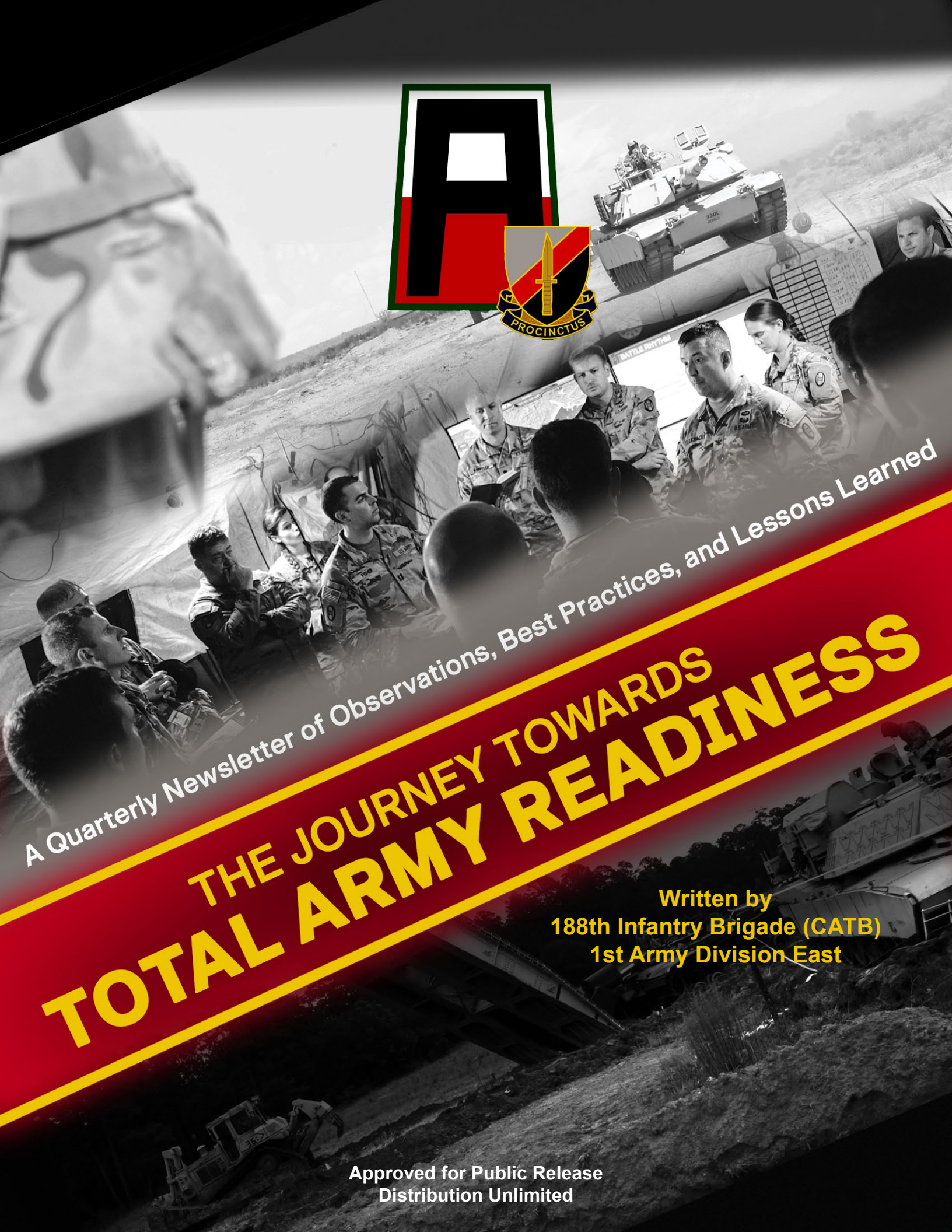

A Quarterly Newsletter of Observations, Best Practices, and Lessons Learned

THE JOURNEY TOWARDS TOTAL ARMY READINESS

Written by
188th Infantry Brigade (CATB)
1st Army Division East

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The Center for Army Lessons Learned leads the Army Lessons Learned Program and delivers timely and relevant information to resolve gaps, enhance readiness, and inform modernization.

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COL WILLIAM SHOEMATE, COMMANDER 188TH INFANTRY BRIGADE

This quarterly newsletter showcases exemplary practices, valuable insights, and noteworthy observations derived from the operational experiences of the Ready Brigade while they were conducting missions to ensure our Reserve Component (RC) partners were prepared to execute their designated tasks. The Ready Brigade Observer, Coach/Trainers (OC/Ts) effectively employed unit training management strategies and focused on coaching fundamental warfighting function tasks to furnish well-trained and fully prepared forces for Combatant Commanders.

The foundation of the successful RC training glidepath rests on several key principles, including the following:

- A unit training plan that is firmly rooted in doctrine, encompassing multi-echelon training aligned with the Commander's Training Objectives, and is integrated with mission essential task list (METL) and force tracking number (FTN) tasks
- A comprehensive assessment of unit readiness through the lens of personnel readiness (P), equipment on hand/available "supply" (S), equipment readiness (R), and training level (T)
- Timely inclusion of enabling assets down to the lowest levels

This newsletter will exemplify the progression of the Observer, Coach/Trainer, as well as the growth of our RC Partner units during collaborative training events. By fostering this mutual development and comprehension, we will further enhance multi-component interoperability and achieve success as a well-balanced Total Army.

Figure 1. 30th ABCT xCTC 23-04. June 2023

Source: 188th Infantry Brigade Public Affairs Office

CHAPTER 1

Synchronization of Training Calendars Through Multiple Echelons and Warfighting Functions

CPT Joseph Pillow, 2-306 Field Artillery Battalion

A consistent theme that has been observed by 188th IN BDE OCTs is training units often lack repetitions of implementing multiple echelons and Warfighting Functions (WfFs) until arriving at culminating training events (CTEs). This often results in training unit difficulties when attempting to incorporate outside entities and capabilities. This is because commanders and staff have not had the opportunity to do so within their previous training at home station. ADP 3-0 (Operations) states training is the most important thing the Army does to prepare for operations. It is the cornerstone of combat readiness and the foundation for successful operations. Effective training must be commander driven, rigorous, realistic, and to the standard and under the conditions that units expect to operate in during combat (ADP 3-0/1-71). As the Army continues to improve training, it is crucial that the incorporation of multi-echelon training and WfFs is integrated at the lowest level and at the earliest opportunity within the training progression. Failure to incorporate multi-echelon training at all levels may create difficulty in achieving operational success within any training or combat scenario units are tasked to support. The following paragraphs highlight, in conjunction with Army doctrine, how this problem set can be corrected, how it can be influenced, and ultimately why it is important.

How Can This Be Corrected?

"A way" in which this issue can be corrected is through the incorporation of the command-and-control training tables (C2TT) at all levels of the training process. Outlined within TC 6.0 (Training the Command-and-Control Warfighting Function) and TC 6.0-2 (Training the Mission Command Warfighting Function – battalions, brigades, and brigade combat teams) C2TTs provide commanders an iterative, progressive, crawl-walk-run approach to achieving training proficiency in applying the mission command approach to command and control. They provide the commander with the background and foundation for training, certifying, and validating the command-and-control system using a standardized, holistic, and comprehensive training model. The approach breaks the system into four training audiences, or cohorts, for training – the commander, the staff, the command posts, and the digital crew. Staff support the commander in understanding, visualizing, and describing an operational environment; making and articulating decisions; and directing, leading, and assessing military operations. The command post provides the headquarters organization to carry out command and control activities. Crews of the digital systems provide the knowledge and understanding required for conducting command and control (TC 6.0/CH. 2). Using this systematic approach, commanders at the battalion level and above are capable of aggressively training their staff in conjunction with their subordinate level leaders training progression. Additionally, if properly followed, this training forces commanders and staff to validate necessary mission command systems and processes before execution at these C-TEs.

Table 1-1. The Command-and-Control Training Tables
Source: Training Circular TC 6.0/Table 1-1

Method	Table	Commander	Staff	Command Post	Digital Crew
Cell and Section Based Training	I	Establish Organizational Business Rules and Develop Training Strategy	Organize and Acclimate Staff to the Organization	Conduct Pre-combat Inspection (Equipment and Maintenance)	Execute Basic Command and Control Information System Operations
	II	Establish the Training Environment	Develop Military Decision Making Process Skills at the Section Level	Develop Command Post Characteristics	Integrate Command Post Systems
	III	Frame the Operation	Establish Staff / Cell Processes and Integrate Warfighting Functions	Establish Command Post Infrastructure	Develop the Common Operational Picture
	IV	Prepare the Headquarters for Operations	Synchronize Command Post Operations	Conduct Command Post Survivability and Sustainability	Synchronize Operations
Collective Training	V	Drive the Operations Process	Conduct the Operations Process	Rehearse Command Post Operations	Conduct Command and Control System Rehearsal
	VI Certification	Assess and Certify the Headquarters	Conduct Staff Certification	Conduct Command Post Certification	Digital Crew Certification
Collective Training with Augmentees	VII	Direct Command and Control System Integration	Integrate the Command and Control System	Conduct Command Post Operations	Integrate the Command and Control System
	VIII	Command Forces and Control Operations	Synchronize Operations with Unified Action Partners	Sustain the Command Post	Synchronize Operations with Unified Action Partners
Formal Evaluation	IX	Command and Control Warfighting Function Validation Exercise Rehearsal			
	X Validation	Command and Control Warfighting Function Validation Exercise			

When looking to incorporate C2TTs, this training should be planned for and incorporated within all training environment options. There are three basic training environments: live, virtual, and constructive (LVC). With unlimited time and resources, units execute realistic training in a live environment. The realities of limited training time and resources dictate that commanders use creative and innovative means and resources to train in other-than-live training environments, or a combination of all three environments (FM 7-0/J-1). Additionally, these types of training environments can be combined within an exercise to form a "blended" training environment (FM 7-0/J-8). Units must think creatively to ensure not only that no training opportunity is missed, but that their formations are trained in a variety of scenarios that create necessary friction to ensure maximum leader development.

When/How Can this be Influenced?

The main platform in which this concept can be influenced is through the synchronization and development of long-range training calendars (LRTCs) at multiple echelons. Long-range planning and preparation determine the training required to progress from the unit's current state of training proficiency to the desired proficiency level. The unit commander conducts long-range planning to sequence training events with resources over time to determine who, what, when, and where to train. Long-range preparation ensures the coordination and actions needed to secure long-lead time resources are accomplished before training. The long-range planning process culminates in the publication of annual training guidance (known as ATG) and a long-range training calendar. See Tables 3-1 (Regular Army Training Guidance Publication Cycle) and 3-2 (Reserve Component Training Guidance Publication Cycle) from FM 7-0 for training guidance publication cycles. This shows the guidance for both Active and Reserve components that are conducting their respective future planning. Understanding when these planning events will occur and ensuring that proper representation is present for all echelons, are critical to ensuring training calendars at all levels are nested. This in turn ensures that not only the maximum outcomes are achieved from training, but it also ensures that multiple entities and echelons are synchronized throughout the planning and execution process.

Table 1-2. Regular Army Training Guidance Publication Cycle.
Source: Field Manual FM 7-0/Table 3-1

Echelon	*Annual*	*Semi-Annual (Refinement to ATG as required)*	*Quarterly (Refinement to ATG as required)*
ASCC	16 months prior to FY (June)	N/A	N/A
ACOM	16 months prior to FY (June)	N/A	N/A
Corps	14 months prior to FY (August)	8 months prior to mid-year (August)	N/A
Division	12 months prior to FY (October)	6 months prior to mid-year (October)	N/A
Installation	10 months prior to FY (December)	N/A	N/A
Brigade	9 months prior to FY (February)	5 months prior to mid-year (November)	2 months prior to quarter
Battalion	6 months prior to FY (April)	4 months prior to mid-year (December)	1 month prior to quarter
Company	4 months prior to FY (June)	2 months prior to mid-year (February)	2 weeks prior to quarter

*Annual training guidance format is at the discretion of the commander and includes the long-range training calendar.
*Company commanders may issue training guidance informally at training meetings.

*Publication dates also apply to similar command-level TDA organizations or activities. For example, a Training and Doctrine Command Center of Excellence normally commanded by a major general follows the same planning cycle as a division commander.

ACOM	Army Command	FY	fiscal year
ASCC	Army Service component command	TDA	table of distribution and allowances
ATG	annual training guidance		

Table 1-3. Reserve Component Training Guidance Publication Cycle
Source Field Manual FM 7-0/Table 3-2

Echelon	*Training Guidance Published NLT*	*Planning Horizon*
Flag Officer CMD, Separate Brigade, Regiment or Group	18 months prior to FY (April)	5 years
Brigade or Separate Battalion	10 months prior to FY (December)	5 years
Battalion	6 months prior to start of FY (April)	2–3 years
Publication dates also apply to similar command-level TDA organizations or activities. For example, a readiness division that is commanded by a major general follows the same planning cycle as a division commander. Companies may publish training guidance or, in collaboration with the battalion commander, publish as consolidated battalion training guidance.		
CMD command FY fiscal year		TDA table of distribution and allowances NLT no later than

Another way this can be influenced is through the proper use of the after-action review (AAR). An AAR is a guided analysis of an organization's performance, conducted at appropriate times during and at the conclusion of a training event or operation with the objective of improving future performance. AARs can be formal or informal and include a facilitator, event participants, and other observers. AARs also signal the start of the next planning cycle. Lessons learned from the performance review provide leaders with the specifics of what and how to perform better for future training. The AAR process ensures participants self-discover what happened, what was supposed to happen, and how to perform to standard next time. Leaders capture AAR results to craft more effective training plans and execution. AARs also help leaders frame the unit's retraining efforts (FM 7-0/4-29, 4-30). As OCTs, it is crucial that we provide honest, transparent feedback to units during these AARs. Failure to do so prevents their ability to see the shortfalls within capabilities in their formations and in their prior training. These identified deficiencies should then be used as a driving force behind the development for follow-on LRTCs, acting as a reinforcement on what the previous LRTC did and did not effectively train. Additionally, lessons learned that were gathered from AARs should be openly disseminated at all levels. Full transparency across all echelons enables outside units the opportunity to benefit from those lessons learned and incorporate them within their own training plans.

Why is this Important?

The Army's ability to lethally fight at multiple echelons is only going to increase in significance as we look out and prepare for our next potential conflict within the framework of multi domain operations. Specifically, as we focus on large scale combat operations (LSCO), which are extensive joint combat operations in terms of scope and size of forces committed, conducted as a campaign aimed at achieving operational and strategic objectives (ADP 3-0). While the Army has been largely immersed in conducting stability operations for most of the last 20 years, it has recently refocused on being prepared to conduct large scale combat operations as new or re-emergent global powers increase in capability, capacity, and appetite. These competitors have peer or near-peer capabilities in the realm of land warfare that the Army must prepare to defeat (TC 6.0/1-49). In this LSCO environment, corps and divisions serving as tactical headquarters will be the primary driving force behind decisive operation success. However, if these units are not comprised of units with commanders and staff that are trained and capable of dynamically operating at multiple echelons and WfFs, then we may not be successful in fighting and winning our nations wars.

Conclusion

General Dwight D. Eisenhower once stated, "Training in all its phases must be intensive… It must be intelligently directed so that every individual, including the last private in the ranks, can understand the reasons for the exertions he is called upon to make." As discussed within this article, this concept should be applied within all unit echelons. Creatively integrating C2TTs within LRTCs that are reinforced by previous AAR comments allow these units the ability to prepare for future conflicts within the LSCO environment.

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FM 7-0, *Training*, June 2021.

TC 6.0, *Training the Command-and-Control Warfighting* Function, March 2021.

TC 6.02, *Training the Mission Command Warfighting Function – Battalions, Brigades, and Brigade Combat Teams*, July 2019.

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CHAPTER 2

Minimum Essential Graphic Control Measures for Platoon and Company Level Operations

MAJ Trevor Barrett and CPT Bryan Liesmann, 3-395 Infantry Regiment

Introduction

Graphic control measures (GCMs) are one of the most important things leaders can provide formations during the planning process. GCMs provide subordinates with important mission information and tools to synchronize operations. Clear, complete, and effective GCMs allow leaders to manage terrain, control movement, occupy, clear, and seize specified areas, they mitigate fratricide, and can be used to set conditions against an enemy.

GCMs serve as a common frame of reference to help units report friendly and enemy locations and are used to coordinate support, rapidly. Developing adequate GCMs is a leader's responsibility and an essential part of the TLP process. This step is often ignored by platoon leaders and company commanders who forego detailed planning and do not develop adequate graphic control measures before mission execution. Neglecting to provide adequate GCMs results in poor command-and-control and increased risk to the force and mission.

Through numerous observations at culminating training events (CTEs), Exportable Combat Training Capability xCTC exercises, and combined training Center (CTC) rotations, 1st Army has identified six minimum essential GCMs that successful platoon leaders and company commanders use when planning operations: boundaries, lines, routes, checkpoints, assembly areas, and objectives. Incorporating these into mission plans will enhance shared understanding and will improve a unit's chance of winning the next fight.

Boundaries

Leaders must establish unit boundaries when developing mission plans. Boundaries, set by a higher headquarters, are the specific geographic areas assign a unit. This area is called the area of operations (AO), and it designates where a unit is allowed to operate and when adjacent unit coordination is required. Boundaries can be set to a unit's front, rear, or flanks. They are restrictive and serve as implied restrictive fire lines (RFLs), requiring coordination between units whenever a leader must apply effects near, on, or over them. Leaders should always analyze their battlespace and establish subordinate boundaries when deemed appropriate. This allows leaders to array forces and to assign maneuver space for each element. Boundaries are depicted by a line with unit amplifiers, which signify the echelon of unit responsible for that boundary. Boundaries should be drawn along easily identifiable terrain features, both natural and manmade, to help orient units to them on real terrain.

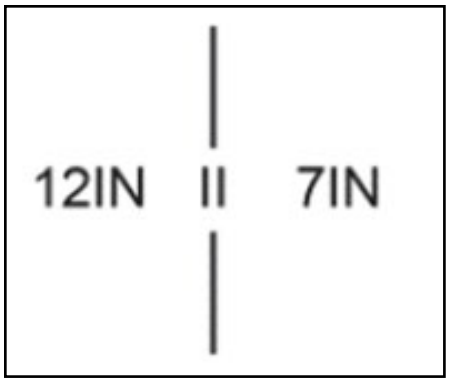

Figure 2-1. Unit Boundaries. Source: FM 1-02.2

Lines

There are multiple types of lines, and each has a specific purpose. The most common line GCM is a phase line (PL), which is used to control movement and coordinate operations between units. They are depicted as lines and labeled at each end. Phase lines are used to trigger actions, prevent gaps from emerging between units, and move formations, whether in unison or sequentially, to various areas of the battlefield. PLs help leaders manage tempo, employ effects, and control subordinate unit actions. They can also assist leaders with adjacent unit coordination if the PLs are shared between units.

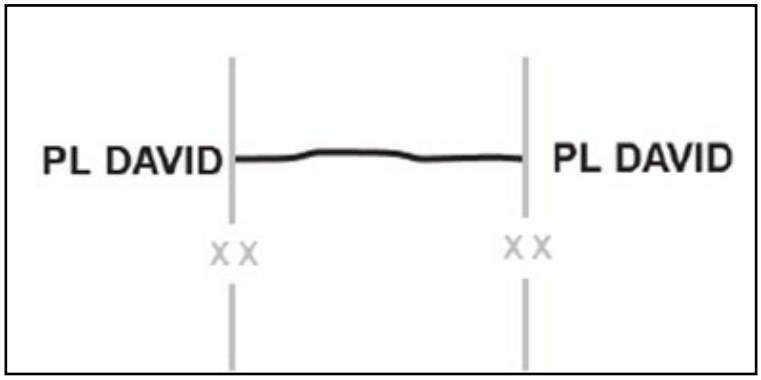

Figure 2-2. Phase Line (PL). Source: FM 1-02.2

A form of a PL is a line of departure (LD), which indicates where a unit will begin its attack. LDs often trigger a change in movement formation, movement technique, or rate of march and are often the probable line of contact with an enemy.

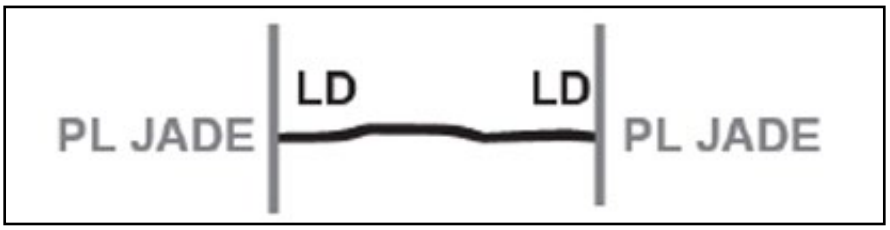

Figure 2-3. Line of Departure (LD). Source: FM 1-02.2

Another form of a PL is a limit of advance (LOA), which is a phase line that indicates the forward-most limit for an attacking unit. LOAs are often set by higher headquarters to prevent a unit from moving outside of a supported area. Units should request to change or extend an LOA when they determine the mission dictates it and they must move beyond them. LOAs usually trigger a transition from one type of operation to another, such as from offense to defense, consolidation, and reorganization activities.

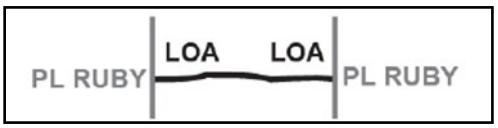

Figure 2-4. Limit of Advance (LOA). Source: FM 1-02.2

Routes

A route is prescribed course of travel from a point of origin to a destination. Routes are restrictive and direct a unit along a specific path. They are often used to get a unit from an assembly area (AA) to an LD and are commonly used during passage of line operations, road marches, and numerous sustainment functions. Routes are depicted by lines that are named and should follow existing trails or roads to make them easily identifiable. Leaders should plan primary and alternate routes to account for unplanned obstacles, changes in weather, and enemy actions. Leaders should also analyze route characteristics, such as bridge crossings and slopes, to ensure they can successfully traverse the created route.

Figure 2-5. Route. Source: FM 1-02.2

Checkpoints

Checkpoints (CKP) are predetermined points on the ground that help orient a unit during movement. Checkpoints may be used to control movement along a route, designate link up points, command post areas, or signify important terrain. Checkpoints must be numbered or named according to their purpose. Common checkpoints include route checkpoints (CKP 1, CKP 2, CKP 3), start points (SP), release points (RP), link up points (LU), logistics resupply points (LRP), and casualty collection points (CCP). CKPs are useful because they can be referenced easily and help leaders to respond quickly to unexpected circumstances.

Figure 2-6. Checkpoint. Source: FM 1-02.2

Assembly Area

An assembly area (AA) is a place a unit occupies to prepare for an operation. Assembly areas should be named and are typically the starting point for platoon- and company-level operations. They are also the location where most unit planning and preparation activities occur.

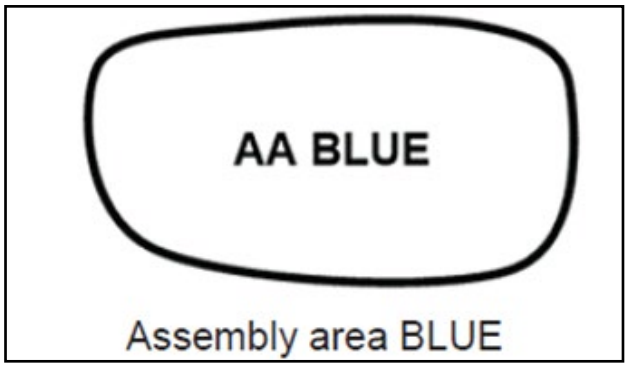

Figure 2-7. Assembly Area. Source: FM 1-02.2

There are two subordinate types of assembly areas. These are an attack position (ATK) and assault position (ASLT). An attack position is a location an attacking force occupies before crossing an LD to conduct last minute preparations. An assault position is a covered and concealed location, short of an objective, where a unit makes final preparations before assaulting an objective. Both GCMs can help a unit prepare for an attack, in stride, when deliberate preparations are required after departing their AA. While not an essential graphic control measure, ATK and ASLT can help leaders to deploy units to locations while setting conditions for a successful attack.

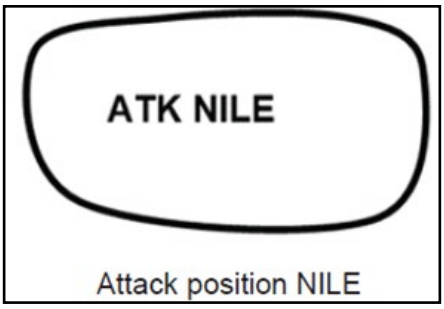

Figure 2-8. Attack Position. Source: FM 1-02.2

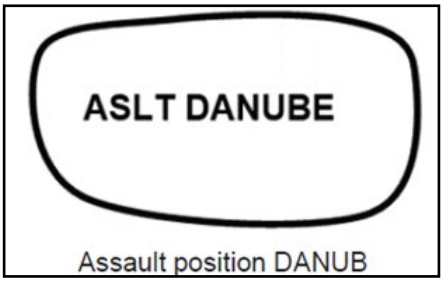

Figure 2-9. Assault Position. Source: FM 1-02.2

Objective Area

The objective area (OBJ) is a geographic area that is to be reached by a unit. OBJs are most often used in offensive operations and are associated with tactical tasks. Usually, OBJs correlate to a unit's essential task, which is stated in its mission statement. Objective areas are depicted as circles and are named.

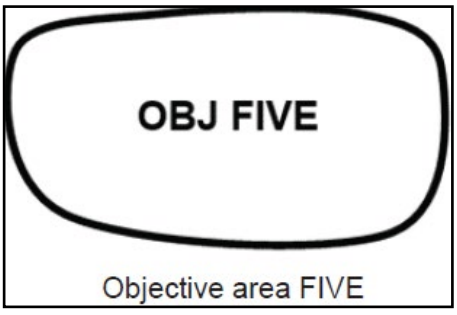

Figure 2-10. Objective Area. Source: FM 1-02.2

Conclusion

Boundaries, phase lines, checkpoints, routes, assembly areas, and objective areas are the minimum essential GCMs platoon leaders and company commanders should develop during the planning process. Leaders should remember that GCMs are not effective unless they are easily understood; easily identifiable; and they help, not hinder, mission execution. By providing these six GCMs, leaders will conduct appropriate terrain management between units, they will facilitate rapid and accurate reporting, they will have tools to control unit movement and tempo, possess resources to coordinate with adjacent units, and have an improved ability to mass forces against an enemy at the right time and space.

See below for doctrinal examples of platoon- and company-level graphics that incorporate these GCMs.

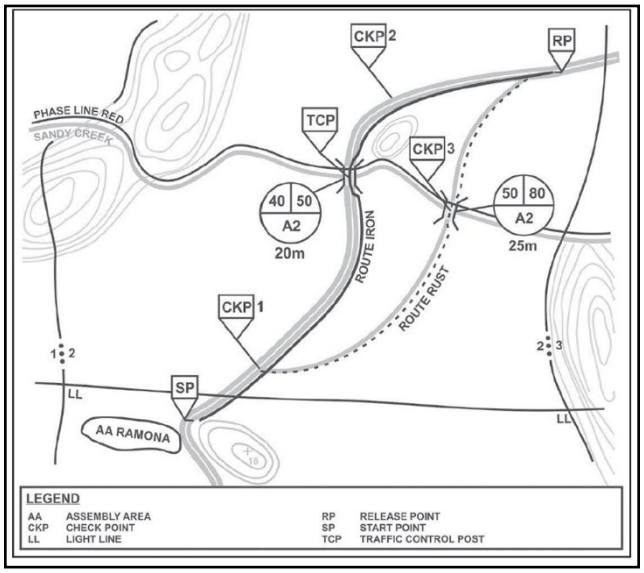

Figure 2-11. Infantry platoon operations overlay for a movement along a specified route

Source: ATP 3-21.8

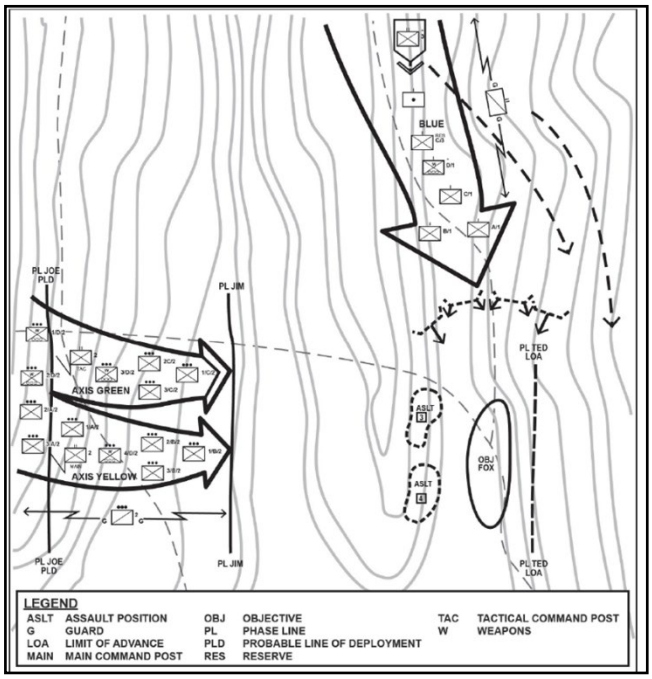

Figure 2-12. Infantry company operations overlay for an attack on an objective

Source ATP 3-21.10, page 2-149, 14 May 2018

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FM 1-02.2, *Military Symbol,* May 2022

ATP 3-21.8, *Infantry Rifle Platoon*, April 2016

ATP 3-21.10, *Infantry Rifle Company*, May 2018

CHAPTER 3

Integrating Enabler Units During Exportable Combat Training Capability

LTC Stacy King, CPT Ryan Hepler, CPT Justin Morgan, CPT Andrew Summerfield, and MSG Tanara Gordon
4-306 Brigade Engineer Battalion

Introduction

Exportable Combat Training Capability xCTC is defined by NGR 350-50-1 as "the ARNG's program of record that enables brigade combat teams (BCTs) to achieve trained platoon readiness in preparation for maneuver Combat Training Center (CTC) rotations." These exercises are resourced with opposing forces (OPFOR), battlefield effects (BFE) and external evaluators, giving the training unit the opportunity to conduct complex multi-echelon training in a dynamic environment. Currently, most of the planning effort from the BCT level during the event's planning life cycle focuses on the training of the maneuver platoons within the BCT. To match the level of training provided to the maneuver platoons, the brigade engineer battalion (BEB) staff must proactively participate in the planning process. This will ensure training for its specialized subordinate platoons and sections is resourced, ensuring comprehensive support to the maneuver team during subsequent operations.

Observation

During the xCTC event life cycle planning process, the BCT staff focuses on developing a plan to train their maneuver platoons. The BEB in turn focuses incorporates enabling assets to support the maneuver plan, rather than developing a separate plan to train its platoons and sections. Combat engineers are likely to be involved in the maneuver plan in support of combined arms breaches. However, construction, signal, military intelligence, military police, and chemical assets are less likely to be included, leading to a lack of quality training for those elements.

Figure 3-1. 236 BEB supports a Combined Arms Breach at xCTC 23-04. June 2023

Source: 188th Infantry Brigade Public Affairs Office

Discussion

At a recent xCTC, the rotational training unit's (RTU) BEB had a standard organization of two combat engineer companies, a signal company, a military intelligence company, and a chemical platoon within its higher headquarters company (HHC). It was also augmented with a maneuver augmentation company (MAC) and a military police company.

The platoons within the combat engineer companies were incorporated into the BCT plan and trained in largely the same manner as the maneuver platoons within the brigade, conducting seven days of lane training and seven days of gunnery. The first five days of lane training were conducted as independent platoons. During the last two days, each engineer platoon was assigned to a maneuver task force and had the task of reducing a complex obstacle in support of a combined arms breach. Overall, the training was well planned, resourced, and executed, resulting in increased readiness for both the engineer and maneuver elements.

The signal company was not prepared to conduct training in a dynamic environment. Training objectives were not identified, and lanes were not established during the exercise planning cycle. The company's sections, consisting of two joint network nodes (JNN), one command post node (CPN), and three retransmission teams (RETRANS), were tasked to provide direct communication support for battalion (BN) and brigade (BDE) operations during the exercise in a non-training status. The sections' missions correlated directly to "real-world" network administration at the BDE and BN tactical operation centers. Because of the platoon-level focus of the xCTC, the BDE- and BN-level headquarters were not under any enemy threat. There was not a training priority placed on the tasking and overall involvement of the signal company, their preparation, or maintenance of their equipment. The signal leaders were not involved in any level of planning and the Soldiers were unsure of their tasks and purpose throughout the exercise.

The military intelligence company also missed an opportunity to conduct complex training in a dynamic environment. The human intelligence (HUMINT), brigade intelligence support element (BISE), and signal intelligence (SIGINT) sections conducted training largely at the foundry facility on the main post. This facility enabled the completion of unit-specific tasks within the facility but did not provide a dynamic training environment. The unit lacked serviceable equipment and was not prepared to conduct integrated training with the BN or BDE. The permanent use of the foundry facility prevented the unit from conducting training in a field environment and limited the ability of the HUMINT and SIGINT sections to be integrated into lane training. The unmanned aircraft system (UAS) section flew UASs during the exercise, but there was no plan for integrating the collected intel with lane execution. Foundry is vital to effective military intelligence company (MICO) training through scenarios, roles, and specific aspects of equipment and infrastructure, but it is most effectively utilized when enhancing military intelligence field training. Units should emphasize training at a fixed field environment in accordance with the military intelligence training strategy.

The BEB received dismounted MAC Soldiers, augmenting the combat engineer companies with dismounted sappers and tasked the BEB's organic construction elements operational command (OPCON) to the MAC. The MAC was used in an administrative capacity to construct obstacles used by other units to conduct lane training. The RTU missed an opportunity to treat the construction of these obstacles as training lanes. In particular, the MAC constructed complex obstacles overwatched by the OPFOR, but did not train their ability to develop engagement areas in conjunction with a maneuver commander.

The military police (MP) company conducted lane training with limited resources. Planning for lanes for the MP platoons was added at the final planning event (FPE). The training schedule was not well developed, and the lanes were not allocated with enough OPFOR and BFE resources to adequately train at the platoon level for the duration of the exercise. The lateness of the planning limited the resources available to create a dynamic environment with the appropriate enemy threats present. The lane training was also somewhat repetitive, and the lack of resourcing complicated efforts to increase lane complexity.

The chemical platoon was not considered during the planning. Their nuclear, biological, chemical (NBC) recon vehicles were deadlined; therefore, they were not brought to the training event. The platoon largely functioned as administrative support to the battalion's HHC but received virtual training reps using the Close Combat Tactical Trainer (CCTT) to replicate a mounted Stryker chemical, biological, radioactive, nuclear (CBRN) recon platoon.

Overall, a lack of early planning precluded the execution of lane training for many of the BEB's specialized, lower density assets. This resulted in these elements being less ready for future training, as well as missed opportunities for added complexity in maneuver lanes through the inclusion of enabling assets.

Recommendation

The rotational training unit (RTU) BEB should bring a complete training plan with lanes requested by training day for each of its subordinate sections and platoons to the xCTC main planning event (MPE). To enable this, the OC/T BEB supporting the RTU should bring example training glidepaths for each of the RTU BEB's subordinate elements to be trained to the initial planning event (IPE). The templated plans can be shaped by the RTU commander's training objectives and projected readiness levels during the IPE, then brought back to the training unit's home station for approval before the MPE.

The RTU BEB's overall plan should generally start with simpler lanes consisting of a sole platoon or section executing a simple mission, then increase in complexity to include more difficult missions and enabling assets from other portions of the BEB as the units gain proficiency. Examples of enabler integration could be a route recon with UAS support, an obstacle emplacement using SIGINT to determine the enemy's disposition, or an MP unit securing a RETRANS team movement. As the BCT completes its plan and incorporates enablers, the BEB shifts its training plan to meet the BCT requirements while still ensuring all its subordinate elements have appropriately challenging training scheduled.

The training of the BEB combat engineer elements is generally well resourced and executed. Training for these elements should be based on the RTU commander's objectives and should become increasingly complex as the engineer platoons gain proficiency. Construction engineer tasks should be planned as lane training, with counter mobility and survivability tasks executed in a contested environment and in support of a supported commander, role played by an OC/T if required. The development of survivability positions for a forward logistical element (FLE) is a simple survivability task that meets these requirements.

Figure 3-2. 236 BEB breach during xCTC 23-04. June 2023.

Source: 188th Infantry Brigade Public Affairs Office

Priority should be placed on the signal company's ability to provide effective communications throughout the area of operations during the exercise. A BDE-level communications exercise and signal equipment rodeo can be conducted days before entering the training box. With the additional help of field service representatives, all signal equipment can be validated before the beginning of the exercise. Training lanes can be implemented for the RETRANS teams to exercise their ability to adequately camouflage their presence and establish battle drills in the event of direct fire, indirect fire, air attacks, or civilian disruptions. Planning for RETRANS training during xCTC exercises will require the involvement of the BDE S6 and signal company leadership. Placing the RETRANS teams in a complex environment that requires relocation and integrated security provides the opportunity for the teams to train the standard of the Army Training and Evaluation Outlines (TE&O) and incorporate friendly entities. Platoons should train their teams with the guidance of the Signal Training Tables IAW TC 6-02.1 (THE UNITED STATES ARMY SIGNAL CORPS 2019 TRAINING STRATEGY).

Training plans for the military intelligence company can start with the use of foundry resources when possible, and progress to include direct support to maneuver or engineer elements. The RTU BEB should plan to use these assets during internal lanes and be prepared to provide MI assets such as HUMINT, SIGINT, or UAS support to maneuver units as the BCT completes its plan. Leaders should properly prepare their assigned equipment in preparation to conduct platoon-level training in a dynamic field environment.

RTUs with a military police element attached should likewise progress from simple platoon-only missions like route recons, and progress to more complex operations such as securing a RETRANS during movement, securing an FLE, or coordinating with a maneuver unit for detainee handover. Likewise, training for chemical elements should progress from platoon-level reconnaissance/decontamination to inclusion of NBC recon platoon to higher-level operations.

Conclusion

RTU BEBs must plan training for their subordinate enabling elements early in the event lifecycle to ensure that each of their elements is able to execute well-resourced and appropriately complex training. The integration of enabler assets from the BEB into maneuver lanes primarily conducted by other battalions supports training of the platoon-level units involved, as well as multiple echelons above the platoon level. Although xCTC is an event designed to exercise platoons, RTU BCTs can take advantage of the opportunity to conduct multi echelon training as well. According to FM 7-0, "Development of a higher headquarters operation order can drive the planning process at multiple echelons above the unit conducting the live fire exercise (LFX). For example, a platoon LFX could easily include a brigade combat team- or brigade-level operation order that would

result in the battalion exercising the military decision-making process, and the company exercising troop leading procedures." The planning and execution of training lanes that include enablers supporting maneuver platoons meets the intent of xCTC execution, reinforces the importance of communication and multi-echelon planning across battalions, and actively trains multiple facets of the brigade simultaneously.

References

FM 7-0, *Training,* June 2021

NGR 350-50-1, *Training: eXportable Combat Training Capability xCTC* 11 July 2017

TC 6-02.1, *The United States Army Signal Corps 2019 Training Strategy*, July 2019

CHAPTER 4

Keys for Preparing Component 2 & 3 Brigade Support Battalions for an Exportable Combat Training Capability

CPT Jason McDaniel, 5-306 Brigade Support Battalion

The Army National Guard (ARNG) and Reserve (AR) Components execute Exportable Combat Training Capability xCTC rotations to assess, achieve, and record readiness at the platoon level in preparation for Combat Training Center (CTC) rotations such as Joint Readiness Training Center (JRTC), National Training Center (NTC), and Joint Multinational Readiness Center (JMRC). xCTC rotations are typically executed in the ARNG unit's third year training cycle (NGR 350-50-1/ CH. 1-1). These rotations provide commanders with the opportunity to assess their platoon mission essential tasks (METs) utilizing platoon-level lanes. For a brigade support battalion (BSB) supporting a brigade combat team (BCT) during xCTC usually means providing real-world support to maneuver elements as their main effort. The BSB's ability to train and certify their own platoons becomes the supported effort and offers real challenges to the BSB staff in terms of multi-echelon training. To enable success at xCTC, the BSB and subordinate units need to align their battle assembly training requirements to focus on troop leading procedures (TLP), logistics synchronization across the brigade, driver's training program, building a maintenance culture, and enabling health services across the battlefield.

Troop Leading Procedures

Often, our component (COMPO) 2 and 3 leaders do not get the opportunity or time to train on the fundamentals, which leads to hand-waiving several steps in the troop leading procedures (TLPs). TLPs are of paramount importance in every operation and serve as the structured framework to effectively plan, coordinate, and execute missions at echelon (FM 5-0/CH.1-51). These procedures provide Soldiers a systematic approach to accomplish missions cohesively and efficiently in complex and dynamic environments. If a platoon leader hand-waives or skips a step in the TLP process during the preparation for a platoon lane, it will cause confusion during the execution and could lead to failing the lane.

Typically, BSBs combine their platoon training lanes with real-world resupply missions. Once a platoon initiates the TLP processes, the BSB will require several iterations to execute every step of the TLP because they either don't know the process or ignore steps. Units tend to ignore steps if the mission has real-world requirements that are required immediately to support their maneuver battalions promptly. Unit commanders of National Guard and Reserve components should provide their subordinate company leaders with several repetitions of executing TLPs during their train up to xCTC. During those repetitions, leaders must be present during key events and periodically inject themselves during the TLPs to help mentor their junior leaders. A common way to achieve this is for the unit commander to assign subordinate leaders to conduct planning and execute training during each battle assembly. Battle assemblies, which are held monthly, are an effective means for leaders to continue to assess their subordinate leaders on execution of TLPs.

Subordinate leaders are accountable for following each of the eight TLP steps. The most common step that units ignore is Step 7: Issue the order verbally via five-paragraph operations order format. This step is tedious and easily ignored because of time constraints and priorities. Prioritizing step 7 allows subordinate leaders the time to build and brief over a terrain model or military map. Exercising this method will build muscle memory within leaders and create a standard in a unit

that only gets the opportunity to train two days a month. Executing the TLP is a perishable skill, and our COMPO 2/3 partners should seize every opportunity to exercise the process. Furthermore, it will also allow the unit to focus more on refining organizational standard operating procedures (SOPs), battle drills, and rehearsals for the mission.

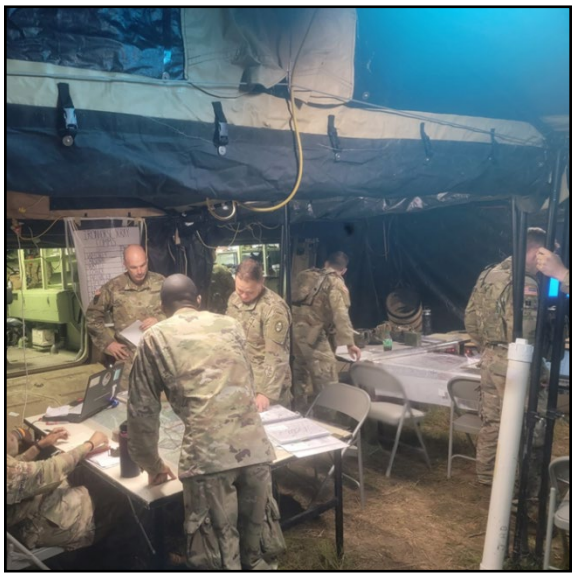

Figure 4-1. 30th ABCT MDMP Planning. June 2023

Source: 188th Infantry Brigade Public Affairs Office

Logistics Synchronization Across the Brigade

COMPO 2/3 BSBs and field support companies (FSC) are going to face synchronization challenges because of the time and location of each unit's training assembly. The BSB commander needs to seize integrating training opportunities, even if the opportunities are on a smaller scale, such as at the team or platoon level. Commanders should emphasize the importance of logistics synchronization within their staff or subordinate commands. Both staff and command-post exercises are opportunities to increase shared understanding and to develop proficiency alongside their subordinate units. However, leaders must think and be proactive in planning to utilize logistics elements across the entire formation. They should ask, "Who else can benefit from this training outside of my section or unit?" This means we should look to integrate elements well before any collective training exercises. Units should start their planning during their home-station training, integrating all available elements within their training glide path. Time, space, and budget are significant challenges that may prevent units from gaining repetitions. However, leaders who formalize relationship-building between elements will set the tone for the staff to begin integrated planning. Units training organically at home station is a trend that doesn't mirror how we should think or even fight. Synchronization efforts between elements at a smaller scale is a great starting point in refining our integrating efforts and utilization across the formations.

Figure 4-2. Fuel Resupply at xCTC 23-04. June 2023

Source: 188th Infantry Brigade Public Affairs Office

Driver's Training Program

The master driver of an Army National Guard or Reserve unit is one of the vital additional duties in the organization. They are challenged with training and certifying Soldiers in their unit under the condensed battle assembly timeline while ensuring they meet all regulatory guidelines. The master driver, readiness NCO, and company commander must backwards plan to ensure the driver's training program achieves 100 percent certification and meets Army Regulation 600-55 guidance.

A common practice observed from successful COMPO 2/3 units is to conduct driver's training during every battle assembly. This will enable units to cross-train Soldiers and conduct check rides to certify Soldiers on like vehicles to build depth across the formation. The master driver will help drive the training plan and use monthly IDTs to develop a training plan that follows the crawl, walk, and run learning method. The program will include classroom instruction (vehicle operations, safety procedures, preventative maintenance, and emergency response/ recovery operations), hands-on practical exercises (day and nighttime driving that includes familiarization with night vision devices), and evaluations to assess drivers' proficiency. Utilization of a convoy checklist and an individual checklist within the brigade tactical standing operating procedure (TACSOP) helps the individual Soldier and subordinate leaders conduct pre-combat checks/ pre-combat inspections (PCCs/PCIs) before the mission (AR 600-55/ CH 1-8). Units can also request OC/Ts to help identify gaps or areas of non-compliance. These steps will help cultivate a work environment of safety, integrity, and responsibility among drivers, ensuring they have the necessary skills and knowledge to operate multiple vehicle platforms safely and efficiently before they go to xCTC.

Building a Maintenance Culture

The maintenance company's approach to building a strong maintenance culture can be categorized into three key areas: emphasizing training and skill development, prioritizing equipment readiness, and promoting teamwork and communication. First, units recognize the importance of continuous training to enhance technical proficiency and maintain readiness. They implement a regular schedule of training programs targeting essential maintenance tasks and procedures specific to the CTC environment they are planning to deploy. Additionally, they encourage a culture of continuous learning by promoting opportunities for personnel to expand their knowledge and acquire certifications. Second, maintenance companies should prioritize equipment readiness by implementing preventative maintenance checks and services (PMCS). Units that have a proactive approach minimize the risk of unexpected issues arising during the rotation by ingraining PMCS as a part of their SOP, emphasizing regular inspections and maintenance to prevent equipment failures. Finally, units should focus on creating a cohesive and strong team. Regular team-building exercises, events, and open communication channels are essential to establish trust, enhance morale, and foster a sense of collective responsibility toward mission success. Successful units sought opportunities to collaborate and coordinate with other units within the BSB, by fostering an environment of mutual support and shared knowledge.

Effective tactics, techniques, and procedures (TTPs) observed include: 1. Maintenance teams sending personnel to wheel and track recovery schools, known as H8 and H9, to allow them to continue operations in the event a recovery specialist was absent from the mission. 2. Dividing maintenance teams between a rear and forward element to allow for a more efficient DA 5988-E and parts flow process. Dividing the formation allowed the rotational unit to continue support to the maneuver force and maintain unit maintenance program simultaneously.

Enabling Health Services Across the Battlefield

Enabling health services across the battlefield during xCTC begins with the brigade surgeon cell's tedious staff work during MDMP. Often the brigade surgeon cell will overlook essential military decision-making process (MDMP) steps such as conducting a medical rehearsal before the xCTC. When MDMP is not properly executed before an exercise, the entire medical community will have a difficult time establishing Army Health Systems (AHS) before the maneuver elements conduct the mission. The surgeon cell will generate products for the brigade, such as medical input into the brigade TACSOP, to help sustain the force. Examples of required medical input to a brigade TACSOP are as follows:

1. 9 Line medical evacuation (MEDEVAC) request template published with the NATO instructions.
2. Mass Casualty (MASCAL) battle drills for the support battalion that are configured with other brigade battle drill numbers, which provide a clear concept of operation.
3. Medical logistics request template published with specific details on ordering medical push packages or mission configured loads specific to the environment and threat.

Effective medical TTPs observed at the brigade support medical company (BSMC) include:

1. Requesting more casualties to stress all areas across their Role 2 with specific injury types. This approach works effectively when enabling the physician assistant or surgeon in the planning process. An excellent way to keep the BSMC engaged.
2. A daily health check paired with a health fact of the day. The BSMC made rounds to different sections across the brigade support area (BSA) conducting health checks that identified Soldiers who were experiencing symptoms of illness but not self-referring to sick call. The rounds also included a daily health fact that informed Soldiers of relevant health and sanitation risks while operating in a field environment.

Conclusion

Engaged leadership from the top down provides the proper guidance on priorities of work and key essential tasks to achieve the commander's training objectives. xCTC rotations provide commanders with the opportunity to assess their platoon mission essential tasks (METs) utilizing platoon-level lanes. Dedicated training time during battle assemblies focused on troop leading procedures (TLP), logistics synchronization across the brigade, driver's training program, building a maintenance culture, and enabling health services across the battlefield will enable the BSB's success at xCTC.

References

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FM 4-02, *Army Health System,* November 2020.

FM 5-0, *Planning and Orders Production,* May 2022.

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CHAPTER 5

Air Defense Artillery: An "Underutilized Combat Enabler"

CPT Craig Linscott, 1-346 Air Defense Artillery Battalion

Introduction

The emergence of adversarial UAS threats prevalent in both USCENTCOM and USEUCOM areas of operation has placed increased emphasis on the importance of air defense artillery (ADA) assets. An immediate solution the Army has implemented to counter the current threats in the operating environment is training and arming teams of Soldiers organic to brigade combat teams (BCT), divisions, and corps with Stinger missiles, Fix Site and Mobile -Low, Slow, Small-Unmanned Aircraft Integrated Defeat Systems (FS/M-LIDS) and other commercial of the shelf (COTS) capabilities. However, current exercise and scenario design do not test the unit's ability to counter these threats, or how they integrate, employ, and support their attached ADA assets. 1-346 ADA OC/Ts have supported numerous COMPO 2 and 3 unit's culminating training exercises (CTE) and were routinely only able to provide mentorship and guidance to leadership and their air defense elements due to the lack of inclusion of ADA planners in the planning cycle and/or the necessary requisite resources built into the exercise to test the AMD defense design. Without corrective actions being taken these units will continue to struggle with validating their ADA elements in their wartime tasks and will continue to not capitalize on opportunities to increase AMD proficiencies that will pay dividends on the battlefield. This paper will make recommendations that can be implemented into the exercise planning conferences on how to better stimulate the utilization of ADA assets within the scenario design and test the training units ADA defense design to counter the real-world threats they will face in combat when mobilized.

Framing the Problem

There has been a significant proliferation of unmanned aircraft systems (UAS) systems to conduct surveillance, identify and provide targeting data for dynamic fires, and use for direct attacks. UAS and loitering munitions provide potential adversaries with a relatively inexpensive substitute for conventional air power. Conflicts such as the second Nagorno-Karabakh War, the Yemen Houthi conflict, and Russia's war in Ukraine convey the evolution of UAS implementation in combat. The versatility of UAS used throughout conflicts has proven to be critical to all belligerents. In Nagorno-Karabakh, the effective use of UAS and loitering munitions by Azerbaijan allowed unrelenting aerial attacks that devastated and demoralized the Armenians and played a definitive role in Azerbaijan's victory. In the Ukraine conflict, according to Ukrainian artillery crews, Russian artillery can generally bring accurate artillery fire down on targets three to five minutes after UAS reconnaissance has identified them. Social media sites have hundreds, if not thousands, of videos showing UAS attacks by both Ukrainian and Russian forces. COTS drones have been shown to have significant impact on destroying equipment and causing casualties in war. Current events show that deploying UAS to employ indirect fires and cruise missile capabilities with devastating effects has significantly weakened maneuver forces and fixed/semi-fixed division, corps, and theater assets.

Against peer and near-peer competitors, the Joint force may face air parity or even localized enemy air overmatch. The absence of air superiority will make Army forces vulnerable to air attack and surveillance by fixed-wing and rotary-wing aircraft, UAS, and ballistic and cruise missiles. The ability to detect and destroy these threats utilizing air defense assets will be essential to the protection of troops and combat power on the battlefield.

Recommendations

Commanders must emphasize the danger posed by enemy aerial systems and ensure these adversarial capabilities are being built into exercise design, especially UAS. They need to provide guidance on the development of air defense priorities, the prioritized protection list (PPL), ADA-related priority intelligence requirements (PIRs), and ensure detailed aerial threat templating occurs. These actions will drive their staff officers to better understand aerial threats and how to build and incorporate AMD threat templates. From a training perspective, commanders should pursue the utilization of real-world aerial threats rather than over rely on simulation during exercises.

Exercise scenarios need to demonstrate realistic aerial threat capabilities. A way to incorporate realistic training is through the utilization of OPFOR. If requested in the initial planning phase of an operation, installations can fly enemy aerial threats in a training lane. One lane is the one-way enemy UAS attack on a tactical action center (TAC) or main command post. The aerial threats can match the flight profiles and characteristics of enemy threats in a specific area of responsibility (AoR). The attached ADA unit will execute their battle drills as if they were deployed and engage the threat. This realistic training will provide the level of training necessary for a unit deploying to a specific AoR.

An OPFOR scenario like the one mentioned will also highlight the asset gaps the training unit have in their formations. If the unit doesn't have ADA or counter-UAS capabilities, they will be unable to neutralize the threat, which could have devastating consequences. This will force the unit to coordinate for ADA and counter-UAS assets from their higher headquarters and/or refine their prioritized protection list.

Listed below are some additional recommendations that can be implemented into exercise planning conferences to better incorporate adversarial aerial threats into the scenario design and test their unit's ability to neutralize or mitigate them with their available AMD capabilities.

Planning Phase

Incorporating a SHORAD unit into a brigade, division, or higher exercise commences with understanding the battlespace and how ADA doctrinally employs. This starts in step two of the military decision-making process, mission analysis. Air and Missile Defense Intelligence Preparation of the Battlefield (AMD IPB) is a systematic continuous process of analyzing the adversary's aerial and Tactical Ballistic Missile (TBM) forces and environment in a specific geographic area and the battlefield around it (ATP 3-01.16).

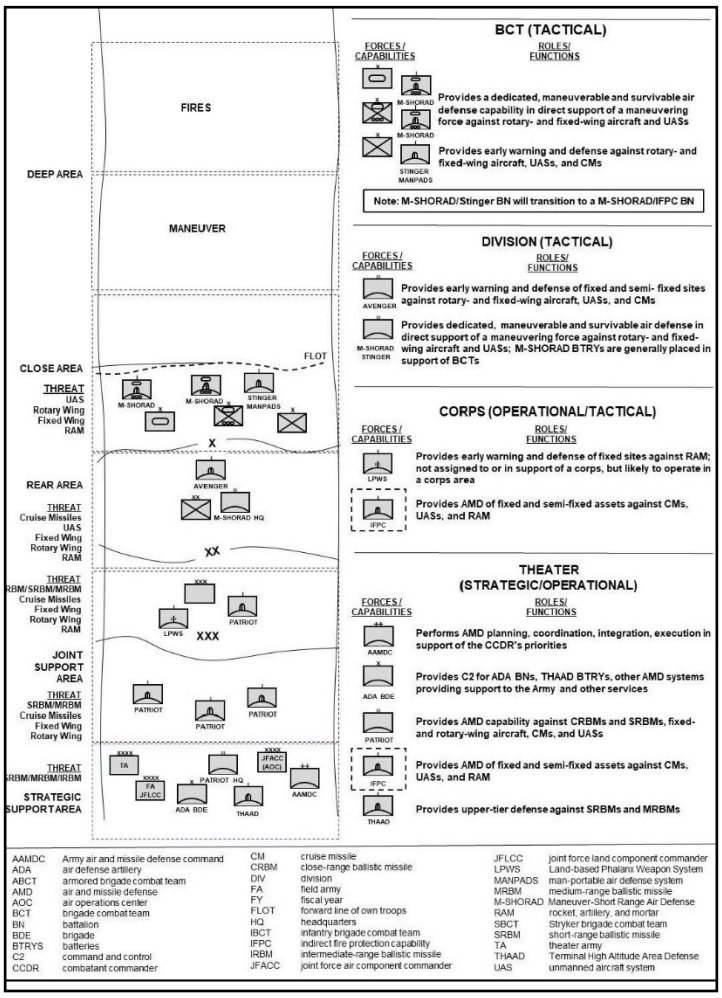

Figure 5-1. HIMAD and SHORAD Force Positioning Across the Area of Operation

This four-step process is comprised of: Defining the Operational Environment, Describing the Environmental Effects on Operations, Evaluating the Threat, and Determining Threat Courses of Action. Understanding our adversaries' threats, capabilities, and limitations is a primary factor when recommending SHORAD employment courses of action to senior commanders.

Evaluating the Threat

Studying and understanding the enemy's doctrine and how they employ their aerial assets will determine how a unit can plan to defeat them. Knowing the enemy's aerial assets capabilities, limitations, flight patterns, and ordnance release points are important, so friendly forces know how and where to posture ADA assets. By creating scenarios that exercise the units' ADA Cell during this initial phase of the operation will help develop more proficient staff and planners. It will help them identify what friendly ADA assets are available or required, and what their capabilities and limitations are enabling them to identify potential decision points for commanders.

When planning various division- and corps-level exercises, UAS threats should be a top priority. Units need to involve their ADA subject matter experts (SME) on what SHORAD assets they have available to counter these UAS threats. Ensuring the unit employs the right asset on the right target can make a significant difference on whether that threat is neutralized or destroyed. When in the planning phase, the air missile defense (AMD) SME can develop multiple scenarios in which an enemy UAS may be utilized.

SHORAD Supporting Relationships

For reference an Avenger battery will generally be attached to a brigade combat team (BCT). However, since air defense units are not an organic asset, they are seldomly involved in any of the exercise planning processes. This lack of participation will have a snowball effect that can hinder the effective integration of the ADA unit into the BCT formation due to a lack of understanding of the BCTs TTPs and battle drills that can affect the overall success of the operation. This can and should be mitigated through concurrent and parallel planning by incorporating a liaison officer (LNO) from the ADA unit into the planning process to help build shared understanding, commonly the air defense LNO will be the Avenger Battery Commander. The Air Defense LNO is tasked to educate and advise the maneuver commander on ADA matters and employment, actively participate as special staff in the planning of the supported unit's operations, including contributing to mission analysis, contribute to (update of) IPB with focus on aerial enemy courses of action (ECOAs) and contribute to course of action (COA) development. The ADA LNO should also advise what the ADA-priorities are, understanding the supported commander will establish the PPL and advise C2-relationships between ADA-subunits and supported forces.

When attached to a BCT, a SHORAD unit will generally be providing direct support and will be singularly dedicated to supporting the specific unit The SHORAD unit provides close and continuous support and coordinates its movement and positioning with the supported unit (FM 3-01.44). However, the priorities the SHORAD unit defends will remain with the supported commander.

1-346 ADA OC/Ts have observed while at COMPO 2 and 3 exercises the lack of real-world attached ADA units, which are fully simulated into the exercise. These simulated formations don't properly challenge the BCT staff to fully understand the support relationships with the attached ADA unit and the intricacies of integrating this formation into their systems and processes. For instance in real-world managing AMD weapon system operational readiness rates and tracking and the re-supply of AMD missile inventories will be crucial tasks for the BCT staff that will significantly affect to the maneuver commander's ability to accomplish their assigned wartime mission. This issue also affects the BCT's ADAM Cell, its organic ADA SME, who should be that interlocuter and advisor to the maneuver commander on how to best employ and resource the attached ADA unit. Many times 1-346 ADA OC/Ts have observed the BCTs ADAM Cell not having a role in exercises due to the limitations of the simulation resulting in them being under-utilized or re-tasked to support another BCT staff need. Purely simulating friendly ADA units and adversary aerial threats doesn't force training units to focus efforts to understanding the threats and how to best implement an effective AMD defense design. Many times the AMD defense designs implemented aren't informed through commander's guidance and priorities and don't remain aligned to the dynamic operational fight. These staff products are created in isolation at the ADAM Cell or working group level and aren't elevated to the commander's purview based on it generally not being a priority.

Conclusion

For decades the Joint force has had the luxury of air superiority which has minimized the strategic importance of AMD capabilities on the battlefield. Current wars in Syria and Ukraine have demonstrated the emergence of adversary one-way UAS and the devastating effects that they can deliver through their on-board weapons or as surveillance platforms. The Army understands the strategic impact of not countering these emerging aerial threats, along with the tactical ballistic missiles, cruise missiles, and fixed and rotary wing aircraft that will be more prevalent during large scale combat operations with peer and near-peer adversaries. The Army is investing in the growth of additional ADA units and capabilities in response to these threats, but it will take time for these units and emerging technology solutions to be fielded and fully operational. The Army and its senior leaders at echelon need to be ready to effectively employ these assets once available and should responsibly lean forward now to be able to do so later. They can and should do this through incorporation of adversary aerial threats and when possible, incorporation of real-world ADA units.

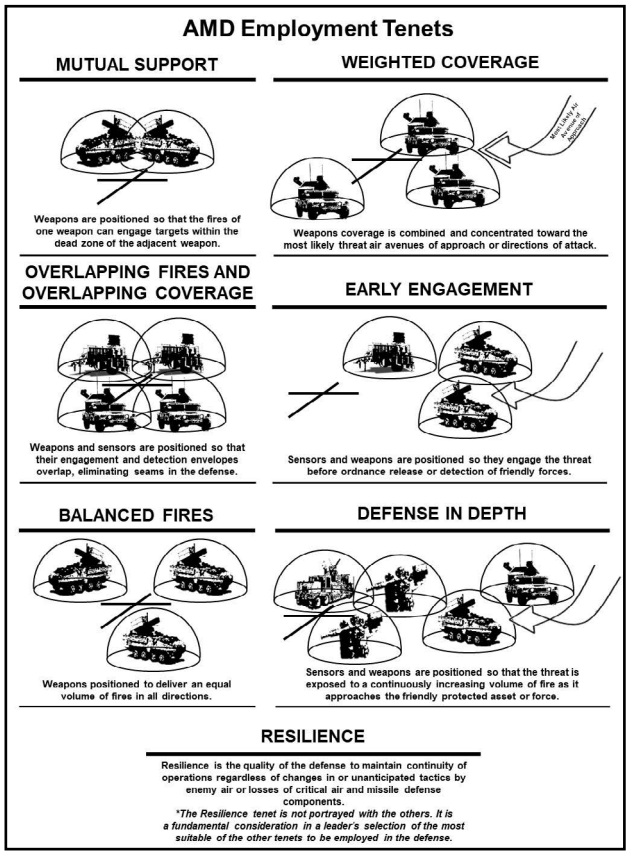

Figure 5-2. ADA Employment Tenets

Source: FM 3-01.44

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