also integrates into regularly scheduled battle rhythm events to maximize productivity and reduce distractions that pull companies away from fighting and conducting their TLPs. Throughout the targeting process along the battle rhythm, the staff continues to push simple analog products down to the companies.

The Geronimo Planning Cycle

During planning, the Geronimo staff's analog products present a consistent format simple in form to focus on tasks, purposes, end state, a timeline, and common GRG illustrating the operation. The staff distributes this GRG on common 1:50,000 and 1:25,000 scale acetate overlays the companies can use on dismounted map sheets and on their COP in the company CPs. With the GRG for each operation, subordinate commanders can operate under mission command principles to maximize disciplined initiative during limited or degraded

communications capabilities. Employing consistent formats from the TOCSOP allows the staff and subordinate commanders to quickly analyze and process information during the RDSP and parallel TLPs for the next phase while simultaneously fighting the RTU in the current phase. Short five-paragraph OPORDS, WARNOs, FRAGOs, attached annexes, and appendices come in a Word document format or in a matrix order format, but certainly do not take the form of a 65-slide CONOP. Geronimo mission orders should be simple, brief, and immediately usable by the company commanders.

Throughout the execution of each rotation, Geronimo achieves effects against the RTU by fully embracing the mission command philosophy. OPORDs provide subordinate commanders plain and simple tasks and purposes nested within the commander's intent and desired end state coupled with clearly defined targeting priorities. Company commanders possess the ability to adapt and operate across the battlefield, as defined by a simple GRG. Commanders gain knowledge and maintain an understanding of the OE through analog products and battle tracking systems that function immediately upon entry and remain resilient throughout each transition. By finding vulnerabilities as the RTU transitions between digital and analog mission command systems, OPFOR commanders can target these systems and their intelligence collection assets, counter-fire assets, attack aviation, and major sustainment capabilities. Geronimo disrupts the RTU commander's decision cycle and keeps him from synchronizing both a battle rhythm and the use of his enablers by capitalizing on vulnerabilities in the RTU's security postures, its lack in understanding of the OE, and breaks in its communications.

Conclusion

The OPFOR achieves success when enabled subordinate leaders take the initiative and aggressively attack priority targets. Forcing RTU commanders to continuously react keeps them awake and wears down their staff. Attacks against mission command nodes, suppressed counter-fire assets, destroyed or grounded aviation, and frustrated sustainment delay the expansion of a lodgment, allow the OPFOR to retain freedom movement, and provide opportunity for intelligence-collection assets to paint a refined picture of the RTU disposition during the day. Each night, OPFOR indirect fire assets degrade RTU systems further and keep leaders and Soldiers awake.

To the RTU's great frustration, the OPFOR does not back down; rather, Geronimo continues to press the fight in every phase of the operations against RTU elements across the battlefield. In the end, Geronimo only wants RTUs to become stronger, more aware of their vulnerabilities in security, more resilient in their mission command capabilities, more able to synchronize the advantages of their enablers against an enemy, and better prepared to accomplish their mission while keeping Soldiers throughout the formation alive.

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