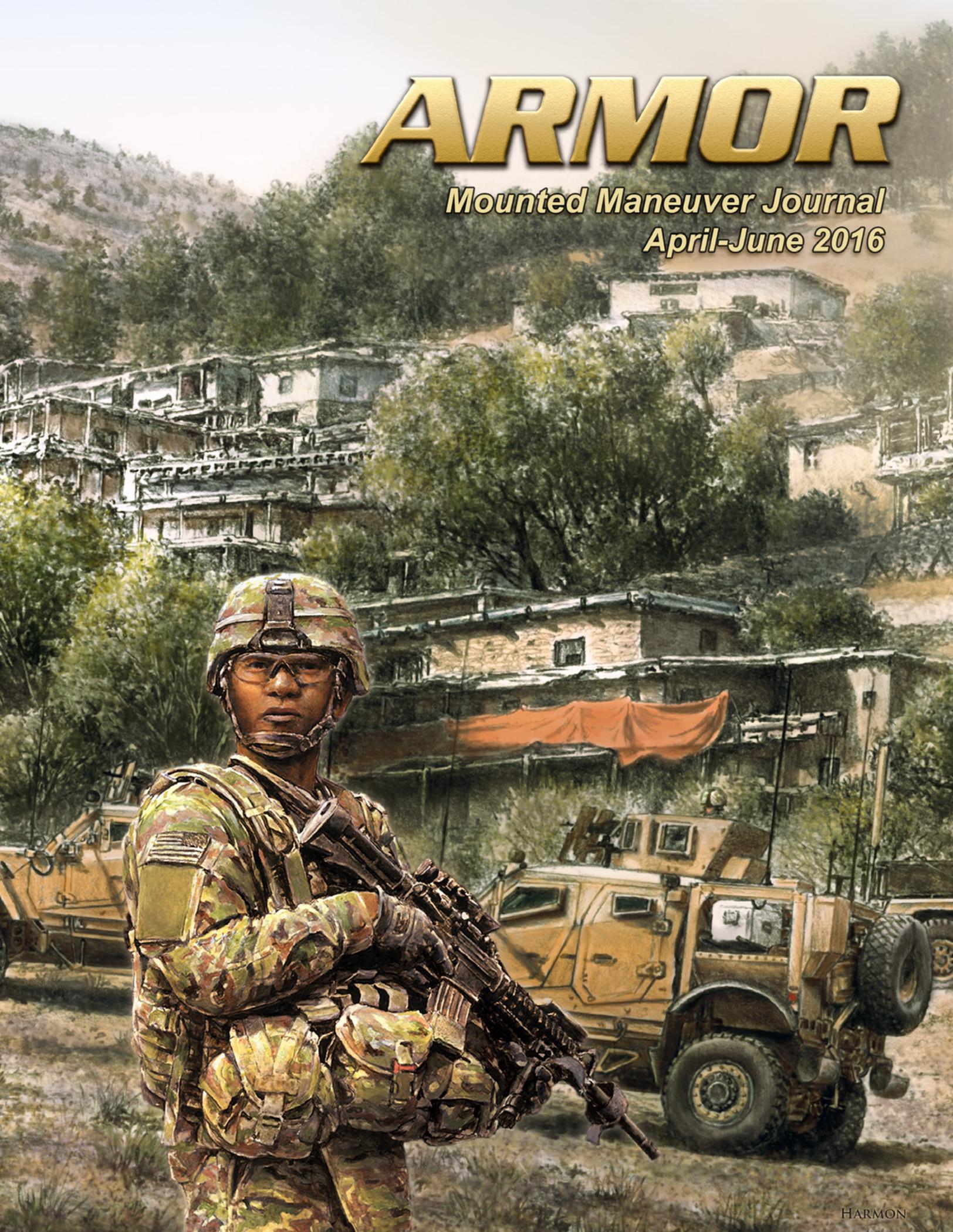


ARMOR

Mounted Maneuver Journal
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ARMOR

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LETTERS

Dear **ARMOR**,

I am proposing to make the following creed the official creed of the Armored Force and want to start by giving it visibility via **ARMOR** magazine.

Treading forward with steadfast diligence, I acknowledge the impact of the brutal firepower that I bring to the fight and forever I will serve my flag as a mounted warrior and America's combat arm of decision.

Acknowledging the fact that as a tankerman my cannon serves as the tip of my nation's sword and my objective is to decimate the enemy with accurate and deadly mobile protective firepower, relinquishing to no

one and accomplishing my mission at any and all cost.

Never shall I falter in the accomplishment of my mission and will at all times abide by the code of conduct and rules of war, but never will I show any enemy mercy who persists to do harm to my nation and its people.

Killing the enemy with accuracy and precision is the fundamental of my craft. I will not falter in my obligation to serve this nation and will maneuver my tank only for the sake of freedom and the elimination of tyranny.

Ever ready will my tank be in all aspects of maintenance and calibration to strike swiftly the enemies of our Constitution, and forever will I serve with diligence and pride as a member of the greatest armored fighting force in the world.

Remembering my obligation as an American Soldier, I will uphold the high traditions and standards of the United States Army and will seek to honor those who have served the Armored Corps before me, remembering their sacrifice while keeping my aim true and my rate of advance rapid.

SFC ERNEST L. BRUMMITT

CHIEF OF ARMOR'S HATCH

BG Scott McKean
Chief of Armor/Commandant
U.S. Army Armor School



Fire, Maneuver and Shock Effect!

I've had the honor and privilege of serving as the 49th Chief of Armor for the last 21 months and have thoroughly enjoyed the Armor School's role in "Forging the Thunderbolt." The Armored Force spearheaded the transition of our Army's emphasis on decisive-action readiness and applied it to mastering maneuver fundamentals. The skills displayed by all the Sullivan Cup crews was amazing, and we offer our congratulations to the crew from 1st Battalion, 252nd Armor, 30th Armored Brigade Combat Team (ABCT) ("Old Hickory"), North Carolina Army National Guard, in winning this year's competition. CSM Alan Hummel and I want to thank COL John Cushing, CSM Lawrence Andrews Jr. and 194th Armor Brigade for the outstanding competition they put on for the force. There is no better compliment one can receive than getting retired GEN Gordon R. Sullivan's personal thanks to all involved for the challenging events and prideful spirit each crew displayed.

In the operational force, brigade combat teams are learning and adjusting their tactics, techniques and procedures through increased repetitions at

our combat training centers (CTCs). The Armor School and supporting agencies are capturing these lessons and updating programs of instruction to bolster the mounted leaders' knowledge of doctrine, battle drills and maintenance. Concurrently, the Maneuver Center of Excellence is making vehicle modernization a top priority, which will ensure we retain our technological overmatch.

ABCTs are in high demand for operational missions and will continue to be for the foreseeable future. Developing trained mounted warriors that are well versed in maneuver fundamentals is our highest priority. The ability to "fight from the hatch" has been a point of emphasis in how we train our officers and noncommissioned officers (NCOs). Our courses maximize platform time to give leaders and Soldiers the most repetitions to build both competence and confidence.

As maneuver leaders, sustainment and maintenance operations need to be second nature. Sustainment operations are the lifeblood of armored warfare, and we must master the art and

science of sustaining continuous operations. We continue to learn hard lessons from CTC rotations and regionally aligned force deployments. We've established the Maneuver Leader Maintenance Course and Maneuver Leader Maintenance Executive Course to educate battalion maintenance officers, command teams and senior leaders how to manage maintenance programs and support high-tempo operations over extended and contested lines of communication. These skills require leader emphasis, and even "old hands" need a refresher as we change our vernacular in the new Global Combat Support System-Army.

I am very honored to pass the Thunderbolt colors to BG John Kolasheski as the 50th Chief of Armor. He is a proven leader and will continue to forge our next generation of mounted warriors while developing the requirements and doctrine for the Armored Force. I leave Fort Benning with my tanker boots strapped proudly as I see the great young officers and NCOs leading our Soldiers every day. Press on and treat 'em rough!

GUNNER'S SEAT

CSM Alan K. Hummel
Command Sergeant Major
U.S. Army Armor School



Training Events; Change of Leadership

First and foremost, I would like to congratulate COL John Cushing, CSM Lawrence Andrews and the rest of 194th Armor Brigade team on the preparation and execution of this year's Sullivan Cup competition. The tremendous amount of effort and work that went into planning and coordinating the event is greatly appreciated. I would also like to extend my congratulations to 1LT John Dupree and his crew: SGT Curtis Bowen, SPC Brandon Sinor and PFC Phillip Hill. The 1st Battalion, 252nd Armor Regiment, 30th Armored Brigade Combat Team, North Carolina Army National Guard, won this year's competition.

Shortly after completion of the Sullivan Cup, I went to Germany to observe the

Strong Europe Tank Challenge 2016. This event was comprised of seven platoons from six countries conducting offensive and defensive tactical-gunnery scenarios – along with tactical-lane scenarios very similar to the events that take place during the Sullivan Cup but focused on platoon-level execution. It was a well-organized event that showcased the lethality of a tank platoon.

The senior-level leadership who attended either of these training events should walk away with a greater understanding of the capabilities Armor has and how to better implement them within their organizations. I further encourage leaders at all levels to attempt to attend any and all such training

events and strive to take lessons-learned back to implement into their own formations.

I'd like to take this opportunity to personally thank MG Scott McKean for his contribution to the Armored Force during his tenure as the 49th Chief of Armor. MG McKean's profound insight and vast knowledge enabled him to effectively impact the future of the Armored Force and guide it through the difficult task of downsizing and forced realignment of our formations. MG McKean will continue to play a vital role within our ranks, as he was appointed as the Chief of the Office of Security Cooperation-Iraq.

I would like to conclude this Gunner's Seat by welcoming the 50th Chief of Armor, BG John Kolasheski, and his family. BG Kolasheski joins us after departing Fort Riley, KS, as the deputy commanding general (maneuver) for 1st Infantry Division. I look forward to working with BG Kolasheski in continuing to guide and develop the future leaders of the Armor Branch.

Forge the Thunderbolt!



Figure 1. The winner of the 2016 U.S. Army Sullivan Cup "best tank crew" competition was the crew from 1-252nd Armor, 30th Armored Brigade Combat Team "Old Hickory!" from the North Carolina National Guard.

Battalion-Level Execution of Operations for Combined-Arms Maneuver and Wide-Area Security in a Decisive-Action Environment

The Challenge: Balancing CAM and WAS in a Hybrid-Threat Environment

by LTC Harry “Zan” Hornbuckle and MAJ James D. Pritchett with contributions by Dr. Thomas E. Ward

Battalions routinely struggle with establishing balance in the synchronized execution of combined-arms maneuver (CAM) and wide-area security (WAS). We will discuss how units can better accomplish both of these core competencies simultaneously and effectively, proposing the concept of employing Mission Analysis (MA) 1 and 2.

We will also examine the manning and training required to accomplish those tasks and maintain running estimates. To do this, the unit must ask itself a multitude of questions. Paramount among those questions are:

- How does a battalion team establish a planning balance in a decisive-action environment to produce detailed plans?
- How does a battalion team establish the balance between CAM and WAS in accomplishment of its purpose assigned by the brigade team?

“The Army’s two core competencies — [CAM] and [WAS] — provide the means for balancing the application of Army warfighting functions [WFF] within the tactical actions and tasks inherent in offensive, defensive and stability operations,” according to Army Doctrine Publication (ADP) 3.¹

Balance is the challenge. How does a battalion team establish balance among offensive, defensive and stability operations in a decisive-action environment, producing appropriately detailed plans through use of the operations process and a battle rhythm?

Our doctrine establishes CAM and the use of defeat mechanisms as our method to defeat enemies and seize terrain. Doctrine further describes WAS and

the use of stability-and-security mechanisms as our way to protect populations and consolidate gains. Only through synchronization of these two techniques can we achieve success in a decisive-action environment since neither is sufficient in isolation. In effect, we must train to achieve the tasks accomplished in Operation Iraqi Freedom (OIF) while, at the same time, completing tasks normally associated with OIF and Operation Enduring Freedom rotations after 2006.

Routinely, units training in a decisive-action environment focus on CAM or WAS but struggle to combine the two to accomplish their purpose and achieve the desired endstate. The complexities of combining offensive, defensive and stability operations overwhelm most staffs, leading to friction and difficulty in synchronizing operations. We have counted on our experience in stability operations as a crutch to overlook the planning required for success in WAS, which normally generates friction with local civilians and leaves gaps in our security.

The application of combat power should come as a result of a deliberate execution of the operations process where the battalion plans, prepares, executes and then assesses its application of combat power. The challenge of this combat-power application in both training and warfighting is the hybrid threat (HT) and execution of operations across the spectrum of conflict from unstable peace to general war. Army Doctrinal Reference Publication (ADRP) 3-90 defines an HT as “the diverse and dynamic combination of regular forces, irregular forces and/or criminal elements unified to achieve mutually benefitting effects.”²

These multiple components force us to consider both the human and land

domains while operating in an austere environment.

Effective employment

The goal of the operations process is to allow the team to identify a way to synchronize its means to accomplish the desired endstate – or to put it another way, solve tactical problems. As ADRP 3-90 states, “Success in tactical problem-solving results from the aggressive, intelligent and decisive use of combat power in an environment of uncertainty, disorder, violence and danger. A commander wins by maintaining the initiative and forcing the enemy to react to friendly operations.”³

In Field Manual (FM) 6-0 we are reminded that “the commander and staff perform mission analysis to better understand the situation and problem, and identify what the command must accomplish, when and where it must be done, and most importantly why — the purpose of the operation.”⁴

The start point is the commander as he or she works to understand the environment, visualize the endstate, describe how to achieve the endstate and direct the actions to achieve the endstate while conducting continuous assessment. The commander understands the environment first through personal analysis, normally conducted before receipt of the mission-analysis brief. This careful review of the problem(s), combined with experience, begins to inform the commander’s understanding. The staff then improves the commander’s understanding by proper mission analysis and framing the situational template.

The commander’s staff consists of many junior leaders working hard to bring to bear the science required to understand and control the execution

Integration of the targeting process into MDMP						
Receipt of mission	Mission analysis	CoA development	CoA analysis (wargame)	CoA comparison	CoA approval	Orders production
Warning order					Warning order	
D3A methodology						
DECIDE			DETECT DELIVER ASSESS			
Gather tools: <ul style="list-style-type: none"> Blank TSM Blank asset chart Blank attack guidance matrix (AGM), high-payoff target list (HPTL) and target-selection-standards (TSS) chart Determine available assets	Develop HPTL → Develop named areas of interest Develop TSS/AGM Update detect, delivery, assess availability chart Air-tasking-order request	Receive HPTL	Finish TSM with input from all WfF Refine AGM and TSS Develop target list and fire-support coordination matrices (FSCMs)	Refine TSM with input from all WfF Refine AGM Develop target list and FSCMs	Hardcopy of TSM HPTL, AGM and TSS part of order	

Figure 1a. Integration of the targeting process into the MDMP. MA 1 is focused on operational variables (PMESII-PT). These deductions form the basis of the staff running estimate and allow the commander to visualize the OE endstate. Continuous use of targeting cycle as part of the battle rhythm allows the unit to synchronize efforts as WAS variances are identified.

of military operations. The commander also gains insights from subordinate company-command teams through constant communication and face-to-face meetings. The commander drives this operations process and develops the junior staff with the battalion executive officer through constant dialogue and by training the staff during execution of the military decision-making process (MDMP). These efforts, in turn, drive the organization to account for the eight forms of contact: visual; direct; indirect; non-hostile; obstacles; aircraft; chemical, biological, radiological and nuclear; and electronic warfare⁵ while organizing the six WfF⁶ to mass at the decisive place and time.

Mission analysis

As we work to understand our environment, applying the technique of MA 1 and 2 will help. In MA 1, the staff analyzes the operating environment (OE), first through the lens of the operational variables listed as political, military, economic, social, infrastructure, information, physical environment and time (PMESII-PT). Then the staff analyzes mission variables (mission, enemy, terrain and weather, troops and support

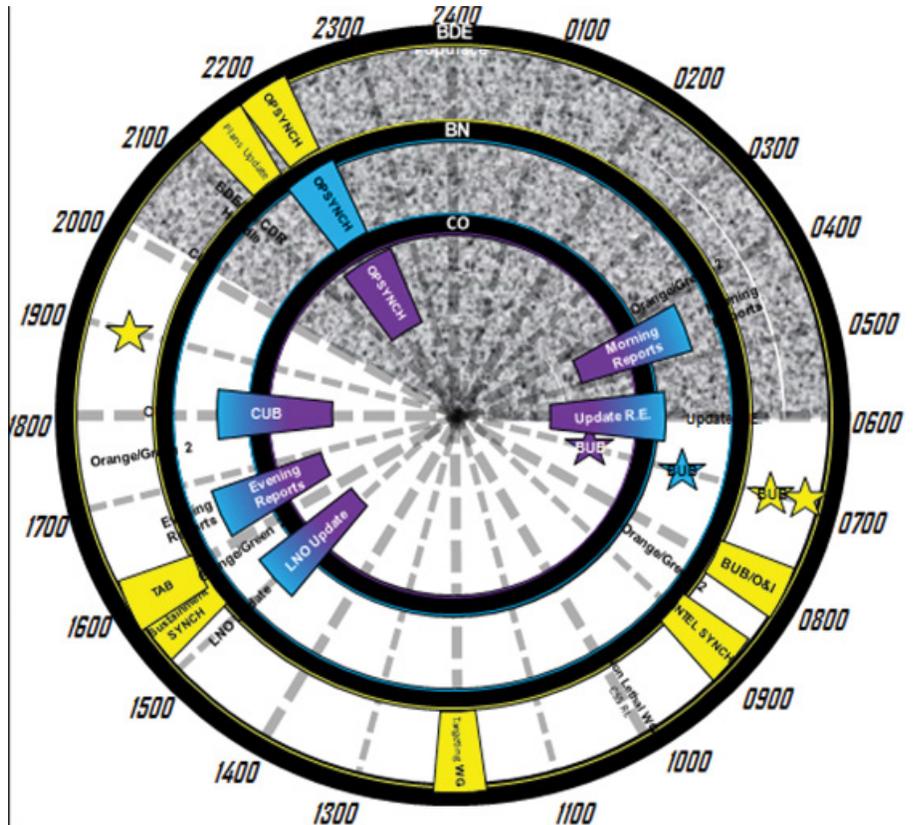


Figure 1b. Circular battle rhythm. WAS is the application of the elements of combat power in unified action to protect populations, forces, infrastructure and activities; to deny the enemy positions of advantage; and to consolidate gains to retain the initiative. (Original from FM 6-0, Chapter 1)

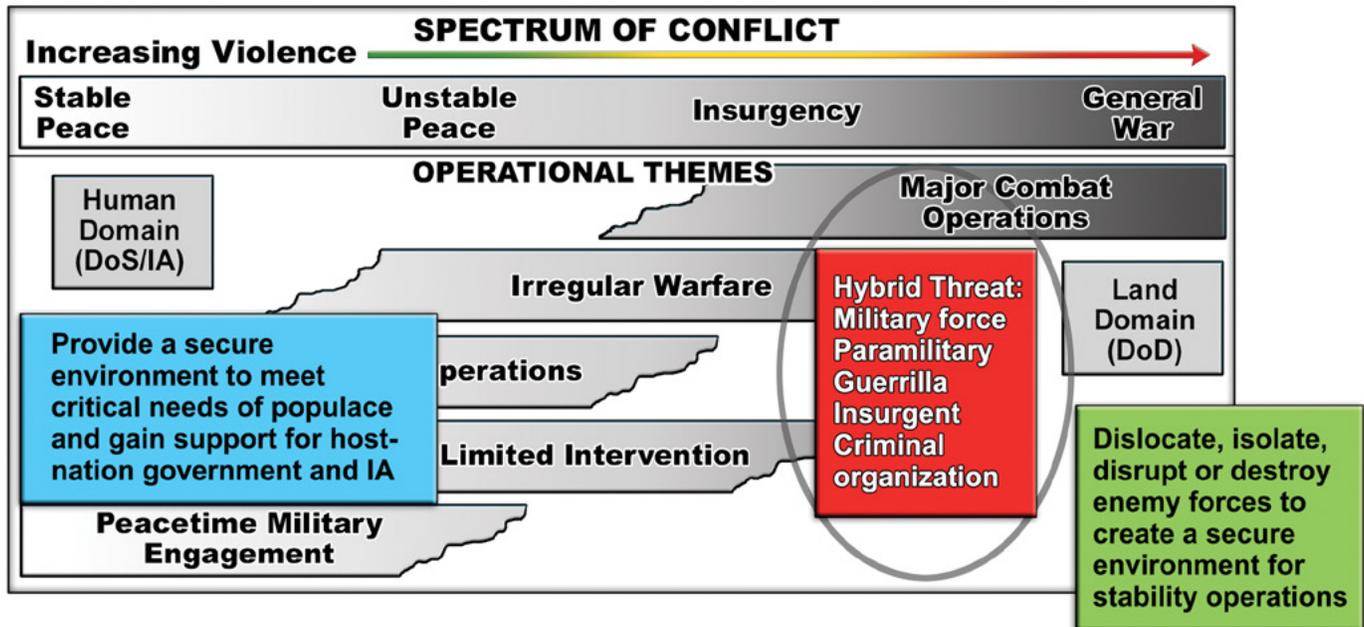


Figure 1c. Unified land operations are executed through decisive action (offense/ defense / stability / defense support of civil authorities) by means of Army core competencies (WAS and CAM). Per ADP 3-0, Paragraph 22, offensive, defensive and stability operations each require a combination of CAM and WAS; neither core competency is adequate in isolation.

available, time available, civil considerations (METT-TC)) as part of MA 2.

These two executions of the MA step (and the resultant briefings) of our MDMP provide the team with a shared understanding of both the OE and mission variables, enabling them to visualize conceptual plans to achieve the desired endstate. The battalion then executes the remaining steps of the MDMP to produce a detailed plan for subordinate units to execute initial-entry operations. However, before this occurs, the battalion must develop a battle rhythm that is not only understood throughout the battalion formation but is tied into the brigade as well.

The battalion's execution of a battle rhythm is the center of gravity for bringing balance to the application of combat power through CAM and WAS. The incorporation of intelligence collection allows the team to identify variances in the environment and then seize opportunities while mitigating risk. A technique to accomplish this is through the blending of a targeting cycle focused on the human domain, supported by updates to MA 1, with the simultaneous execution of the operations cycle focused on the land domain. This is further supported by updates from MA 2.

In practice, the staff continues to update its running estimates for both offensive and defensive operations in MA 2 while continuing to refine running estimates for stability operations in MA 1. MA 1 updates are highlighted in the battle rhythm daily update; MA 2 updates are highlighted in each planning cycle or when significant enough to

warrant attention in the daily update brief.

This battle rhythm, focused on the targeting cycle, results in a daily fragmentary order (frago) that consolidates adjustments to stability operations to achieve the desired endstate, focused primarily on civilian aspects with a

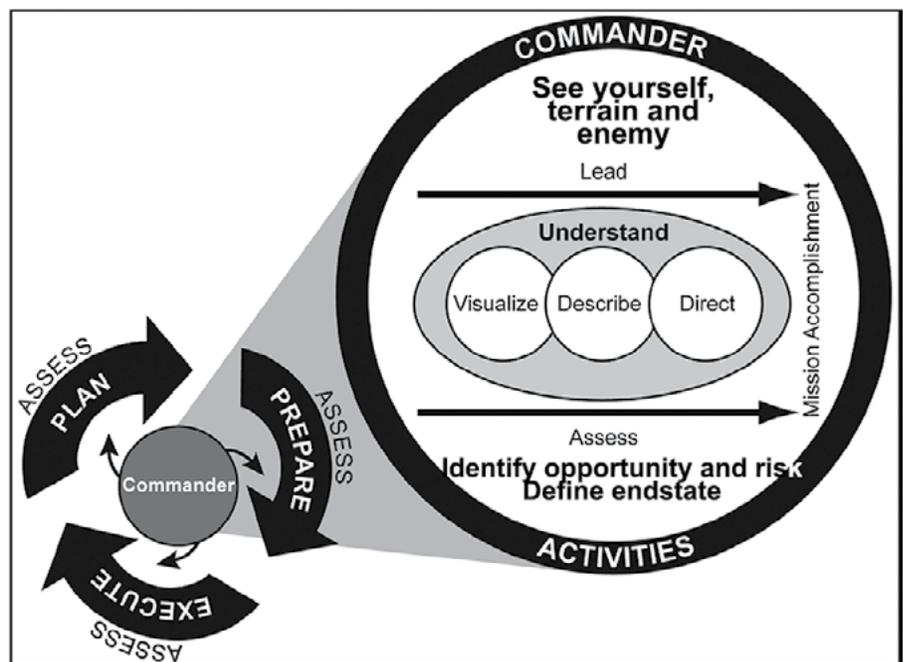


Figure 1d. The commander accounts for the forms of contact, organizes all WFF and develops operations that have flexibility, integration, lethality, adaptability, depth and synchronization.

MDMP		
Guidance and intent		Estimates and assumptions
Key inputs	Steps	Key outputs
<ul style="list-style-type: none"> Higher headquarters plan or order or new mission anticipated by the commander 	Step 1: Receipt of mission	<ul style="list-style-type: none"> Commander's initial guidance Initial allocation of time
<ul style="list-style-type: none"> Higher headquarters plan or order Higher headquarters knowledge and intelligence products Knowledge products from other organizations 	Step 2: Mission analysis	<ul style="list-style-type: none"> Problem statement Mission statement Initial commander's intent Initial planning guidance Initial CCIRs and EEFI Updated in-progress review and running estimates Assumptions
<ul style="list-style-type: none"> Mission statement Initial commander's intent, planning guidance, CCIRs and EEFI Updated in-progress review and running estimates Assumptions 	Step 3: CoA development	<ul style="list-style-type: none"> CoA statements and sketches Tentative task organization Broad concept of operations Revised planning guidance Updated assumptions
<ul style="list-style-type: none"> Updated running estimates Revised planning guidance CoA statements and sketches Updated assumptions 	Step 4: CoA analysis (wargame)	<ul style="list-style-type: none"> Refined CoAs Potential decision points Wargame results Initial assessment measures Updated assumptions
<ul style="list-style-type: none"> Updated running estimates Refined CoAs Evaluation criteria Wargame results Updated assumptions 	Step 5: CoA comparison	<ul style="list-style-type: none"> Evaluated CoAs Recommended CoAs Updated running estimates Updated assumptions
<ul style="list-style-type: none"> Updated running estimates Evaluated CoAs Recommended CoA Updated assumptions 	Step 6: CoA approval	<ul style="list-style-type: none"> Commander selected CoA with any modifications Refined commander's intent, CCIR and EEFI Updated assumptions
<ul style="list-style-type: none"> Commander selected CoA with any modifications Refined commander's intent, CCIR and EEFI Updated assumptions 	Step 7: Orders production, dissemination and transmission	<ul style="list-style-type: none"> Approved operation plan or order Subordinates understand the plan or order

Figure 1e. MA 2 is focused on mission variables (METT-TC). These deductions center on a specific mission and typically focus the unit on a CAM operation. Inclusion of MA 1 and target outputs allow the unit to account for WAS as they focus on CAM.

touch on enemy and terrain for security purposes. As the situation develops and variances are identified through the operations process, the unit conducts another session of MDMP with a focus on enemy and terrain components of the endstate. The key element here is the assessment, measured against the endstate described by both the battalion and brigade commanders. This focus allows the staff to quickly conduct assessments that measure accomplishment of the endstate.

In a decisive-action training environment (DATE) rotation, this process does not need to be complicated; it typically focuses on civil security and support of basic needs. During a typical DATE rotation, the battalion is in contact with a near-peer competitor, insurgents and criminal organizations – sometimes all at once. The historical models of targeting and assessment have become so complex that to use them would overwhelm the staff and result in slow execution of the operations process. A simple quad chart that drives the unit through the *decide, detect, deliver* and *assess* steps of targeting allows the staff to identify the variances that demonstrate accomplishment of the endstate

– or, conversely, have put accomplishment of the endstate at risk.

Achieving balance

So, how does a battalion team establish balance in a decisive-action environment to produce detailed plans? It is through disciplined execution of the daily battle rhythm, combined with the required execution of the operations process.

The battle rhythm and the operations process are separate-but-linked systems that allow the team to drive operations; they must be separate but synchronized to allow successful execution of CAM and WAS. Outputs from the daily battle rhythm should increase coordination during the steps of the MDMP. Simply focusing on the desired endstate should help guide the staff to key assessments measured by information collected through updates, intelligence collection and debriefs following operations.

The staff maintains its focus through the identification of the endstate and by developing sub-objectives that maintain the staff's azimuth throughout the process. We can discipline this process by ensuring the commander's

guidance clearly lays out expectations for information required to make decisions. Combined with the simple quad chart, well-organized meetings and running staff estimates that allow the team to efficiently identify variances across friendly, enemy, terrain and civilian considerations keep the process on track.

There are two key outputs of the daily battle rhythm and the execution of the operations process. They are:

- The daily frago that helps organize unit efforts with a focus on the human domain through stability mechanisms; and
- The operations frago focused on the land domain through defeat mechanisms.

This is where the battalion team achieves the ability to execute both WAS and CAM, accomplished through detailed planning in an austere and time constrained environment.

The various charts (Figures 1a through 1f) with this article illustrate the complexities of unified land operations across the spectrum of conflict as the commander drives the operations process through *understand*, *visualize*,

describe, *direct* and *assess* activities. The commander, supported by the staff, accounts for the forms of contact while organizing all WFF to develop operations that have flexibility and synchronize unit actions.

Figure 1a describes MA 1, the assessment of the operational variables through execution of the targeting cycle as part of the battle rhythm. These feed the deductions that drive action for WAS with a concentration on the human domain. The goal here is to provide a secure environment to meet critical needs of the population. The battalion has some capability to accomplish this but must identify the resource shortfalls that require support from brigade, other agencies or host-nation forces. Once identified, these requests are submitted as part of the battalion's participation in the brigade's operations synchronization meeting. This is a continuous process that starts with MA 1 and continues through the use of updated staff running estimates.

Figure 1e is where we see MA 2 and its focus on the mission variables. These deductions drive actions through the operations process with a focus on

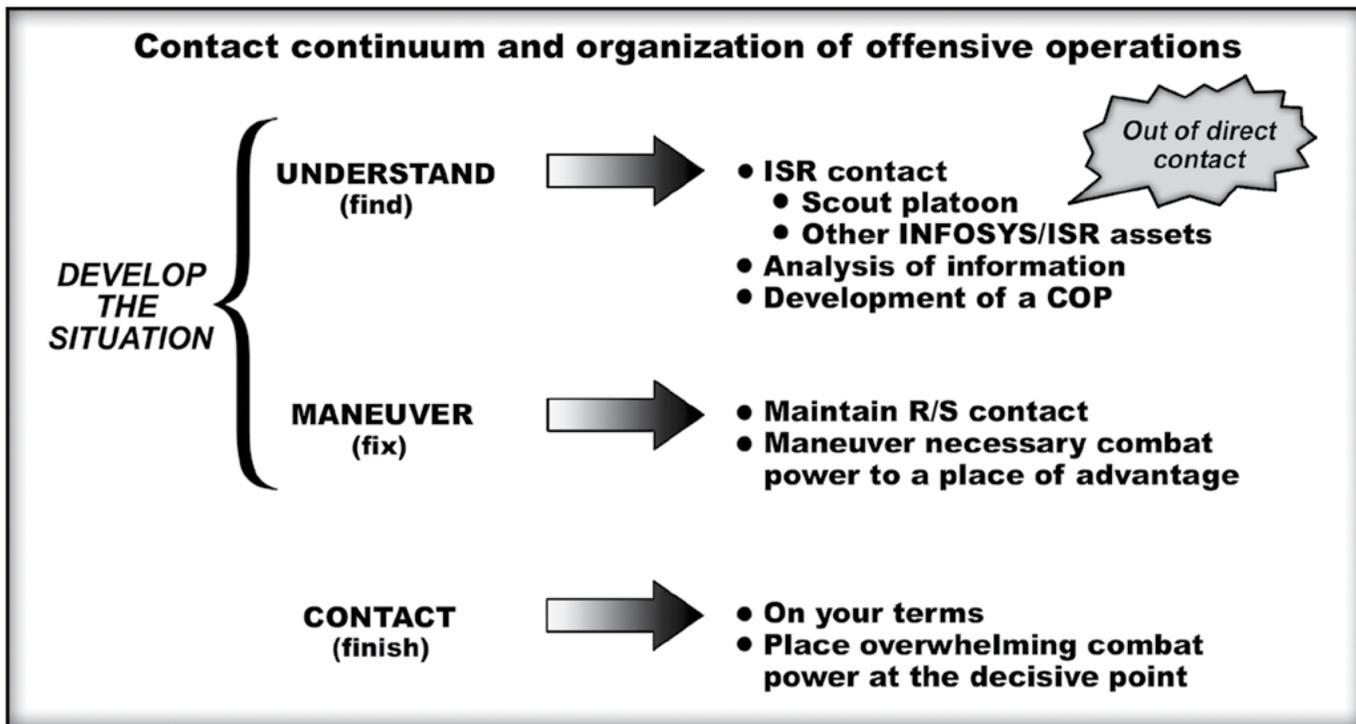


Figure 1f. Contact continuum and organizations of offensive operations. CAM is the application of the elements of combat power in unified action to defeat enemy ground forces; to seize, occupy and defend land areas; and to achieve physical, temporal and psychological advantages over the enemy to seize and exploit the initiative.

CAM. We include key deductions from MA 1 and the running updates of MA 1 to account for WAS. Here, we execute the operations process through use of the MDMP. This allows the unit to visualize and execute along the contact continuum where we find, fix and finish the HT in the unit's OE. Again, the unit measures the results of its operations against the HT as it executes the defeat mechanisms to accomplish the assigned purpose. This is the process to facilitate mission command.

Organizing, manning, training

Networks, information systems and facilities are already established by the tactical-operations center as the battalion executes WAS/CAM. The hard part of staff organization and operations is the manning component. For this to work, it must be executable day and night across the battalion staff. Here is where we should treat our staff's organization and manning like a battle roster for a platoon, vehicle crew or gun crew. Each staff member has assigned primary and alternate duties and is trained to execute those duties.

Organization and training incorporates officers and noncommissioned officers with Soldiers. The battalion commander and command sergeant major should oversee this training, with the executive officer and operations officer as the primary trainers of the staff. The battalion commander and executive officer should review and exercise the team with the same diligence they do a maneuver platoon or gun crew. It is imperative the executive officer be involved in this process due to the multitude of outside requirements the battalion commander must focus on. This careful attention to organization and training, along with a detailed manning plan, allows the team to build the capacity to support the battle rhythm with its targeting cycle, run daily operations and execute the operations process for the next offensive or defensive mission.

While execution of CAM and WAS in a decisive action is difficult – especially against an HT skilled at attacking with all eight forms of contact across the OE's depth – it can be done. It is

important to note that these skills and capabilities must be trained at the unit's home station. The DATE provides little time to develop new and unproven systems, but it does give the unit time to refine its existing capabilities and processes.

Getting better

Our skills in the execution of the science of offensive and defensive operations on the major-combat-operations side of the spectrum of conflict are improving. With that said, we still need to retain the skills that have contributed to our success in stability operations as we operated from the peace-operations and irregular-warfare side of the conflict spectrum. With these two critical skills in our formations, we can successfully execute unified land operations and accomplish our missions in both the land and human domains.

This begins with the commander's understanding and visualization, supported by the staff through the daily execution of a battle rhythm and the operations process. The results are detailed daily fragos or mission orders that organize the battalion team for combat, concentrate combat power at the decisive place and time, and provide the details required to achieve the desired endstate in regard to the enemy, friendly, terrain and civilian population.

This article started with two key questions:

- How does a battalion team establish a planning balance in a decisive-action environment to produce detailed plans?
- How does a battalion team establish the balance between CAM and WAS in accomplishment of its purpose assigned by the brigade team?

We have described "a way" that uses the concept of MA 1 and MA 2, and discussed the manning and training required to accomplish those tasks, including maintaining running estimates. A well-organized and trained staff, using the MA 1 and MA 2 concept, provides the deductions that inform the commander's decision-making and drive the operations process.

Critical to the success of this process is

the commander's involvement. The commander ensures that the staff is on track with the intent and that concepts develop into executable plans which achieve the envisioned endstate. We use the MDMP to assist us with the production of detailed plans to accomplish our purpose in the land domain through defeat mechanisms.

We use the targeting cycle to assist us in production of detailed plans that accomplish our purpose in the human domain through stability mechanisms. We synchronize the two through execution of our core competencies of CAM and WAS. The commander drives both processes and ensures the staff's energy is focused on development of plans that accomplish the purpose and achieve the endstate.

This article provides a different paradigm to assist commanders in their visualization and provides a framework to direct the team's planning efforts. In the end, this framework allows the unit to provide detailed plans in time for subordinates to plan and execute successfully under conditions set by the battalion with synchronized Wff that overwhelm the enemy.

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Disposal Officer School, Ordnance Officer's Advance Course, Command and General Staff Officer's Course, Armed Forces Staff College and Army War College. Dr. Ward's doctorate is in organization and management from Capella University. He also holds a bachelor's of arts degree from the University of Oklahoma and a master's of business administration degree from the Florida Institute of Technology.

Notes

¹ ADP-3, *Unified Land Operations*, Washington, DC, October 2011.

² ADRP 3-90, *Offense and Defense*, Washington, DC, August 2012.

³ Ibid.

⁴ FM 6-0, *Commander and Staff Organization and Operations*, Washington, DC, May 2014.

⁵ ADRP 3-90.

⁶ ADRP 3-0, *Unified Land Operations*, lists six warfighting functions – Paragraph 1-56 and Paragraphs 3-6 through 3-26 – as mission command, movement and maneuver, intelligence, fires, sustainment and protection.



Donovan Research Library, Maneuver Center of Excellence,

hosts Armor student papers on various subjects,

<http://www.benning.army.mil/library/content/Virtual/virtual.htm>,

and back issues of *ARMOR* magazine,

<http://www.benning.army.mil/library/content/Virtual/CavalryArmorJournal/index.htm>

— currently through 1888-1973 but building up to the early 1980s.

Some back issues are also available on e*ARMOR*,

<http://www.benning.army.mil/armor/earmor/>

Brigade Combat Team Commander: How Do You Plan to Sustain a Partnered Multinational Formation?

by CPT William Russell Dean

The Joint Multinational Readiness Center (JMRC) is a unique training area where Soldiers from across the North Atlantic Treaty Organization (NATO) and Partners for Peace nations train as multinational brigade and battalion task forces in complex, full-spectrum operation scenarios.

Observers/coaches/trainers (O/C/Ts) at JMRC regularly identify that training units under-define or fail to recognize supply-support relationship challenges in multinational organizations. Logisticians frequently use a task-organization chart to assess a unit's sustainment needs and develop the concept of support. Understanding the task-organization is only part of the solution. The multinational brigade combat team commander must also understand the capability, capacity and unique needs of each element. To do

so, logisticians must thoroughly define the supply-support relationships and how changes to the task-organization impact the sustainment of a multinational organization – and ultimately affect the ability to sustain the fight.

'Train as you fight' vs. simplicity

At JMRC, training battalions are required to provide support to any attached elements. To interoperate as a multinational force, battalions work in conjunction with adjacent friendly forces but are autonomous for short periods of time.

The force is constrained by different logistical requirements among its subordinate units (as an example, one multinational battalion may require Jet Propellant 8 (JP-8) and Diesel Fuel 2 (DF2), but only have the capability to distribute JP-8). When a multinational

battalion or service-support unit does not have the assets to sustain subordinate units, it must look outside its task-organization to develop a supply-support relationship. This can strain a supply system, especially if a forward-support company (FSC) must provide support to a unit that is outside the FSC's area of operations.

In this situation, the supply-support relationship becomes paramount to the task-organization, and logistic synchronization becomes extremely complicated, violating a tenet of logistics: simplicity.

Classes of supply

Class I (food, rations and water). Support requirements to multinational battalions range from completely dependent for all Class I needs to entirely self-supporting. When self-support- ed, multinational battalions conduct

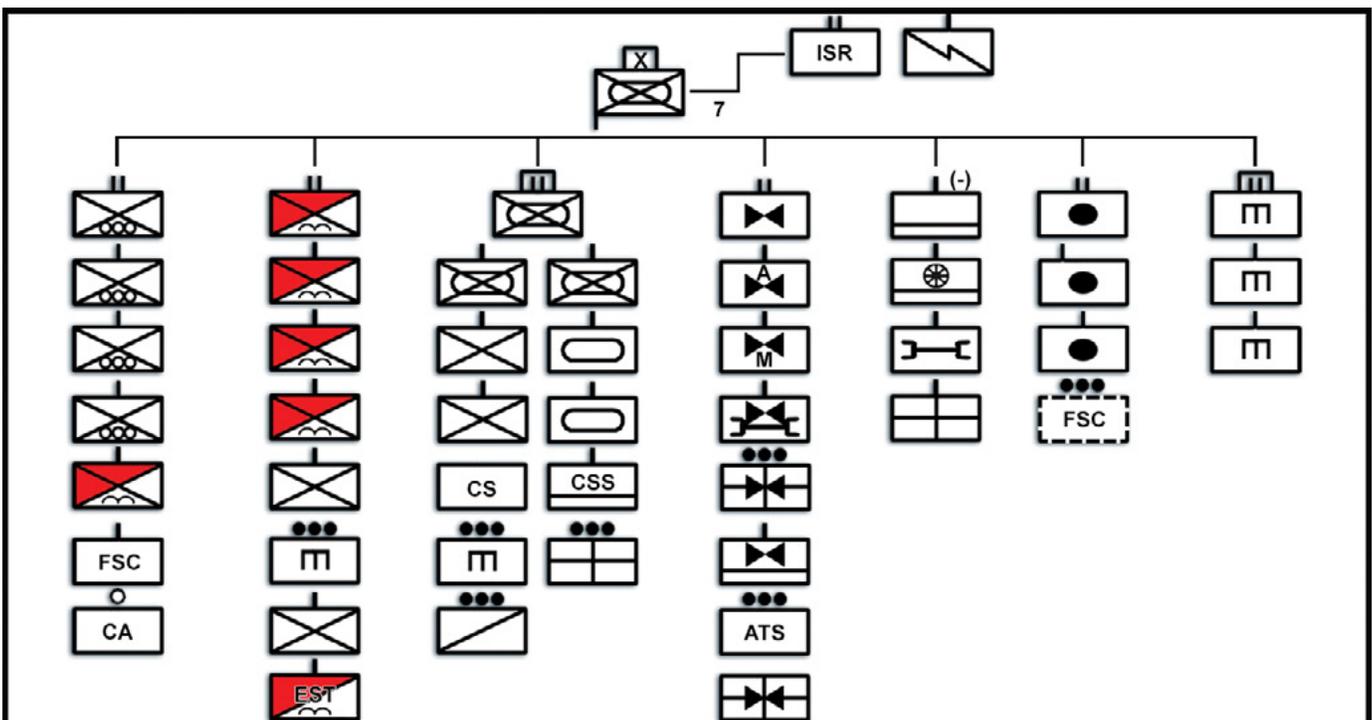


Figure 1. The task organization of a typical multinational brigade that trained at JMRC in 2015. Each of the battalions had unique sustainment requirements met by different, and sometimes inadequate, sustainment capabilities. Operating within the multinational brigade, each battalion faced significant constraints while building multinational sustainment interoperability.



Figure 2. 3rd Brigade Support Battalion Soldiers deliver water to Romanian and Bulgarian Soldiers at JMRC, Hohenfels, Germany. (Photo by CPT Russell Dean)

sustainment along national lines, failing to sustain attachments whose nationality differs from the nationality of the battalion headquarters. This forces a brigade-support battalion (BSB) to provide Class I to individual companies that the multinational battalion's combat-service-support (CSS) company does not support.

During Combined Resolve IV, a multinational battalion deployed with no bulk water storage. The BSB supplied water buffalos directly to companies in the multinational battalion, requiring the BSB to approach the forward-line-of-troops to resupply the training units daily.

During Combined Resolve V, a CSS company in a multinational battalion, building on lessons-learned from Combined Resolve IV, fielded a 5,000-liter water truck. Unfortunately, the supported companies had no system for bulk water storage. The battalion logistics officer and the CSS platoon developed a system of daily water-can replenishment that sustained the battalion but left only one day of supply on hand.

These examples are all situations in which a battalion, organized under a multinational brigade headquarters, assumed that subordinate companies would receive Class I support directly from the BSB. They did not plan or field the capability to sustain the battalion beyond organic entities.

Class III (petroleum, oils, and

lubricants). The most difficult logistical challenge for multinational brigades at JMRC is bulk fuel management. Task-organization charts do not indicate the type of fuel consumed. Most NATO militaries use predominantly DF2, but some use JP-8 and/or mobility gasoline. U.S. BSBs are not equipped with a DF2 M978 (fuel truck) because U.S. Army fuel requirements are typically only for JP-8. Likewise, support units from militaries that use predominantly DF2 are not equipped to transport bulk JP-8.

Conversion of an M978 from one fuel type to another can be costly and time-consuming. During Exercise Allied Spirit II, an allied battalion drew 14 M1025 vehicles that only consumed JP-8. This is not just a JMRC idiosyncrasy since many countries field versions of U.S. equipment or draw from U.S. prepositioned stocks. This action complicated the brigade's fuel management because the battalion's CSS company was not able to organically distribute JP-8 fuel. Mixed fuels in the task force required the BSB to distribute JP-8 and DF2, both in bulk

and retail, to each unit in the task force. The brigade managed fuel distribution using a complex sustainment synchronization matrix, but fuel distribution expended more time than it would have with a single-fuel system.

Class IV (fortification and barrier materials). The ability of a unit to distribute Class IV is heavily influenced by the capacity of its transportation equipment. U.S. BSBs distribute Class IV to maneuver battalions by exchanging flat racks with FSCs. In a multinational battalion, various other militaries use different transportation systems that are often incompatible. This prevents the BSB from exchanging flat racks and requires them to deliver Class IV directly to line companies.

It is critical for the brigade to understand the transportation capacity and compatibility of all systems in the task force to successfully distribute Class IV. Once logistic planners understand available assets, they must develop a plan that accounts for the capabilities and limitations of each unit.

Class V (ammunition). Some NATO and Partners for Peace nations do not use NATO standard ammunition, or they use additional ammunition that is not in the NATO inventory. For example, the Romanian Land Forces use 7.62x39mm, RPG-7, SPG-9 (73mm recoilless), 14.5mm KPV and 82mm mortar rounds not available in U.S. supply systems. Even systems like the 120mm mortar are not the same among nations. Powder requirements for one 120mm mortar system may degrade



Figure 3. Soldiers from 74th CSS Company (Czech Republic) prepare to conduct resupply-on-the-move operations during a rotation at JMRC. (Photo by CPT Russell Dean)



Figure 4. Soldiers from 191st Infantry Battalion (Romania) prepare to relocate the unit trains by loading Class IV onto flat racks at JMRC. (Photo by CPT Russell Dean)

the combat effectiveness and stability of a similar allied weapons' system.

Another example of ammunition differences among militaries is the Spike missile system. There are at least six variants to this system, with substantially different capabilities and constraints. Conversely, the U.S. Javelin system has only one missile variant.

Brigade sustainment planners must understand the ammunition requirements of each weapon system in a multinational brigade. They must also understand procurement procedures for additional ammunition from higher echelons and establish a method to resupply the force.

Class VII (major end items) and **Class IX** (repair parts). Although Classes VII and IX are unique classes of supply, their procurement and management is a similar problem set for logisticians in a multinational brigade. As an example, if a U.S. BSB recovers a battle-damaged Romanian Armored Personnel Carrier (TAB-77) to the brigade-support area, they must look outside U.S. supply channels to get necessary repair parts. A fuel pump for a Stryker, which a U.S. BSB carries as part of its Essential Repair Parts Stockage List, will not be on hand in a brigade with a multinational combat-sustainment-support battalion. The brigade logisticians must determine how repair parts for subordinate units' equipment will flow from the higher to lower echelons of support.

Echelon of support also affects replacement of end-item equipment

since a TAB-77 cannot be procured through U.S. channels. This requires the logisticians to have an intimate understanding of equipment in the task force and thorough coordination with the multinational division-sustainment cell.

Recovery operations are complex in a multinational

unit because of recovery-system interoperability. Some recovery systems will not be able to recover vehicles fielded by another nation. For example, a BSB in a U.S. infantry brigade is ill-equipped to provide recovery support to a German mechanized-infantry or armor company, but it can support a Romanian mechanized-infantry company's TAB-77 vehicles. A Royal Netherlands Army BPz3 Buffel recovery vehicle can support a U.S. Stryker company, but a U.S. M984 wrecker cannot support the Royal Netherlands Army's armor. Multinational brigade logisticians must consider recovery when defining supply-support relationships and should consider tasking units to mutually support other units based on re-

covery-asset interoperability.

From data to understanding

Using task-organization alone as a tool to plan sustainment oversimplifies the problem of supporting a multinational formation (Figure 6). Logisticians must also understand the actual capacity, capability and requirement of each individual unit. To achieve true interoperability, sustainment planners must continue to understand the needs of the unit as the task-organization changes and address subordinate units based on their evolving requirements. The brigade S-4 and the BSB or CSS battalion must also identify the supply-support relationship for each class of supply and the brigade's capability to allocate the proper resources to supported units.

BCT commanders must understand that every change to the task-organization affects the logistics support in a partnered multinational formation and directly influences the ability to sustain the warfighter.

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Figure 5. A Royal Netherlands Army BPz3 Buffel recovers a Stryker at JMRC, Hohenfels, Germany. (Photo by CPT Russell Dean)

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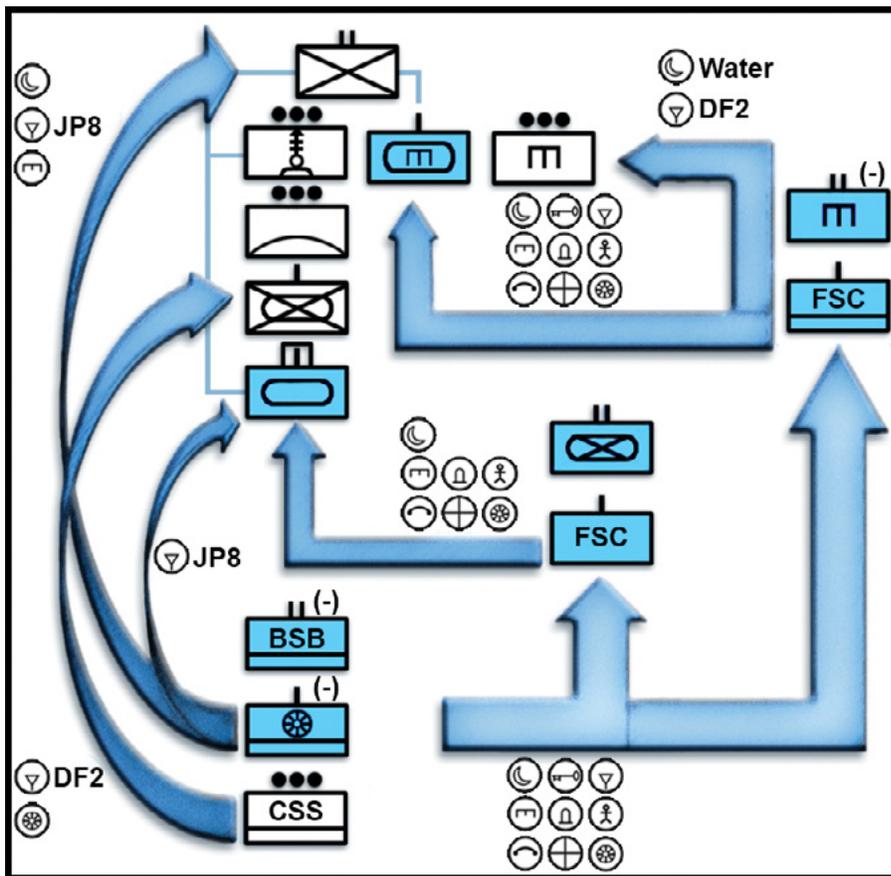


Figure 6. Supply-support relationships observed at JRMCC.

Sustainment Considerations

by CPT Jerad N. Hoffmann and CPT James W. Turner

(Editor's note: This article is a vignette based on events that occur during combined-arms battalion (CAB) rotations at the Joint Multinational Readiness Center (JMRC). The Army units mentioned are not the actual units that experienced the events described. However, the organizations presented are used to describe typical logistic challenges within the maneuver battalions that train at JMRC.)

As a junior captain fresh out of the Maneuver Captain's Career Course, I was ready to take on the world. Holding down the S-4 (logistics) shop before I got my chance at company command seemed like a pretty easy assignment. Making sure the battalion had food, water and bullets to conduct training did not seem too daunting. However, I was wrong; the learning curve was tremendous. Had I known then what I know now about logistics packages (logpacs) and logistics-resupply point (LRP) operations, and how difficult the planning process of resupply can be, I would have prepared myself a little better for our decisive-action training exercise rotation. Issues like sending

accurate and specific logistic reports, logpac execution and key-leader involvement will delay – and in some cases stop – combat maneuver.

When I served as a platoon leader in my division, I spent 45 minutes a day checking and writing “no faults found” on a 5988-E maintenance checklist; that was the extent of my logistics knowledge. In a maneuver battalion, there are a lot of moving pieces, and the operational tempo is always changing. Tracking and coordinating resupply operations is exhausting. When you pile on developing concepts of support and predictive analysis to the equation, you're going to be tested as a leader.

I have since learned that logistics is a beast that constantly threatens to disrupt the fight if not kept on a leash. I never would have thought taking the time to outline critical logistics information and conduct meetings would alleviate so much frustration.

My battalion commander and command sergeant major were seasoned combat tankers who put a high priority on logistics. I used to question the process, but I started to see their logic.

Before we left for the combat training center (CTC), the battalion commander told me the battalion tactical standard operating procedures (TACSOP) were severely lacking in content and that it would pay dividends to address the gaps. I looked at the TACSOP — there was a Yellow 1 report [same as logistics status (logstat)] and a couple of paragraphs talking about when reports were sent; the TACSOP seemed legitimate to me. Just to show disciplined initiative, I added a few sentences about recovery and then showed the changes to the commander. He smiled and brought in the command sergeant major to review my work. The command sergeant major smiled, too, which was very rare, and then said, “Sir, I think I will stick around the combat-trains command post (CTCP) the first few days to see this plan in action.” Then the battalion commander told me to use the CTC as a learning opportunity. I was not sure what he meant at the time, but now I do.

(The following are daily excerpts from my battalion TACSOP notes.)

Day 1: movement-to-contact (MTC) issue. Senior-leader involvement. Logstat received via Joint Capabilities



Release (JCR) log at 3 p.m., and LRP disseminated for 7 p.m. logpac. I did not personally go to the LRP since I figured the distribution-platoon leader could handle everything. My reasoning was "it is just logistics." What is so difficult about it? I would soon find out: everything.

7:15 p.m.: The logpac arrived 15 minutes late.

7:30 p.m.: I received message calls on the administrative/logistics (A&L) net from the company first sergeants and the distribution-platoon leader regarding fuel allocations, ration breaks, Class IV distribution, port-o-johns, etc. Everyone seemed confused and somewhat angry. Company commanders began to complain to the battalion commander that they may have to delay uncoiling their elements from the tactical-assembly area (TAA) if the resupply did not get executed soon.

8:30 p.m.: All supply elements finally pushed out with company trains to the LRP. Our battalion TACSOP holds us to 15 to 30 minutes on ground. However, our exact time was 1½ hours. This was ridiculous. It simply could not be that difficult.

9:30 p.m.: The Charlie Company commander called the battalion commander to report that his company did not receive a fueler and could not uncoil until they received fuel. The battalion executive officer verbally reprimanded me. I tried to explain that Company C did not request any fuel on their logstat, but he would not hear it. I then directed the Company C first sergeant to return to the CTCP for the emergency fueler. The Delta Company first sergeant volunteered to take his remaining fuel to Company C once he filled up his vehicles. Company C never arrived at the CTCP to grab emergency fuel.

10:30 p.m.: The Company D first sergeant arrived at Company C area. Company C refueled, but it took them three hours!

1:30 a.m.: Company C elements consolidated with logpac at the LRP and pushed to the field-trains command post (FTCP). Company C was two hours late uncoiling to attack position. Total logpac time was six hours. The battalion executive officer placed the blame

for the LRP's failure on me; however, I didn't cause all the issues.

Recommendation: Managing and planning a CAB's internal logistics is potentially very challenging for a junior captain with very little experience outside a platoon or company. During CTC rotations at JMRC, maneuver battalions that had involved battalion senior leaders in the planning and execution of logpac operations significantly reduced time on LRPs, compared to those who did not. In addition, the battalion senior leaders involved in logpac operations are the forcing factor to ensure logistics are conducted according to the unit's internal TACSOP.

Day 2: 7 a.m. MTC issue. The logpac still took an hour to leave with company trains, and there were still inconsistencies with logstat reporting and ground truth. We received updated Yellow 1 reports at 3 a.m. The logpac arrived at the CTCP on time at 7 a.m. Then the chaos began. The logpac had all the commodities requested, but they were not organized into the convoy in any particular order. The first sergeants swarmed the distribution-platoon leader to grab their assets. The platoon leader did his best to organize the distribution; however, the first sergeants were asking for items which were not requested in their logstat. For example, the Company C first sergeant demanded that he be given two fuelers instead of the one requested in the logstat. When the distribution-platoon leader told him he would be taking another company's assets, the first sergeant became enraged. I asked why Company C needed another fueler. The distribution-platoon leader said he had a platoon which was black (empty) on fuel. The Company D first sergeant volunteered to give up one of his fuelers as long as he could get an extra one that evening, so that emergency was averted. Total logpac time was four hours. Company C was the last company to return to the LRP.

Recommendation: Battalion resupply operations at designated LRPs are not the time to work out logistical confusions from each company in the battalion. At JMRC, when battalion S-4s create an order of march by company resupply packages

prior to logpac execution, there is less confusion about which logistic assets belong to which company. The best time to deconflict confusion on resupply requirements is to submit logstats before companies leave their designated TAAs. However, logstat timelines must be clearly understood and specified in the battalion TACSOP.

Day 2: 7 p.m. MTC issue. The logpac took 45 minutes to break out with the company trains. Issues concerning personnel and maintenance. After we received logstats, I disseminated over A&L that all first sergeants must meet at the LRP 20 minutes before the logpac arrived to conduct a meeting. All the first sergeants and the command sergeant major arrived at the LRP at 6:40 p.m. I started by going over the logstats with each company. Apparently, some of the companies' executive officers sent their logstat, but the first sergeant physically picked up their logpac. This is not a major issue, but it sometimes causes a discrepancy.

For example, Company B had a Macedonian platoon of dismounts attached to them that morning, so the first sergeant informed me the headcount for chow was incorrect. I happened to see the personnel-status (perstat) report that morning and realized the attached platoon was not reflected. Also, the Company D first sergeant mentioned that it would be a good idea to lean forward for Class IV since the MTC was ending and they planned to move into engagement-area (EA) development.

On a positive note, I had much needed senior-leader support from the command sergeant major when one of the companies arrived late at the LRP meeting. Once the logpac arrived, the distro-platoon leader dismounted and told us the order of march: A, B, C, D and Headquarters and Headquarters Company (HHC). The first sergeants then moved back to their tracks and came up to the road to receive the vehicles. It worked pretty well except that everyone was in blackout drive, so it complicated the effort's efficiency. The battalion still spent a significant amount of time on the LRP. It made me consider that this movement (logpac breaking out to company trains) should be as thoroughly planned within the TACSOP as a passage of lines would be

planned for a maneuver company. Total logpac time: 3½ hours. The Company C first sergeant was last to return to the LRP – about 45 minutes after everyone else. I reported this to the command sergeant major over A&L. The command sergeant major recommended that I include a time hack for everyone to return to the LRP.

Recommendation: Almost all maneuver battalions that conduct training at JMRC have TACSOP specific to their organization. Maneuver battalions that use CTC rotations to update and fix their TACSOPs have a better chance in retaining lessons-learned from their operational experiences. Outlining information in the unit's TACSOP about logistic-resupply timelines, unit marking schemes and required meetings prior to logpac execution will reduce any confusion within the battalion for future rotations.

In addition to detailed TACSOPs, unit senior leaders – along with battalion representatives who conduct LRP meetings prior to logpac operations – have had a better experience in resupply efficiency. LRP meetings can set anticipated planning requirements for each shop in the battalion for future logpac missions.

Day 3: 7 p.m. EA development issue. Using the LRP meeting to collect data, security plan at the LRP, reducing time on the objective and establish alternate LRPs. Face-to-face interaction with the line companies at the LRPs had substantially improved my logistics common operating picture. In an effort to send key staff leaders to identify and fix systemic company administrative and maintenance issues, I brought along our S-1 representative and battalion maintenance officer (BMO). Both were surprisingly agreeable to the concept of seeing the first sergeants face-to-face; however, it turns out they had just as much trouble pulling information from JCR reporting. It is not that it's terribly inaccurate; it is just that JCR reports create follow-up questions.

For example, Company D requested 40 more sabot rounds for the evening's logpac but also reported they were 100 percent on their unit basic loads. The forward-support company (FSC)

commander (who was intrigued by the meeting as well) asked the Company D first sergeant about the apparent conflict in the report. The Company D first sergeant told him that he requested the extra rounds to cache in alternate and supplementary battle positions for the defense. Just like that, the problem was solved.

The BMO had a lot of questions about maintenance. Many vehicles were going down for operator-level preventative checks. The first sergeants promised to bring their maintenance-team chiefs to the evening meeting to answer his questions. The S-1 was able to collect information on attachments, detachments and other administrative data. The logpac showed up with the markings just like the FSC commander and I discussed. The first sergeants had a much easier time identifying and accounting for their vehicles with the new system.

It was proceeding smoothly until we received indirect fire (IDF). Bravo was attempting to break contact when it was struck by three rounds, resulting in a catastrophic kill on the vehicle and crew. Chaos ensued. The logpac tried to react to IDF by moving out of the area of operations, and the remaining first sergeants directed them to get their resupply. However, no one knew their destination, so it was about an hour before we found a new site and regained control of the operation. If I had predesignated an alternate LRP, we could have avoided that confusion.

Regardless, Bravo was short a fueller, and I knew they were top priority for support during the operation's current phase. Since we were already an hour behind schedule, I made a decision on which assets to re-allocate and pulled one of Company C's fuelers since they were last in priority. After getting everything out, I called the battalion executive officer and backbriefed him on the decision since I knew the lack of fuel for Charlie could impact battalion planning. The battalion executive officer sounded legitimately pleased that someone made an informed decision based off commander intent instead of asking him to make a decision. Logpac time was four hours, largely due to IDF complications.

Recommendation: As stated before, units that update their sustainment portion of their TACSOP with very specific instructions such as meeting agendas and battalion-required talking points at the daily LRPs will make meetings much more efficient. In addition to specific LRP meetings, TACSOPs that have detailed security plans and responsibilities that are the same for every logpac operation will increase survivability of personnel and equipment. When the battalion does not have a consolidated plan for actions at the LRP, the chance of increased casualties and equipment loss is much greater than for units that do.

Day 3: 7 p.m. EA development issue. Logistics plan in the event of communication blackout; customers refusing supplies. So, the positive items first: The LRP meeting agenda is set:

- Roll call
- Yellow 1 (detailed logstat, including headcount and breakdown of classes of supply) hard-copy turn-in (first sergeants)
- Perstat validation (battalion S-1 rep)
- 5988E turn-in and issue (BMO and first sergeants)
- Update sustainment plan/graphics (S-4)
- Logistics issues/shortages by class of supply and anticipated requirements 24, 48 and 72 hours out (S-4, first sergeants)
- FSC capabilities and plans to meet needs (FSC commander or executive officer)
- Current slants and review of combat power by company (BMO, company executive officers or first sergeants)
- Battalion top three comments (battalion commander, command sergeant major or executive officer).

The site security was much more effective. The first sergeants arrived 25 minutes early to establish 360-degree security and then moved to my vehicle for the LRP meeting. The logpac convoy commander called when he was 10 and then five minutes out to disseminate the order of march, which gave the first sergeants time to move to their vehicles. The logpac security took the place of the first-sergeant vehicles

as they moved out of their positions to grab their breaks. No one was forced to dismount during the process, resulting in a 10-minute turn-around.

Along with the positives came the negatives. The JCR systems went down that day for the entire brigade. This caused considerable confusion for the FSC, who could not secure any logstat information for the customers. However, because the first sergeants had been sending us their 24-, 48- and 72-hour projected requirements at the LRP meeting, this did not cause any significant issues.

Another issue arose during the LRP meeting. The Company C first sergeant said he did not need all the barrier materials that were on the logpac. However, it was the battalion commander's priority to get blocking obstacles in overnight, and the conversation grew intense. After discussing the issue with the first sergeant and command sergeant major, the group determined it was in Company C's best interest to accept the Class IV.

The logpac time was only three hours. I provided a timeline for the companies at the LRP meeting, which said, "All first sergeants will return to the LRP in five-minute increments beginning at 9:30 p.m. Order of march A, B, C, D and HHC. Anyone who does not return in this window is responsible for escorting the log assets back to the FTCP." Everyone made it back with the exception of one company. The battalion executive officer reprimanded their first sergeant over A&L, and he endured a long movement back to the FTCP that night.

Recommendation: Communication and information flow within the battalion is always a factor for friction during logistic operations. When maneuver battalions have a clear primary-alternate-contingency-emergency plan for logistic reporting requirements, information is more successful getting to the right battalion support shop. That information is also vital to accurately push resupply in the correct quantity for each company. However, in the event that the lines of communication are severed for reporting requirements, a standard push package unique to each company

should go with the battalion logpac to each LRP.

Day 4: 6:30 p.m. defense. Next, I find myself deep in the tree line at the LRP waiting for the first sergeants to arrive for the meeting. That morning the battalion commander validated the line companies' EA. Everyone except Company C met his standard. Apparently, Company C did not install enough blocking obstacles on a few avenues of approach. The Company C commander said that he did not receive enough Class IV, but the command sergeant major happened to be on ground to confirm that the first sergeant received an entire flat rack of c-wire and hedgehogs on the logpac the previous night. After further investigation, the FSC reported that the Company C flat rack was returned the previous evening with more than half the Class IV remaining.

All the first sergeants were present for the 7 p.m. meeting, as was the FSC executive officer and my CTCP team (battalion S-1 noncommissioned officer in charge and BMO). All the companies had their log reports. The BMO and S-1 validated all the personnel and equipment they were tracking for reconstitution, and the first sergeants provided them with any information they were lacking. I pushed out the primary and alternate CTCP, LRP, forward aid stations, ambulance exchange points and mortuary-affairs collection point locations, and the first sergeants provided me with the grids to their cached ammunition and recovery assets. The Company D first sergeant identified that the tanks would benefit greatly from an available emergency resupply of Class III and V if the battalion decided to conduct a counterattack after the defense. That seemed like good advice to the FSC executive officer and me, so we planned to double the CTCP emergency resupply capability just in case the counterattack occurred.

I updated the first sergeants as to the order of march for the logpac and the number of vehicles each company would receive. I then told the BMO to collect the combat power quickly so the first sergeants could move to their vehicles. After collecting the final slants, I disseminated the timeline for the return time to the LRP and turned

the floor over to the battalion command sergeant major, who seemed to benefit from a daily face-to-face with the first sergeants, just as I had. The command sergeant major wrapped it up, and the first sergeants headed back to their tracks.

During my CTC rotation, I experienced valuable lessons-learned when it came to battalion-level logistics. The shortfalls and unexpected changes to mission can have a profound impact on unit resupply operations. As the battalion's logstat reports evolved into usable data, LRP meetings became more efficient. Our battalion TACSOP was updated with the most useful and productive procedures to best meet the battalion commander's intent. It is up to leaders to clearly define lessons-learned and implement change based on training experiences.

At the end of our rotation, there is no doubt that each company had a shared understanding on how battalion resupply operations are conducted.

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Optimized Brigade Combat Team Main Command Post: Survivable and Effective BCT CP Interim Solutions

by CPT Chase S. Baker and LTC Scott C. Nauman

Imagine a scenario in which SGT Gregg is a battle noncommissioned officer (NCO) assigned to the armored brigade combat team (ABCT) main command post (CP), conducting a deliberate attack into "Atropia" to destroy 904th Brigade Tactical Group (BTG) in support of 52nd Infantry Division's mission to cordon the capitol. While the ABCT is conducting mission-command operations for its limited-objective attack, indirect rocket-artillery fire impacts just outside the main CP, sending a fireball through the current-operations (CUOPS) floor. This knocks SGT Gregg off his feet and causes a laceration to his stomach that requires urgent evacuation. Despite receiving a near-direct hit and the main CP becoming somewhat degraded, critical equipment remains operational, so the main CP is able to re-establish and resume mission command of the fight within 60 minutes of impact.

Several Soldiers in outlying soft-skinned vehicles are killed and more than a dozen are wounded, but it could have been much worse. The brunt of the shrapnel and destructive force of the rocket attack was absorbed by armored vehicles arrayed around the perimeter of the main CP, saving SGT Gregg's life and that of several other Soldiers who were inside the main CP at the time of the attack.

During the last six months, several brigades arrived at the National Training Center (NTC) for operations in the decisive-action training environment (DATE) intending to use the modified table of organization and equipment (MTOE) Deployable Rapid-Assembly Shelter (DRASH) large J series for the BCT main CP, while others employed smaller combinations of the DRASH MX and armored vehicles.

The NTC brigade staff-training team (Broncos) observed that large CPs provided less effective mission command

due to increased incidences of indirect-fire attacks and long set-up difficulties. In response, the Broncos studied what a brigade headquarters needs, and two primary questions resulted:

- What does it mean to be expeditionary?
- What is the ideal main CP layout for optimizing effectiveness, efficiency, mobility and survivability?

This study included observations from six rotations, including Stryker BCT (SBCT), ABCT and infantry BCT (IBCT) formations. All these have nearly identical main CP MTOEs that focus on the physical layout of tents and equipment, staff training, Soldier discipline and the use of favorable, survivable and defensible terrain.

The lesson-learned from the study proposed an interim solution for a BCT main CP with current MTOE equipment that BCTs may use while conducting decisive action. It also discussed training to optimize mobility in the DATE environment. This CP is a smaller footprint with seven DRASH MX tents, one entry tent, maximum power

generation and effective terrain masking. Simply put, the smaller-footprint main CPs maintain a higher survivability rate and more continuous, stable mission command throughout a rotation because they are easier to conceal and they can jump faster. This solution can also be implemented now before the sourcing for Command Post 2025 is complete.

NTC environment

The rotational force-on-force training environment at NTC presents a broad array of challenges and threats that are current and relevant for the foreseeable future. This presents an operational environment (OE) that can be adjusted to emphasize particular problem sets or characteristics. It can also increase or decrease the tempo and the simultaneous unified land operations' core competencies of wide-area security and combined-arms maneuver to emphasize or de-emphasize some aspects of the OE, while adapting to unit proficiency or training requirements. The DATE 2.2 design also provides context and texture to the rotational training unit with political,



Figure 1. Blackhorse UAV feed of a BCT main CP. This BCT main CP footprint was extremely easy to find, resulting in near-continuous enemy surveillance. A strike of more than 600 120mm rockets with average enemy TLE near zero destroyed the main CP. Subsequent attacks as the CP tried to reposition resulted in it being combat-ineffective for more than 96 hours during a 14-day rotation. (U.S. Army photo)

social-cultural, security/military and economic factors to what they see in the training area.

Further adding to the complexity, NTC provides substantial electronic-warfare and cyber-electromagnetic activities friendly and enemy effects. The training opportunities incorporate enemy precision and wide-area frequency modulation and Global Positioning Satellite jamming, live enemy unmanned aerial vehicle (UAV) surveillance threats (Figure 1), enemy precision-guided munition capabilities and a substantial cyber environment.

To add context to the DATE, “Donovia” is a resurgent nation that, prior to the early 1990s, was the region’s dominant political, economic, military and social player. Internal turmoil lessened Donovia’s influence during the 1990s, and Donovia now seeks to rebuild its prior levels of regional and international influence through a combination of assertive diplomacy and military power. However, the desire for economic independence among the other states in the region creates friction between them.

“Atropia” is a neutral, Western-leaning semi-authoritarian state ruled by the Ismailov family. Atropia “isn’t the friend we want but the friend we’ve got” and possesses significant oil and gas reserves. These rich natural resources generate potential threats from external forces such as “Ariana” and Donovia, who covet those resources. Also, the Atropian government’s repressive policies have fueled some internal destabilizing forces, causing Atropia’s increasing vulnerabilities to internal threats from its disenfranchised ethnic-minority groups who have violent separatist movements.

At the tactical level of the combined-arms fight, the Donovians are simply an operational strategic command (OSC) with multiple division tactical groups (DTGs) and an integrated fires command (IFC).

At NTC, brigades can expect to fight a task-organized BTG, essentially consisting of four mechanized-infantry battalions, a fires battalion, significant general support, general-support reinforcing and direct support from the IFC (rocket artillery) and division

reconnaissance. In addition, brigades must contend with organic enabling capabilities from the brigade recon, a brigade anti-armor company and a support battalion. The OSC and the DTG also have direct support from multiple non-conventional elements throughout the OE, including the Bilasuvar Freedom Brigade (BFB), an irregular guerrilla force that executes non-contiguous reconnaissance and surveillance in zone and direct-action defense within urban areas.

There are also special-purpose forces that operate primarily in urban areas and work to develop guerrilla forces from the populace; these special-purpose forces mirror the capabilities of U.S. Special Forces. All these are combined with a substantial criminal network and a significant Donovanian cyber, non-lethal threat that emphasizes information operations. It can essentially change the permissiveness of the political, military, economic, social, infrastructure, information, physical environment and time throughout the zone.¹

3 doctrinal CPs

Units training in the DATE must employ mission command from the three doctrinal CPs to effectively seize and retain the initiative.² The current MTOE for a BCT headquarters (main CP and tactical-actions center (TAC) CPs) within IBCTs, SBCTs and ABCTs contains only minor variations among the different BCTs. Within the BCT main CP, the capability sets are nearly identical, with only the primary combat platforms for the mobile command group (MCG) changing such as Bradley Fighting Vehicles for ABCTs and command-variant Strykers for SBCTs.

Overall, each headquarters is allocated a similar amount of integrated tactical-networking environment and Upper Tactical Internet (TI) systems. Of note, each BCT main is allocated the same number of Force XXI Battle Command Brigade and Below (FBCB2) “TOC kits,” Command Post of the Future stations, power-generation systems and a standard DRASH (or similar) system package. The major variation is among vehicle platforms; SBCTs have about twice as many FBCB2 systems as light and heavy BCTs. The amount of mission-command systems provided with

the Army Battle Command System (ABCS), Warfighter Information Network-Tactical and FBCB2 grouping leads brigades naturally toward large non-expeditionary main CP establishment standards.

During the previous six rotations, the number of headquarters personnel and attachments who physically worked in the CUOPS integrating cell when a large DRASH was established ranged between 25 to 35 people. The challenge with the large DRASH is that in addition to all the people assigned to work within the DRASH, there is a propensity for an average of 10 more people to congregate within this tent. This causes work to slow due to space availability.

Field Manual (FM) 3-96, **Brigade Combat Team**, explains that the BCT main CP, TAC CP and MCG are broken into different nodes to maintain survivability and recommends the BCT main either remain outside medium-range artillery or co-locate within a subordinate unit’s area of operations, depending on the environment.³ The manual states, “[CP] survivability is vital to the success of the BCT mission. When concentrated, the enemy can easily acquire and target most [CPs]. When developing [CP] standard operating procedures (SOP) and organizing the headquarters into [CPs] for operations, the BCT commander uses dispersion, size, redundancy and mobility to increase survivability.” The implication is to provide concealment and to prevent identification as a higher command node. Currently, the primary means of survivability for non-hardened DRASH-equipped CPs is camouflage and mobility.

Some key observations of main CP attacks during the past six rotations are divided into a few categories. The first observation category is ease of target acquisition by the opposing force (opfor). In one example where the large DRASH was employed, the main CP received two large-scale rocket attacks with near-zero target-location error (TLE). The near-zero TLE is because the large-size CP’s long establishment time enabled multiple enemy reconnaissance assets to acquire target data and effectively measure the grid.

The second observation category is

focused on a lack of mobility, specifically a small DRASH footprint, but one that remained in position for more than five days. This main CP received two large-scale rocket attacks. Lastly, the two main CPs that maintained a small DRASH footprint and jumped within two to three days received only direct-fire attacks from the BFB and were not targeted specifically with artillery.

Also, a recent rotation observed that when a unit used the complete DRASH BCT main CP comprised of the large J tent and more than seven mediums, it only successfully jumped once during 14 days due to the size and complexity of the footprint. Because of size and immobility, the BCT main CP suffered more than 600 rounds of 122mm rocket artillery. This extremely large CP remained under continuous enemy reconnaissance and surveillance (Figure 1). At one point, this CP was degraded and out of the fight for more than 96 hours due to continuous battle-damage assessments as it unsuccessfully tried to reposition the large footprint multiple times.

When implementing the large DRASH main CP in its full configuration, units become incapable of executing a jump when doctrinally suppressed by enemy indirect fire. At its simplest, brigade main CPs routinely consist of more than 170 personnel, but they also have more than 85 vehicles. With 85 vehicles, a unit needs about 170 people to simply crew each vehicle, and at a 10-percent casualty rate (about 17 personnel), there is an average of three to four vehicles left behind. In some cases, this leads to a unit's decision not to jump, thus causing the main CP to remain a targeted entity and perpetuating the situation.

On the other hand, the smaller-footprint main CPs (DRASH MXs only) were not prevented from jumping due to vehicle manning even after suffering more than 10 percent casualties. They have a similar number of people but average less than 65 vehicles.

CP layouts pros and cons

To discuss mission-command-specific capabilities outside of the physical and tactical considerations already discussed, consider both the large and

MX DRASH configuration for brigade main CPs as the only variable for discussing systems and internal layouts.

Large DRASH. The large DRASH main CPs provide several benefits to a brigade headquarters. First and foremost is the space available for all warfighting functions (WfF) to have a station on the CUOPS floor, which, if effectively managed, increases situational understanding and WfF integration. Also, the large DRASH tents come with large aluminum frames that provide a solid backbone to emplace monitors, projectors and mapboards while minimizing the near constant "flapping" that occurs when these items are hung near the soft inner shell. The frame also expands the available room provided by the endcaps.

The primary downfall to the size of the large DRASH is the inability of the environmental-control units (ECU) to provide effective cooling in summer. This leads to multiple power failures and system crashes. The large DRASH is extremely difficult to conceal with organic camouflage equipment. Also, the extra room provided by the increased floor space naturally leads to near-constant informal meetings and conversations within the main CP, causing a loss in focus that can force leaders to spend more time enforcing noise discipline than tracking the battle.

MX DRASH. The MX DRASH main CP provides several benefits based on the

reduced footprint. Most significantly, the reduced footprint allows the main CP to locate within terrain that provides cover from long-range, low-angle artillery as well as reduced set-up times that allow more frequent survivability moves. In summer, unlike in the large DRASH, the MTOE ECUs have no problem providing adequate cooling for all equipment within the main. Using only MX DRASH tents also allows for the use of camouflage nets to reduce direct sunlight as well as visible presence.

Also, with less space available at each WfF station, other members of the functional cells are forced to conduct all WfF internal non-immediate interaction inside their own tents or in protected armored vehicles. The smaller space enables all members of the CUOPS cell to interact more routinely without shouting and provides a more fluid common operational picture.

One of the major shortfalls of a smaller footprint is the capacity to present products for the common group. In the smaller main CP, a battle captain or chief of operations (CHOPS) must make a careful decision as to what products to present within the analog tracker because space to physically hang the products is limited. Also, similar to the large DRASH, the noise level can quickly become unmanageable, and the available space becomes consumed and routinely requires a leader to stand up and physically clear out non-

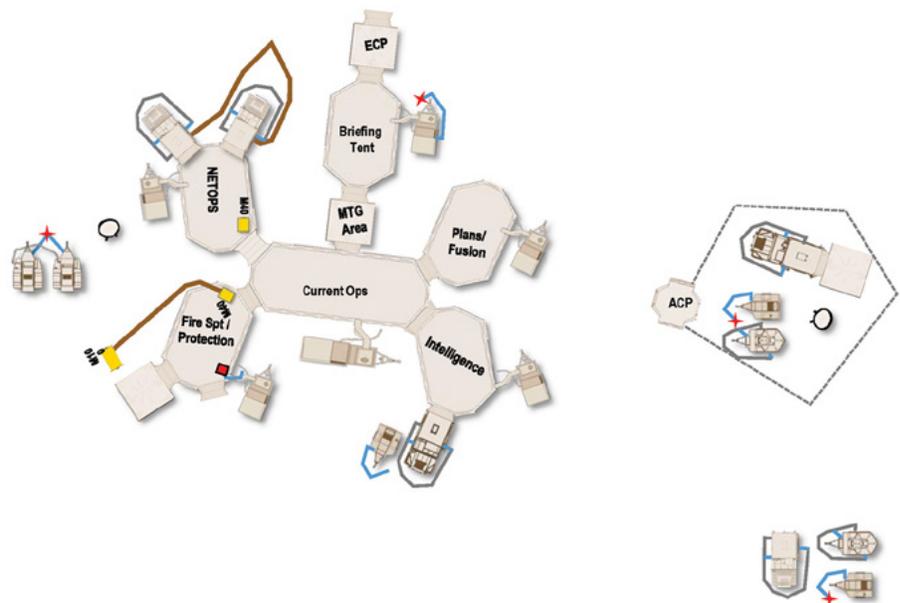


Figure 2. BCT layout CoA 1.

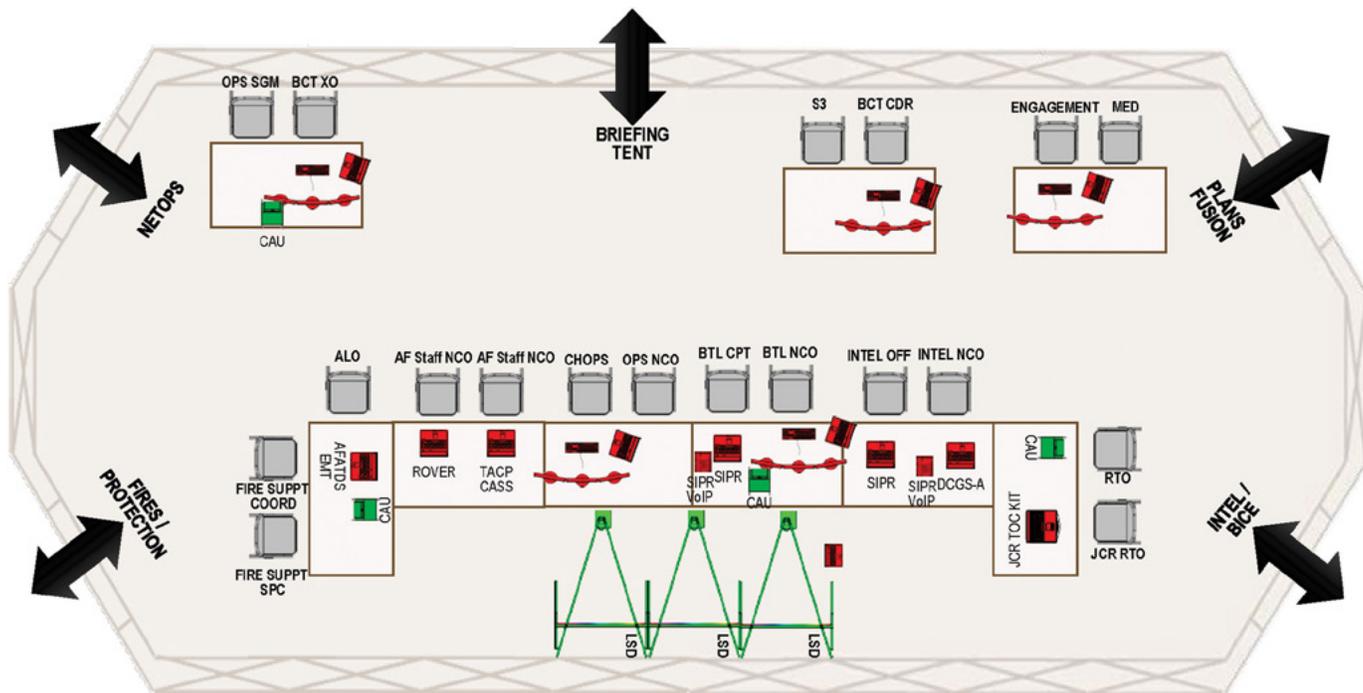


Figure 3. BTC layout CoA 1 CUOPS cell.

essential personnel.

Proposed CP layouts

In the six rotations studied, each one that used a DRASH MX main CP concept reduced the manning of the main CP floor by having the sustainment and signal personnel work from their functional cell. To mitigate the effects of removing key leaders from the main floor, an observed best-practice to prevent loss of situational awareness was the use of a loudspeaker system that broadcast the soft crew-access unit (CAU) BCT command net throughout the CP and echoed “attention in the TOC” announcements with the public-address system.

Throughout the six-rotation study, the Bronco team compiled all the individual best practices and designed this recommended, optimized physical tentage, proposing a CUOPS that integrated cell-floor layouts. The optimized layout uses seven DRASH MXs and two small DRASHes (1XB NSN 8340-01-514-0515). It provides maximum mobility, functionality and trafficability. This quantity fully enables all WfFs to remain represented at the main CP, and allows for an entry point, briefing area and maximum security.

Figures 2 and 3 detail this best-practice in reference to the recommended

DRASH layout SOP. It includes two DRASH MXs connected to create the CUOPS floor and one DRASH MX for each of the following:

- Network operations (NETOPS);
- Plans;
- Fires;
- Intelligence; and
- A briefing tent.

In addition to the tents, the second most important piece of the main CP is the CUOPS floor. The recommended layout is a “long U” format. Essentially, it’s four standard DRASH tables exactly in the middle of the tent facing the long wall, with one more table on each end perpendicular to the long tables and three tables along the back wall for leaders. The WfFs array along the U in a location closest to their respective functional cell tent. All projection capability, the travel-among-troops box storage and unneeded equipment goes in front of the tables under the projector area.

Figures 4 and 5 depict an alternate course of action (CoA) using the same equipment but a different ergonomic flow for the WfF functional cells.

The current DRASH layout, even in the proposed configuration, provides little physical protection. Throughout the current OE, the threat of direct- and

indirect-fire attacks against mission-command nodes is very real. While the solution to reduce footprint and conduct passive protection (camouflage) is a viable solution in the immediate to near term, we must look past soft-skin applications that both decrease physical presence and increase protection, mobility and modularity.

A proposed solution is to modularize the individual WfF functional cells into containerized units that maintain internal wiring, climate control and power-distribution adaptability, and are ruggedized and armored. A 20-foot military van with Kevlar sheeting throughout the inside, a climate-control unit mounted on the front or top, and internal wiring with all computers built into semi-permanent racks that are modular on the inside provides the hard outer cover, while the CUOPS floor remains in a tent system in the center (Figure 6). The containerized system also reduces vehicle requirements.

Also, this proposal may be viable for the BCT TAC CP. The critical improvements are mainly protection, mobility and establishment times.

Another expeditionary option is based on a tested system used by 11th Armored Cavalry Regiment (ACR), which

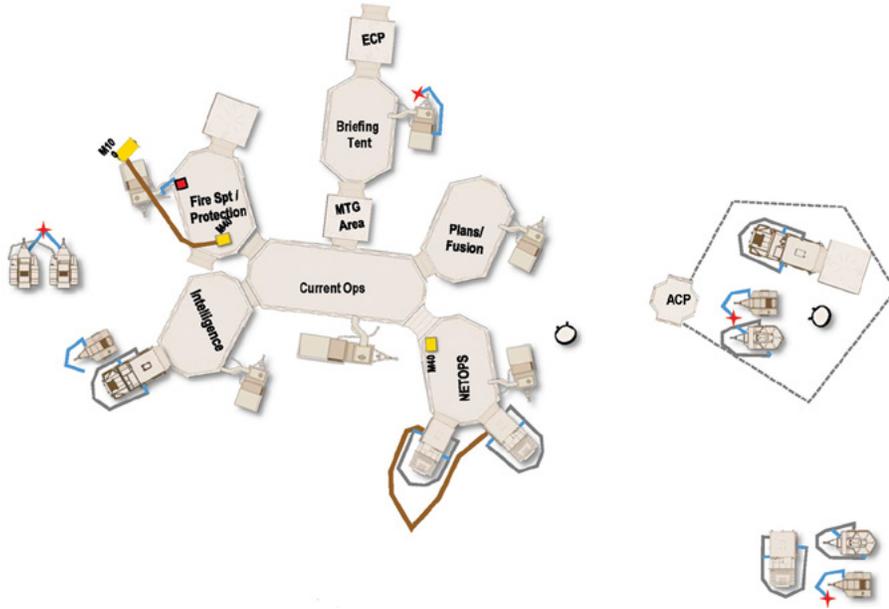


Figure 4. BCT layout CoA 2.

operates as the NTC opfor. It is a brigade command center comprised of “expando vans” (Figure 7). It includes two expando vans and a small DRASH tent as a connecting boot.

A shortcoming of this model is it lacks a meeting space and severely limits the number of available WfF integrating cell representatives. It does, however, maximize mobility and establishment timelines. The configuration 11th ACR uses does not account for Upper TI

ABCS systems and the space they consume. A unit adopting the expando van could easily use a TAC CP configuration or, by using a third expando van, make space for the other WfFs.

Bronco basic tips

Maximizing the capabilities of the current systems requires discipline and training with all personnel in their current position exercising all three BCT command nodes. Units are encouraged to execute at least one CP exercise

using their field systems before arriving at NTC. Also, it’s imperative that units resource their headquarters to train how to jump the main CP.

One unit focused its staff decisively on establishing and jumping the main CP for most of a week. This reduced their tear-down and establishment times by two-thirds. While a week-long “jump exercise” may not be available to all units, dedicating even two days may reduce times by half. A unit outside the control group reduced its jump time by half in the first two days, and the rest during the next two days, primarily as NCOs learned the battle drill and maximized their troop to task-efficiency.

Disciplined units do not just put the tents up quickly; their Soldiers ensure maximum functionality of the tentage. Much as one can identify efficient staff officers simply because they actually brought a computer mouse to the field, a disciplined headquarters is easily identifiable when their tent is fully extended and locked out to prevent collapse in severe weather; the hook-and-loop seams are properly and completely connected to maximize ECU effectiveness; and other efficiencies are in place such as snap links for quick cabling and labeled power-distribution units.

Lastly, one concept to increase

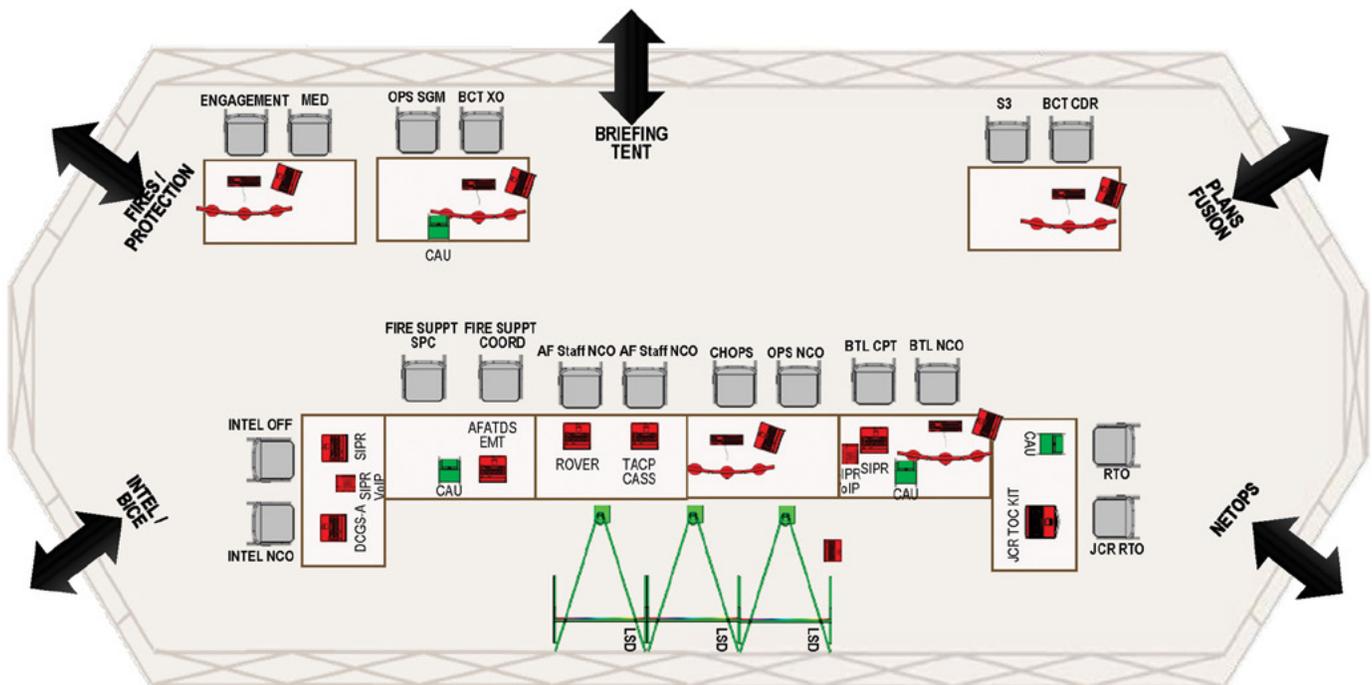


Figure 5. BCT layout CoA 2 CUOPS cell.

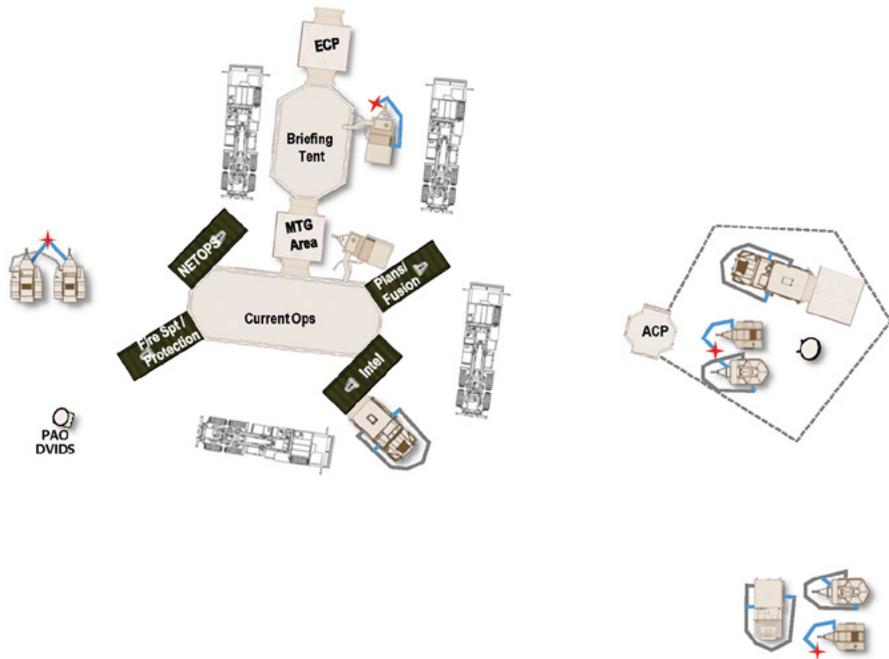


Figure 6. BCT layout: proposed military-van solution.

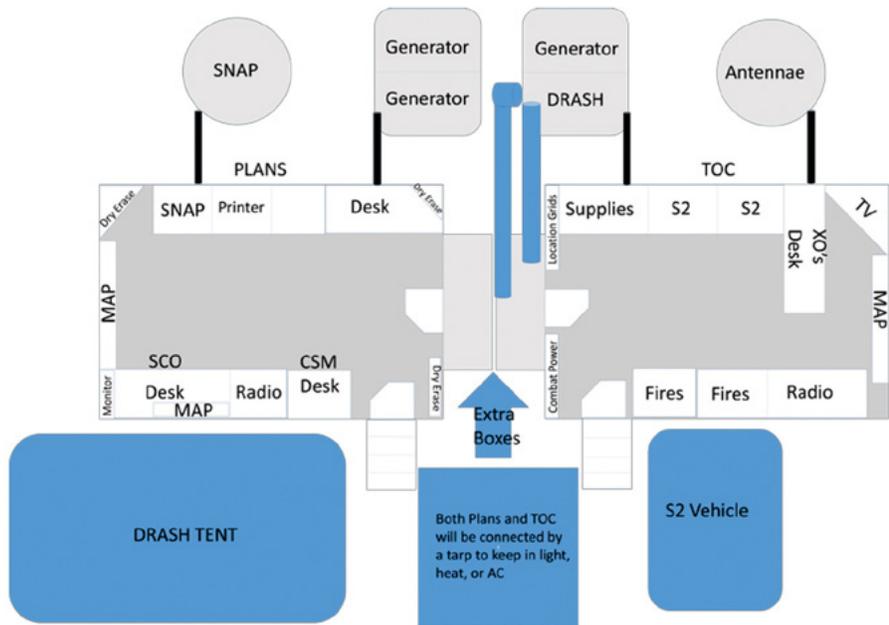


Figure 7. Expando van concept 11th ACR uses.

mobility we observed during the study was to maintain a jump CP as a “warm base.” Essentially, this means keeping the TAC CP set up but minimally manned to passively track in the event of a jump or an attack; this enables the key and primary staff to rapidly transition to a secondary node with minimal loss of situational awareness. The downside to this concept is the reduction in fighter-management capability by keeping a small second staff active

continuously. It did prove to be a beneficial tactic when the main CP was initially targeted. The staff jumped to the TAC CP within 20 minutes and continued the fight while the main CP conducted a survivability move.

Overall, the recommended DRASH design enables units executing both DATE 2.2 scenarios and beyond to bridge the expeditionary gap in main CP employment until a more mobile and protected system is fielded to BCT

headquarters as part of the Army’s Command Post 2025 project.

The opportunities for the enemy to conduct debilitating indirect-fire attacks is still a real threat. Some may recognize the opening vignette as the summary of the destruction caused in 2003 when then-COL David G. Perkins’ 2/3 Infantry Division BCT’s main CP was attacked. Although not perfect, the recommended CoAs described in this study will better enable survivability and deployability, which increases the chance that “SGT Gregg” survives an attack and continues providing effective mission command from the BCT main CP.

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The CP layout's importance, illustrated in photos

education includes the Cavalry Leader's Course, Maneuver Captain's Career Course, Armor Officer Basic Course and Air Assault School. He holds a bachelor's of science degree in international relations from the U.S. Military Academy at West Point and is currently an MBA candidate with the George Herbert Walker School of Business and Technology.

Notes

¹ U.S. Army Training and Doctrine Command (TRADOC) G-2, **Decisive-Action Training Environment (DATE)**, Version 2.2, Fort Leavenworth, KS, April 2015.

² Combined Arms Doctrine Directorate, Army Doctrinal Reference Publication 3-0, **Unified Land Operations**, Fort Leavenworth, KS, May 2012.

³ U.S. Army Maneuver Center of Excellence, FM 3-96, **Brigade Combat Team**, Fort Benning, GA, October 2015.



Figure 8. What do you see? Aerial view of the BTG's main CP from the opfor's Outlaw UAV.



Figure 9. What the enemy sees: aerial view of rotational unit's BCT main CP from the opfor's Outlaw UAV.



Figure 10, right. Zoomed-in aerial view of the BTG main CP from the opfor's Outlaw UAV.

Armor Basic Officer Leader's Course Redesign: Applying Adaptive Soldier/Leader Training and Education

by LTC Oscar Diano and retired LTC Kevin McEnery

The Armor Branch in the operational force has undergone dramatic experiential and organizational changes. To prepare new Armor lieutenants for 21st Century professional responsibilities as combined-arms leaders, the Armor Basic Officer Leader's Course (ABOLC) has changed how new professionals develop their foundation in branch military/technical expertise.

New Army operating concepts, new organizational structures, new mission and threat assumptions, and a shift in Army leader focus from rotational deployments to a culture of

preparedness drive adaptability to the forefront of Army training and leader-development expectations. With that in mind, Armor Branch leaders find themselves in much the same situation as GEN Donn Starry in the mid-1970s, defining new assumptions and expectations for an Army experienced in a specific set of operational practices.¹ Just as GEN Starry had to analyze the practical expectations for Armor leaders from the perspectives of lessons-learned in Vietnam about mounted combat against the implications of the 1973 Arab-Israeli War, today's mounted-warfare professionals must balance experiences hard-earned in Operation Iraqi Freedom and Operation Enduring

Freedom with the implications of other contemporary operations in Mali, Gaza and Korea. Just as new perspectives on the evolving character of tactical problems are redefining expectations for mobile, protected, precision firepower and reconnaissance expertise, they are also driving the pursuit for new perspectives on professional leader-development methods and institutional-learning practices.²

The redesigned ABOLC program applies U.S. Army Training and Doctrine Command's (TRADOC) Adaptive Soldier/Leader Training and Education (ASLTE) principles to practical changes in the ways the Armor School courses and practices deliver value to new

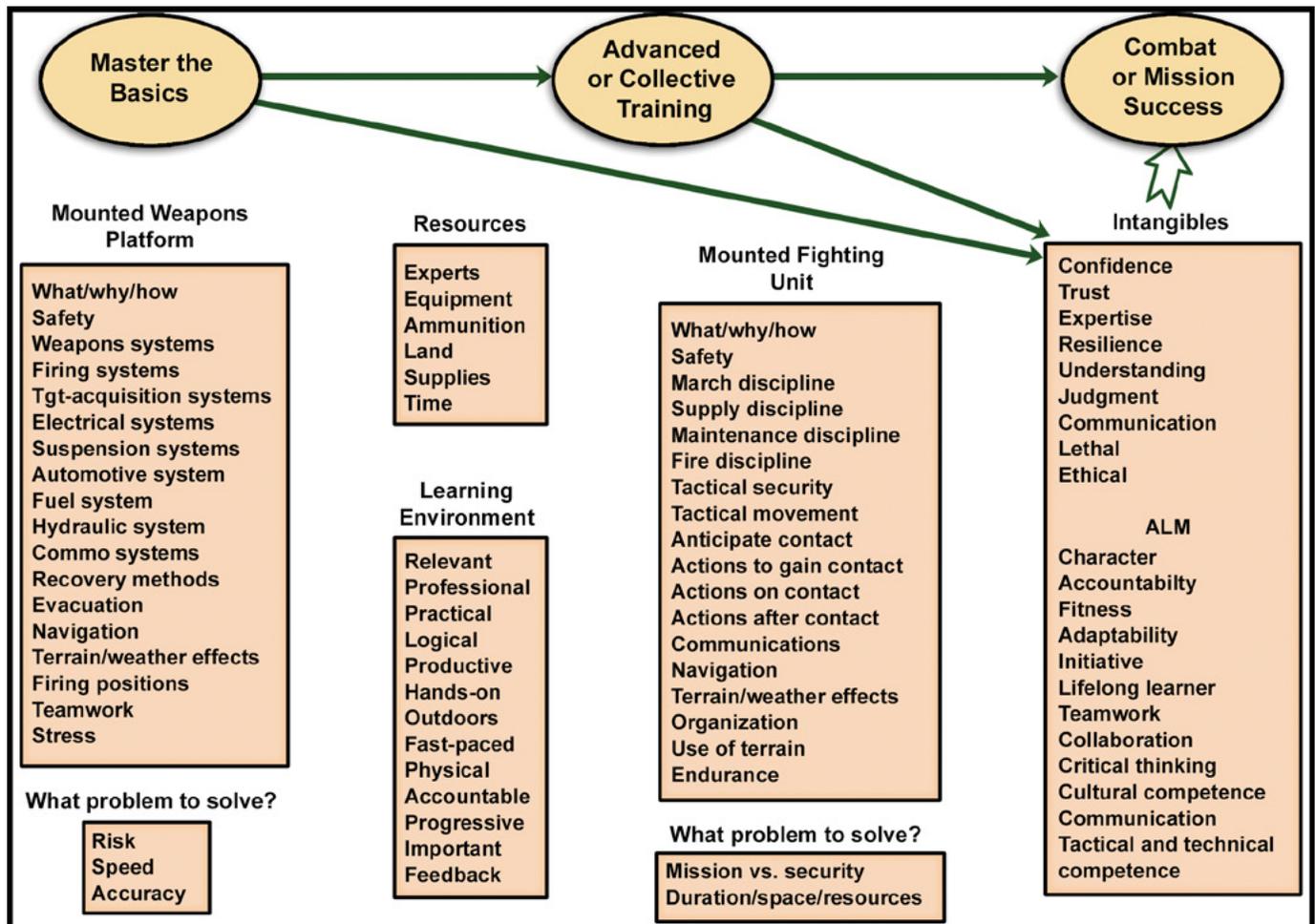


Figure 1. Creating a model for learning.

members of the Armor Branch. Leading institutional change is an imperative Armor School leaders have embraced. The ABOLC redesign involves much more than administratively re-writing course lesson plans and program of instruction (PoI) documentation. This article provides leaders in the operating force an explanation of the linkage of an outcomes-based approach to Armor-officer leader development within the Army Learning Model (ALM).

ABOLC serves as the single point of entry for officers who aspire to be a mounted warfare “expert and a professional.”³ Armor junior officers must confidently adapt standardized practices and behaviors through judgment grounded in technical proficiency. They must develop professional habits that mark them as competent in how mounted forces organize, train, maintain and fight, especially when conditions are uncertain and dynamic. ABOLC course design and outcomes reflect Army importance placed on developing leader military/technical expertise and professional identity unique to the contributions of Armor Branch professionals.

Expertise develops through understanding and physical practice. All skills, even the most abstract, begin as physical practice.⁴ The ABOLC redesign addresses imperatives of the Army’s profession-of-arms campaign, the Army operating concept and the unique expertise Armor professionals contribute to the combined-arms team through their proficiency and training practices. Outcomes-based training principles underpin the ABOLC organizational design and assessment metrics. Creating a productive and relevant student learning environment is central to instructor development and practices.

Making changes to Army Officer Education System (OES) courses is profoundly challenging, given established practices based on hierarchical control, a short-term orientation and biases formed by local practices.⁵ The institution optimizes its staff processes and personnel-manning criteria to maintain organizational predictability and uniformity. Indeed, some Army stakeholders can appear to value predictability

more than increasing relevance to a changing profession, creating leadership challenges for senior Armor leaders inspiring the need for professionally necessary OES changes. ABOLC is a model for addressing that professional challenge from the bottom up.

Profession of arms and ABOLC outcomes

Army Doctrinal Reference Publication (ADRP) 1 and TRADOC Pamphlet 525-8-2 describe Army-wide intent for change, but the challenges to implementation in specific institutional programs are more practical than philosophical. ASLTE is TRADOC’s methodology for practical application of change in institutional course and leader-development practices. Instructors working within an ASLTE-based approach learn to teach their students how to learn through practice and how such practice develops greater ability, judgment and confidence to adapt under conditions of uncertainty. Relevance requires experts to adapt broad intent and concepts to specific Armor Branch expectations. Armor School leaders are also defining new institutional metrics for leader development that better correlate instructor expertise and student professional performance with new Army operational and training outcome expectations.⁶

All newly commissioned Armor officers believe they have entered into a branch that not only reflects the Army’s Warrior Ethos but one that is unique in its value to the larger profession of arms. New Armor lieutenants expect ABOLC to be physically demanding and mentally challenging as well as highly relevant in terms of what they will learn, how they will learn and who will teach them.

Many Army doctrinal principles and practices are profoundly abstract to novice professionals who lack practical experience. No basic course can substitute for, let alone produce, experience-based leadership ability to perform at a high level. Replicating complex combined-arms dynamics in initial training for new officers who lack fundamental proficiency is simply chaotic for them. Judgment and confidence do not spring from observing an expert’s presentation, by compliance with

perplexing rules or exposure to chaos. Novices want to learn, through practice directly relevant to them, how professional Soldiers progressively develop the expertise central to Army expectations. As new leaders in the Armor Branch, second lieutenants expect their initial individual learning experience to also contribute to organizational goals for building expertise at the fundamentals of reconnaissance and security, precision direct fires, mounted mobility and leader development.

ABOLC learning outcomes must be relevant to the practical context in which Armor officers apply their skills to resolve mission-relevant requirements. Outcomes must also be feasible given the institutional context and resource limitations of a 100-day course for new officers. To link course-learning activities and Armor School resources to create relevant professional-learning outcomes, 2/16 Cavalry senior cadre first used ASLTE design principles to “map” practical relationships among instruction, practice and intent prior to creating a PoI. This mapping process helps create a logical correlation between student-learning activities and organizational resources unhindered by rationalized traditional metrics or past practices.

Long-standing local practice had been for course developers to start by listing doctrinal tasks, turning tasks into topics and topics into lessons. In topic-based courses, developers divide course time by topic and deliver each topic as a discrete lesson in isolation from its practical utility. Topic-based courses are often criticized as reflecting a “check-the-block” approach.⁷ Applying the ALM 2015 intent for transition to an outcomes-based course design approach requires developers to temporarily set aside the doctrinal task list as their start point.

Armor Branch leader-development practices must distinguish between doctrinal task knowledge and compliant performance under known conditions with the professional skills required to perform such tasks effectively under stress and uncertain conditions. ABOLC outcomes describe the professional expertise Armor officers must develop through physical practice

and contextual performance improvement. Performance measures reflect skill as the observed human ability to do something particularly well.

Course outcomes are not a simple relisting of published doctrinal tasks or ideal behavioral attributes. Armor School doctrinal inventories list 480 critical tasks for a 19A lieutenant, a professional with less than two years of experience. The TRADOC Common Core Task List exceeds 40 tasks and describes general aspirations for all new Army officers, requiring adaptation to branch-specific application. Doctrinal tasks serve many specific purposes, but their utility as the start point for a productive Pol is limited. Such extensive task lists invite temporal or arbitrary prioritization when time, resources or cadre are constrained.

To address operational and resource imperatives, Armor School leaders must apply their professional expertise and vision to drive better instructional designs relevant to a new mission-command environment.⁸ Instead of

copying from previously approved lessons, 2/16 Cav ABOLC senior instructors did original work analysis and development. Research and frank discussion about what makes an Armor officer unique in terms of understanding and skills drove a common vision for logical progression from newly commissioned to ready for operational experience. Though done freehand on whiteboards during a week of structured discussion sessions, Figure 1 is an example of this analytical work.

In ABOLC, professional understanding and skill builds incrementally across the entire Pol. Content establishes student ownership for their previous instruction, incorporation of new knowledge, guided physical practice, expert feedback and, finally, practical application to solve mission-relevant problems. To develop professional confidence, accountability and adaptability, students must experience a direct practical relationship between what they are taught, who teaches them and, critically, why they are taught spe-

cific skills and topics in context.

ABOLC is divided into distinct phases with four unifying themes and lasts 19 weeks. Each phase serves as the foundation and prerequisite for the subsequent phase. Each phase includes a “gate event” in which students must demonstrate their readiness for progress to the next phase. To provide unity of effort, the four themes are ground mobility, precision direct fires, troop-leading procedures and fighting tactics. Figure 2 illustrates the basic course map.

A successful ABOLC graduate has physically demonstrated foundational proficiency and confidence in fundamental professional skills through contextual understanding and repetitive application assessed in a structured experience. ABOLC outcomes reflect the special abilities and professional attributes that gaining commanders, non-commissioned officers, Soldiers – and indeed the new lieutenants themselves – should see in an ABOLC graduate upon arrival in his first unit of

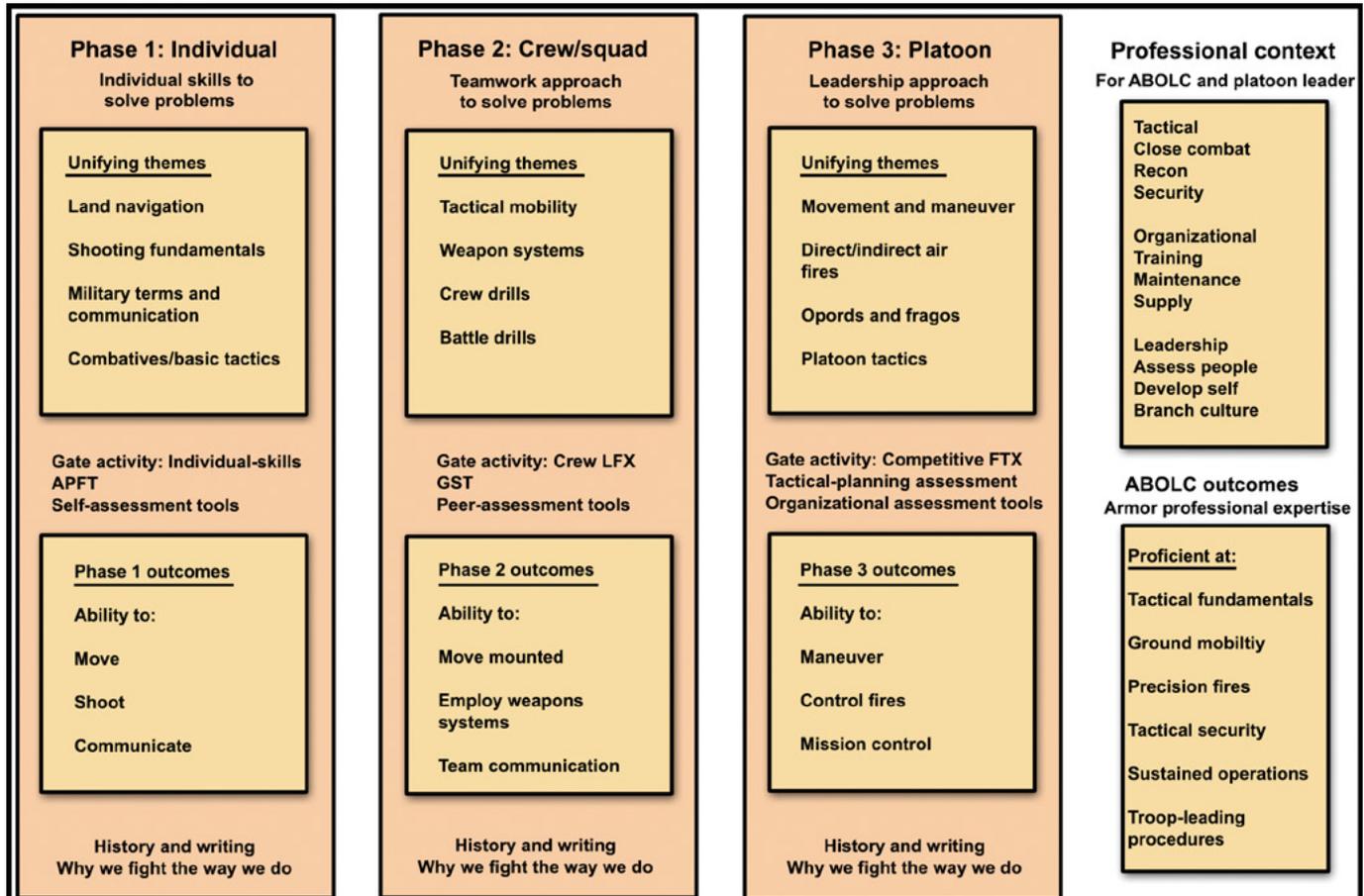


Figure 2. Pilot course map for ABOLC. Building-block approach: phase outcomes reflect readiness for next phase. Course outcomes reflect readiness for unit experience and training.

assignment. Professionally still a novice, the officer is prepared to learn from operational experience. This course map guides outcome-based development of logical course content, adaptive-learning activities and performance measures, and organizational resource management.

Conclusion

The Armor School currently leads TRADOC in practical experience at organizational-level application of ASLTE principles. It is not an easy road. Sustaining organizational change and new practices over time, personnel turbulence, leader transitions and localized conditions is always difficult. For those cadre and commanders assigned to lead the process during iterative transitions – as opposed to those present at the initiation, understanding of the vision and intent for new approaches – the responsibility they inherit for implementing is critical to maintaining institutional momentum.

Redesigning ABOLC to be more relevant to Army 21st Century operational needs and professional expectations requires leaders to balance two complementary and interrelated perspectives on military training and education. The first perspective is professional, focusing on how senior members of the profession (instructors) develop new members of their professional specialty (students) for their operational responsibilities. The second perspective is organizational, emphasizing accountability for critical resources allocated to the Armor School specifically to deliver measurable force capability and mission readiness.

In balance, they can achieve both efficiency and effectiveness. Left in conflict, they reduce the perceived value and relevance of schools by Army professionals and the operating force.

Change is often hardest for those who have the most experience and who were “raised” according to the Army’s then-prevailing assumptions about training.⁹ The Army certainly will always train critical tasks to high standards in context. However, as a learning organization, the Armor Branch requires new assumptions by its leaders about the ways in which Armor leaders will develop fundamental skills relevant to 21st Century warfare in the

newest members of the profession. There is rich debate. Today’s Armor leaders with deep operational experience are critically questioning and effectively redefining TRADOC institutional assumptions that have inhibited adaptive professional development through Army courses.¹⁰

The ABOLC redesign is modeling for TRADOC the practical implementation of Army intent to change how institutional training contributes to the profession of arms and new operational expectations.

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Notes

¹ GEN Donn A. Starry, presentation on FM 100-5, **Operations**, Inter-University Seminar, Fort Leavenworth, KS, March 30, 1978.

² ADRP-1, **The Army Profession**, June 2013; TRADOC Pamphlet 525-3-1, **The U.S. Army Operating Concept, 2016-2028**, Aug. 19, 2010; TRADOC Pamphlet 525-8-2, **Army Learning Concept for 2015**, June 6, 2011.

³ “The Profession of Arms: An Army White Paper,” TRADOC, Dec. 8, 2010.

⁴ Richard Sennett, **The Craftsman**, Yale University Press, New Haven & London, 2008; also, K. Anders Ericsson, Ralf Krampe and Clemens Tesch-Römer, “The Role of Deliberate Practice in the Acquisition of Expert Performance,” **Psychological Review**, 1993, Vol. 100, No. 3: “Expert performance reflects mastery of the available knowledge or current performance standards and relates to skills that master teachers and coaches know how to train.”

⁵ Paraphrasing MG Kenneth F. McKenzie Jr., the Marine Corps representative to the Quadrennial Defense Review, 2013 West Conference, Jan. 30, 2013.

⁶ TRADOC Quality Assurance Office methods are designed to measure whether subordinate organizations follow established TRADOC rules and regulations but cannot measure whether following the rules is actually producing or hurting desired professional outcomes in course graduates or adaptive capabilities in operating-force units.

⁷ 2012 Center for Army Leadership Annual Survey of Army Leadership main findings.

⁸ Armor School Critical Task List, 19A officer lieutenant, approval date Nov. 2, 2012; “Adapting the Army’s Training and Leader Development Programs for Future Challenges,” J.C. Crowley et al, RAND Report prepared for the U.S. Army, 2013; 2010 Army operating concept.

⁹ Hierarchical organizations largely require its most experienced people to define requirements and measurement criteria. However, those most knowledgeable and experienced with conventional wisdom and practices are typically very uncomfortable absorbing new information and creating new criteria for new expectations.

¹⁰ TRADOC Pamphlet 525-8-2, ALM 2015, Chapter 1.

Decision-Support Planning and Tools: Planning to Support Decision-Making

by CPT Gary M. Klein and CPT Alan P. Hastings

As the Army increases its focus on decisive action, more units are emphasizing decision-support templates and matrices as part of the planning process. Unfortunately, these tools have only minimally impacted tactical decision-making and mission outcomes because leaders are using these tools as another synchronization tool rather than focusing on decision points.¹ When used correctly, decision-support tools link directly to the information-collection (IC) plan, facilitate the creation of branch plans prior to execution and assist the commander's decision-making.

All leaders strive to support decision-making, so what are the challenges to accomplishing this? One is the sequence of decision-support planning within the military decision-making process (MDMP). Staffs create friendly decision-support tools late in the planning process during course-of-action (CoA) analysis, according to doctrine.² Given time constraints at this point, staffs often create these tools hastily, focusing on routine synchronization triggers instead of anticipating significant transitions or branch plans.

Also, the sequence of IC planning and decision-support planning creates a frequent disconnect between these two plans. To overcome these challenges staffs should develop decision points earlier in the planning process and practice MDMP more to recognize when and how to deviate from doctrine. We will recommend one such technique to alter existing doctrine and enable decision-support planning.

We will start by reviewing the current doctrine that outlines decision-support planning and a case study describing its typical, doctrinal execution. This review will explore the aforementioned challenges regarding decision-support planning. Then, we will review a foreign humanitarian assistance (FHA) contingency plan and summarize decision-point tactics (DPTs) as additional

case studies. These latter case studies will demonstrate potential adjustments to decision-support planning. Finally, we will summarize some of the advantages and disadvantages to the recommended adjustments to decision-support planning.

Doctrinal review

When seeking doctrinal information about planning, MDMP and decision-support matrices (DSMs) and templates (DSTs), leaders typically reference Army Doctrinal Reference Publication (ADRP) 5-0, *The Operations Process*, and Field Manual (FM) 6-0, *Commander and Staff Organization and Operation*.

The Operations Process is the U.S. Army's primary reference for planning, preparing, executing and assessing, and it states that a DST is "[a] combined intelligence and operations graphic based on the results of wargaming. The [DST] depicts decision points, timelines associated with movement of forces and the flow of the operation, and other key items of information required to execute a specific friendly [CoA] ([Joint Publication (JP)] 2-01.3). Part of the [DST] is the [DSM]. A [DSM] is a written record of a wargamed [CoA] that describes decision points and associated actions at those decision points. The [DSM] lists decision points, locations of decision points, criteria to be evaluated at decision points, actions that occur at decision points and the units responsible to act on the decision points."³

Commander and Staff Organization and Operation, the U.S. Army's primary reference for MDMP and plans formats, references DSTs as a result of wargaming that "portray[s] key decisions and potential actions that are likely to arise during the execution of each CoA."⁴

These descriptions summarize DSTs and DSMs and what they contain. However, to find more details or an example, planners must follow the reference in ADRP 5-0 to JP 2-01.3, *Joint*

Intelligence Preparation of the Operational Environment (JIPOE), and its Army equivalent, Army Techniques Publication (ATP) 2-01.3, *Intelligence Preparation of the Battlefield/Battlespace* (IPB). The IPB and JIPOE manuals present decision-support tools within the larger intelligence-planning process. They begin their description with the four steps of IPB, when staffs create a modified combined obstacle overlay (MCOOs), threat CoA(s) and an event template (eventemp), which depicts key differences in the threat CoAs. After completing these IPB estimates, the staff creates an IC plan to answer intelligence gaps and narrow the range of possible threat CoAs, both of which influence the commander's decision-making.

The staff creates these four products (the MCOO, threat CoA(s), eventemp and IC plan) during mission analysis and will use the eventemp later to develop the decision-support plan. However, friendly decision points and decision-support tools are not created until CoA analysis, according to doctrine.⁵ This gap in time between IC planning during mission analysis (Figure 1, Star 1) and decision-support planning during CoA analysis (Figure 1, Star 2) creates a potential disconnect between these two plans, especially since units initiate IC prior to beginning decision-support planning.

The doctrinal-planning sequence may be suitable when friendly branch plans are slight adjustments to a well-formulated plan based on minor differences in the threat situation. However, plans rarely survive first contact with the enemy, so leaders should emphasize decision-support planning to enable more flexible plans.

Case study: doctrinal decision-support planning

The following Joint Readiness Training Center (JRTC) brigade-defense case study highlights a typical decision-support plan.

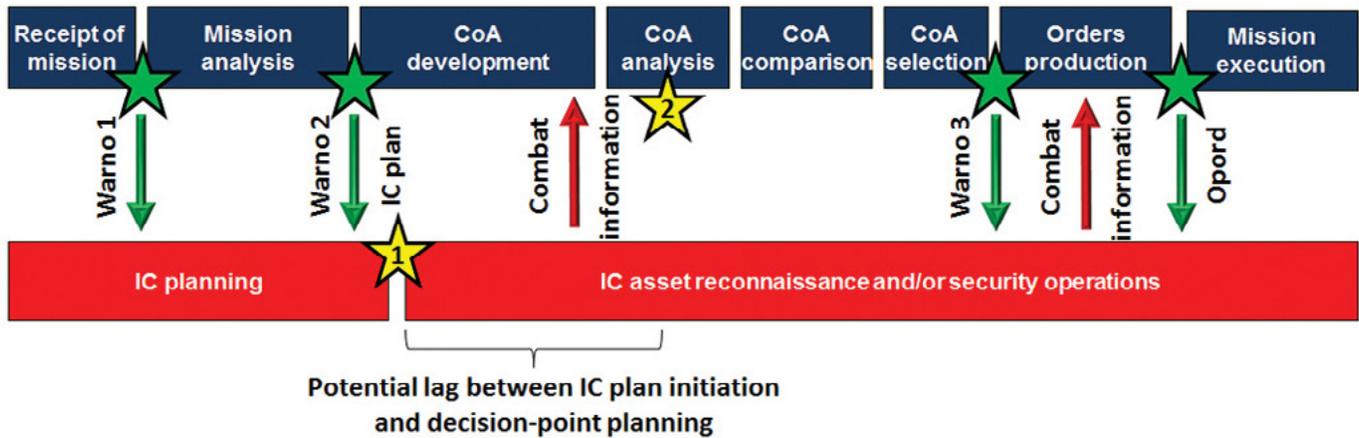


Figure 1. The MDMP planning process and IC planning and execution align as they occur sequentially and simultaneously. Note the gap in time between when a unit initiates its IC and when the staff develops its decision-support plan.

In December 2014, JRTC conducted Rotation 15-02.5, a Joint Conflict and Training Simulation exercise, involving 21st Infantry Division (i.e., the JRTC headquarters and staff), 56th Stryker Brigade Combat Team (SBCT), two constructive brigade combat teams (BCTs) and a number of other brigade and battalion supporting units. Operations Group's Task Force 4 (Cavalry squadron) roleplayed the Arianan 181st Brigade Tactical Group (BTG), the opposing force for this exercise. This case study is presented from 181st BTG's perspective.⁶

In the exercise scenario, 181st BTG attacked into the sovereign country of Atropia and established a defense to protect the flank of subsequent Arianan units that would continue the attack. To counter this, 21st Infantry Division attacked 181st BTG to re-establish the international boundary. The 181st BTG planned its defense using U.S. Army MDMP planning doctrine, including the development of its IC plan during mission analysis and DST during CoA analysis.

The 181st intelligence section analyzed its area of operations to understand the environmental effects and then analyzed its threat, 21st Infantry Division. During this analysis, it created its MCOO and developed threat most-likely and most-dangerous CoAs. The route along which 21st Infantry Division would attack differentiated the two threat CoAs the most. Recognizing this, the 181st intelligence section created an eventemp to visually depict the enemy's decision points and an IC plan to

answer pertinent commander's critical information requirements (CCIR) at the appropriate named areas of interest (NAIs). By collecting this information, 181st BTG sought to predict the enemy's actions during its attack, thereby enabling the commander to make informed decisions to adjust the main body's defense.

Once the staff had developed its estimate for how the enemy would attack and how 181st would screen the expected enemy axes of advance, it developed its own CoA. Next, it wargamed its CoA, including its IC plan, against 21st Infantry Division CoAs to synchronize its plan and identify potential decision points that would necessitate branch plans. Once fully developed, the 181st BTG's DST specified the conditions when and where it would conduct its chemical attack, use its air-defense assets, commit the reserve force to counterattack and move subordinate battalions to supplementary battle positions (BPs).

Throughout mission analysis and CoA development, the 181st staff developed its concept of operations, prioritized efforts, synchronized adjacent units and defined command and support relationships, but it lets its subordinate units determine the detailed "how." By using mission orders and following the principles of mission command, the staff advanced succinctly to CoA analysis and wargamed more than one avenue in depth thoroughly. It used the time saved to develop its aforementioned decision points and branch plans (Figure 2).

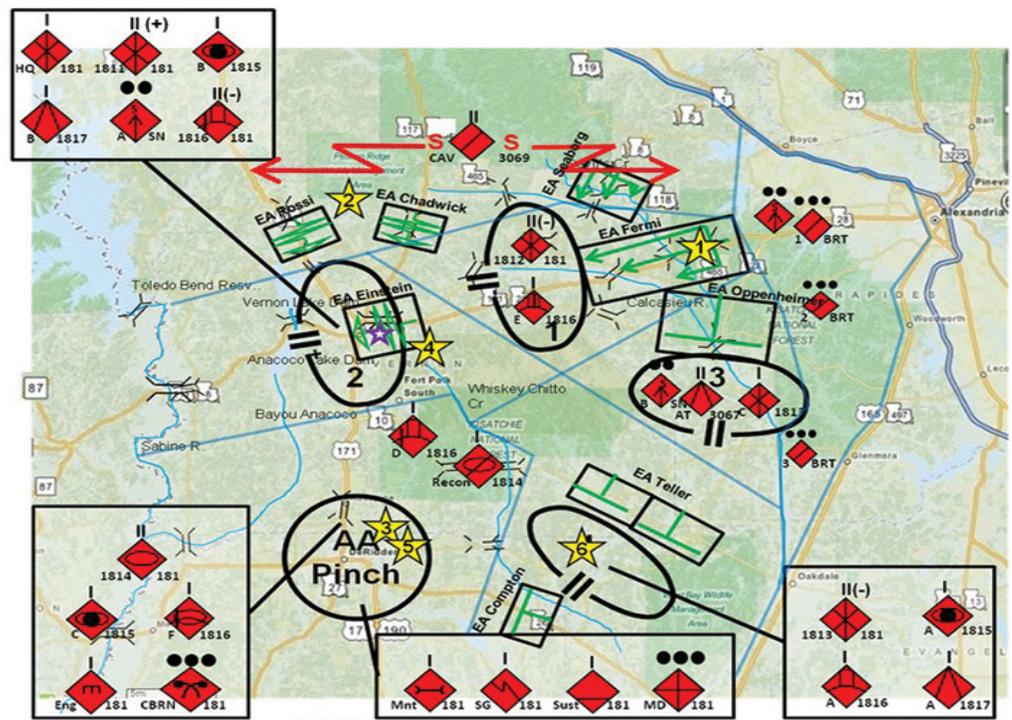
A quick critique of this DST reveals that Decision Points 3, 5 and 6 result in bona fide branch plans, whereas Decision Points 1, 2 and 4 are more analogous to triggers and engagement criteria. In this case, the staff used mission orders to maximize its time during CoA analysis but still created a suboptimal decision-support plan. Most staffs spend even more time on mission analysis and CoA development, stealing precious time from CoA analysis and decision-support planning. This is the first of two challenges that leaders often fall victim to when using the doctrinal-planning sequence to create decision-support tools.

Very few staffs wargame their CoAs enough to develop decision points that trigger completely distinct branch plans because they spend too much time on mission analysis and CoA development.⁷ They use most of their time creating mission-analysis outputs (MCOO, situation template, eventemp and IC plan) and developing a detailed CoA, resulting in little or no time available for CoA analysis. Some units skip CoA analysis altogether, and even units that do conduct CoA analysis usually focus on synchronizing combat power, resulting in decision-support tools that capture nothing more than triggers to execute fine-tuned adjustments.

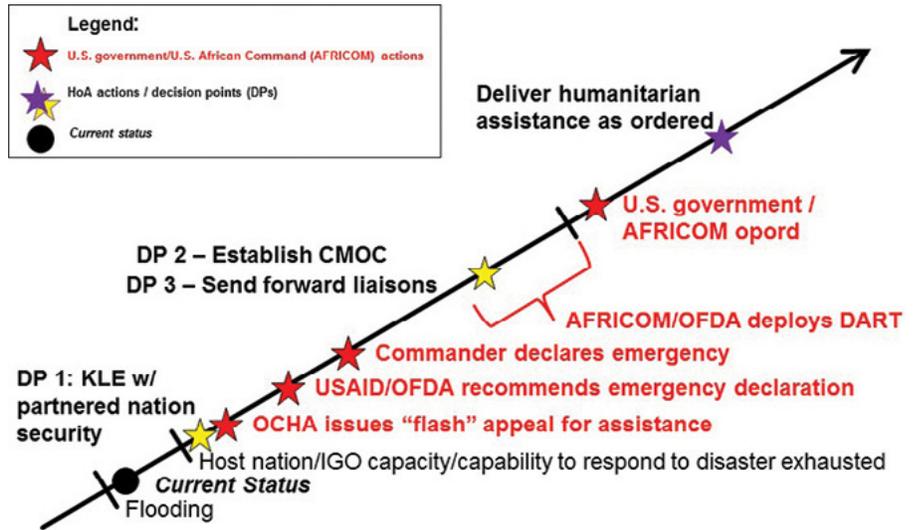
The second challenge, summarized previously, is that staffs develop decision points during CoA analysis (Figure 1, Star 2) after IC assets have already departed to initiate IC (Figure 1, Star 1).⁸ So units initiate IC before developing decision points, often reducing the

Decision-support matrix				Supporting NAI / CCIR / Unit
DP #	Decision	Criteria / Conditions	Action	
	What decision must be made?	Criteria is condition(s) that when met require decision to be made	Actions to be executed	
1	Execute chemical artillery strike against 21 st Infantry Division artillery?	<i>If</i> 21 st Infantry Division artillery have been located within 21.9 kilometer range of our 2S1s	<i>Then</i> request chemical-strike authority and release of chemical munitions from 18 th DTG	NAI: 1, 10 CCIR: 5 Unit: 1812 Infantry Battalion
2	Use ADA to shoot down 21 st Infantry Division aircraft (fixed or rotary)?	1. <i>If</i> SEAD attacks were observed <i>and</i> after initial U.S. company has landed 2. <i>If</i> ADA in local area have been targeted, then local commander is encouraged to use remaining assets	1. <i>Then</i> shoot down lift assets after Soldiers have disembarked or as they lift off 2. <i>Then</i> shoot down threat	NAI: 20, 21 CCIR: 1, 2, 5 Unit: 3039 Cav Squadron, 1814 Armor Battalion
3	Commit our reserve Armor battalion to southern AoA?	<i>If</i> U.S. forces gain a foothold at BP 4	<i>Then</i> deploy Armor battalion	NAI: 7 CCIR: 3, 4 Unit: 3067 AT Battalion
4	Execute chemical artillery strike against 56 th SBCT?	<i>If</i> 56 th SBCT commits its 1 st Battalion and is decisively engaged at EA Einstein (Leesville)	<i>Then</i> request chemical strike authority and release of chemical munitions from 18 th DTG	NAI: 11 CCIR: 5 Unit: 1812 Infantry Battalion
5	Commit our reserve Armor battalion to BP 2 in Leesville?	1. <i>If</i> one of 1811st's companies in Leesville are about to be destroyed / penetrated 2. <i>If</i> U.S. forces have been fixed at BP 2	1. <i>Then</i> 1814 Armor should reinforce 2. <i>Then</i> counterattack 21 st Infantry Division along its southern flank	NAI: N/A CCIR: 3,4 Unit: 1811 Infantry Battalion
6	Maneuver 1813 Infantry Battalion from BP 4 in southern AoA to BP 2 in Leesville?	<i>If</i> all anticipated enemy forces have been identified and forces were unable to destroy / penetrate BP 3	<i>Then</i> maneuver 1813 Infantry Battalion from BP 4 in southern AoA to BP 2 in Leesville	NAI: 7 CCIR: 3,4 Unit: 3067 AT Battalion

Figure 2. The 181st BTG's DST from JRTC Rotation 15-02.5.



usefulness of the information collected. For example, doctrine states that the cavalry squadron initiates reconnaissance immediately following a BCT's mission analysis.⁹ This allows the cavalry squadron to collect information with enough time for the BCT to adjust its plans based on what the squadron learns about the reconnaissance objectives (i.e., reconnaissance pull). However, this means the squadron initiates IC without knowing the BCT's decision points. This dilemma is not unique to BCTs – it exists in all units that employ IC assets – but leaders do not have to wait until CoA analysis to conduction decision-support planning.



Case studies: 'non-traditional' decision-support planning

El Niño flooding. The following Combined Joint Task Force-Horn of Africa (CJTF-HoA) FHA case study and summary of DPT will show that staffs can develop decision

points during mission analysis or CoA development. Developing decision points earlier will ensure IC plans answer the CCIR and monitor the criteria related to the commander's decision points.

In Fall 2015, CJTF-HoA stood up an operational planning team (OPT) to develop a FHA contingency plan to address anticipated El Niño floods in Eastern Africa.¹⁰ The OPT used the joint-operation planning process as a foundation but significantly adjusted the traditional planning sequence when developing its IC plan, friendly CoAs and decision-support tools. The OPT developed decision points in between mission analysis and CoA development, when mission analysis revealed substantial and insurmountable

Decision-Support Matrix				Supporting CCIR and Units
DP #	Decision	Criteria / Conditions	Action	
	What decision must be made?	Criteria is condition(s) that when met require the decision to be made	Actions to be executed	
1	Coordinate KLEs to energize partner-nation security?	<i>If</i> VEOs establish unacceptable threshold of control over HA process and if particular zone or partner is identified that can / should be influenced	<i>Then</i> coordinate engagement between CJTF-HoA commanding general and appropriate AMISOM or TCC leader	PIR: 1, 4, 5, 7 Units: CJ-2, TSC-FAC, 415 th Civil Affairs Battalion
2	Establish CMOC as component of JOC?	<i>If</i> commander has declared state of emergency and if another unit has not been ordered to form JTF/CMOC	<i>Then</i> 415 th Civil Affairs embeds civil liaison in JOC to help establish civil COP and synchronize with IGOs	PIR: 8, 9; FFIR 1-3 Unit: CJ-35, TSC-FAC, 415 th Civil Affairs Battalion
3	Send LNOs forward to key IGO C-2 / logistics nodes to assist with decision-making?	<i>If</i> commander has declared state of emergency and if another unit has not been ordered to form JTF / CMOC and if we know USAID's primary C-2 node	<i>Then</i> 415 th Civil Affairs and / or CJ-4 sends LNO forward to location to be determined	PIR: 8, 9; FFIR 1-3 Units: CJ-35, TSC-FAC, 415 th Civil Affairs

Figure 3. CJTF-HoA's DST from an El Niño FHA contingency plan.

unknowns that made it unfeasible to create a suitable, continuous CoA that progressed to the desired endstate.

Given the uncertain and ambiguous situation, the staff addressed the problem by using an approach similar to the Army's design methodology. It framed its current situation and desired endstate during mission analysis while simultaneously identifying key challenges. By deliberately identifying challenges during mission analysis, the staff framed the problem enough to develop assumptions, related CCIR and requests for information, which would turn its assumptions into facts. The staff identified the primary challenge to be that no one knew what, where or

when CJTF-HoA would be asked to provide humanitarian assistance. By acknowledging and studying these unknowns, the staff focused its planning to generate CoAs based on informed assumptions.

To help understand "what," the staff – with the support of 415th Civil Affairs Battalion – began analyzing the problem by studying previous FHA cases. It studied the U.S. government and international response to the 1997 and 2006 Somalia floods, the 2010 Pakistan floods and the 2014 Western Africa Ebola outbreaks. The staff identified two potential "whats" from these case studies. The first was the need to coordinate the international response

through a civil-military operations cell (CMOC). The second was the requirement to provide the military's unique aerial mobility, both fixed and rotary, to deliver humanitarian aid.

With these two assumptions, the staff began to study "where" it would conduct these operations. The intelligence section and meteorological and oceanographic cell's mission analysis defined an area of operations based on those areas that faced the highest threat of flooding. Simultaneously, the sustainment and air-operations cells studied the airfields and lines of communication that could be used to reach these threatened areas. This helped develop a concept for where the CMOC might set up and potential lines of communication that could be used to deliver logistics support.

Recognizing the difficulty in predicting the weather, the primary threat in this situation, the hardest assumption to validate was "when" this operation would take place. Oceanographers were predicting significant El Niño rainfall based on higher than average ocean temperatures, but this indicated seasonal trends, not daily or weekly weather patterns. So, immediately upon planning initiation, the staff developed CCIR to monitor rainfall and river levels to anticipate disastrous flooding. These CCIR helped anticipate the physical environment, but the staff had to predict the conditions under which the U.S. government would get involved as well.

To further define "when," the 415th Civil Affairs Battalion and OPT planners studied the 2010 Pakistan floods to understand a typical U.S. government response and develop friendly-force information requirements (FFIRs) to anticipate potential U.S. government action. These FFIRs were based on the conditions that would cause the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) to issue a flash appeal for assistance, the U.S. Embassy Chief of Mission to declare an emergency, and the Joint Staff and U.S. Africa Command (AFRICOM) to order an FHA mission. Once the staff identified these FFIR, it began communicating with OCHA and the embassies to understand the interagency DPs.

Now that the staff had determined

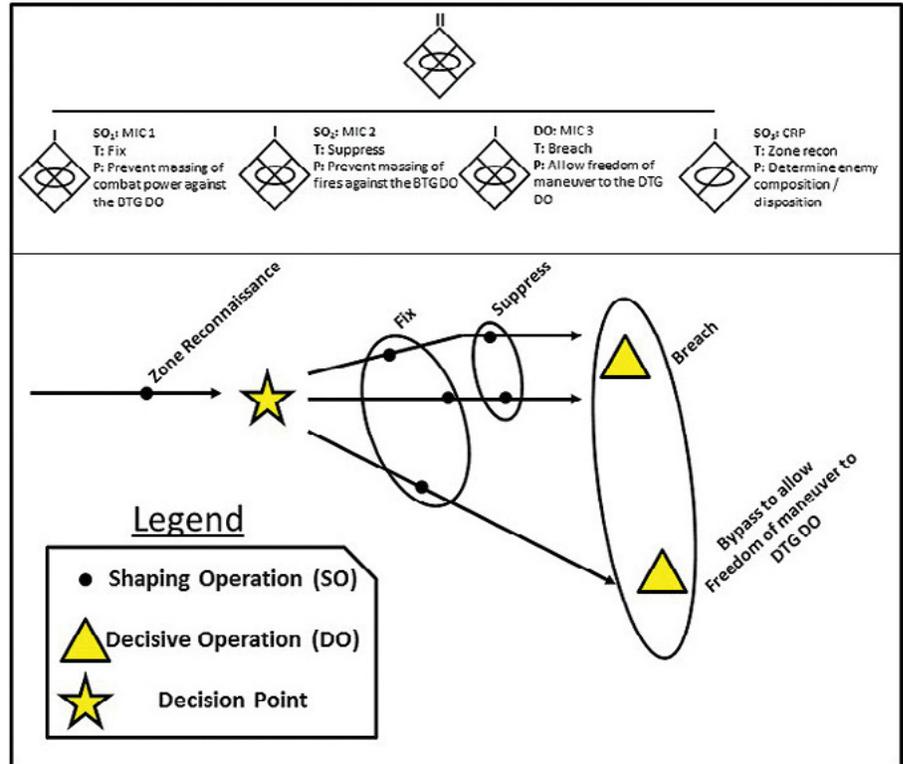


Figure 4. The authors' graphic depiction of a typical plan that uses DPT. The commander assigns each unit a task and purpose as a foundational CoA, but the precise axes of advance for the attack are not known until the commander makes a decision based on the continued development of the situation.

what CJTF-HoA's responses might be (implied tasks), where it might operate and when (decision points), the staff assembled and sequenced these pieces into a composite CoA it called a "decision-point CoA." This name reflected the fact that the CoA proposed a series of branches that could be executed singularly or in combination, based on how the situation unfolded and the associated decision points.

Linking decision points and branch plans is not unique, but the planning sequence was unique. The staff developed decision points in between mission analysis and CoA development, when the branch plans were still implied tasks.

If the CJTF-HoA staff had not adjusted the doctrinal-planning process, it would have likely spent more time on mission analysis trying to gain greater fidelity on the mission variables rather than progressing to CoA development. There were simply too many unknowns for the staff to plan a traditional CoA from start to finish. Instead, based on informed assumptions, the staff developed potential responses, or branch

plans, tied to sequential decision points, which collectively formed its CoA. Whereas the 181st staff created decision points and branch plans during CoA analysis, the CJTF-HoA staff developed decision points in between mission analysis and CoA development.

11th Armored Cavalry Regiment (ACR) DPT. Another technique for planning decision points is called DPT. The 11th ACR (opposing force) at the National Training Center (NTC) developed DPTs in the 1990s.¹¹ The DPT is a flexible plan that links two or more complete branch plans into a composite CoA. Since the staff must develop and link the branch plans before completing its CoA, it must develop decision points prior to CoA analysis to link the branch plans together using a conditional "if-then" framework, analogous to decision-support tools. Figure 4 and the following example describe DPT further.

In this scenario, a Donovan mechanized-infantry battalion (MIBN) planned to breach to allow freedom of maneuver and pass the BTG's decisive

	Doctrinal outputs	Proposed outputs
Receipt of mission	Warning order (warno) 1	Warno 1
Mission analysis	Updated IPB IC plan Warno 2	Updated IPB IC plan Potential decision points Warno 2
CoA development	CoA statement and sketch	CoA statement and sketch Initial decision-support tools
CoA analysis	Refined CoAs Potential decision points (and decision-support tools) Wargame results	Refined CoAs Refined decision points and decision-support tools Wargame results

Figure 5. The recommended changes to the doctrinal-planning process are highlighted in red. Instead of waiting until CoA analysis to begin decision-support planning, potential decision points should be proposed during mission analysis, and initial decision-support tools should be developed during CoA development. (Doctrinal outputs from Field Manual 6-0, Chapter 9)

operation (DO). The MIBN intelligence section analyzed the terrain in its area of operations and developed a few threat CoAs. Its terrain analysis identified three avenues of approach (AoAs) along which the enemy was likely defending, and its threat CoAs had the enemy defending using a combination of two or more AoAs.¹² Finally, the intelligence section developed an IC plan to determine the threat's current CoA and seek exploitable weaknesses – for example, a bypass lane or the easiest breach point.

The decision as to which AoA the MIBN would attack along depended on the information the combat reconnaissance patrol (CRP) and other IC assets gathered. If the IC assets discovered a bypass lane, the MIBN would bypass the threat engagement area (EA) and pass the BTG's DO along that AoA. If a bypass was not feasible, the CRP and other IC assets would continue to collect information to enable the commander's decision as to which AoA to breach along. Even before the commander could make this decision, he assigned his three mechanized-infantry companies (MICs) the tasks of fix (Shaping Operation 1 (SO₁), suppress (SO₂) and breach (DO)). Also, the commander task-organized and provided a purpose for each enabler to ensure a complete, fully integrated branch plan.¹³ Although the axis of advance had not yet been determined, these planning details were enough to enable subordinate units to prepare,

coordinate with adjacent units and rehearse.

Then, once the IC assets collected enough information or the commander selected the AoA for the breach, the first MIC (SO₁) would attack to fix to prevent massing of combat power against the breach force. The second MIC (SO₂) would attack to suppress to prevent the enemy from massing direct fire against the breach force. Finally, once these conditions had been set, the third MIC (battalion DO) would attack to breach the threat's defensive line to pass the BTG DO.

Since DPT requires multiple, complete branch plans (i.e., CoAs), the time required to develop a detailed plan has the potential to make this planning technique unfeasible. Because of this, leaders must use mission orders and encourage disciplined initiative to facilitate planning. Also, when planning using DPT, staffs must develop decision points prior to CoA analysis. It must propose and incorporate decision points into the plan no later than CoA development since they are an integral part of the composite CoA. Staffs will refine decision-support tools through CoA analysis, but it must propose tentative decision points during CoA development.

Adjusting decision-support planning within MDMP

As the CJTF-HoA FHA case study and DPT proved, decision points can be

proposed prior to CoA analysis. In the joint-task-force (JTF) case study, the staff proposed decision points in between mission analysis and CoA development, while DPT established decision points during CoA development. Based on these observations, the outputs of the MDMP steps could be adjusted so that potential decision points are recommended during mission analysis and initial decision-support tools are created during CoA development (Figure 5).¹⁴

There are two benefits to these recommendations. The most obvious benefit is that by developing decision points earlier in the planning process, the staff will now develop an IC plan that considers the commander's decision points. This is a critical flaw in the current MDMP planning sequence, but the recommendation to conduct decision-point planning earlier has the potential to overcome this. Even though staffs will continue to refine decision points through CoA analysis, proposing decision points during IC planning will increase the linkage between the IC and decision-support plans. The second benefit is that by developing decision points earlier, units are more likely to conduct decision-support planning, thereby enabling adaptive plans that account for changes in the environment.

The benefits of planning decision points earlier are significant, but leaders must be mindful of two challenges this will create as well. The first is the

challenge of identifying potential decision points during mission analysis. Admittedly, it is easier to develop decision points after mission analysis, when the staff understands the mission variables better. However, initial decision points can be anticipated from collaborative terrain analysis and development of enemy CoAs, both of which happen during mission analysis. In fact, leaders often anticipate decisions already when they start thinking about potential CoAs during mission analysis. This is an example of the tension between adhering to a systematic, doctrinal process vs. following an intuitive thought process.

The second, and more difficult challenge, is the requirement for staffs to develop several branch plans and link them together using decision points and decision-support tools. Some staffs struggle to develop even a single synchronized CoA. Leaders should overcome this challenge by conducting rigorous staff training and strictly enforcing planning timelines. Spending more time on decision-support planning might add some risk by not focusing on a single synchronized CoA, but it will mitigate tactical risk by developing a more flexible plan. A composite CoA with multiple branch plans enables the greatest chance of success by seeking exploitable weaknesses regardless of the enemy CoA.

Regardless of the sequence used to plan, leaders should remember that MDMP is iterative and that assumptions and tools, including IC plans and decision-support tools, must be periodically reassessed. As the understanding of the situation changes, these plans and products must be adjusted to ensure units collect the information most pertinent to decision-making.

Also, leaders should remember that the appropriate planning sequence depends on the situation. In instances like the CJTF-HoA contingency plan and DPT, leaders will benefit from changing the order in which they conduct decision-support planning.

Conclusion

Current planning doctrine gives a low priority to decision-support planning by waiting to introduce it until CoA analysis. Leaders should place a higher

priority on decision-support planning by starting it earlier during mission analysis and CoA development. Developing decision points earlier in the planning process will help units link their IC and decision-support plans, which assist the commander's decision-making.

Finally, leaders are well-versed in the science of planning but are often under-practiced. There are an abundance of instructors, observers/coaches/trainers (O/C/Ts), FMs and other resources that emphasize the science of planning. However, commanders and staffs must increase the frequency of MDMP training to enable the art of adjusting MDMP to particular situations and constraints. Additional repetitions on MDMP will enable adaptive planning to maximize success during mission execution.

Ultimately, military operations consist of a series of decisions, so the unit that anticipates transitions and the associated decision points will likely be the most successful. If leaders delay or neglect developing decision points, how will this affect the outcomes of our plans and operations?

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Notes

¹ These are CPT Klein's and CPT Hastings' observations as O/C/Ts at JRTC and NTC, respectively. Also, DSTs and DSMs are designed to aid in decision-making, so we will collectively refer to them as decision-support tools.

² ADRP 5-0, *The Operations Process*, Washington, DC: U.S. Government Printing Office, May 2012.

³ Ibid.

⁴ FM 6-0, *Commander and Staff Organization and Operations*, Washington, DC: U.S. Government Printing Office, May 2014.

⁵ ATP 2-01.3, *Intelligence Preparation of the Battlefield/Battlespace*, Washington, DC: U.S. Government Printing Office, November 2014.

⁶ This vignette is a first-person account from CPT Klein, who was in Task Force 4 (cavalry squadron) and served as 181st BTG's operations officer for Rotation 15-02.5.

⁷ These are CPT Klein's observations as an O/C/T at JRTC from February 2014 to March 2015.

⁸ Ibid.

⁹ FM 3-98, *Reconnaissance and Security Operations*, Washington, DC: U.S. Government Printing Office, July 2015.

¹⁰ This vignette is a first-person account from CPT Klein, who was at CJTF-HoA and served as an assistant OPT leader during the El Niño contingency-planning effort.

¹¹ LTC Pete Palmer and CPT Jim Crider, "Decision-Point Tactics (Fighting the Enemy, Not the Plan!)," *CALL Combat Training Center (CTC) Quarterly Bulletin No. 97-4*, Fort Leavenworth, KS, April 97. See also, by the same authors, "Decision-Point Tactics and the Meeting Battle" and "Decision-Point Tactics During the Defense," *Infantry* magazine, Fort Benning, GA, January-February and March-April 1997, respectively. Finally, see Carl A. Alex, *Process and Procedure: The Tactical*

Decision-Making Process and Decision-Point Tactics, master's of military art and science monograph (2000), U.S. Army Command and Staff College, Fort Leavenworth, KS, for a thorough explanation of DPT.

¹² For further discussion on the need to develop multiple enemy CoAs when planning using DPT, refer to Eric Slater,

"Decision-Point Tactics: Elevating Intelligence Preparation of the Battlefield in a Decisive-Action Training Environment," *Small Wars Journal*, Sept. 30, 2015.

¹³ For a technique to develop a fully integrated branch plan to support a tactical decision point, see LTC Curt Taylor, "Chapter 1: Fighting a Complex Threat: Ten

Observations from the Decisive-Action Training Environment," *CALL Newsletter 13-18 Decisive Action Training Environment at the JMRC 2*, July 2013.

¹⁴ Anthony Lupo and Isaac Best, "Decision Point Tactics," Fort Irwin, CA, Defense Entrepreneurs Forum Agora Presentation, Oct. 2, 2015.

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Hosted by the U.S. Army Armor School at Fort Benning, GA

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Gainey began to serve in this position Oct. 1, 2005. He retired April 25, 2008, after nearly 33 years of service.





Intelligence Preparation of the Battlefield: Company Commanders Must Do Their Part

by LTC James W. Welch and CPT M. David Riley

Army Techniques Publication (ATP) 2-01.3, *Intelligence Preparation of the Battlefield (IPB)*, defines IPB as “the systematic process of analyzing the mission variables of enemy, terrain, weather and civil considerations in an area of interest to determine their effect on operations.”¹

It is a central piece of the military decision-making process (MDMP) and, when done correctly, IPB gives the commander and staff a thorough understanding of the battlefield and the enemy. As one might expect, the staff S-2 (intelligence) conducts the preponderance of work that goes into IPB and leads the other staff sections throughout the process. As such, ATP 2-01.3 states, “The intelligence staff at the battalion develops all the IPB products the company commander needs to do [troop-leading procedures (TLP)]. The commanders should not need to do any other refinement of these products.”²

For a variety of reasons, we contend that this statement is far from

accurate; company commanders must refine IPB products to have a complete understanding of their area of operations. In this article, we explain why company commanders must conduct their own IPB, what they should expect from their battalion S-2 and how they can refine those products to support their mission.

S-2 section

Let us first disabuse the reader of any notion that all S-2 sections are created equally; they are not. While many military-intelligence (MI) officers have a tremendous amount of experience in combat-arms units or previously served as combat-arms officers, you may very well have an S-2 who comes from a more strategic background. If your S-2 has spent most of his or her career working at the National Security Agency or the Defense Intelligence Agency, chances are they will have a steep learning curve when it comes to tactical-level analysis. This does not mean they are incompetent, merely that their ability to conduct IPB may take time to improve. On the other hand, those S-2s with combat-arms experience should have a thorough un-

derstanding of tactics.

Compounding the problems that may arise from a lack of tactical experience, the battalion S-2 section may not have adequate manning or experienced noncommissioned officers (NCOs) to help guide the S-2 officer in charge (OIC). In addition, the S-2 section will likely have a number of new Soldiers with no experience whatsoever. Whether those Soldiers are experienced or not, they may be conducting other tasks that take them away from supporting IPB efforts. Unfortunately, it is common practice for command teams to task staff Soldiers with non-military-occupational-specialty specific tasks such as guard duty or performing as opposing forces during training exercises. This is not necessarily a bad thing but rather a reality that one must take into account when working within a staff section.

Even if a battalion S-2 section is fully manned with experienced Soldiers, NCOs and officers, time constraints may force them to focus on the battalion’s decisive operation. While they will most likely conduct IPB for the entire battalion, the level of detail and

granularity may not be the same throughout the course of their analysis. This may not be the case if a unit has ample time to prepare for an operation, but it is definitely the case during hasty MDM and more fluid situations. The priority of effort will obviously go to the decisive operation and the battalion commander's priorities.

Company commanders must also remember the analysis conducted by battalion S-2 sections will not normally go down to the appropriate echelon needed at the company level. Battalion-level IPB will more than likely go down to the platoon level. While this may be satisfactory for the company commander to conduct TLP, it is not adequate for the squad leader. This is where the company commander's more exhaustive analysis must come into play. The commander must take the products provided by the S-2 and refine them to the level needed by subordinates.

Intelligence products

As for the products the S-2 section should provide, ATP 2-01.3 proposes that the standard products should include:

- Enemy situation overlays and course of action (CoA) statements;
- Terrain and weather products;
- Tactical decision aids (such as the modified combined obstacle overlay (MCOO) and the evaluation of terrain effects, weather forecast/weather effects, and light-data tables); and
- Civil-consideration tools and products.³

Although this is a decent start, we believe this list is too broad and suggest it should be more detailed to ensure company commanders get the right products. First, as implied in the tactical decision aids above, commanders must receive a thorough terrain analysis in the form of a MCOO. Given the capabilities that reside in a brigade S-2 section and higher echelons, a battalion S-2 should provide company commanders with detailed analysis of the terrain from geospatial experts. While the battalion analysts may start their analysis using analog products such as acetate and overlays, they must also

provide company commanders with more technical products.

The same can be said for weather products because the weather officer on the brigade staff should provide very detailed weather analysis to the brigade's subordinate units. This analysis must describe the impact weather events will have on both friendly and enemy capabilities. Simply cutting and pasting the weather forecast for the local area is inadequate for a commander and is unacceptable.

Personnel roles

Second, when evaluating the enemy threat, the S-2 section must use all the subject-matter expertise that resides within the battalion staff. While the S-2 section may be composed of very intelligent Soldiers, its IPB analysis will not be complete unless everyone on the staff contributes to the effort. For example, before finalizing threat CoAs, the S-2 should coordinate with the S-3 to ensure the proposed enemy tactics make sense. The S-3 is the tactics expert in the battalion, not the S-2. The S-2 must conduct the same type of collaboration with other members of the staff. At the very least, the S-2 should synchronize his analysis with the S-4, S-6 and fire-support officer (FSO). This will provide a complete picture to commanders about threat logistics capabilities, supply routes and threats to friendly communications, and it will help better identify high-value and high-payoff targets.

When this is done correctly, the S-2 should spell out how the enemy will operate without regard to terrain and display this on a threat template. The S-2 will then combine the information from his MCOO with the threat template to create situation templates (sitemps). There should be a sitemp for each enemy CoA. Along with the sitemp, there should be CoA statements for each CoA as well as the high-value target list. The S-2 section will provide other information based on timing and the situation. However, the aforementioned items are not negotiable, and company commanders should expect to receive them from their battalion S-2 section.

This may seem like enough information for a company commander to continue

with his TLPs. However, this may not necessarily be the case. At a minimum, a company commander should review the terrain analysis provided by the S-2 section and ensure it makes sense. For example, the S-2 section may have templated key terrain that is important for the brigade or battalion but failed to indicate key terrain that is important to a company commander. Key terrain for different echelons is rarely the same. In addition, the MCOO provided by the S-2 may have incorrect or outdated information. Likewise, the civil-consideration information provided may be incomplete or altogether wrong. In sustained combat operations like those in Iraq and Afghanistan, no one will know the local area better than the company commander on the ground.

All this being said, the S-2 section will likely have a number of all-stars who truly want to help. However, unless you tell them what you need, they may not know to give it to you. Successful commanders build relationships with staff sections and explain what they need to succeed on the battlefield. Strong relationships between commanders and the S-2 encourage frank discussions about the S-2 section's analysis. With this in mind, the relationship between commanders and staff officers must be collegial and not adversarial.

Finally, combat-arms commanders must make full use of their company intelligence-support team (CoIST). These teams can be invaluable assets and can take a tremendous amount of work off the commander's shoulders. However, leaders must properly staff, equip and train the CoIST to realize the team's true potential. Do not staff your CoIST with sub-standard Soldiers or inundate them with additional duties. Work with your battalion S-2 to ensure your CoIST has the proper equipment and, if it is not already being done, ask your S-2 to help develop a training plan for your CoIST. When empowered and used properly, your CoIST will produce great results.

In closing, IPB is not rocket science, but it does take some time, energy and knowledge. With tactical expertise and an understanding of one's environment, a company commander should

be able to “imagine one’s self in the enemy’s place” and conduct a decent IPB analysis. Remember, although your S-2 section is likely to have stellar Soldiers, it will also have impediments that get in its way. For that reason, its analysis should not necessarily be taken as gospel. Commanders owe it to their Soldiers to do their own level of analysis and refine battalion IPB products to fit their needs. Those who fail to do this will not have a complete understanding of the battlefield. Worse yet, they may needlessly endanger their Soldiers’ lives and fail in their mission.

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Notes

¹ ATP 2-01.3, Washington, DC, Nov. 10, 2014.

² Ibid.

³ Ibid.

Integrating Cognitive Training for Performance Optimization

by MAJ Thomas A. Whitehead, CPT Andrew J. Vogel and CPT Jared D. Wigton

Leaders at all levels now face a dynamic environment where they cannot plan for every contingency, and the enemy is as fluid and reactive as a social-media newsfeed. With that in mind, the ability of Soldiers and leaders to focus their minds and make coherent decisions has never been more relevant or necessary for our military force on the battlefield and during training.

In 2nd Battalion, 504th Parachute Infantry Regiment (PIR) (White Devils), we recently explored a training approach designed to maximize human performance by helping our paratroopers understand when they are in a “coherent” state. Our aim was to ensure they knew the difference between being in a coherent or incoherent state, showing them how that knowledge correlates to their ability to accomplish individual tasks from the Paratrooper Essential Task List (PETL).¹ We believe this training approach will benefit all Army leaders, who should deliberately incorporate human-performance experts into all mission-essential task list (METL)-focused training.

During the past seven months, our battalion integrated performance experts from the Comprehensive Soldier and Family Fitness (CSF2) team into three initial focus areas: airborne, marksmanship and leader training. Though not yet quantifiable, this threefold initiative demonstrated tremendous benefits to adding deliberate mental training to improve our paratroopers’ confidence and lethality. It proved that deliberate mental training can maximize human performance. Moreover, the method we used explored the science of sports psychology, proven on the fields of professional and collegiate teams, to bridge the gap between mental coherence and physical performance.

In the resource-constrained environment, this approach didn’t add to

existing training plans; it simply substantiated techniques previously honed during decades of military experience by noncommissioned officers (NCOs) and senior leaders that were previously unintelligible to new Soldiers. The result was new warriors who could make clearer decisions and precisely control physical actions in a complex environment.

Background

Improvements in technology and techniques during the last few years have significantly shifted the focus for performance in an airborne unit. Paratroopers exiting an aircraft 1,000 feet above a drop zone can no longer simply rely on “keeping their feet and knees together” because seemingly innocuous errors during the first three points of performance could cost them their lives or the lives of fellow paratroopers. Likewise, snipers who once were consigned to a novel supplementary mission now bear the weight of strategic relevance with each trigger squeeze.

Gone are the days when commanders bore the sole responsibility of decision-making. Training must now apply these mental-concentration skills at all levels so that Soldiers can make the right decisions in the violence of a propeller blast, the tension of a hide site or on the chaos of a battlefield.

What was needed was a way to use existing resources found within the CSF2 program to maximize performance through enhanced mental concentration. Rather than just relying on physical repetition, we needed a way to promote individual engagement with every training situation.

Recommendation

The way ahead begins by understanding the approach we used. Recognizing the potential behind performance science and applying the expertise of performance experts needs to be a deliberate effort by leaders. Since this method simply augments existing training events, executing this approach becomes nearly transparent. The next step dedicates performance



Figure 1. 2-504 PIR snipers and CSF2 performance experts incorporate cognitive-domain training into marksmanship. (Photo by 2-504 unit public-affairs representative)

experts at the battalion level to coach, assess and reinforce coherence training using common biometric technology and quantifiable analysis. Finally, individual paratroopers will overcome the cognitive doldrums that restrain them to leverage the capabilities of consciousness and achieve optimal performance.

Leveraging maximum capability

Paratroopers stand inside the mock-up of a C-130 Hercules aircraft, grasping the yellow static line in their fists, waiting for the command to “go.” As they walk toward the door, hundreds of tasks circle through their minds: spacing between the jumpers to their front, covering the rip-cord handle of their reserve parachute, keeping a steady pace toward the door and so on. When their turn to execute proper exiting procedures arrives, the paratroopers hand the static line to the safety, making eye-to-eye contact, turn toward the paratrooper door and jump. They snap into a good tight-body position just as the “black hat” instructors taught them at Airborne School. After a six-second count, they confidently reach their arms into the air to simulate controlling the parachute canopy, certain they performed the task flawlessly.

The jumpmaster then calls some of them back to explain they did not fully turn 90 degrees into the paratrooper door, causing them to exit at a dangerously wide angle. The jumpmaster has the paratroopers repeat the drill until success is achieved. However, this common retraining approach may not fully address the gaps in physical performance when executing in real-time conditions.

Training a Soldier to perform specific tasks under conditions that are both cognitively and physically demanding is a common Army approach within the “train as we fight” mindset. This approach typically allows leaders and Soldiers to achieve a level of confidence that each Soldier trained is an expert at what he or she does and that the unit can accomplish its mission. It is when a Soldier fails to execute mastered tasks to prescribed standards that leaders are faced with a unique training opportunity to truly increase their level of proficiency.

Often, a leader’s approach is to ask, “Why did you do that? You know how to do this; I have seen you do it correctly.” When the response from the Soldier is “I don’t know,” he or she then physically repeats the training until the task standards are met.

However, getting that Soldier to understand why he/she failed the task physically – and not just retraining the task – may prevent failure from happening in the future. This is not an institutionally intuitive approach. Seasoned leaders often forget their anxiety levels are reduced based on their experience level, which allows them to focus, gaining and maintaining an optimal state of coherence. Coherence is what happens when experienced leaders achieve a state of concentration in which they can think clearly, understand their environment, recall their training and apply their mind to executing a physical task. This balanced application of cognitive and physical ability stands in sharp contrast to the response of the Soldier described in the previous scenario who simply didn’t know what happened, functioning in an incoherent state.

Therefore, training must be about leveraging maximum physical and mental capability to achieve optimal performance potential every time and in any condition. The ultimate goal to addressing the cognitive component² into our training is to prevent any paratrooper from saying, “I don’t know why I did that.”

Airborne initiative

For years, with use of the T-10 parachute, leaders emphasized keeping your feet and knees together to prevent serious injury during an airborne operation. This applies to the final steps of the “five points of performance,” when the paratrooper makes contact with the ground.

Recently, technological innovation with the T-11 advanced tactical-parachute system has significantly decreased the average rate of descent and the likelihood of injury during this time, while increasing the importance of properly executing the first three points of performance. The introduction of pre-mock door training and many revisions of pre-jump enables leaders to ensure

proper repetitive training and that paratroopers conduct adequate rehearsals during sustained airborne training to achieve task mastery prior to an actual jump. Reduction of the weight in the paratrooper’s load during airborne operations and enhanced physical-fitness training initiatives are additional ongoing efforts to help the paratrooper execute the first three points of performance.³

Our training approach took into consideration all these initiatives and attempted to add in the understanding of the cognitive burden on the paratrooper’s physical performance. We composed a test group of 25 paratroopers with varied airborne experience, ranging from recent graduates of Airborne School to master-rated jumpmasters. The group had one classroom session about two hours long about various techniques to enhance coherence during an airborne operation. The session focused on the start of the airborne timeline through landing on the drop zone.

Civilian performance experts from the CSF2 program initially taught the techniques. These techniques included mental imagery, breathing exercises and cue words to return to an optimal state of coherence.

The company first sergeant then led the test group in several mock-door rehearsals, mainly tied to physical training, twice a week for about four weeks. During this mock-door training, paratroopers deliberately conducted mental imagery where they would conduct a cognitive rehearsal of each task from those in the aircraft through landing. The mental-imagery technique allowed paratroopers to focus their minds on each task, preventing them from allowing their minds to wander or increase their anxiety.

Next, they received instructions to practice diaphragmatic breathing to prevent them from raising their shoulders, which bear most of the additional weight. This breathing technique maximizes the amount of oxygen in the bloodstream and is a method to interrupt the “fight or flight” response and trigger the body’s normal relaxation response. By doing this, paratroopers were empowered to further focus and

continue their mental rehearsals.

During the last step, paratroopers used “word cueing” to help them remain in a focused state during execution of each task, rather than solely relying on muscle memory to accomplish them. The use of word cueing during execution is an effective method to help paratroopers coherently execute each task. More importantly, it helps them identify potential performance errors so they can fix them.

The results of this training were not quantifiable due to the lack of technology being readily available to provide feedback to paratroopers who employed these techniques during both training and actual airborne operations. However, we did find that participating senior NCOs who were seasoned parachutists reported they already unintentionally applied several of these techniques. Our findings during this training were that we had bridged the gap of experience between new and senior parachutists in a shorter period. This happened through the teaching techniques that our senior NCOs had intuitively employed and learned on their own during the course of their careers.

Marksmanship initiative

We leveraged the same performance experts, Dr. Katy Turner and Brian Wade, that we used during the airborne initiative to enhance the precision and lethality of our battalion snipers. Our approach to cognitive training for shooting was to integrate the performance experts into the battalion sniper training without adding time or interrupting the training schedule. We also knew that a test group comprised of all our battalion snipers had received training through the Army Sniper Course or from someone who had graduated the course. Therefore, our assumption was that they would not be naturally open to take advice from civilian performance experts with limited marksmanship training.

With that in mind, our performance experts had to build a relationship with the snipers for their feedback to be effective. They only worked with the snipers on the ranges while they were shooting. They were able to provide instant feedback on the snipers’ ability to hit the target based on their level of coherence. Over multiple sessions, the performance experts were able to introduce the same techniques used in the airborne initiative to improve overall performance for the group of snipers.

The result was immediate and quantifiable for the snipers based on the use of combined factors: monitoring heart rates via an electronic tablet while shooting, the accuracy of the shooting and performance observations by the experts. After a couple iterations that incorporated the techniques, our snipers could articulate their cognitive state and personal coherence

with each shot taken.

Junior snipers now understood when and why they should not have taken a shot in haste; something briefly caused them to lose focus, and they had not regained a coherent state before pulling the trigger. What we learned from this was that this focus on the cognitive aspect of training transcends shooting and, over time, it will accelerate the snipers’ ability to make clear concise decisions and judgements in a complex environment.⁴

Leader initiative

The final White Devil initiative was the integration of performance experts into a rifle company, with a focus on developing leaders. In June 2015, we first had the opportunity to integrate Turner and Wade into collective training at Range 74 with Alpha Company.

The team came out and watched fire teams execute drills on entering and clearing a room. The initial reaction, especially from the senior NCOs of the company, was wary skepticism – about the value of the skills presented by the performance experts and the potential cost in valuable training time. Fortunately, Turner and Wade went to great lengths to ensure they came alongside our training instead of pulling leaders away for an entirely separate event. During the course of several weeks of intense training, the two performance experts gained the trust of the Alpha Company team by integrating into the training progression for platoon external evaluations (exevals) in August 2015. They ate Meals Ready to Eat, stayed out in the rain and walked every iteration of the squad live-fire exercises at West McKiethan Pond. The only cost to the unit in terms of training time was the five minutes they took at every after-action review to coach squad leaders on coherence, visualization and breathing techniques.

During platoon exevals, it was evident the training had paid off. The platoons of Alpha Company were incredibly successful, and the mantra of the senior NCOs of the company changed from “I don’t buy that performance stuff” to “they’re just coaching us on what we already do.” This is the crux of mental-performance training: the most successful leaders in our organization



Figure 2. A 2-504 PIR sniper incorporates cognitive-domain training into marksmanship, focusing on coherence. (Photo by 2-504 unit public-affairs representative)

already use these skills, developed during years of experience in training and combat deployments. Once again, this approach to training allowed us to bridge the time gap between experienced leaders and paratroopers while passing these critical skills on to the next generation.

The overall result of this training was improved mentoring by our leaders. They not only maintained the level of professionalism as they instructed a task to mastery level, they also were able to identify when a paratrooper's anxiety or excitement level was going to hinder successful accomplishment of the collective task. The leader could then move to that paratrooper and coach him or her back into a state of coherence and cognitive focus. A side benefit of this training was that it also developed leaders' decision-making and confidence in leading.

Conclusion

We found the incorporation of the performance experts into our training was beneficial at the individual Soldier and leader level. Unfortunately, with the focus on Department of the Army requirements, our performance experts are routinely required to pull away from our training to conduct Army Regulation 350-1-required master-resilience-training courses as well as unit training. Having the performance experts routinely pulled for other training does not maximize their potential.

What do we need?

We recommend the number of performance experts be increased to no fewer than two per brigade combat team (BCT), and leaders should deliberately incorporate them into all METL-focused training. Also, we need to increase our performance experts' technological capability to enable them with the tools to provide quantitative feedback and training enhancement.

The ultimate goal of incorporating the cognitive-domain focus into our training is to prevent Soldiers from saying "I don't know why I did that" when they make a mistake. Helping them understand why they made a mistake increases their speed of learning and their mastery of tasks. The NCOs of our battalion are masters at training

competence. We now need the expertise provided by the performance experts to train coherence to simultaneously improve the performance of our paratroopers.

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Notes

¹ The PETL is leader development, physical and mental readiness, small-unit battle drills, airborne proficiency, weapons proficiency and medical-skills proficiency, according to 82nd Airborne Division Pamphlet 600-2, **The All American Standard**, January 2015.

² "The cognitive component refers to the mental activity pertaining to the act or process of perception, memory, judgment and reasoning." – U.S. Army Training and Doctrine Command Pamphlet 525-3-7, **The U.S. Army Human Dimension Concept**, May 2014.

³ "Developing holistic health and fitness for members of the Army profession requires that the Army clearly define fitness; determine how it assesses individual and unit measures; develop monitoring strategies to detect and prevent decreases in physical performance; identify how to apply requirements to all members; identify training requirements; and identify the desired endstate." – TRADOC Pamphlet 525-3-7.

⁴ A complex environment consists of many autonomous factors that link together through diverse, interrelated and interdependent connections. Leaders cannot contain or reduce such an environment into a single rule or description, as it is intrinsically unpredictable.

Strength and Recovery: Reconditioning Our Army

by COL Charles Masaracchia, CSM
Daniel T. Hendrex, CPT Jason Cirolia,
SFC Charles M. Meecham and SPC
Aura E. Sklenicka

Sergeant Major of the Army Daniel A. Dailey has highlighted the largest problem facing the Army today: the lack of available Soldiers who are ready to deploy. Dailey spoke at the Command and General Staff College Nov. 19, 2015, stating there are about 50,000 non-deployable Soldiers at the moment. To put that into perspective, that would be three out of 10 divisions within the Army.

Musculoskeletal injuries are the leading cause of all medical disabilities, accounting for 40 percent to 75 percent of all claims, according to Marlene E. Gubata et al.¹ It is also important to note that lower-extremity overuse injuries are listed as the No. 1 cause of lost and limited duty days across the U.S. military.² This has resulted in more than 3.8 million lost duty days per year as well as 10 million limited-duty days due to physical profiles.

The initial observation from within our brigade – 2nd Armored Brigade Combat Team (ABCT), 1st Armored Division, Fort Bliss, TX – was that 60 percent of all chapters in the preceding years (2013-2014) were Army Body Composition Program and Army Physical Fitness Training (APFT) failures, and 12 percent were non-available due in large part to injuries.

The nation's ability to fight and win wars is greatly affected by this lack of able-bodied Soldiers. However, simply removing all non-available service members from the force is not the answer. It costs the Army time and money to train each Soldier. As leaders, it is incumbent on us to work with what we have been given, training our Soldiers how to take care of themselves and getting those injured back into the fight.

Therefore, we decided to dramatically rework our brigade physical-training program with a wholly new

Reconditioning Physical Readiness Training (RPRT) program at its center. This approach would dramatically change the brigade's readiness for the better, create healthier and stronger Soldiers, and create a model we hope other units are able to use as well.

Holistic approach to fitness

Our unit created a cross-functional team known as the Brigade Tactical Athlete Committee (BTAC) in September 2014. This committee convened quarterly to discuss the current trends and future of physical fitness within the unit.

The BTAC is composed of brigade and battalion command teams, master-fitness and master-resiliency trainers (MFTs/MRTs), the brigade surgeon, a physical therapist, executive-wellness noncommissioned officers (NCOs), the dining-facility manager, brigade executive officer and other subject-matter experts from across the brigade and installation. These meetings are an opportunity for open communication about what is and is not working and are a catalyst for creating a cultural shift surrounding health, fitness and nutrition within the brigade.

We formed the BTAC to address how to serve Soldiers and enhance their interest in increasing their levels of physical fitness and readiness across the brigade. Through the experience, expertise and leadership of our command teams and the combination of Fort Bliss' fitness knowledge, our unit began

implementing a holistic approach to fitness, attempting to make it a way of life for Soldiers.

In an effort to demonstrate the focus on physical-readiness training (PRT), the BTAC decided to extend PRT hours from 6:30 a.m. to 8 a.m. This allowed Soldiers and leaders the time to fully benefit from preparation, conditioning, military movement, runs and recovery drills without the pressure of attempting to complete everything in one hour. We also directed that no other activity took precedence during that time, enabling leaders to focus their attention on improving their teams and preparing them physically for combat.

Also, to better integrate wartime mission preparation, we initiated the "march and shoot" program, which combines the requirements of carrying a rucksack and the ability to qualify with assigned weapons. Soldiers conducted foot movement to the range, qualified on their assigned weapon system and conducted a foot movement back.



Figure 1. Participants in the 2nd ABCT, 1st Armored Division, Strike Hard or Go Home Obstacle Course complete a tire sprint up the hill June 11, 2015, at Strike Field, Fort Bliss, TX. Readiness within the unit has improved through a holistic approach to fitness for all Soldiers. (Photo by SPC Aura E. Sklenicka)

Furthermore, the brigade also purchased and began using total-resistance exercise (TRX) deployable tactical-training boxes. The TRX boxes maintain a presence on Strike Physical Training Field while in garrison and are transported to every field exercise down to the battalion level to ensure Soldiers are given the opportunity to maintain their physical-fitness levels.

Finally, the brigade and individual battalions held physical-fitness competitions, optimal-performance rodeos and organizational events, encouraging all Soldiers to participate and allowing them to see fitness as being fun rather than a required task. Many brigade and battalion physical-fitness events included family participation to promote healthy lifestyles and develop healthy habits. Soldiers are educated and informed on the components of the performance triad as well as the physical and mental aspects of fitness, movement and mechanics, nutrition, sleep and energy management.

Reconditioning program

Despite the success of all the previously mentioned initiatives, we still had a significant problem with non-available Soldiers due to medical profiles. Lengthening PRT, doing “march and shoots” and holding PRT competitions only addressed those Soldiers healthy enough to participate. Compounding the problem, our brigade’s original RPRT programs had not proven successful in readily recovering injured

Soldiers. Additional analysis of the physical readiness within our brigade illustrated a shortage of experienced MFTs, while battalion RPRT programs varied in focus and effectiveness. Many programs were being led by NCO cadre who themselves had profiles and in turn couldn’t perform required exercises. Finally, the cadre showed little interest in the Soldier and the Soldier’s ability to recover.

These factors translated into injured Soldiers not being motivated to recover and other Soldiers returning to their units without verification that they were recovered and ready for the intensity of unit PRT. In addition to the Soldiers’ lack of motivation, units across the brigade took little effort toward encouraging the Soldier to take personal ownership of their recovery.

Although many commanders are aware of Field Manual (FM) 7-22, there is often little understanding or awareness of the RPRT program outlined in Chapter 6. Many units attempt their own form of profile physical training with mixed results, but often with little to no oversight and accountability. There are many pitfalls identified for these types of programs. Some common problem areas encountered are the variety of profiles and effected body parts; the issue of malingering and minimal effort toward recovery; lengthy profile times; deconditioning while on profile; and injury reoccurrence upon return to the unit’s regular PRT.

As a result of all these challenges, we developed and implemented a brigade-led and battalion-executed RPRT program with the intent for each Soldier to have a stake in the rate of their recovery and physical-fitness timeline, increasing their capabilities to test out and add to the number of available Soldiers.

We identified four lines of effort (LoE) within the

RPRT to aid a Soldier in getting back into the fight: accountability, execution, progress and education. Each LoE is interconnected, and combined allow the reconditioning program to run efficiently and effectively.

Accountability LoE. The accountability LoE begins when the battalion medical officer identifies personnel requiring RPRT based off profiles. The roster generated is given to company-command teams, the battalion MFT and battalion command sergeant major to track attendance. The accountability formation was also moved to the end of the PRT hours to ensure presence for the entirety of the prescribed time. The battalion physician assistants are also able to see why a Soldier is not making progress if they aren’t attending.

Also, we recognized that holding RPRT at a centralized location allows 100 percent attention and observation on each battalion conducting their RPRT program. Our brigade commander and command sergeant major begin and end their morning PRT on Strike PT Field, reinforcing the concept that fitness is a high priority within the unit.

Execution LoE. The execution LoE begins with an MFT assigned by the battalion, who provides guidance to the cadre on the field leading the reconditioning program. The cadre include the reconditioning program leader (RPL) and the assistant reconditioning program leaders (ARPL). Daily the RPL and ARPL conduct RPRT with their formations to ensure profile guidance is being kept while also providing a challenging experience for the Soldier.

Progress LoE. The progress LoE focuses on each Soldier’s improvements throughout their assignment to the program. From their first day in the program, Soldiers are monitored and tested against the entry and exit criteria outlined in FM 7-22, Chapter 6. With open communication among battalion physician assistants, physical therapists and occupational therapists, the RPL and MFT are able to ensure that daily maintenance and progress is being made by each Soldier. With progress tracked by the RPL, Soldiers are better able to progress through the program and back to their units.



Figure 2. Participants in the 2nd ABCT, 1st Armored Division, Little Strike Obstacle Course complete the hill obstacle June 11, 2015, at Strike Field, Fort Bliss, TX. Many brigade and battalion physical-fitness events include family participation to promote healthy lifestyles and develop healthy habits. (Photo by SPC Aura E. Sklenicka)

As a part of the progress LoE, the Soldier's motivation is tracked to go beyond the maintenance phase of recovery and return to their unit. This communication and the unique factor of tracking Soldier motivation has reduced malingering among this group. Creating a chain of communication and trust among the trainers, the command team and the unit's medical staff has also enhanced profile management and effective courses of treatment. The RPRT program can only be successful with the cohesive efforts of the unit's MFT, medical personnel and command teams.

Education LoE. Continuing education for this program is essential as the last LoE. With the collaboration of physical therapists and MFTs throughout the brigade, cadre are trained in directing and executing the phases of the RPRT program. As new cadre are rotated in the RPRT program, these training events ensure they understand the goals, methods and processes involved. This communication has allowed medical personnel and RPRT cadre to fine-tune the program based on what is, or is not, effective for Soldiers in reconditioning. Soldiers who are in the reconditioning program are also recipients of education pertaining to the performance triad, as one or more of these components may be affected by their recent injury. The education LoE also reinforces the importance of why taking ownership of their health is essential for their recovery.

In addition to creating a better organizational structure to the RPRT, we also paid significant attention to its content as well. Simply walking or performing whatever exercises the Soldier felt like while under a medical profile is not the intention of the reconditioning program. Since Soldiers in the RPRT program are already at a disadvantage compared to their healthy counterparts, the intent is to have these groups challenge themselves even more to surpass a maintenance phase of fitness – so they can match Soldiers within their units. They have the burden of maintaining their fitness levels while simultaneously aggressively seeking to return to full mission capability. Thus, we established a two-phase plan to move Soldiers from

injured to healthy with gated criteria to move from one phase to the next.

Phase I is traditionally a gym-based program. Its purpose is to maximize what Soldiers are doing with their occupational and physical therapists while maintaining their fitness during early stages of recovery. Although our brigade does not use the installation gym, using the schedule outlined in FM 7-22, our brigade replicated the exercises using physical-therapist therabands. To uphold the goals of this phase, we developed strength and endurance routines, with a catered focus on mobility and stability according to the medical provider's specifications and limitations for the Soldiers. It is important to mention that pain is not conducive to recovery and the mantra "No pain, no gain" is both harmful and ineffective when managing recovery from injuries.

Once Soldiers are tested for entry into Phase II, we are able to implement alternate versions of traditional PRT exercises. At this point, the medical team has cleared a Soldier to perform other functional movements, depending on the specific injury and their ability to bear weight. Our aim is to bridge the gap of basic movement without pain, conditioning and a Soldier's capability to become fully functioning for unit PRT.

Each week the MFTs inform Soldiers of the coming week's test-out day for their phase and provide the names of those who are projected to test out or if their profile will be expiring so they can meet with their medical provider. Testing-out criteria are in accordance with FM 7-22.

Observations

For the program to continue to work effectively, command emphasis

from company to brigade is essential.

Also, the brigade learned that even with initial hesitation about a centrally located program, the battalion's individual programs improved. Shared knowledge among MFTs, ARPLs and medical personnel enabled best practices to be shared more readily.

With increased leader focus on RPRT, we were able to quickly identify which Soldiers lacked motivation to continue their recovery. This enabled command teams and health-care providers to decide how to proceed with their Soldiers in the Medical Evaluation Board and Military Medical Review Board process.

Also, the MFTs began seeing systemic trends in injuries and recovery times. This enabled MFTs to supplement exercises Soldiers conducted during their physical-therapist appointments. With this free communication, many Soldiers were able to recover on an accelerated timeline without risk of reinjury. The possibility to accelerate testing out of a phase is not identified or discussed in FM 7-22. In our brigade, if a Soldier on profile is capable of performing the exercises required to test out, they are able to request, through their MFT, a test-out date. The MFT will communicate with the physician's assistant and receive an answer



Figure 3. Participants in the 2nd ABCT, 1st Armored Division, Strike Hard or Go Home Obstacle Course plunge into an ice bath June 11, 2015, at Strike Field, Fort Bliss, TX. The RPRT program's intent is to have groups in the program challenge themselves to surpass a maintenance phase of fitness. (Photo by SPC Aura E. Sklenicka)

generally within 24 hours after their review. Establishing a good working relationship between the MFT and physician's assistant is imperative. This trust is necessary as the MFT makes recommendations for progress and test-outs from the program.

Intuitively, the brigade learned that Soldiers are motivated again to get back in the fight through challenging RPRT exercises that are tailored to them. Soldiers being motivated and taking ownership are clear indicators of rapid recovery.

Also, commanders need to give time for MFTs and ARPLs to conduct PRT on their own so they can give their attention to their formations during reconditioning. Cadre can quickly lose their effectiveness by becoming out of shape in support of this program.

Cadre observed the lack of strength to perform PRT climbing drills even though no injury precluded it. Phase II of RPRT has focused on making Soldiers more capable of executing these climbing drills, and after testing out, these Soldiers are more capable than their non-injured counterparts. We extended this focus throughout the brigade for all Soldiers to focus and better themselves in this area of PRT.

Conclusion

To demonstrate the program's effectiveness, in just a few short months our brigade went from 12 percent non-available Soldiers to below 7.5 percent non-available Soldiers – with numbers continuing to improve. The brigade started with 652 Soldiers assigned to the reconditioning program and is currently at about half of that (330 Soldiers). The Soldiers who have been assigned and tested out of the program have also shown to be less likely to re-injure themselves as shown in the Medical Readiness Assessment Tool.

With the identification of the Army's issue of non-available Soldiers within the brigade, specifically toward physical readiness, the brigade took a holistic approach. Command emphasis, in conjunction with the inception of the BTAC, led to improved physical readiness throughout the brigade. The unique RPRT program that our brigade conducts remains a pillar of this holistic approach.

The approach to ensuring an effective and meaningful RPRT program involves team cohesion, command support, proper training and accountability measures. Although initially it was labor intensive, the program is now self-sustaining with minimal oversight.

This article is not to detail the only way in approaching this population but to outline a way that has been successful and congruent with the commander's expectations. In general, the most important asset we have is our Soldiers, and they should be supported and encouraged to take ownership of their recovery. Through leadership involvement, effective communication and personal motivation, Soldiers participating in an effective reconditioning program are better prepared to return to their unit and accomplish their war-time mission.

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Asymmetric Warfare Group, Fort Meade, MD; first sergeant, 3rd Armored Cavalry Regiment, Fort Carson, CO; and master gunner, 1st Armored Division, Bad Kreuznach, Germany. His military education includes Primary Leadership Development Course, Basic Noncommissioned Officer Course, M1A1 Armor Master Gunner School, Advanced Noncommissioned Officer Course and U.S. Army Sergeants Major Academy. His awards include Legion of Merit, Bronze Star Medal with V device and OLC, Meritorious Service Medal with OLC and Combat Action Badge.

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SPC Aura Sklenicka is 2nd ABCT's public-affairs specialist and has served as such for 20 months. Her military schooling includes Basic Leader's Course and Basic Public Affairs Course.

SPC Sklenicka holds a bachelor's of arts degree in child and family development from American Military University.

Notes

¹ Marlene E. Gubata, M.R.B., David N. Cowan, Ricardford R. Connor, Janice K. Gary, Vanessa J. Grinblat-Moglin, Alexis A. Oetting, Elizabeth R. Packnett, Vielka C. Rivera, Nadia Urban and Bin Yi, Accession Medical Standards Analysis and Research Activity, 2013 annual report.

² Bruce A. Ruscio, B.H.J., Steven H. Bullock, Bruce R. Burnham, Michelle Canham-Chervak, Christopher P. Rennix, Timothy S. Wells and Jack W. Smith, "A Process to Identify Military Injury Prevention Priorities Based on Injury Type and Limited Duty Days," ***American Journal of Preventive Medicine***, Vol. 38, 2010; David W. Niebuhr, M.E.G., Li Yuanzhang, David N. Cowan, Janice K. Gary, Vanessa J.

Grinblat-Moglin, Alexis A. Oetting, Elizabeth R. Packnett, Vielka C. Rivera, Nadia Urban and Bin Yi, Accession Medical Standards Analysis and Research Activity, 2010 annual report; K.G. Hauret, J.B., S.H. Bullock, M. Canham-Chervak and S. Canada, "Musculoskeletal injuries description of an under-recognized injury problem among military personnel," ***American Journal of Preventive Medicine***, 38(1), 2010.



Figure 1. 2nd Company, 7th Tank Battalion, Southern Area Command, M1s screen during gunnery.

What Am I Doing in Saudi Arabia?

by MAJ Lance Brender

Early in my career after a deployment to Iraq and company command in Korea, I completed a month-long course at the Defense Institute of Security Assistance Management (DISAM) at Wright-Patterson Air Force Base in Ohio, a preparatory school of sorts for security-cooperation officers. Security-cooperation officers form the Department of Defense arm of U.S. diplomatic efforts abroad. They integrate with foreign governments and militaries to advance U.S. interests. This program impressed me because it showcased another aspect of what it means to serve in the military. It demonstrated to me that Soldiers like you or I are capable not only of winning wars but of helping to prevent them, too.

At graduation, DISAM spread the 100 or so students in my class across the globe to work with host nations, ranging from close allies of the United States to those we might otherwise be at odds with. I was assigned to the U.S. Military Training Mission (USMTM), the security-cooperation organization that is paired with the Saudi regular army.

Even at this point, though, I had a lot of questions about what I was really going overseas to do. What exactly is my mission? What techniques would work and which would not?

Ultimately, how can I have the greatest possible impact to ensure my assigned country never becomes the scene of an American war?

What's our mission?

Department of Defense Directive 5132.03, "Subject: DoD Policy and Responsibilities Relating to Security Cooperation,"¹ gives a broad explanation of what a security-cooperation office does, stating it "encourage[s] and enable[s] international partners to work with the United States to achieve strategic objectives," further specifying that it should "build defense and security relationships that promote specific U.S. security interests ... develop allied and friendly military capabilities ... and provide U.S. forces with peacetime and contingency access to host nations."² So, in a nutshell: advance U.S. interests in foreign countries, improve their military in a way that is advantageous to America and secure willing access to those countries in peace and war.

USMTM "trains, advises and assists" the host country's regular armed forces (differentiated from Saudi Arabia's tribally based "National Guard," which is charged with "internal defense" and acts essentially as the royal family's personal military). While the stated mission description is accurate in the macro, it doesn't clearly define what

an adviser should do on any given day.

In practice, USMTM advisers are paired with individual units at different echelons of command from brigade to the Ministry of Defense. As such, they form direct relationships with that unit's key officers, serving as something vaguely similar to a member of the commander's personal staff. In pursuit of their chartered purpose, most advisers spend most of their day trying to make the Saudi army look more like ours (although you will not find that phrase in any doctrinal publication).

Making the Saudi military more like the U.S. military supports the overall mission of building interoperability between their forces and our own. However, making the Saudi army look like ours is a somewhat misguided goal. While the highest levels of their government's leadership might avow otherwise, the *de facto* truth is that the Royal Saudi Military does not really *want* to be like us. And neither should they, given their national-defense strategy. The U.S. military is a fundamentally offensive, expeditionary force designed to fight everywhere *but* on U.S. soil. The Saudi armed forces are almost entirely defensive; they are domestic forces with extremely limited will or ability to operate outside of the country's borders, especially with ground troops. Beyond narrowly

defined operations like the present air strikes against the Islamic State and some peninsular coalition raids in the more remote areas of Arabia, the Saudi army will not fight wars outside its own border. There is nothing wrong with this. Indeed, it is a strategy that has fostered peace, economic growth and internal stability in the Kingdom for more than 60 years.

What they do want is to be as *capable* as the American military, yet remain themselves. They want to have the weaponry we have, project the image of power we do and sleep easy at night, knowing their military is up to any threat. What they do not want, however, is to empower subordinates like we do or create a military lifestyle as demanding as it is for the American Soldier. If an adviser is wedded to the idea of “making them like us,” it will drive the adviser mad. However, if said adviser accepts that the Saudi mission is not *our* mission and their ways not our ways, it will help fill the gaps they see in the Saudi military and be content with them.

As such, it is important to understand that Saudi Arabia and the United States are not formal allies covered by any mutual defense treaty. Rather, Saudi Arabia is a “critical partner” of the United States. The difference is that while both countries have a very close working relationship politically, economically and militarily, they do not want any affiliation that approaches the degree of interaction the United States has with, say, our North Atlantic Treaty Organization allies. This fact is absolutely key to understanding a Saudi commander’s relationship to his American adviser. It would be a capital mistake for an American to expect to be greeted with anything close to the same degree of trust or familiarity he might enjoy while serving in British, German or Korean commands.

As such, Royal Saudi Forces have no intention of integrating an adviser into their daily operations. USMTM officers will not be habituated into a unit’s daily meetings, will not serve on Saudi staffs in any operational way and will be largely viewed with suspicion if they venture to ask for such things. Two experiences from my tour made this abundantly clear to me.

The first was near the end of my assignment. For the preceding year, I had enjoyed a close relationship with my unit and felt comfortable asking my Saudi brigade commander to be part of my promotion ceremony. He initially declined, saying he would need special permission from the area (two-star) commander to even consider it. Nonplussed, I asked the brigade’s public-affairs officer (PAO) why the commander had refused because the commander had never asked me to get permission for anything before. Part of me was galled because I knew that asking “permission” was, at times, the smoke-screen used when a Saudi officer did not want to do something with the Americans. Was this the commander’s indirect way of telling me to pound sand?

The PAO pointedly stopped me at that point, though, and said that had nothing to do with it. In an extremely frank exchange, he explained to me that I was fundamentally and inalterably an outsider. Everything this unit would ever do with me, *by regulation*, absolutely must be approved by the next higher command. The preceding year of work I had executed without such red tape had been them bending the rules because they liked me.

However, the second experience more clearly illustrates the underlying relational issue. Once, a fellow adviser had an introductory meeting with a Saudi general officer. In this meeting, the adviser asked the officer some fairly commonplace questions about his unit, like its composition and what computer systems it used. The general’s response was surprisingly abrupt: stop asking so many questions. *We* ask the questions, you give us the American answer and, if we like it, we will implement it on our own. If we do not like the answer, we will simply ignore it. We do not want any more “help” than that.

This fundamental Saudi view of USMTM’s role is imperative to understand. However, it need not dishearten you. As this last example illustrates, an adviser should not make the mistake of thinking the mission is to do an “operations” job. Even at the brigade level, that is not what they want of our officers. Despite this, though, an adviser is completely capable of securing

important common ground between American and Saudi interests. And, while I am certainly not privy to the inner stratagems of either government, history seems to reveal what these mutual interests are.

Saudi Arabia wants a stable economic environment that permits the profitable sale of oil to the world, defense from border incursions and a political milieu free of threat to its form of government. America wants unfettered and affordable access to petroleum, an influential and amenable ally in the Arab world and a market for American exports, not the least of which are military hardware and services.

It might be easy to become cynical about the relationship between Saudi Arabia and the West, considering the strain inherent in our dealings. Indeed, their culture and ours seem to connect on very few points that do not involve money. Are we just basely using each other to get what we want? I argue we are not. Two countries that enter into a deal to provide a day’s work for a day’s wages are no more using each other than your local hardware store is using its employees.

The vast majority of the United States’ dealings with Saudi Arabia are transactional and based on naked self-interest. Our chief concern in Saudi Arabia lies in material gain and military access to a volatile part of the world. Truly, we would have little to do with them if it were not so. This is not wrong, though. A just transaction between two free parties is good, even if the individual motivation on both sides is just to make a buck or build a base. However, that does not lessen the importance of our relationship with the Saudis. On the contrary, if business and security are the basis of our relationship, it becomes all the more important that we bolster them. As the American rapport with the People’s Republic of China will clearly show, few things support international peace like a good old-fashioned deal. So, if economic and military cooperation are vehicles for open dialogue, liberal travel and peaceful exchange, then anything an adviser can do to support those ends is not only a service to the American national defense strategy, it is a favor to the world.

Obviously, though, the average adviser

is incapable of addressing all these lofty issues in the course of daily duties. But the issues can be addressed some. National security is clearly one thing an adviser can assist with. While advisers cannot fight for the Saudis, they can help them fight for themselves by assisting in the design of training plans, recommending and facilitating the acquisition of appropriate weaponry and, in some cases, providing direct training to Saudi forces.

Diplomacy of this sort, particularly security cooperation, is part of what Joint Publication 3-0, *Joint Operations*, calls the “shape” or “phase zero” of war. In this phase, elements of American power interact with foreign countries in peacetime to create a political and military environment advantageous to the United States through programs like foreign military sales (FMS), multinational exercises and direct U.S. advisement.

Through the advancement of a militarily strong and pro-West Saudi Arabia, the adviser meets a number of American goals such as encouraging a stable region for civil commerce, developing a strong actor in the area for coalition efforts, dampening regional aggression toward Israel by means of Saudi Arabia discouraging open support for that country’s enemies and engendering a market for American defense contractors. The adviser can also meet a number of the Saudis’ goals – namely the advancement of the aforementioned petroleum market, deterrence of foreign invasion and, indirectly, bolstering the Saudi style of governance. Though the adviser might think nothing more than shuffling paperwork gets done all day, his presence helps to create a crossroads of interest that not only builds economic prosperity but, more importantly, creates a platform for peaceful exchange between our two countries.

Techniques that work

Allow me to transition away from what USMTM does in Saudi Arabia and instead offer you some ideas on how you could be a more effective military adviser should you ever find yourself assigned to the Kingdom. The following three traits – relationships, tact and boldness – are concepts you are already aware of as a military officer.



Figure 2. An American adviser presents an award to a Saudi soldier.

However, like in any foreign culture, particularly a non-Western one, they have profoundly different applications in Saudi Arabia.

Relationships. Arab culture, particularly the Saudi Bedouin one, is relational. The old saying that “it’s not what you know, but who you know” is not only a positive statement, but (to borrow an economic term) a *normative* one. To them, it *should* be all about who you know. While the fact that we have a saying for it implies American familiarity with the concept, the extent of this worldview is a radical departure from what most of us would intuit.

Americans generally place a great deal of faith in the integrity in our institutions and professional codes of conduct. If multiple people are considered for promotion, the most qualified candidate will get it (or at least we believe that person should). If two businesses make a deal, the terms of the contract will protect both parties regardless of who they are. If two allies go to war against an enemy, both would sooner die than betray their friend. These are considered reasonable beliefs in our American culture. Indeed, our very legal system is predicated on the righteousness of such principles and is formulated to protect them. To the Arab mind, though, who but the most naive of fools would trust money, lives or nation to some secular rules?

There are few clearer examples of why

such a distrustful mindset exists than the Arab-Israeli Six Day War. In 1967, Syrian troops, as part of a coalition of Arab states, were engaged with Israeli forces in the Golan. The Syrian command withdrew elite forces from the area, then falsely announced that Israeli units had captured the town of Kuneitra, which was important because that city was *behind* the largely conscript regular army. In truth, the announcement was a Syrian ploy to try to prompt prominent nations to broker a truce. However, Syrian regular army commanders were never told of the deception or its ulterior motive. The “enveloped” Syrian army panicked, resulting in the Arab coalition’s loss of the Golan Heights.³ In a world where one’s own army can willfully render false reports during wartime, it would be the epitome of idiocy to entrust anything important to anyone you do not personally know and have confidence in.

Therefore, it is important for you to build a personal relationship with your counterpart. Spend time with him in his office and do not be in any rush, yet be careful to not waste his time. Be prepared to spend the first five to 10 minutes of any conversation talking about family, culture, questions about America, or anything else. These are not mindless pleasantries; they are interpersonal connections that both he and you will use to gauge how much you can trust each other. Many

Americans are all business, especially with superior officers. I confess I am one of these. However, as an adviser, you have nowhere near the demanding schedule you have experienced on the line and you, if you are like me, will have to train yourself to make time for tea.

Tact. Being tactful is every bit as important to an adviser as being tactical. Understand from the outset that most Saudis will never **try** to be rude to you; however, some things that are just normal to them may be offensive to you. If you are pro-Israel, be prepared that a number of the people you meet will likely reference the Israeli government in the same way we talk about the Nazis. I was told several times that everything from 9/11 to the murderous rise of the Islamic State to the Shi'a-Sunni divide itself is a Jewish plot. They are probably not trying to offend you; they are just espousing what to them is putative.

Let such nonsense roll off your back. You can no more convince them of a different worldview through direct argument than they could convince you that the National Aeronautics and Space Administration faked the moon landing. Instead, simply let your character and personal beliefs, if called for, speak for themselves. When confronted with offensive remarks, especially if they are intentional goads, sidestep the issue or casually state you have a different opinion before moving on to something else. Now, if you have a particularly close relationship with your counterpart, you two may trust each other enough to discuss frankly what you believe. You are truly honored if you find yourself in this situation. Even in such cases, though, remember to be polite.

Even when talking about innocuous professional matters, remember to think about his position. Consider our society with its respect for innovation. Experienced leaders know that failure is a part of pursuing innovation. However, even failure in American society has consequences, and they are usually not good. Saudi society is even more severe. You may have been told in the past that Saudis are reluctant to take responsibility for things gone bad, which might lead an American to make

some derisive remark about a cultural lack of accountability. But have you ever considered why they are that way? It's not because they are cowards. Menial failures or perceived challenges to honor in Saudi society, particularly the military, have extreme consequences.

To illustrate, I remember a story from a former USMTM adviser and Reserve Officer Training Corps professor of military science. He once told me of a friend of his, a particularly gung-ho Saudi communications officer who was perceived as too forward and too persistent with his commanders. If this were an otherwise tactful American officer, he would probably be seen as a go-getter and be rewarded for it. In Saudi Arabia, though, his effrontery got him reassigned to the hinterlands of the country – “banished,” as he described it. Only after 10 years and several generous gift-giving occasions was his command beginning to consider him for reassignment back to the national capital, a desirable station and his hometown. Outright failures result in devastating career setbacks, loss of social honor and lessened income that might last for generations.

As such, do not **ever** bring up anything but the most dismissible of problems in public unless specifically questioned. You will see that they find it fine to talk about problems in the abstract or issues with “higher,” if said higher is somewhere in a far-off ivory tower. However, they will almost never bring up criticism in any public situation that could hurt themselves or their friends, so don't you do it, either. When there is a problem, voice it quietly to the commanding officer or responsible party. Give him a chance to solve the issue before the news goes public.

This really is not so foreign to the American mind. Most U.S. commanders would probably agree they would never appreciate having their dirty laundry aired to the world, especially by some foreign adviser.

Boldness. Boldness is also an important and perhaps counterintuitive trait to display. Most Americans, particularly professional Soldiers, would find it inappropriate to point out flaws to a superior three echelons up unless that

superior **specifically** asked for candid opinions. However, consider who the average American adviser is to a Saudi commander. You are a very junior officer (captains and majors are often paired with brigadier generals), not Saudi, not a commander in his organization and not there for very long. You are an outsider and a transient. With that said, a Saudi commander also sees you as an experienced and professional representative of a very powerful partner. Handled correctly, the confluence of these two opposites can play to your benefit.

On the negative side, you have an uphill battle to win a Saudi commander's trust. You and your counterpart might find your relationship strained by the barriers of language and culture. Or, perhaps your partner will be a proud man not keen to receive help. Or, the difficulties you might face may have nothing to do with any such ethereal factors. A very real possibility is that your counterpart just might not have the first clue what to do with you. Understand that even under the best of circumstances, it may take months to be even tangentially admitted to a unit's decision-making processes, if ever. Most of these things, however, may be ameliorated with time, respect, assertiveness, competence and, frankly, a lot of luck.

On the positive side, though, your partnered commander has no intention of ordering you about like one of his tea servants. Truthfully, he will generally see you not as just another staff officer but as an emissary of the American military. It is not only proper, it is **expected**, that advisers will (privately and tactfully) point out organizational flaws, suggest ideas for training, recommend new equipment and upgrades, and be something like a full-time observer/coach. You are not a Saudi officer, so do not try to be a company commander or S-3. Rather, you are the hired help who is there to make **their** organization run better.

I will share one example from my personal experience. It was an incident where my services were valuable because I was viewed as trustworthy and, more importantly, because I was not Saudi. One day, I met a prince from the Saudi Armor Corps. In his entourage

was a very empowered sergeant major who privately told me that the command was displeased with the performance of one of the battalion commanders I advised. The sergeant major said that his expectation of a U.S. adviser is that he would, when needed, pull a partnered commander aside and tell him quite frankly that he is doing a poor job and specifically how he needs to improve. I was astounded, to say the least. However, I was further surprised when I was then given the specific task of privately warning this commander that his job was in danger and telling him to clean up his act quickly. This unusual experience is just one illustration of the degree of confidence Saudis put in the American military and the unique benefit that you, as an outsider, represent to them.

As such, use your position to lead your units toward attainable and beneficial goals. Do not be so foolish as to say things like “you should stop praying so often so you can train more.” This and other culturally imperialistic “suggestions” are not only a risk to Saudi-U.S. relations, they are also not going to happen. Rather, use the trust placed in you to suggest things that actually help such as annual training models, classes on professional topics, train-the-trainer programs, slots for U.S. professional military education through the

International Military Education and Training fund and other things they can really use. Base what you recommend off their needs after careful observation and asking their opinions. You would resent someone giving you an impossible mission or irrelevant advice, so do not give it to them.

Techniques that don't work

Just as important as understanding what will help your mission is understanding what will detract from it. There are many potential pitfalls before a new adviser. However, I would like to highlight for you what I believe are the three most important things you can actually do something about: prejudice, expectations and your own personal presence.

Prejudice. I will address what I think is the biggest concern first. If you disdain the Arab people or the Islamic faith, do not go to Saudi Arabia. This is somewhat like the warnings on McDonalds cups that say “coffee is hot”: it would not need to be said if someone had not made it an issue. To those people who think that Middle Easterners are filthy and culturally inferior and who feel compelled to say how Islam is a religion for criminals and terrorists, the USMTM does not need you. Unlike even a combat deployment to

Afghanistan, where you may occasionally find yourself somewhat removed from conversing with non-Westerners, you will be talking with your counterparts constantly here.

People who hold these unsavory opinions are not nearly as slick as they think they are. I assure you from personal observation that if an adviser genuinely holds such an attitude about his hosts, it will be noticed, the mission will be jeopardized, and the adviser just might put himself at personal risk. This is not to say that anyone has anything to fear from the Saudi government, the military or 95 percent of the population. However, just as there are those in America who have no goodwill toward foreigners, there are those who think the same way about you in Saudi Arabia. Nothing damages the U.S. diplomatic mission more, nor places an adviser in greater personal danger, than being the ugly American.

However, do not misconstrue this to think that you must personally revere the Saudi Arabian lifestyle. I can confirm that the Saudis you will meet and work with are intelligent men who know that you will likely have as many intellectual issues with their culture as they have with ours. This is fine. Still, unless you are in an extraordinarily close relationship with a Saudi (and even then), keep your conversation civil.

Expectations. Another potentially disastrous point of failure is improper expectation management. The Saudis really do see you as an extension of a military they deeply admire. If you say something, they will generally believe you. And, even though the officers you will likely work with are worldly individuals who have been around for quite a while, many advisers in the past have made the professionally fatal mistake of promising things they could not deliver. If you say you will have a product or presentation by a certain date, have it. If you cannot make M1 tanks appear by next Thursday, do not say that you can. If you are asked for something and do not know if you can do it, say “I’ll get back to you” and then do so.

This is extremely important because the Saudis see you as being here for a



Figure 3. Saudis assigned to 7th Tank Battalion, Southern Area Command, polish their skills in the class portion of their tank-crew gunnery skills test.

reason: namely, to help them. Now, they logically understand that everyone has a boss with veto power and sometimes an adviser's good intentions will be overridden; however, they **will** take your word for it if you say you have the ability to do something.

Also, consider the financial relationship that exists between the Saudi government and the adviser: the adviser's salary is funded by the royal purse via an FMS case. To their way of looking at it, they are paying for you to be there. If they ask for something and you say yes, they expect their money's worth. Never commit the U.S. government to anything it is unable or unwilling make good on.

Presence. The last point is less a technique than a mindset. As you have read, Saudi culture is relational. You have also read that Saudis have certain expectations of advisers. On top of that, an adviser is inherently an outsider. Held in tension among these three factors is you. Depending on your personality, you will find that this tension drives you in one of two directions: to either be totally uninvolved or annoyingly present. There is a delicate balance between the extremes that successful advisers find and unsuccessful ones do not.

First, do not allow yourself to turn into the adviser who only shows up for work once every two weeks for an ineffectual office call. The Saudis will see this and instantly recognize it for what it is. Granted, there is a lot of downtime on diplomatic assignments like USMTM. However, there is also a lot of work to be done, and the adviser is getting paid to do it. Do not take advantage of the Saudi pace of life to enjoy a 12-month vacation from reality.

More challenging for most advisers, though, is the opposite. In my career, I have always striven to be, if not the smartest guy in the office, the hardest-working. In my first few months in Saudi Arabia, I made the mistake of being in my counterparts' office every day, in the instructors' every class and generally being around just to be around. After all, I am a commissioned officer and I **should** be at work, right?

It wasn't until I was more than a quarter into my tour that I realized my



Figure 4. Saudis practice on the Desktop Advanced Gunnery Training System.

constant presence had turned from boon to nuisance. In retrospect, I can see why, too. Aside from a couple of guest appearances, I was not the instructor for any but a few classes, I was not in the Saudi chain of command, I was not a key staff officer, nor did I usually have any hot news to pass on. I was just ... there. Taken to an extreme, this can be just as bad being an absentee adviser.

Remember that the Saudis want you for a purpose and your position is aptly named: you are to provide advice and to do it at their pleasure. Unless you have specific engagements or extemporaneous business, show up at your counterparts' office once a week for a general meeting. Make your rounds among all the commanders and staff officers you support. At each of them, be ready to talk about your activities and projects but equally prepared to merely have tea and or even just go away.

During the rest of your time, check on the progress of your other projects. In my case, one of my units was going through initial training on the M1A2S Abrams tank, so I would often spend time with the instructors and the students, teaching as appropriate. Sometimes I would just watch from the back

of the room. Sometimes I would see a deficiency in my unit's training and need a few days to develop a class on it. Sometimes I took a morning off to train my interpreter on my Pacific Northwestern brand of American English. Regardless, whatever it is that you do or do not have to do that day, be shrewd enough to discern when you should be in the room – and when you should be tactfully absent.

Conclusion

In closing, I would like to leave you less with tactics, techniques and procedures than with encouragement about what you can accomplish in Saudi Arabia. The continual application of all our methods – joint exercises, U.S. schooling, FMS cases and, most importantly, personal relationships – make Saudis and Americans look at each other over a table and think, "I don't want to go to war against you."

In almost any other walk of life, I would never have the opportunity to live and work among Saudis for a year. In this brief span of time, I have seen that the subjects of this country are human just like I am and value life as deeply I do. They are worth getting to know better and worth building a world with.

One day I was sitting with a Saudi

officer I met while conducting tank training. After we had had a drink and told some poor jokes, I said, "This is why I'm here." I remember him looking amused: "You're here for tea and dirty stories?" Laughing, I said no. I explained that at that moment there was peace between him and me. Maybe not a complete merging of worldviews or a lifelong friendship, but **peace**. And, if he and I could build peace in that room, perhaps our two countries, different as they are, could continue to build that same peace in the world.

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Notes

¹ Department of Defense Directive 5132.03, **DoD Policy and Responsibilities Relating to Security Cooperation**.

² The Defense Institute of Security Assistance Management, **The Management of Security Cooperation, 32nd edition**.

³ N.B. DeAtkine, n.d., "Why Arabs Lose Wars," **American Diplomacy**, 11.



Figure 5. Soldiers and airmen peer at an ancient land on a morale, welfare and recreation trip on the outskirts of Riyadh, Saudi Arabia.

SADDLES AND SABERS



History of the U.S. Army Cavalry: 'Evolution, Adaptation, Innovation' 1938-2025

by retired COL Gary Whitehead and
retired LTC Michael Whetstone

The purpose of this article is to describe the evolution of U.S. Army armored-cavalry regiment (ACR) formations from their origins just prior to World War II to the present – a time when our Army has a need for organic combined-arms units with reconnaissance-and-surveillance capabilities down two operational levels from corps to battalion/squadron level.

Though designed to fight the Soviets on the plains of Europe, the ACR's basic organization was validated in Vietnam in the 1960s and '70s and remained structurally unchanged through the '80s, where it was proven again in Operation Desert Storm. The ACR provided the corps commander a unique and necessary reconnaissance-and-security capability. The ACR's superior combat power and combined-arms organization allowed commanders the flexibility of employing the regiment as a conventional maneuver force.

However, as adversaries refused open, traditional warfare with the United States during the 1990s and early 2000s – opting for irregular-warfare tactics while using modern

technological advances – these hybrid threats created the need for a smaller, more capable combined-arms unit to provide reconnaissance-and-surveillance expertise and situational overmatch to the brigade, division and corps commanders' intelligence, critical information and insight while defeating the enemy and his intentions throughout the operational environment.

Cavalry doctrine

"The squadron is employed to gain timely information upon which the higher commander may base decisions and plans. ... The squadron performs security missions for the group by preventing surprise, attack, observation or interference by hostile forces." –Field Manual (FM) 2-30, Cavalry Squadron Mechanized, 1944¹

"The fundamental role of the squadron is conducting reconnaissance or security missions in support of its higher headquarters. ... The combat information provided by the squadron enables the higher commander to develop situational understanding, make better and quicker plans and decisions, and visualize and direct operations." –FM 3-20.96, Reconnaissance and Cavalry Squadron, 2010²

As evident in the 1944 and 2010 excerpts, the enduring tasks of cavalry are reconnaissance and security in close operations. In reconnaissance, the cavalry is the eyes and ears of the maneuver commander. The ACR provided the commander with freedom of action and situational awareness that allowed him to maneuver divisions and brigades to concentrate superior combat power at the decisive point. Because of the ACR's unique combined-arms organization, it was also ideal for security missions: screen, guard and cover force.

The combined-arms organization of armored cavalry made them especially effective for economy-of-force tasks. Cavalry units were given large sectors to defend so the main body could mass elsewhere.³ The ACR could effectively cover much larger areas because of its air/ground integration. The speed and mobility of the air scouts, supported by organic attack helicopters and artillery, allowed the commander to extend the depth or width of his sector. That same air/ground combined-arms team gave the ACR more combat power than a heavy brigade when assigned economy-of-force attack missions. The ACR also had a robust sustainment capability that allowed the regiment to oper-

ate forward with minimal support.

From horses to mechanized cavalry

Armored cavalry had its genesis in the mechanized cavalry of World War II. The cavalry underwent intensive change and adaptation in its doctrine and organization leading up to the war. By 1938, the Army was focused on modernizing and mechanizing, but the Cavalry Branch chief remained wedded to the horse and resisted mechanization. Cavalry doctrine from 1938-1941 emphasized combined horse/mechanized (armored car) regiments as combat formations. Reconnaissance was a secondary mission that only the mechanized-cavalry units conducted.

German armor successes in Poland in 1939 and the performance of mechanized units in the May 1940 Third Army Maneuvers convinced the War Department to establish the Armored Force in July 1940. It assigned all responsibility for tactical and technical developments for mechanized units to the Armored Force and took the mechanized portions of the cavalry and its key leaders to serve as the foundation of the new force.⁴ The cavalry was to focus strictly on reconnaissance, losing its traditional security missions. This left the horse Soldiers firmly in control of cavalry doctrine. As a result, the 1941 FM 2-15, *Employment of Cavalry*, emphasized reconnaissance by stealth and avoiding combat.⁵

In February 1942, the War Department reorganized and the Army Ground Forces organization replaced the branch chiefs. MG Lesley McNair, commander of Army Ground Forces, mechanized the horse cavalry and established the ground-reconnaissance structure. An armored division had an armored reconnaissance battalion, and infantry divisions had a mechanized-cavalry troop. McNair organized the non-divisional horse cavalry into nine regiments composed of two mechanized-cavalry squadrons each. The regiments formed a pool of reconnaissance troops available to support armies and corps. This gave the U.S. Army a tiered-reconnaissance capability from Army all the way down to battalion.⁶

Mechanized-cavalry units were

organized, equipped and trained to conduct reconnaissance by infiltration, fire and maneuver, but doctrinally they were to avoid combat except for mission accomplishment.⁷ The squadrons consisted of a headquarters troop, three reconnaissance troops, a light-tank company, an assault-gun troop, an engineer platoon and a towed anti-tank gun platoon. The reconnaissance troops had three platoons. The platoons had two sections: a section of two armored cars and a section of six jeeps. The jeeps had three scout teams and three light mortar teams. The tank company had three platoons of five tanks. The assault-gun troop had three platoons of self-propelled 75mm howitzers.⁸ The cavalry operated as a combined-arms team down to the platoon level.

The mechanized-cavalry units that first saw combat in Tunisia in 1943 were divisional cavalry. The cavalry regiments did not deploy to Tunisia. Doctrine collided with reality in North Africa. The cavalry soon found that reconnaissance by stealth was not feasible. The jeep-mounted scouts had limited firepower and protection. The jeeps and their supporting armored cars were driven out of contact by German machinegun and anti-tank fire. German direct and indirect fire effectively countered the mobility of the cavalry's lightly armored vehicles when they tried to bypass the German positions. Cavalry commanders reinforced the scout platoons with assault guns and tanks from the squadron, and the scouts adopted fire-and-maneuver tactics, effectively abandoning recon by stealth. The cavalry still struggled to overcome the robust German counter-reconnaissance forces. The cavalry had to relearn that reconnaissance required an offensive capability.⁹

There were few changes in doctrine from operations in North Africa and Italy. The difficulties were blamed on poor training. By 1944, doctrine acknowledged that mechanized cavalry had to fight for information at times but cautioned that cavalry should avoid decisive engagements. There were no significant changes in equipment and organization.¹⁰

The invasion of France began a new phase of cavalry operations. "An

unprecedented mass of mechanized cavalry entered combat," recounts the Armor Branch historian, Dr. Robert Cameron.¹¹ Along with the mechanized and armored cavalry in the divisions, 13 cavalry groups (reorganized cavalry regiments) supported corps in Europe. The groups consisted of two or more mechanized-cavalry squadrons. The groups were part of a pool that Army Ground Forces developed of corps-controlled artillery, engineers, tank destroyers and support units for the corps commander to tailor for specific missions.

The cavalry-group headquarters was designed for flexibility and was ideal for corps to reinforce for a broad range of missions. After the initial breakout in Normandy, commanders used the cavalry's mobility to cover the gaps between the armor divisions and the slower infantry divisions. When the Germans managed to re-establish their defense, the cavalry was reinforced with artillery, tank destroyers and engineers and was assigned offensive, defensive and security missions.

The group headquarters provided command-and-control for a surprisingly large number of attached units. Typical attachments were a field-artillery battalion, a tank-destroyer battalion and an engineer battalion. Divisions also followed similar practices with their reconnaissance units. The attachments did not completely shift the cavalry away from reconnaissance and security roles. "It was the attachment of additional forces, each bringing unique and complementary capabilities, to the late-war mechanized-cavalry groups that ensured they were capable of fighting for the information and time for the main body to [use] the information provided," writes historian Dave Wright.¹²

The increased combat power provided by the attachments actually enhanced the cavalry's reconnaissance and security capabilities. Cavalry most often conducted reconnaissance and security in conjunction with other missions, and the cavalry needed a strong combined-arms organization to accomplish those missions. The cavalry group provided corps and army commanders unique reconnaissance-and-security capabilities. But the groups were only

effective after attachments overcame the deficiencies in the squadron's organizations and equipment. Once the corps and army commanders realized how adaptable and versatile the groups were, they began to use them as conventional maneuver forces.

Post-World War II, Vietnam

After the war, the General Board, U.S. Forces European Theater, conducted an extensive study of the mechanized cavalry. The General Board found that pure reconnaissance missions were only 3 percent of the cavalry groups' missions. The board also validated that the groups often performed reconnaissance in conjunction with other missions, and they often had to fight for information. The board found that mechanized cavalry should be a highly mobile, heavily armed combat force rather than a reconnaissance force that avoided combat: "the mission of the mechanized cavalry should be combat."¹³ It also recommended that the cavalry group be reorganized into a regiment of three combined-arms squadrons. The recommendations were reflected in the trend toward increasingly "heavy" reconnaissance units from 1948 onward that led to the ACR's development.

By 1964, with the Reorganization Objective Army Division, the ACR's table of organization and equipment evolved into the basic regimental structure that remained essentially unchanged from Vietnam to Iraq: a headquarters troop; three armored-cavalry squadrons; a combat-aviation squadron; a support squadron; an engineer company; a nuclear, biological and chemical company; a combat electronic-warfare intelligence company; and an air-defense battery. Each armored-cavalry squadron consisted of a headquarters troop, three armored-cavalry troops, a tank company and an artillery battery. The armored-cavalry troop went through a number of changes in its platoons, primarily driven by equipment changes and modernization. However, the cavalry remained a unique combined-arms organization all the way down to platoon level – combining reconnaissance, Armor, infantry and indirect fire.¹⁴

In the 1960s until the mid-'70s, the U.S. Army was heavily engaged in

Vietnam. In 1965, GEN William Westmoreland asked for 11th Armored Cavalry and 25th Infantry Division to counter increasing enemy strength. The Military Assistance Command-Vietnam (MACV) initially refused to accept 11th ACR because of a "no tanks in the jungle attitude."¹⁵ The Army staff and MACV compromised by replacing the tanks and M114 scout vehicles in the cavalry troops with M113s modified to Armored Cavalry Assault Vehicles. Though stripped of most of its tanks, the regiment still had more automatic weapons, long-range radios and aircraft than a mechanized brigade, as well as its own organic artillery.¹⁶

The 11th ACR arrived in Vietnam in September 1966 and began convoy-escort and route-security operations. The cavalry soon proved its worth in a series of engagements from November to December by decisively defeating a series of ambushes by reinforced battalions. The cavalry escort protected and led the convoy out the ambush, then returned to maintain contact with the enemy. The cavalry's mobility enabled them to quickly mass troops, reinforcing contact and enveloping the enemy. Its armored protection and firepower allowed the units to survive enemy fire and maintain contact. The overwhelming ground and air combined-arms firepower the armored cavalry brought to bear gave the cavalry a decisive advantage over the enemy.¹⁷

As the armored-cavalry units demonstrated their effectiveness and versatility, the armored cavalry's mission sets mirrored that of World War II; offensive and defensive tasks far exceeded reconnaissance tasks. The 1967 evaluation of armor operations found that:

"Armored-cavalry units are being increasingly employed in roles previously assigned to tank and infantry maneuver battalions in addition to the traditional reconnaissance, security and economy-of-force roles. This change has evolved due to ... the balanced combined-arms structure of the armored-cavalry squadron. ... Extensive firepower and combat strength of the armored-cavalry squadron have combined to dictate its more effective use in the role of a well-balanced maneuver battalion, rather than in its tra-

ditional roles."¹⁸

Over and over, the real capability that stood out in the cavalry's success was their combined-arms organization down to the platoon level that was not task-organized but part of their training and doctrine.¹⁹

Armored cav '70s-'80s

After Vietnam, the cavalry returned to the Cold War in Europe. There were no significant changes to the ACR's doctrine or organization other than upgrades to its tank fleets.

In 1982, the Army published a new FM 100-5, *Operations, AirLand Battle*, and underwent the Division 86 reorganization. The ACR's basic structure remained unchanged except for ground troops. The line troops reorganized into two platoons of M1 tanks, two platoons of M3 Cavalry Fighting Vehicles (CFVs) and a mortar section. The regiment fielded 123 M1 tanks, 116 CFVs, 26 AH-1 Cobra helicopters, 24 M109 155mm howitzers and 18 mortars.²⁰ The ACR remained the corps commander's main organization for ground reconnaissance in AirLand Battle.

According to FM 100-5, the basic tasks of the armored-cavalry units are reconnaissance and security. The ability of armored-cavalry units to find the enemy, develop the situation and provide the commander with reaction time and security also make them ideal for economy-of-force missions. Armored-cavalry forces can delay an attacking enemy as well as assist in a withdrawal. They are also capable of attacking and defending, although these are not their normal missions.²¹

The ACR fielded more tanks than an armored brigade and with its organic artillery and attack helicopters, it provided the commander the flexibility of employing the regiment as a conventional force. The ACR's doctrine, organization and equipment made it well-suited for its basic tasks of reconnaissance and security in the AirLand battle.

Conclusion

The armored-cavalry regiment was designed, trained and equipped to perform reconnaissance-and-security operations and, if necessary, "fight for information." The evolution of the

armored cavalry, from its earliest days prior to World War II to the present-day reconnaissance-and-surveillance battalions is one of vigorous testing and battlefield validation.

The combined-arms organization, with its mobility, protection and firepower, also made the armored cavalry adaptable and capable for mission sets for which they were not specifically designed. The ACR provided the corps commander a unique and necessary reconnaissance-and-security capability. It also gave the Army a tiered-reconnaissance capability from corps down through battalion. With the demise of the battlefield-surveillance brigades, the only dedicated cavalry forces are now in the brigade combat teams (BCT).

Future corps operations may be rare, but divisional operations are more likely, and the Army has no divisional cavalry. Even if a BCT gave up its cavalry squadron, the cavalry would still need augmentation to perform the full range of reconnaissance and the security mission. Therefore, the Army should consider converting several BCTs into ACRs, forming a pool of cavalry much like the mechanized-cavalry groups of World War II.

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Notes

- ¹ FM 2-30, **Cavalry Reconnaissance Squadron Mechanized**, Washington, DC, August 1944.
- ² FM 3-20.96, **Reconnaissance and Cavalry Squadron**, Washington, DC, March 2010.
- ³ Brian Kerns, **Not Just an Infantryman's War: United States Armored Cavalry of the Vietnam War**, Fort Leavenworth, KS: Command and General Staff College, 2006.
- ⁴ Robert Cameron, **Mobility, Shock and Firepower: The Emergence of the U.S. Army's Armor Branch, 1917-1945**, Washington, DC: Center of Military History, 2008.
- ⁵ Dave Wright, **Mechanized Cavalry Groups: Lessons for the Future of Reconnaissance and Surveillance**, Fort Leavenworth, KS: Command and General Staff College, 2013.
- ⁶ Cameron.
- ⁷ James Wolf, **Ground Reconnaissance in the Heavy Corps: Do Tactical Assets Match Mission Requirements?**, Fort Leavenworth, KS: School of Advanced Military Studies, 1989.
- ⁸ Wright.
- ⁹ Cameron.
- ¹⁰ Ibid.
- ¹¹ Ibid.
- ¹² Wright.
- ¹³ Wolf.
- ¹⁴ Kerns.
- ¹⁵ Ibid.
- ¹⁶ GEN Donn A. Starry, **Armored Combat in Vietnam**, Washington, DC, 1978.
- ¹⁷ Kerns.
- ¹⁸ Combat Operations Research Group, **Evaluation of U.S. Army Mechanized and Armor Combat Operations in Vietnam**, Vol. 1, basic report, Washington, DC.
- ¹⁹ Kerns.
- ²⁰ Wolf.
- ²¹ FM 100-5, **Operations**, Washington, DC, 1982.

BOOK REVIEWS

Storming the City: U.S. Military Performance in Urban Warfare from World War II to Vietnam, Alec Wahlman, Denton, TX: University of North Texas Press, 2015, 368 pages, \$29.95.

Combat in cities presents a significant obstacle to battlefield mobility. Yet, as amply demonstrated during combat in Iraq, it is inevitable that a military force will engage in a major battle within the confines of a built-up area. As such, it is an area worthy of study and reflection. Historian Alec Wahlman presents a case study that evaluates four major U.S. urban battles to “analyze American capabilities and explain U.S. performance in each. The four battles are Aachen (1944), Manila (1945), Seoul (1950) and Hue (1968).”

Each battle is presented in chronological order with a 10-part standard format that presents an overview of the operational context; the foe; the assault phase; command, control and communications; intelligence and reconnaissance; firepower and survivability; mobility and counter-mobility; logistics; dealing with the population; and a conclusion.

The introduction discusses the emphasis, or lack thereof, on training for combat in cities prior to our entry into World War II. Preceding the chapter on the battle for Seoul, the author examines the “presence of urban warfare in American military thought” in the post-war period. This is not a work that addresses each battle in detail. Rather, Dr. Wahlman investigates U.S. tactical performance at different levels – Aachen and Hue at the battalion level, the regimental level for the battle for Seoul and the divisional level in Manila. This provides the reader with an insightful examination of how command-and-control contributes to successful battlefield performance.

Regardless of the level addressed, the author emphasizes throughout the work the block-by-block relentless ordeal of daily combat in an urban environment. Once engaged in battle, U.S. forces quickly appreciated the value of communications, firepower and logistical support to attain their objectives.

Dr. Wahlman’s clear writing style and logical subject development indicates that the “willingness of U.S. commanders to distribute assets to the infantry units on the line, and the ability of those infantry units to use those assets effectively reduced casualties and aided the advance.” Throughout the book, he cites many instances to illuminate his point. For example, firepower was consistently used in an improvised and innovative manner throughout each battle. Direct fire with 155mm howitzers in World War II and Korea was enhanced during the battle for Hue by 106mm recoilless-rifle fire and helicopter-gunship support. While air power played its role, armor was also an invaluable asset in each of the battles. Tanks acted as mobile gun systems to blast enemy fortifications. Dr. Wahlman strongly believes that the combined-arms team matured and solidly enabled tactical success in urban warfare.

Also, in each of the cited battles, there was an initial inability to isolate the city, which allowed the foe to continue to supply men and material to the fight. Once the target area was surrounded, the difficult task of rooting the enemy out of their entrenched positions continued at a quickened pace. The author emphasizes, “What carried them through was their overall competence in warfare, which proved transferable to urban terrain, and an ability to quickly adapt to the particulars of urban warfare.” However, the ability to conduct successful operations in the restrictive environment of the city is a

perishable skill. To retain and enhance the knowledge gained required focused attention be directed to improving performance.

This was not to be. Between the end of World War II and the Korean action, there was a general paucity of doctrine and training areas to improve upon the wartime performance of forces in urban combat. “This minimalist coverage of urban warfare was not the product of some collective amnesia, but rather a reflection of the U.S. Army’s belief that urban warfare was a rarely occurring problem that was already solved.” After World War II, the Army had more pressing to problems to deal with.

Unfortunately, in Korea and Vietnam, American forces engaged an enemy who tested their determination to survive and win in urban combat. They succeed in both conflicts because, just as in the previous war, they exhibited transferable competence and battlefield adaptation. Small-unit leaders were aggressive and modified tactics and techniques to meet the new challenges. Higher commanders allowed their subordinates the freedom of action to employ their forces in a manner that best supported mission accomplishment. A responsive logistical-support chain allowed the swift evacuation of the injured along with a free flow of ammunition and supplies to the combatants.

Dr. Wahlman has produced a remarkably well-written work on the nuances of urban combat and the manner in which we have been successful in the past. Combat in cities is a nasty and difficult task that will tax any force. As such, this book makes a significant contribution to understanding how adaptation and tactical competency are the keys to success.

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CONSOLIDATED ACRONYM QUICK-SCAN

A

AA – assembly area
A&L – administration and logistics
ABCS – Army Battle Command System
ABCT – armored brigade combat team
ABOLC – Armor Basic Officer Leader's Course
ACP – access-control point
ACR – armored-cavalry regiment
ADA – air-defense artillery
ADP – Army doctrinal publication
ADRP – Army doctrinal reference publication
AFRICOM – U.S. African Command
AGM – attack guidance matrix
ALM – Army Learning Model
AMEDD – Army Medical Department
AMISOM – African Union Mission in Somalia
AoA – avenue of approach
APFT – Army Physical Fitness Test; Army Physical Fitness Training
ARNG – Army National Guard
ARPL – assistant reconditioning program leader
ARTB – Airborne and Ranger Training Brigade
ARV – armored recovery vehicle
ASLTE – Adaptive Soldier/Leader Training and Education
AT – anti-tank
ATP – Army techniques publication
ATSC – Army Training Support Center

B

BCT – brigade combat team
BFB – Bilasuvar Freedom Brigade
BMO – battalion maintenance officer
BP – battle position
BRDM – *boyevaya razvedyvatelnaya dozornaya mashina* (Russian scout vehicle)
BSB – brigade-support battalion
BTAC – Brigade Tactical Athlete Committee
BTG – brigade tactical group

C

CAB – combined-arms battalion
CAM – combined-arms maneuver
CATD – Command and Tactics Directorate
CAU – crew-access unit
CCIR – commander's critical information requirement
CFV – Cavalry Fighting Vehicle
CGSC – Command and General Staff College
CHOPS – chief of operations
CJTF-HoA – Combined Joint Task Force–Horn of Africa
CMOC – civil-military operations cell
CoA – course of action

CoIST – company intelligence-support team
COP – common operational picture
CP – command post
CRP – combat reconnaissance patrol
CSF2 – Comprehensive Soldier and Family Fitness
CSS – combat-service-support
CTC – combat training center
CTCP – combat-trains command post
CUOPS – current operations

D

DART – disaster-assistance response team
DATE – decisive-action training environment
DF2 – Diesel Fuel 2
DISAM – Defense Institute of Security and Assistance Management
DO – decisive operation
DP – decision point
DPT – decision-point tactic
DRASH – Deployable Rapid-Assembly Shelter
DSM – decision-support matrix
DST – decision-support template
DTG – division tactical group
DVIDS – Defense Video and Imagery Distribution System

E

EA – engagement area
ECP – entry-control point
ECU – environmental-control unit
EEFI – essential elements of friendly information
Eventemp – event template
Exeval – external evaluation

F

FBCB2 – Force XXI Battle Command Brigade and Below
FFIR – friendly-force information requirement
FHA – foreign humanitarian assistance
FM – field manual
FMS – foreign military sales
FSC – forward-support company
FSCM – fire-support coordination matrix
FSNCO – fire-support noncommissioned officer
FSO – fire-support officer
FTCP – field-trains command post
FY – fiscal year

G

GSFG – Group of Soviet Forces Germany

H

HA – humanitarian assistance

HBCT – heavy brigade combat team
HHC – headquarters and headquarters company
HHD – headquarters and headquarters detachment
HHT – headquarters and headquarters troop
HPTL – high-payoff target list
HT – hybrid threat

I

IBCT – infantry brigade combat team
IBOLC – Infantry Basic Officer Leader's Course
IC – information collection
IDF – indirect fire
IFC – integrated fires command
IGO – intergovernmental organization
IPB – intelligence preparation of the battlefield

J

JCR – Joint Capabilities Release
JIPOE – joint intelligence preparation of the operational environment
JMRC – Joint Multinational Readiness Center
JOC – joint operations cell
JP – joint publication
JP-8 – Jet Propellant 8
JRTC – Joint Readiness Training Center
JTF – joint task force

K

KLE – key-leader engagement

L

LNO – liaison officer
LoE – line of effort
Logpac – logistics package
Logstat – logistics status
LRP – logistics-resupply point

M

MA – mission analysis
MACV – Military Assistance Command-Vietnam
MCCC – Maneuver Captain's Career Course
MCG – mobile command group
MCoE – Maneuver Center of Excellence
MCOO – modified combined obstacle overlay
MD – military district
MDMP – military decision-making process
METL – mission-essential task list
METT-TC – mission, enemy, terrain and weather, troops and support available, time available, civil considerations

MFT – master fitness trainer
MI – military intelligence
MIC – mechanized-infantry company
MIBN – mechanized-infantry battalion
MRR – motorized rifle regiment
MRT – master resiliency trainer
MTC – movement-to-contact
MTOE – modified table of organization and equipment

N

NAI – named area of interest
NATO – North Atlantic Treaty Organization
NCO – noncommissioned officer
NETOPS – network operations
NTC – National Training Center

O

OCHA – United Nations Office for the Coordination of Humanitarian Affairs
OCS – Officer Candidate School
O/C/T – observer/coach/trainer
OE – operating environment
OES – Officer Education System
OFDA – Office of U.S. Foreign Disaster Assistance
OIC – officer in charge
OIF – Operation Iraqi Freedom
OLC – oak-leaf cluster
Opfor – opposing force
Opord – operations order
OPT – operational planning team
OSC – operational strategic command

P

PAO – public-affairs office(r)
Perstat – personnel status
PETL – Paratrooper Essential Task List
PIR – parachute infantry regiment
PIR – priority information requirement
PMESII-PT – political, military, economic, social, infrastructure, information, physical environment and time
Pol – program of instruction
PRT – physical-readiness training

R

RAP – Ranger Assessment Phase
RI – Ranger instructor
RPA – Ranger Physical Assessment
RPL – reconditioning program leader
RPRT – Reconditioning Physical Readiness Training
RTAC – Ranger Training Assessment Course

S

SBCT – Stryker brigade combat team
SEAD – suppression of enemy air defenses
Sitemp – situation template
SO – shaping operation
SOP – standard operating procedures

T

TAA – tactical-assembly area
TAC – tactical-actions center

TACSOP – tactical standard operating procedures
TC – training circular
TCC – troop-contributing countries (to AMISOM)
TI – (Upper) Tactical Internet
TLE – target-location error
TLP – troop-leading procedures
TRADOC – (U.S. Army) Training and Doctrine Command
TRX – total-resistance exercise
TSS – target-selection standard

U

UAS – unmanned aircraft system
UAV – unmanned aerial vehicle
USAID – U.S. Agency for International Development
USMTM – U.S. Military Training Mission

V

VEO – violent extremist organization

W

Warno – warning order
WAS – wide-area security
WBAMC – William Beaumont Army Medical Center
WfF – warfighting function
WTC – Warrior Training Center

69TH ARMOR REGIMENT



The shield is in the green and white (silver) of the Armored Force. The panther is symbolic of the tremendous power and striking ability of the regiment. Being always alert, the black variety of panther is considered the most dangerous of all the feline family. The motto translates to "Speed and Power." The distinctive unit insignia was originally approved for 69th Armored Regiment Sept. 7, 1942. It was redesignated for 69th Tank Battalion Nov. 4, 1943. It was redesignated for 69th Amphibian Tractor Battalion Jan. 8, 1946. The insignia was redesignated for 69th Medium Tank Battalion Feb. 25, 1954. It was redesignated for 69th Armor Regiment July 25, 1958.

