NEWSLETTER

NO. 17-02

DEC 16

DECISIVE ACTION TRAINING ENVIRONMENT AT THE JRTC, VOLUME XIV

COMPANY-LEVEL COMBINED ARMS MANEUVER

Lessons and Best Practices

APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

Decisive Action Training Environment at the Joint Readiness Training Center, Vol. XIV: Company-level Combined Arms Maneuver

DIGITAL VERSION AVAILABLE

A digital version of this CALL publication is available to view or download from the CALL website:

http://call.army.mil

Reproduction of this publication is welcomed and highly encouraged.

FOLLOW CALL ON SOCIAL MEDIA

https://twitter.com/USArmy_CALL
https://www.facebook.com/CenterforArmyLessonsLearned

DATE at the JRTC, Vol. XIV

Table of Contents

Introduction	**1**
Chapter 1. Dismounted Reconnaissance: A Crisis in Identity and Utility *CPT Graham Muir, British Army Exchange Officer, Task Force 4, Joint Readiness Training Center, Operations Group*	**3**
Chapter 2. The Breach: Conducting a Combined Arms Breach at the Company Level *Live Fire Division, Joint Readiness Training Center, Operations Group*	**11**
Chapter 3. Check It. Do Not Neglect It! Precombat Checks and Precombat Inspections *CPT Rob Partin and SFC Nicolas Garcia*	**17**
Chapter 4. Company Command Posts *CPT Luke Hallsten, Task Force 3, Joint Readiness Training Center, Operations Group*	**25**
Chapter 5. Orders Process Between a Battalion and a Company in a Decisive Action Training Environment: Joint Readiness Training Center Lessons Learned *CPT James R. Williams and SFC Roger L. Peterson, Task Force 3, Logistics Team*	**29**
Chapter 6. Expeditionary Communications in a Decisive Action Training Environment *CPT Victoria C. Maynard and SFC Michael L. Sellers*	**33**
Chapter 7. The Principles of Patrolling *CPT Kyle West, Task Force 3*	**39**
Chapter 8. The Aviation Standardization Officer and the Exercise of Mission Command *CW4 Robert Teague, Joint Readiness Training Center, Operations Group, Aviation Division, Aviation Standardization Officer Observer-Coach/Trainer*	**43**

9. Brigade Combat Team Fires Rehearsal Observations During Decisive Action Training Environment Rotations at the Joint Readiness Training Center *CPT Jack D. Mooney and CPT Stephen L. Ficchi*	**49**
10. Weapons Selection Based on Desired Effects *CPT Chuck Sexton and 1SG David Barron, Task Force 2*	**53**
11. Failure and the After Action Review *CPT David Armando Zelaya, Assistant S-3, Current Operations, 2nd Battalion, 25th Infantry Division, Stryker Brigade Combat Team*	**59**
12. Company Mission Orders at the Joint Readiness Training Center *CPT Pierce Cote, Task Force 1*	**63**
13. Integration of Dismounted Infantry With Stryker and Heavy Platforms *CPT John R. Harrell, Task Force 3, Operations Group*	**69**
14. Lessons Learned From an Infantry Brigade Combat Team Weapons Company in Decisive Action at the Joint Readiness Training Center (Reprinted from *Infantry* Magazine) *MAJ Ryan R. Duffy*	**73**
Appendix A. Commander Aides in Manning and Operating a Company Command Post	**81**

Center for Army Lessons Learned	
Director	**COL Michael F. Pappal**
CALL Analyst	**Nathan B. Blood**
CALL Liaison to the Joint Readiness Training Center	**Thomas P. Odom**

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. Unless otherwise stated, whenever the masculine or feminine gender is used, both are intended.

Note: Any publications (other than CALL publications) referenced in this product, such as ADRPs, ADPs, FMs, etc., must be obtained through your pinpoint distribution system.

Introduction

The Joint Readiness Training Center (JRTC) turned to decisive action training with what was called, at the time, a full spectrum operations (FSO) rotation in October 2010. The shift to a decisive action training environment (DATE) did not lessen the challenges of FSO; it merely placed them inside DATE as a more accurate depiction of unified land operations.

Regardless of rotational design (FSO versus DATE), company-level leaders find decisive action a challenge for themselves, their Soldiers, and their units. As the opposition force (OPFOR) in the DATE, 1st Battalion, 509th Parachute Infantry Regiment (Geronimo) made the DATE rotation at the JRTC a "school of hard knocks." For those company-level leaders, a JRTC DATE rotation was combined arms maneuver (CAM) centric.

This newsletter is about company-level CAM, concentrating on basics for company leaders and their units. When reading it, think home-station training. Units that get after the basics discussed here during home-station training fare better against Geronimo. Those that do not will prove themselves a meal ready-to-eat for the Geronimo personnel.

The following 14 chapters, by various authors from the JRTC, include a recent article from *Infantry* magazine about an infantry brigade combat team's lessons learned at the JRTC. This newsletter also contains an appendix listing specific recommendations for company commanders in determining how to man and operate command posts.

Chapter 1

Dismounted Reconnaissance: A Crisis in Identity and Utility

CPT Graham Muir, British Army Exchange Officer, Task Force 4, Joint Readiness Training Center, Operations Group

> "The cadre was relentless. They didn't want half trained men who could jeopardize a mission on long-range patrol teams. No other school in the history of the military was like it or will be like it again. They may make tougher schools, with more physical demands, but they will never be able to duplicate the 5th Special Forces Recondo School in South Vietnam and the training it provided its graduates with something we needed in Vietnam — pride, self-confidence, and formal training."
>
> Reconnaissance Commando Doughboy: Long Range Reconnaissance Patrol
> 101st Airborne Division (Air Assault)

The formal training that inspired such self-confidence, so clearly prevalent in the special forces reconnaissance commando school, seems somewhat lacking in today's dismounted reconnaissance troop (DRT) or C Troop within cavalry squadrons. Clearly there is confusion and much doubt on how best to utilize the DRT within the brigade combat team (BCT) fight. Indeed, current force structure conversations appear to focus on potentially replacing the dismounted troop in a cavalry squadron with a third mounted troop.

The assessments in this chapter are based on observations made while serving as the senior observer-coach/trainer (OC/T) for the DRT at the Joint Readiness Training Center (JRTC). The following observations are consolidated according to conversations with each DRT commander during rotations. In addressing these observations, three primary aims were maintained:

- Detail recurrent concerns and issues affecting the DRT identity and employment, highlighting observations witnessed in most DRT JRTC rotations.
- Propose fixes that lessen some of the concerns, ideally turning observations into lessons learned. In doing so, provide the fix to better employ dismounted reconnaissance assets.
- Generate thoughts and discussions amongst dismounted reconnaissance peers and commanders, highlighting areas for further improvement and building a network of DRT commanders to capture and highlight best practices.

The most common and reoccurring concerns highlighted in conversations with DRT commanders can be grouped by identity and employment.

Identify "If You Ain't Cav ..."

A squadron recently used this as a rallying cry during a JRTC rotation. It was offered after each meeting of key leaders, each rehearsal, each back brief; however, there was only one issue: one-third of the squadron's fighting power wasn't from a cavalry or reconnaissance background. It was infantry — dismounted, light-role, ruck-carrying, 11-series infantry. I couldn't help but wonder whether the infantry brethren within the squadron lip-synched, joined in, or rolled their infantry eyes every time they heard it. That is not to say the identity crisis is all of the cavalrymen's making; too often infantrymen in a DRT fail to make the mental shift required to operate within the reconnaissance fight.

The self-confident identity of long-range reconnaissance patrols in Vietnam, to which so many DRT commanders aspire, is far removed from the identity crisis prevalent in DRTs arriving at JRTC today. Indeed the longing to reaffirm such self-confidence mistakenly leads some DRT commanders to focus solely on the long-range patrol aspect of DRT.

The method of employment for each DRT witnessed at the JRTC covers the full spectrum, from light role, fully dismounted DRTs through to squadrons that detach a dismounted reconnaissance platoon to each mounted troop, effectively disbanding the DRT. Rather than be lauded as signs of a flexible or adaptable approach by cavalry squadrons, this is symptomatic of the lack of consensus on how to best employ the DRT across infantry BCTs. The method in this experiment is that each cavalry squadron faces a generally similar problem set at the JRTC, yet all choose to employ their DRT differently.

This lack of common employment is surely a sign that commanders lack doctrinal understanding of the capabilities and limitations of the DRT. Given the already well-publicized concerns voiced within the broader reconnaissance family, is it any wonder that the more nuanced employment of dismounted reconnaissance suffers from this misunderstanding?

If we are to employ dismounted reconnaissance assets in the most efficient manner, then commanders must have a base level of understanding on the nuances of their limitations, but more importantly the potential of their capabilities. Namely, one must understand their identity — what it is we are expecting our DRTs to achieve on behalf of the cavalry squadron and brigade commander and what is their *raison d'être* (diplomatic or political reason)?

Dismounted reconnaissance doctrine is based on Army Tactics, Techniques, and Procedures (ATTP) 3-20.97, *Dismounted Reconnaissance Troop*, 16 NOV 2010. (Editor's Note: This publication was superseded by Army Techniques Publication [ATP] 3-20.97, *Cavalry Troop,* 01 SEP 2016.) Listening to commanders during JRTC rotations, one rarely hears it mentioned, much less quoted. This publication needs to become a living document understood and utilized by all involved in the employment and mission command of DRTs. The JRTC was integral in developing the document and must continue that role, validating best practices and advising changes based on rotational observations. Only through a supported and understood doctrine can the underlying cause of common concerns, namely a lack of DRT identity, be addressed.

Employment

Despite the continuous employment of DRTs in a variety of different forms, we can identify recurring observations that ultimately shape the method of that employment. Frustratingly, no matter how commanders seek to employ their DRT, all struggle with similar planning problems. Rather than identifying these potential friction points in the early stages of the military decisionmaking process (MDMP) and then actively planning to mitigate them during course of action (COA) development or during the war game, many units attempt to deal with their consequences as they materialize. This reactive crisis management perpetuates the lack of confidence many have in employing DRTs as they associate their deployment forward with planning constraints rather than the capabilities they can bring to the reconnaissance fight.

Although there are a variety of areas where improvement is possible, it should be noted that many of the fixes would mitigate the risk in more than one area. It should be possible, with a concerted effort along the identified lines below, for improvement in the employment of DRTs, without requiring changes to existing force structures or the modified table of organization and equipment (MTOE).

Before analysing the recurring issues faced by DRTs, commanders should understand their organizational capabilities and limitations. According to ATTP 3-20.97, a DRT within an infantry brigade combat team (IBCT) reconnaissance squadron troop consists of a troop headquarters, a sniper squad, a mortar section, and two scout platoons (see Figure 1-1). Each scout platoon has three scout sections (each section consists of two, four-man scout teams) and a leader's vehicle carrying four personnel.

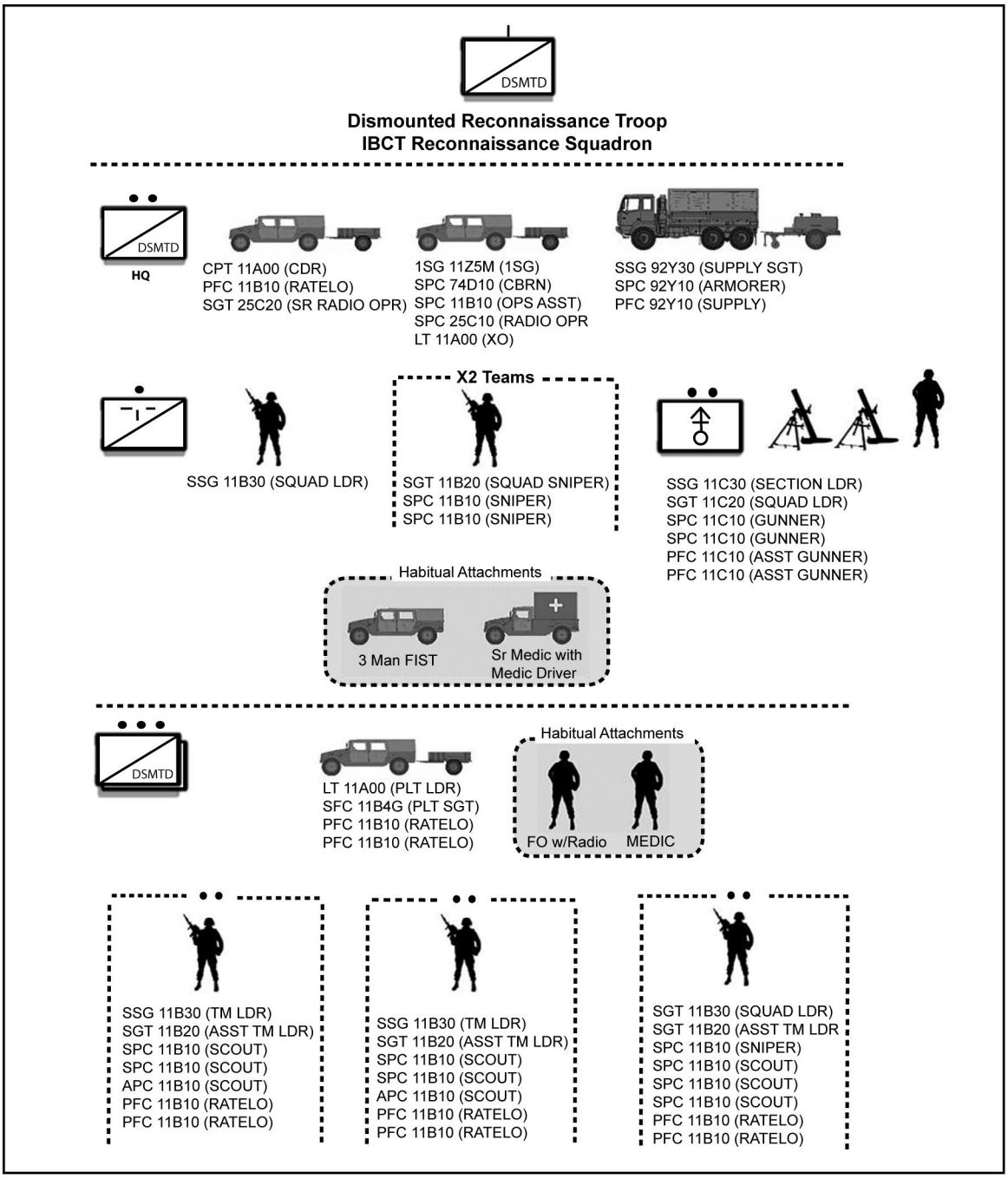

Figure 1-1. Organization for DRT per ATTP 3-20.97.

The variety in the employment methods previously discussed is equalled in the variety of task organizations and MTOEs that DRTs present on arrival at the JRTC. Again, this compounds the debate on what the DRT can achieve, as each IBCT places different demands on their dismounted reconnaissance element.

It should be noted that the DRT is "designed as a foot-mobile unit with few organic vehicles."[1] As such it is not designed with heavy weapons or the ability to transport itself. The specific capability that a DRT offers is mitigated by the lack of protection and lift capability the DRT offers. The following provides suggestions on how these limitations can best be mitigated:

Sustainment

ATTP 3-20.97 highlights "limited organic sustainment assets"[2] as a key limitation in DRT employment. Some DRT commanders who forgo their assigned vehicles in a bid to stay light compound these limited assets. Although there are benefits to staying light within the DRT, this decision should be made at squadron level, with squadron enablers cognizant of the additional burden it will place on them. Despite this seemingly well-known limitation and what should be an obvious need to plan for external support to deliver sustainment to the DRT, be it via mounted or aviation assets, this is a perennial failure observed at the JRTC. Squadron sustainment planners rarely take the additional time or effort required to plan sustainment support for the DRT, despite forewarning for planners and commanders in ATTP 3-20.97 that DRTs require "more time ... to plan and employ."[3] However, DRT commanders are guilty, too, having failed to educate their enablers on how best to provide the support required. Too often the result is a lacklustre plan that is reliant on air and as such victim to both weather and enemy air defenses.

Fix: Support DRTs with the vehicles they are established to use (see Figure 1-1, page 5). Encourage DRT commanders to consider vehicles in troop headquarters even if platoons are to remain dismounted. Some DRT commanders misplace themselves on the battlefield by feeling obliged to be forward and thus "lighter" with the platoons, negating the opportunity to establish a mounted command post (CP). Rather than deciding their location based on obligation, they should critically assess where they can best influence the battle, which may be between the CP and the front line, co-located with a mounted troop CP, or sometimes even in the main CP. Attendance in the squadron main CP is particularly important during squadron planning phases.

For fully dismounted DRTs, home station cross-training with mounted troops is essential because they often facilitate armed escorts, re-supply, and casualty evacuation (CASEVAC).

The supply team, identified in Figure 1-1, is often a wasted asset within a majority of DRTs. Ideally placed within the field trains command post/brigade support area where it can receive direct communication from the DRT headquarters, this supply team is resourced to prepare and deliver supplies forward to cache sites or deliver to aviators for delivery via speed ball.

Lack of Collaborative Training Among DRTs and Mounted Troops

Too often we hear that DRTs effectively train in isolation during squadron training serials, sometimes even on different training areas. Cross-training DRTs with the mounted troops during home-station training is necessary if those operations identified above (armed escorts, resupply, and CASEVAC) are conducted efficiently. Equally important is training with D Troop, who often provide the necessary lift to move the dismounted platoons. Indeed, the format of DRT home-station training needs to focus on the specific skills required as reconnaissance Soldiers. This requires a completely different training program than that for a regular infantry rifle company. Leaders must seize every opportunity to inculcate a reconnaissance mindset to ensure the DRT identity meshes within the cavalry squadron.

At best, this disconnected training leads to a lack of familiarity across the squadron with DRT best practices and standard operating procedures. At worst, it fosters an "us vs. them" attitude, where the DRT considers itself disconnected from the rest of the squadron. This independent training wastes the benefit that many squadrons discover during rotations of a hunter-killer concept. This often sees DRTs employed in front of mounted troops during a static screen, easily facilitating depth, time, and maneuver space within the cavalry squadron screen.

Fix: Home station cross-training, to include capability briefs among dismounted reconnaissance and mounted troop commanders, ensures commanders are fully aware of what capabilities each can offer. Conduct collaborative training between dismounted reconnaissance and mounted troops to identify best practices.

Commanders Lack Understanding of DRT Capabilities and Limitations, Risks Involved

Instead of relying on applying the fix to these listed problems at the combat training centers, there should be greater focus on the cause in the current DRT employment crisis (a critical lack of understanding of DRT capabilities and limitations by commanders throughout the BCT). Commanders have grown accustomed to a risk-averse, technology-based intelligence, surveillance, and reconnaissance fight after years in Iraq and Afghanistan. This is not the fight that challenges rotational training units at JRTC; nor is it the fight that Western forces likely face in future conflicts based on the plethora of research prevalent on both sides of the Atlantic.

DRT commanders talk often about the disparity in the employment of the DRT at home station compared to JRTC use. Potentially, commanders are more willing to sign off on risk at home station but, when the pressure of external validation is apparent, are less willing to expose themselves to the increased risk necessary to deploy a DRT past the forward line of their own troops. DRT commanders talk of their successful employment at home station when employed on longer duration tasks, including long-range surveillance. However, at home station they do not face the live-time, 360-degree peer enemy that JRTC and the decisive action training environment (DATE) provide. DRT commanders need to be vocal in their shaping of DRT employment and highlight both the risk involved and how best to mitigate it.

Fix: Train at home station as you mean to employ the DRT during a hybrid threat/DATE scenario. This may require a better-resourced enemy (ENY) than many units currently employ during home-station training. The benefit to training against a more aggressive and free-thinking ENY would be felt across the squadron and not just within the DRT, particularly within the sustainment team, who often face minimal ENY threat in conducting resupply during home-station training.

Squadron planners need to identify and mitigate the risks associated with aggressive DRT employment through critical thinking and proactive planning, relying on war gaming of likely friction points.

To fix the lack of understanding of the DRT within squadron and the brigade DRT, commanders should proactively provide capability briefs to mitigate the knowledge gap. A proactive public relations campaign by DRT commanders not only pitches and educates on DRT capabilities, but also helps establish key relationships with enablers — vital to the internal and external support required in alleviating key limitations. The DRT has the ability, if the understanding is there, to be employed directly by the BCT, potentially being resourced to answer the BCT's Parachute Infantry Regiment.

Lack of Synchronized Planning Between DRT Commander and Squadron

The disconnect between DRT missions received at the JRTC and those missions conducted at home station is compounded by the DRT commander's lack of involvement during the squadron's planning process. Too often missions are tasked direct to the DRT without engaging with the troop commander. This is similar in effect to the lack of synchronization often witnessed between brigade and the cavalry squadron.

Figure 1-2 illustrates the parallel "sequences of the MDMP of the squadron with the troop leading procedures (TLP) of the DRT. The figure indicates parallel planning conducted by the BCT, squadron, and troop. The solid arrows show where warning orders or operational orders and COAs trigger the initiation of TLP within a subordinate unit."[4]

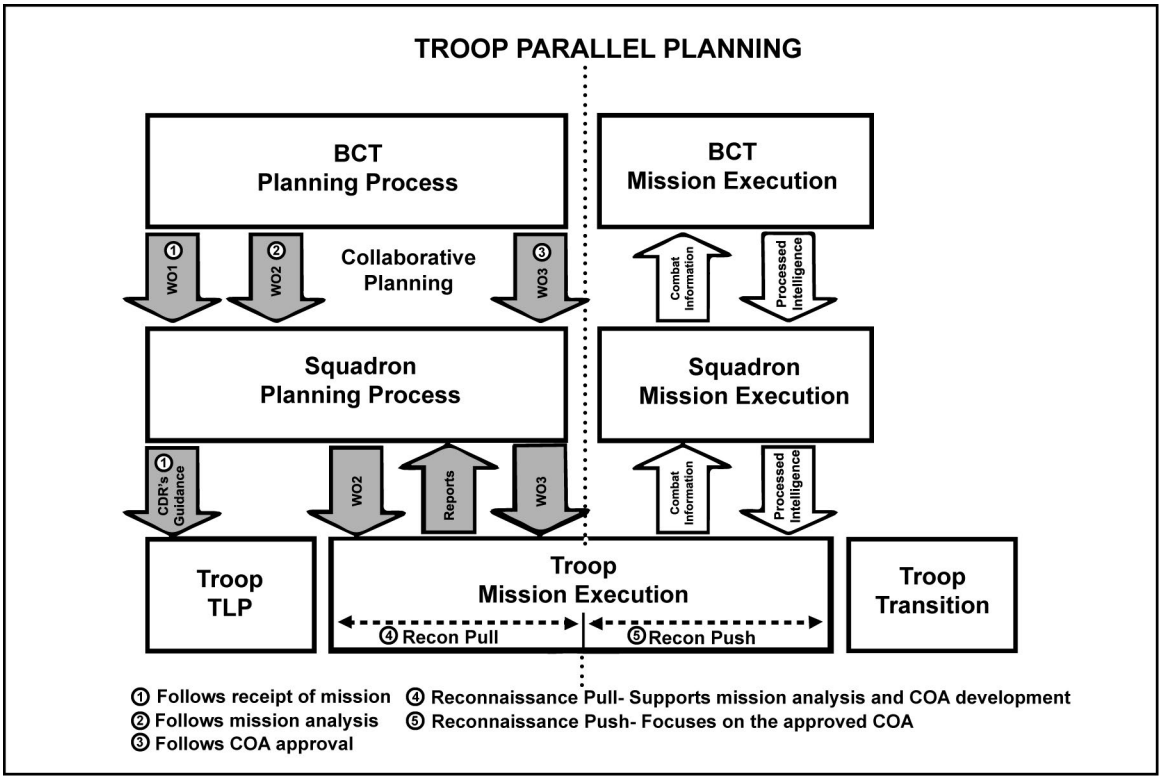

Figure 1-2. Troop parallel planning (ATTP 3-20.97).

This failure compounds the complexity when attempting to resolve the friction points often associated with supporting the DRT. Arriving late to the planning process, or not being involved at all, leaves the DRT commander little time to establish the concept plans with all required enablers.

Fix: Establish relationships with all key enablers at home station. Waiting to arrive at the JRTC or on deployment is too late. This fix is also particularly important for the troop executive officer and first sergeant, as they are central to the resupply/CASEVAC battle.

Involve the DRT commander during squadron COA development so friction points can be identified and planned against, with the DRT commander's active involvement from the outset. Ensure that, at a minimum, DRT commanders deploy the DRT with an understanding of their commander's intent and a draft synchronization matrix and decision support matrix.

Medical Evacuation and CASEVAC Limitations

Depending on the organization of the DRT that the BCT employs, there is a perennial concern over how the troop's casualties should be extracted. This is based on the following two factors:

- Physical dislocation from Role 1 facilities caused by insertion in front of the forward line of troops (i.e., enemy presence between DRT and Role 1).
- No vehicles in troop headquarters/platoons and thus a reliance on air.

Fix: Increase medical training for those employed in the DRT to mitigate the need for the casualty to arrive at Role 1 within the "golden hour."

If the DRT is using organic troop vehicles, there is less need to rely on neighboring forces to extract casualties to the squadron ambulance exchange point. Depending on the weapons carried on these troop vehicles, the DRT could self-extract.

Interoperability should be exercised with mounted troops within the squadron. Depending on the DRT location, neighboring forces could extract casualties to Role 1. This must be a specified task identified in MDMP for those mounted troops within the squadron.

Resource appropriate training for DRTs so qualified personnel can identify and secure helicopter landing zones if air is to be used in the troop CASEVAC plan. Pathfinder training should be identified as a priority.

Summary

By no means are the above listed employment issues the only areas for improvement in the employment of DRTs. However, these ills are by far the greatest and most common identified at the JRTC.

There is clearly a need to research how to efficiently manage the employability of DRTs, while the force generation discussions are held on the DRT future within the cavalry squadron. Although the DRT requires more nuanced support than some of their mounted troop colleagues, they provide niche capabilities that can be a genuine force multiplier in the reconnaissance fight. To waste these capabilities due to a lack of self-assessment would be a loss to the force.

Endnotes

1. ATTP 3-20.97, *Dismounted Reconnaissance Troop*, page 1-4, 16 NOV 2010.
2. Ibid, page 1-3.
3. Ibid, page 1-4.
4. Ibid, page 2-8.

Chapter 2

The Breach: Conducting a Combined Arms Breach at the Company Level

Live Fire Division, Joint Readiness Training Center, Operations Group

The past 14 years of warfighting very different enemy threats in multiple theaters have decreased the Army's ability to plan and execute combined arms breaches. As the Army returns to decisive action rotations at the Joint Readiness Training Center (JRTC), observer-coach/trainers (OC/Ts) see company-level leaders and units struggle to plan and execute a deliberate breach. A number of factors are in play. This chapter examines the current observations from the Live Fire Division, JRTC Operations Group. These range from the planning process to the execution of breaching fundamentals: suppress, obscure, secure, reduce, and assault (SOSRA). We outline considerations in planning and executing a combined arms breach and suggest specific home-station training to increase proficiency within our units.

Though terrain and missions may vary each rotation, there are a number of consistent observations in each live-fire iteration:

- Conceptual planning vs. detailed planning
- Inability to plan and execute echelonment of fires
- Failure to understand and implement direct fire control measures (DFCMs)
- Lack of machine gun proficiency and confidence
- Failure to address the five tenants of breaching — intelligence, breaching fundamentals (i.e., SOSRA), breach organization, mass, and synchronization — in planning processes

These issues lead directly to rotational training unit (RTU) failure in combined arms breach operations. The results are unorganized and desynchronized breaching operations.

SOSRA

Anyone who wears a Ranger tab knows the "big hand, little map" approach does not equate to successful land navigation. We see the same approach applied to SOSRA and planning. Unit leaders typically see SOSRA as a checklist; the RTU conceptual plan identifies the supporting element, the breaching element, and the assaulting element. These conceptual plans only offer broad guidance for achieving tasks. In the end, over-reliance on the concept — the beginning of a plan — means commanders fail to plan beyond their intents. Not enough effort is made to work out the details necessary to put such a concept into action and accomplish the breach.

Leaders should view SOSRA as a set of conditions that must be met to synchronize indirect fires (IDFs), direct fires, and maneuver. Likewise, they must consider the characteristics of the offense (specifically concentration and tempo) in planning the deliberate reduction of a mine/wired obstacle. Unfortunately, the details get "waved" when concept substitutes for a detailed plan. SOSRA conditions are a series of gates that leaders must negotiate prior to maneuvering to the objective. The following is an in-depth analysis of observations during the execution of SOSRA.

Suppress

During company live-fire exercises at the JRTC, units rarely achieve effective suppression. Platoons and, at times, companies do not understand DFCMs. This leads to poor suppression of the objective and little to no isolation of the point of penetration. Weapon squad leaders and machine gun teams do not understand the principles of machine gun employment, nor how to conserve ammunition while still providing an adequate amount of suppression on the objective. Units constantly shift fires too soon in live-fire exercises; the three major reasons are lack of weapons proficiency, lack of confidence in and among the gunners, and lack of understanding of surface danger zones. The shifting of fires at 15 degrees from the assault element's front line trace is rarely achieved. Units consistently shift fire early from 30 to 45 degrees, leaving a large part of the objective without any direct-fire suppression. Similar issues challenge use of indirect suppression; RTU commanders routinely overlook or underutilize the easiest indirect-fire (IDF) asset to coordinate for and employ, the company mortars. Company mortar section sergeants do not always advocate for their section weapon system and therefore are not employed effectively or at all. Mortar noncommissioned officers must advise the commander on mortar capabilities and how best to integrate them into the company fight.

Obscure

Obscuration targets are not tied to triggers and are usually time-based instead of conditions-based. They are therefore ineffective. With the lack of synchronization and full-force rehearsals, RTUs usually initiate smoke targets too early. The support element cannot establish the support by fire (SBF) and gain fire superiority prior to attempting to secure and reduce the obstacle. Often M203/M320 40mm smoke is overlooked as a viable means to supplement artillery obscuration. Hand-deployed smoke grenades are used inconsistently to conceal the movements of friendly forces (specifically the breach team). Units fail to effectively plan obscuration targets based on the enemy situation template, weather and wind conditions, and the amount of obscuration needed according to a detailed terrain analysis. Deception smoke is rarely planned or employed as a diversionary tool to obscure multiple possible breach locations.

Secure

Proper task organization for the breach is an absolute necessity if success is to be achieved. When sapper elements are attached, units rarely identify alternate, secondary, or tertiary breach teams. Most rotational units assume the sapper element succeeds, thus leading to severe complications and loss of momentum when OC/Ts assess simulated casualties in the sapper element. We see much the same when sapper elements are not available and infantry troops must complete the task. Routinely, we see near- and far-side security of the breach site overlooked or not efficiently planned, rehearsed, or executed.

Reduce

Infantrymen, including some sapper units, do not train enough at home station on real demolition charges that are standard in breaching operations. RTU Soldiers are very uncomfortable with handling demolitions. Therefore, the limited rehearsal time is spent familiarizing Soldiers with the characteristics and employment of breaching charges. Breach teams should rehearse more at home station with charges to become proficient at executing breaching to standard.

Breach teams often fail to properly prepare equipment before moving from cover/concealment to emplace demolition charges. This greatly slows tempo during what is arguably the highest point of risk during the operation. A breach team must spend the least amount of time possible at the

point of penetration. Taking excessive time desynchronizes the entire operation and causes the support element to consume more ammunition than planned, thereby losing fire superiority. This greatly increases the probability of casualties.

Assault

Units often disregard basic fundamentals of fire and maneuver when moving from the last covered and concealed position to begin the assault. Units are often "trying to maintain tempo" and fail to use individual movement techniques appropriate for the situation. This failure, combined with the lack of suppressive fire from the main and local SBF elements, results in heavy casualties as the enemy is focused on the point of penetration. High points of risk during troop movement require greater suppression from the SBF element. This usually does not happen as leaders fail to monitor ammunition consumption or accurately forecast ammunition requirements for the SBF. Failure to plan and rehearse, in detail, the passing of the assault team through the breach lane usually results in a loss of tempo at a critical point. Units lose initiative as they fail to quickly mass combat power at the point of penetration to establish a foothold on the far side of the breach area.

Through the identification of the aforementioned observations, certain considerations can be taken into account from the planning phase through execution. The next few paragraphs outline some considerations during the planning phase as well as the execution of SOSRA. These considerations do not guarantee success, but successful units have used them. Keep in mind, this is by no means an exhaustive list and additional attention must be focused to meet the operational environment.

Planning

Successfully conducting SOSRA starts during the planning process with the production of a detailed plan defining the conditions that must be met and how all available assets set these conditions. The commander must express the desired effects by clearly articulating an observable end state or condition that has been met during each phase of SOSRA. A thorough analysis of observation and fields of fire; avenues of approach; key terrain; obstacles and movement; cover and concealment; and mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC) enables the commander and subordinate leaders to define these conditions. This allows the commander to synchronize all available assets over time and space, while accounting for enemy actions to set the appropriate conditions.

Task organization during the planning phase is critical and must not be overlooked. The identification of points of high friction aid in deciding how to leverage the executive officer (XO) and first sergeant (1SG) in the fight. An example would be a passage of lines between the breaching and assaulting forces and controlling the flow of combat power onto the objective. The 1SG or XO used in this role could prevent stagnation and maintain the needed tempo.

Contingencies and friction points should be added to all rehearsals and should include all available forces. The following are some contingencies to keep in mind: hasty vs. deliberate occupation of the SBF position; the breaching charge fails to detonate; the charge detonates but fails to fully reduce the obstacle; the breaching team takes substantial casualties during reduction and is unable to continue mission; and communication is lost between the breaching element and the supporting units.

Synchronization of available direct- and indirect-fire weapon systems is paramount to accomplishing the needed amount of suppression for the breach force. Each weapon system

must be deliberately employed to properly isolate the breach and deny the enemy the ability to mass fires on the breaching area. When planning IDF assets (field artillery [FA] support, battalion [BN] mortars, company 60mm mortars), they must be tied to the maneuver element through triggers. Units should develop and use fire-support coordination matrices and a target-list worksheet to assign a task and purpose to each asset for each phase of the operation.

Leaders must plan echelonment of fire with all IDF assets. An FA target should not be shifted or ceased until the BN mortars have rounds impacting in the desired area. This also applies to the company 60mm mortars and direct-fire weapon systems, as this prevents the enemy from repositioning forces.

Plan to increase rates of fire for IDF assets as troops approach the highest points of risk. An example would be increasing BN mortars rates-of-fire during the emplacement of the SBF element. This enables the SBF element to emplace while inhibiting the enemy's ability to mass fires on their position. This also applies to direct-fire weapon systems, overlapping direct-fire weapon systems with IDF to maintain suppression before shifting IDF to an isolation target.

Suppress

The commander should tie SBF initiation criteria to a condition that must be met. For example, the SBF initiation criteria may be once the main body has reached its assault position. Identification of this criteria ensures the phase is not desynchronized because the main body has too far to go to occupy its local SBF position and the SBF element expends too much ammunition. Once the condition is met for the SBF to begin suppression on the objective, the SBF element must understand the direct-fire control process and engagement area development to successfully isolate the breach. "At the company level, direct fire control measures are effective only if the entire unit has a common understanding of what they mean and how to employ them." (Field Manual [FM] 3-21.10, *The Infantry Rifle Company*, 27 JUL 2006, page 9-9).

Effective massing requires the commander to focus the fires of subordinate elements and distribute their effects. The identification of known and probable enemy locations, determining where and how to mass (focus and distribute) fire effects, orientation of forces to speed target acquisition, and shifting of fires to refocus or redistribute their effects (FM 3-21.10, page 9-3) must be planned during troop leading procedures and confirmed on the ground by the subordinate leader.

The breach element's occupation and establishment of the local SBF position should be directly tied to the SBF in regard to timing and engagement area. If the local SBF occupies before the SBF has had time to establish fire superiority, the enemy may be able to mass fires on the local SBF position. In addition, if the local SBF is not tied into the SBF engagement area, a proper massing of fires to fix the enemy is lost. Once the local SBF has occupied and achieved fire superiority, the commander evaluates whether conditions have been met for obscuration.

Obscure

Key leader emplacement is critical during this phase to determine if the breach area or point of penetration is effectively isolated with direct and indirect fires. Once the commander determines the point of penetration as effectively isolated, the commander makes the decision to employ FA smoke if available. The fire support officer must provide the time of flight and proposed time of billow to the commander so the commander knows how long suppressive fires are needed before the point of penetration is obscured.

The local SBF should augment the obscuration with 40mm smoke from its M203s/M320s and hand-held smoke as needed. In addition to obscuration, a best practice used by some RTUs is to assign specific colors or types of pyrotechnics to each of the three elements to signal specific events (yellow smoke used by the breach team to signal that charges are being emplaced and green smoke to signal that the breach is open). The commander must place himself in a position to decide when the point of penetration is obscured and when the security element should move forward.

Secure

The size of the security force moving to the obstacle must be large enough to include secondary and tertiary teams to aid in breaching if necessary, and large enough that it also provides an impressive profile for the enemy. The security team should be able to provide its own local SBF to further isolate the point of penetration and allow freedom of maneuver for the reduction team. In addition, hand smoke should be used to further enhance obscuration of the breaching element. It is important to analyze wind direction and adjust rounds as necessary so that the point of penetration is still visible to the reduction team.

Reduce

Types of obstacles and scenario requirements determine the number of assets required for reduction. Once the security team is in place, the reduction team moves forward to the point of penetration. Utilization of the launched grapnel hook (NSN 1095-01-412-4150) has been used to expedite the reduction of the obstacle by allowing the members of the breach team to clear the wire of booby traps prior to exposing themselves while emplacing charges on the obstacle. The launched grapnel has also proven useful when proofing the lane after charges have been detonated. Units should prepare primary and secondary breaching methods before leaving their last covered and concealed position. Those methods and necessary equipment should be easily available to minimize the amount of time at the breach area. Once the charge is placed, the security element and reduction team bounds back to a covered position. It is important that the local SBF and SBF increase their rates of fire to allow freedom of maneuver for these elements.

Once the breach is blown, the reduction team proofs and marks the lane. Lane marking depends on unit standard operating procedures, but should, at a minimum, be a left-hand rail marking, signifying the entrance, and a visible marker guiding the assaulting force to the point of penetration. Security may be set to both sides of the breach, but is METT-TC dependent.

Assault

The size of the objective determines the size of the assault force. Either the assault force or the breach force can seize an initial foothold. If the breach force seizes the foothold, it is vital to rehearse the passage of lines between elements to reduce friction and maintain tempo. The unit must specifically identify a key leader (usually the 1SG) as the “breach master.” The breach master must manage combat power onto the objective. He specifically controls the flow of troops through the breach to control tempo and decrease unneeded congestion on the far side of the breach area. This practice also facilitates the expeditious collection of casualties at the company casualty collection point, given that the 1SG is already located at the point of highest risk.

Conclusion

The correction of the current observations must begin with home-station training. Soldiers rarely come to the JRTC with a good understanding of how to conduct a company-level breach of an obstacle. More often than not, when a Soldier is asked by an OC/T about SOSRA, the Soldier

is unfamiliar with the acronym and unable to explain what it means. This not only applies to Soldiers, but platoon leaders and platoon sergeants, as well. We cannot expect subordinate leaders to execute the commander's intent if they do not understand what is being asked of them. A deeper understanding of doctrine and an adeptness at the fundamentals at the team/squad level are critical to the unit's ability to become proficient at SOSRA.

Use of the combined arms training strategies is an objective tool to evaluate proficiency of a unit. Land and ammunition resources are not necessary to correct many of the current observations seen at the JRTC. Much can be accomplished with opportunity or "hip pocket training" at the individual and team level, such as blocks of instruction on machine gun theory or machine gun crew drills. To produce the greatest training effect, leaders must properly plan, prepare, execute, and assess squad, platoon, and company collective tasks. Leaders at all levels should become familiar with Army Doctrine Reference Publication 7-0, *Training Units and Developing Leaders* (23 AUG 2012), and the unit training management website. These resources assist leaders in developing a training plan that supports the company mission-essential task list.

Chapter 3

Check it. Do Not Neglect It! Precombat Checks and Precombat Inspections

CPT Rob Partin and SFC Nicolas Garcia

A rotation at the Joint Readiness Training Center (JRTC) is the key collective training event for a brigade combat team (BCT). The success of this effort depends on the individual performances of the BCT Soldiers. Good units recognize this truth: great units develop best practices so that individual Soldiers can operate collectively to support the BCT. Standard operating procedures (SOPs) capture and preserve these collective training efforts. A truly elite unit is one with tested, practiced, and refined SOPs. Yet in the best of units, both leaders and Soldiers get tired, distracted, or both; they — leaders and Soldiers — forget things. The standard tool for correcting this very human tendency is the steady enforcement of precombat checks (PCCs) and precombat inspections (PCIs) as part of troop leading procedures (TLPs).

Field Manual (FM) 6-0, *Command and Staff Organization and Operations* (05 MAY 2014), addresses TLPs in Chapter 10. TLPs provide small-unit leaders with a framework for planning and preparing for operations. Leaders of company and smaller units use TLPs to develop plans and orders. The eighth and final step of TLPs is supervise and refine.

FM 3-21.10, *The Infantry Rifle Company* (27 JUL 2006), further defines PCCs and PCIs:

2-180. Pre-combat checks (PCCs) and pre-combat inspections (PCIs) are critical to the success of any combat patrol. These checks and inspections are leader tasks and cannot be delegated below team leader level. They ensure that the Soldier is prepared to execute the required individual and collective tasks that support the mission. Checks and inspections are part of the TLP that protect against shortfalls that could endanger Soldiers' lives and jeopardize the successful execution of a mission. PCCs and PCIs must be tailored to the specific unit and the mission requirements. Each mission and each patrol may require a separate set of checklists. Each element will have their own established set of PCCs and PCIs, but each platoon within that element should have identical checklists. A weapons squad will have a different checklist than a line squad, but each weapons squad within an organization should be the same. One of the best ways to ensure PCCs and PCIs are complete and thorough is with full-dress rehearsals. These rehearsals, run at combat speed with communication and full battle equipment, allow the leader to envision minute details, as they will occur on the battlefield. If the operation is to be conducted at night, Soldiers should conduct full-dress rehearsals at night as well. PCCs and PCIs should include back briefs on the mission, the task and purpose of the mission, and how the Soldiers' role fits into the scheme of maneuver. The Soldiers should know the latest intelligence updates and the ROE [rules of engagement], and be versed in MEDEVAC procedures and sustainment requirements.

[**Editor's Note:** PCCs and PCIs are often confused; there is some debate about what exactly they are. This much is agreed on: PCCs and PCIs are separate events executed before the mission starts. FM 3-21.10 states that PCCs are a leader's task; however, these checks begin at the lowest level, the individual Soldier. Each Soldier is responsible for checking his personal equipment as well as any equipment for his assigned task. Leaders (squad and above) reinforce PCCs with PCIs, which ensure that the Soldier is prepared to execute his individual and collective tasks.]

Even though PCCs and PCIs are doctrinally correct and combat tested, units fail to use them. Or, if they began a rotation using them, they stop as fatigue takes a toll. PCCs and PCIs are critical to the success of any mission. There are any number of reasons why a unit fails to execute these two tasks, but the majority of the time it just boils down to not conducting them to standard, especially after a few days into the rotation.

Perfect Plan

Initially, units are thorough when conducting PCCs and PCIs back at the intermediate staging base before rotation. Units use checklists provided from higher and allocate ample time to properly execute the checks. However, after a few days in the box (especially for short-notice missions), units begin to skip PCCs and PCIs altogether. Even for the culminating attack, units skip over checks. This is primarily due to violation of the one-third/two-thirds rule, leaders' failure to delegate authority to subordinate leaders, and lack of a timeline. Leaders take too much time developing a complete plan before pushing out initial guidance to dictate what direction PCCs and PCIs should go. If leaders instead focused some attention during the warning order on PCCs and PCIs, units would be set up for success in the ensuing missions.

What is Not Checked is Neglected

A good way to address the issue is to include PCCs and PCIs on the initial timeline. By allocating time specifically for the checks, leaders do not brush them off. When leaders omit PCCs and PCIs from their timeline, it tells subordinates PCCs and PCIs are not important. Everyone knows at the fundamental level these checks are important, but when they are not emphasized by higher, they lose their value. More commonly, leaders highlight a few items and check only what they care about. This causes PCCs and PCIs to become implied tasks as opposed to specified tasks, and thus, they tend to fall by the wayside.

Your Mission and Your Life Depend on PCCs and PCIs

PCCs and PCIs should not be viewed as a burden and waste of time. When these checks are actively and consistently included in the planning timeline, everyone in the unit recognizes their importance. PCCs and PCIs are crucial in identifying missing equipment, but also functionality. For specific missions, different equipment is needed. Properly executed checks lighten a Soldier's load in some areas, and increase it in others. There are two options here: either Soldiers bring everything for every mission, or pick and choose what to bring. Both have severe disadvantages.

For the first option, Soldiers carry a lot of excess weight, which hinders movement. Ounces equal pounds, and pounds equal pain. Now, a unit cannot fail to bring night vision goggles because they think the mission occurs during daylight, but they may only need one day of supply instead of three, or three extra batteries instead of one. It is all mission dependent, but by conducting PCCs and PCIs to standard, Soldiers at the lowest level see how crucial the checks are.

For the second option, if Soldiers at the individual level are left to their own devices and can essentially pick and choose what they want to bring, they omit mission-essential equipment either because they think they do not need an item or do not know they need an item. If it is heavy and Soldiers do not think they need it, they do not bring it. It is that simple.

Soldier Loads: The Weight of Victory

Another way that PCCs and PCIs are important is they validate functionality of not only the equipment, but also the Soldier. As time progresses and the Army evolves, one thing remains constant: Soldiers always carry more weight. There are always new systems, gear, and weapons coming out. The unit may have an SOP for a Soldier's kit, but it might not be updated to include a new radio or piece of equipment. By conducting PCCs and PCIs, leaders come up with solutions to benefit their Soldiers. By showing Soldiers the most comfortable and practical way to wear an item in their kit, leaders help address the issue of adding more weight and bulk to the load while improving noise and light discipline, which helps with the movement phase of every mission. Concealing shiny objects, tying down sensitive items, and securing loose items that rattle and make noise are common sense, but often overlooked. During the PCCs and PCIs, leaders are also validating that the individual Soldier knows what the gear is for, how to use it, and how to care for it. By the end, all equipment is operational and ready to go (weapons are lubricated, gear is prepped, radios are operational, etc.).

Vehicle Load Plans

Working with the heavy weapons companies that rotate through the JRTC, we noticed that the condition of their trucks is often unacceptable. Only two recent units have had load plans showing uniform locations where gear and equipment should be stored. Generally, units all accomplish the same tasks by ensuring ammunition and loose equipment are tied down within the vehicle, but in the rear, everything gets mashed into place. When the unit stops to establish a traffic control point (TCP) or conduct a mission, whoever packed the vehicle has to unload the entire truck just to find one item. Typically when a rotation begins, everything is organized in the cab and back of a vehicle, but after several days, leaders neglect checking to ensure the Soldiers are keeping the vehicle according to SOP. When this occurs, items go missing or crucial time is lost while preparing or executing a mission because the vehicle has to be stripped to find a PAS-13 thermal weapon sight or tripod or some other piece of equipment. Another potential mission failure is the full operation of equipment. One example is when a unit established a support by fire position and realized they brought a tripod, but forgot the traverse-and-elevation pintle. Another example is when an entire company did not bring radio mounts for vehicles drawn out of the pre-positioned yard while at the JRTC. This meant platoons were using dismounted radios with reduced ranges in vehicles, when all they needed was to check to ensure they brought all the necessary equipment from their home station.

First Thing on the Checklist: Have One

Finally, units that come to the JRTC usually do not have a tactical SOP (TACSOP) with a PCC checklist or guidance for PCIs. As mentioned previously, many of the units that bring a checklist often choose not to use it. By showing up prepared for JRTC with a pre-established checklist, units would save themselves a lot of heartache during the exercise, as well as confirm their training and preparation for combat. Without a checklist for leaders to use, they often go from memory, which in general is not an issue in a controlled environment with plenty of time, but after a few days with sleep deprivation and limited time, leaders begin to overlook items and minute details they normally address. The point of the JRTC is to train units and validate their systems. If there is no system to check, it can be difficult to start from scratch.

The OC/T is Going to Check

This leads into the role of the observer-coach/trainer (OC/T). If there is no TACSOP or system in place, it becomes difficult for the OC/T to check the effectiveness of a unit. OC/Ts should check the unit from their load plan to their PCCs and PCIs. If no system is in place, it is the OC/T's duty to provide one to the unit. This can be as simple as providing an example PCC/PCI checklist during the initial green book after action review. The platoon leader and platoon sergeant or the company commander and first sergeant can adjust and tailor it to meet their unit's needs. Ideally, the leaders buy in and begin to develop and refine their own internal product by the end of the rotation. OC/Ts may even check with the unit a few weeks after the rotation to remind them or verify that they indeed have one in place.

Check It! Do Not Neglect It!

These simple examples of overlooking PCCs and PCIs greatly reduce the combat effectiveness of units rotating through JRTC. Checks and inspections are a unit's primary tool in combating the twin enemies of unit readiness — apathy and complacency. Leaders reinforce PCCs with PCIs!

The following basic PCC/PCI checklists should be provided to units while at the JRTC:

Pre-Combat Inspection (PCI)

Individual PCI Checklist

- ☐ Advanced combat helmet (in accordance with [IAW] brigade SOP)
- ☐ Night observation devices (mounted, functional, and tied down to individual body armor [IBA], IAW the battalion SOP)
- ☐ Ballistic eye protection
- ☐ Identification (ID) card/ID tags
- ☐ Weapon (zeroed, clean, function test, sling attached properly)
- ☐ Optics (tied down, zeroed, preventive maintenance checks and services [PMCS] performed, extra batteries)
- ☐ Lasers (tied down, field expedient zero, extra batteries)
- ☐ Magazines/7 each, 30 rounds per magazine
- ☐ Weapons cleaning kit
- ☐ Improved outer tactical vest (IOTV)/IBA complete, with neck collar, throat collar, groin protector, Deltoid auxiliary protectors, enhanced small arms protective inserts, plates, side plates, name tap, rank
- ☐ Individual first aid kit
- ☐ 1-quart canteen, at a minimum
- ☐ Meal, ready-to-eat (MRE) x 1
- ☐ Flame retardant gloves (fingers may not be cut out)

- ☐ Pen/paper
- ☐ Flashlight
- ☐ Compass
- ☐ Briefed on current mission
- ☐ Extra socks

Leader PCI

- ☐ Graphics/gridded reference graphic (GRG)
- ☐ Communication (multi-band inter/intra team radio, ICON)
- ☐ Communication card
- ☐ Map, protractor, compass
- ☐ Binoculars
- ☐ Sensitive items list
- ☐ Whistle
- ☐ Alcohol pens
- ☐ Report formats: 9-line; improvised explosive device (IED)/unexploded ordnance (UXO); vehicle recovery; size, activity, location, unit, time, equipment (SALUTE); be on the look out (BOLO); patrol debrief; combat patrol manifest; brigade PCI/PCC checklist sector sketches (pre-formatted)

Patrol Standard (Vehicle)

- ☐ Level I or II armor (appropriate level)
- ☐ Crew served weapon (mounted with ammunition can secured)
- ☐ Laser and enhanced sights (M145, PAS13) if available
- ☐ Communication capability (frequency modulation, Blue Force Tracking [BFT], tactical satellite, cell)
- ☐ Radio headset (3 each per vehicle)
- ☐ Litter
- ☐ Tow strap or other self-recovery capability (tow bar, chains)
- ☐ Report formats (9-line, IED/UXO, vehicle recovery, SALUTE, BOLO, patrol debrief; reference Combine Targeting Board command post SOP, Version 3)
- ☐ Class III (oil, transmission fluid)
- ☐ Class IV (C-wire)

- ☐ Class V (basic load, based on weapon system)
- ☐ Basic issue items (BIIs) complete
- ☐ MREs (two cases)
- ☐ Water cans x 2
- ☐ Fuel cans x 2
- ☐ Claims card/tip-line card
- ☐ VS-17 panel
- ☐ Chemical-light (infrared [IR] and regular) (3 boxes each)
- ☐ IR strobe
- ☐ Flame retardant blanket (1 per seat)
- ☐ Electronic control measure (ECM) functional, inspected, and tested
- ☐ Marcbot (functional, inspected with extra batteries)
- ☐ Raven (functional, inspected with charged batteries)
- ☐ TCP kit
- ☐ Emergency first response kit
- ☐ Tactical searching equipment (TSE) kit
- ☐ Mortuary affairs kit

Radio Inspection

- ☐ Powers up
- ☐ Takes current fill
- ☐ Correct network ID
- ☐ Correct time
- ☐ Correct power
- ☐ Correct cypher-text setting
- ☐ Radio check

BFT Inspection

- ☐ Powers up
- ☐ Monitor operational
- ☐ Central processing unit operational

- ☐ Transceiver operational
- ☐ Precision Lightweight Global Positioning System (GPS)/defense advanced GPS receiver is operational
- ☐ System status
- ☐ GPS gum ball "G"
- ☐ Communication satellite status "G"
- ☐ User ICON populates
- ☐ Unit ICON populates
- ☐ Test
- ☐ User role
- ☐ Message to tactical operations center
- ☐ Reply good

Pre-Combat Checklist (PCC)

Patrol Standard (Vehicle)

- ☐ Conduct a before PMCS (-10) on the vehicle itself.
- ☐ Clean all glass surfaces of dirt and debris including the turn signals.
- ☐ Inspect the C-Wire to ensure it is serviceable and tied down.
- ☐ Inspect the gun mount. Ensure the proper mounting bracket for your specified weapon system is present. Ensure your weapon system has all traverse-and-elevation components present.
- ☐ Inspect the weapon, ensure optics are operational and spare batteries present. If the system uses a spare barrel, it is present and serviceable.
- ☐ Check your ammunition. Basic load and cleanliness. Check that your ammunition tray and box are secure. Additional ammunition secured.
- ☐ Secondary weapon system. Present and serviceable. Ensure the ammunition for this weapon is accessible since gunners are wearing slick IOTVs. Check optics and a spare set of batteries for lasers and optics.
- ☐ Check for gunner special equipment, escalation of force laser, personal protection equipment, PAS-14 with spare batteries.
- ☐ Binoculars and compass.
- ☐ Turn on radios; inspect mounts, hand mikes, and speakers. Post the primary, alternate contingency, and emergency (PACE) communications plan and GRG for the mission. Conduct communications check IAW with unit SOP.

- ☐ BFT: Ensure that start-up procedures are done in order. Conduct a BFT check by ensuring your ICON and others in your patrol are present. Do a BFT message check.
- ☐ Turn on your ECM to ensure it works.
- ☐ Inspect the load plan for your vehicle.
- ☐ All reports IAW company/troop/battery SOP present and readable (i.e., IED, casualty evacuation, recovery, close combat air, close air support, patrol debrief).
- ☐ Inspect the location of equipment. Ensure it is accessible, secured properly, and serviceable.
- ☐ Insure aid bag is present and has all required equipment.
- ☐ Check for litter or walk kit.
- ☐ Inspect additional ammunition loads for serviceability, accessibility, and security.
- ☐ Inspect your fire extinguisher or HALON (fire protection agent) systems.
- ☐ Survival bag: Check MREs for expiration date and tie down.
- ☐ Water: present and secured.
- ☐ Flame resistant blankets (1 per vehicle occupant).
- ☐ SNAP (hasty emplacement) traffic control point kit, if applicable: cones, spike strip, chemical lights, stop sign, flash lights (turn them on).
- ☐ Mortuary kit.
- ☐ BII tool kit: present and secured.
- ☐ Chains, sling legs, and CG1-B strap secured and serviceable.
- ☐ Helicopter landing zone kit inverted “Y”, NATO “T”, VS-17 panels, buzz saw (chemlight apparatus for helicopter night landings), and smoke cannisters.
- ☐ TSE kit.
- ☐ ECM, component inspection.

Chapter 4

Company Command Posts

CPT Luke Hallsten, Task Force 3, Joint Readiness Training Center, Operations Group

During decisive action training environment (DATE) rotations at the Joint Readiness Training Center (JRTC), units continuously struggle with command post (CP) operations. This inability to effectively conduct CP operations prevents the company commanders from executing mission command and creating shared understanding across their formations. The scope of this chapter is CP operations at the company level, with an emphasis on analog systems; as well as providing best practices to enable companies to improve their CP operations. The data for this chapter was collected from observations of eight separate DATE rotations at the JRTC during fiscal year 2015.

Company Command Post

The company commander is ultimately responsible for the CP; however, he cannot always physically locate himself with the CP. He must ensure that the CP is properly manned and equipped to enable mission command.

The company CP normally consists of the following:

- Company commander
- Radio operators/drivers
- Fire support team, consisting of the fire support officer, fire support sergeant, and forward observer
- Chemical, biological, radiological, and nuclear sergeant, if assigned
- Other personnel and attachments (i.e., executive officer [XO], first sergeant, security element)

The company CP locates where it best supports the company commander and maintains communications with higher and subordinate units. To maintain communications, the CP may need to locate away from command operations. In this case, the XO controls the CP (or part of it) and maintains communications with higher or adjacent units while the commander locates where he can best control the company. Although the CP can move independently, it normally locates where it is secured by the other platoons and sections within the company formation (see Field Manual 3-21.10, *The Infantry Rifle Company*, 26 JUL 2006).

The CP should accomplish seven functions:

- Maintain running estimates and the common operational picture (COP).
- Control operations.
- Assess operations.
- Develop and disseminate orders.

- Coordinate with higher, lower, and adjacent units.
- Conduct knowledge management.
- Perform CP administration.

The commander uses the CP as a mission command platform for all phases of an operation, to include troop leading procedures.

Using a COP to Enable Mission Command

Commanders at all levels struggle with visualizing the battlefield and developing a COP, both of which enable mission command. Army Doctrine Publication (ADP) and Army Doctrine Reference Publication (ADRP) 6-0, *Mission Command*, define mission command as:

> 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, page 1, paragraph 2)
>
> Through mission command, commanders integrate and synchronize operations. Commanders understand they do not operate independently but as part of a larger force. They integrate and synchronize their actions with the rest of the force to achieve the overall objective of the operation. (ADRP 6-0, page 1-2, paragraph 1-7)

Commanders at all levels struggle with mission command, including company commanders. These challenges can be tied directly to poorly developed, or non-existent, COPs and an inability to nest with operational or strategic objectives of the operation.

A COP is a single display of relevant information within a commander's area of operation or interest tailored to the commander's requirements and based on common data and information shared by more than one command. Commanders choose any appropriate technique to develop and display the COP, such as graphical representations, verbal narratives, or written reports. Development of the COP is ongoing throughout operations. This tool supports developing knowledge and understanding. (ADRP 6-0, page 2-14, paragraph 2-84)

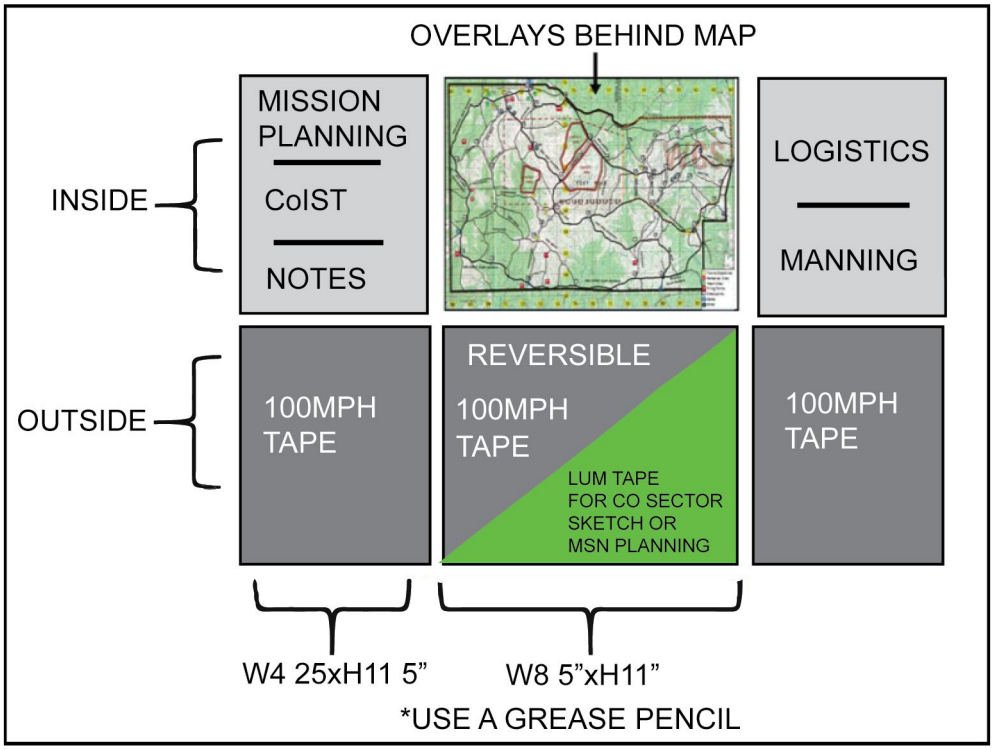

Figure 4-1. Example of COP “A Way.”

Commanders who effectively use a COP have a much easier time visualizing the battlefield and subsequently are much more capable of closing with and destroying the enemy. During average rotations many instances of fratricide, or near-fratricide, occur as a result of an incomplete understanding of adjacent unit locations and operations being conducted within the battlespace. This, too, can be rectified by maintaining an up-to-date COP, which is disseminated to the platoon level.

The Necessity of Analog Systems

Throughout the rotations, observer-coach/trainers (OC/Ts) place heavy coaching emphasis on the necessity of analog systems to supplement digital capabilities. Historically, units rely initially on their digital systems, contrary to the advice of the OC/Ts. However, as the rotation progresses, the rotational training units became more amenable to the analog systems as digital systems fail and information is not readily available to the company leadership on a medium that is accessible. This is even more apparent during DATE rotations when commanders attempt to use their vehicles as mobile CPs, having all overlays, unit locations, sector sketches, etc., on their Blue Force Trackers/Joint Capabilities Release. This prohibits shared understanding across the company and hinders subordinate leaders’ abilities to plan and execute operations.

Figure 4-2. A company commander at his CP.

Home Station Training and Command Post Standard Operating Procedures

When units arrive at the JRTC, most company command teams admit that they have not tailored their "train-up" to focus on CP operations and do not have their CP manning set prior to their arrival. Also, most do not have CP standard operating procedures and many find themselves trying to establish a CP for the first time while at JRTC. Companies should, at a minimum, conduct a CP exercise and establish their CP manning before they arrive at the JRTC. Those that do are exponentially more successful, and find they are better prepared to conduct operations while at the JRTC, than those that do not.

Conclusion

Establishing well-resourced and properly manned CPs at the company level leads to success at the JRTC, which equates to success in combat. Companies should arrive at the JRTC with all necessary products and clearly delineated roles and responsibilities within their CPs. The company CP provides the commander the ability to see the battlefield and allocate resources and assets at the right time and location in order to defeat the opposing force. (See Appendix A in this newsletter for relevant worksheets and matrices for commanders to utilize in the manning and operation of company CPs.)

Chapter 5

Orders Process Between a Battalion and a Company in a Decisive Action Training Environment: Joint Readiness Training Center Lessons Learned

CPT James R. Williams and SFC Roger L. Peterson, Task Force 3, Logistics Team

Sustainment Task Force, JRTC Operations Group

The military decisionmaking process (MDMP) and troop leading procedures (TLPs) are planning methodologies for understanding the situation and mission, developing a course of action, and producing an operation order (OPORD). At the Joint Readiness Training Center (JRTC) units conduct the planning process in three different phases of a decisive action training environment rotation, to include the joint forcible entry, defensive operation, and offensive operation. JRTC observer-coach/trainers (OC/Ts) emphasize the proper use of the orders process to ensure battalions allow companies adequate time to plan and conduct rehearsals. Battalions are expected to conduct the planning process in a condensed timeline that ultimately affects the companies' abilities to complete TLPs. Battalions that do not use the one-third/two-thirds rule at the JRTC place a hardship on subordinate units for performing the prescribed mission. Another observation from the JRTC is the lack of clearly defined roles of the forward support company (FSC) commander and the battalion S-4 during MDMP.

MDMP Compared to TLPs

As shown in Field Manual (FM) 6-0, *Commander and Staff Organization and Operations*, 05 MAY 2014, the planning process differs at the battalion and company levels, but should be worked simultaneously. Although parallel planning is the norm, maximizing its use in time-constrained environments is critical. Warning orders (WARNORDs) help facilitate the process of parallel planning. Information distribution is critical to parallel planning (see Figure 5-1).

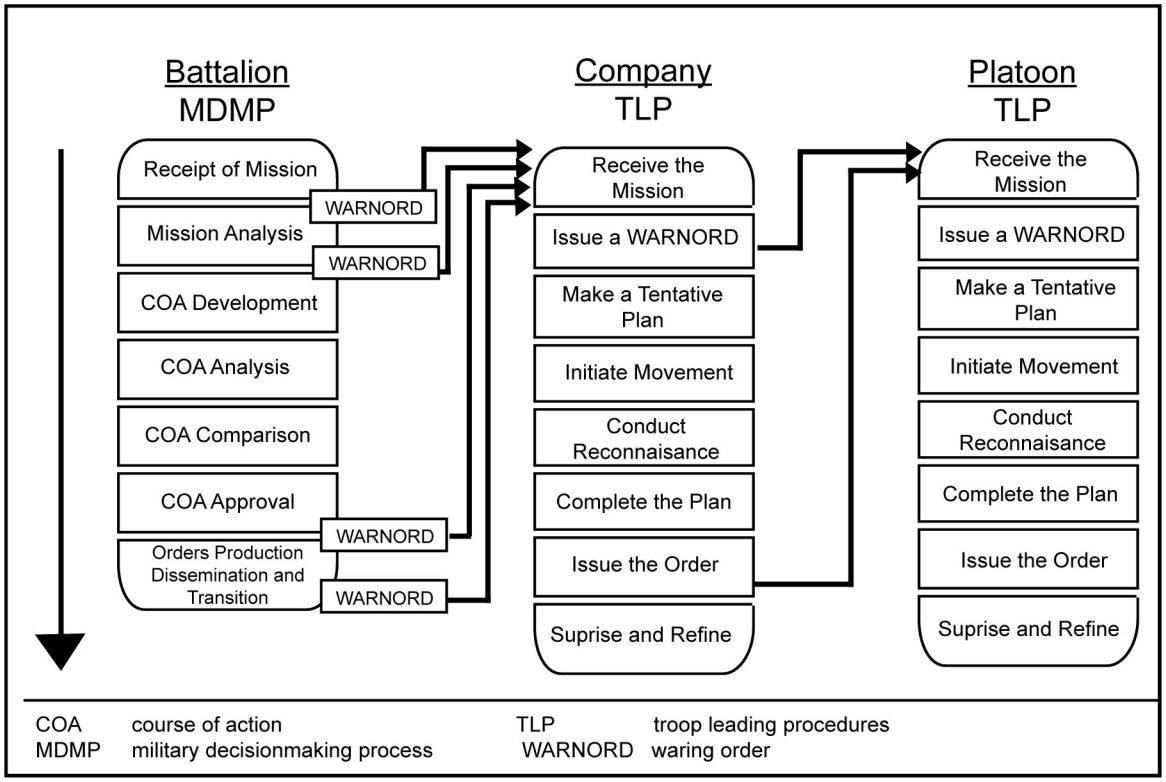

Figure 5-1. Parallel planning steps.

Understanding who participates in the MDMP, compared to TLPs, is outlined in FM 6-0, Chapter 10:

Commanders with a coordinating staff use the MDMP as their primary planning process. Company-level and smaller units lack formal staffs and use TLP to plan and prepare for operations. This places the responsibility for planning primarily on the commander or small-unit leader.

Implementation of the One-third/Two-thirds Rule

Providing an adequate amount of time for subordinate units to plan and rehearse is a struggle for units at the JRTC. The condensed timeline given to conduct the planning process starting at the brigade level down to the company and platoon levels causes leaders at lower-level units to become reactive instead of predictive. Battalions must be proactive after receiving the WARNORD from brigade to start parallel planning to provide sufficient time for subordinate units to conduct TLPs. Company commanders need to integrate with future operations to continuously receive updated information, which enables them to refine their plans. Integration helps them parallel plan and ensures their platoons have time to plan and conduct rehearsals. Leaders at both battalion and company levels should anticipate utilizing backwards planning and timeline development to assist with ensuring all levels of commands are afforded adequate time to prepare. Parallel planning is the key to success while at the JRTC and ensures units are fully prepared to conduct their given mission. Units that follow this simple guideline help their subordinate units become less reactive and more proactive with their planning. Practicing and identifying roles and responsibilities for MDMP prior to coming to the JRTC contributes to a unit's overall success.

FSC Commander's Function During MDMP

The FSC commander role is defined in FM 3-21.20, *The Infantry Battalion,* 13 DEC 2016:

10-198. The FSC commander is the senior logistics commander at battalion level. He/she is not the principal planner; however, he/she assists the battalion S-1, S-4, and medical officer with the battalion's logistics planning. The FSC commander is responsible for executing the logistics plan IAW the battalion commander's guidance as developed by the battalion staff. The FSC commander and staff should exercise collaborative planning. Collaborative planning builds shared understanding and helps resolve conflicts prior to the plan published in the OPORD. This also improves the overall planning effort between the principal logistics planners and FSC.

Friction between the battalion S-4 and FSC commander during the battalion planning process is evidence that units do not clearly understand roles and responsibilities or how they work together. The FSC commander is the senior logistics officer in a maneuver battalion and his experience should be used to develop a battalion-level concept of support. The S-4 is the overall logistics planner for the battalion, but has to learn how to leverage the use of the FSC commander. Unity of effort is the key. To successfully create a concept of support at the JRTC, the FSC commander and S-4 have to work together; the S-4 provides the logistical common operating picture and requirements while the FSC commander assists in developing the concept of support. The battalion standard operating procedures should identify how the FSC commander and S-4 interface during the planning process and the inputs and outputs needed from each.

Minimum to No Guidance Given to FSCs During the Orders Process

Typically during JRTC rotations, the FSCs are task organized under their supported maneuver battalions. The FSCs often are left out of the planning process and have no role during the combined arms rehearsal. This lack of guidance hinders an FSC in accomplishing its mission. It also means the maneuver companies do not have a common understanding of how and when they will receive sustainment support during the operation. A common observation is that logistics personnel are not integrated with operations. Units have to fully include the sustainment warfighting function in their planning process to give the FSC the ability to effectively execute TLPs.

Conclusion

Understanding and implementing the one-third/two-thirds rule through parallel planning, collaborative planning between the FSC and logistical planners, and providing clear and concise guidance to the FSC improve the efficiency and effectiveness of the battalion, enabling it to excel at JRTC and succeed in future operations.

Chapter 6

Expeditionary Communications in a Decisive Action Training Environment

CPT Victoria C. Maynard and SFC Michael L. Sellers

Introduction

During fiscal year 2015, Joint Readiness Training Center (JRTC) observer-coach/trainers (OC/Ts) served five decisive action training environment (DATE) rotations. One observation involved brigade combat teams (BCTs) struggling to establish communications to support operations, such as forcible entry, out-of-sector missions, and offensive tasks. Infantry BCTs require communications platforms that can rapidly deploy with the initial-entry forces and tactical command posts (TACs). These assets must possess the data capacity and beyond-line-of-site (BLOS) capability to communicate with the main command post (CP), higher command, and other enablers. BCTs appear to lack modified table of organization and equipment (MTOE) expeditionary communications packages that enable effective early-entry CPs and flexible mission command systems. This chapter discusses observations on how units attempt to overcome the expeditionary communications capability gap and the advantages and limitations of their solutions.

Conditions and Observations

When BCTs arrive at JRTC, they face the challenge of developing a communications plan that enables the commander's mission command throughout phases of the operation. In developing plans, the rotational training unit must consider the environment, which consists of heavily wooded surroundings, rough terrain, and high humidity. These features can degrade communications and radio frequency signals. Opposing force (OPFOR) presence drives another planning factor affecting communication nodes. OPFOR considerations necessitate security, quick deployment, and a smaller physical and electronic signature. The distance between the initial staging base and operational area requires a complicated retransmission plan or a BLOS communications plan. This is specifically highlighted in airborne and air assault airfield seizures that call for light, deployable communications packages. Moreover, the distance between the out-of-sector missions and forward TACs in offensive operations also requires BLOS communications. The factors of terrain, distance, and enemy affect requirements for communications packages that support mission command information systems before more substantial TAC and main CP assets arrive. Units were observed mitigating this gap by procuring and creating organic solutions to provide expeditionary communications. However, non-program-of-record systems challenge training support and sustainment of parts and life-cycle equipment.

Observed Solutions

During rotations, infantry BCT S-6s employ non-organic systems to meet mission command requirements during airborne, air assault, and light infantry operations. Examples of expeditionary systems that BCTs employed in the past year appear on the following pages.

Figure 6-1. The GRRIP, AN/PSC-15.

Global Rapid Response Information Platform (GRRIP): The GRRIP is a small, lightweight antenna system that provides SECRET Internet Protocol Router (SIPR) voice and data in a very short amount of time. The GRRIP system is roughly the size of a briefcase and easily fits inside a ruck, and Soldiers can jump equipment during an airborne operation.

Although the GRRIP is an Army system, it is not a standard BCT MTOE item. One BCT used this system in the past year of rotations. It was effectively used in an airborne assault and enabled the unit to establish digital connectivity in the form of chat within 30 minutes after establishing a small CP on the drop zone.

Advantages: Durable, lightweight, quick setup, and access to digital connectivity; easily trained, operated by one Soldier.

Limitations: Limited throughput and bandwidth; supports one user, limited network resources, such as chat and secure voice over Internet protocol (SVoIP), but not adequate to support mission command information systems; needs a clear line of site (LOS), latency if deployed outside of continental United States because point of presence is U.S.-based; restricted battery life.

Figure 6-2. Tampa terminal.

Tampa Microwave Satellite Terminal: This system is smaller than traditional U.S. Army satellite antennas, yet it provides more data capacity and throughput than larger and bulkier systems. Antenna dishes come in various sizes and are capable of operating in all three bands of military satellite operations: X, Ku, and Ka band.

One BCT brought the Tampa terminal and associated data package. The division G-6 issued the system to the BCT prior to its JRTC rotation. Despite division's past success with the system, the BCT only received hip-pocket training before arrival to the JRTC and was not able to establish connectivity during the reception, staging, onward movement, and integration (RSOI) phase. Because the BCT ran out of time to validate the system in RSOI, it did not deploy the system during the rotation.

Advantages: Relatively small system, version that fits in rucksack; excellent bandwidth and digital throughput capability; short setup time and operated by one Soldier; supports Nonsecure Internet Protocol Router (NIPR), SIPR, and commercial Internet access; comparatively low-power requirement for a satellite system.

Limitations: Requires LOS to the satellite; the Tampa terminal is just the transport, units must add a data package; although operated by one Soldier, it requires a trained network Soldier; not a program of record (no life cycle sustainment, field service representative [FSR] support), however, the terminal is being tested and considered in the Program Executive Office Command, Control, Communications-Tactical (PEO-C3T)'s new Transportable Tactical Command Communications (T2C2) program.

Figure 6-3. SHARK vehicle.

SHARK Vehicle: High-back high-mobility multipurpose wheeled vehicle that includes four rack-mounted Advanced System Improvement Program (ASIP) radio systems, one JCR terminal, and transports ancillary communications equipment. This is a unit with an organically created and mounted setup. One BCT air-landed the vehicle in conjunction with an air-assault operation and it became an effective add-on to the assault CP in the first four to six hours of entry. The BCT also employed this vehicle as a TAC component in later phases of the rotation.

Advantages: Familiar systems and platform; all MTOE equipment; reliable, ready at the halt; provides frequency modulation (FM) voice and JCR communications to commander and warfighter functions.

Limitations: Systems installed by Soldiers, which may cause durability and potential safety issues.

Figure 6-4. Examples of a GATOR ATV.

GATOR All-Terrain Vehicle (ATV): The GATOR ATV has two to four mounted ASIP radio systems and one JCR platform.

This is a unit that is organically created with a mounted setup. Two BCTs used a similar setup with an ATV. The vehicle was C-130 air-landed and rolled off a CH-47 Chinook to provide initial entry FM and JCR communications. One BCT was very effective in employing this asset by conducting numerous repetitions in field training exercises and a clearly established team of Soldiers as owners and operators. The second BCT had limited employment during rotation and it appeared to be a work in progress and was marginally effective in the rotation.

Advantages: Small, agile mission command node; sling load/air-land/air-drop capable.

Limitations: Not MTOE or program of record (no life cycle placement, FSR support, warranty); requires external power source; systems installed by Soldiers, which may cause durability and potential safety hazards.

Figure 6-5. The GATR antenna/ball.

Ground Antenna Transmit Receive (GATR): A rapid, deployable, and inflatable antenna system that has the ability to provide digital connectivity with NIPR/SIPR services dictated by the unit's mission requirements. Two BCTs employed this system during DATE rotations. The system was an effective asset for both BCTs. It was highly transportable with a relatively quick setup to provide digital connectivity. One BCT utilized GATR to provide primary services (such as SVoIP, SIPR terminal, and Command Post of the Future [CPOF]). The second BCT, during a tactical communications node outage, resorted to the GATR ball to provide connectivity for essential TAC mission command information systems, which included CPOF, the Advanced Field Artillery Tactical Data System to clear fires, and a Tactical Airspace Integration System to clear airspace.

Advantages: Quick employment, scalability, lightweight (considering the data services it provides); high-data capacity.

Limitations: Inflatable antenna requires an inflation device and can be punctured; wind tolerance is much lower than traditional ground-employed antenna systems; no training standards passed between Soldiers; not a program-of-record system; a candidate for the PEO-C3T T2C2 program.

During one rotation, a former United States Forces Command G-6 sergeant major, who is now the GATR deputy program manager, explained there are four different sizes of GATR antennas, ranging from 1.2 meters to 4 meters. He added that the 112th Signal Battalion conducted one airborne operation with the 1.2-meter system packed into a rucksack and "jumped" to provide a rapid digital connectivity and a 2.4-meter antenna "dropped" via container delivery system bundle. The GATR 2.4 meter antenna (contained in four cases, weighing 200 pounds) was utilized during two rotations at the JRTC.

The Way Ahead

As a result of the capability gap for expeditionary communications, PEO-C3T developed T2C2, a new program of record. The T2C2 program plans to make product selections in fiscal year 2016.

The T2C2, which is still in production, aims to bring a high-capacity network to the tactical edge in scalable, heavy, and light versions. Furthermore, T2C2 is a program of record that provides solutions to what BCTs and divisions are trying to solve on their own for expeditionary communications. As an Army program, this should help overcome the training and sustainment support issues and allow more standardization across BCTs.

Additionally, the Army is focused on enhancing tactical radio systems to provide Soldiers the best capabilities possible based on user feedback. For example, Army engineers and developers consider size, weight, power, and cooling to optimize systems.

Effective and relevant expeditionary communications need to consist of smaller, more agile systems to support rapid deployment. Forces require communication systems during the initial phases of arrival that provide situational awareness and build the common operational picture. These systems must have the ability to integrate on all heavy and light platforms to increase Soldier communications at the halt or on the move. From a communicator's perspective, these communication platforms should be standardized throughout the BCT 2020 model.

Chapter 7

The Principles of Patrolling

CPT Kyle West, Task Force 3

> "Wars may be fought with weapons, but they are won by men. It is the spirit of the men who follow and of the man who leads that gains victory."
>
> GEN George S. Patton, Jr.

There are five principles of patrolling: planning, reconnaissance, security, control, and common sense (Ranger Handbook, Chapter 5, paragraph 5-1). These five principles compose the cornerstone of the U.S. Army's operating procedures and doctrine. The continuous improvement of these simple principles has exponentially increased the lethality within the Army since its creation in 1775. However, the Army's incorporation of technology, enablers, and operating procedures employed since 9/11 has steered maneuver units away from tried and true conventional operating methods.

Planning

Technology has undoubtedly increased and expedited the planning process. Every military mission starts with planning. Planning is conducted at the company level using the following troop leading procedures (TLPs):

- Receive the mission.
- Issue the warning order.
- Make a tentative plan.
- Start necessary movement.
- Conduct reconnaissance.
- Complete the plan.
- Issue the order.
- Supervise (Ranger Handbook, Chapter 2, paragraph 2-1).

Often commanders conduct TLPs out of sequence because the answers can be found on the Internet. The information systems, imagery, and intelligence available to commanders allow leaders to construct more detailed tactical plans before Soldiers go into harm's way. At face value, that is a good thing; too much of a good thing, however, comes with costs.

Many leaders have become so reliant on these technological systems they have forgotten how to operate and construct plans without them. When these systems are not available, leaders often fail to make their own assessments on their ground tactical plan and the enemy's most likely and most dangerous courses of action, and fail to identify any contingency operations.

Reconnaissance

Proper reconnaissance can answer priority intelligence requirements (PIRs) to inform a commander about his objective or opponent. Theoretically, reconnaissance can identify friction points and condition-setting that must be done before a unit can successfully execute its operation. Obtaining a comprehensive reconnaissance of the objective in today's Army is much easier than it has ever been. This is mainly due to the heavy use of aerial reconnaissance assets providing full motion video (FMV) as well as human intelligence (HUMINT) and signals intelligence (SIGINT) reporting.

The abundance of these assets available, deployed forward, almost eliminates the use of scouts for reconnaissance. The risk of exposing a small three- to four-man scout team to imminent danger is reduced by employing unmanned aerial systems (UAS) and vast human networks. FMV coupled with HUMINT/SIGINT gives commanders real-time intelligence and answers the commander's PIRs. The ability of these assets to show finite details, such as easily accessible breach points or patterns of life, enables commanders to eliminate guessing and reduce the risk of a catastrophic event. The issue with these technological and HUMINT assets is that we are now beginning to operate in areas unseen. In order to conduct aerial reconnaissance, the necessary assets required to provide UAS coverage (infrastructure) and a network of individuals that can be trusted as credible sources must be available. Without these, ground force commanders must rely on manned reconnaissance.

The Army is challenged in conducting manned reconnaissance due to these advances and reliance on technology and other intelligence-gathering methods. Currently the Army is going through the pains of relearning this art as most of the Soldiers who were employed in "traditional" manned reconnaissance are no longer in the Service. Typical scout missions are usually an afterthought and become hand-waved missions with vague guidance from commanders such as, "Go observe this objective and tell me everything about it."

Instead, this should be the goal: Scouts must receive more specific guidance at the very beginning of mission planning to select the best method to conduct their mission, answer specific PIRs, and provide precise details that a commander requires regarding his route, objective, or enemy. The Army has learned a hard lesson about always maintaining the proper skill level and competency of "old school" techniques. This is because technology inevitably fails, and undeveloped forward theaters of operation lack the infrastructure to equip, supply, and employ enablers that ground-force commanders have become accustomed to using.

Security

The most important principle of patrolling is security. Based on observations of Joint Readiness Training Center (JRTC) rotations, security during patrols is normally above satisfactory because patrols are more likely to become decisively engaged with the enemy. Every Soldier knows this and has been taught this since basic training. The area where security becomes a concern is during short halts, patrol base activities, and/or defensive operations.

For 14 years Soldiers have patrolled to areas, conducted key-leader engagements, and then returned to their combat outpost or forward operating base (FOB). Most FOBs/outposts were coalition safe havens that offered a secure area for individuals to rest, relax, refit, and prepare for the next mission. Occasionally a Soldier provided tower guard, but for the most part security was

provided by someone else. During patrol base operations, one can see how maneuver units are affected by this atrophy of basic skills and standards. Soldiers neglect to build fortified fighting positions, rarely develop engagement areas, and fail to ruthlessly enforce the priorities of work. Observer-coach/trainers repeatedly witnessed Soldiers standing or sitting without conducting basic principles of defense because Soldiers would rather sleep, eat, and smoke. These bad habits are a direct result of the unit's failure to incorporate security into key collective training tasks because the complacent FOB/outpost mentality still exists while forward deployed.

Control

Control is the power to influence or direct people's behavior or the course of events. Control is the regulation of forces and warfighting functions to accomplish the mission in accordance with the commander's intent (Army Doctrine Publication 6-0, *Mission Command,* 17 MAY 2012). Control is a component of mission command. The Army defines "mission command" as 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 (see Army Doctrine Reference Publication 6-0, *Mission Command*, 17 MAY 2012).

Commanders, assisted by their staffs, use the guiding principles of mission command to balance the art of command with the science of control. They use the art of command to exercise authority, provide leadership, and make timely decisions. Commanders and staffs use the science of control to regulate forces and direct the execution of operations to conform to their commander's intent. In layman's terms, commanders empower their subordinates to execute missions and make decisions based on the commander's intent. This is a hard concept for some leaders to grasp.

The problem is that commanders do not trust subordinates due to fear of failure. It is extremely difficult for experienced leaders to hand a mission over to a young platoon leader because they believe second lieutenants lack the knowledge and experience to be successful. This fear of failure breeds micromanagers and consequently does not develop young officers. Young officers watch their commanders do the job they are supposed to be doing, instead of doing it firsthand and learning it for themselves. Remember, micromanaging equals excessive control, which suffocates young leaders' development.

Commanders must embrace the Army's greatest strength: experience. The collective experience of the Soldiers within a young leader's platoon is greater than most individuals' military service experience. A good platoon leader can leverage his subordinates' knowledge base to formulate a solid plan without being micromanaged by his commander. The greatest source for that experience is the platoon sergeant.

As a result, the Army needs to reestablish the fighting platoon sergeant. Since 9/11 the Army has become an organization in which officers' and noncommissioned officers' roles and responsibilities are often ill-defined. The fighting platoon sergeant can focus on what he knows, which is tactics and ground combat. In the meantime, the platoon leader can focus on leading and controlling the operation and requesting resources/assets required to win, in order to accomplish the commander's intent. With well-defined tasks, purpose, and intent, young officers and Soldiers can achieve successful performance levels to the credit of their unit's mission.

Common Sense

Common sense is often the most difficult principle to analyze because it is subjective. One thing is clear: Some people are blessed with it and others are not. Leaders with common sense tend to make better decisions based on quickly analyzing provided information and combining that with experience. In other words, if something does not make sense, then fix it.

One simple concept that is often overlooked is that history has a tendency of repeating itself. It simply means that the Army has been around for 240 years. There have been thousands of battles fought, thousands of military studies completed, thousands of operation orders written, and every which way documented on how to accomplish any military task. Common sense tells us that there is no need to "re-create the wheel" because the wheel has been driving the U.S. Army's machine of information for a long time. It is the leader's job to make common sense decisions, using information provided or learned and experiences that worked or did not work.

An important form of common sense revolves around the instinctual indoctrination of individual Soldier tasks taught from the beginning of day one in basic training. Actions consisting of such things as taking cover, digging in when conducting a defense, conducting weapons maintenance, maintaining appearance and discipline, or as simple as not getting behind the wheel of a vehicle while intoxicated, can be "forgotten" if not trained (as observed at the JRTC), rehearsed, and implemented within training plans. A combination of Soldiers and leaders possessing and executing common sense decisions and actions can facilitate mission command and alleviate confusion within the formation.

Conclusion

The principles of patrolling provide the fundamentals necessary to conduct military operations. Although the principles are solid, technological advances over the past 14 years of fighting in the Global War on Terror have created a bog of complacency. Soldiers and leaders have developed bad habits that need to be purged, regardless of the struggle to do so. It falls upon leaders at all levels to enforce discipline, do the little things right, and teach doctrine to ensure the U.S. Army maintains its status as the strongest military the world has ever seen.

Chapter 8

The Aviation Standardization Officer and the Exercise of Mission Command

CW4 Robert Teague, Joint Readiness Training Center, Operations Group, Aviation Division, Aviation Standardization Officer Observer-Coach/Trainer

For over a decade, instability in Iraq, Afghanistan, and other nations required the support of Army aviation in counterinsurgency operations. That support continues even as the Army as a whole is simultaneously preparing for the next conflict. At the Joint Readiness Training Center (JRTC), the decisive action training environment examines the ability of the leadership within an aviation task force to exercise mission command and perform air-ground operations (AGO) as the aviation maneuver force of a combined arms team. Field Manual (FM) 3-04, *Army Aviation*, 29 JUL 2015, defines AGO as "the simultaneous or synchronized employment of ground forces with aviation maneuver and fires to seize, retain, and exploit the initiative." The successful execution of AGO is complex and requires internal and external coordination, often during simultaneous operations.

In order to assist the commander and other staff members in performing their functional responsibilities during AGO, aviation organizations have a variety of special staff personnel with specific skills. This includes a senior warrant officer in the position of standardization officer, sometimes referred to as the standardization instructor pilot (SIP). The philosophy and practice of mission command is a challenging endeavor even under the best of conditions. The standardization officer can mitigate this challenge by resolving problems and functioning as a leader within the philosophy of mission command. This is accomplished by delegation of authority by the commander to allow the SIP to maneuver beyond the common established functions within the special staff.

The Aviation Division of the JRTC Operations Group observes two common situations involving the standardization officer during JRTC rotations. The first observation is that the SIP is often successful at solving aviation-related problems, but unable to correlate how doctrinal processes and terminology correspond to the standardization officer position. The second observation is the limited use of the standardization officer by the commander, often not at the point of friction where the SIP is best utilized. This chapter discusses how current SIP doctrinal responsibilities do not reflect the increasing intricacy of the modern battlefield. The chapter also defines mission command and identifies the principles of mission command as a systematic method the SIP can use to enhance staff productivity.

The Doctrinal Responsibilities of the Aviation Standardization Officer

FM 3-04 describes the standardization officer as "a primary advisor to the commander for the aircrew training program (ATP). The standardization officer is unique to aviation units in that he or she monitors and provides assistance to the commander in the development and implementation of the ATP and standardized execution of unit mission essential tasks." The ATP is the commander's program for training combat-ready aviation crew members. This training covers the spectrum, from flight task proficiency at the individual level, to crew proficiency, and finally to unit proficiency in executing mission-essential tasks necessary to accomplish successful joint and combined operations (see Training Circular 3-04.11, *Commander's Aircrew Training Program for Individual, Crew, and Collective Training*, 19 NOV 2009). Because ATP management requires adherence to multiple regulations and is a time-consuming responsibility, the SIP occupies that role only after receiving extensive training and years of experience.

The reality is the mission of Army aviation within unified land operations is increasing in complexity, and the standardization officer's role must expand beyond the management of aviator individual and collective training and the application of the ATP into the mission set. In order to contribute to the efficiency and success of the staff during the operations process, the SIP must use the principles of mission command while applying previous tactical experience. This requires an increased understanding of Army doctrine and a systematic approach to the exercise of mission command.

Applying the Principles of Mission Command as a Standardization Officer

Army Doctrine Reference Publication (ADRP) 6-0, *Mission Command*, 17 MAY 2012, defines mission command as 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." Mission command is based on mutual trust between leaders and subordinates, shared understanding within the organization, and the commander's intent. Exercised by Army commanders, mission command blends the art of command and the science of control while integrating the warfighting functions to conduct the tasks of decisive action. Commanders provide a clear intent to their forces that guides subordinates' actions while promoting freedom of action and initiative.

To do this efficiently, commanders use the principles of mission command as a way to provide the necessary information and guidance to encourage decision making at the point of action. The principles of mission command include the following:

- Build cohesive teams through mutual trust.
- Create shared understanding.
- Provide clear commander's intent.
- Exercise disciplined initiative.
- Use mission orders.
- Accept prudent risk.

Using these principles as a guide, the standardization officer better recognizes points of friction and applies ideas or resources during the planning, preparing, and assessing phases of military operations. By requiring greater involvement from the standardization officer in the operations process, the commander and staff benefit from vast technical and tactical experience.

Build Cohesive Teams through Mutual Trust

Effective commanders and the standardization officers must be a cohesive team. This is built on respect, trust, and an understanding of both officer's experience. Commanders should outline expectations, responsibilities, and boundaries as soon as the standardization officer is assigned to the organization. This depends on the state of the standardization program and the type and complexity of ongoing military operations. The commander may direct the standardization officer to focus on aviator training and evaluation and then direct collaboration with the primary staff at a later time. In either case, the standardization officer conducts a back brief to the commander to verify the commander's intent and identify courses of action for staff participation.

The standardization officer must also generate trust with the primary staff as part of building a cohesive team with a vested interest in the unit's success. As a senior leader, the standardization officer can assert positive influence and develop trust by actively participating in unit training meetings and command and staff briefings. It is within these two important functions that the standardization officer interacts with all members of the staff and demonstrates the desire to provide assistance with a problem or a different point of view on how a plan is executed. For example, the standardization officer works in unison with the operations officer to develop an operations and intelligence briefing that supplies aircrews with the minimum mission essential information needed to accomplish their mission. This includes a formatted script that provides necessary details of friendly unit locations, radio frequencies, and scheme of maneuver as well as other air missions and the current logistical status of the unit. The SIP also advises the aviation mission survivability officer and the S-2 section to provide specific and actionable enemy information that enables aircrews to template enemy positions, determine capabilities, and identify weapons engagement zones.

Create Shared Understanding

The standardization officer is best suited for the establishment of a culture of collaboration and information sharing between the staff and subordinate companies. This is imperative during the operations process and is best accomplished by ensuring a method exists that creates a frequent exchange of information to develop a common operational picture (COP) across the formation. At the JRTC, due to the operational tempo, we often see the flow of information fracture. The result is critical information not being shared and an inaccurate COP. The standardization officer, as the commander's trusted agent, ensures that the commander's guidance and intent are understood and followed. This is in the form of synchronization meetings with other standardization officers, using reading files to distribute information, and creating a standard operating procedure that specifies how aviation mission information is distributed and received.

Shared understanding must be extended outside the formation. Timely and constructive interaction with supported ground forces aids in the execution of combined arms maneuver. The standardization officer facilitates collaboration and information sharing with supported ground forces by briefing senior leadership on the unit's mission, aircraft capabilities, and regulatory requirements. As a senior leader within the organization, the SIP can represent the unit and provide information that assists in mission planning, problem solving, and understanding the commander's intent.

Provide Clear Commander's Intent

The commander's intent is a clear and concise expression of the operation's purpose and the desired military end state that supports mission command, provides focus to the staff, and helps subordinate and supporting commanders achieve the commander's desired results without further orders, even when the operation does not unfold as planned (see Joint Publication 3-0, *Joint Operations*, 11 AUG 2011). The standardization officer must understand key tasks and the purpose of the mission to verify it is understood by aviators, maintenance, and support personnel throughout the organization during the planning and execution of missions.

The SIP helps ensure that mission commanders and junior aviators receive and understand the commander's intent and clarify as necessary. This ensures that the correlation between the commander's intent and the overall desired result is understood by the organization, which aids in carrying out disciplined initiatives on the part of the aircrews executing the mission.

Exercise Disciplined Initiative

Disciplined initiative is action in the absence of orders, when existing orders no longer fit the situation, or when unforeseen opportunities or threats arise (see ADRP 6-0). The SIP must understand that at the heart of disciplined initiative is action when the plan no longer fits the situation. When there is an inability to act, or if the action does not meet the commander's intent, there is a breakdown in mission command that can result in mission failure. To reduce the likelihood of failure in disciplined initiative, the main focus is training.

The standardization officer aids in the execution of disciplined initiative through the implementation of an ATP that fuses standardized aviator tasks with combined arms maneuver and the operations process described in ADRP 5-0, *The Operations Process,* 17 MAY 2012. To better prepare aviators to exercise initiative within the commander's intent, the ATP includes thorough academic instruction in doctrine, mission-based training flights, and after action reviews that identify leader strengths, weaknesses, and the understanding of mission orders.

Use Mission Orders

Mission orders state the task organization, commander's intent and concept of operations, mission, tasks to subordinate units, and minimum essential coordinating instructions. It is likely that the standardization officer cannot affect the content of mission orders or when these orders are issued. However, interaction with the S-3 to perform task and purpose analysis, assist in identifying points of friction, and verify the quality of the final product reduces the number of requests for information from subordinate companies. The result is the accelerated transition from conceptual planning to detailed planning and execution.

Once mission orders are issued, the SIP assists the staff with any necessary refinement based on running estimates and feedback from subordinate companies. Serving as a link between the two, the standardization officer strengthens the orders process by verifying the understanding of the task, purpose, and commander's intent, and identifying risk.

Accept Prudent Risk

Prudent risk is deliberate exposure to potential injury or loss when the commander judges the outcome in terms of mission accomplishment as worth the cost (Army Doctrine Publication 6-0, *Mission Command*). The aviation missions conducted during a JRTC rotation involve multiple aircraft operating in the same airspace against an enemy with advanced surface-to-air threats, requiring the commander to assess tactical and accidental risk.

The standardization officer is the one member of the staff who is most informed of aviator abilities within the unit. With information obtained from company standardization officers and commanders, the SIP can assist with advising the commander on tasking subordinate units based on mission proficiency and aviator experience. This is accomplished by maintaining crew member experience reports to identify the proper crew mix for the mission being executed.

The SIP and the aviation safety officer (ASO) work in unison to advise the commander on control measures that minimize risk while still accomplishing the mission. These control measures include enforcement of crew rest policies and risk assessment worksheets. Risk assessment worksheets do not capture all associated risks, but the worksheets should be clear on the type of mission being performed, in what conditions the mission occurs, and allow for risk mitigation. Crew rest policies must be enforced by the command and monitored by both the standardization officer and the ASO.

Conclusion

The standardization officer (or SIP) is a unique resource for aviation units, providing substantive guidance and recommendations while assisting in the exercise of mission command. The SIP is more than the manager of the unit ATP; he is the commander's trusted adviser and a valuable member of the staff. The commander must empower the standardization officer as a leader within the mission command philosophy. Conversely, the standardization officer must have in-depth understanding of doctrinal terms and processes.

The standardization officer also provides advice and expertise to the primary staff during the issuing of mission orders, deliberate planning, and execution. The standardization officer can effectively participate in staff functions by applying the principles of mission command as an organized method to ensure efficient integration into the operations process. Applying these elements of doctrine allow the standardization officer to assist in staff productivity and enhance mission command for the commander.

Chapter 9

Brigade Combat Team Fires Rehearsal Observations During Decisive Action Training Environment Rotations at the Joint Readiness Training Center

CPT Jack D. Mooney and CPT Stephen L. Ficchi

Since reinstituting decisive action training environment (DATE) rotations at the Joint Readiness Training Center (JRTC), observer-coach/trainers (OC/Ts) have witnessed multiple brigade combat teams (BCTs) execute fires rehearsals in preparation for joint forcible entry, defense, and deliberate attack operations. BCT fire support rehearsals have consistently failed to create shared understanding across the formation as to what the BCT fires plan is and how it supports the scheme of maneuver. The result is unresponsive and desynchronized fires that have little to no effect on the enemy forces.

According to Field Manual (FM) 3-09, *Field Artillery Operations and Fire Support*, 04 APR 2014 (paragraph 3-24), "fire support rehearsals help staffs, units, and individual fire support personnel to better understand their specific role in upcoming operations, synchronize execution of the fire support plan, practice complicated tasks before execution, and ensure equipment and weapons are properly functioning."

There are three different fires-related rehearsals that need to be conducted for an operation to be successful, preferably in the following sequence:

- Fire support rehearsal
- Fire support technical rehearsal (recommended from sensor to shooter)
- Combined arms rehearsal (CAR)

The purpose of the CAR is to synchronize the subordinate units and warfighting function plans across the BCT. The fire support rehearsal in conjunction with a technical rehearsal should be conducted prior to the CAR and, if possible, include members of the operations and intelligence staff, as well as the BCT commander or his representative.

In most cases, fire supporters want to execute rehearsals and understand the need. However, their greatest enemy — time — seems to overcome rotational units, and fire support rehearsals are continuously rescheduled for later times and become either ineffective or forgotten. Time should not be a unit's enemy or an excuse not to execute an effective fire support rehearsal. A fire support rehearsal is not time intensive when properly planned, resourced, and executed. In coordination with the brigade/battalion executive officer (XO) and S-3 (Operations), the respective fire support officer (FSO) should ensure that the fire support rehearsal is included on the brigade's timeline and published with the operation order (OPORD). This ensures that it is scheduled in advance and that everyone in the unit, including the brigade commander, is aware of it. The rehearsal then is less likely to be omitted because another event is scheduled at the same time. The scheduling of the fire support rehearsal needs to allow time for the following:

- Issuance of the brigade OPORD.
- Development and refinement of plans by battalion.
- Re-issuance of the brigade consolidated target list prior to the start of the rehearsal.

Additionally, units should include how and when to conduct rehearsals at all levels within the tactical standard operating procedure or planning standard operating procedure.

Units also should develop scripts to maintain organization and sequence, a layout plan for the rehearsal site, and a list of all attendees (including but not limited to) the following:

- BCT commander
- XO (S-2, intelligence)
- XO (S-3)
- Brigade FSO
- Battalion FSOs
- Field artillery (FA) battalion S-3
- FA battalion fire direction officer
- Company fires support teams
- Aviators
- Mortars
- Joint tactical air controllers
- Electronic warfare officer
- Staff judge advocate

It is not always possible to rehearse the execution of every target but, at a minimum, using the fire support execution matrix (FSEM) to focus on the critical fire support tasks (FSTs) is essential. The rehearsal must cover the task, purpose, execution, and assessments of each of the FSTs rehearsed as outlined in FM 6-0, *Command and Staff Organization and Operations* (May 2014) and the fire support white paper, *Fire Support Planning for the BCT and Below* (December 2008). FM 6-0 and Center for Army Lessons Learned (CALL) Handbook 13-07, *Fires Rehearsals,* both give an outline for a sequence of events to use for the rehearsal. FM 6-0 (pages 12-12, 12-13; paragraphs 12-87 through 12-101) outlines the following six steps that can be modified to support any rehearsal technique:

- **Step 1.** Enemy Forces Deployed: A successful technique observed is to have the brigade S-2 cover the enemy situation template and structure the fire support rehearsal in accordance with the enemy's most likely course of action.
- **Step 2.** Friendly Forces Deployed: Rotational units struggle to accurately battle track and establish a fires common operating picture due to not creating a shared understanding throughout the brigade during the rehearsal. Units should ensure that they include organic assets, general support assets, radar employment and zones, and any other enablers to the brigade (i.e., elements of the special operations forces inside the brigade's area of operation).

- **Step 3.** Initiate Action: During this step the unit should follow the FSEM and rehearse the critical FSTs for the phase. A common pitfall observed throughout multiple rotations during this step is the executors do not brief the targets for which they are responsible, and most of the time they are not present at the rehearsal. By having the company-level FSOs or FOs brief target, trigger, location, observer, delivery system, attack guidance, and communications net for each target, shared understanding across the brigade is ensured with a better visualization of the operation in time and space. In addition, enemy icons should be moved according to the most likely course of action developed during the staff war gaming as the rehearsal/operation progresses.
- **Step 4.** Decision Point: Using the decision support template developed during planning, units should rehearse the selected branching course of action and continue to rehearse all events of that branch. This is one of the key reasons for rehearsals. Rehearsing each decision point in detail identifies if the operation requires additional coordination and, if so, ensures that all participants understand the coordination.
- **Step 5.** End State Reached: Achieving the desired end state of the current phase or branch completes that phase of the rehearsal and the unit is ready to move on to the next.
- **Step 6.** Reset: The rehearsal should be reset to the beginning of the branch just rehearsed. The participants should repeat the process until all branches have been rehearsed and any additional coordination needed has been made to ensure all participants understand and can meet any requirements. The rehearsal should end with the recorder restating any changes or additional coordination made; and updated products are available for dissemination.

Conclusion

Bottom line: Fire support rehearsals conducted during rotations at the JRTC, at the brigade and battalion levels, are not accomplishing the desired intent. Units are conducting rehearsals because doctrine requires it, so units simply check the block. The observed rehearsals are not rehearsals at all, merely discussions on how to create or modify an existing fire support plan or another war gaming session. When the rehearsal ends, fire supporters should walk away believing they have executed an effective fire support rehearsal. In reality, most are rehearsals in name only and do not achieve synchronization or shared understanding for the upcoming operation.

In a continuous effort to assist units as they prepare for JRTC rotation, OC/Ts from the Fires Support Division of the Joint Readiness Training Center have put together a brief video to demonstrate “a way” to execute a BCT fire support rehearsal. The video is linked to the JRTC Fire Support Division Best Practices website (CAC login required) at https://atn.army.mil/dsp_template.aspx?dpID=595.

Chapter 10

Weapons Selection Based on Desired Effects

CPT Chuck Sexton and 1SG David Barron, Task Force 2

The challenge to an infantry company commander headed to the "fight" at a Joint Readiness Training Center (JRTC) decisive action training environment (DATE) rotation is demonstrably complex. The terrain in the box is compartmented and the enemy knows it well. That same enemy represents a hybrid threat that is nearly a peer to U.S. forces. Some issues are more complex; weapons effects are such. What do you need to defeat an enemy that fights an array of systems? How do you deploy and employ your forces on the compartmented terrain to defeat an enemy armored column supported by aerial and indirect fires? How much ammunition do you need and what kind?

These are just some of the questions answered in the box at the JRTC much to the surprise of the rotational training unit. Common observations include the following:

- Company commanders intuitively task formations within their command to conduct a given task against an enemy formation without accurately understanding what weapon systems and munitions are required to perform the task.
- Companies do not identify the ammunition consumption rate required to attain the doctrinal level of effect for a given task for a given time period.
- Platoons and squads do not forecast the impact of moving the ammunition to succeed in achieving the specified task.

How Can I Best Plan Where to Employ My Weapon Systems?

Observation 1: Company commanders intuitively direct formations within their command to conduct a task against an enemy formation without accurately understanding what weapon systems and munitions are required to accomplish the assigned task.

Field Manual (FM) 3-90-1, *Offense and Defense, Volume 1*, 22 MAR 2013 (Table B-1, page B-1), lists effects on enemy forces as block, canalize, contain, defeat, destroy, disrupt, fix, isolate, neutralize, suppress, and turn.

Determining which munitions are best suited to produce desired effects is based on a number of complex formulas described in the Lanchester Attrition-Rate coefficient, the theory of stochastic duels, and the autonomous fire model. While these are complex, most of these models have common threads that are important in the context of determining how a company can plan to best leverage its assets against the enemy. This includes the following:

- Probability of hit
- Probability of kill
- Range

Probability of Hit — Will I Hit It?

In a recent JRTC DATE rotation, an airborne infantry rifle company conducted an attack to seize the village of Marghoz. The enemy had one T-80, two BMP-2s, and two dismounted squads of infantry that were tasked with retaining the village. During the leader's reconnaissance of the objective, the company commander decided to employ 120mm mortars to suppress the armor, followed by an AH-64 with Hellfire missiles and a 12.7mm (.50 cal.) weapon, while he emplaced a support by fire with four M-240L (7.62mm) machine guns, two Javelin missiles, and four AT-4 (84mm) antitank weapons.

As the company began maneuver to the support by fire and assault positions, the 120mm mortars fired on the armor, forcing them to close their hatches and maneuver to cover. This was immediately followed by the AH-64 using the Hellfire missiles to destroy the T-80 and one BMP-2. This gave the company time to establish the support by fire on the southern side of the objective at a distance of approximately 150 meters where the Javelin missile could be used in top attack mode and the AT-4s and M-240Ls were inside of the 50 percent probability of hit range and the terrain did not mask the line of sight weapons systems. The support by fire position was able to destroy the remaining BMP-2 and suppress the two enemy squads for several minutes while the assault formation gained a foothold and destroyed enough of the threat that the enemy pulled off the objective.

Munitions that do not strike the target have less effect than those that do. The first step in calculating the effect of a weapon system is to look at the probability of hit. A 5.56mm weapon can be expected to achieve a 50 percent probability of hit on a moving man-sized target at 200 meters and a stationary target at 250 meters. A 7.62mm weapon system can be expected to achieve a 50 percent probability of hit with a 6- to 9-round burst against a moving point target at 200 meters from bipod, and at 600 meters with a stationary target. The 50 percent probability of hit against an area target (a fire team-sized element) is 800 meters from bipod and 1,100 meters from tripod. The 40mm high-explosive dual purpose (HEDP) has a 50 percent probability of hit for a point target (vehicle) out to 200 meters, and for an area target (fire team-sized element) out to 350 meters (see *Armies of NATO's Central Front*, by David C. Isby and Charles Kamps, Jr., 1985).

Probability of Kill — Will I Kill It?

During one DATE rotation, a rifle platoon spotted a Russian attack helicopter Mi-24/35 HIND. The platoon initiated fire with M-4 (5.56mm), M-249 (5.56mm) squad automatic weapons (SAWs), and M-240Ls (7.62mm), which drew the attention of the HIND that returned fire with 12.7mm machine gun fire and 80mm rockets. The attack helicopter had an armored cockpit and titanium rotor head that offered protection up to 20mm rounds, and suffered no damage. The infantry rifle platoon was destroyed. During this engagement the rifle platoon could have engaged with its Javelin missiles, which have a much higher probability of kill against an armored helicopter.

The level of damage that weapon systems can inflict should be used to drive the commander's engagement criteria and ultimately influence the attack guidance matrix. Most data in this category applies to exploding munitions; however, some effects can be gained through non-exploding munitions, as well. For instance, the 5.56mm can penetrate one sandbag or cinderblock at ranges between 50 meters and 200 meters. The 7.62mm can penetrate 7mm of armor with armor penetrating ammunition at 200 meters, while the 12.7mm Saboted Light Armor Penetrator fired from the M82A1 can penetrate 19mm of armor at 1,500 meters (*TRISA World Wide Equipment Guide*, August 2012).

For exploding munitions, see the Joint Munitions Effectiveness Manuals (JMEMs). But for the purposes of this chapter, some broad generalities suffice as an example, such as the following:

- In looking at weapon systems that a rifle company commander can expect to employ on targets, the standard 40mm HEDP can penetrate 50mm of armor, or 50cm of sandbags at 200 meters (*Armies of NATO's Central Front*).
- The M136 AT-4 can penetrate 14 inches of armor (FM 3-23.25, *Shoulder-Launched Munitions*, Table 1-4; **Note:** This FM was superseded by Technical Manual 3-23.25, 15 SEP 2010).
- The Carl Gustaf M2/M3 84mm destroys most light-armored vehicles at planning ranges of 350 meters (*TRISA World Wide Equipment Guide*), while a Javelin missile is expected to destroy any armor platform out to 2,000 meters (Training Circular 3-22.37, *Javelin-Close Combat Missile System, Medium*, 13 AUG 2013, page 4-1).
- The company's 60mm mortar system can neutralize a truck with 28 rounds (Army Tactics, Techniques and Procedures 3-21.90, *Tactical Employment of Mortars*, 04 APR 2011, Table 4-2).

Range — Can I Reach It?

During another DATE rotation, an infantry company was tasked with establishing a blocking position on a high-speed avenue of approach near Hilltop 95. The company commander was able to position key weapon systems far enough away from the blocking obstacle that they could be effective against the planned targets. One critical deduction missed was that these weapon systems had no line of sight due to vegetation. The enemy was able to move through the blocking position's dead space and destroy the company.

Range on a map rarely matches range on the ground. All of the above-mentioned formulas pay special attention to range as a factor critical to determining the probable effects of a given munition. A particular concern in doing the mission analysis is terrain. Complex terrain plays into the time-distance factor of employing a given munition. The company commander must employ the munitions within their given effective ranges, while balancing against line of sight requirements.

Appreciation of these three factors is key to planning for maneuvering forces to positional advantage over the enemy. Leaders must understand what munitions have to be fired on targets, at what ranges, and how the terrain affects the usage of those weapons systems.

How Do I Determine What My Weapons Systems Can Accomplish?

During troop leading procedures, a company commander may receive a common task from battalion such as breach. During mission analysis, the commander may list the specified task as breach, while listing the implied tasks as suppress, obscure, secure, reduce, and assault.

Support by fire is a tactical mission task in which a maneuver force moves to a position where it can engage the enemy by direct fire in support of another maneuvering force (FM 3-90-1, page B-40).

Fire superiority is that degree of dominance in the fires of one force over another that permits that force to conduct maneuver at a given time and place without prohibitive interference by the enemy (FM 3-90-1, page 3-17). Suppress is a tactical mission task that results in the temporary degradation of the performance of a force or weapon system below the level needed to accomplish its mission (FM 3-90-1, page B-66).

Often during this analysis the commander identifies that "suppress" is an essential task. When conducting the array of forces, the commander tasks a formation to conduct "support by fire" with the purpose of suppressing enemy forces while another formation secures and subsequently reduces the obstacle.

At this point the formation tasked as the support by fire element for the company breach understands that it is tasked to suppress the enemy, meaning that the enemy cannot place effective fire on the reducing formation for the time it takes to secure and reduce the obstacle. The next variables that must be understood begin to form the basis of the science required to successfully produce the effect required.

Observation 2: Companies do not identify the ammunition consumption rate required to attain the doctrinal level of effect for a given task for a given time period.

The task to suppress is expressly an effect on enemy forces. The first variable must be the enemy formation that the formation is tasked to suppress in this instance. If the enemy force is, for instance, a fire team, it is much different from an armored platform or rotary-wing aircraft. Identification of enemy forces is critical.

The next critical variable is the duration of the task. In the case of suppress for a breach as an effect, it can be for the time required to secure, reduce, and achieve the subsequent assault. In any event, understanding the duration of the effect is vital to understanding what and how many munitions must be used to create the effect.

In this circumstance, a commander determines through threat analysis that the obstacle on which the formation is tasked with conducting a breach has an enemy force that is most likely a fire team-sized element with small arms. In the case of duration, the commander has determined that the enemy must be suppressed for a duration of five minutes to allow for the securing, reduction, and assault. At this point, the commander executes the science of determining what munitions must be brought to bear against the enemy to attain the desired effect (see Table 10-1, next page).

Munition	Capacity	Minimum Range Required	Maximum Effective Range	Maximum Range 50 Percent PHit	Line of Sight	Number of Rounds to Suppress	Weight
5.56mm	Troops	None	550m	200m	Yes	100 rds/min	3.46 lbs/100 rds
7.62mm	Troops	None	1,100m	200m	Yes	100 rds/min	7 lbs
7.62mm	Vehicles	None	1,100m	500m	Yes	100 rds/min	7 lbs
12.7mm	Vehicles	None	1,830m	800m	Yes	30 rds	29.7 lbs/100 rds
12.7mm	Rotary Wing	None	1,830m	300m	Yes	30 rds	29.7 lbs/100 rds
40mm 433A1	Troops	28m	400m	**400m	Yes		.5 lbs
40mm 433A1	Vehicles	28m	400m	400m	Yes		.5 lbs
60mm	Troops	70m	3,489m		No	18 rds	3.75 lbs
60mm	Vehicles	70m	3,489m		No	28 rds	3.75 lbs
AT-4	Armor	15m	300m	300m	Yes	1rd	14.8 lbs
AT-4 CS	Armor	15m	300m	300m	Yes	1rd	17.8 lbs
Javelin (Block 1)	Armor	150m (1)	2,500m		Yes	1	49.3 lbs
Javelin (Block 1)	Rotary Wing	65m (2)	2,500m		Yes	1	49.3 lbs

Legend:
Maximum Range PHit = * Moving Point Target; ** Fire Team-sized Target
(1) Top Attack
(2) Direct Fire
m - meter
mm - millimeter
rds - rounds
min - minute
lbs - pounds

Table 10-1. Analog tool for commander's reference in determining munitions requirements for a given task (i.e., enemy suppression).

Using Table 10-1, a commander can understand, based on ranges, the amounts of ammunition required against the intended target. For example, to suppress an enemy fire team, the formation can plan to employ 18 X 60mm mortars to initiate while the formation is closing the distance, as this system has the most standoff. The system with the next longest standoff is the M-240L where the formation can initiate its main support by fire at 500 meter range with 1,000 X 7.62mm rounds while the breach is suppressed. An intermediate support by fire can be established relatively near the breach (at 200 meters) with 500 X 5.56mm rounds and 22 X 40mm rounds to finish suppressing while the obstacle is reduced and assaulted.

Observation 3: Platoons and squads do not forecast the impact of moving the ammunition to succeed in achieving the specified task.

Ammunition weighs more in person than it does on paper. Soldier load can be estimated. The company support by fire is planning to expend 18 X 60mm rounds, which weigh 67.5 pounds. This load shared among five personnel is 13.5 pounds each. The main support by fire plans to expend 1,000 X 7.62 rounds, which weigh 70 pounds. This load, shared among six personnel, is 11.66 pounds each. The intermediate support by fire plans to expend 22 X 40mm rounds, which weigh 11 pounds. This load, shared between two personnel, is 5.5 pounds each; and 500 X 5.56mm rounds weigh 17.3 pounds, which is 8.65 pounds each between two personnel.

The information used for this example can be produced for any tactical task and any weapon system. The formation may have threat targets, terrain, or tasks that fall outside of known training skills. Planning must be conducted to adapt to these possibilities and leverage the systems available to accomplish the mission. The best source of information for building understanding in these areas is the JMEMs.

Conclusion

This chapter illustrates the need to plan for matching the correct weapon system to the doctrinal task requirement. The importance of understanding how probability of hit, probability of kill, and range determine whether the munition can attain an effect, and the subsequent Soldier-load requirement for getting the weapon system and required munition to the fight, cannot be understated. Developing planning tools that allow sustainers to forecast requirements and inform commanders is important for every formation. The Joint Technical Coordination Group for Munitions Effectiveness, which is part of the Army Materiel Systems Analysis Activity, Aberdeen Proving Ground, MD, also provides additional products that build on successful weapons/ammunition planning, probabilities, and Soldier requirements.

Chapter 11

Failure and the After Action Review

CPT David Armando Zelaya, Assistant S-3, Current Operations,
2nd Battalion, 25th Infantry Division, Stryker Brigade Combat Team

Failure in training as well as in real life is a powerful learning tool that operational leaders leverage to build expertise throughout their formations. Failure in training offers a direct measure of the effectiveness and difficulty of a unit's training programs and standards. If a unit conducts hard and worthwhile training under conditions that ride the edge of their capability and proficiency, failure is likely to occur. This means that leaders can test the limits of their systems and Soldiers can push themselves and their peers to new levels.

Failure does not equate to negative. Failure can offer positive gains in a unit's performance if the unit identifies lessons and learns from them for future operations. The after action review (AAR) is the tool that Army leaders leverage to forge those gains into the minds of all its Soldiers. At the Joint Readiness Training Center (JRTC), observer-coach/trainers (OC/Ts) incorporate failure into the AAR to great effect. JRTC ensures that failure is burned into leaders' minds; OC/Ts and their AARs ensure that the lessons left by those scars are not forgotten. Failure is a learning tool. Failing to learn from failure is counter-productive.

Therefore, all leaders must understand how to properly and effectively conduct their own AARs at home station. Training Circular 25-20, *A Leader's Guide to After Action Reviews* (SEP 1993), and Army Doctrine Reference Publication 7-0, *Training Units and Developing Leaders* (23 AUG 2012), are excellent doctrinal foundations for the execution of the AAR. OC/Ts emphasize key points in the field that young leaders use to ensure long-term training success. This chapter discusses the following:

- The importance of understanding failures in training and placing them in context for subordinate leaders.
- Establishing a structure and purpose for the AAR.
- Identifying focus items to limit the scope of AARs.
- Understanding failure and the AAR in the context of long-term training.

Leaders should understand that failure in training should not be feared and that it is the foundation of mentally tough and expertly trained Soldiers and units.

Training Failures and Context for Subordinate Leaders

OC/Ts at the JRTC witness failure on a magnitude few can imagine. Failure occurs at every echelon of leadership, in all situations, at a rate that leaves rotational training units stunned and humbled. OC/Ts at the JRTC understand that such failure is an indicator of one simple fact: Soldiers fail at the margins of their experience. JRTC is designed to provide a challenge far more complex, uncertain, ambiguous, and realistic than any unit can replicate at home station. The challenges that Soldiers face at the JRTC are well beyond their experiences. The main goal is to ensure that the sting of a mission unaccomplished and the lessons forged in failure are not soon forgotten.

At the JRTC, failure in training is less a mark of incompetence and more an indication that the training is difficult. This idea of failure as a measure of effectiveness is powerful if applied to home-station training. What does it say about a unit's training and its standards if the unit consistently succeeds in its training? It could mean that the unit is made up of amazing leaders and Soldiers, each of them a modern-day Audie Murphy in his own right; or, it could mean that the training is so easy that it is of no challenge and, therefore, of little worth.

That being said, when failure does occur during home-station training and leaders are preparing to address it in their AARs, leaders should frame the failure as an opportunity to identify gaps in systems and decision making. Furthermore, a failure in training belongs to the team, not to individuals, and that idea should be reflected in the discussion that occurs during the AAR. The goal is to ensure that leaders are fostering environments where subordinates can execute disciplined initiative and take prudent risks without fear of being admonished and singled out by their superiors. Subordinate leaders should feel as though they are empowered to innovate and problem solve without fear of failure.

Structure and Purpose for the AAR

The purpose of an AAR is to learn and institute a change so that the unit performs better the next time. The world in which we live and fight is a place governed by chance and uncertainty. This is the only certain thing leaders can expect. This cloud of uncertainty, when mixed with the violence of combat, creates what many have come to call the "fog of war." In the heat of the moment, when decisions need to be made at the drop of a hat with imperfect knowledge, leaders and Soldiers alike fall back on one common thing, their training. Soldiers execute those things that have been drilled into their brains through repetition or pain. It is only in the aftermath of those chaotic events that leaders and Soldiers can look back at their actions and begin to organize them into processes and phases. It is during this reorganization of events where lessons can be gleaned.

The AAR serves the purpose of organizing the fog of war. The form of an AAR reflects this organizing function. The way in which a leader organizes an AAR depends strongly on the focus of the training event. The most common way of organizing an AAR is chronologically. The leader of the AAR divides the event into distinct phases and discusses those phases in the order in which they occurred. The chronological method lends itself best to the improvement of a process. For example, if a squad is training to improve the collective training task of conducting an ambush, it is useful to structure the AAR to go through each step of that collective task. As the leader guides the squad through the AAR, Soldiers compare their actual conduct to what should have happened at each step of the process.

Another method utilized for structuring the AAR is the use of focus items. Focus items identify the specific fundamentals of a given event and address those individually. This method is best used when leaders are attempting to address negative trends in a unit's performance. For instance, when conducting scout gunnery, leaders may see gunners are engaging targets before vehicle commanders give the order to fire. In such a situation, the leader can structure his focus items around the fire commands to address the observation across the unit. At the JRTC the focus item method is often preferred because of the complexity of the training conducted. OC/Ts can address specific systems and observations without having to discuss everything that happened leading up to the event.

Managing the Fire Hose

At some point, all leaders have been in an AAR where they feel like they are drinking from a fire hose. Just as training should be focused in scale and scope, so too should the AARs that follow. Drowning subordinates with a deluge of "failures and improves" leaves them feeling beaten, lost, and confused. It is important to understand that the AAR should be limited to the improvement of two to three things. This not only keeps Soldiers from becoming discouraged, it allows for meaningful and deep discussion on topics that unit leaders have identified as critical.

When deciding how to limit the scope of the AAR, leaders should always look to the intent of the training. This is critical at the beginning of a training progression when there likely are failures in multiple areas. It is also important that leaders understand the root cause of failures. For instance, when conducting patrol-base activities, failure to conduct security, manage rest, and conduct weapons maintenance and a lack of mission understanding are all serious failures in themselves and could be addressed individually. However, it may be more efficient to simply address what looks to be a poor understanding of priorities of work. By focusing on the root cause of failures, leaders can address several issues at once while avoiding overwhelming subordinates.

Understanding Failure in the Context of Long-term Training

While failure is a key indicator of training difficulty in the short term, over time and multiple repetition, failures should slowly be replaced with success. This is especially true in the context of combat. Failure may be something that can happen in training, but it is something that is unacceptable in combat. The success of the mission is first, and striving for that success should be at the forefront of every Soldier's mind. This distinction between failure in training and failure in combat operations is important for leaders to emphasize as they move through their training progressions.

The American people and the Soldiers who trust us with their lives deserve nothing but success. In order to achieve success on the battlefield, it is critical that training pushes beyond the limits. If training is to be truly difficult, then the use of failure is inevitable and acceptable. To ensure that training failures become lessons learned, leaders must understand how to frame, structure, and limit their AARs. If leaders can properly manage their training failures and leverage them as tools for learning, success is within their grasp.

Chapter 12

Company Mission Orders at the Joint Readiness Training Center

CPT Pierce Cote, Task Force 1

As the focus of operations at the Joint Readiness Training Center (JRTC) revert from counterinsurgency to operations in a decisive action training environment, company commanders face a more fluid battlefield. They must, therefore, reevaluate the leadership methods and products used in the last 14 years of combat operations.

Many commanders seek guidance and instruction from lessons learned during decisive action rotations prior to 9/11. That is a good start, but truly successful commanders examine those lessons through the tenets of mission command (MC) to capitalize on the independence and advanced thinking skills garnered in the past 14 years. Central to this effort is reasserting the necessity of the mission orders process in leading a company. By executing mission orders that provide the guidelines for the execution of the mission, commanders harness the inherent warfighting abilities within their formations.

Army Doctrine Publication (ADP) 3-0, *Unified Land Operations* (10 OCT 2011), was followed by a series of doctrinal guides. ADP 6-0, *Mission Command* (17 MAY 2012), represented a significant adjustment in methodology and leadership from the traditional command and control (C2)-centric leadership. While the change in Army doctrine represented battlefield realities, the practice of changing ingrained concepts remains a slower transition process. Officers currently in command or soon to take command of company-sized elements spent their formative years being taught and executing C2-type leadership and building the platoons and companies around that idea. Recent rotations at the JRTC have proven that, while companies can still succeed using the outdated methodology, those that fully integrate MC to the point of action are far more likely to find mission success.

Mission Command

MC is described in ADP 6-0 as 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. MC includes the following principles:

- Build cohesive teams through mutual trust.
- Create shared understanding.
- Provide a clear commander's intent.
- Exercise disciplined initiative.
- Use mission orders.
- Accept prudent risk.

Mission Orders

Company commanders at the JRTC most often falter on use of mission orders. Army Doctrine Reference Publication (ADRP) 6-0, *Mission Command* (17 MAY 2012), outlines the use of mission orders as a way for commanders to "assign tasks, allocate resources, and issue broad guidance" (paragraph 2-20). Further, ADP 6-0 states, "Mission orders are directives that emphasize to subordinates the results to be attained, not how they are to achieve them" (paragraph 19). ADP 6-0 also clarifies that "mission orders seek to maximize individual initiative, while relying on lateral coordination between units and vertical coordination up and down the chain of command" (paragraph 19). In practice, mission orders are the single most important aspect of the company commander's ability to enable disciplined initiative. Army squad leaders at the point of action have the technical and tactical skills necessary to succeed. What they lack, however, is the ability to plan and coordinate their actions into one single common operational picture (COP). It is the responsibility of the commander to brief a mission order that establishes the COP and creates shared understanding tied to the commander's intent.

The 5-Paragraph Operations Order as Mission Orders

The 5-paragraph operation order (OPORD), as defined in Field Manual (FM) 6-0, *Commander and Staff Organization and Operations* (05 MAY 2014) and the Ranger Handbook, remains the definitive method to enable the delegation of tasks and coordination of purpose throughout the unit and the operation. The following four tangible outcomes (outlined in ADRP 6-0) remain within the 5-paragraph OPORD:

- Focus forces.
- Set priorities.
- Allocate resources.
- Influence the situation.

Focus Forces

Focusing forces allows the commander to ensure all subordinate elements understand the COP for the operation to be completed. For the commander to create shared understanding, he must deliver an accurate picture of the operational environment. The commander also must accurately show what troops he has available for the operation. This allows for all other decisions to be made and ensures that the forces are being used correctly. The entire situation paragraph is key to focusing forces. Looking at the ground that the operation is conducted on, as well as how friendly and enemy troops are arrayed on the battlefield, is key to achieving the COP. Without a detailed and thorough situation paragraph, the rest of the operation is merely being planned as a sterile operation, not built on the realities of the situation.

Outcomes of focusing forces include the following:

- Task organization
- Situation
- Intelligence preparation of the battlefield
- Enemy situation template

Set Priorities

Setting priorities is the step that allows the commander to directly delegate the different tasks required for completion of the company mission. Clearly, the most direct comparison in the 5-paragraph format is in the task to subordinate units, where the commander gives specific guidance to all the elements and designates the decisive and supporting roles of each element. The commander must issue a strong commander's intent to distinguish purpose of the operations and the desired end state. With these two sections, the commander makes the "why" for the operation clear to the subordinates, which enables them to use their own initiative to execute their specific individual missions. The commander should outline his priorities in other ancillary sections of the OPORD to include fires, rehearsals, timeline, back briefs, and precombat checks and precombat inspections (PCCs/PCIs). These sections help to deconflict time and resources and synchronize the actions of the unit.

Outcomes of setting priorities include the following:

- Task to subordinate units
- Commander's intent
- Priority of fires
- Priority of rehearsals
- Timeline
- Back brief format
- PCC/PCI schedule

Allocation of Resources

Allocation of resources relies on the commander's ensuring that the subordinate elements have the resources they need to complete their tasks, as well as safeguarding those resources and ensuring they are not wasted or misused. The commander must allocate the personnel, resources, and available assets in a way that maximizes their usage.

Outcomes of allocation of resources include the following:

- Task organization
- Coordinating instructions
- Priority of support

Influencing the Situation

Influencing the situation is the commander's ability to emplace coordination and control measures that define the parameters within which the subordinate elements execute their specific tasks. These sections are, in many ways, the most important aspect of the mission orders process. While units can be successful with a vague maneuver plan, often what differentiates a good and a bad planning process is the amount of detail the commander has placed on influencing the situation. Graphic control measures are items often left out during vague planning. However, unless the graphic control measures are produced at the company level, their effectiveness is limited. All units must have the same control measures, and these measures must be shared with

adjacent units for them to be effective, because these graphics will be the language that facilitates shared understanding of the mission plan and execution of it. Refinement and dissemination of the commander's critical information requirements (CCIRs) allow company and battalion commanders to prioritize and allocate limited resources to the appropriate time and place due to targeted information and triggers.

Outcomes of influencing the situation include the following:

- Graphic control measures
- Adjacent unit coordination
- CCIRs
- Command and signal
- Rules of engagement (ROE)

Mission Orders in Practice

During JRTC rotations, most companies strive to execute one OPORD to standard, that being the OPORD in support of the joint forcible entry (JFE). While this OPORD usually checks the box on each step and sub-step of the 5-paragraph OPORD, as well as being accompanied by a large sand table, it usually does little to provide shared understanding of the mission and to empower subordinates in executing the plan.

Due to the nature of intermediate staging base (ISB) operations, with Soldiers and leaders busy with a variety of events, the commander completes the OPORD with little or no part given for analysis or completion by subordinates. Instead of the OPORD becoming a working and living document that maximizes individual initiative and lateral coordination within the company, an individual commander "writing for his life" develops the OPORD as an extension of the battalion order. This affects the company for the rest of the rotation. Because the OPORD is created and issued with no input or coordination, it usually remains vague in details. While it is true that MC mandates that the OPORD be brief and not dictate how specifics are completed, details that are common for all must be coordinated and distributed, instead of left to be hashed out after the order. Because a vague OPORD skips these details, the commander must continuously adjust the details of the mission during execution, leading to desynchronized plans and mission failure.

"Put Down the Radio, Sir"

Subordinates commonly comment in the after action review that their commander spent too much time on the radio. The commander provides continuous adjustment to the subordinates to ensure that his vision of events — not adequately planned during the OPORD process — is executed. An example of this is seen during movements, especially movements during limited visibility. If the commander plans the route with the input of the lead element, the resulting route briefing can be more developed with control measures such as rally points tied to geographic features. A plan without this level of detail requires additional control by the commander in execution because he is forced to continuously update the lead element with small adjustments to their physical movement. The commander exercises authority and direction down to the smallest element under his command.

Best Practices

Practice Often

The most important thing a commander can do to achieve the maximum effect for mission orders is to conduct them more than once. While the JFE planning cycle is the most obvious time to conduct detailed mission planning, the information used to conduct the mission planning evolves through the course of the operation. Commanders should not feel pressure to complete planning for the entire cycle during the ISB stage, but rather focus mission planning on specific events to ensure the most up-to-date information.

Delegate

A technique to ensure that the mission orders process directly influences MC is to delegate each portion of the mission order to individual leaders within the company. While the ISB process can be a busy time with multiple competing tasks, the benefit of having the leaders of a company produce the order together outweighs the time spent. It is equally important for these roles and responsibilities to be identified prior to arrival. The planning and troop leading procedure process is continual and influenced by factors including updates to the situation, enemy, and changes to combat power. Development of a planning standard operating procedure (SOP) within the company tactical SOP (TACSOP) helps to identify specific tasks that allow the company to use the planning process in a flexible manner according to specific battle-rhythm events. Conducting rehearsals based off the company TACSOP prior to arrival can ensure that the products that each responsible person is producing are to the standard of the commander. A sample breakdown of roles is as followed:

- Task Organization: Commander
- Terrain: Lead Platoon Leader
- Situation
    - Enemy: Executive Officer
    - Friendly: Commander/Executive Officer/Platoon Leader
    - Attachments: Commander/Executive Officer/Platoon Leader
- Mission: Commander
- Execution
    - Concept of the Operation: Commander
        * Maneuver: Commander (augmented by specialty sections/platoon leaders)
        * Fires: Fire Support Officer
    - Task to Maneuver Units: Commander
    - Tasks to Combat Support Units: Commander

- Coordinating Instructions
    - Time Schedule: Commander
    - CCIRs: Commander
    - Risk Reduction: Commander
    - ROE: Commander
    - Environmental: Commander
    - Force Protection: Commander
    - Movement Plan: Lead Platoon Leader
- Service Support: Executive Officer/First Sergeant
- Command and Signal: Commander/Company Radio-Telephone Operator

The mission statement and commander's intent are the only paragraphs of the order solely the responsibility of the commander. All other paragraphs include the expertise of the additional members of the company team.

Maneuver is a Group Effort

The maneuver subparagraph is the paragraph commanders focus most of their time and efforts to produce. The most successful commanders are those who work with their subordinates to prepare this paragraph and focus the majority of their efforts on synchronizing each platoon's actions. When briefing, the commander focuses on drawing the platoon's specific missions together and providing the coordination for the specific subordinate element's missions. Due to time constraints, combining the mission brief with the brief back by the subordinate units may be a best practice. As the commander briefs the synchronized overview of the mission, the subordinate leaders add the specific actions relevant to their mission. This allows for bottom-up refinement and synchronization in a time-constrained environment.

Coordinate

Additionally, the most overlooked or skipped paragraph is the coordinating instructions subparagraph. This paragraph is where the commander is able to provide the synchronization obtained from the planning process and issue very specific guidance on individual actions within the plan. The commander must indicate with this paragraph that rehearsals are executed to standard and are worthwhile, as well as ensure the plan is focused on answering the CCIRs. By skipping this step, commanders are unable to fully nest their plan within the larger battalion plan, and deny their subordinates vital information to ensure disciplined initiative.

Conclusion

The mission orders process is the cornerstone of the MC ethos. Company commanders must build cohesive teams by providing as much coordination and synchronization as possible to the point of action. By executing a continuous and cohesive planning process with inclusion of all members of the company planning team, company commanders can successfully harness the inherent warfighting abilities within their formations.

Chapter 13
Integration of Dismounted Infantry With Stryker and Heavy Platforms

CPT John R. Harrell, Task Force 3, Operations Group

> Employing Infantry forces with heavy and Stryker units is a combat multiplier. These operations take advantage of the Infantry unit's ability to operate in severely restricted terrain, such as urban areas, forests, and mountains, combined with the mobility and firepower inherent in heavy and Stryker units. To ensure heavy, Stryker, and Infantry assets are integrated and synchronized, forces should be mutually supporting based on the commander's concept of employment.
>
> Field Manual (FM) 3-21.20, *The Infantry Battalion*, 13 DEC 2006 (Appendix D, page D-1)

Do Not Gap Capabilities; Overlap Them

Infantry comes in a variety of "flavors." Light infantry is different from airborne, and air assault infantry is equally unique. Put a vehicle with infantry and you get more flavors; Stryker units are highly mobile. Mechanized infantry — especially when armor is mixed — is for the tough fight. Different infantry varieties offer different capabilities, strengths that can serve independently under the correct circumstances.

Then again, combining the various capabilities to achieve maximum effect is the very soul of combined arms warfare. Each type of infantry has capabilities that can be leveraged to create a stronger symbiotic relationship while reducing vulnerabilities and limitations through mutual support. Light infantry can move through forested terrain, over mountains, through water, etc. Vehicles can move farther, faster, and bring more firepower to the fight than light infantry, but cannot easily travel in or see through the restrictive terrain that light infantry can.

The decisive action training environment at the Joint Readiness Training Center (JRTC) routinely highlights units' failure to bridge these capability gaps and multiply combat power using the capability overlaps. Battalions commonly deploy without a concept on incorporating the capabilities of dismounted infantry with vehicular platforms. This should not shock anyone. Military leaders follow a law resembling Newton's First Law: When viewed in an inertial reference frame, an object either remains at rest or continues to move at a constant velocity, unless acted upon by a force.

Applied to the subject of combined arms, the "law" would read: When given free choice, military leaders default to what they know best. A light-infantry leader operates as a pure-light infantry unless acted upon.

Let's take it one step further. Newton's Second Law of motion states: The vector sum of the forces "F" on an object is equal to the mass "m" of that object multiplied by the acceleration vector "a" of the object: $F = ma$.

In other words, the force (power) inherent in that moving object comes from the application of power against the mass of the object. Applied to the subject of combined arms, the second "law" would read: The combat power created by application of combined arms warfare is greater than the sum of the individual parts. In short, the combined arms leader wins.

Sounds like science, right? Truly it is the definition of military art. Science is factual and apparent. Battalion and company commanders understand the mobility capabilities of their

vehicles. But they see them as transport for dismounted infantry. As a result, they often fail to use their dismounted capabilities to mitigate tactical risk to their vehicles or vice versa. Vehicles are routinely tasked for nothing more than transportation. Dismounts are not employed for doctrinal defile or dead-space clearance drills during movement or for flank security at halts. Many units refuse to risk the loss of a vehicle on the objective and therefore select dismount points far before the objective. They attack entirely dismounted and only bring vehicles forward once the objective is secure.

Practices such as these completely ignore the superior firepower and ability to rapidly mass effects on an enemy force that the mounted platforms offer. For example, Strykers may be restricted to moving along unimproved roads due to densely forested terrain on either side of the road. Strykers alone, in this scenario, are vulnerable to flank attacks from dismounted enemy infantry from the wood line. Friendly dismounts can move through the woods and clear the flanks ahead of the vehicles, but in three years only three rotations used a technique like this in which dismounts and vehicles supported each other during movement, at a halt, or in the attack.

There is an opposing aphorism to combined arms: keep it simple, stupid (KISS). Like all things, KISS applies, but that application occurs in various degrees. The balance between achieving the art of combined arms and KISS begins with home-station training. If the home-station training occurs inside the leader's comfort zone, there is little chance that same leader tries something different at a collective combat training center.

Offensive Operations

Mounted Force Support, Infantry Assault

D-37. M1s and BFVs or Stryker ICVs and MGSs support by fire while the Infantry assaults the objective. The vehicles fire from hull-defilade positions until the Infantry masks their fires. This is the most effective method for BFVs, Stryker ICVs and MGSs and may be used with M1s when antitank weapons or obstacles prohibit them from moving to the objective.

FM 3-21.20 (Appendix D, page D-12)

Simultaneous Assault

D-40. With this method, Infantry and mounted forces advance together, and the Infantry and vehicles move at the same speed. The vehicles may advance rapidly for short distances, stop and provide overwatch, then move forward again when the Infantry comes abreast. Tanks are best suited to assault under fire. BFVs, Stryker ICVs and MGSs may also be used in this manner but only when the threat of antitank fires is small. If an antitank threat exists, Infantry usually lead while the vehicles follow to provide fire support.

FM 3-21.20 (Appendix D, page D-12)

Assault From Different Directions

D-44. With this method, mounted and Infantry forces converge on the objective from different directions. Mounted and Infantry forces advance by different routes and assault the objective at the same time. For this synchronization to succeed, the Infantry elements maneuver and close on their assault position, ideally under cover of darkness or poor weather. The synchronization of the assault provides surprise, increases fire effect, and maximizes shock action. Planning, disseminating, and rehearsing the coordination of direct and indirect fire measures are critical in this type of operation.

FM 3-21.20 (Appendix D, page D-13)

Clearly the doctrine in FM 3-21.20 shows there are various ways to attack using combined arms or combined infantry. But, as suggested earlier, leaders tend to default to experience-based comfort zones. The observation at the JRTC is that rotational units assault either entirely dismounted or entirely mounted. Rarely do they employ any of the techniques listed in the field manual. Even the battalion's organic heavy-weapons company is usually not tasked in its doctrinal role to provide a base of fire to support battalion offensive operations. The weapons company or mounted platforms are more often tasked with establishing traffic control points to secure avenues of approach, for rear or flank security, or as a reserve.

Battalion and company commanders often see their vehicles as a tool for troop transportation and for relaying radio communications to higher headquarters and adjacent units. They do not use a vehicle's greater observation capabilities (compared to dismounts) in the offense, nor do they use dismounts to clear dead space and dug-in enemy positions. Commanders also fail to plan for dismounted observation into or beyond restrictive terrain where mounted optics cannot see, leaving an unbridged capability gap between the dismounted and mounted elements. This results in enemy anti-armor teams destroying friendly vehicles at close range, further instilling fear in the friendly unit of bringing their vehicles anywhere near the objective due to this risk.

Defensive Operations

> D-48. The combination of Infantry and mounted forces is well suited to conduct defensive operations. The mounted force provides a concentration of anti-armor weapons and the capability to counterattack by fire or maneuver rapidly. The Infantry force can occupy strongpoints, conduct spoiling attacks, and conduct stay-behind operations.
>
> FM 3-21.20 (Appendix D, page D-13)

There are many best practices for integrating mounted and dismounted elements in the defense. Some of them include the following:

- Infantry force in depth, mounted force forward
- Infantry force forward, mounted for in depth
- Infantry force terrain-oriented, mounted for enemy-oriented
- Strongpoint
- Stay-behind operations
- Retrograde

Units typically use the strongpoint technique, but keep vehicles and dismounts virtually or completely collocated. The commander's failure to create depth, maintain freedom of maneuver, and plan adequate subsequent fighting positions results in the enemy's ability to rapidly mass forces and effects on the entire friendly formation. The friendly unit also loses the ability to displace because it becomes fixed. Furthermore, units plan alternate and subsequent fighting positions that do not provide any tactical advantage over the primary; and even when they displace to a subsequent fighting position, they are still fixed and destroyed by the enemy.

Displacement drills are not synchronized and rehearsed, and mission command is not possible in the chaos that ensues. For example, a rotational unit may be tasked to defend an urban center.

The commander plans a perimeter defense around the given urban center with dismounted fighting positions on the roofs of buildings and mounted fighting positions oriented on the entry control points and engagement areas just outside the perimeter. By choosing to engage the enemy once he is at the objective instead of from fighting positions forward of the urban center and displacing back to subsequent positions under the cover or mutually supporting mounted/dismounted positions, the friendly unit sacrifices its ability to fix, turn, or disrupt an approaching enemy formation. The commander cannot kill or reduce enemy forces, prior to meeting displacement criteria, before the enemy is in range of the defended urban center. The enemy has greater freedom of maneuver in this scenario, and the defending unit loses the initiative.

In three years, the best integration of dismounted/mounted assets in the defense exhibited was an ambush/observation post employed several kilometers forward of the defending unit's engagement area. It was an L-shaped ambush using dismounts in the woods along the side of the road with AT-4s and a Stryker section in the woods at the apex of a bend in the road to achieve enfilading fires with .50 caliber and Mk-19 weapon systems. The ambush successfully destroyed the lead element of the enemy fix force, blocking the road and forcing the enemy to commit to an alternate route, and into the defending unit's engagement area.

Conclusion

The unilateral use of dismounts or mounted elements is somewhat the result of 12 years of stability and counterinsurgency operations in Iraq and Afghanistan where operations were conducted primarily at platoon and occasionally squad level. Vehicles often cannot maneuver in the tight spaces offered by many Afghan villages, and these villages are too far away for a dismounted platoon to walk to from a forward operating base (FOB). Restrictive rules of engagement also often precluded the use of vehicle firepower in urban areas. Therefore, commanders simply planned to use vehicles to transport troops to a far-away village where they would dismount and conduct patrols while the vehicles sat in a vehicle patrol base and waited for the dismounts to call for extraction. FOB defense was static and usually without depth provided by patrols and whatever air assets were available. Many unit home station training plans still reflect this mentality and fail to stress mounted and dismounted integration in situational training exercises and combined arms live fire exercises at all echelons.

Chapter 14

Lessons Learned From an Infantry Brigade Combat Team Weapons Company in Decisive Action at the Joint Readiness Training Center

MAJ Ryan R. Duffy

(Reprinted with permission from *Infantry* magazine, July-September 2015)

In September of 2012, my company (Delta Company, 2nd Battalion, 30th Infantry Regiment, 4th Brigade Combat Team, 10th Mountain Division) deployed to the Joint Readiness Training Center (JRTC) at Fort Polk, La., as part of a rehearsal rotation in preparation for an upcoming decisive action training environment (DATE) rotation for the 82nd Airborne Division. My company had not done a decisive action rotation in years due to frequent deployments to Iraq and Afghanistan. This rotation provided an excellent opportunity for my Soldiers to learn/re-learn skills such as analog battle tracking, "digging in," and battalion-level operations.

Prior to this event, my company had completed section-level gunnery with built-in TOW (tube-launched, optically tracked, wire-guided) missile scenarios (simulated) as well as multiple Virtual Battlespace 2 (VBS2)-simulated platoon-level engagements based on a decisive action scenario that I had written with the help of the VBS2 simulator staff. These engagements incorporated "Red Air" (enemy aviation), armored threats, and defensive operations. My platoons used FM 3-21.12, *The Infantry Weapons Company*, as their cornerstone document.

The decisive action rotation incorporated a defense situational training exercise (STX) lane against an armored threat, a company-level offensive operation on "Jetertown" (a JRTC village), a second defensive operation against Geronimo "jumping in" (mostly light Infantry based with the majority of my company attached to another company commander), and a battalion attack, which had the three light Infantry companies attacking with Delta Company (augmented by the brigade Military Police [MP] platoon with .50 cal machine gun trucks) and an attached engineer squad.

Orders Process

Following my orders drop on the previous day, I immediately began mission analysis. Having been stationed at JRTC (as an observer-controller-trainer [OCT] previously), I had a bit of a "home-field advantage" as I knew the terrain. A common-sense approach to what terrain is navigable by the opposing force (OPFOR) visual modification (VISMOD) vehicles (OPFOR surrogate vehicle [OSV] T-72s, BMPs, and BRDMs) will help leaders understand avenues of approach in the thick vegetation of Fort Polk. I used the same basic process I was taught at the Maneuver Captains Career Course (MCCC) and briefed my plan off of a butcher block in the field. I tasked my fire support officer (FSO) to direct my headquarters section in constructing my terrain model along with planning fires.

Takeaways: Use simple troop leading procedures (TLPs) that are taught in the Infantry Basic Officer Leadership Course (IBOLC) and MCCC and you will do fine. Issue a complete order. Rehearse your order delivery prior to giving your operation order (OPORD). Consider having your executive officer (XO), first sergeant (1SG), or FSO watch a checklist of key points in the order during execution to avoid forgetting or skipping key points. I have seen a JRTC order that was meticulously constructed neglect to read the mission statement, even once. Also, the JRTC products are generally fairly simple. Look at the enemy situation template (SITTEMP) and plan

your mission accordingly; don't become so focused on the process that you forget to account for enemy weapons systems (e.g. putting your air assault helicopter landing zone [HLZ] next to a templated DShK heavy machine gun).

Defensive Positions (Mounted and Dismounted)

I spent a significant amount of my time in planning where to dig-in my mounted and dismounted assets. I knew that I would have limited "blade time" with my engineer attachments. I made an assumption that would prove to be problematic; I assumed my lieutenants and platoon sergeants would be reasonably familiar with standards for fighting positions. I found that Soldiers, NCOs, and my lieutenants did not know basic standards for positions despite having distributed cards from the Training Support Center with defensive position standards printed on them. One platoon was constructing a giant foxhole-type position, and some were putting the M240B in the center of the position rather than the corners as per doctrine to ensure flanking shots. Correcting these issues took significant time. For mounted positions, the attached engineers with dig equipment had been instructed not to dig vehicle positions over fears of damaging their equipment. It took some finesse, but we talked them into digging some of our TOW trucks in to the wheels.

Takeaways: Rehearse digging in before arriving at JRTC. What looks simple and briefs simple can be a mess in a hot, time-constrained environment with few digging assets. I recommend scheduling a week of defensive operations training that incorporates engineers, setting in obstacles, and digging infantry fighting obstacles. Additionally, this provides the opportunity to work with the engineers and establish relationships that will help ensure mission accomplishment and tactics, techniques and procedures (TTP) sharing. We employed mines in our scenario, which were resourced through the simulated Class V yard at Fort Polk. Check ahead of time if your scenario will incorporate mines as they are another device that will require rehearsals and training.

The new Fiscal Year (FY) 15 modified table of organization and equipment (MTOE) for Infantry brigade combat team (IBCT) weapons companies puts the Laser Target Locating Module down to the platoon level. This equipment can give you distance, direction, and grids to points in your engagement area. This can help you rapidly select and mark target reference points (TRPs) and build platoon sector sketches in support of the company defense plan. I made my defense plan on the hood of my command HMMWV with a red lens on a butcher block. It was ugly but functional. I briefed my platoon leaders using the product after having my FSO conduct a sanity check on it.

Counter Reconnaissance

The 1st Battalion, 509th Parachute Infantry Regiment — the JRTC OPFOR — has excellent recon capabilities. Geronimo Soldiers practice recon on every rotation, and relatively junior leaders in their organization (i.e. E-4s) often have a lot of experience leading recon patrols. Given the large signature of a delta company, I knew that it was likely that we would be easily observed digging in positions. I rotated a platoon at a time for counter-reconnaissance patrols ahead of the engagement area during defensive preparations. I had my headquarters element set up the AN/PRS-9 Battlefield Anti-Intrusion System prior to JRTC, but I had a malfunctioning system. However, there is value in that equipment as it can provide early warning for approaching forces down specific avenues of approach. However, I used another resource as part of my counter-recon fight. I coordinated for expendable-unattended ground sensors (E-UGS) for my rotation through the contractors who run the program. While it did not provide the analysis of "what" the threat was, it provided me with situational awareness (SA) as to the location of

Geronimo probing our position. I had my FSO manning the "Toughbook" laptop that monitors the sensors, and due to the decisive action rules of engagement (ROE), I was able to call for fire on the acquired E-UGS hits. In speaking with the OPFOR after the battle (one of the enemy recon leaders was my next door neighbor at Fort Polk), I was told that my Soldiers were easily seen digging in, and that there was a low standard in terms of my crews scanning for recon.

Takeaways: I recommend clearly identifying a rotation for scanning using the TOW Improved Target Acquisition System (ITAS) and digging in. My 1SG ensured that we rotated Soldiers through the air-conditioned ITAS trucks to prevent heat casualties, which can mount quickly at JRTC. I only had one minor heat casualty through the rotation, which was a testament to my NCO leader checks and monitoring the work-rest cycle during brutal heat and humidity during the day.

I also recommend rotating one of your four platoons at a given time to the counter-recon fight. Disseminating the location and composition of your forces ahead of the forward line of troops (FLOT) is key; I have frequently seen recon and counter-recon assets suffer fratricide at JRTC due to poorly disseminated recon and counter-recon plans. Use maps, overlays (printed products if possible) to ensure the location of friendly elements is known down to the lowest level. Counter-recon operations are another task that will be difficult to teach "on the job" during your defense; train them ahead of time.

Red Air (Enemy Rotary Wing) Threats

As a rotational unit in JRTC, there is both "blue air" (friendly rotary wing) and "red air" depending on the scenario. Reacting to air attack has not been a commonly discussed battle drill for Infantry units during the past several years. Thankfully, I had incorporated concepts involved in company-level air defense into a previous leader professional development (LPD) for the company and integrated red air (fixed and rotary wing) into my VBS2 scenarios. In this rotation, I was told that the OPFOR LH-72 Lakotas were simulating Mi-24 Hind-D helicopters. I instructed that no weapon system below .50 cal would engage enemy helicopters; and when they were engaged, that they would be fired on as "volley fire" on order. The OCTs adjudicated the helicopters as "damaged" due to our coordinated fires, thus limiting our losses to enemy red air.

Takeaways: An LPD with all platoon leaders and NCOs before the rotation will ensure that eager leaders do not compromise positions or waste ammunition on ineffective fires. For passive aerial defense measures, we used the herringbone formation at a halt and used the cover of trees when possible. In training scenarios, I trained platoons to be familiar with other air defense threats such as Mi-28 Havok and Ka-50 Hokum as the Mi-24 Hind is becoming less utilized due to age and obsolescence throughout the world despite its frequent inclusion in training scenarios. The M2A1 .50 cal armed with the MK211 multipurpose round would have significant effects on even armored helicopter fuselages in actual combat. At very close ranges the MK19 could be effective as well; however, the MK19 is not represented in JRTC rotations. The TOW missile is capable of destroying a slow-moving, low-flying helicopter as well, as is the Javelin. However, the employment of these weapons must be done judiciously, weighing the limited amount of ammunition in the basic load, the likelihood of scoring a hit, and the potential of highlighting the locations of a key weapons system to the enemy against the possible destruction of an enemy helicopter, which is one of the deadliest threats faced on the battlefield for a delta company.

Communication

The dual power-amp capabilities of a delta company were instrumental in JRTC as units were widely separated at times. During the battalion attack, my company acted as a de-facto retrans for the battalion as man-pack radios lacked the range to communicate between the battalion tactical command post (TAC) and line companies as they approached their assault positions; the mounted radios helped maintain communication and synchronization. Joint capabilities receivers (JCR) will be your best means of communicating long distances. The terrain at Fort Polk leads to terrible FM comms in general and a lot of dead space. My commo rep attached an additional section of radio aerial to the middle of the antennae on my power-amp vehicles (we called it a "super whip"), and it was instrumental in our ability to maintain communications with the elements in the woodline. The organic Harris Falcon II high-frequency (HF) radio was not used; the organizational knowledge was no longer present in our company or the battalion S6 shop on how to use HF frequencies. This represents a possible means of communication if you are able to research and get training frequencies for this radio system. I did not successfully employ this radio in my time as a weapons company commander. However, it would be ideal for operations and long-distance communication with the battalion tactical operations center (TOC) if the headquarters and headquarters company (HHC) commander employs his HF radio in the TOC as well.

Vehicle Markings

My company used a method of vehicle marking that, while somewhat unusual, allows for leaders and Soldiers to know at a glance which vehicle in the company that they are looking at. All vehicles are marked with 90-mile-per-hour tape. I utilized the Greek letter "delta" as the base symbol, which was represented by an equilateral triangle with 11-inch legs (chosen so a piece of copier paper could be used as a guide). The two "gun trucks" (M1025s) and TOW carriers (M1167s) had one to four vertical "tick" marks on the bottom of the triangle. Two ticks represent the section sergeant's vehicle while four represented the platoon sergeant's vehicle. Platoons were marked with one to four horizontal strips of tape on the rear doors, representing the four platoons. Just a technique, but it was easily identifiable on the battlefield. The company commander's and platoon leaders' vehicles were marked with Pink-side VS-17 panels on the roof with their call sign. The rest of the trucks were marked with orange-side VS-17 with call signs, with the XO's vehicle having two VS-17s. This was to assist in "talking on" attack aviation. Consider creative ways of marking key vehicles with infrared chemlights and strobes; any visual cue to find your own vehicles in a swirling fight and possibly talk-on attack aviation can be key. If all of your vehicles have the same night markings, it may be difficult or impossible for aviators to figure out what you are trying to talk them on to. An LPD with your platoon leaders and NCOs with an actual pilot can help your subordinates understand the five-line close combat attack (CCA) request or at least understand basic concepts like talking "big to small," direction of attack, and the capabilities and limitations of aviation.

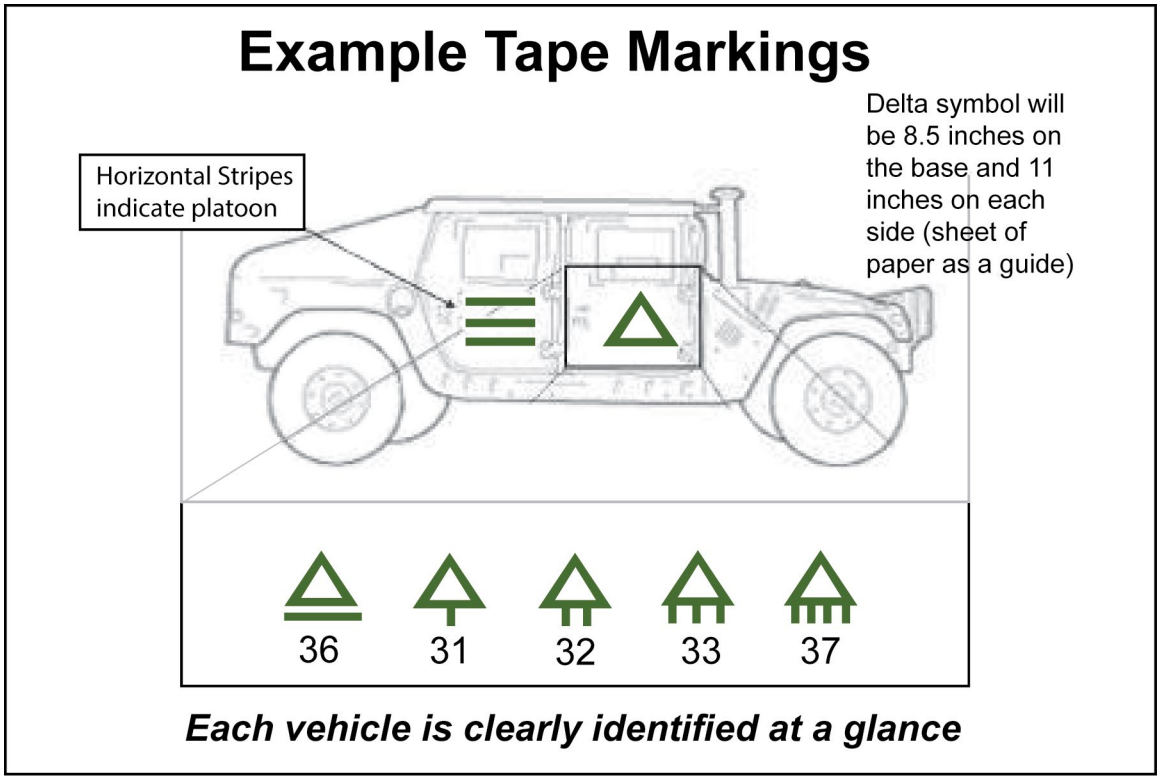

Figure 14-1. Example of tape markings.

Company Attack

The company attack was slated to be conducted at night. I employed six phase lines, each with an easy to remember progression (red, white, blue and purple, green, and gold, the last three being Mardi Gras colors). While I questioned if I had too many graphic control measures, it helped me maintain an accurate picture of my FLOT and coordinate with my platoons as the situation at night on the objective got hectic to say the least. I believe the new CS-15 communication (end-user device, which is like a "cell phone with a map") would have been great in this scenario, as maintaining SA of my elements (to include small fragments of surviving squads) was difficult at best. During the company attack, the OCTs had the majority of the company notionally "air assault" into a position south of the objective village. It was here that I saw that while we had trained well in mounted operations, our ability to move dismounted at night was poor. Formations were extremely close, and movement was noisy. I had to personally guide several elements in the direction of the attack despite the fact that we were along a linear roadway in the woodline. From this point forward, I utilized opportunities to train the platoons on night dismounted maneuver; for example, following a land navigation course, I would have the platoon practice moving through the woods with night optic devices (NODs) prior to bedding down. While mounted maneuver (day and night) is clearly the priority in a delta company (my battalion commander had told me "make sure Delta Company is good at driving and shooting"), it's good to take opportunities to ensure that they understand at least the basics of fighting as light Infantry, especially at night. This attack also highlighted the need for realistic TOW ITAS training. One ITAS gunner mistook a JRTC "hulk" vehicle on the battlefield for a tank even though the signature from a mildly-warm hulk vehicle and an operating tracked vehicle are quite different.

Having TOW crews conduct "field tracking" training with actual vehicles (VISMOD OPFOR vehicles, ideally) will help build that proficiency. The Recognition Of Combat Vehicles (ROC-V) trainer available online is also a great resource for teaching crews what thermal signatures look like for friendly and enemy wheeled and tracked vehicles.

Another focus item during the company attack was the breach of a wire obstacle. The JRTC products showed a wire obstacle at both the north and south ends of the village. Identify a primary breach element but ensure all platoon conduct breach rehearsals. For suppression, we used a mounted element with gun trucks and a TOW ITAS truck to destroy armored elements. For obscuration, we used hand-thrown smoke. Securing and reduction were conducted by my second platoon with wire cutters (the obstacle was wire and angle iron and easily defeated). Use real wire and the equipment (i.e. wire cutters, smoke, etc.) you will use to breach with during your rehearsals. Due to the chaos of an attack, your breach element may be attrited and you will have to re-task another platoon to open a lane. Ensure that all elements know the breaching fundamentals (suppress, obscure, secure, reduce, and assault — SOSRA). I ensured that I was close enough to the breach point to see the progress of the breach element but not get myself killed in the breach. Due to the intensity of the OPFOR fire and realistic pyrotechnics, my breach elements became timid. Being at the point of friction allowed me to direct them to continue with violence of action and pass platoons through the breach. Finding the point at which you are far enough forward but not bogged down in the 50-meter fight takes some finesse and patience.

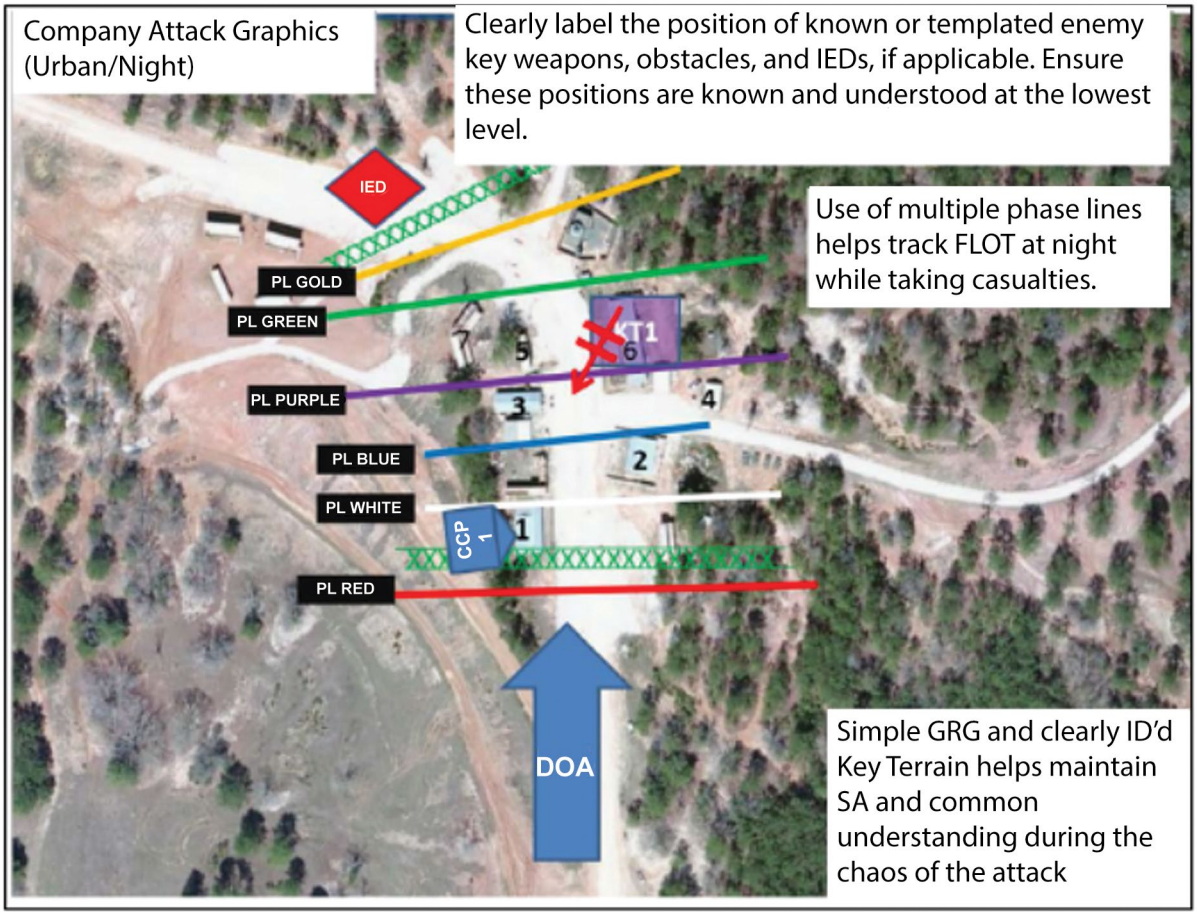

Figure 14-2. Company attack graphic.

Attack

The battalion attack was a particularly interesting training event, as I had never conducted a battalion-level offensive operation previously. Prior to the operation, my battalion commander conducted a reduced force rehearsal on Geronimo Drop Zone that incorporated phase lines, operation schedules (OPSKEDs) being called over the radio for all key events (i.e. A/B/C companies securing their assault positions), and fires. Delta Company headquarters drove several HMMWVs from phase line to phase line, helping the leaders at all levels visualize the attack. Having a full rehearsal like this really helped synchronize the operation. The attached MP company, while motivated, did not have a lot of familiarity with mounted operations. Unless you have an existing relationship with non-combat arms attachments and a thorough understanding of their capabilities, consider A) using them to plus-up your platoons (i.e. divvy them out) or B) maintain them as a reserve. I gave them specific tactical tasks during the operation; it would have been better maintaining them as a reserve than using them as a fifth platoon. Another key component of the battalion attack for a delta company was the breach of a wire obstacle on the road leading into the town. My attached engineer (sapper) squad made a simulated improvised Bangalore torpedo that was OC-approved (the charges need to be made to a certain standard to "work" in JRTC; they are depicted in the exercise ROE), and the squad rehearsed emplacing the charge and cutting the wire with wire cutters. Their extensive rehearsals and smoke from Field Artillery smoke missions at the north end of the town allowed them to open the breach and pass the company through. Your scenario may have mines "in play;" think through your reduction plan if that is a factor in achieving a successful breach.

My company was the last remaining element in Jetertown, which was unexpected. Although we had war-gamed many possibilities, we had not discussed the possibility of Delta Company occupying the town in depth following the destruction of the light Infantry companies. A 30-second contingency plan addressing this possibility would have helped my subordinates visualize dismounting and seizing the high-ground better.

Multiple Integrated Laser Engagement System (MILES)

Prior to JRTC, ensure that you have an adequate supply of M240B blank firing adapters (BFAs) and discriminators. They are in short supply at Fort Polk, and you will likely just be down a crew-served weapon without it. Also, M2A1 .50 cals mount the BFA differently as well; talk to the Training Support Center about getting a long term loan on them and mount them well in advance of JRTC to ensure there are no issues. Learn the MILES AT-4s and Javelins before JRTC. OCTs are generally unhelpful in resolving your MILES issues, and the 1-509th PIR uses that stuff all of the time. If your Soldiers do not have the AT-4s and Javelins mated to the harness properly, they will not work, and you will be down more valuable anti-armor weapons. Also, ensuring you have adequate Anti-Tank Weapons Effect Signature Simulator (ATWESS) rounds for your TOWs is key. TOW MILES installation is an involved process; research it prior to your arrival in the box, as it is your most important weapon system.

Recommendations

1. The delta company has six vehicles in the company which do not have crew-served weapons. Unless the admin vehicles are filled with Soldiers able to dismount with AT-4s or Javelins, the company and platoon HQ vehicles (minus the LMTV with an M66 ring mount) do not bring additional firepower to the point of friction. The addition of a Common Remotely Operated Weapons Stations (CROWS) equipment would greatly increase company firepower, as there would be an additional six machine guns (M240L at the least) to bring to the fight, along with

additional optics capabilities. Literally, there is no recourse for the platoon leader to get into the fight without having to dismount, or even more illogically, fire from his vehicle with his personal weapon, in the close fight. The current mismatch of unarmored M1025 HMMWVs with M1167s creates a mismatch of protection and vehicle capabilities, as the M1025 can go in many places the 1167 cannot.

2. FM 3-21.12 does not address engineer planning in-depth. While it does provide a conceptual overview of the process required to dig-in a weapons company, along with a warning to the limitation of the pre-brigade engineer battalion (BEB) engineer company ability to dig in without augmentation, it does not provide the commander with any planning factors, example positions, or other resources to assist him in his defensive preparations. While tables for blade hours and other engineer considerations are easily found for tanks and Infantry fighting vehicles (IFVs), they are absent for TOW and heavy weapons vehicles. This would only require an additional page or so added to the manual and be of great help in disseminating a standard that can be incorporated into a tactical SOP (TACSOP).

Appendix A

Commander Aides in Manning and Operating a Company Command Post

Note: The following materials provide recommendations for company commanders (COs) in determining how to man and operate company command posts (CPs). The following examples and illustrations are the result of best practices and observations at the Joint Readiness Training Center and current Army doctrine.

Roles and Responsibilities

Executive Officer (XO)

- Second in command, responsible for CP operations and related standard operating procedures (SOPs).
- Monitors sustainment with the first sergeant (1SG).
- Operates the CP when the CO is not present.

1SG

- Ensures the CP is properly manned.
- Monitors sustainment with the XO.
- Ensures personnel and combat power figures are correct.
- Advises the commander on mission command (MC) functions.

Communications Sergeant (SGT)/Nuclear, Biological, and Chemical SGT (If Resourced)

- Acts as the noncommissioned officer (NCO) on duty and runs individual shifts.
- Maintains situational awareness and common operating picture (COP).
- Ensures all information is current and briefs the CO upon arrival.
- Ensures reporting is timely and accurate.

Fires Officer/Fires Support Officer (FSO)

- Monitors indirect fires.
- Deconflicts airspace.
- Works future operations with the CO.
- Maintains asset requests.
- Oversees the company intelligence support team (COIST).

COIST SGT (If Resourced)

- Maintains company intelligence picture.
- Assists with predictive analysis during contact.
- Responsible for briefs prior to and debriefs on return.
- Maintains “enemy area” of CP.

Radio-Telephone Operators (RTOs)

- Coordinate with higher echelon; collocated with battalion.
- Distribute products to subordinate units.
- Receive products from battalion.
- Act as a runner if radio communications are not established or operational.

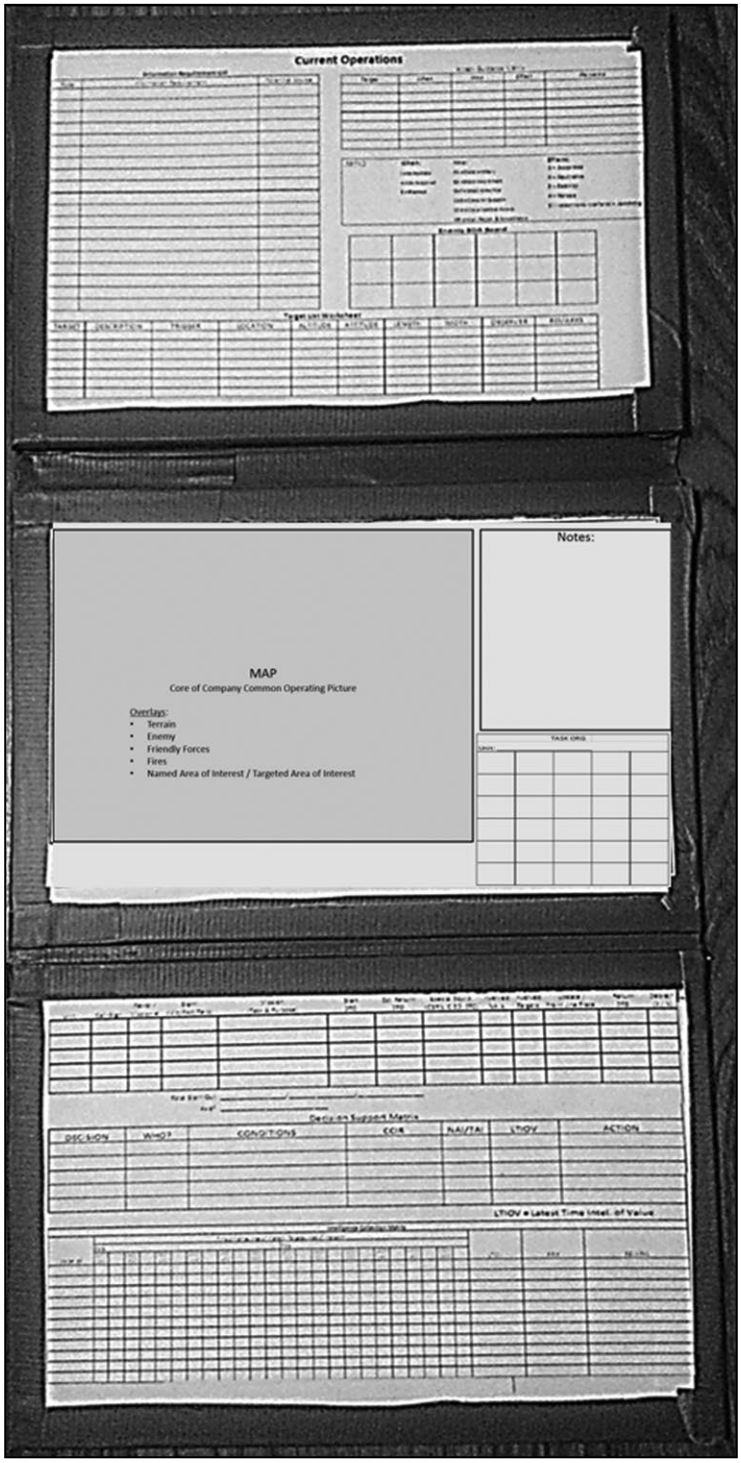

Figure A-1. Proposed tri-fold for the company COP.

This proposed tri-fold is much like the division of the battalion operations section, whereas the COP is broken into two sections:

- Current operations
- Future operations

The tri-fold is built using 0.1-inch Plexiglas, making the total thickness to just over 0.6 inches. Each sheet of plexiglass is 9 inches by 14.5 inches. Each posted page is printed on legal-sized paper (8.5 inches by 14 inches). When constructed, the tri-fold is a lightweight, portable "picture" that can be easily transported in a standard-issue assault pack.

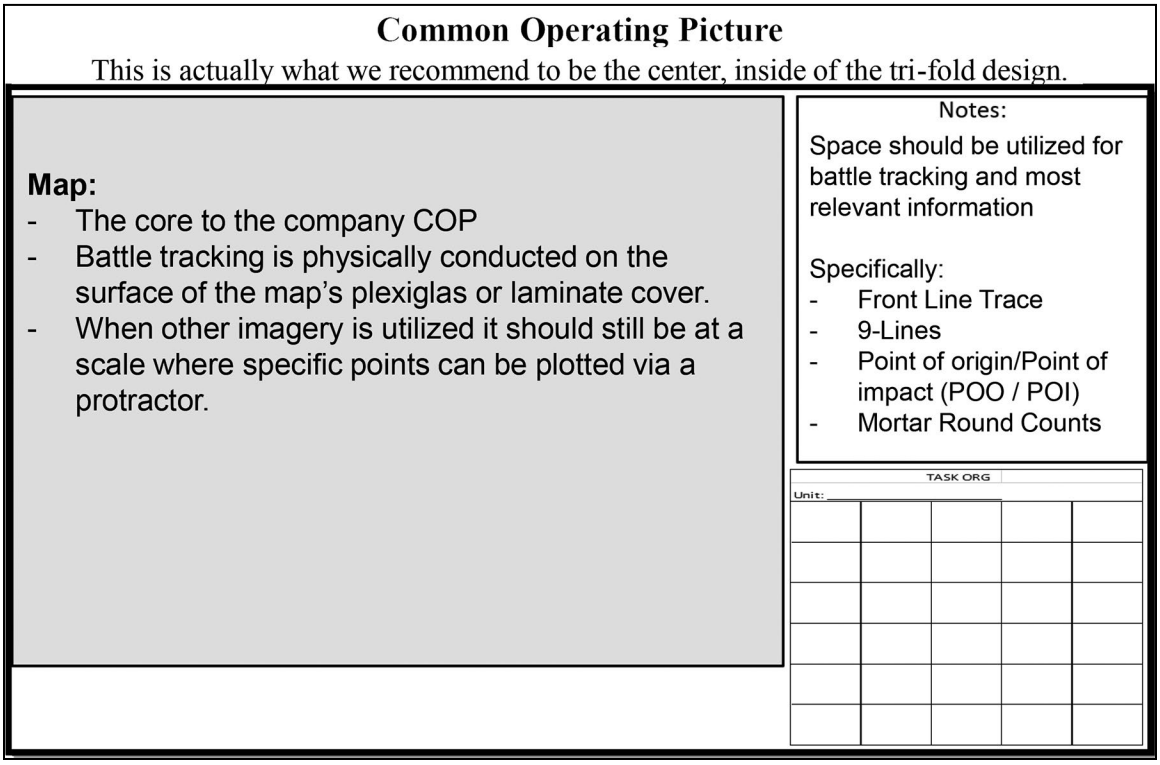

Figure A-2. Center of COP tri-fold.

The following information applies to the COP:

Task Organize:

- Completed by the CO with input and tactical guidance from the company 1SG.
- Allows the commander to quickly reference the temporary grouping of forces designed to accomplish a particular mission.
- Visualization of the command and support relationships that provide the basis for unity of MC and unity of effort.

Overlays:

- Should consist of the following:
  - Terrain analysis
  - Enemy

- Friendly forces
- Fires
- Named areas of interest (NAIs)/targeted areas of interest (TAIs)

- Should be updated or revised as the situation develops.
- Company XO ensures the overlays are done to standard, which enables movement, maneuver, and MC, as well as builds shared understanding.
- All overlays should annotate the following:
  - Grid zone designator
  - Grid zone intersection markers
  - Map sheet, if multiple are used
  - "As of" time and "Compile by" designators

Current Operations

This is actually what we recommend to be the top, inside of the tri-fold design.

Current Operations

Information Requirement List

Type	Information Requirement	Potential Source

Attack Guidance Matrix

Target	*When*	*How*	*Effect*	*Remarks*

LEGEND	When:	How:		Effects:
	I = Immediate	FA = Field Artillery		S = Suppress
	A = As Acquired	EA = Electronic Attack		N = Neutralize
	P = Planned	SAF = Small Arms Fire		D = Destroy
		CAS = Close Air Support		H = Harass
		CCA = Close Combat Attack		EW (electronic warfare) = Jamming
		ISR = Intel, Recon, & Surveillance		

Enemy BDA Board

Target List Worksheet

TARGET	DESCRIPTION	TRIGGER	LOCATION	ALTITUDE	ATTITUDE	LENGTH	WIDTH	OBSERVER	REMARKS

- Built and maintained by the FSO, FSNCO, and mortar section sergeant.
- Listing of all targets and their descriptions that allow quick reference for both planning and employment that directly correlates to the *Fires Overlay.*
- Should support the Company CDR's scheme of movement and maneuver.

Figure A-3. Top, inside of COP tri-fold.

Information Requirements (IRs) List:

- COIST generates the information requirements list based on the intelligence preparation of the battlefield (IPB) and decision support matrix.
- IRs are approved by the CO and nested with the battalion's IRs.

- Driven by the IRs from the IPB in relation to the effects of terrain, enemy, civil population, and any accumulated assumptions and the decision support matrix.
- Should be updated as operations are conducted.

Attack Guidance Matrix:

- Completed by CO, addresses the targets to be attacked, how, when, and desired effects.
- Defines key engagement criteria to subordinates.
- Specifies target priority.
- Supports the most efficient and effective means available to engage the target.

Enemy Battle Damage Assessment (BDA) Board:

- Completed and updated by the COIST.
- Illustrated using military symbology.
- Allows unit to quickly reference the key enemy elements that are assessed to be operating in your area of operation (AO).

Overlays:

- **Terrain.**
    - Built and updated by the COIST.
    - Limited planning time; forces leaders to prioritize their terrain analysis (for example, in the attack, areas immediately around the objective may be prioritized, followed by the company's specific avenue of approach to the objective).
    - A visual depiction of the effects terrain and weather have on the mission; specifically it should show terrain mobility classifications, key terrain, inter-visibility lines, known obstacles, avenues of approach, and mobility corridors.
    - Initially, it should start as a "Graphic Depiction of Terrain."
    - Finalize as a Graphic Terrain Analysis Overlay, which is the company-level version of the battalion's Modified Combined Obstacle Overlay, with which it should nest.
- **Enemy.**
    - Built by the COIST, based on the battalion S-2 event template.
    - Begins as an enemy situation template with emphasis on the enemy's most likely course of action (COA).
    - Updated as the developing situation dictates or by phase of the operation.
    - FSO/FSNCO should assist in annotating the enemy indirect fire point of origin and range rings.

- **Friendly Forces.**
    - Originates with the CO and the XO.
    - First stage is the arrayment of friendly forces, but develops through COA analysis (war gaming).
    - Should be drafted as an intent graphic and finalized as the company's concept sketch.
    - Annotates the location of friendly forces, unit boundaries, and graphic control measures, such as phase lines and restricted fire graphics.
- **Fires.**
    - Updated and maintained by the FSO with input from the mortar section SGT.
    - Should annotate targets, mortar firing points, applicable artillery firing points, and friendly forces' indirect-fire range rings.
    - Remember, targets should be both top-down pushed as well as bottom-up refined to ensure fires are synchronized and economy of effort is achieved.
- **NAIs/TAIs.**
    - COIST builds the overlay, which is verified by the company XO and is based on COA analysis with the CO.
    - Driven by the IRs derived from the IPB and any accumulated assumptions.
    - Remember, decision points also merit their respective NAIs/TAIs.

This is what we recommend to be the bottom, inside of the tri-fold design.

Unit:	Call-Sign:	Patrol / Mission #:	Slant: (Vic/PAX/Terp)	Mission: (Task & Purpose)	Start DTG:	Est. Return DTG:	Special Equip. (CBRN, CIED, ETC)	Involved NAI's	Involved Targets	Update / Front Line Trace:	Return DTG:	Debreif: (Y / N)

Total Slant Out: _____/_____/_____

As of: _____

Decision Support Matrix

DECISION	WHO?	CONDITIONS	CCIR	NAI/TAI	LTIOV	ACTION
- Completed by the Company CDR, with input and tactical guidance from the Company First Sergeant.						
- Captures the decisions derived from the analysis of effects of the terrain, enemy, friendly forces, and civil population.						
- Should drive movement and maneuver.					LTIOV = Latest Time Intel. of Value	

Intelligence Collection Matrix

OBSERVER	Time on Named Area of Interest / Targeted Area of Interest #																								LTIOV	PIR #	REMARKS
	Date:												Date:														
	0000-0200		0400-0600		0800-1000		1200-1400		1600-1800		2000-2200		0000-0200		0400-0600		0800-1000		1200-1400		1600-1800		2000-2200				
																									LTIOV = Latest Time Intel. of Value		

Figure A-4. Bottom, inside of COP tri-fold.

Patrol Tracker:

- Information is filled out by the patrol or mission leader prior to the mission, but updated by RTO.
- Special attention is given by the FSO/FSNCO and mortar section SGT so they utilize their assets to support the mission, such as "laying on the guns."
- COIST assists in the pre-mission brief and mission debrief for helping build a better shared understanding of the AO while ensuring which IRs have been met by the mission.
- Great emphasis must be placed on keeping the information up to date as it relates to clearance of fire procedures, adjacent unit coordination, and medical coverage (casualty collection points, casualty evacuations, etc.).

Intelligence Collection Matrix:

- Maintained by COIST.
- Fosters a shared understanding of the intelligence collection asset's coverage plans.
- Should be used to identify gaps in coverage.
- Should help predict when the unit may be able to answer certain IRs.
- Should not just illustrate intelligence collection elements under operational control to the unit, but also across the battlefield.
- Attention should be paid during planning to the latest time the intelligence is of value.

This is what we recommend to be the top, outside the tri-fold design.

Future Operations

Obstacle Overlay

Zone / Belt / Group / Obstacle #	Location	Type	Effect	Priority	Emplacing / Clearance Unit	Lane Location	Materials / Assets Required	Materials / Asset Location	Special Instructions

High-Value / High Payoff Target List

Priority:	Name:	Type:	Description:	Remarks:

Communication Card

	Primary	Alternate	Contigency	Emergency
HQ				
1ST Platoon				
2ND Platoon				
3RD Platoon				
4TH Platoon				
BN				
BN CMD				
Admin & Log				
Ops & Intel				
Fires				

Friendly Forces Identification Measures:

Codewords:				
Challenge:	Password:	Number Combo:	Running Password:	

Visual Signals:

	Day:		Night:	
Near:				
Far:				

ASSET & ENABLER TRACKER

ASSET / ENABLER	TIME Date: 0000-0200	0400-0600	0800-1000	1200-1400	1600-1800	2000-2200	Date: 0000-0200	0400-0600	0800-1000	1200-1400	1600-1800	2000-2200	TASK	PURPOSE	FREQ	REMARKS

(Rotary Wings, Fixed Wing, UAS, HNSF, CA, PRT, PSYOPS, LLVI, EOD, RCT, CIED)

Figure A-5. Top, outside of COP tri-fold.

Obstacle Overlay Matrix:

- Allows leaders to ID priority of obstacle emplacements.
- In absence of an engineer element, constructed by the XO.
- Helps drive decisions to where dig assets should be utilized and Class IV materiels should be dropped based on priority.

Communication Card:

- Maintained by RTO, but supervised by the XO.
- Supports MC of movement and maneuver.
- Planned and implemented in terms of the primary, alternate, contingency, and emergency (PACE) communication plan.
- Remember, PACE is not planned through the utilization of the same communications systems, but through different "channels."
- Should include over the horizon and digital communications systems.
- PACE recognizes different range requirements.
- Should be updated and planned by phase.
- Must include friendly force ID measures (derived from the operation order and nested with the unit SOP, which helps prevent fratricide).

Asset and Enabler Tracker:

- Maintained by the 1SG and XO.
- Tracks both company assets and enablers, but also additional assets and enablers operating in the battalion AO.
- Provides situational awareness for the physical proximity of elements in the AO.
- Allows the company to build contingency plans or react to developing situations by leveraging the assets/enablers operating in the AO.
- Must maintain an up-to-date frequency and call sign information.
- Allows 1SG and XO to better forecast sustainment requirements for non-organic personnel and equipment.

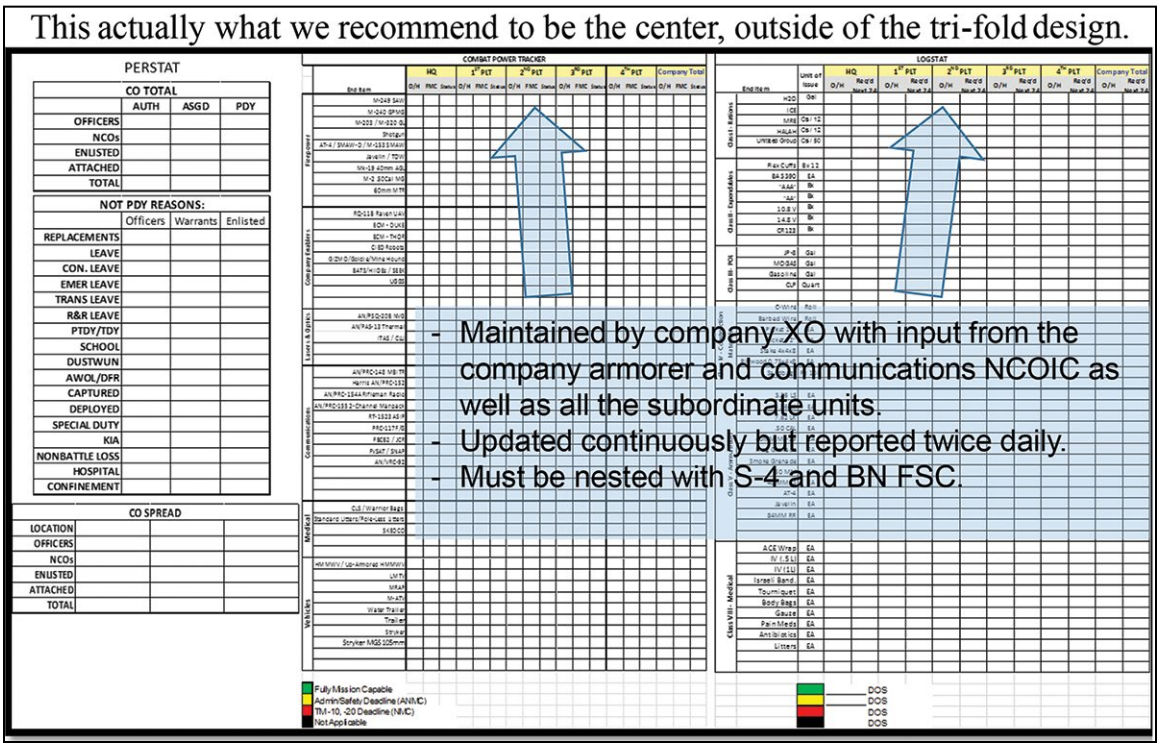

Figure A-6. Center, outside of COP guide.

Personnel Status:

- Updated by 1SG based on reporting from the platoon and section SGTs.
- Reporting requirements should be nested with battalion S-1 section.

Combat Power Tracker:

- Drives potential for force array by the CO by making informed decisions.
- Governed by overall "mission capable" status of each item.
- Drives requests for Class VII (major end items such as tanks, vehicles, and launchers).

Logistics Status:

- Enables XO to forecast for future operations.
- Allows CO to make informed decisions about the capabilities and limitations of his company.
- Governed by the amount of on-hand "days of supply" for each item.

SYNCHRONIZATION MATRIX							
	Mission:						
	PHASE						
	H-Hour						
	D-Day						
	Day / Night						
	Enemy Action						
	HNSF						
	Population						
	Decision Point						
	Control Measures						
Movement & Maneuver							
	Reserve						
Intelligence	ISR						
Fire Support	Mortars						
	Artillery						
	Close Air Support						
	Close Combat Attack						
Protection & Survivability	Engineer						
	Air/Missile Defense						
	CBRNE						
	RCP						
	Counter IED						
Sustainment	Medical						
Non-Lethal	Electronic Warfare						
	Information Ops						
Civil-Military	Non-Lethal						
	Interagency						
	Non-Gov. Agencies						
	Mission Command						

Figure A-7. Bottom, outside of COP guide.

The synchronization matrix should:

- Capture results of the COA analysis and combined arms rehearsal.
- Break down by time, space, and purpose by phase.
- Be maintained by CO with inputs from respected warfighting function specialists.

- Capture the conditions that must be set to establish and maintain control.
- Prevent "mission creep."
- Enable the commander to—
    - Synchronize and deconflict elements to ensure economy of effort.
    - Ensure conditions set to authorize execution of next conditions-based event.
- Help build the execution template for planned operations.

Worksheets and Matrices

3F. Command Post Operations

HARDSTAND	TACTICAL
PERSONNEL: -COMMANDER (BN Cmd) -RTO (Co Cmd) -FIRE SUPPORT OFFICER (BN Fires) -RTO (Co Fires) -COIST -1SG/MEDIC -FIRE SUPPORT NCO (Co Fires) EQUIPMENT -POWER SOURCE -INVERTER -BLUE FORCE TRACKER -ASIPS (X5) -WHITE BOARD (X2) SETUP: -PLANNING AREA	PERSONNEL: -COMMANDER (BN Cmd) -RTO (Co Cmd) -FIRE SUPPORT OFFICER (BN Fires) -RTO (Co Fires) -COIST -1SG/MEDIC -FIRE SUPPORT NCO (Co Fires) EQUIPMENT: -ASIPS (X5) -FIELD EXPEDIENT ATENNA/OC254 -LITTER SETUP: -MORTAR FIRING POINT - HELICOPTER LANDING ZONE - TERRAIN MODEL -CASUALTY COLLECTION POINT -COMMAND BUNKER (10'X 8'X 6' TRENCH) -ENEMY COLLECTION POINT (IN ACCORDANCE WITH 5 S'S)

Figure A-8. CP operations: Hardstand and Tactical personnel, equipment, and setup listings.

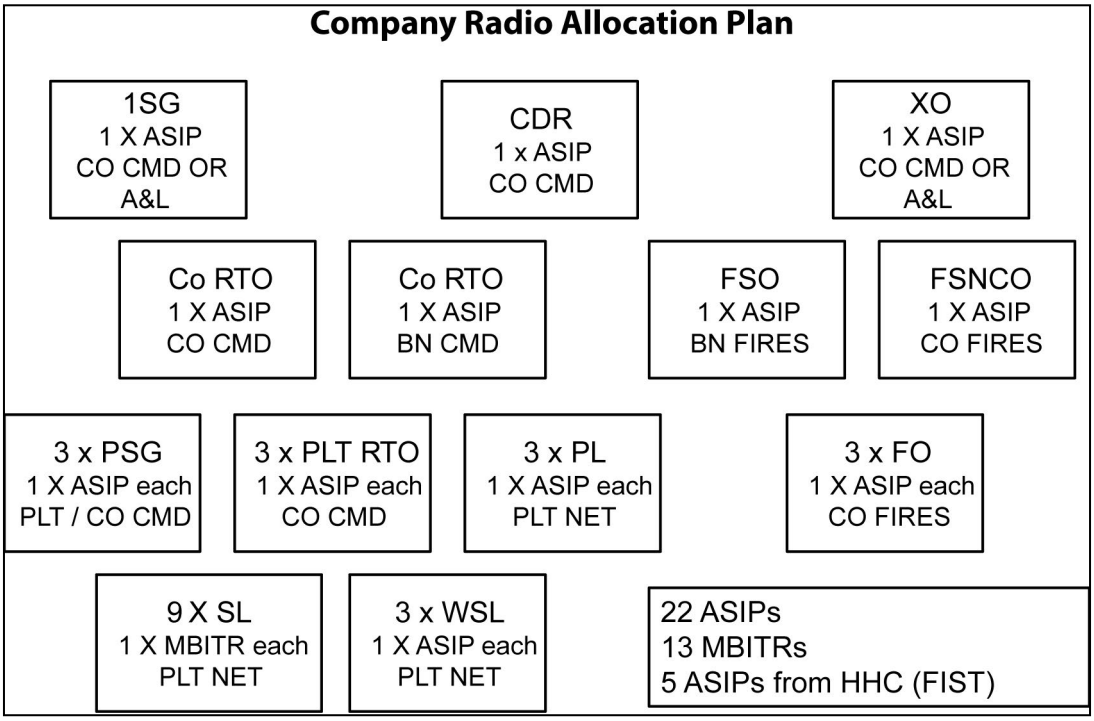

Figure A-9. Company radio allocation plan.

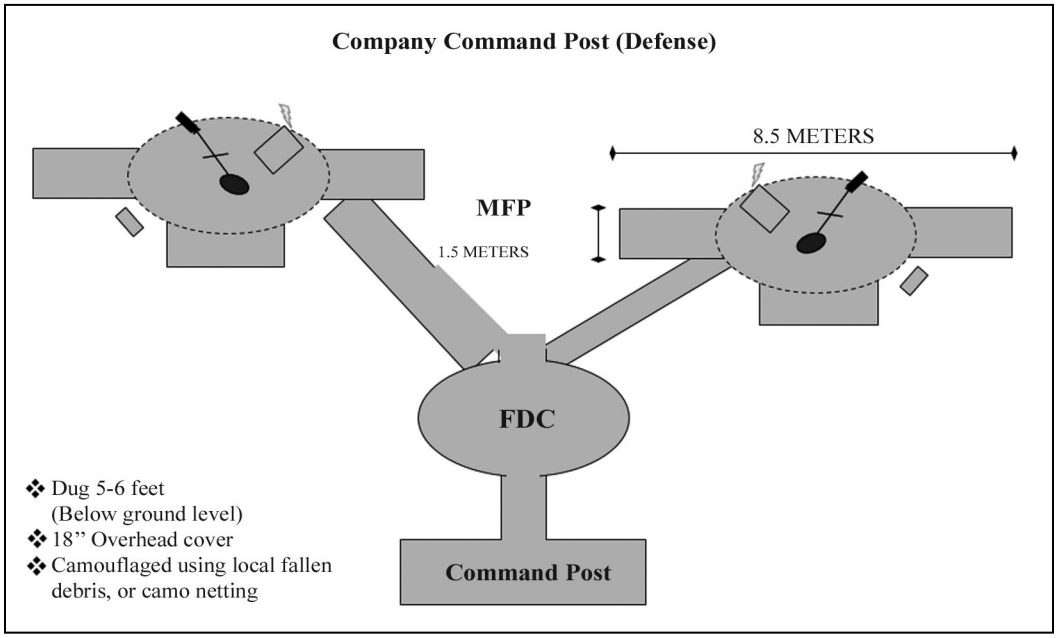

Figure A-10. Company CP (defense) chart.

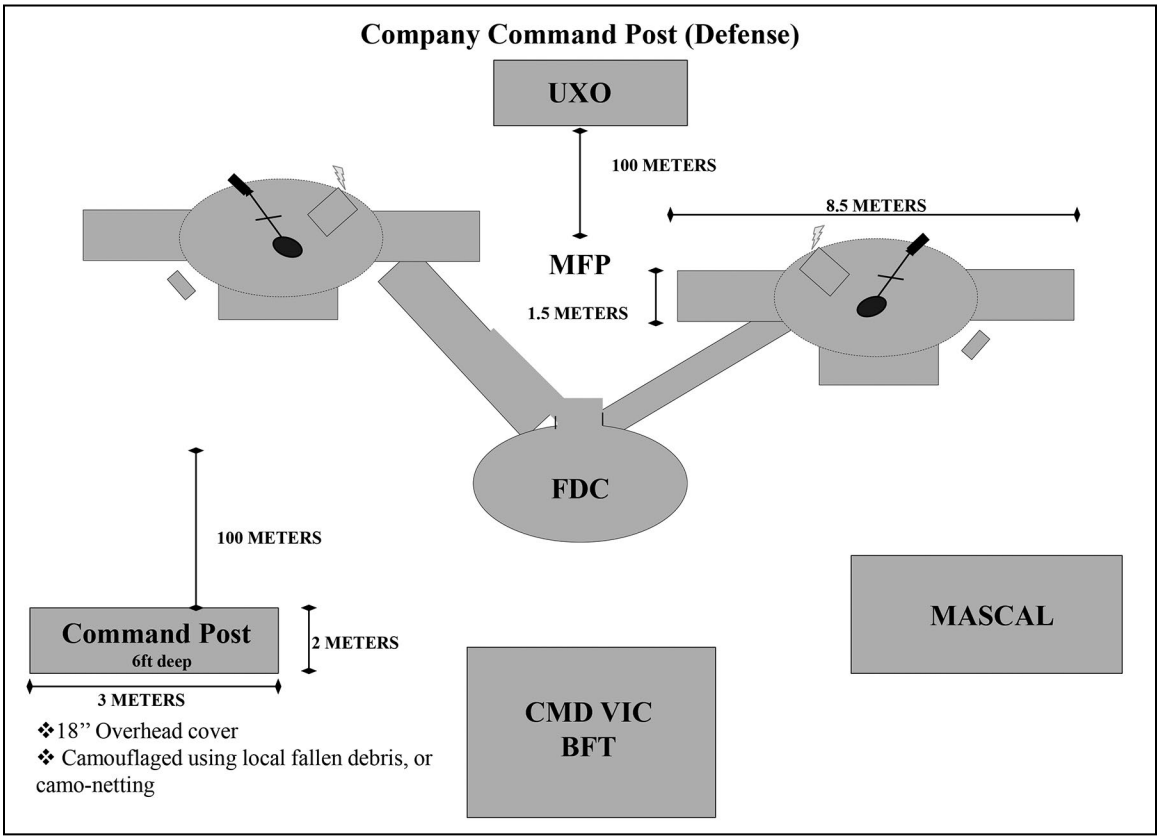

Figure A-10. Company CP (defense) chart (continued).

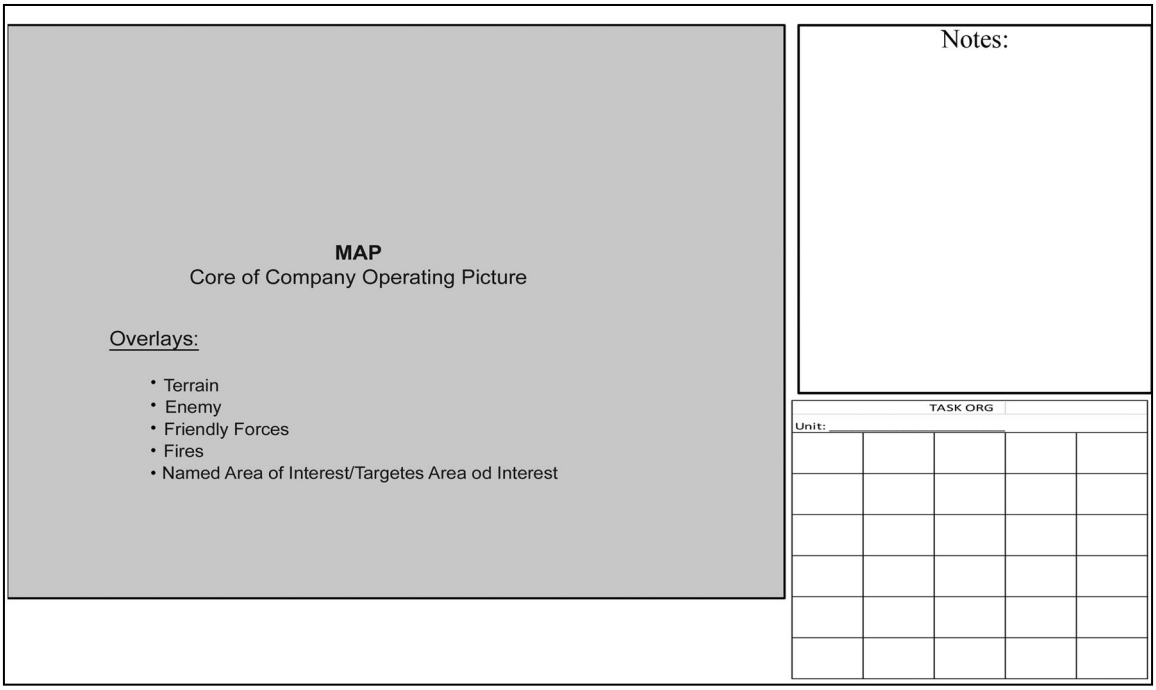

Figure A-11. Map, notes, and task organization.

Current Operations

Information Requirement List

Type	Information Requirement	Potential Source

Attack Guidance Matrix

Target	*When*	*How*	*Effect*	*Remarks*

LEGEND	When:	How:	Effects:
	I = Immediate	FA = Field Artillery	S = Suppress
	A = As Acquired	EA = Electronic Attack	N = Neutralize
	P = Planned	SAF = Small Arms Fire	D = Destroy
		CAS = Close Air Support	H = Harass
		CCA = Close Combat Attack	EW (electronic warfare) = Jamming
		ISR = Intel, Recon, & Surveillance	

Enemy BDA Board

Target List Worksheet

TARGET	DESCRIPTION	TRIGGER	LOCATION	ALTITUDE	ATTITUDE	LENGTH	WIDTH	OBSERVER	REMARKS

Figure A-12. Current operations with IRs list, attack guidance matrix, enemy BDA board, and target list worksheet.

Patrol / Mission Tracker

Unit:	Call-Sign:	Patrol / Mission #:	Slant: (Vic/PAX/Terp)	Mission: (Task & Purpose)	Start DTG:	Est. Return DTG:	Special Equip. (CBRN, CIED, ETC)	Involved NAI's	Involved Targets	Update / Front Line Trace:	Return DTG:	Debreif: (Y / N)

Total Slant Out: _____/_____/_____

As of: _____

Decision Support Matrix

DECISION	WHO?	CONDITIONS	CCIR	NAI/TAI	LTIOV	ACTION

LTIOV = Latest Time Intel. of Value

Intelligence Collection Matrix

OBSERVER	Time on Named Area of Interest / Targeted Area of Interest # (Date: 0000-0200, 0400-0600, 0800-1000, 1200-1400, 1600-1800, 2000-2200; Date: 0000-0200, 0400-0600, 0800-1000, 1200-1400, 1600-1800, 2000-2200)	LTIOV	PIR #	REMARKS

LTIOV = Latest Time Intel. of Value

Figure A-13. Patrol/mission tracker, decision support matrix, and intelligence collection matrix.

Future Operations

Obstacle Overlay

Zone / Belt / Group / Obstacle #	Location	Type	Effect	Priority	Emplacing / Clearance Unit	Lane Location	Materials / Assets Required	Materials / Asset Location	Special Instructions

High-Value / High Payoff Target List

Priority:	Name:	Type:	Description:	Remarks:

Communication Card

	Primary	Alternate	Contigency	Emergency
HQ				
1ST Platoon				
2ND Platoon				
3RD Platoon				
4TH Platoon				
BN				
BN CMD				
Admin & Log.				
Ops & Intel.				
Fires				

Friendly Forces Identification Measures:

Codewords:				
Challenge:	Password:	Number Combo:	Running Password:	

Visual Signals:

	Day:		Night:	
Near:				
Far:				

ASSET & ENABLER TRACKER

ASSET / ENABLER	TIME Date: 0000 - 0200	0400 - 0600	0800 - 1000	1200 - 1400	1600 - 1800	2000 - 2200	Date: 0000 - 0200	0400 - 0600	0800 - 1000	1200 - 1400	1600 - 1800	2000 - 2200	TASK	PURPOSE	FREQ	REMARKS

(Rotary Wings, Fixed Wing, UAS, HNSF, CA, PRT, PSYOPS, LLVI, EOD, RCT, CIED)

Figure A-14. Future operations worksheet.

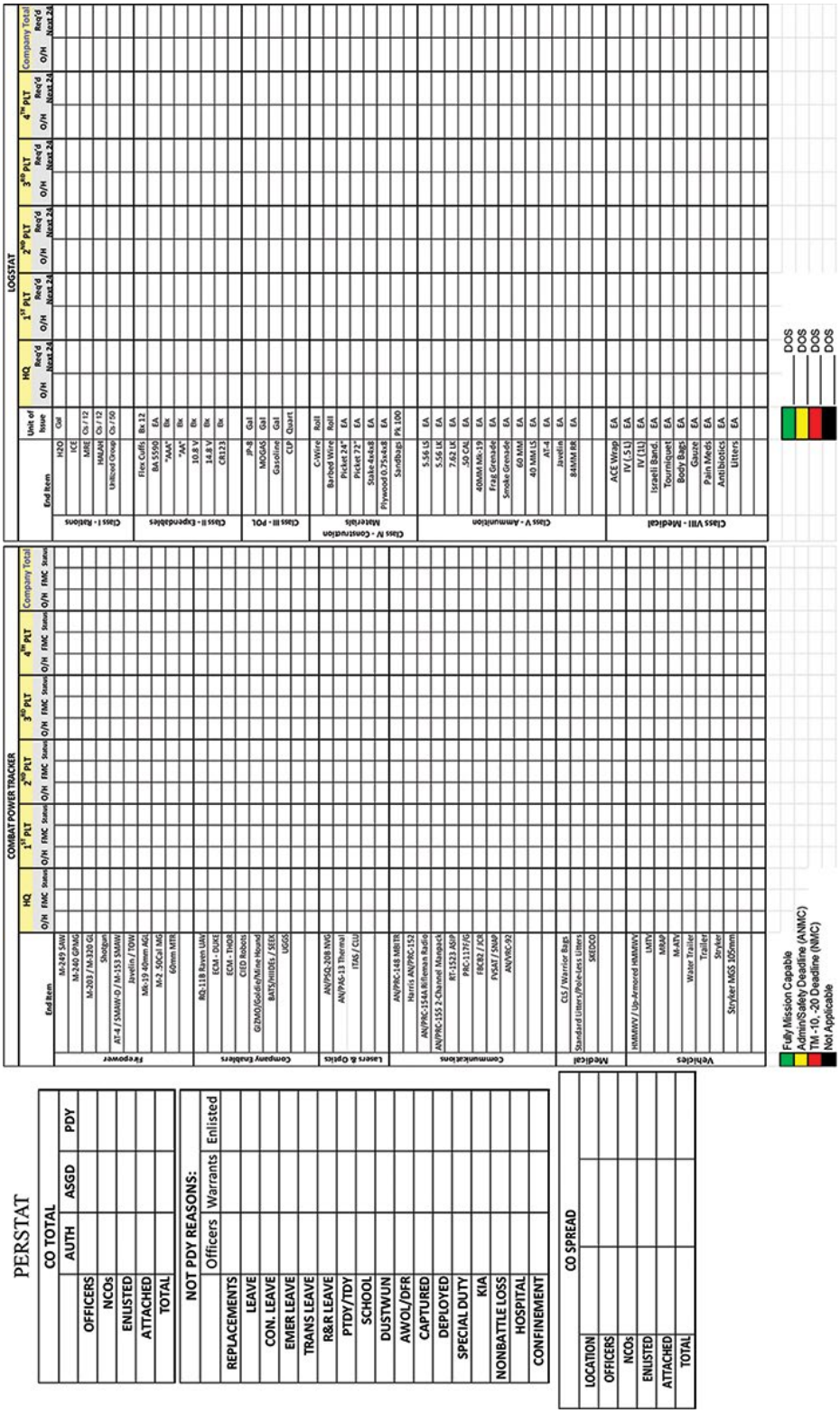

Figure A-15. Personnel statistics worksheets.

SYNCHRONIZATION MATRIX							
	Mission:						
	PHASE						
	H-Hour						
	D-Day						
	Day / Night						
	Enemy Action						
	HNSF						
	Population						
	Decision Point						
	Control Measures						
Movement & Maneuver							
	Reserve						
Intelligence	ISR						
Fire Support	Mortars						
	Artillery						
	Close Air Support						
	Close Combat Attack						
Protection & Survivability	Engineer						
	Air/Missile Defense						
	CBRNE						
	RCP						
	Counter IED						
Sustainment	Medical						
Non-Lethal	Electronic Warfare						
	Information Ops						
Civil-Military	Non-Lethal						
	Interagency						
	Non-Gov. Agencies						
	Mission Command						

Figure A-16. Synchronization matrix.

SUBMIT INFORMATION OR REQUEST PUBLICATIONS

To help you access information efficiently, the Center for Army Lessons Learned (CALL) posts publications and other useful products available for download on the CALL website:

http://call.army.mil

PROVIDE LESSONS AND BEST PRACTICES OR SUBMIT AN AFTER ACTION REVIEW (AAR)

If your unit has identified lessons or best practices or would like to submit an AAR or a request for information (RFI), please contact CALL using the following information:

Telephone: DSN 552-9569/9533; Commercial 913-684-9569/9533

Fax: DSN 552-4387; Commercial 913-684-4387

Mailing Address: **Center for Army Lessons Learned**
ATTN: Chief, Collection and Analysis Division
10 Meade Ave., Bldg. 50
Fort Leavenworth, KS 66027-1350

REQUEST COPIES OF CALL PUBLICATIONS

If you would like copies of this publication, please submit your request on the CALL restricted website (CAC login required):

https://call2.army.mil

Click on "Request for Publications." Please fill in all the information, including your unit name and street address. Please include building number and street for military posts.

NOTE: Some CALL publications are no longer available in print. Digital publications are available by clicking on "Publications by Type" under the "Resources" tab on the CALL restricted website, where you can access and download information. CALL also offers Web-based access to the CALL archives.

CALL produces the following publications on a variety of subjects:

- **Handbooks**
- **Bulletins, Newsletters, and Observation Reports**
- **Special Studies**
- ***News From the Front***
- **Training Lessons and Best Practices**
- **Initial Impressions Reports**

FOLLOW CALL ON SOCIAL MEDIA

https://twitter.com/USArmy_CALL
https://www.facebook.com/CenterforArmyLessonsLearned

COMBINED ARMS CENTER (CAC)
Additional Publications and Resources

The CAC home page address is: **http://usacac.army.mil**

Center for Army Leadership (CAL)

CAL plans and programs leadership instruction, doctrine, and research. CAL integrates and synchronizes the Professional Military Education Systems and Civilian Education System. Find CAL products at <http://usacac.army.mil/cac2/cal>.

Combat Studies Institute (CSI)

CSI is a military history think tank that produces timely and relevant military history and contemporary operational history. Find CSI products at <http://usacac.army.mil/cac2/csi/csipubs.asp>.

Combined Arms Doctrine Directorate (CADD)

CADD develops, writes, and updates Army doctrine at the corps and division level. Find the doctrinal publications at either the Army Publishing Directorate (APD) <http://www.apd.army.mil> or the Central Army Registry (formerly known as the Reimer Digital Library) <http://www.adtdl.army.mil>.

Foreign Military Studies Office (FMSO)

FMSO is a research and analysis center on Fort Leavenworth under the TRADOC G2. FMSO manages and conducts analytical programs focused on emerging and asymmetric threats, regional military and security developments, and other issues that define evolving operational environments around the world. Find FMSO products at <http://fmso.leavenworth.army.mil>.

Military Review (MR)

MR is a revered journal that provides a forum for original thought and debate on the art and science of land warfare and other issues of current interest to the U.S. Army and the Department of Defense. Find MR at <http://usacac.army.mil/cac2/militaryreview>.

TRADOC Intelligence Support Activity (TRISA)

TRISA is a field agency of the TRADOC G2 and a tenant organization on Fort Leavenworth. TRISA is responsible for the development of intelligence products to support the policy-making, training, combat development, models, and simulations arenas.

Capability Development Integration Directorate (CDID)

CDID conducts analysis, experimentation, and integration to identify future requirements and manage current capabilities that enable the Army, as part of the Joint Force, to exercise Mission Command and to operationalize the Human Dimension. Find CDID at <http://usacac.army.mil/organizations/mccoe/cdid>.

Joint Center for International Security Force Assistance (JCISFA)

JCISFA's mission is to capture and analyze security force assistance (SFA) lessons from contemporary operations to advise combatant commands and military departments on appropriate doctrine; practices; and proven tactics, techniques, and procedures (TTP) to prepare for and conduct SFA missions efficiently. JCISFA was created to institutionalize SFA across DOD and serve as the DOD SFA Center of Excellence. Find JCISFA at <https://jcisfa.jcs.mil/Public/Index.aspx>.

Support CAC in the exchange of information by telling us about your successes so they may be shared and become Army successes.

CENTER FOR ARMY LESSONS LEARNED
10 Meade Avenue, Building 50
Fort Leavenworth, KS 66027-1350

www.leavenworth.army.mil

APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

US Army Combined Arms Center
"Intellectual Center of the Army"