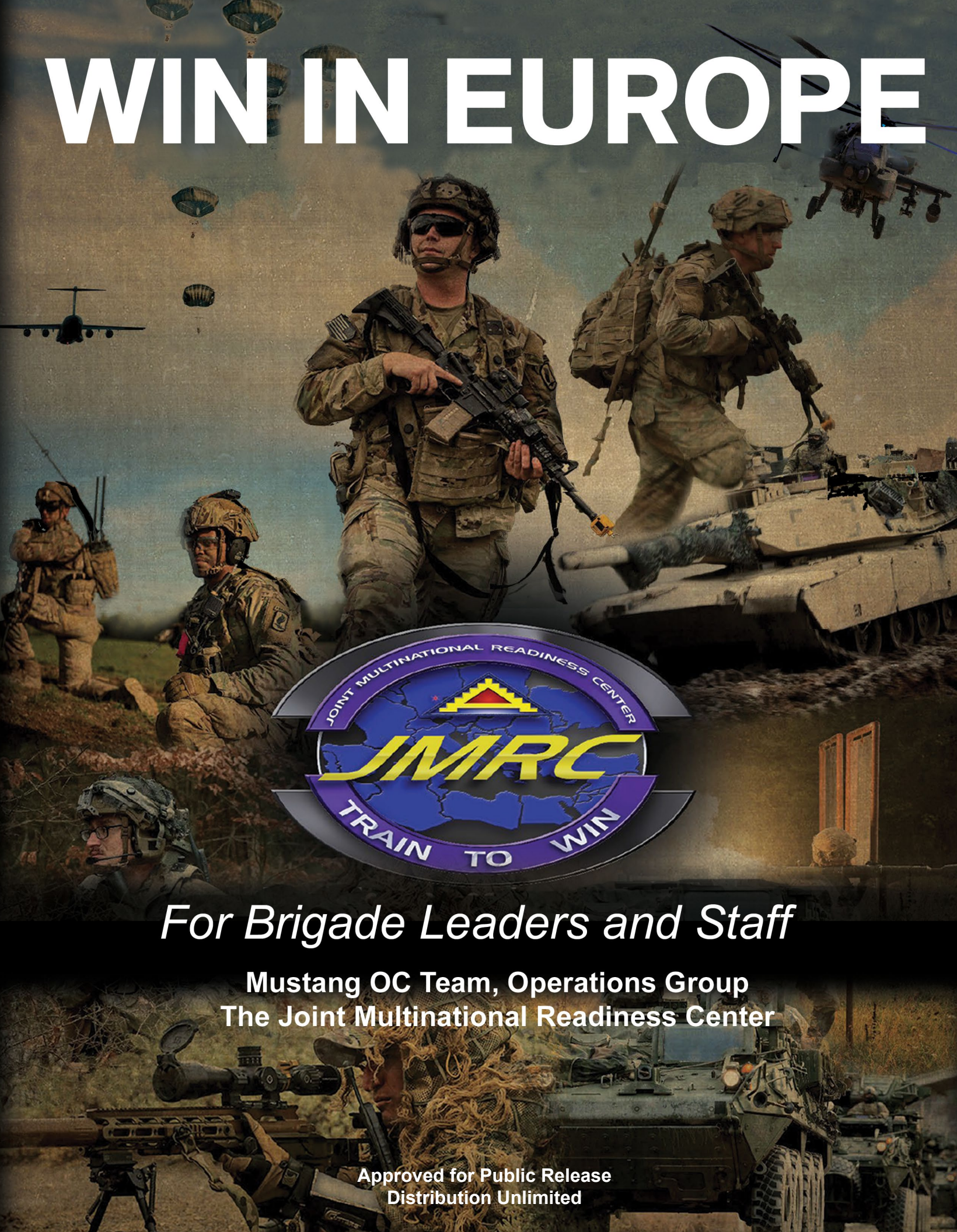
WIN IN EUROPE



JOINT MULTINATIONAL READINESS CENTER

JMRC

TRAIN TO WIN

For Brigade Leaders and Staff

Mustang OC Team, Operations Group
The Joint Multinational Readiness Center

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Foreword

Units must contend with many factors which may blunt their effectiveness on the battlefield. Having the right people at the right position requires forecasting and organization at echelon. Having the correct type and amount of equipment requires planning well in advance of deployment. Maintenance requires standardization of unit battle rhythms, systems, and plans integrated with the overall training plan for each echelon's unit-specific mission essential tasks. Plans and planning processes vary between units and operations. All units must confront the implications of time as a limited, inflexible resource; time presents substantial risk to operations in the execution phase. The purpose of Win in Europe is to provide brigades with an understanding of European theater operational contexts and methods to manage time during preparation in a way that optimizes time available during execution.

Win in Europe targets Brigade Commanders to produce guidance and intent early, but it also targets key brigade staff members to prepare and manage time during execution. Commanders are the key node of decision-making, and staffs must enable their commanders by providing effective products that drive decisions under time-constrained execution. Unit Fighting Products such as the Execution Matrix, Decision Support Matrix, Enemy Event Template, High Pay-off Target List, and Operations Graphics Overlay are essential planning outputs. These outputs enable command post staffs to communicate essential information to the commander during execution. Furthermore, they allow the staff and subordinate units to rapidly implement the commander's decisions through a common operating picture.

The Joint Multinational Readiness Center (JMRC) is uniquely postured to discuss the challenges of the operational environment of Large-Scale Combat Operations in Europe. European terrain, enemy, and multinational operations demand that brigades retain flexibility during execution to react to emergent threats and seize opportunities. The essential staff processes to create this flexibility are planning (including the Army's Military Decision Making Process), targeting, and efficient battle rhythms.

Win in Europe discusses each of these in depth, but the execution phase of a deployment to Europe is far too late to begin training these processes. Acknowledging this, we provide a framework for brigade staffs to train prior to deployment which confronts the reality of limited time available for home station collective staff training. By implementing this chain of training, processes, and products prior to deployment, brigades can maximize decision space during deployed operations and win in Europe.

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TABLE OF CONTENTS

Chapter 1
Introduction 6

Chapter 2
The European Operational Environment 13

Chapter 3
Multi-National Interoperability 24

Chapter 4
Warfighting Function Observations and Best Practices 37

Chapter 5
Preparation Glidepath 88

Chapter 6
Conclusion 123

Annex A
Further Reading 124

Glossary 128

Annex B
Points of Contact 133

FIGURES

Figure 1-1 TC 6-0.2. Brigade Staff Training Tables I-VI Training the Mission Command Warfighting Function for Battalions, Brigades, and Brigade Combat Teams. 8

Figure 1-2. TC 6-0.2 Brigade Staff Training Tables VII-X. Training the Mission Command Warfighting Function for Battalions, Brigades, and Brigade Combat Teams. 9

Figure 1-3. Army Methodology for Unit Readiness 11

Figure 2-1. Typical Defense Task Organization of JMRC OPFOR 16

Figure 3-1. JRMC Interoperability Assessment Framework 26

Figure 4-1. Example Decision Support Matrix. 42

Figure 4-2. Example COMMSTAT 43

Figure 4-3. Example COMMEX. 44

Figure 4-4. Example MCVE Checklist 45

Figure 4-5. Example C2 Execution Matrix 46

Figure 4-6. Brigade Judge Advocate Staff Integration. 47

Figure 4-7. Example BJA Running Estimate 49

Figure 4-8. Brigade Targeting Working Group Format 60

Figure 4-9. Clearance of Fires. 60

Figure 4-10. Fire Support Considerations for Brigade Main Command Post . 61

Figure 4-11. Example Protection Prioritization List. 69

Figure 4-12. Example LOGCOP 75

Figure 4-13. Example LOGSTAT and PERSTAT 76

Figure 4-14. Example Unit Ministry Common Operating Picture 79

Figure 4-15. Example Execution Matrix 83

Table 5-1. Internal Training Tables 93

Figure 5-2. MITS Tier Structure 96

Figure 5-3. FSE Personnel 97

Table 5-1. Broken vs Unbroken Data Chain 98

Table 5-2. Brigade Mission Command Training Tables Summary 111

Table 5-3. Brigade Staff Tables I-IV Home Station Training Template 112

Table 5-4. Brigade SOPs..... 113

Figure 5-4. Example Brigade Sketch to Visualize "How the Brigade Fights". 115

CHAPTER 1
Introduction

LTC Nicholas Talbot, LTC Jay Bessey, CPT Jeffrey Nielsen

Training Tip (how to read this document): Everyone is constrained by time. We use Training Tip and Execution Tip boxes to help you read Win in Europe. These training and execution tips are best practices observed from the authors.

- **All Readers:** Read all of Chapter 5 for a Staff Training Table plan.
- **Commanders, XOs, and S-3s:** Read Chapters 1, 2, 3, all BLUFs, all figures, all outlined sections, and all Training /Execution tips.
- **Staff Section Leaders:** Read all Chapter 4 and Chapter 5 sections, outlined sections, and all Training/Execution tips.

The U.S. Army's focus on preparing for peer-level threats and the volatility of the contemporary operating environment in Europe reinforce the need for brigades to prepare to execute large-scale combat operations (LSCO) on short notice. The complexity of these operations and the costs of unpreparedness provide the central purpose of the Army's Combat Training Center (CTC) program: to ensure that brigades are ready to fight and win when called upon. Army CTCs, to include the Joint Multinational Readiness Center (JMRC), present continuous, realistic combat scenarios to train all warfighting functions. These operations pit units against a tough and realistic opposing force with the end state that units and leaders are prepared to deploy worldwide, fight with confidence, and win under any conditions. Within the broader Army Training Strategy, unit training at home station enables them to meet robust training opportunities at a CTC and serves as a capstone collective live training event with difficulty and complexity they cannot achieve at home station.

After two years of trend collection efforts, the JMRC Brigade Observer/Controller Team (Mustangs) observed that insufficient or ineffective home station training results in lost benefits from a units CTC rotation. Units often arrive ill-prepared to fully exploit the challenging training environment provided by the Army's CTCs, reducing the overall training value for the brigade and subordinate units. Due to a lack of prior training, brigades crawl when they should be ready to run. This handbook offers observations and techniques to improve home station training in a global operating environment where brigades must be prepared for limited-notice or no-notice deployments to deter or defeat aggression.

Brigade CTC program guidance directs units to arrive with commanders and staffs proficient in their mission command tasks in accordance with TC 6-0.2[1], Training the Mission Command. Warfighting Function for battalions, brigades, and brigade combat teams. While subordinate units typically train according to gated-training strategies without issue, brigade staff struggles to execute the TC 6-0.2[2]-defined commander, staff, command post, and digital crew tables. As a result, while an individual fire team or crew may conduct 30 collective training tables during a standard collective training progression (six per echelon from team to battalion), brigade staffs often self-report executing only one or two staff-oriented training events. Typically, the brigade headquarters will execute a staff exercise (STAFFEX) and a command post exercise (CPX), which comprise

only the fifth and sixth tables of a ten-table progression. Brigade staffs lack both individual skills and the ability to integrate across Warfighting Function (WfFs) due to lack of emphasis on the baseline staff training tables. Refer to Figure 1-1, Brigade Staff Training Tables I-VI.

I	II	III
Organize and Acclimate Staff to Organization	***Develop MDMP Skills at the Section Level***	***Establish Staff / Cell Processes and Integrate Warfighting Functions***

• Understand unit doctrine applications, staff duties, responsibilities, and SOPs
• Conduct warfighting function and CP organization
• Organize the staff
• Build staff relationships
• Develop NCOs and Soldiers
	• Conduct the MDMP
	• Conduct RDSP
	• Develop running estimates
	• Review commander's decision support template and decison support matrix
	• Establish framework for formal assessment
	• Conduct section rehearsals
	• Verify section outputs
	• Develop section training plans
	• [OPTIONAL] Conduct the Army design methodology
		• Establish functional and integrating cells
		• Validate warfighting functions
		• Conduct MDMP
		  • Conduct mission analysis
		  • Conduct a risk assessment
		  • Engage in COA development
		  • Conduct COA analysis
		  • Reccomend CCIR
		  • Conduct COA decision briefing
		  • Prepare an OPORD
		• Develop KM plan

Venue: Home station Facility: Locally	Venue: Home station Facility: Locally	Venue: Home station Facility: Locally
IV	**V**	**VI**
Synchronize Command Post Operations	***Conduct Staff Rehearsals***	***Conduct Staff Certification***
• Integrate staff cells for operations • Synchronize staff boards and processes • Establish a battle rythym • Conduct rehearsals • Practice staff battle drills • Refine the plan • Perform planned actions, sequels, and branches • Establish the CP and alternate CPs • Formalize shift crews • Verify command post SOP functionality	• Review staff organization • Establish the COP • Conduct the operations process • Prepare an operation order • React to FRAGORD • Finalize the battle rhythm • Finalize decison support matrix • Finalize CP crews, roles, and responsibilities • Employ the mission command system • Conduct CP operations • Conduct SCIF operations • Conduct section/cell AARs	• Transfer mission command between CPs • Conduct the operations process • Execute working groups/ boards/meetings supporting decison-making • Execute the battle rhythm • Conduct CP operations • Conduct shared understanding • Displace the command post • Conduct SCIF operations
Venue: Home station Facility: Locally	Venue: MCTT headquarters Event (STAFFEX) Facility: TBD	Venue: MCTT headquarters Event (CPX) Facility: TBD

AAR	after action review	KM	knowledge managment
CCIR	commander's critical information requirements	MDMP	military decision-making process
		NCO	non-commissioned officer
COA	course of action	RDSP	rapid decision-making process
COP	command operational picture	SCIF	sensitive compartmentalized information facility
CP	command post		
FRAGORD	fragmentary order	SOP	standard operating procedure

Figure 1-1. TC 6-0.2. Brigade Staff Training Tables I-VI Training the Mission Command Warfighting Function for Battalions, Brigades, and Brigade Combat Teams.[3]

VII	VIII
Integrate the Mission Command System	***Synchronize Operations***
• Receive and integrate liaisons and attachments • Task organize for operations • Conduct the MDMP • Coordinate efforts with higher, lower, adjacent, and supporting units • Integrate MOE and MOP • Manage mission command information systems • Conduct knowledge management	• Exercise battle rhythm • Conduct the operations process • Share relevant information • Conduct rehearsals
Venue: Commander Directed Facility: Locally	Venue: Training event aligned with CATS Facility: Training area
IX	***X***
Synchronize Command Post Operations	***Mission Command Warfighting Function Validation Exercise***
• Conduct the operations process • Conduct knowledge managment • Revise the plan • Emplace and displace the CP • Conduct command post operations • Conduct SCIF operations • Conduct AARS	• Conduct the operations process • Conduct knowledge management • Revise the plan • Displace the command post • Conduct command post operations • Conduct SCIF operations • Execute the battle rhythm
Venue: Training event aligned with CATS Facility: Training area	Venue: Training event aligned with CATS Facility: Training area
AAR after action review CATS combined arms training strategy CP command post MDMP military decision-making process	MOE measure of effectiveness CATS combined arms training strategies SCIF sensitive compartmented information facility

Figure 1-2. TC 6-0.2 Brigade Staff Training Tables VII-X. Training the Mission Command Warfighting Function for Battalions, Brigades, and Brigade Combat Teams.[4]

While shortfalls in manning and equipment can fall outside of brigade control, training and organization are the staff's responsibility. Some indicators of unprepared staff are:

1. A lack of detailed standard operating procedures (SOPs).
2. A lack of unit fighting products (UFPs).
3. A lack of a defined common operating picture (COP).
4. Poor WfF integration.

Instead, the indicators of prepared staff are:

1. Detailed planning, command post, tactical, and staff section SOPs that are up-to-date and understood by the staff.
2. Standardized UFPs generated during the military decision-making process (MDMP) and transitioned over to the current operations integrating cell (COIC) for operation execution.
3. A standardized COP that is accurate and complete enough to inform the commander's decision-making during execution.
4. Cross-WfF integration across all UFPs and planning horizons.

Training Tip (CDR, XO, S-3): During Tables I and II, identify critical Unit Fighting Products and capture them in the PSOP and CPSOP. Design these products for maximum benefit to the commander and current operations staff during execution, then design your PSOP to build those UFPs efficiently. Mustang team recommends the following Brigade Fighting Products:

1. Modified Combined Obstacle Overlay (MCOO).
2. Enemy Event Template (EVENTEMP).
3. Information Collection Synchronization Matrix (ICSM).
4. Concept of the Operation (CONOP).
5. Execution Matrix (EXMAT).
6. Fire Support Execution Matrix (FSEM).
7. Decision Support Matrix (DSM).
8. Operations Graphical Overlay (Ops Graphics).

Refer to these outlined boxes throughout this handbook for discussion of UFPs.

Units must plan, resource, and execute a comprehensive brigade staff training strategy, following TC 6-0.2, nested within the overall home station training plan to exploit the opportunities CTC training provides. Units training must place and enforce a clear system that generates their UFPs during MDMP and translates those UFPs into a COPs that enables command posts to execute, assess, and adjust operations as they train. This process referred to as decision-point tactics (DPT). The deliberate execution of a home station training plan ensures the brigade is prepared to execute a rigorous CTC rotation, and ready to fight and win peer conflict using DPT. This handbook focuses on improving brigade Tables I–VI because higher command conducts VII–X with external evaluators.

This handbook describes the nuance of operating in the European Theater including the specific requirements prior to deployment through executing operations with the aim of enabling a training-focused glide path for brigades to improve their processes and SOPs before deploying to the European Operational Environment (OE). *Win in Europe* consists of three major sections. First, is described the unique terrain of the European OE, including what JMRC replicates consisting of enemy, unified action partners, and civil components. This discussion includes a detailed review of the tenets, observed trends, and best practices of multinational interoperability across the human, technical, and procedural domains.

Second, we discuss employment considerations specific to the European Theater by warfighting function, as well as observed trends, best practices, and unit fighting product examples distilled from rotations in 2021-2023. Third, we provide a preparation glide path giving each WfF its own section to provide internal recommendations following the personnel, supply, readiness, training (PSRT) framework.

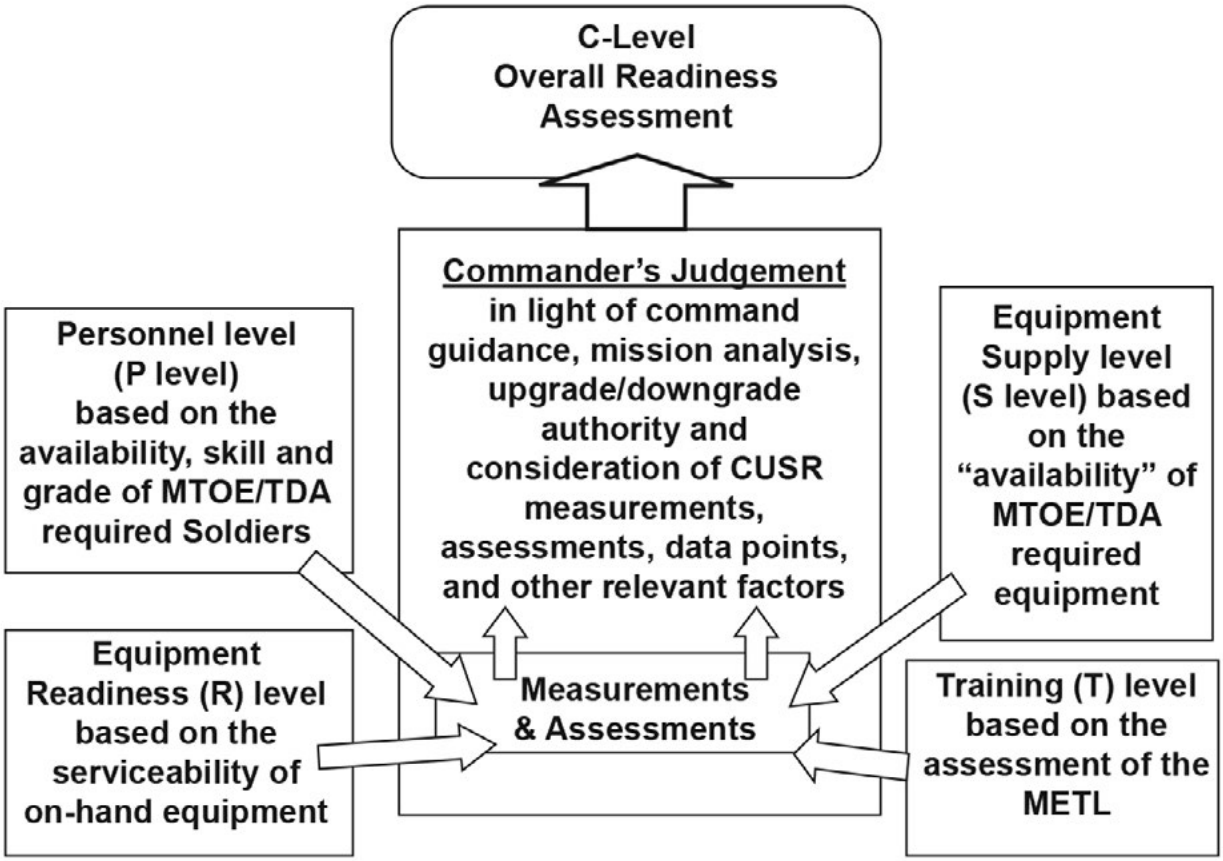

Figure 1-3. Army Methodology for Unit Readiness[5]

This document presents a brigade staff training template based on TC 6-0.2 staff training tables and the Army's Combined Arms Training Strategy (CATS). This template and its associated recommendations form a baseline for staffs to build an effective training plan that will enable the brigade to maximize home station training, maximize CTC training, and win in the challenging European OE.

END NOTES

1. TC 6-0.2. Training the Mission Command Warfighting Function for Battalions, Brigades, and Brigade Combat Teams. 15 July 2019.

2. TC 6-0.2. Training the Mission Command Warfighting Function for Battalions, Brigades, and Brigade Combat Teams. 15 July 2019.

3. TC 6-0.2. Training the Mission Command Warfighting Function for Battalions, Brigades, and Brigade Combat Teams, 15 July 2019. pages 2-42-2-44.

4. Ibid, page 2-47.

5. AR 220-1, Army Unit Status Reporting and Force Registration-Consolidated Policies. 16 August 2022. page 23.

CHAPTER 2

The European Operational Environment

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TERRAIN

ADP 3-0 Operations paragraph 1-63 defines close combat as "warfare carried out on land in a direct-fire fight, supported by direct and indirect fires and other assets."[1] Diverse terrain defines the Central and Eastern European operational environment (OE). Rolling hills; a mix of coniferous and deciduous forests; a large number of rivers; open farmland; and urban centers that place brigades in continuous close combat. The elevation varies between 450 and 650 meters (m) above sea level, thick forests disrupting the large open valleys that can stretch for multiple kilometers (km). Numerous trails throughout the training area add significant mobility options outside of high-speed avenues of approach. To win in Europe, brigades must account for rapid terrain transitions in each of their warfighter's schemes of execution.

European terrain transitions from unrestrictive (with fields of fire out to maximum weapon effective ranges beyond 5 km) to severely restrictive (with fields of fire in urban centers and vegetation limited to under 50 m). Multiple terrain types may intersect within just one square kilometer. The key terrain transitions are woodland to farmland; farmland to urban centers; and urban centers to adjacent portions of woodland. However, undulating terrain affects all these borders with varying sizes of both improved and unimproved mobility corridors. These terrain transitions significantly impact each warfighting function (WfF).

> **Training Tip (CDR):** Staffs that have served in arctic, desert, or jungle OEs may have prioritized their deployment preparation on climate effects. Instead, staff should focus their European deployment preparation on organization, processes, and SOPs. Delegate climate affects preparation to subordinate battalions.

To summarize the effects of terrain in the European OE, visualize a brigade fighting at JMRC. First, the brigade deploys its longest-range reconnaissance units and echelon above brigades (EAB) unmanned aerial systems (UAS) to establish contact and a brigade security zone. While advancing the reconnaissance team must balance risk between tempo and security when selecting high-speed avenues of the approach that converge on small towns or slower-speed avenues that supplies concealment but are at the risk of enemy ambushes. Balancing risk requires mixing assets and tempo to recon the other types of terrain bypassed. The brigade moves its battalions forward to establish the rear area, but hasty defensive positions can consist of irregular shapes to adjust for the rapid transitions between woodland and farmland. As friendly and enemy lead elements move through dense forests towards each other, they make first contact at extremely short distances for for short direct-fire ranges rather than the multiple kilometers present on open farmland. The unit that is most prepared to clear ground and meet danger-close fire should execute first. The battle becomes defined by either force's ability to exploit routes to engage their enemy at a distance from opposing wood lines and towns. The rush to exploit routes can spread units across rolling and densely vegetated hills which they immediately disrupt communication networks and slows down logistics and engineer units moving to support the forward line of own troops (FLOT). The brigade must now decide which urban centers to secure and bypass. This choice further complicates the

unit's common operating picture. As the brigade transitions to defense to destroy follow-on enemy echelons, it must decide whether to develop engagement areas primarily in high-speed open areas or much more concealed woodland and urban routes. The brigade must synchronize obstacle emplacement and collection operations to mitigate possible enemy bypass routes. In the European OE, all WfFs must plan specific routes, triggers, and transitions that account for the variety of terrain.

The brigade staff assesses, anticipates, mitigates, and exploits these terrain effects. During Step 2 of the military decision making process (MDMP), Mission Analysis, the staff must develop a highly detailed modified combined obstacle overlay (MCOO) that covers the operation's entire area of influence. This product provides a concise, visual running estimate to drive planning. The MCOO is a collaborative creation of intelligence (S-2), engineer, operations (S-3), and select warfighting functions during reverse intelligence preparation of the battlefield (IPB).

A key feature of Europe is its urban terrain. Small towns can be the primary intersection of operational and strategic lines of communication. These urban centers are essential to achieving objectives in the European large scale combat operations (LSCO) OE. Very few urban centers have bypass routes at the operational level of war without incurring significant risk to security and sustainment operations. The need to control these urban areas increases the time and forces necessary to move within the area of operations (AO). Units must use civil affairs, psychological operations, protection, and public affairs assets to coordinate with host nation governments, partner forces, and the civilian population to retain essential urban areas and minimize impact on the unit's resources during offensive and defensive operations.

Training Tip (XO, S-2, Engineer): The MCOO is a critical fighting product that enables staff to identify, mitigate, and exploit terrain transitions in the European OE. During Tables II – VI of MDMP training, integrate the following key points and capture their effects into reverse warfighting function analysis.

C2: Map reconnaissance is insufficient for Europe. Identify primary, alternate, contingency, and emergency possible locations for each of the main command post (MCP), tactical command post (TAC), and mobile command group (MCG).

Intelligence: Assign UAS to both easily observed open areas and terrain that is too restrictive for ground reconnaissance to observe.

Fires: Align observers to engage both long-distance and danger-close targets with minimal warning; generate permissive triggers for danger-close targets; plan multiple targets in-depth along high-speed avenues of approach.

Information Ops: Graphically depict the effects of hills and vegetation on electronic warfare (EW) systems. Coordinate directly with S-2 to create the combined information overlay (CIO) as an internal planning product.

Aviation: Depict line of sight communication limitations; identify possible landing zones and pickup zones for both friendly and enemy air movements.

Protection: Identify canalizing hills, forests, and towns and their effects on obstacles, chemical weapons, and air defense fields of fire; identify and meticulously mitigate even single-vehicle sized bypass routes around unit engagement areas.

Sustainment: Identify separate locations for the brigade support battalion (BSB) and forward support companies (FSCs), initiate security planning for the rapid transitions between routes and terrain types.

M2: Identify forest outcroppings that create narrow bypass routes of otherwise large open areas; transition between open areas where Armor is the best lead element and woodland and urban centers where Infantry is the best lead element.

ENEMY

The second critical component of the European OE is the enemy. For other sources that readers should consult for a complete description of enemy force organization, capabilities, and doctrine refer to:

- FM 3-0, Operations
- TC 7-100 Hybrid Threat
- How to Master Wargaming CALL Handbook 20-06

The opposing force (OPFOR) at JMRC can integrate the full spectrum of their available effects. This enemy is fundamentally lethal in massing those effects at the decisive point. Figure 2-1 is a typical task organization diagram for an enemy battalion tactical group (BTG) defense at JMRC.

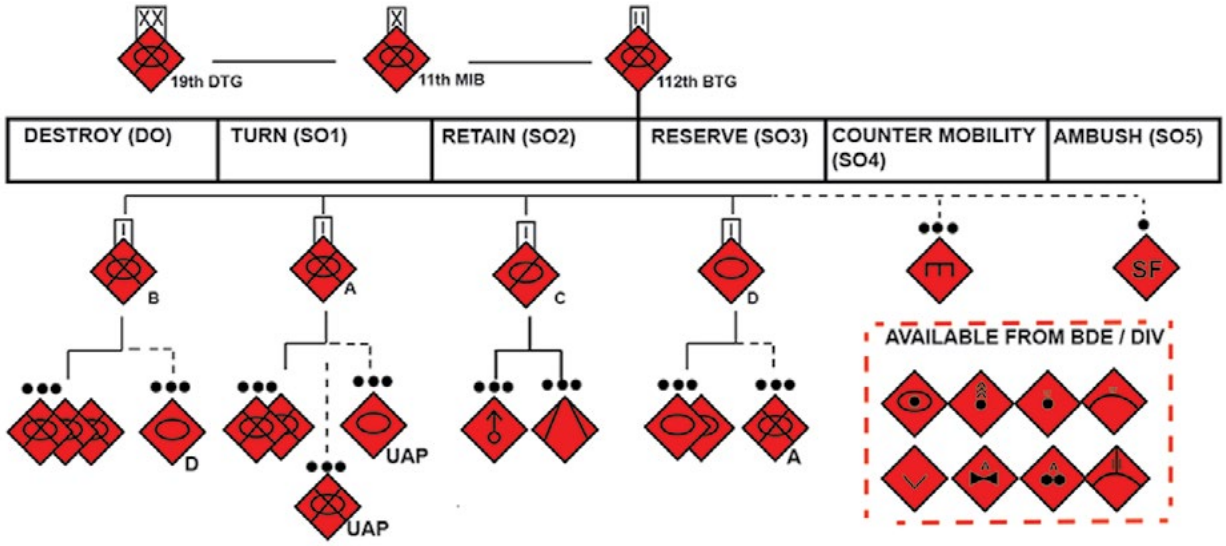

Figure 2-1. Typical Defense Task Organization of JMRC OPFOR[2]

The most important aspect of the European OE's hybrid threat is the enemy's potential to maximize terrain advantages while mitigating disadvantages to mass effects. The enemy can organize its forces to exploit the rapid transitions in terrain to present multiple forms of contact against friendly forces in their disruption zone, main battle zone, and support zone.

Scenario

Visualize the 112th BTG conducting operations during a typical JMRC rotation. The initial 112th BTG operations take place during a period of competition and crisis within the AO. The 112th BTG leverages special purpose forces, non-traditional elements (such as criminal networks) and social-economic-political effects to shape the conditions at the beginning of conflict. As conflict begins and the 112th BTG enters the AO, the supporting division reconnaissance integrates with paramilitary forces to rapidly move through permissive urban centers and bypass non-permissive ones.

At initial contact with friendly forces, enemy recon forces seize key terrain to enable supporting artillery to mass effective indirect fires and enable recon to answer priority intelligence requirements (PIRs). As the main body of the enemy BTG enters the AO, the enemy adjusts to the observed and assessed friendly force course of action (COA) to ensure a successful penetration. This penetration will take place along poorly defended, concealed, narrow or high-speed routes. The 112th BTG will support the penetration effort with multiple forms of contact along the entire FLOT and around friendly support nodes.

Training Tip (CDR, S-3, S-2): Maximize the value of Staff Table VI by establishing a live OPFOR with freedom to act across the full range of possible enemy COAs. You can resource the OPFOR either internally or externally. Fight the Brigade plan, and COIC, against this live enemy to assess the effectiveness of your holistic operations process. See CALL Handbook 20-06, "How to Master Wargaming", chapter 2 for additional techniques.

Enemy exploitation forces mass artillery, air defense artillery (ADA), EW, fixed wing, and rotary-wing support at the right time and place to achieve decisive success.

Units must train at home station and develop their SOPs to win against the adaptable, lethal enemy of the European OE. Two primary techniques to train are:

- Analyzing the enemy's capabilities, strengths, and weaknesses during reverse warfighting function analysis.
- Building assessment and flexibility into brigade fighting products starting with a high-quality enemy event template (EVENTEMP).

The EVENTEMP is essential to capturing a complete enemy plan from which the friendly plan develops. The EVENTEMP is not a standalone product made from the S-2's intuition. Brigades must collectively and deliberately develop enemy situations based off their inputs to reverse-WfF analysis using a rapid assess, generate, array, refine, assign, produce (AGARAP) process friendly course of action development (COA DEV). The commander must use the staff's expertise to fully visualize how the enemy will fight, and then assess specific forces, routes, times, and decisions to each enemy COA. The EVENTEMP acts as the basis for COA DEV and then to the COIC floor to allow the staff to assess operations by comparing the enemy observed (spot reports, battle damage assessment) against the EVENTEMP and the decision support matrix (DSM).

Integrating all WfFs into reverse IPB allows the unit to identify high-payoff targets outside of enemy maneuver and fires assets. Building deliberate assessment products enables the current operations staff to provide accurate running estimates to the commander and drive appropriate fragmentary orders. Combined, these two techniques provide commanders the flexibility to fight the enemy encountered instead of only the enemy planned.

Training Tip (XO, S-2): IPB is not just an S-2 function. A good tactic, technique, and procedure (TTP) is to use integrated or reverse IPB across the entire BDE staff to ensure WfF subject matter experts (SMEs) can contribute to the BDE's understanding of the OE. During Table II, update the unit planning standard operation procedure (PSOP) to specify addition attendees and inputs for reverse warfighting function analysis during MDMP step 2.

Training Tip (XO, S-3, S-2): The EVENTEMP is a critical product that frames all further unit fighting products (UFPs) and allows the staff to assess operations during execution. During Table II, develop a unit EVENTEMP SOP and document template using the following questions to frame each WfF's contributions.

Command and Control (C2): Which decisions will the enemy make? Where, how, and when will the enemy establish C2 nodes, and how can we target them? Are there unique gaps in the enemy's C2 architecture or processes that we can exploit?

Intelligence: Where and how can we disrupt the enemy's information collection? What decisions will the enemy make, and how can we inflict dilemmas on those decisions?

Fires: Where and how will the enemy establish fires nodes, and how can we target them? What friendly assets are on the enemy's high payoff target list (HPTL), and how can we stay below the enemy's engagement criteria?

Information Ops: Where and when will the enemy influence populations, and how can we disrupt those operations?

Protection: How will the enemy prioritize mobility, counter-mobility, and survivability operations? Where and when will the enemy commit engineer, air defense, CBRN, and criminal/irregular forces, and how can we target them?

Sustainment: Where and when will the enemy establish sustainment nodes, and how can we target them? Are there unique gaps in the enemy's sustainment requirements that we can exploit?

M2: At every phase of the operation, what is the most dangerous sudden attack or counterattack the enemy could make? What are our most favorable conditions for direct contact in this OE? How will we display the EVENTEMP in the COP?

CIVIL

The European OE is uniquely challenging due to the size, anticipated behavior, and technological sophistication of the civilian population in potential conflict areas. For example, in the heavily Russian-speaking counties of Eastern Latvia and Estonia, as well as the Polish and Lithuanian districts along the Suwalki Gap, there are an average nine towns or villages in a brigade combat team's (BCT) doctrinal 135 km² area of operations.[3] The population of each range between eight to 80,000 residents. This imposes significant coordination requirements and potential tactical impacts on unit leaders. Military forces cannot assume that civilians will simply vacate their homes when a conflict occurs, conveniently creating a free fire zone. Evidence from Ukraine suggests that up to 25 percent of urban populations will remain, even after months of fighting.[4] Tactical units deployed to Europe should expect to confront large civilian populations and must train accordingly.

If up to 25 percent of residents remain during a conflict, even larger numbers will evacuate, and have major impacts on unit maneuver and sustainment. As of July 2023, over 6.2 million Ukrainians fled the country and another 5.1 million were internally displaced, totaling nearly a third of its pre-war population.[5] A significant majority often occurred in the initial weeks of the war. If the Baltic States' six million residents attempted to flee a Russian attack at the same pace, nearly 24,000 people would cross the 104 km wide Suwalki Gap into northeast Poland every day for the first two weeks of the conflict.[6] The disruptive impact on NATO forces attempting to deploy simultaneously

against the flow of civilian traffic would be severe, particularly given that this narrow bridge is servied by just one four-lane highway, a two-lane road, and one rail line.[7]

European civilians can also be a force multiplier that units should be prepared to leverage. One of the key enablers for civilian contributions to combat operations is Europe's robust information environment, particularly its mobile internet technology. Across the continent, nearly 70 percent of residents own a smartphone.[8] In Ukraine, a government-established mobile chatbot received almost half a million geotagged photos, videos, and other reports on the disposition of Russian forces by the end of 2022.[9] More recently, the "eAir Defense Observer" app has enabled citizens to report on the flight path of enemy drones and missiles, thereby helping cue Ukrainian interceptors.[10] While U.S. forces would most likely receive such reporting through the host nation government, these examples are indicative of the volunteerism that would likely accompany a conflict in Europe and from which units could also benefit through direct engagement with the local population. They also compound the challenge of the "transparent battlefield" and reinforce the importance of cultivating and maintaining the local population's trust down to the lowest tactical level.

Near-peer threats in the European OE will also attempt to influence populations and thereby to disrupt friendly operations. Commanders must assess enemy civil operations and plan to neutralize those effects. The four critical capabilities attached to brigade commanders for civil operations are human intelligence (HUMINT), military police (MP), information-related capabilities (IRC) (Civil Affairs (CA), Psychological Operations (PO), Public Affairs (PAO)), and legal sections. A best practice is to establish a civil-military operations working group (CMOWG) within the brigade staff led by the S-9 civil affairs (CA) officer, chaired by either the executive officer (XO) or S-3, to ensure the brigade accounts for threats and capabilities within the civil environment, and integrates them into the brigade's plan.

Training Tip (XO, S-9, Provost Marshall Officer (PMO)): During Tables II-V, update the unit PSOP and CPSOP to specify CMOWG personnel, battle rhythm, and planning outputs. Include the following tasks by staff section. See ATP 6-0.5, Command Post Organization and Operations, page A-18.

Intelligence: During Step 2, plan HUMINT and UAP collection NAIs and tasks onto the ICSM.

IRC: During Step 2, initiate parallel planning with all UAPs and IRC resources. Also part of Step 2, generate initial IRC themes and messages and the civil information collection plan. During Step 3, generate the electronic warfare concept.

PMO: During Step 3, generate a CMO concept sketch with minimum forces required to accomplish civil-military tactical tasks. Plan for dislocated civilian (DC) routes, cultural centers, detention transport routes, and detention transfer points.

The CMOWG must have specific inputs and outputs in each step of the operations process. The CMOWG gains situational understanding through HUMINT, civil reconnaissance, and UAPs as early as receipt of mission; generates a combined information overlay (CIO) during mission analysis; and coordinates with the PMO to generate specific civil-military tasks and purposes during COA development.

The European OE is highly permissive for HUMINT operations due to strong existing North Atlantic Treaty Organization (NATO) and Partner-for-Peace relationships. A history of joint mission cooperation, institutional intelligence training, and collaborative training contribute to a permissive HUMINT environment. Units must integrate with multinational partner intelligence collectors to overcome cultural differences and language barriers. These partners are essential to gaining intelligence about population centers, population sentiment, population movements, and all other political/economic/social information.

Execution Tip (S-9): During MDMP Step 7, conduct spectrum management with Combatant Command and Joint Electromagnetic Spectrum Management Operations for civilian dissemination.

Most units will develop generic information operations themes and messages with public affairs officer (PAO) guidance, and will take actions to ensure dislocated civilians will not impede the brigade's operations. Brigades often restrict Civil Affairs and PO attachments from conducting missions in most of the urban areas in JMRC, minimizing those attachments' ability to develop civil networks, influence populations, and enhance the brigade's operations through potentially using civil resources. In a European Conflict, brigades must provide CA and PO units with freedom to maneuver. EW units must be tied into the civil component of the OE to maintain situational awareness of the electromagnetic spectrum used by both UAPs and host nation organizations.

UNIFIED ACTION PARTNERS

As stated in Operations, ADP 3-0, "effective unified action requires Army leaders who can understand, influence, and cooperate with unified action partners (UAPs)".[11] Brigade Combat Team, FM 3-96, applies the same principle to the tactical level of warfare by reiterating that UAPs are critical in any multinational OE.[12] To ensure brigade (BDE) readiness in theater, JMRC provides multiple UAPs for rotational units to collaborate with: U.S. Department of State (DoS); the United States Agency for International Development (USAID); NATO; multinational security forces; and other miscellaneous organizations IAW specific exercise design.

Vignette (CDR, S-3, S-9): A brigade was defending along PL IRONWOOD as part of an overall division defense. To prevent fleeing civilians from disrupting unit EA DEV, the Brigade S-3 and S-9 coordinated with local authorities to divert IDPs to routes headed northwest and southwest. The Brigade did not coordinate with any available UAPs or adjacent units, and inadvertently massed IDPs against their friendly brigades with no mitigation or control measures in place.

As noted in the previous section, large, uncoordinated movements of civilians can severely disrupt military operations. Two key factors can help mitigate this potential, both of which rely significantly on coordination with UAPs. First, civilians are most likely to leave their homes suddenly and in large numbers if they perceive a change in circumstances that threatens their survival. This could involve an uptick in combat operations or the destruction of critical infrastructure and basic supplies like water, food, power, and heat. The primary responsibility for addressing civilian humanitarian needs lie with the host nation government. However, units are advised to maintain contact with local authorities and international organizations to remain aware of the humanitarian situation and, where possible, to help prevent or mitigate serious deterioration. While the name and structure of disaster response agencies varies from one country to another, every national

government in Europe has such an organization, and it is often organized down to the local level. Additionally, units can expect to encounter representatives from the national Red Cross chapter, the International Committee of the Red Cross, the UN High Commissioner for Refugees, the European Civil Protection and Humanitarian Aid Operations department (within the EU), and others. For insight into local disaster assistance structures and organizations, if they are not immediately apparent, units can also reach out through their chain of command to the respective U.S. Embassy and USAID Humanitarian Assistance Advisors within the EUCOM J9.

Second, if civilians do feel compelled to displace, units will want to minimize the potential disruption to their MSR/ASRs, engagement areas, and maneuver corridors by deconflicting the times and routes that civilians can use. This too should rely heavily on coordination with local leaders who have the authority to restrict civilian movements, the policing assets to enforce those restrictions, the local media connections to disseminate such instructions, and – ideally – civilians' trust and good will to comply. Again, civilian U.S. government agencies may play a role in helping units establish those connections or even act as liaisons if they have representatives down to the tactical level.

Brigade commanders must also collaborate with UAPs to ensure that tactical operations remain nested with operational and strategic operations. The brigade S-9 is an appropriate lead planner for these operations, but a best-practice is for brigade commanders and S-3s to consider whole-of-government input. As early as step one of MDMP, the commander or an appropriate delegate should begin liaising directly with UAPs to establish relationships and unified action. DoS and USAID personnel will have appropriate security clearances and can integrate directly into the brigade future operations integrating cell (FOIC) for MDMP steps two through seven.

Training Tip (CDR, S-3, S-2, S-9): During Staff Table II, amend the unit PSOP to include the following task: "During MDMP Step 2, the S-9 produces an appendix to Annex A specifying UAPs in the AO and their primary, alternate, contingency, emergency (PACE) methods for contact. The S-9 initiates contact and parallel planning with UAPs prior to unit COA DEV and only migrates the contact roster to its own Annex during Orders Production."

Annex V is the Interagency Coordination Annex and includes intergovernmental and nongovernmental organizations. UAPs in the European OE also serve as valuable intelligence resources.

The European civil OE also presents additional legal considerations relative to other Army AORs. The brigade legal section must plan and prepare for operating with UAPs prior to deployment. The legal section contains the brigade commander's operational law subject matter experts, which must understand the status of different UAP policies to synchronize operations. For example, the law of armed conflict (LOAC) provides the International Committee for the Red Cross (ICRC) a role in LSCO. The brigade judge advocate (BJA) must ensure that the commander grants ICRC access to inspect the brigade's enemy prisoner of war (EPW) facilities. The BJA should also remain apprised of the international organizations (IOs) and nongovernmental organizations (NGOs) operating in the area. This enables the BJA to ensure the unit understands the following activities:

- Ongoing humanitarian efforts.
- Civilian law enforcement operations.

The brigade judge advocate (BJA) is then able to provide sound advice during the targeting process and prevent the brigade from causing unnecessary collateral damage. It is inherent in the judge advocate's role, as the legal advisor to the commander, to advise feasible precautions to protect civilians and ensure the staff recognizes the special status of different UAPs.

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CHAPTER 3

Multi-National Interoperability

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FRAMING

The U.S. is a member of NATO, whose members comprise of 32 states, 25 million square kilometers, 16 languages, and 1 billion people. Due to the factors described in chapter two, every armed conflict in Europe is inherently multinational. Multinational Interoperability (MNI) is not a subset of the tasks that a brigade needs to accomplish in Europe: instead, MNI is a critical component of all brigade operations across each WfF. WfF structure and processes can be entirely different to U.S. doctrine. The absence of appropriate technical and procedural planning may result in incompatible command and control (C2) equipment. The sustainment concerns of a multinational force can exponentially outpace a unit's organic logistics capabilities without strategic level support. The brigade must synchronize all these operations.

Visualize the number of UAPs present at a typical JMRC training rotation. Multinational Division–Hohenfels (MND-H), the rotational training unit (RTU) higher command (HICOM), a Polish division HQ with American, Belgian, Italian, and United Kingdom Attachments. One brigade is Polish; a second brigade is German; and the RTU brigade is Latvian. Within the Latvian RTU brigade there are battalions from the United States and Romania; there are companies from Lithuania and the Netherlands; and there are various platoons or sections from France, Kosovo, Macedonia, Spain, and Portugal. A similar scenario is likely during actual conflict in the European Theater. The problem presented in synchronizing this type of multinational (MN) force is difficult for any brigade to execute well.

Vignette (CDR): "Acknowledged PIR 2 answered. I've made my decision on DP4 – fire the RAAM minefields, time 0840." COL Nojus was confident that the enemy had committed itself to AOA HARE. The Belgian ISTAR company had identified the BTG recon the night prior from their forward hide sites, and American GMTI confirmed main body movement this morning as targets were handed over to Turkish UAS teams. The attached Paladin howitzers already had counter-fire radar radiating in support of the RAAM mission, and soon the enemy would funnel directly into the Czech battalion's EA. Through her frequent commander's dialogues with the Czech battalion commander, she was confident in EA DAGGER's preparation and execution.

4 hours from now, the Brigade would initiate its decisive counterattack somewhere in EA SPEAR with its Italian Ariete tank company, who were by far the most familiar with the undulating rat trails of the area. With DP4 met, COL Nojus also met her criteria to jump the TAC and began moving to her BMP-3.

MNI is the ability for U.S. and foreign militaries to act coherently, effectively, and efficiently to achieve allied tactical, operational, and strategic objectives. JMRC is distinct from other CTCs in its MNI specialization. To win in Europe units must excel in MNI at all echelons.

There are five JMRC Fundamentals for Interoperability Success:

1. **Send and Receive Liaison Officer (LNO) Packages.** Send the right personnel and equipment to speak on behalf of the parent unit, integrate with the host CP, build rapport, and conduct 24-hour operations.

2. **Understand Capabilities.** Conduct detailed capabilities briefs immediately upon LNO receipt, and update running estimates throughout MDMP.

3. **Prepare in detail.** Integrate attachments into all planning, order briefs, and rehearsals. Over-articulate transitions and technical synchronization.

4. **Establish Critical SOPs.** Develop and rehearse critical SOPs including reporting procedures; vehicle marking (day/night); fire control measures; passage of lines; call for fire; and casualty evacuation.

5. **Establish the COP.** Develop, disseminate, and update the complete COP on a deliberate battle rhythm that integrates LNO packages both above, below, and adjacent to your unit.

At the same time, interoperability spans across all warfighting functions into three domains:

1. **Human Domain:** The unique challenges of synchronizing language, terminology, and personalities at all levels of the multinational force.

2. **Procedural Domain:** How doctrine and organizational procedures enable forces to act coherently and effectively.

3. **Technical Domain:** The varying hardware and systems that bring together diverse capabilities while reducing resource demands.

Taken together, the five fundamentals and three domains create a framework for units to excel in MNI across all warfighting functions. The JMRC interoperability assessment framework is a useful tool to assess the level of interoperability observed in a task force. While most observed brigades achieve a level of deconflicted or compatible during rotations at the JMRC, units can initiate MNI training at home station to ensure that they achieve an integrated level of interoperability during CTC training. This chapter describes MNI fundamentals for each domain and WfF to enable units to win in Europe.

JMRC Interoperability Assessment Framework					
Focus Area	Dimension	De-conflicted	Not Interoperable	Compatible	Integrated
Characterization Principles		Partner has no demonstrated capability for interoperability with other partnered nations. No commonality of procedure or compatibility of equipment. Coordination is a factor of personalities and chance contact. No command relationships.	Human intervention at the point of friction enables alignment of dissimilar procedures and technical capabilities to address operating differences between partnered nations. Procedural and technical friction solved by providing capability through LNO package. Command characterized by detailed (tight) control of subordinate units.	Human interaction facilitates standardized procedure and temporary technical bridging solutions assimilate partner equipment across multinational formations. Command characterized by situational mix of detailed (tight) and directive (Mission Command) control of subordinate units.	Common doctrine and SOPs reduce the need for LNOs as center on advising and assisting gaining units to fill knowledge/experien-tal gaps. Permanent technical bridging solutions assimilate partner equipment across multinational formations. Command characterized by Mission Command (directive control) of subordinate units.
Priority Focus Area KM/IM; C&IS; Intel; Fires; Sustain	Human Domain Criteria	- No LNOs present. - No ability for higher HQ to C2 lower. - No common language.	- LNO functions as an RTO only, relaying information from the gaining unit to the sending unit. - Command functions through tight control of subordinate units (no autonomy/ initiative possible). - Communication through interpreters only.	- LNO push and pull common orders information. - LNOs incorporated into WfFs as parallel chain to organic staff. - Communication facilitated through a common language (could be the second language of both partners). - Mission Command through face to face interaction only.	- LNOs fully integrated into unit operations to facilitate command decisions. - LNOs functions as a member of the gaining unit staff in both CUOPS and FUOPS roles. - Communication through fluent usage of a common language. - Mission Command possible through direct and indirect interaction (OPORD/Radio...)
	Procedural Domain Criteria	- No common doctrine. - No commonality of procedures. -No SOPs exchanged.	- No formalized commonality of procedures. - SOPs exchanged, but not drilled. - No common doctrine for combined training or operations. - LNO serves as the swivel chair between dissimilar procedures.	- Common SOP established for purposes of situational mission. - Common doctrinal framework facilitates basline shared understanding for combined training or operations.	- Common SOPs shared across formations. - Common doctrinal framework supports combined training and operations. - Institutionalized common training background facilitates rapid integration of dissimilar formations.
	Technical Domain Criteria	- Technical incompatibility of equipment completely prevents interface.	- No direct compatibility of equipment; LNO serves as "technical" bridge between separate, discrete technical capabilities. - Communications facilitated only through LNO package equipment.	- Indirect compatibility of equipment; communication facilitated through temporary bridging solutions. - LNO equipment required to complete a combined PACE.	- Direct compatibility of systems; communications architecture facilitated permanent and common bridging solutions. - LNO equipment package not needed to facilitate complete PACE.

Figure 3-1. JRMC Interoperability Assessment Framework[1]

HUMAN DOMAIN

The MNI fundamental that best address the human domain is "Send and Receive LNO Packages." Human interoperability addresses human based activities (behaviors, actions, pursuits) which develop and support shared understanding and mutual trust among UAPs. Human interoperability is fundamental to developing purpose, unity of effort, and reducing friction in the LSCO OE of Europe. Common challenges faced within human interoperability include language barriers, cultural differences, different graphical control measures, poor communications with parent unit, poor integration of liaison officers (LNO) by gaining unit, over-tasking LNO, and foreign disclosure limitations.

Brigades must leverage LNO packages. Each MN Battalion detaches an LNO package to the brigade headquarters (HQ), and from the brigade HQ to division and adjacent brigade HQs. An LNO package must have at least two personnel to enable 24-hour operations and should arrive at the gaining unit with at least one vehicle and two separate communications platforms linked back to their parent unit. Brigade LNO packages to adjacent brigades should include at least one staff Captain able to speak on behalf of the parent unit's brigade operations.

Execution Tip (XO): MNI is a collective responsibility of the staff. Specify the following integration tasks into each WfF's CPSOP and TACSOP responsibilities for LNO packages. Update the unit CPSOP to provide LNOs with dedicated workspace.

C2: No later than (NLT) MDMP step 2, draft the unit-to-unit PACE for all subordinate elements to communicate directly with each other. Synchronize with BDE CDR, XO, and S-3 regularly for LNO requirements throughout MDMP and include liaison requirements in paragraph five; synchronize with LNO to validate LNO C2 package.

Intelligence: Immediately integrate LNO packages with the foreign disclosure officer to establish CP interoperability and information sharing requirements/guidelines.

Fires: Ensure that maneuver LNOs and fires battalion LNOs conduct direct coordination to confirm call for fire procedures. Initiate MN legal advisor integration NLT MDMP Step 2.

Protection: Establish the Provost Marshall as the protection MNI lead.

Sustainment: Establish the assistant S-4 as the sustainment MNI lead. During MDMP Step 2, conduct a sustainment working group to assess unique sustainment requirements and MN organic asset shortfalls.

M2: Exchange LNOs immediately upon linkup with multinational forces: up, down, and adjacent to your unit. Exchange full LNO packages capable of organic communication and 24-hour operations. Ensure LNOs maintain Running Estimates to speak on behalf of their parent unit.

Commanders at each echelon that provides LNO packages must certify that they are sending the correct Soldiers for the mission. LNOs must be proficient in the operating language of the gaining unit (English or French for NATO units); should be familiar enough with the commander's intent and priorities to speak on their behalf for routine RFIs; and be personable enough to integrate with the gaining unit's culture and customs.

During Tables III-V, brigades should establish LNO duties and responsibilities and specify them in the planning standard operating procedure (PSOP) and command post standard operating procedure (CPSOP). A best practice is to specify LNO duties spanning all six WfFs focused on the following:

- Update the COP.
- Provide critical running estimates about their parent unit.
- Maintain continuous communication with parent unit to help synchronize operations.

While LNOs provide valuable running estimates to brigade planners on their parent unit's capabilities and limitations, LNOs do not replace the need for commanders to consistently set aside time for commander-to-commander dialogues with their MN partners to establish shared understanding and unity of effort.

NCO Dynamics on Mission Command with Multinational Forces (MNF)

The essential aspect of the human domain of interoperability is understanding the allied or partner counterpart. Specifically, one must take the time to understand both the social and military culture of the counterpart's military through staff and commander engagement. European militaries empower and employ their NCO Corps differently. It is important to avoid "mirror imaging" wherein a person projects their own way of operating on someone else, or assuming another military operates similarly to the U.S. Army. Mirror imaging can lead to degraded trust with allies and partners or foster a perception of U.S. arrogance, rather than the desired mutual confidence within the MN force.

Field Manual 3-16 The Army in Multinational Operations paragraphs 1-13 through 1-26 describe the intangible considerations in achieving mutual confidence necessary during multinational operations. These considerations are respect, rapport, knowledge of partners, patience, team building, and trust. Through engagement at echelon and integration of LNO teams, successful units build shared understanding and gain mutual confidence.

It is important to understand that there may be differences in the Officer-NCO relationship within MN unit cultures in Europe and NCO roles in executing operations and the philosophy of mission command. Although sometimes used in a different capacity than the U.S. NCO Corps, MN NCOs serve an important role and are value-added in their organizations regardless of the mission command philosophy that military follows. A key to success when working with MN units is to establish relationships early to begin building the MN team with unity of purpose and mutual confidence.

Regardless of how a MN unit leverages their NCO Corps in the conduct of mission command philosophy, being respectful of other cultures and leveraging their tactical and technical strengths will have greater effects when building the team. Units must foster this teamwork to succeed in a multinational environment. Patience, empathy, and building rapport with NCO counterparts will ensure success in operations with MN units regardless of the capacity in which they are employed.

PROCEDURAL DOMAIN

The MNI fundamentals that best address the procedural domain are:

- Establish Critical SOPs.
- Establish the COP.

Procedural interoperability addresses processes and procedures which support and organize activities among UAPs to maximize shared understanding, mutual trust, and unity of effort. To facilitate interoperability between U.S. Forces and NATO partners, NATO has developed standardization agreements (STANAGs) and allied doctrine publications to provide a common set of guidance for all NATO forces. Currently there are 1,184 STANAGs and doctrinal publications. However, existing STANAGs are insufficient for a multinational force to achieve interoperability at the brigade level and below. Units must establish tactical SOPs with all subordinates, parallel, and higher units.

Brigades face many common challenges within the procedural domain that are exceptionally important for MNI:

- Units frequently misinterpret common tactical tasks and commanders must set aside routine commander-to-commander dialogue to create shared understanding.
- Units must prevent death, especially when UAPs share equipment variants with the enemy.
- Allies may have different rules of engagement standards.
- During MDMP, planners and the judge advocate must consider partner nation policy and law (means, methods, targeting, and detention).
- UAPs may attach to the brigade in elements as small as platoons or squads. The brigade is responsible for integrating these units into their operations and it is important to share common terminology, document templates, reporting formats, and processes.

Vignette (M2, Fires): during a rotation at JMRC, a MN Brigade had four separate nations' personnel conducting a fire mission between the observer; the fire support element (FSE); the Battle Captain; and the firing battery. The force's TTP for "immediate suppression" was to default to "load, fire when ready." The FSE processed the fire mission faster than the Battle Captain could correctly clear ground, and the unit committed death against the observing unit's company commander and HQ.

To overcome the challenges of integrating MN task force units, brigades should use the NATO STANAG library[2] and NATO Terminology Database.[3] The STANAGs provide vetted solutions for multiple MNI problem sets.

Like any doctrine, an important reality is that STANAGs do not (and should not) cover everything. Brigades will still receive attachments and must certify that they build combat power, integrate with systems, and are prepared to conduct LSCO on a fraction of the shared training that units enjoy with their organic HQ. This presents immense challenges for both the brigade and attached forces and synchronization must occur as early as possible during the operations process. For a JMRC rotation, this can take place during the leader training program, planning conferences, or rotation arrival days.

Execution Tip (XO): Establish critical SOPs for each WfF early in the planning process and refine other SOPs when able. Mustang team recommends the following critical SOPs:

C2: Publish CPCE/SitaWare as the primary digital COP; ensure SharePoint (not share drive) is the local data repository; segment chat rooms by WfF and limit participants; include adjacent and MN units in communication status (COMSTAT) and MCVE.

Intelligence: Many products created by brigades or higher US echelons, especially SIGINT and GEOINT, are difficult to share with UAPs. During RSOI, have FDRs at every echelon conduct WRITE FOR RELEASE training.

Fires: During MDMP step 2, establish FSE SOPs on firing date to include the maximum ordinate, gun target line, platoon hazard area, target hazard area, and ground clearance procedures. During the fire support validation exercise, establish the classification of hardware and systems in the target kill chain.

IRC: During RSOI, personally integrate EW MN attachments and conduct a CIMIC/PO SOP working group.

Protection: Follow NATO STANAG 2451 for CBRN operations; STANAGs 2296 and 2226 for MP operations; and NATO Standard ATP-82, par 3.2.2 – 3.2.6 for ADA operations. During MDMP Step 2, analyze friendly minefield Rules of Engagement (ROE) and coordinate with the SJA for specific national caveats. During MDMP Step 2, conduct a STANAG working group for all protection functions with special focus on detainee/IDP operations.

Sustainment: Integrate individual vehicle and weapon variants into the combat power tracker, task organization diagram, and LOGCOP. During MDMP Step 2, create running estimates on Common User Logistics vs. special national CLI, CLIII CLV, CLVII, and CLIX requirements. During MDMP Step 3, include MN maintenance procedures in the Concept of Sustainment.

M2: During RSOI, establish a vehicle marking and fratricide prevention SOP. Conduct an identification and fratricide prevention rehearsal down to the fire team level. During RSOI, create the unit Mission Command Validation Exercise (MCVE) format listing all units on both the X and Y axis. Fill the body of the MCVE table with a specific PACE for each unit to communicate directly with each other. NLT MDMP Step 5 publish Annex R (reports).

A special MNI consideration is aviation. Partner maneuver brigades typically do not contain a brigade aviation element and instead have a tactical air controller or liaison section. These sections focus on fixed-wing support and are less familiar with rotary wing aviation forces. When working with a partner brigade, discuss U.S. rotary wing capabilities as maneuver elements (rather than fire support elements) and establish air control SOPs. The BAE must integrate with adjacent multi-national units immediately after task organization to solidify and disseminate these SOPs.

The most prevalent legal interoperability concern occurs in the procedural domain. Our allies and partners may operate under different legal frameworks based on international treaty obligations, differences in treaty interpretation, national legal constraints, or different operating procedures.

Training Tip (Legal): Prior to deployment, familiarize your section with the following publications.

Geneva Convention Additional Protocols:

Convention on Cluster Munitions (CCM): prohibits signatories from authorizing the use of dual-purpose improved cluster munitions (DPICM) on area targets or to resupply units using the munition.

The Ottawa Treaty: causes friction due to the ban on anti-personnel mine usage by many allies and partners while the U.S. Combat Command CDR may authorize anti-personnel mine usage.

The Geneva Convention (GC), relative to the treatment of prisoners of war, is an example of how both treaty interpretation and operating procedures impact detainee operations across allies and partners. In the U.S. doctrine, we categorize all captured persons as detainees. The U.S., based on our COIN experience and doctrine, does a poor job of differentiating between the sub-categories contained in the Geneva Convention of EPW, retained person, civilian internee, and unprivileged belligerent. Our allies and partners may interpret the detainee as a detainee status-unknown requiring a GC article 5 tribunal to determine status. This difference in interpretation and operational procedures creates an issue at the point of transfer of EPWs. At the point of transfer, organizations must capture the categorization and required treatment to avoid hesitation to transfer, or assume, responsibility to the U.S. from our allies and partners. The brigade generally does not understand the nuance between detainee and EPW.

Execution Tip (Legal): Immediately upon deployment notification and NLT MDMP Step 2, conduct a National Caveat Working Group to synchronize researching all MN partner caveats. Provide critical caveats, such as those directly impacting munition use or sustainment operations, to the COS/XO/S-3.

Establishing the COP is another foundation to succeed in MNI. The COP is an essential element of any CP, but the inherent challenges of MNI require much more commander and staff attention to synchronize the COP. The COP provides a single data point that MN attachments can reference to gain understanding and provide reports while mitigating other language and procedural friction. Brigades must specify in their CPSOP and PSOP which of their UFPs and any other products displayed on the COP, and it is essential that brigades certify the suitability, completeness, and procedures of these products during Tables III-VI.

In addition to the eight UFPs recommended by Mustang team, the COP should include routine running estimate formats designed to answer PIRs and FFIRs throughout the operations process – including emergent FFIRs that are inherent to Army operations. The sustainment section must pay special attention to nuances of the MNI COP to include metric vs imperial systems (liters vs gallons); medical licensing and equipment standards (stretchers, oxygen tanks); and CL V unit deployment load restrictions. Every WfF has similar COP considerations.

Training Tip (CDR, XO, S-3): Train at home station to create, disseminate, and update the COP. Specify the following formats and considerations in your unit's PSOP and CPSOP and certify the COP during Tables III-VI.

C2: COMMSTAT**;** C2 section of EXMAT (C2 node jumps, TOC-TAC transition briefs, active retransmission sites). Who has the fight right now? What happens if a CP gets targeted right now? When is the next CP jump?

Intelligence:– EVENTEMP; ICSM; IC Overlay; BDA tracker; SIGACT tracker; UAS combat power tracker; Intelligence section of EXMAT (NAIs, PIRs, DPs, special IC). Is the latest spot report an indicator of the enemy COA? Is the enemy that we are seeing the enemy that we planned for?

Fires: FSEM; Fires Overlay; AGM; HPTL; Fires and Radar Combat Power Tracker; Fires section of EXMAT (PAA jumps, group targets, counter-fire, EAB assets). How are we targeting the HPTL? Is fires synchronized with maneuver and intelligence?

IRC: IO Overlay; IO section of EXMAT; IO SIGACT tracker; unit themes and messages. Is IRC synchronized with maneuver, intelligence, and fires?

Protection: MCOO; PPL; Air Defense Overlay; Protection section of EXMAT (obstacle efforts, breaches, lanes, EA DEV, decontamination sites). How are we controlling and assessing protection operations? Are we massing protection assets in support of the PPL?

Sustainment: Combat Power Tracker; PERSTAT; LOGCOP; Sustainment section of EXMAT. When is the next LOGPAC and is everybody tracking the 5Ws? Are we massing sustainment assets against the right priorities?

M2: Operations Graphics; DSM; EXMAT; Concept Sketch; Task Organization Diagram; Unit Locations up, adjacent, and 2-levels down. What is the battle rhythm and PACE to disseminate the COP up/down/adjacent and to receive updates from those units?

"Interoperability is a critical topic to the alliance, because being effective results in a more credible, collective defense of Europe."

– COL John J.Hosey (V Corps SEC-COOP and Interoperability Lab)

TECHNICAL DOMAIN

The MNI fundamentals that best address the technical domain are:

- Understand Capabilities.
- Prepare in Detail.

Technical integration involves the establishment, operation, and maintenance of networked hardware, software, services, and applications. These applications support the exchange of data and information between UAPs using Communication Information Systems (CIS) to create shared understanding between units. Units must establish technical interoperability to win in Europe.

MNI success in the technical domain relies on unit preparation prior to deployment:

- S-6 leaders from all NATO and partner nations must obey timelines for requesting satellite access (90 days), NATO communication security (COMSEC) (45 days), and static frequencies (90 days).
- COMSEC managers must confirm key requirements (training vs. operational vs. NATO) NLT 60 days prior to deployment to ensure that they request the right keys.
- Multinational HQs must allocate enough high-frequency (HF) bandwidth for all MN partners, CPs, and reconnaissance elements.
- Not all MN partners have very-high frequency radios (VHF) with frequency hop capability. S-6 Spectrum Managers must identify and coordinate static frequency requirements at least 180 days prior to deployment.
- Units that have federated Mission Partner Environment (MPE) networks must bring all their MPE equipment and not rely on Expeditionary Signal Battalion Satellite Communication (EAB SATCOM) support teams as those teams focus on supporting other Army echelons. Contact the AOR S6 as soon as possible to configure firewall exceptions.
- Units build 2x server stacks with MPE services (minimum of CPCE, XMPP chat, SharePoint, and email) to allow uninterrupted access during MAIN/TAC displacements.
- Units must sign intent agreements with U.S. Army Europe-Africa 180 days prior to secure federated network access.
- Fires and S6 OICs coordinate with USAREUR-AF counterparts to allow classified PFD/SCU grid data to cross domain into MPE-imaged AFATDS (Advanced Field Artillery Tactical Data System) boxes (2CR set precedent during Operation Griffin Shock 2023 with ETPs from NGA and USAREUR-AF Commander).
- Front load C2 MNI equipment during deployment activities to allow for equipment setup and validation immediately upon arrival in Europe.
- Fires OIC identifies Artillery Systems Cooperation Activities (ASCA) membership status of multinational partners (MNPs) and configures Fires C2 systems sharing accordingly.
- S6 RSOI huddles include the MNP S6 OIC, MPE SME and COMSEC custodian to validate C2 architecture.

Execution Tip (XO, S-6): Designate a TVB tough-box immediately after deployment notification. This tough-box should contain all the other end items necessary to establish TVB connectivity across the MCP, TAC, and one additional CP. Failing to physically separate this equipment risks the allocation of radios to different, lower-priority C2 networks.

NLT than RSOI day 2, ensure that the Spectrum Manager issues the correct HOPSET to all units including MN partners and supporting aviation units.

Training and Execution Tips (XO): Enforce the following pre-deployment and operational WfF TTPs to ensure technical interoperability**.**

C2: During deployment operations, inspect Type 1 encryption equipment ISO FM, SITAWARE, and Tactical Voice Bridge operations along with sufficient FM, HF, and VHF radios for the CPs and possible LNO attachments. During RSOI, establish MPE connectivity and accounts for all staff primaries, alternates, and battle staff.

Intelligence: during RSOI, convert a DCGS-A IFS from SECRET to MPE. During MDMP Step 7, conduct an IC Technical Rehearsal.

Fires: During Tables V-VI, conduct NATO Artillery Systems Cooperation Activities (ASCA) training for all fires COIC staff members. During MDMP Step 7, conduct a Fires Technical Rehearsal.

Protection: During MDMP Step 2, confirm attached EN and ADA CLIII, V, and IX requirements. During MDMP Step 2, coordinate directly with Sustainment to produce the concept of sustainment for protection assets.

Sustainment: During RSOI, establish DF2, MOGAS, and JP8 storage capabilities. During MDMP Step 2, confirm DF2 and MOGAS projected consumption and resupply with MN attachments.

M2: During Tables I-VI, conduct CPCE training for all COIC staff members. CPCE and SITAWARE are common across most NATO partners. Include COP dissemination and subordinate updates during MCVEs.

Execution Tip (CDR, XO, S6, FSO): Staff Leaders set milestones for MNI progress with clear CCIR suspense, which will allow the commander to advocate higher levels of command for support in enough time to achieve tangible results.

3 months out: MNP firewall exceptions successfully tested for MPE services and ASCA systems; Commander emphasis needed if more expertise (U.S. and/or MNP) required or if MNP effort is lacking. All units have acknowledged the correct NATO COMSEC key titles and have requested them from their host-nation COMSEC authority.

6 months out: U.S. and MNP commo card drafted. Number of required static frequencies agreed upon in writing and the host-nation Spectrum Manager notified to begin request process.

9 months out: MNP echelon federated on MPE and has enough federated systems (that can also leave the country) to organically match WfF counterpart; MNP has full member status in ASCA. *The Commander must know if either is not capable or must inform higher command to intervene.

Tactical Voice Bridge (TVB) is an essential CIS for the European OE. Units must commit at least four radios, two power amplifiers, one power supply and two 10-meter antenna masts (with elements) for TVB connectivity between physically displaced CPs. Finally, the MCVE is critical to MNI success in Europe. The brigade S-3 must lead and execute the MCVE so that it correctly captures all units and systems in the brigade's C2 architecture. This enables the brigade to validate that the Partner Accessible Network (PAN) is available to all participating nations, or compile the

correct information to troubleshoot issues. Digital and analogue COP dissemination is a critical component of the MCVE and includes any "swivel-chair" human-to-human updates between separate C2 systems. Correctly executed, the MCVE validates not only CIS but the holistic architecture that enables the brigade to conduct the functions of a command post.

Technical interoperability is a rapidly evolving field. Any system that automates data and reduces human-to-human conversion will increase technical interoperability. Brigades must conduct an MCVE to synchronize all these system's interoperability.

CONCLUSION

Staff from each WfF must use these comments as a guide on understanding MNI problems and then work with their partners to solve those problems in each of the human, technical, and procedural domains. Upon deployment notification to Europe, begin running estimates on the different UAPs with which you will serve. Send requests for information up to your higher headquarters to determine the nationalities, equipment, and training status of partner units in your area of operations (AO), then continuously update those running estimates through deployment and into the operations process. Remember the five keys to MNI success:

1. Send and Receive Liaison Officer (LNO) Packages.
2. Understand Capabilities.
3. Prepare in detail.
4. Establish Critical SOPs.
5. Establish the COP.

Assign each staff section and WfF direct responsibility over its unique MNI considerations. It is very difficult for units to train on this at home station without outside support, but staffs can still integrate these planning factors into their unit SOPs during Staff Training Tables I-VI.

Training Tip (XO, S-3): During Staff Training Table II, update the unit CPSOP to include LNO package integration and workspace in the MCP.

During Staff Training Table IV, include MNI adjacent brigades and one attached subordinate UAP company (coy) in the higher HQ exercise OPORD.

During Staff Training Table VI, include one MNI attached subordinate battalion in the higher HQ exercise OPORD. Establish a corresponding response cell for that unit either from an adjacent Brigade or subordinate detachment.

END NOTES

1. JMRC Interoperability Assessment Framework. Operations Group. Joint Multinational Readiness Center.
2. "NSO Public Website." n.d. https://nso.nato.int/nso/home/main/home.
3. "NATOTermOTAN." n.d. https://nso.nato.int/natoterm/Web.mvc.

CHAPTER 4

Warfighting Function Observations and Best Practices

LTC Nicholas Talbot, CPT Jeffrey Nielsen

FRAMING

Chapters of this handbook frame the overall Brigade problem set in Europe. Many solutions available to brigades for this problem set involve integrating all six warfighters (WfFs) into combined arms operations using decision-point tactics. Before brigades can successfully integrate their WfFs, each WfF must be proficient in its individual and collective tasks. Brigade staffs must see themselves not as a collection of "shops" or "OICs" but as staff sections and platoons with Section Leaders and Platoon Sergeants responsible for everything that their unit does or fails to do.

To better describe the Mustang Team's observations of brigade (BDE) operations from 2021-2023 and associated best practices, this chapter consists of sections for each WfF and special staff section to frame section-specific problem sets encountered at JMRC. Each section is composed of a Bottom Line Up Front sub-section that summarizes all observations and recommendations; specific trends observed; Best Practices to adopt; and example unit fighting products (UFP) which support each WfF. These recommendations orient on things that the brigade controls and can therefore change.

*Modified Table of Organization and Equipment discussions are based on ABCT (armored brigade combat team) MTOE (modified table of organization and equipment).

COMMAND AND CONTROL

LTC Jeremy Glosson, LTC Jason Young, MAJ David Anderson, CPT Jeffrey Nielsen, CPT Chad Bird

Bottom Line Up Front

Command and Control must be the brigade staff's number one training priority to win in Europe. Decision point tactics (DPT) depend on the Commander's ability to make decisions during execution, and that further depends on unit fighting product target at the current operations staff. The inherent complexity of brigade operations combined with the unique operational environment (OE) of Europe challenges units across all six WfF throughout each step of the operations process. Command and control (C2) is the essential WfF to unify the efforts of the other five within the headquarters (and down to subordinate units) into a cohesive set of decisions and corresponding PIRs. Commanders and staff must conceptualize C2 as a collective training task between all sections of a brigade HHC. Each staff section must be proficient in their individual tasks, create and use UFPs efficiently, and synchronize operations through both the current operations integration cell (COIC) and future operations integrating cell (FOIC) staffs.

C2 includes the staff processes that enable them to conduct the functions of a command post, inform the commander's decision-making, and execute those decisions using efficient fighting products and mission orders. C2 platforms and networks are the technical vehicles that allow the commander and staff to conduct C2 processes.

To ensure that both systems are prepared for the large scale combat operations (LSCO) OE of Europe:

1. Focus on how the commander makes decisions, and how staff processes and UFPs help inform those decisions.
2. Establish, validate, and maintain C2 networks and equipment prior to deployment.
3. Integrate the Staff Judge Advocate at all steps of the operations process with special emphasis on targeting.

Execution Tip (Commander): emphasize the importance of decision-making during execution by providing the COIC staff with verbal guidance at least twice per day. Assess the current DSM, describe which decisions you anticipate making next, and provide your current disposition about that decision.

The staff leader for C2 platforms and networks is the S-6. The S-6's primary duty is to provide the commander with assured communications to the higher command and their subordinate unit commanders. As the decisive WfF of brigade operations, C2 ensures unity of effort to maximize the other WfFs effects. While the S-6 is responsible for advising the commander and staff on technical and training issues related to the integration of CIS.

The S-6, Signal Company (S-6), and company communication representatives are essential in preparing and validating the commander's PACE. To defeat a hybrid threat in the European OE, brigades must execute the following tasks throughout the operations process, the BDE XO must oversee the integration of C2 capabilities across all WfFs to provide the Commander (CDR) with timely and accurate information to make decisions:

1. Identify all communications equipment at echelon, one level up, and two levels down to understand PACE requirements. Generate and synchronize realistic PACE plans among all command nodes.
2. Assess and maintain communications equipment to ensure consistent technical specifications and compatibility one level up and two levels down.
3. Communicate PACE options to commander and staff and develop WfF-specific PACE plans. Add these to the CPSOP and MCVE checklist.
4. Nest Signal Assessment Tables (SATs) into the Unit's collective training plan that leverage desired WfF-specific PACEs. Conduct a quarterly Tactical Radio Academy (TRA) to ensure RTO-baseline proficiency.
5. Direct and supervise maintenance of C2 equipment.

Training Tip (XO, Chief of Plans): train and validate CIS crews during Staff Tables I-II to certify that your equipment is operational even when physically displaced between CPs and away from your garrison C2 support systems.

To accomplish these tasks, brigade S-6s must create a culture of face-to-face communication, solution sharing, diligent maintenance, and mutual trust.

EUROPEAN THEATER CONSIDERATIONS

Training with NATO partners requires an understanding of what the U.S. Army S-6 can support as opposed to where the NATO partner must be self-sufficient. Note the following interest areas to prepare for upper- and lower-tactical internet communications.

Radio Communications

COMSEC: Ensure your MN partner has received NATO communications security (COMSEC) from their host-nation spectrum manager. It is illegal for U.S. personnel to fill another nation's SKL – even with similar NATO COMSEC. Although it is legal to fill another NATO nation's radio with NATO COMSEC, to do this on a wide scale is cumbersome and unrealistic in a distributed environment.

Cryptographic Capability: Not all NATO nations have an abundance of radios able to transmit via Frequency Hop (FH). When participating in an exercise, check at least three months prior to the exercise to see if the NATO partner's radios have FH capability. This will provide enough time to request static frequencies for Single Channel Cypher Text to cover any gaps.

Internet Communications

Network Federation: When planning to train with a MN partner, the lead U.S. planner must ask them the following questions at the initial planning conference to ensure all parties understand what needs to be done to federate (join networks together):

1. Is your multinational network classified as NATO Secret? Note, the classification of 'NATO Restricted' does not suffice and cannot federate with Mission Partner Environment (MPE). If the answer is no, this needs to be addressed immediately by senior-level commanders.

2. At what echelon(s) do you have NATO Secret /MPE equipment? How many servers, encryption devices, satellite dishes, laptops, and printers do you have dedicated to MPE by echelon? If the answer is not brigade and above (with quantities commensurate to supporting a BDE Main and TAC), this needs to be addressed immediately by senior-level commanders.

3. Are there any limitations to how many systems can leave host nation? Are there competing missions that would prevent a full complement of systems to support the combined exercise? If answered is yes to any of these questions, this needs to be addressed immediately by senior-level commanders.

4. Are your systems and subject matter experts able to depart host nation as a torch party to conduct a validation exercise prior to Main Body arrival? This is not as critical, but a commitment communicates how serious the multinational partner is to achieving upper-tactical internet objectives.

Digital COP: Many NATO partners use software similar to CPCE that is also made by SitaWare. Even if federated with a MN partner, it is unlikely CPCE, and the other SitaWare-COP suite will publish and subscribe to one another. However, the files are cross-compatible for base layer sharing via exporting to disc.

Electronic Warfare: Any unit training in Europe, whether U.S. or NATO partner, must adhere to the general timeline to ensure EW training can legally achieve training objectives:

1. Ensure EW equipment is registered on the Host Nation Spectrum Worldwide Database – Online HNSWD-O) as part of NET/NEF.
2. No later than 5 months out, coordinate with the CTC spectrum manager on a frequency range which the OPFOR will be operating.

Send a request to the National Radio Frequency Agency (of the country the training will occur) with the equipment name, exact frequencies, and power level you wish to operate – no later than 4 months out from the exercise. Failure to meet this 4-month requirement will likely result in failure to use equipment.

Trends

Brigade commanders understand the importance of decision-point tactics during LSCO operations. Brigade staffs struggle to create products and processes that inform those decisions, and future operations staff do not create the necessary products during MDMP that will enable COIC staff and subordinate units to effectively execute those decisions. Most brigades make decisions based primarily on commanders' intuition because the staff does not provide relevant running estimates. Brigades frequently execute sub-optimal decisions in response to both misunderstood threats and missed opportunities.

A proximate cause of this lack of decision flexibility is deficient unit planning processes and SOPs. Staffs conduct MDMP as a linear checklist of briefs rather than as an iterative process between UFPs. Most planning time is spent on products that do not drive other staff outputs; are not transitioned to the COIC for execution; and do not enable decision-making during execution.

S-6s often arrive at JMRC with insufficient home-station training and incomplete SOPs. S-6 SOPs lack defined Signal Operating Instructions; 10-level how-to-guides; JBC-P Bumper-to-Unique Reference Number rosters; and Commo Card, Annex H, Satellite Access Authorization, Light Directory Interchange Format, COMSTAT, and MCVE templates. Radio programs and COMSEC are not issued to end-users at lower echelons. The hopset for adjacent units and aviation do not match the brigade's hopset. Crews do not have offline digital versions of technical manuals and smart books to support troubleshooting and maintenance.

Execution Tip (Commander): decision-point tactics provides you with the flexibility to fight the enemy instead of fighting the plan. Ensure that your staff provides an initial decision support template during Mission Analysis; provide planning guidance about the template during COA DEV; and personally review the completed decision support matrix during COA analysis. These techniques help synchronize staff processes with your vision.

Best Practices

Approach C2 training as a cross-WfF effort between C2 processes and C2 technical networks. C2 training involves a clear delineation between UFPs that inform decisions on the COIC floor; how to update and report UFPs to the commander for decision-making; how planners develop UFPs efficiently; and how UFPs enable the brigade to execute decision-point branch plans. This technique is frequently referred to as decision-point tactics (DPT). For C2 platforms and networks, NLT Staff Training Table I, S-6s should exhaust all resources

(Force Management System web, Consolidated Property List, G-6, adjacent S-6s, CECOM Lead, junior Signal leaders) to understand what equipment and capabilities exist in their brigade. NLT Staff Table II, conduct capabilities brief (no more than three slides) to the BDE CDR and XO to synchronize the CPSOP with Staff Table III-VI training.

Successful S-6 section leaders get "Business Display All" accounts for GCSS-A. This enables the S-6 to personalize, prioritize, and expedite C2 maintenance directly with the brigade Maintenance Officer.

The S-6 and Signal Company Commander share responsibility in participation of the BDE Maintenance Meeting. This will assure maintenance leaders have visibility on key C2 maintenance issues that technically are not deadline faults in GCCS-A. Finally, Signal Teams must be "professionally extroverted. An S-6 section that overcommunicates; answers RFIs; and collaborates with the other WfF sections will anticipate requirements and provide flexibility to the commander's C2 structure. S-6 section leaders must personally coordinate with the brigade command team daily to synchronize C2 priorities. Successful S-6 sections hold weekly synchronization meetings that identify friction points, establish priorities, direct action, and maintain mutual trust between all the sections. 15-minute touch points are critical to synchronizing NCO and Soldier tasks to ensure that they get them accomplished on time.

Execution Tip (S-6): create "priority of work" whiteboards (8.5"x11") for each of the S-6 section's teams and review them daily. Ensure each task has a suspense. MRE boxes are a field-expedient alternative to whiteboards.

Unit Fighting Products

The DSM is the most critical UFP owned by C2. The DSM is an essential UFP because it directly ties all branch plans of the operation to PIR and reporting to enable the commander to make decisions during execution. The key to a DSM in the European OE is the presence of alternative actions if the organization is unable to meet criteria for a planned decision. Figure 4-1 is an example DSM that captures this TTP while providing enough detail to COIC personnel to inform commander decisions during execution.

The S-6 is responsible for a COMSTAT that captures the personnel, equipment, and training readiness of each C2 PACE item. The COMSTAT is an essential S-6 product because it enables the COIC to receive reports, assess the status of the brigade's C2 architecture, and issue fragmentary orders (FRAGORDs) to either move down the PACE or prioritize C2 maintenance. Successful S-6 sections develop and maintain the COMSTAT at homestation to validate the format and train subordinate units.

Prior to each training exercise, the S-6s and signal company commander must conduct a communications exercise (COMMEX) to ensure systems are properly imaged, networked, and interoperable. A COMMEX is distinct from an MCVE because a COMMEX focuses on the technical status of CIS while an MCVE also certifies the processes conduction on those CIS.

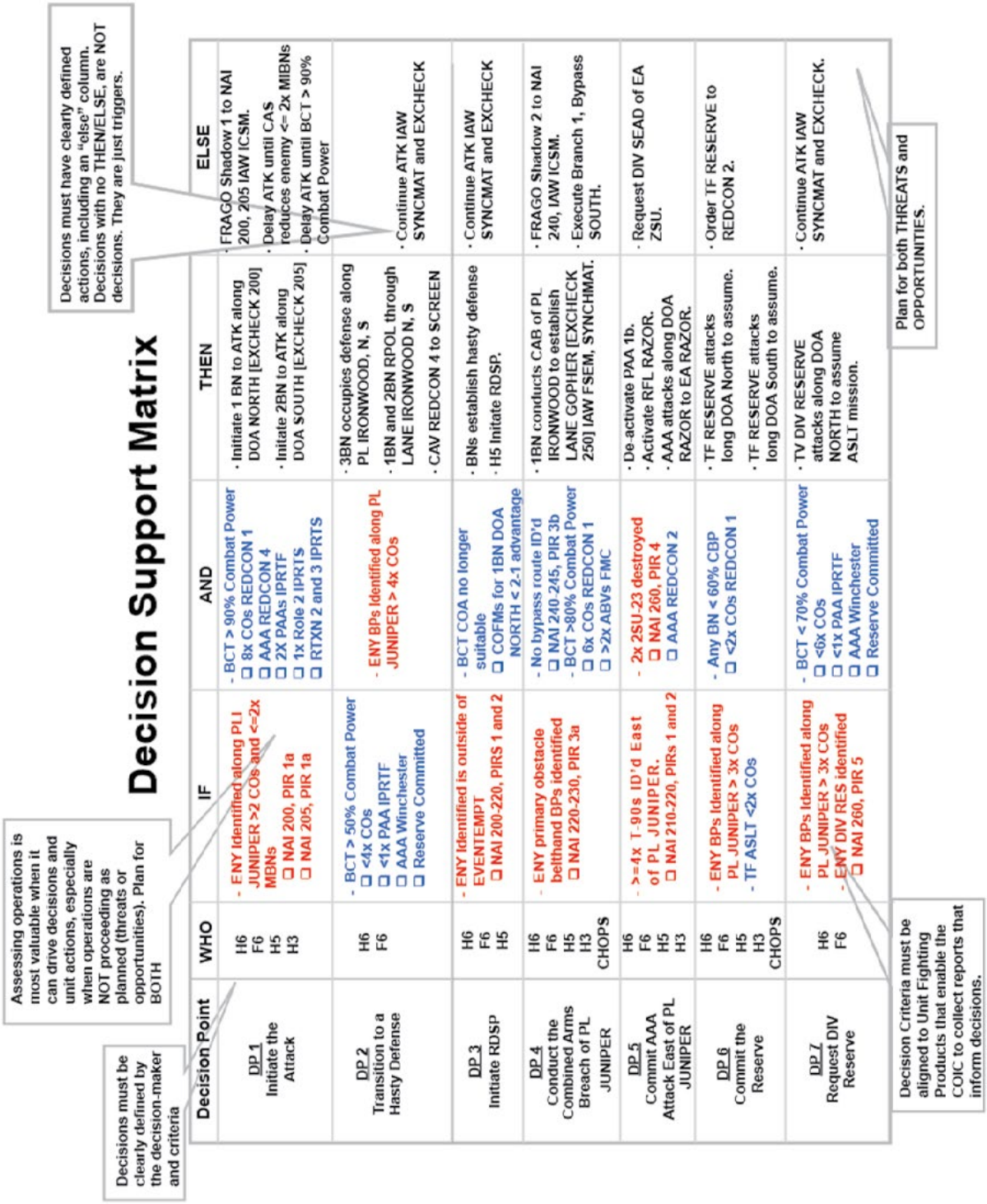


Figure 4-1. Example Decision Support Matrix[1]

Include observed trends that span multiple subordinate units.

Personnel and Equipment blocks show both readiness and quantity.

Arrows show improvement or decline from last report.

XBCT Signal Readiness Status

Trends: 152s getting turned into C&E for mass to repair depot
S6s getting GCSS-A Access to better track maintenance; (7BEB, 10BSB and SigCo have access: 1-32, 3-71, 1-87 are processing)

	TCN		STT		GATR		PoP		HF		148/152s		117F/G		RTNS		TOC JBC-P		CPOF SIPR		COMSEC		Staff Duty			
	P	E	P	E	P	E	P	E	P	E	P	E	P	E	P	SNE	P	E	Acts.	E	HRH	E	FM	JBCP	HF	Tacsat
BCT HQs							4/4	2/2 ↑	5/5	6/10 ↑			4/4 ↑	4/4			2/6	2/6	6/11	6/17	1/7	1/7				
SigCo	5/6	3/3	3/3	3/3	2/2	0/1			7/7	6/7					9/9	3/3					4/4	4/4				
2-22IN	2/2	1/1	2/2	1/1 ↑	2/2	0/1	2/2	1/1	6/9	8/11 ↓	56/56	16/56	5/5 ↑	5/5 ↑	6/6	1/2	2/2	1/2 ↓	9/11	2/3	6/6	6/6				
1-32IN	2/2	1/1	2/2	1/1 ↑	2/2	0/1	2/2	1/1	12/12	11/12 ↑	102/102	54/102 ↑	12/12	11/12 ↑	2/6 ↓	2/2 ↑	3/3	3/3 ↑	7/11 ↑	3/5 ↑	6/6	6/6				
1-87IN	2/2	1/1	2/2	1/1	2/2	1/1 ↑	2/2	1/1	12/12	12/12	154/154	74/154 ↑	10/10	9/10	6/6	2/2	3/3	3/3	13/13	5/5	6/6	6/6				
3-71CAV	2/2	1/1 ↑	2/2	1/1 ↑	2/2	1/1	2/2	1/1	19/25 ↑	12/13	24/24	46/65 ↑	11/12	12/12	24/24	2/3	2/2	2/2	10/14 ↑	4/4	5/5	5/5				
3-6FA	2/2	1/1	2/2	1/1 ↑			2/2	1/1	22/22	15/22 ↑			17/17	17/17	4/6 ↑	2/2 ↑	2/2	2/2 ↑	11/11 ↑	3/3	5/5	5/5				
7BEB							2/2	1/1	12/12	10/11	58/58	42/58 ↑	3/3	3/3 ↑			3/3	3/3	11/11 ↑	2/3	6/6 ↑	6/6				
10BSB	2/2 ↑	1/1	2/2	1/1			2/2	1/1	3/3	2/3			3/3	2/6			6/6	6/6	3/11	1/5	3/4	3/4		LOG		

Legend

P = Personnel Trained
Red = No BN SME; Yellow = BN SME; Green = CO SMEs (if applicable)

E = Equipment Serviceability
Red = Deadlined; Yellow = Min. of 75% Slash Faults/Operable; Green = Min. of 90% FMC

Acts. = Tactical SIPR Accounts
Red = None; Yellow = BTL CPT/NCO; Green = All (CDR, CSM, XO) and Staff Primaries (S1/2/3&N/4/6)

HRHs = COMSEC Accounts
Red = NO BN HRH; Yellow = BN HRH; Green = All CO HRHs; BCT HQs = S2/3/6 BAO, CEMA, CMD GRP, Fires

Staff Duty -> Red = No system present / deadlined; Amber Requires COMSEC/Configuration; Green = FMC

Legend clearly defines metrics and measures of success.

Figure 4-2. Example COMMSTAT[2]

Define each key function of the system.

Delineate by Enclave

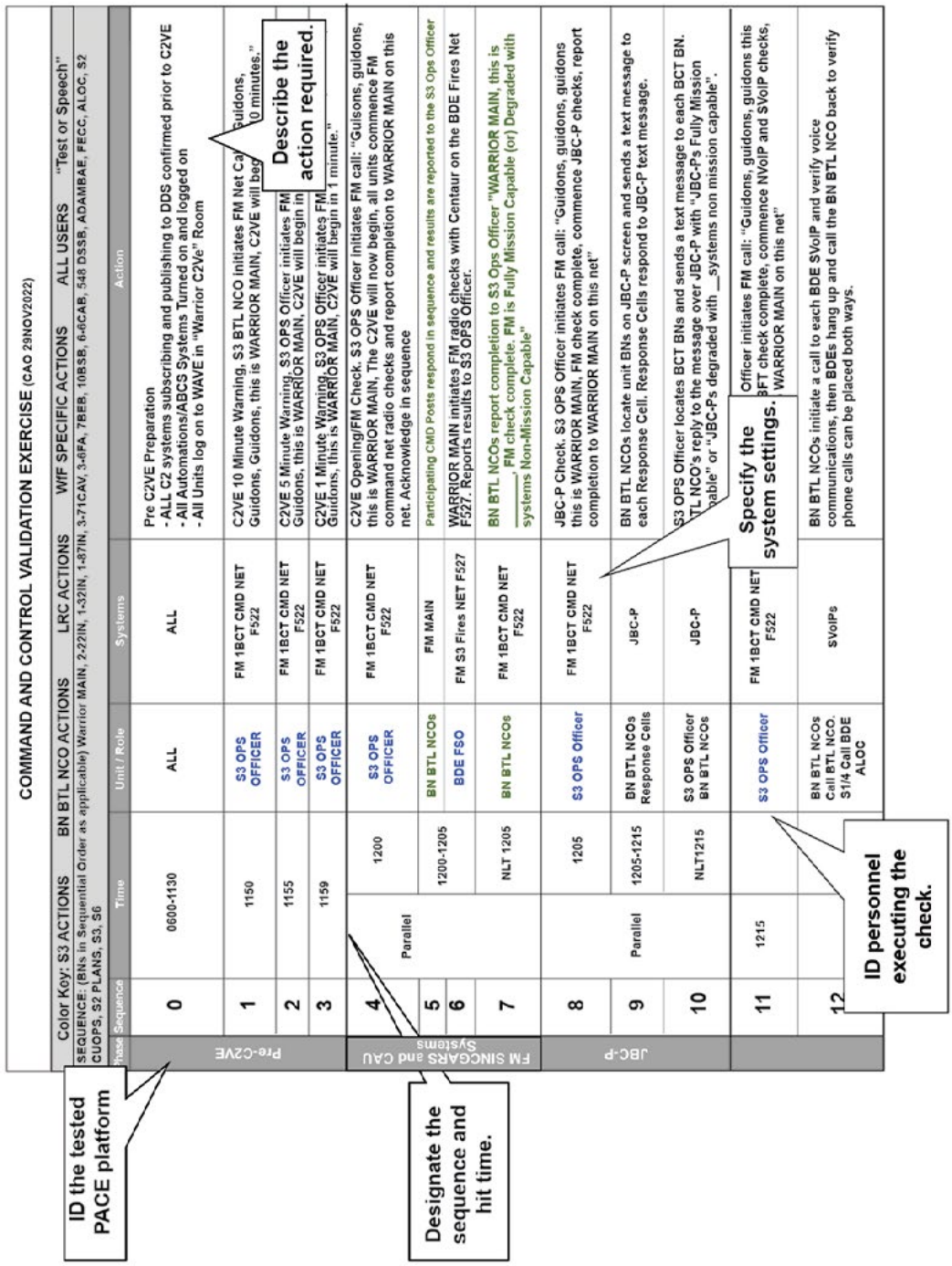
List each type of

System	Service	HICON	TOC	TAC	3-15	3-67	2-69	6-8	1-9	98EB	703
	UPPER-T										
	MPE										
Voice / Video	Tactical										
DATA	Webpage										
	Email Send/Receive										
	Sharepoint										
	DDS peer to BGN										
	DDS peer to JMRC										
	Transverse										
ICI	Connect to ICI via IP portal										
	OPERATIONS										
	Connection to the DDS										
	Able to open maps										
	Able to create efforts (graphics, overlays, SIGACTs, stickies)										
	Able to share efforts										
	Able to receive efforts										
	Ventrillio										
	FIRES										
AFATDS	**Connected to DDS (Verify FDS, DDS, and CPOF)**										
	Publish: Geometry Data- FSCMs (Graphics), Position Reports- Unit Locations (POS-RPT), RANGEFAN, Target Data (TARGET)										
	Subscribe: AIR-TRACK, GRAPHICS, ENEMY-SIT, POS-RPT										
	Verify tracks received in AFATDS Track Workspace										
	TAIS (Tactical Air Integration System)										
	Verify TAIS in AFATDS Master Unit List (MUL)										
	Verify TAIS green in AFATDS Communication Work Station										
	Verify TAIS built in AFATDS Units Work Space										
	Verify Air Control Order (ACO) sent from TAIS and received by AFATDS										
	Verify AFATDS sent ACMREQ- MFP to TAIS										
	AMDWS (Air and Missle Defense Work Station)										
	Verify AMDWS connnection VIA External Services Workspace on										
	AFATDS Receives Air Tracks										
	DCGS-A (Distributed Common Ground System- Army) "Either DDS or										
	Verify Master Unit List (MUL)										
	Verify DCGS-A is built in AFATDS Communication Workspace										
	Verify DCGS-A is established in AFATDS Unit Workpace										
	Verify Target Intelligence Data (TIDAT) is sent from DCGS-A and received by AFATDS										
	AFATDS Digital (LAN, FM)										
	Verify Firewall requests										
	Verify AFATDS Communication Workspace										
	Verify ASCA (Artillery Systems Cooperation Activities) "Purple Banner only"										
	AIR/AIR DEFENSE										
TAIS	Connected to DDS										
	Connection to External TAIS										
AMDWS	Connected to DDS										
	SIPR										
Voice	Tactical										
DATA	Webpage										
	Sharepoint										
	Transverse										
	OPERATIONS										
	Connection to the DDS										
	Able to open maps										
	Able to create efforts (graphics, overlays, SIGACTs, stickies)										
	Able to share efforts										
	Able to receive efforts										
	Receiving PLI										
	WAVE CHAT/VoIP										
	NIPR										
Voice / Video	Tactical										
DATA	Webpage										
	Email Send/Receive										
	Sharepoint										
	Connect to GCSS-A										
	MC4/ ALTA-T										
	SBU										
ITN	ATAK/ WINTAK										
	TRAX/ MOJO										
	Connection to BGN										
	TRANSMISSION										
SATCOM	STT										
	SNAP										
	TAMPA										
	GATOR/T2C2										
LOS	HCLOS/TRILOS										
	LOWER TI										
FM	FH										
	RETRANS PLANNED										
	TVB										
HF	ALE/SC										
TACSAT	Dedicated/ IW										
JBCP/ICR	PLI										
	Messaging										
	Chat										

COLOR	STATUS
	NMC/Severely Degraded (Comment mandatory)
	Degraded (Comment mandatory)
	FMC
	N/A or not planned

Figure 4-3. Example COMMEX³

S-6 OIC and the S-3 OIC must work together to publish an MCVE Script, which establishes a one-hour block in the planning timeline to certify cross-WfF CIS PACE interoperability.



COMMAND AND CONTROL VALIDATION EXERCISE (CAO 29NOV2022)

Color Key: S3 ACTIONS | BN BTL NCO ACTIONS | LRC ACTIONS | WIF SPECIFIC ACTIONS | ALL USERS | "Test or Speech"

SEQUENCE: (BNs in Sequential Order as applicable) Warrior MAIN, 2-22IN, 1-32IN, 3-71CAV, 3-6FA, 7BEB, 10BSB, 6-6CAB, 548 DSSB, ADAMBAE, FECC, ALOC, S2 CUOPS, S2 PLANS, S3, S6

Phase	Sequence	Time	Unit / Role	Systems	Action
Pre-C2VE	0	0600-1130	ALL	ALL	Pre C2VE Preparation - ALL C2 systems subscribing and publishing to DDS confirmed prior to C2VE - All Automations/ABCS Systems Turned on and logged on - All Units log on to WAVE in "Warrior C2Ve" Room
	1	1150	S3 OPS OFFICER	FM 1BCT CMD NET F522	C2VE 10 Minute Warning, S3 BTL NCO initiates FM Net Ca Guidons, Guidons, this is WARRIOR MAIN, C2VE will beg uidons, 0 minutes."
	2	1155	S3 OPS OFFICER	FM 1BCT CMD NET F522	C2VE 5 Minute Warning, S3 OPS Officer initiates FM Guidons, this is WARRIOR MAIN, C2VE will begin in
	3	1159	S3 OPS OFFICER	FM 1BCT CMD NET F522	C2VE 1 Minute Warning, S3 OPS Officer initiates FM Guidons, this is WARRIOR MAIN, C2VE will begin in 1 minute."
FM SINCGARS and CAU Systems	4	1200 (Parallel)	S3 OPS OFFICER	FM 1BCT CMD NET F522	C2VE Opening/FM Check. S3 OPS Officer initiates FM call: "Guisons, guidons, this is WARRIOR MAIN, The C2VE will now begin, all units commence FM command net radio checks and report completion to WARRIOR MAIN on this net. Acknowledge in sequence
	5	1200-1205	BN BTL NCOs	FM MAIN	Participating CMD Posts respond in sequence and results are reported to the S3 Ops Officer
	6		BDE FSO	FM S3 Fires NET F527	WARRIOR MAIN initiates FM radio checks with Centaur on the BDE Fires Net F527. Reports results to S3 OPS Officer.
	7	NLT 1205	BN BTL NCOs	FM 1BCT CMD NET F522	BN BTL NCOs report completion to S3 Ops Officer "WARRIOR MAIN, this is ____, FM check complete. FM is Fully Mission Capable (or) Degraded with systems Non-Mission Capable"
JBC-P	8	1205	S3 OPS Officer	FM 1BCT CMD NET F522	JBC-P Check. S3 OPS Officer initiates FM call: "Guidons, guidons, guidons this is WARRIOR MAIN, FM check complete, commence JBC-P checks, report completion to WARRIOR MAIN on this net"
	9	1205-1215 (Parallel)	BN BTL NCOs Response Cells	JBC-P	BN BTL NCOs locate unit BNs on JBC-P screen and sends a text message to each Response Cell. Response Cells respond to JBC-P text message.
	10	NLT1215	S3 OPS Officer BN BTL NCOs	JBC-P	S3 OPS Officer locates BCT BNs and sends a text message to each BCT BN. TL NCO's reply to the message over JBC-P with "JBC-P's Fully Mission pable" or "JBC-Ps degraded with __systems non mission capable".
	11	1215	S3 OPS Officer	FM 1BCT CMD NET F522	Officer initiates FM call: "Guidons, guidons, guidons this BFT check complete, commence NVoIP and SVoIP checks, WARRIOR MAIN on this net"
	12		BN BTL NCOs Call BTL NCO. S1/4 Call BDE ALOC	SVoIPs	BN BTL NCOs initiate a call to each BDE SVoIP and verify voice communications, then BDEs hang up and call the BN BTL NCO back to verify phone calls can be placed both ways.

Figure 4-4. Example MCVE Checklist[4]

During COA Analysis of MDMP, the BDE S-6 and Signal Company Commander must create a C2 Matrix that nests with the scheme of movement and maneuver (M2) to ensure the synchronization with key C2 node establishment and displacement is across all WfFs.

Phase 1: Recon	Phase 2: MTC (CAN/BRA)	Phase 3: Air Assault (KOR/TAI)	Phase 4: Follow and Assume
Aerial Recon (080600JUL21)	LD of GAF (101700JUL)	SEAD (Go 101700JUL)	PP1 and PP2 Established (121400JUL21)
LD of GAF (102100JUL)	OBJs Brazil and Canada clear (110500JUL)	OBJs TAIWAN and KOREA clear (110500JUL)	1/21 and 2/21 FPOL (130500JUL21)
Command and Control (C2):			
Main CP: TAA Blue	Main CP: ATK Hearts	Main CP: Hearts	Main CP: Hearts – Canada
TAC CP: ATK Hearts	TAC CP: OTM with TF Couragw (BRA)	TAC CP: Brazil	TAC CP: Brazil
BSA: TAA Blue	BSA: Blue	BSA Blue: (Tearing Down)	BSA: Hearts
ASSLT PZ OPS: BEB (Hammer 3)	ASSLT PZ OPS: BEB (Hammer 3)	ASSLT PZ OPS : (BEB Hammer 3)	ASSLT PZ OPS: N/A
GAC OPS: TF Truck	GAC OPS: TF Truck	GAC OPS : TF Truck	GAC OPS: TF Truck
FLE: Hearts	FLE: Canada	FLE: Canada	FLE : Canada
Rear Area: PL Ohio	Rear Area: PL Ohio	Rear Area PL Ohio -- PL Nashville	Rear Area: PL Nashville
Key Tasks:			
T1: 6-6CAB conducting zone recon to PL Illinois	T1. Obstacles breached IVO CAN/BRA	T1. OBJ Taiwan cleared	T1. TOC at CAN/BSA at Hearts
T2: 3-71CAV postured along PL Nashville	T2. 1-87-22 staged to cross PL Nashville	T2. OBJ Korea cleared	T2. Rear line moved to PL Nashville
T3: 2-22IN secures ATK PSN Hearts	T3. OBJ CAN cleared	T3. PAAs moved to 5,6,7	T3. 1/2SBCTs FPOL through PPs 1/2
T4: PAAs 2, 3, and 4 established	T4. OBJ Brazil cleared	T4. MP MSR Control to PL Nashville	
T5: MAIN and FLE at ATK Hearts	T5. TAC at Brazil/FLE at CAN		
Key Leaders:			
CDR: Main CP (Blue)	CDR: A2C2 / Blue	CDR: A2C2 - TAC (Brazil)	CDR: TAA Orange
XO: Main CP (Blue)	XO: Main CP (Hearts)	XO: Main CP (Hearts)	XO: Main CP (Canada)
S3: TAC (Hearts)	S3: OTM (MSR Iron)	S3: TAC (Brazil)	S3: TAA Purple
PACE:			
BCT / ASSLT PZ OPS / GAC	BCT / ASSLT PZ OPS / GAF	BCT / ASSLT PZ OPS / GAF	BCT / 21SBCT / TBP
P: Wave / P: CAN2 (FH 168) / P: FM BCT A/L (103)	P: Wave / P: CAN2 (FH 168) / P: HF	P: Wave / P: CAN2 (FH 168) / P: HF	P: Wave / P: FM / P: FM
P: JBC-P / A: CAN1 (FH 167) / A: IBC-P	A: JBC-P / A: CAN1 (FH 167) / A: TACSAT	A: JBC-P / A: CAN1 (FH 167) / A: TACSAT	A: JBC-P / A: JBC-P / A: JBC-P
C: HF / C: SC/PT 41.925 / C: TACSAT	C: HF / C: SC/PT 41.925 / C: FM	C: HF / C: SC/PT 41.925 / C: FM	C: HF / C: TACSAT / C: TACSAT
E: TACSAT / E: JBC-P / E: HF	E: TACSAT / E: JBC-P / E: JBC -P	E: TACSAT / E: JBC-P / E: JBC-P	E: TACSAT / E: HF / E: HF
E1: FM (100)	E1: FM (100)	E1: FM (100)	E1: FM
Mission Command Rehearsal Order of Movement/EXCHECK Wild Aces			
Phase 1: Recon	Phase 2: Ground Attack	Phase 3: Air Assualt	Phase 4: Follow and Assume
BDE - Initial Set	BDE - TOC @ Hearts/TAC with 2-22	BDE - CP Moves	BDE - TOC Jump to CAN
10BSB - BSA Setup/FLE	10BSB - FLE	10BSB - BSA/FLE	10BSB - BSA Jump/FLE
6-6CAB - Recon/Deep Strike	6-6CAB - Recon/Posture at PZ	6-6CAB - Recon/Posture at PZ	6-6CAB - Recon
3-71CAV - Recon	3-71CAV - Recon	3-71CAV - Recon	3-71CAV - Recon
3-6FA - PAAs 2-4/Deep Strike	3-6FA - PAAs 5-7	3-6FA - PAAs	3-6FA - PAAs
7BEB - Route Clearance	1-87IN - OBJ Canada	7BEB - PZ CON	1-87IN - PP1 Actions
2-22IN - ATK Heart Security	2-22IN - OBJ Brazil	1-32IN - PZ to Taiwan	2-22IN - PP2 Actions
1-87IN Prep to move	7BEB - PZ Prep	1-87IN - Mvmt to Korea/PP1 Prep	1-32IN - PP2 Actions
1-32IN - AASLT Posture	1-32IN - PZ Set	2-22IN - PP2 Prep	7BEB - Rear Area Move
CSSB - TF -Truck	CSSB - TF Truck	CSSB - TF Truck	CSSB - TF Truck
Commanders Decisions			
Phase 1: Recon	Phase 2: Ground Attack	Phase 3: Air Assault	Phase 4: Follow and Assume
C TRP MASCAL after river crossing	CHEM ATK on INF CO in OBJ Brazil	Loss of M777 Battery	Complex ATK on 1/21 VEH by GMB (MSR Graphite)

Defines the time and CE.

ID's location of BDE CPs

Notes Key LDR placement.

PACE for key units of phase

Identify DPs

Figure 4-5. Example C2 Execution Matrix[5]

BRIGADE LEGAL SECTION

Bottom Line Up Front

The brigade legal section (BLS) is special and personal staff to the BDE CDR and provides legal advice to all the WfFs. To win in Europe, the BLS must:

1. Set the dial on risk tolerance and compliance with the law of armed conflict (LOAC) in the targeting process
2. Advocate for CP workspace to appropriately disperse personnel across the brigade

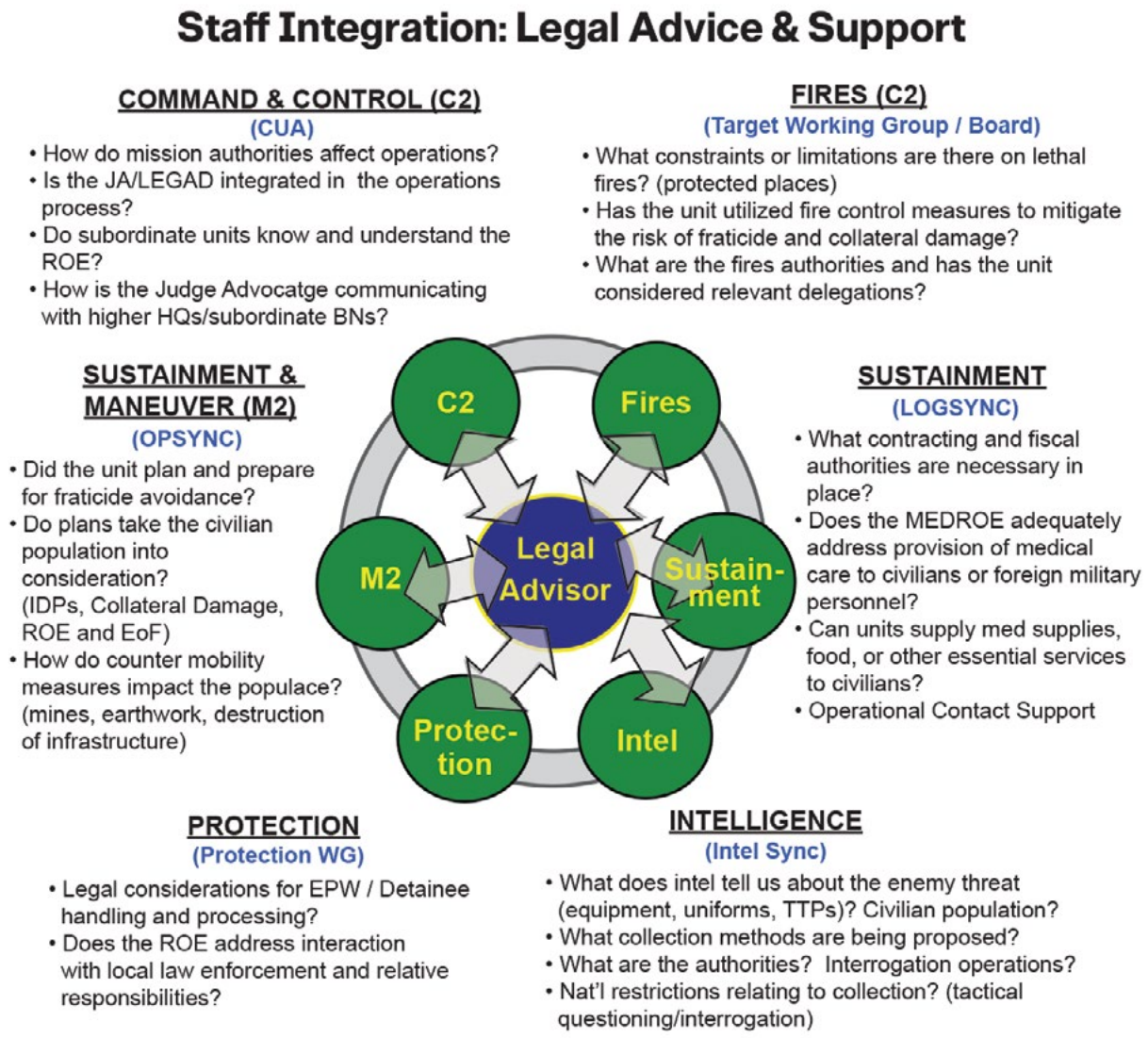


Figure 4-6. Brigade Judge Advocate Staff Integration[6]

Trends

Commanders and staff at JMRC exhibit a COIN hangover: their training, education, and experience from the last 20 years inhibits their ability to conduct the targeting process in a highly permissive LSCO environment. Pre-conceived notions regarding legal requirements prevent the staff from presenting valuable information to the commander. In general, COIC staffs are accustomed to standard ROE with clearly delineated target engagement authorities (TEAs) based on collateral damage estimates (CDE). This rigid process is not effective in the dynamic LSCO fight of Europe.

The brigade's JMRC rotation is likely to be every member of the brigade legal section's first CTC rotation. BJAs arrive with minimal home-station training outside of administrative actions, and none in dynamic targeting. Over the last two years, less than 40 percent of units authorized legal strength even deployed to participate in training rotations as those Soldiers remained at home station to work on military justice actions. Judge advocates and paralegals require LSCO at home station in austere environments to prepare for the European OE.

Best Practices

During Staff Table I, the brigade commander and the BJAs should synchronize the commander's vision on operationalizing risk and targeting in a LSCO fight. Out-dated CDE matrices and authorities' charts are insufficient products to delegate TEAs in BDE operations. This discussion provides guidance on who in the brigade has authority to fire dynamic targets in populated areas, and how the brigade commander wants TEAs to inform those decisions. The BJA ensures that the commander and staff have clear understanding of the maneuver space between law and policy in the LOAC requirements of distinction and proportionality. A deep understanding of this latitude empowers the commander and staff to accept prudent risk during execution.

Execution Tip Training Tip (CDR, BJA, FSO): During Tables I-III, capture the nuances of LSCO targeting in the TACSOP and CPSOP. Examples include:

1. Should we mass artillery fire into a populated area to support an infantry company attack there? What about to destroy specific targets on the BDE HPTL?
2. What constitutes positive identification (PID) to fire at a target? Do we even need PID for signal intelligence like Ground Moving Target Indicator Radar actions?

Successful brigades deploy with their full BJA strength. Legal personnel are a valuable enabler for the brigade. There is a noticeable decrease in legal actions at home stations when brigade decision-makers are absent because they are participating in a CTC rotation. Battalion paralegals should participate in their unit's training both in their primary duties and as battle NCOs or communications operators to better integrate with the staff.

BJAs must also secure workspace, equipment, and connectivity in the CP by capturing those requirements in the unit's CPSOP during Staff Tables III-V. Commanders must make trade-offs between CP effectiveness and survivability, so BJAs must array their forces across all BDE and BN CPs.

Unit Fighting Products

The BJA should create a legal running estimate slide and brief running estimates during MDMP step 2 (figure 4-7). Mission analysis is the BJA's opportunity to highlight policy or operational

Legal Running Estimate

OPERATION:	DATE:

FACTS:

Key Authorities:
1. Legal Basis for Operation: UNSCR? AUMF?
2. International Agreements: SOFA? ACSA?
3. Command Relationships
4. Detainee Operations
5. Intelligence Collection
6. Fiscal and Procurement Authorities

Legal Support:
1. BLS provides legal support for which core competencies?
2. BLS provides legal support by consolidated or dispersed? TOC, TAC, CUOPs, ALOC?
3. BLS Resources include personnel and equipment?

ASSUMPTIONS:
- MOU between X and Y will be signed
- ASCA will be negotiated by COCOM

TASKS (Specified, Implied Essential):

Specified:
1. ROE training
2. Review all operations
3. Report key legal events
4. Manage investigations

Implied:
1. Advise Fires on targeting
2. Assist PMO with detainee operations.
3. Process claims
4. Provide legal assistance
5. Advise S2 for intelligence oversight

Essential:
1. Manage Investigations
2. Track and Report significant Legal Events

CONSTRAINTS (Limitations, Restrictions): Legal Parameters of Conflict
1. What limitations and restrictions exist given the authorities outlined in facts?
2. Key ROE limitations
3. NO strike entities
4. Lack of fiscal authorities

Last 24 Hours:
- Key SIGACTs, Legal Reviews, etc.
- Status of Projects - ROE training: Claims Mission

Next 24 Hours:
- Events: Key Leader Engagements, Working Groups, etc.

INVESTIGATIONS

Event	< 24	Total	Investigate		Analysis
			Open	Closed	
CIVCAS					
FRAT					
ROE U					
EOF					
NDs					
UCMI					
Other					

Legal Data

Detainees	Claims	ROE Meds	Fiscal/Ethics

BDE Orders

#	Date Published	Legal Review (Y/N)	Legal Objections?

Figure 4-7. Example BJA Running Estimate[7]

restrictions contained in the order. Orders may contain several heightened policy restrictions, but working with higher HQs and LNOs to determine the context of these restrictions is crucial to identifying legal maneuver space. For example, ROE frequently limits brigades' ability to employ scatterable minefields with durations longer than 4 hours before those minefields self-destruct. 48 hour or longer duration mine fields may still comply with the LOAC and BJAs can initiate the formal request process to use those longer duration mines. These conversations usually involve commander-to-commander dialogue driven by BJA running estimates.

INTELLIGENCE

MAJ David Von Bargen, LTC William Avera, CPT Steven Bebo, CW2 Jacob Lyons, CW2 David Pierce II, CW2 Hector Ruelas

Bottom Line Up Front

Brigade S-2 sections need to be ready prior to deployment notification. Planning, operations, and targeting are all driven by intelligence. The S-2 section needs training to produce products efficiently in a time-constrained environment. Intelligence owns the critical unit fighting products (UFPs) of the EVENTEMP and ICSM to continuously describe the enemy and manage information collection. S-2 also owns the BDA tracker, a critical portion of the COP. It is essential that S-2 sections build product templates, task-organize Intel crews, rehearse processing, exploitation, and dissemination (PED) during home station Tables I-VI. The S-2 must understand how to communicate information to the commander and have a good working relationship with the S-3 and S-6.

The Military Intelligence Training Strategy (MITS) is a very effective method to train individual, crew, and collective competencies. MITS allows the S-2 the necessary repetitions to develop and refine their intelligence fighting products and create efficiencies in their sections throughout Staff Training Tables I-III. During MITS Tier 1 and Tier 2 evaluations, the S-2 must train collectively with the BDE staff to synchronize IPB, targeting, and technical architecture.

Brigade Intelligence Key Tasks[8]

The five BDE intelligence core competencies:

1. Facilitate Commander's visualization and understanding.
2. Support to targeting and protection.
3. Assist Information Collection (IC) planning.
4. Produce intelligence products.
5. Disseminate and integrate intelligence.

Overall Trends

BDE S-2 sections are generally capable of conducting intelligence planning, coordination, and production to support the Commander, staff, and subordinate units. Units are successful at facilitating Commander's visualization and supporting BDE targeting. Units struggle with Collection Management (CM) and the dissemination and integration of intelligence. BDE Intelligence Officers and NCOs generally have a strong understanding of doctrine and know what products and processes their sections are responsible for. S-2 sections mainly struggle as they did not know how to produce products efficiently and disseminate them to the right audiences. BDE S-2 sections also struggle integrating across WfFs during IPB, targeting, and IC technical planning.

Facilitate Commander's Visualization

In accordance with FM 3-96, the BCT intelligence cell facilitates the Commander's visualization and understanding of the threat, terrain, weather, civil considerations, and all other relevant aspects of the brigade's OE. S-2s achieve commander visualization in three major ways: IPB, maintenance of the intelligence portion of the COP, and rehearsals.

Trends

S-2 sections produce thorough and comprehensive initial IPB during MDMP steps 1 and 2. However, BDE planners frequently fail to integrate other WfF's analysis into IPB. Staffs consistently wait until the "assess relative combat power" sub-step of AGARAP during COA DEV to analyze the enemy by WfF. This degrades the quality of unit Situation Templates (SITTEMPs) and the EVENTEMP.

S-2 Current Operations Information Cell (COIC) teams consistently provide quality inputs to the BDE COP but struggle to conduct Processing, Exploitation, and Dissemination (PED) of organic and external within necessary targeting cycles. Vital indicators frequently missed because collection feed operators or radio transmission operators (RTOs) do not pass indicators on to the S-2 section. Due to a similar lack of reporting and knowledge management in the CP, S-2s fail to update the BDA tracker and become incapable of assessing the status of enemy operations.

S-2 inputs to rehearsals are essential to visualizing the enemy. While FM 3-96 establishes separate reconnaissance & security and fire support rehearsals (RXLs), most units combined them into an IC/Fires RXL. These rehearsals become fires-centric while lacking participation of intel collectors and sensor and shooter system end-users. Units generally relied on the S-2 and IC Manager to cover this rehearsal without involving organic collection teams (SIGINT/EW teams, UAS operators, BDE Intelligence Support Element (BISE), PED cell). IC/Fires RXLs tend to be too conceptual and do not rehearse the appropriate PED and sensor-shooter detail necessary to conduct targeting in a LSCO environment.

Best Practices

Staff collaboration during IPB is critical to establishing shared understating of the OE and how the enemy plans to fight. Successful S-2s integrate the other WfF's expertise into IPB.[9] See Chapter two, "Enemy" for specific WfF inputs.

> **Execution Tip (S-2, S-3):** Depict enemy activity on maps and terrain models during rehearsals. Effective TTPs include Soldiers holding enemy icons and ensuring that collection sections included on the rehearsal script.

Successful BDE S-2 sections contribute to BDE RXLs, especially the Combined Arms Rehearsal (CAR), by depicting enemy actions and decision points. S-2s should integrate their entire team into the RXLs, to include UAS operators, COIC staff, and Intel Collectors. This creates shared understanding across the full section and improves the COIC's ability to use S-2 UFPs during execution.

Support to Targeting and Protection

Intelligence support to the BDE targeting process requires effective personnel, products, and processes. S-2 sections struggle to support targeting in three areas: 1) understanding their role in target decision and detection; 2) attending the BDE Targeting Working Group (TWG) and Target Decision Board (TDB); and 3) conducting assessments.

Execution Tip (S-2, FSO): Support BDE targeting. Send the right people to the TWG/TDB including the S-2 and collection manager carrying physical copies of the EVENTEMP and the ICSM. Update these products during the meetings, complete coordinating instructions immediately after the meetings, and provide clear methods on those products for COIC staff to assess the status of targeting during execution.

The EVENTEMP and ICSM are two essential intelligence products in the targeting process. S-2 sections must design and generate these products for the COIC to enable assessment and decision-making during execution. It is important to display both products on the COP, in an easily updated format, and updated on a battle rhythm schedule (every 15 minutes during LSCO).

Trends

S-2s struggle to accurately track enemy BDA. S-2s tend to develop a generic BDA tracker during Staff Table II, but instead should modify those trackers during the operations process. The BDA must include the enemy's order of battle and task organization. This level of detail reduces the analytic load on COIC team while enabling faster targeting.

Best Practices

Successful units develop BDA Trackers by enemy echelon and order of battle. S-2 should conduct their internal battle rhythm to update EVENTEMPs and ICSMs before each BDE TWG. Successful units prioritize pre-deployment training on the targeting process, specifying targeting process inputs and outputs in the CPSOP. Finally, integrate collection assets into BDA collection.

Assist Information Collection Planning (ICP)

The BDE information collection (IC) crew processes information and intelligence requirements into collection requirements. The IC crew tasks or coordinates collection sources or agencies; monitors results; and re-tasks assets required. IC crews tend to lack sufficient training, personnel, product templates, Information Collection Plan (ICP) production SOPs, and rehearsals SOPs.

Trends

Most BDE information collection managers are unfamiliar with BDE IC capabilities and struggle to plan effectively. Additionally, IC crews struggle to integrate subordinate collection assets. BDEs tend to struggle adhering to their collection plans, instead focusing on BN close areas, which are better suited for scouts or BN small UAS coverage. BDE IC managers also struggle to plan for intelligence handover lines (IHL) between Division to BDE and BDE to reconnaissance squadrons.

Execution Tip (S-2, S-3): PED is a vital part of collection. Plan PED onto the ICSM or EXMAT and rehearse PED prior to execution.

Typical BDE manning of IC crew consists of a LT and a SPC. This manning prevents the IC crew from simultaneously creating and updating products, conducting PED collection, and attending the BDE battle rhythm events that require inputs over a 24-hour period. When IC crews are not properly manned or trained, they do not effectively contribute to MDMP, BDE RXLs, and battle rhythm events, to include the execution of the ICP throughout the BDE fight. Under-manning and insufficient training of IC crew led to missed indications and warnings, failure to request and synchronize collection assets, and collection not nesting with targeting or BDE operations.

Lastly, very few BDEs create detailed IC Overlays. Overlays lack detailed NAIs, airspace control measures, reducing the IC crew's ability to visually synchronize IC. This makes it more difficult to plan IHLs, reducing the BDE's ability to provide early warning of enemy movements. Insufficient overlays also decrease the quality of IC/Fires RXLs as the brigade is unable to align assets against the enemy scheme of maneuver. Units rarely leverage the MICO CDR to serve as an Intelligence, Surveillance, and Reconnaissance (ISR) subject matter expert to the IC crew, COIC cell, or BDE planning team. Leveraging the MICO CDR would enable the BDE team to understand the capabilities and limitations of the BDE organic collection assets, to include supporting an inexperienced BDE IC crew.

Best Practices

At a minimum, the plan must incorporate the SITEMP, EVENTEMP, and event matrix developed during IPB to build the information collection plan. S-2s must ensure discipline in IC crew and targeting efforts to focus collection assets on the BDE deep areas, based on collection guidance. As every commander digest intelligence differently, efforts to develop templates that meet the commander's intent prior to CTC rotations and deployments are crucial. SOPs must codify IC products requirements and formats.

Execution Tip (S-2, S-3): Incorporate the BDE reconnaissance element (cavalry squadron or troop based on MTOE) into initial collection planning NLT MDMP Step 1. This is essential to synchronizing collection efforts, when the squadron is going to depart after BCT WARNORD 2.

Additionally, plan, rehearse, and man the PED of all Intel sensors (organic and EAB). Successful units rehearsed PED, outlined sensor to shooter linkage with fires team, prioritized training of IC crew (MITS Tier 3 and ICPC training), and clearly defined the MICO CDR's role and responsibilities to support the BDE S-2.

DISSEMINATE & INTEGRATE INTELLIGENCE

Trends

For most BDEs, tailoring a digital intelligence architecture for the unit, mission, and terrain was the most difficult of the five key tasks. Information is critical in LSCO and having a soundly designed and well-rehearsed PACE plan as well as a clearly defined Intel Architecture is essential. BDE Intel PACE plans often collapsed due to system failures, lack of equipment familiarity, lack of rehearsals, poor understanding of terrain effects, a lack of adherence to reporting standards, and a general lack of situational awareness of lower or higher echelon PACE plans throughout the fight. Units that do not incorporate multinational partners or BN equipment differences into their Intel Architecture often struggle to maintain a BDE Common Intelligence Picture at echelon.

Operating in a multinational environment requires consideration for intelligence releasability and the applicable domains when developing the intelligence architecture.

Units that considered splitting their MCP (forward element and sanctuary) often struggled when operating in a Delayed/Disconnected, Intermittently Connected, Low-Bandwidth (DIL) environment due to prioritization of equipment and manpower to support operations. In instances where commanders direct smaller CP footprints, S2s need to prioritize Intelligence CP element's roles and responsibilities to ensure maximum utility to support the CDR's visualization of the threat, intelligence support to targeting, and CUOPS and FUOPS requirements.

BDEs often rely on the Military Intelligence Company (MICOs) Intelligence and Electronic Warfare (IEW) section to integrate Military Intelligence systems with each other and the BDE digital network. The IEW section often takes control of a domain from the S-6 section, forming the intelligence fusion station into a domain controller. This way of operating allows the intelligence enterprise more control over the network but demands more maintenance and time to ensure the domain properly authenticates within the S-6 controlled domain if done properly.

Best Practices

Successful BDE S-2s understood the importance of pre-deployment intelligence architecture planning, coordination, and prioritized participation in a BDE COMMEX with the BDE S-6. Detailed COMMEXs are vital to ensuring intelligence program of record (POR) systems integration with the greater intelligence enterprise and provide value to the BDE and prevented or mitigated the issues above. Units that prioritize foreign disclosure representative (FDR) training, tend to favor information sharing with foreign partners, understand communication capabilities and limitations across all command posts, and focus attention on data transport (PACE and computer networks) between higher and lower HQs prior to deployment tend to excel both in exercises and deployment operations.

PRODUCE INTELLIGENCE PRODUCTS

Trends

BDE S-2 sections faced challenges producing the right intelligence products to support decision-making in a time-constrained environment. S-2s understood and produced a multitude of intelligence products but struggled to prioritize the "right products" needed to support BDE operations. The lack of focus on consistent fighting products led units to create one-time products and rarely update them. Overall, S-2s generally struggled in three areas: 1) developing and prioritizing intelligence products, 2) providing detailed analysis to enable planning, and 3) abiding by internal production timelines.

Best Practices

Execution Tip (XO, S-3): Orient MDMP to efficiently produce intel UFPs and eliminate products that do not drive decisions. Design intel UFPs to assist the COIC as much as possible in collecting, organizing, and analyzing information to support commander decisions. The EVENTEMP, ICSM, and BDA Tracker should cover the next 96 hours to support COIC personnel.

Creating and updating intelligence products allows the BDE S-2 section to meet production requirements. Sections waste analytic efforts on one-time products and neglect vital products without prioritization. This forces S-2s to prioritize certain products over others to meet the

commander's intent and support the staff to maximize limited time available. The most successful EVENTEMPs achieve three main objectives: understanding likely enemy COAs in time and space, enemy DPs, and ICP requirements (e.g., NAIs).

FINAL TAKEAWAYS:

The BDE S-2 produces the necessary intelligence to support BDE staff processes and inform their commanders. MITS is a very effective method for the BDE S-2 to develop individual, crew, and collective competencies. It allows the BDE S-2 the necessary repetitions to develop and refine their intelligence fighting products and create efficiencies in their sections. However, the BDE S-2 also requires training which emphasizes integration with the entire staff to ensure effective practices in IPB, targeting, and development of an effective intelligence architecture. BDE success in LSCO requires more than simply understanding the doctrinal requirements. BDE S-2s need to be able to prioritize the planning, collection, analysis, and dissemination efforts for their section.

While each unit may have differing requirements, key BDE intelligence products continue to be the EVENTEMP and Information Collection Synchronization Matrix (ICSM). The EVENTEMP (with associated event matrix) and ICSM can serve as a stand-alone product to drive maneuver planning, collection, and deliberate targeting through the association of NAIs with threat decision points and indicators when properly developed. Finally, the most successful BDE S-2s incorporated the following:

- Developed fighting products and initial IPB product templates prior to deployment and codified them in a unit-specific SOP.
- Update products and PIRs throughout planning and execution of the operation.
- Understood staff planning timelines and critical synchronization events (e.g., TWG, TDB) that enabled them to achieve production timelines.
- Developed an intelligence battle rhythm, nested within the higher HQs that accounted for key events and production schedules, and had identified Intel fighting product formats at the start of operations.
- Understood the importance of pre-deployment intelligence architecture planning and coordination, and conducted a Communications Exercise (COMMEX) with the BDE S-6. Detailed COMMEXs are vital to ensuring intelligence Program of Record (POR) systems integration with the greater intelligence enterprise and provide value to the BDE and prevented or mitigated the issues above.
- Delineated clear roles and responsibilities for Intel elements across BDE Intel enterprise.
- Clearly defined PACE plan that was both executable and synchronized down to BN S-2 level and incorporated BDE Intel Collectors, UAS PLT, and EAB assets.

FIRES AND EFFECTS

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Bottom Line Up Front

Mustang Team uses seven training and evaluation outlines (T&EOs) to train brigade fire support elements (FSEs). While every fire support task is vital to increasing brigade lethality, we have identified three key tasks and one OE factor that have the greatest impact on mission accomplishment. By following the recommendations laid out in this WfF section, brigade FSEs will improve their brigade support responsiveness, effectiveness, and timeliness.

European Theater Considerations

(Edition 1)

NORTH ATLANTIC TREATY ORGANIZATION
(NATO)

NATO STANDARDIZATION AGENCY
(NSA)

STANDARDIZATION AGREEMENT
(STANAG)

SUBJECT: FIELD ARTILLERY AND FIRE SUPPORT DATA INTEROPERABILITY

Promulgated on 10 November 2006

J. MAJ
Brigadier General, PCL(A)
Director, NSA

Historically (and as demonstrated in the current conflict in Ukraine), fires play a critical role during conflicts in the European Theater. Conflicts in Europe will be a multinational effort. Interoperability across the three domains (human, procedural, technical) is critical to the successful employment of fires at echelon. With these unique set of conditions, fighting in Europe will require solutions to integrate, synchronize and employ assets from allies and partners from sensor to shooter. To accomplish this successfully requires a Force Field Artillery Headquarters, a set of standard procedures and doctrine, a technical interface that supports the sharing of fire support command and control information (Artillery Systems Cooperation Activities) and multiple opportunities to train and develop as a cohesive multinational force.

In 2021, the U.S. Army re-activated and returned the 56th Artillery Command (AC) to Germany to serve as the Force Field Artillery Headquarters for U.S. Army Europe and Africa. Their mission is to synchronize, integrate, and control both lethal fires and nonlethal effects in support of the theater land component. This theater fires command is responsible for coordinating the employment of Joint and multinational fires for the land component commander's objectives; promote the readiness and modernization of fires and effects formations and capabilities through engagement with allies and partners; and support interoperability among U.S. and Allied fires and effects organizations using theater-level multinational fires integration exercises like Dynamic Front.

Due to the heavy integration with NATO countries during exercises and any potential conflict in Europe, units must know, understand, and use the NATO Standardaztion Agreements (STANAGs), which differ from U.S. doctrine. Our multinational partners are well versed in the content of the STANAGs. Understanding the correct doctrine, national caveats and creating common procedures early are critical to effective interoperability. Even with Artillery Systems Cooperation Activities (ASCA) bridging the gap for participating nations in the technical domain, units cannot overlook the procedural and human dimensions and be successful in fighting in a multinational environment.

ASCA is a technical interface that allows nations to digitally link and translate between different field artillery and fire support systems to enable faster, more effective fire missions among allied and partner field artillery units. The interface supports sharing the following fire support command and control information: target management, artillery target intelligence, firing unit status, fire mission execution and counterfire, fire planning and geometries (Fire Support Coordination Measures and

Air Space Coordination Measures). As of July 2023, there are15 ASCA participant nations utilizing 14 different fire control systems. Additionally, there seven sponsored nations and three observer nations. ASCA is not a perfect interface and does not solve all interoperability concerns within the fires warfighting function; however, it does provide artillery commanders within a multinational formation the capability to integrate operations of all artillery assigned to the formation, given they are a full ASCA member. The ASCA community is constantly expanding both in size and capability through updated versions of the technical interface used by the participating nations. Critical to the employment of the ASCA interface is a common federated mission network (FMN). Since ASCA requires a FMN such as the U.S. Mission Partnered Environment network, not all U.S. systems can continue to interface and network with the Advanced Field Artillery Tactical Data System (AFATDS), which causes communication gaps between some critical nodes in the digital kill chain. Specifically with intel and meteorological information systems. For U.S. fire support systems specifically, 56th AC found solutions through the foreign disclosure offices to allow data from U.S. Secret systems to transmit target information to the AFATDS operating on the MPE network through NATO Secret radio encryption.

The premier testing environment for fires multinational interoperability across Europe is the Dynamic Front exercise. Dynamic Front is designed and led by the 56th AC annually and incorporates multinational artillery systems, theater level fires and effects assets (Multi-Domain Task Force), and other Joint, multinational assets including fixed wing aircraft and naval gun fire. Lessons learned from Dynamic Front directly informs the creation and modification of NATO Battle Group task organization, Corps and land component shaping operations, and the integration of surface-to-surface fires from multinational field artillery brigades and division artillery formations across the European Theater.

Winning in Europe requires fully integrated multinational partnerships across the three domains of multinational interoperability at all echelons. Units must become familiar with NATO STANAGs, ASCA and capabilities and limitations of multinational partners to be successful. Units should have a baseline technical understanding of ASCA capabilities and training on the employment of required communications network requirements prior to any operations in the European Theater.

CAS Integration and Employment Considerations

The trends across the European Theater for the employment of Joint Terminal Attack Coordinators and Close Air Support (CAS) require the adaption of new TTPs, a robust understanding of differences between multinational partners, and a shift in thought regarding the employment of CAS. The European Theater is complex and is not permissive for vulnerable fixed and rotary wing aircraft. These considerations affect the employment techniques and effects CAS can achieve on targets to the ground force commander.

Recent exercises such as Air Defender 23 demonstrated a need for early integration between U.S. and NATO forces with regards to Close Air Support TTPs. Different multinational JTACs and fixed wing aircraft have different capabilities which require adjustments to how the JTACs communicate, and how they execute cross-boundary fires, clearance of air, information management and dissemination, and CAS missions. Integrating early and identifying these limitations or differences helps the joint fire support teams (JFSTs) adjust their TTPs to factor for aircraft limitations, and pre-execution briefing.

Recently, JTAC employment and evolving doctrine demands a shift from a COIN mindset to a LSCO mindset and requires an increase in JTAC personnel at the brigade and Battalion echelons. This will require JTACs to conduct battle drills (daily syncs, 2-minute drills, target handover drills, internal rehearsals) maintain fighting products (DD Form 1972, daily ATO special, concept of fires, BDA tracker, front line trace tracker) and integrate into brigade products (CAS targets and plans identified on TLWS, FSP, EFST). JTACs must synchronize at all levels to ensure a common understanding for the brigade and battalion commander's intent and plan for CAS, common operating picture, clear understanding of the brigade's airspace management plan, and the planned targets for CAS. To do this, JTACs require a common communications plan that includes beyond line-of-sight voice and data.

During large scale combat operations (LSCO), the air component commander (ACC) will likely utilize fixed wing assets to prosecute operational targets beyond the fire support coordination line (FSCL). As such, BDE commanders must understand that this will drastically reduce tactical CAS employment compared to a counter insurgency (COIN) operation. CAS in a non-permissive environment increases the requirement for SEAD. Shortened CAS vulnerability times decrease the ability to conduct non-traditional ISR and provide over watch of friendly forces. This means for the JTAC, and staff is that CAS should be on station with validated, real time targeting data, which allows the CAS team to execute in a timely manner. Utilize CAS to kill targets, not as a method to find targets. This requires the integration of the Air Liaison Officer in the targeting process, the JTAC team to conduct a FUOPS to CUOPS handover, and the JTAC on shift to ensure good target handover with the S2 and staff prior to CAS checking in. There should also be multiple plans for CAS. Plan to utilize allocated fixed wing assets to support deep shaping operations and maneuver in close combat operations.

Specific considerations in Europe with JTAC and CAS integration includes weaponeering and communications. Regarding weaponeering, there is an increased payload required to conduct and achieve effects due to the following:

- Terrain and vegetation
- Weather
- Global positioning system (GPS) denied and laser degraded environments
- Target location error (TLE) and circular error probability (CEP)
- Enemy capabilities to acquire and target aircraft bomb
- Target sets (i.e., armor formations) in large scale combat operations (LSCO)

This means that JTACs can no longer require one bomb per target, but instead should plan to use two or three bombs per target. JTACs should also plan and provide weaponeering solutions to the fire support officer (FSO) that achieve a" destroy" effect against armored formations. JTACs also need to identify considerations such as the requirement for standoff that can create issues for identifying and engaging targets. Terrain becomes an issue when moving targets are lost in trails and forests. Terrain also becomes a problem with communications, and this demands a need for beyond line-of-sight communications between the brigade and battalion JTACs. JTACs should plan for and be proficient with HF and SATCOM communications.

Trends

Execute Targeting Process

Brigade staff members lack the targeting knowledge necessary to conduct a comprehensive targeting cycle. It is not enough to have one or two trained targeteers within a brigade staff. Lack of involvement and a misunderstanding of the targeting process leads to an incomplete targeting plan. The results of the targeting working group should directly affect how the brigade will operate and integrate aviation assets into the plan. FM 3-0 Operations, pg. 3-5, discusses integrating parts of the force to create unity of purpose and effort. In addition to facilitating integration, the aviation task force adds depth in terms of operational reach. Brigade leadership and the institutional Army must emphasize the importance of the targeting process across the entire staff to synchronize brigade operations. Understanding the ACO/ATO cycle and how the brigade's planning process nests to provide maximum combat power at decisive points. Through the targeting cycle, the BAE must not only plan for integration of aviation elements as a maneuver force but also anticipate possible transitions in the operation to ensure coordination measures and assets are postured appropriately at the correct place and time.

Figure 4-8 depicts the targeting process and critical tasks during the brigades operations process and areas frequently overlooked during the brigade's targeting efforts.

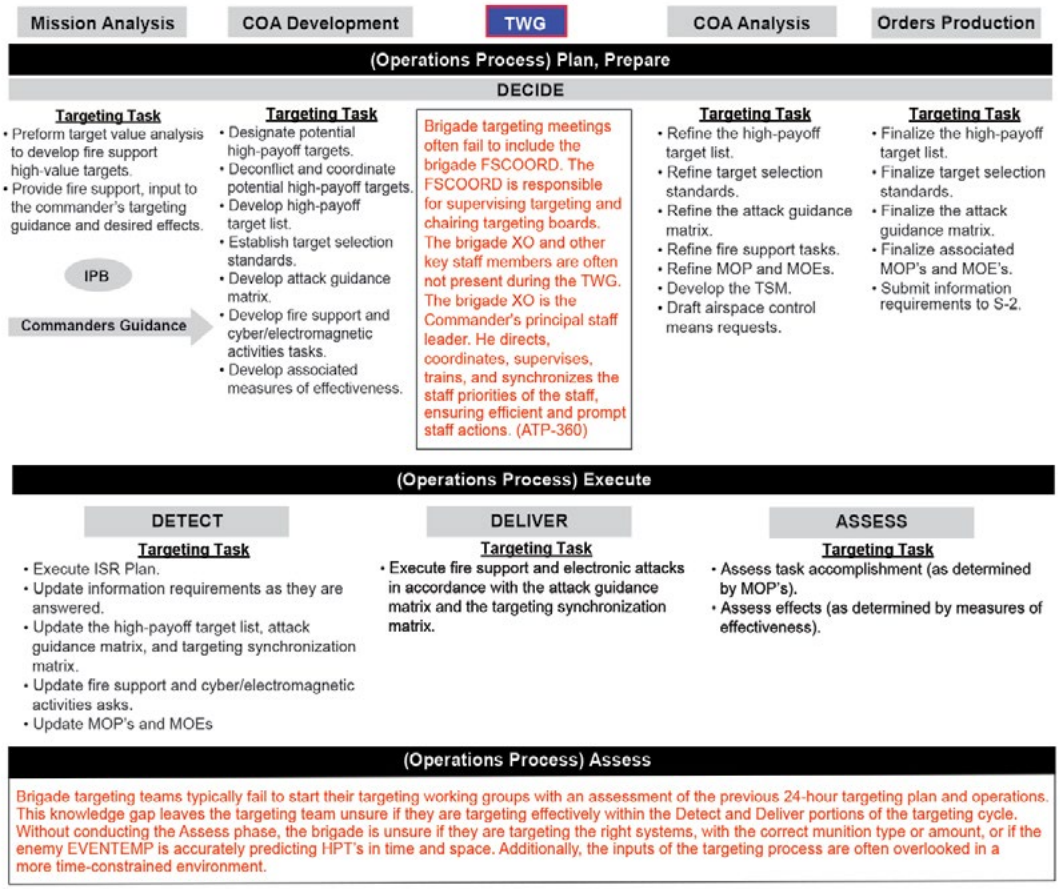

Figure 4-8. Brigade Targeting Working Group Format [10]

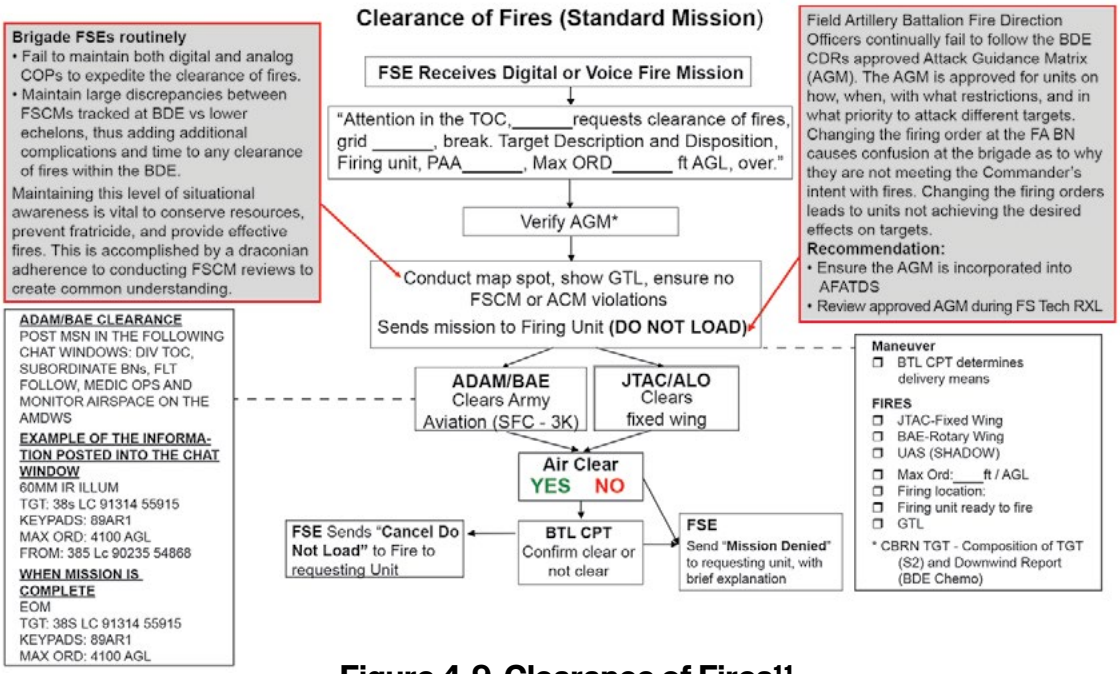

Figure 4-9. Clearance of Fires[11]

SYNCHRONIZE FIRE SUPPORT

Synchronization between all fire support assets, including target acquisition, electronic warfare, surface-to-surface indirect, and air-to-surface engagements is critical to the brigade FSE for mission effectiveness. The two main factors that lead to fires synchronization issues are a failure to maintain situational awareness at the brigade FSE, and a failure of subordinate battalions to adhere to issued attack guidance. By focusing on these two aspects of synchronizing fire support, the majority of brigade FSEs can increase the lethality of the brigade. In addition to synchronizing the fire support in condensed airspace in the European Theater due to a multitude of invested airspace users, the ADAM/BAE sections need to have access to, and be familiar with, NATO doctrine regarding airspace and aviation employment to include NATO AJP-3.3.5 (Allied Joint Doctrine for Airspace Control), NATO ATP-3.3.5.1 (Joint Airspace Control TTPs), and NATO ATP-49 (Use of Helicopters in Land Operations). Figure 4-9 depicts a clearance of fires battle drill for a BDE FSE and highlights areas where BDEs struggle.

EMPLOY FIRES

Brigade FSEs adequately employ fires during operations, however, there are certain key areas where extra emphasis during training will improve the brigade by referencing Figure 4-9. The brigade FSEs can reduce fire mission processing times, reduce the risk of fratricide, and achieve the desired effects on enemy target sets. Integrating the ADAM/BAE during training will increase airspace understanding and reduce clearance delays. ADAM/BAE sections must account for the large volume of airspace users in the condensed airspace below 500 feet AGL. Airspace users include not only manned rotary-wing aircraft, UAS (Micro, TUAS, SUAS), and indirect fires, but emerging technologies such as variable height antennas (VHAs). As the airspace manager within the brigade's assigned airspace, the ADAM/BAE must plan, coordinate, and prioritize all airspace users to permit flexibility and ensure synchronization of effects (JP 3-52). The ADAM/BAE must also have systems in place to accurately track airspace users through digital and analog means and across multiple command posts when necessary.

Observations and Considerations for MCP CUOPS layout	
Key Sections	**Considerations**
1. FSE 2. ADAM/BAE/TACP 3. S2 CUOPS/BISE	✓ Spacing between the key sections ✓ Orientation of key sections ✓ High traffic areas near MCP entry points ✓ Ease of communication and connectivity between key sections
"A way" forward: • The MCP CUOPS layout **MUST** foster timely and accurate information sharing between all sections with required inputs to fire mission process. • The MCP CUOPS layout **MUST** avoid cumbersome and time consuming mistakes resulting in unnecessary addition of time to fire mission processing.	

Figure 4-10. Fire Support Considerations for Brigade Main Command Post[12]

MCP LAYOUT

Whether the digital systems are properly communicating or not, units can reduce target engagement times through a well-thought-out layout in the MCP. The key sections that must effectively communicate for rapid target engagement are the FSE, ADAM/BAE, and S-2 COIC. Figure 4-10 depicts the most effective layout observed.

Execution Tip (XO, S-3, FSO, BAE): Synchronize air space at the TWG and TDB. Plan for multiple MN units in the air space, coordinate air control measures, and confirm receipt of those measures through unit LNOs.

Best Practices

Execute the Targeting Process: Brigade Fire Support Coordination Officers (FSCOORD) should conduct targeting leadership professional development (LPD) classes with the full brigade staff. These LPDs should discuss TWG inputs, outputs, and processes focused on enabling the BDE CDR's decisions of where, when, and how to employ resources. The BAE must be able to communicate what conditions need to be set to execute aviation missions (deep attack, air assault) and what risk the commander assumes if those conditions are not set. This will require cross-WfF coordination, as well as early input from the supporting aviation unit tasked to execute the mission.

Synchronize Fire Support: Brigade FSEs should establish a Fire Support SOP focused on the producing, using, and updating analogue and digital fire support coordination measures (FSCMs). This SOP should also specify who is authorized to create and update FSCMs. An FSE SOP reduces duplicate geometries, establishes clear authorities, and provides guidance to subordinate FSEs. LPDs, led by the fires battalion, on how the brigade FSE and battalion FDO work together should help educate all echelons on why and how to establish attack guidance. Brigades should use discussions generated by these LPDs to update both the fire support SOP and the Artillery battalion SOP.

Employ Fires: Maintain a running estimate of assessed and confirmed BDA with the S-2. The FSE can help the staff gain efficiencies by clarifying enemy strength and disposition. Ensure that FSE COIC works directly with other COIC staff to update the COP. FSEs must constantly communicate with higher and adjacent units to ensure that their AFATDS, database is up to date and accurate. By focusing on these three areas, brigade FSEs can reduce fire mission processing times, reduce the risk of fratricide, and achieve the desired effects on enemy target sets.

MCP Layout: To ensure the greatest effects against target sets, units should strive to increase communication and understanding between the ADAM/BAE, FSE, and S-2 sections within the MCP. Through an efficient layout that provides the least disruption to the face-to-face communication of these sections, and through systems integration, units can reduce intervention points between the sensor and shooter and reduce fire mission processing times. To achieve this level of understanding and integration, brigades should do the following: conduct home-station CPX training focused on developing an efficient MCP layout reduces disruptions to communication between the FSE, ADAM/BAE, and S-2. Conduct home-station digital sustainment training focused on system integration between the AFATDS, TAIS, and DCGS-A, ensuring that those key systems can share target data and technical data.

Unit Fighting Products

BDE FSEs are responsible for the high payoff target list (HPTL), attack guidance matrix (AGM), target selection standards (TSS), target list worksheet (TLWS) and target synchronization matrix (TSM). Most FSEs are already familiar with these products and create suitable versions efficiently.

However, the primary shortcoming of BDE Fires UFPs are:

1. Planning staff do not transition UFPs to the COIC staff.
2. COIC staff do not use the HPTL or TSS to select appropriate targets.
3. COIC staff do not use the AGM to deliver appropriate effects to targets.

Training Tip (XO, S-3): inject targets of opportunity into the CPX portions of Staff Tables III – VI to evaluate the COIC's ability to receive and use Fires UFPs. Effective staffs will quickly deliver the right effects to the right targets.

Resolution of the three issues are achievable by conducting a deliberate FOIC-COIC transition within two hours of each BDE Targeting Decision Board. Additionally, brigades must train their COIC staff across WfFs to read and use Fires UFPs during both planned targets and identified targets of opportunity.

INFORMATION-RELATED CAPABILITIES

Bottom Line Up Front

In conflicts since World War II, the United States' adversaries and enemies have sought to wage operations across as many domains as possible, including those requiring niche capabilities. As the United States experienced during the Global War on Terror, losses in the information environment within the OE can lead to strategic failure. To win in Europe during LSCO, brigades must plan and execute operation in the information environment.

Brigades deploying to JMRC, or in a conflict in Europe, can anticipate receiving IRC (information-related capabilities) attachments to support tactical operations. These attachments assist primarily during brigade defensive operations to minimize civil interference and attacks. IRC attachments also can, and should, be simultaneously bringing civilian capabilities to the fight. Civilian engagement can make additional sustainment and protection resources available to the brigade.

To integrate information advantage activities into brigade defensive and offensive operations, it is crucial that the S-9, Psychological Operations (PO) NCO, Public Affairs (PA) section, and Cyber Electromagnetic Activities (CEMA) section work together, train with the other staff sections, and consider IRC attachments prior to deploying or attending a CTC rotation. Once they get to a CTC or combat theater, the IRC staff planners need to be able to control any IRC attachments. If not, any attachments pushed to a brigade will largely be a waste of money, time, and effort, instead of the true enablers they can be.

Trends

Issues with manning, equipment, and understanding of capabilities reduce the effectiveness of brigade-level information-related capabilities. Even grouping CA and CEMA solely into Information Advantage is duplicitous, as both branches are equally as responsible for information collection as they are for effects on the battlefield. In observations of the last two years at JMRC, no brigade has truly used its CEMA, PA, PO, and CA planners and/or attachments in line with their full capabilities. Some of this is due to staff planners' and attachments' lack of experience with supporting conventional tactical units, and some of the responsibility lays with the brigades' organization of forces during operations.

The active duty CA and PO staff planners primarily come from U.S. Army Special Operations Command (USASOC) and have little to no experience planning on a conventional Army unit staff. This typically limits their understanding of maneuver operations and how CA and PO attachments can be used to facilitate those operations. Brigades receive CA, PO, and PA attachments from U.S. Army Reserve Command (USARC). Those attachments also have little experience supporting conventional maneuver brigades. In addition, CA, PO, and PA staff planners must overcome physical obstacles. Most brigades' piece-meal the IRC teams out to battalions/squadrons or consolidate the attachments at the BSB or BEB. The physical separation often prevents the IRC attachments from adding anything productive to the brigade's plans or battle rhythm events. This results in CA, PO, and Public Affairs attachments rarely conducting operations in support of the brigades' defensive or offensive operations.

Best Practices

While no brigade has used these capabilities to their full potential, most brigades have had some success when they do conduct certain information advantage activities. Like the Fires WfF, the synchronization of information advantage activities has been the most effective tool the brigade can use to layer effects on the enemy or civilian population. Though rare, brigades have been more successful during their attacks when integrating EW attacks to disrupt enemy C2 systems, and simultaneously using PA, CA, and PO attachments to minimize civilian interference on axes of advance and key logistical support lines. Both physical location and planner synchronization with attachments was critical in all successes.

Brigades must utilize individuals from their attached PO, CA, and PA enablers to enhance the IRC planners' ability to do everything for which the section is responsible. Co-locating the CA Company's civil military operations cell center (CMOC) with the brigade main command post and adding a PO and PA planner, from those respective attachments, increases the likelihood that attached IRCs will conduct operations synchronized with the brigade's attacks and defenses. By co-locating the CMOC with a command post, but not the entire company, the brigade is able to effectively command and control the 40-70 attached enablers it will typically receive, while maintaining a small footprint at the MCP. This will allow the attachment planners to coordinate directly with brigade planners, and be responsible for communicating intent to teams, instead of relying on one or two brigade staff members' access to radios and other battle command platforms.

The only additional responsibility for the brigade's IRC planners is they must integrate the small planning/operations center into the MCP footprint. This means coordination with the HHC 1SG and Operations SGM for force protection and MCP setup, and additional discussions with the S-6. The IRC planners and S-6 must coordinate server space for a few more computers and lay additional wire/cable into the CMOC, but the brigade will be able to direct its CA, PO, and PA attachments; and CEMA platoon, to have effects on enemy and civilian forces that enable brigade operations.

Unit Fighting Products

The information-related capabilities planners normally do not develop fighting products for brigade consumption; however, the construction of a combined information overlay (CIO) is essential to show the commander and staff where and how the brigade can use information to layer multi-domain effects on the enemy forces and civilian population. Public Affairs, CEMA, PO, and CA should all work together to establish a combined information overlay (CIO) during Staff Training Table I. Despite the planners' unfamiliarity with this product, CA, PO, PA, and CEMA planners can reference FM 3-13, Information Operations, and work together to develop the CIO. The civil networks of the Civil Affairs realm, media and target audience analysis in the PA and PO planning processes, and electromagnetic spectrum analysis that the CEMA cell conducts, should all become layers in the CIO. This product becomes the Information Advantage community's way to display information to the maneuver world and shows the where and how the unit can influence both the civil population and the enemy within the brigade's area of interest.

PROTECTION

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Bottom Line Up Front

The Protection functional cell contains engineer, military police, air defense, and chemical Soldiers responsible for identifying the brigades' vulnerabilities and creating plans that mitigate those risks. The Protection cell is responsible for creating the unit's Protection Prioritization List (PPL) and planning how to protect those assets from all nine forms of enemy contact (direct, indirect, non-hostile, obstacle, CBRN, aerial, visual, electronic, influence). Planning must include protection asset task organization, command relationships, coordinating instructions, and graphic control measures.

Execution Tip (Commander, XO, Chief of Protection): There are two primary commander decisions that the protection cell informs.

1. Are we aggregating protected assets to mass protection effects like engineer support and air defense coverage, or are we disaggregating protected assets to maximize the inherent security of dispersion?
2. How are we task-organizing protection assets, and what are the specific decision points and control measures to commit them?

Answer these questions by synchronizing the protection battle rhythm and UFPs with the DSM and EXMAT during COA Analysis.

The protection cell must conduct a protection working group (PWG) as part of the brigade battle rhythm to update the comprehensive scheme of protection and protection prioritization list. The PWG is essential for identifying threats and hazards; assessing threats and hazards to determine risks; developing preventative measures; and integrating protective tasks into a comprehensive scheme of protection. Completion of the scheme of protection must take place during COA Analysis to capture the exact task organization, task, purpose, triggers, and control measures of committing protection assets.

European Theater Considerations

The restrictive physical terrain and complex cultural considerations of the European area of operation and the integration of multi-national partners impact the execution of Protection functional operations. Detailed planning and understanding of these impacts to operations provide opportunities for the brigade staff and the Protection cell to develop mitigation strategies to overcome issues or constraints presented.

More so than any other warfighting function, effective protection activities are accomplished by MP, ADA, CBRNE, EOD, Engineer, and other formations not organic to the brigade. Brigades should be prepared to integrate these units in their protection plan. Understanding the training proficiency, unique capabilities, combat power, authorities, jurisdiction, and cultural considerations that U.S. and multi-national enabling forces (ex. CBRNE, ADA, ENG, MP, EOD, EW) provide will assist the brigade protection cell with integration and support to operational requirements and emerging required missions.

The European physical terrain presents unique considerations in the application of Protection WfF capabilities. The terrain is mostly restrictive with its dense vegetation, valleys, units must be able to visualize mobility corridors where Army doctrine would classify it as restricted 'no-go' terrain. This enables units to anticipate enemy infiltration routes in the defense and create obstacles and engagement areas accordingly. Alternately, the natural concealment of dense forests provide opportunities to hide as well as use camouflage netting to prevent passive observation.

The Air Defense and Airspace Management cell relies on terrain analysis to determine suitable locations for emplacing air defense artillery. FM 3-01 (U.S. Army Air and Missile Defense Operations) par 2-20, states that "sensors are emplaced on terrain that provides the best longest range line-of-sight in all directions. Shooters are then positioned to optimize the defense of the defended assets, enabling lethal coverage over the assigned assets, and extending firepower through as much of the defense coverage area as possible. Short Range Air Defense (SHORAD) units identify emplacement locations to cover the Primary Target Line (PTL) and Avenues of Approach with the AMDWS defense design assessment and Reconnaissance Selection Occupation of Position (RSOP). Emplacement locations must provide cover and concealment, coverage of the defended asset(s), early warning, and enable egress or sustainment movements."

The vast wooded areas with moderate windspeeds provide favorable conditions for chemical warfare agent use. A chemical cloud released in a narrow valley subjected to a slight breeze retains a high concentration of agent as it flows down the valley; also, thermal inversion (typically indicated by early morning fog) begins to develop at night when surface air cools more quickly than the air above presenting favorable conditions for chemical warfare agent employment during early morning hours. The most common nerve chemical warfare agents: tabun (GA), sarin (GB), soman (GD), cyclosarin (GF), and VX are all heavier than air and will pool in low lying areas. By understanding how restricted terrain and weather affect chemical warfare agents, the CBRN sections must facilitate detailed terrain analysis in accordance with U.S. Army doctrine, and then distribute chemical downwind messages to create shared understanding and support protection efforts.

When fighting in the European area of operation, engineer planners must assess the restrictions on engineer capabilities. These restrictions may be a result of the rules of engagement or the presence of noncombatants (paragraph 1-6, ATP 3-34.22 ENG Operations BCT and Below). Populated areas and restrictions on counter-mobility operations with regards to mine emplacement creates constraints to mission planning. Likewise, the brigade Provost Marshal (PM) cell must understand

the unique physical and cultural terrain and the impact to maneuver, detention, populace control, and dislocated civilian operations. The effectiveness of the brigade PM Cell operational planning is dependent on the consideration of the physical and civil terrain and how the plan enables freedom of movement for maneuver forces and logistic support nodes throughout the AO. For example, overlapping refugee routes with maneuver corridors in restrictive terrain can create canalization, halt, or slow movements, and/or cause unnecessary civilian casualties. Staff integration across the brigade (Civil Affairs, PSYOPs, FIRES, ENG, MP, etc.) ensures that there is a Common Operational Picture (COP) of the civilian effects on the battlefield to integrate into the protection planning process and application of enabling forces and/or unified action partners.

Developing a detailed Modified Combined Obstacle Overlay (MCOO) and Common Operating Picture (COP) helps commanders and staffs to understand the impact of civilians and terrain on the mission. The MCOO should include:

- Identified displaced civilian routes
- Urban and cultural centers
- Detainee transport routes and transfer points
- Restrictive terrain
- Low lying areas
- Thermal inversion zones

Trends

Execution Tip (Chief of Protection): Establish and conduct a battle rhythm PWG.

Attendees: All protection functions (EN, MP, ADA, CBRN), assistant S-2, assistant FSO, assistant Civil Affairs Officer, assistant S-4, Explosives Ordnance Disposal LNO, Anti-terrorism LNO.

Inputs: Enemy situation, current PPL, DSM, EXMAT, current Brigade task organization, Brigade COP.

Agenda: Situation brief, PPL review, protection COA DEV, protection COA analysis, protection scheme of maneuver updates.

Outputs: Updated PPL, updated Scheme of Protection 24/48/72 hours out, protection updates to Brigade DSM and EXMAT.

Most training units struggle to form a protection cell that integrates and synchronizes protection tasks or systems for each phase of the operation. Typically, brigades treat each component of protection (MPs, ADA, engineers, CBRN) as separate staff entities that each work directly for the XO. Brigades struggle to integrate the effects of these staff sections because the XO has too many direct-reporting subordinate staff members. As a result, the different protection sections never synchronize into a single concept of protection and critical assets from the brigade are frequently destroyed or compromised by enemy forces early in the operation. The protection assets that are task-organized are committed independently and de-synchronized from supported maneuver operations. Obstacle emplacement ends up scattered across the AO with no decisive

effects achieved; key air defense assets leave low-flying avenues of approach open to enemy rotary wing units; MPs are spread out across the rear area duplicating security operations not conducting specialized detainee or displaced person operations; and CBRN is reduced to a single MOPP coordinating instruction in the OPORD.

Best Practices

Assign a single staff leader as the chief of protection. This chief integrates all protection functions with each other, synchronizes them with supported forces, and provides a single touchpoint for the commander and CoS to assess their protection enterprise. Brigade engineer officers are usually the correct person to assign as the chief of protection because they have the most protection experience and are more familiar with maneuver and sustainment operations than their other protection counterparts.

Execution Tip (XO, engineer, CHOPs): Do not allow the PPL to die on the plans tent floor. Like all UFPs, ensure that the PPL is allocated a scheme of protection during COA analysis. Protection assets usually operate away from their parent organizations and need specified tasks in the execution matrix. This enables the COIC to control the movement, receipt, operation, and re-task organization of protection assets.

The chief of protection is also responsible for running the PWG. The PWG is a battle rhythm event that combines all protection functions with other WfF representatives to conduct protection Brigades should develop their planning standard operating procedures (PSOP) to include the protection working group requirements (attendees, purpose, inputs, and outputs). They should schedule the protection working group as part of the planning process and operational battle rhythm to enable protection planning. Leverage staff integration to provide analysis on criticality, vulnerability, and threat of assets to develop and refine the Protection Prioritization List (PPL) and overall scheme of protection.

Unit Fighting Products

The PPL is a foundational staff product that identifies the critical assets within the brigade AO and the supporting assets available to protect those identified critical assets. As an output to mission analysis, the PPL drives potential task organization changes and tasks to subordinate units, making it imperative to develop early and refine as operations or planning considerations change. During brigade staff training table 2, the Chief of Protection establishes planning, reporting, and working group requirements for the protection WfF requirements within staff operations. Throughout BDE Staff training events, executing the Protection Working Group must be part of the battle rhythm and planning timeline. Development of the PPL and scheme of protection is a major output of the Protection Working Group as a part of the planning and orders production process.

The PPL helps Army commanders identify or assess assets that require protection prioritization within assigned areas (ADP 3-37, pg. 3-7, para 3-22). The protection cell and working group develops the PPL during initial assessments by using criticality, threat vulnerability, and threat probability to prioritize identified critical assets (ADP 3-37, pg. 3-6, para 3-19, para 3-21). Anticipation regarding changes to protection prioritization must occur and assets reassessed as transitions occur throughout operations or commander priorities change (ADP 3-37, pg. 3-7, para 3-22).

Priority	Critical Asset	Location / OPCON Unit	Threats / Vulnerabilities	Mitigation	Capabilities Assigned *Task Org Change	Tasks	DAL - ADA Assigned?	Scheme of Maneuver
1	**Q53 Radar**	32U QV 1234 5678 (OBJ TIGER) (1-23 CAV)	1. ENY Air 2. IDF 3. SPF 3. EW Jamming	1. TACON ADA 2. Survivability positions 3. TACON Security SQD	***1. Stinger**	Passive Air Defense	Y - Stinger	Stinger TM TASKORG change from TF RED to TF FALCON.
					***1. MP SQD** (1 / 1 / A / 34 MP)	Critical site security		TACON to TF STEEL during PH I - PH IV
					876 ENG	Dig survivability position		Dig complete NLT 18 1600 MAR 23.
2	**The Stol Airfield**	32U QV 1234 5634 (STAR)	1. ENY Rotary 2. ENY Fixed-W 3. IDF 4. SPF 5. EW Jamming	Neutralize ENY rotary, UAS, AS to destroy SPF	EW	Jam ENY	Y - DIV Patriot Coverage	
					*1xMP PLT	Critical site security		Additional security dure to no self-secure capability
					Dozer Section (1 / A / 14 BEB)	Reinforce physical security of airfield		**Dozer Section** (1 / A / 14 BEB) Complete NLT 19 2300 MAR
3	**Brigade Support Area**	32U 1357 2468 (123 CSSB)	1. ENY Rotary 2. ENY Fixed-W 3. IDF 4. SPF 5. EW Jamming	Survivability positions; AD; Security	*1 x Stinger	Passive Air Defense	ipp	Stinger TM change from TF RED to TF GOLD during PH II-IV of operation
					***1. MP SQD** (2 / 1 / A / 34 MP)	Critical site security		Asset cannot self-secure
					Dozer Section (1 / A / 14 BEB)	Dig survivability positions		**Dozer Section** (1 / A / 14 BEB) Complete NLT 21 2300 MAR

Figure 4-11. Example Protection Prioritization List[13]

The PPL and scheme of protection are two products developed through the staff planning process beginning at Step 2: Mission Analysis. When staffs do not prioritize the development of the PPL and the alignment of protection assets/measures to critical assets, the Commander often lose their ability to create effects on the battlefield due to critical losses. The timing of PPL development also affects the implementation of protective assets and their support to survivability of critical assets. When the prioritization of critical assets and protective mitigations occur after mission analysis and course of action development, a gap in protection support as well as task organization changes impact overall operational timelines and preservation efforts. Refinement of the PPL should occur throughout the planning period and upon receipt of each new mission. Prioritize critical assets by assessing the criticality, vulnerability, and threat probability of each asset. Through assessments for prioritization, planners can identify protection mitigation requirements. Protection mitigation requirements must result in unit tasks to execute survivability and security measures in support of the PPL. (Reference ADP 3-37, CH 3). Figure 4-11 depicts a detailed protection prioritization list.

The brigade should identify critical assets through:

- Integration of the Commander's guidance
- Intelligence preparation of the battlefield
- Targeting
- Risk management
- Warning orders
- Critical Asset List (CAL)/Defended Asset List (DAL)
- Mission analysis

Develop the PPL during mission analysis to gain the Commander's approval and initiate protection operations. The PPL drives task organization to allocate specific protection assets to PPL assets with task, purpose, location, and timing.

Brigade protection operations are more successful when protection separate staff components and operate as a cohesive cell. Organized appropriately and regularly synchronized through a PWG, protection drives commander decisions through a single touchpoint rather than through four independent staff sections.

Training Tip (XO): The protection WfF operates more efficiently as a single line of effort to protect PPL assets. However, each protection branch has specific execution considerations for LSCO in Europe.

Engineer: diverse terrain reduces mobility even in small frontages. Organize mobility task forces to conduct successive operations throughout all phases of a Brigade operation, not just the breach.

Air Defense: river valleys and tall forests provide dead space for enemy rotary and fixed-wing assets to maneuver, even in areas that are mostly flat farmland. Mass ADA assets on likely avenues of approach.

Military Police: plan for large numbers of internally displaced persons and enemy prisoners of war. Mass MP assets behind maneuver battalion rear areas to conduct a handover of these personnel and coordinate them on the best routes towards the division rear.

CBRN: industrial infrastructure tends to be more spread out than other OEs. Coordinate with UAPs and the civil-military cell to display CBRN production, storage, and commercial facilities onto the unit COP.

SUSTAINMENT

MAJ Avis Liverpool, MAJ James Collard, MAJ Ismael Serrano, CPT Lauren Conner, CPT Matthew Granahan, CPT Justin Marshall, CPT Jeffrey Nielsen

Bottom Line Up Front

Execution Tip (Commander, XO, Chief of Sustainment): There are two primary commander decisions that the protection cell informs.

1. When do we jump the BSA?
2. Do we have enough combat power to continue offensive operations, or do we need to transition to the defense to regenerate combat power?

Answer these questions by synchronizing the LOGSYNC and LOGCOP UFPs with the DSM and EXMAT.

Sustainment drives operations. As the senior sustainer on the brigade staff, the brigade S-4 synchronizes the sustainment warfighting function between the support office, the sustainment battalion, S-1, the surgeon cell, the unit ministry team, and S-8. The S-4 ensures holistic sustainment support for all other brigade operations. The brigade relies on the S-1, S-4, and Surgeon Cell to anticipate requirements, manage transitions, and generate combat power for the commander.

The S-4 synchronizes the sustainment WfF by conducting a battle rhythm Logistics Synchronization Meeting (LOGSYNC) and continuously updating the Logistics Common Operating Picture

(LOGCOP). The LOGCOP must capture all relevant data about the brigade's combat power, including its vehicles, personnel, weapons, classes of supply, funds, and readiness. The LOGCOP informs the LOGSYNC which in turn allows the sustainment cell to anticipate requirements, allocate resources, mass effects during brigade transitions, and inform the commander of the brigade's ability to continue operations.

European Theater Considerations

Sustainment in Europe follows the fundamentals of U.S. doctrine but must account for the uniqueness of operating in allied host nations. European nations have laws and policies that impact sustainment of combat forces during training exercises such as transportation of hazardous materials, certification of vehicles used to move HAZMAT, the number and type of vehicles allowed on civilian roads, diplomatic clearances in addition to possible language barriers of countries with whom brigades are trying to conduct business. Additionally, brigades must program longer lead times for sustainment in their planning.

PRE-DEPLOYMENT

Coordination with EAB: Brigades must coordinate with 21st Theater Sustainment Command (21st TSC) as soon as possible. Their mission is to provide theater sustainment throughout EUCOM and AFRICOM AORs. 21st TSC is the echelon of support that any deploying brigade would coordinate with for Reception, Staging, and Onward Movement (RSOM) and through redeployment. 21st TSC is the primary sustainment headquarters in Europe.

NATO Doctrine: NATO and U.S. Army doctrine are similar but not equal. NATO is an alliance of armies, navies, and air forces, each with their own doctrine. NATO doctrine serves as the single standard. The result is an agreed upon method for over 32 nations on how they will conduct large scale combat operations (LSCO). Allied Joint Publication for Logistics (AJP 4) defines how NATO will sustain a joint force in LSCO. Commanders and staffs at echelon must prepare to use NATO logistics doctrine, systems, and reports.

Training and Courses: Brigades must also consider the many training requirements prior to deploying to Europe. 21st TSC has a full listing of requirements. Several examples include: the Hazardous Materials Driver Training Course (HAZ 11) for all vehicle operators that move hazardous materials and the Technical Transportation of Hazardous Materials which prepares personnel for the required European HAZMAT certifier certifications: HAZ 12 and HAZ 15. The Affiliated Contingency Load Planning Course (UMO-152) with a primary and alternate at the battalion level allows units to plan U.S. fixed wing airlift operations.

Certifications: Personnel and equipment needed first at RSOM is a critical consideration for any deploying brigade. Units must front load their fuel and ammunition assets and personnel. The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR certification) can require up to 60 days to obtain after the assets arrive in Europe. Until units have the required ADR certifications and complete training requirements only offered in Europe, such as European HAZMAT Certification (HAZ 12 and HAZ 15), units are dependent on 21st TSC for support.

Longer Lead Time for Repair Parts: Prior to deploying, brigades must consider the Common Authorized Stockage List (CASL) levels at the brigade's supply support activity (SSA). Increased travel time for repair parts coming from the CONUS to Europe might reduce the unit's combat power to unacceptable levels. Deploying brigades should consider the health of their CASL prior to shipment as a high priority for their BSB.

European Theater Considerations

Ground Transportation: When not in conflict all European nations require march credits for most vehicle movements on civilian roads and each country has its own rules. Also, when any U.S. military personnel or equipment, including NTVs and TMPs need to cross a border within Europe, units require the permission of the host nation that they traverse in the form of diplomatic clearances. Each country has its own processing and scheduling requirements as well. This could drastically increase the lead time for approval for units attempting to move through nations. Units can explore multiple modes of transportation to overcome some of these challenges such as, brown water civilian assets (barges), contracted road solutions, and strategic airlift.

Rail Networks: Different sized rail gauges in Eastern and Western Europe presents a unique challenge to U.S. based units. The U.S. uses only one gauge for its rail networks while Europe has two delineated by which half of the continent the unit operates. Moving between the two regions often requires a download and re-upload of equipment increasing the personnel and logistical requirements of the brigade or requires using expensive railcars built to support multiple rail gauges. Planners must understand any rail movement require from tooth to tail.

Over-extended Lines of Communication: When operating in Europe, greatly extended logistics lines of communication is a consideration that brigades must understand. Battalions can be geographically displaced beyond the brigade's ability to traditionally support with organic assets. EAB sustainment assets and contracted solutions may bridge this gap. Units at echelon must accurately forecast supply and support requirements. Accurate sustainment reporting is critical to a dispersed brigade's operations.

Access to Medical Care: Brigades will have limited access to primary medical services in theater. Units access Role I care through their organic medical assets, co-located medical assets, or nearest Medical Treatment Facility (MTF). Emergency services are available through nearest host nation medical facilities or Landstuhl Regional Medical Center. Defender Europe Medical Handbook, which contains TRICARE accredited facilities in various host nations and patient evacuation resources, is available upon request from 21 TSC OSURG. Request this handbook prior to departure from home station.

CONCLUSION

Several Europe-based U.S. Army units exist solely to make CONUS based units successful in EUCOM. Brigades deploying into Europe will find new challenges and hurdles they must overcome. Many nations, multiple languages, numerous agencies within each country, and unfamiliar infrastructure all contribute sustainment complexities that lead to extended lead times for sustainment operations. Brigades that leverage this expertise will be postured for logistical success.

Trends

This section focuses on three T&EOs that capture all combined brigade sustainment operation trends.

1. T&EO 63-6-2034, Develop the Internal Sustainment Plan.
2. T&EO 63-4-4019, Establish the Administrative and Logistics Operation Center (ALOC).
3. TE&O 63-BDE-4021, Provide Internal Sustainment.

Brigades that lack clearly identified roles and responsibilities between the brigade S-4 and the support operations (SPO) section struggle immediately upon arrival in Europe. Brigade S-4 sections typically establish their ALOC in a separate part of the MCP or independently which reduces their ability to synchronize sustainment. This causes the brigade's sustainment enterprise to execute reactive logistics. Without regular touchpoints, both the ALOC and the SPO section rapidly lose understanding of the current operations and how sustainment either enables or constrains the commander's options.

The ALOC is often last in order of priority for connectivity following a brigade MCP jump. If the S-1/S-4 do not have a presence in the TAC, it is often several hours before these sections are able to receive/track updates and are therefore unable to provide recommendations to the commander. Often, maneuver battalions and their Forward Support Companies lack the same PACE plan communication infrastructure that the brigade headquarters has access to. There are two reporting channels occurring simultaneously – the brigade S-4 for planning, and the SPO for executing. The unit must have a robust, stable, and redundant sustainment PACE plan and know the communication platform limitations of key participants. Sections in the ALOC should not expect to be able to receive complex LOGSTATs, PERSTATs, or other reports on NIPR. A short form version of the reports should be developed and include the minimum amount of data required which are able to be communicated through JCR-LOG/JBCP.

Training Tip (Chief of Sustainment): train the LOGCOP and LOGSYNC during garrison operations. Substitute existing battle rhythm events with your LSCO equivalents to update the LOGCOP and provide updates to the Brigade's training calendar through the S-3.

The ALOC must visualize the LOGCOP for the commander. The ALOC often struggles to provide a COP product to the MCP that effectively encompasses and communicates everything the commander needs to inform his tactical decisions. The COPs vary greatly between analog and digital products maintained within the ALOC, and the analog products maintained in the MCP. Digital products are rarely disseminated, if ever, outside of the ALOC to the brigades supported and supporting units, preventing a shared understanding. The brigade executive officer along with the brigade S-4 consistently fall short on ensuring synchronization of the sustainment plan with the maneuver plan and that all battalion executive officers are placing the necessary emphasis required on accurate reporting, disciplined attendance of key battle rhythm events, and enforcing maintenance across the formation.

Best Practices

Sustainment planning considerations are essential to ensuring freedom of action, expanding operational reach, and prolonging endurance (ADP 3-0). S-4s must plan for transitions; increases in CLV and CLVIII consumption; prepositioning resupply stocks; supporting retrograde operations; mass casualty events; and large-scale personnel replacement operations.

Anticipating Requirements

Sustainers must understand the destination, demand, duration, and distance of a given operation to understand opportunities, assess risk, and anticipate logistical support. Effective sustainers anticipate friction points, shortfalls, and opportunities to exploit the enemy. Anticipation is the ability to forecast operational requirements and initiate necessary actions that most appropriately satisfy a response without waiting for operations orders or fragmentary orders (FM 4-0). It is both

an art and a science. It is shaped by professional judgment resulting from experience, training, education, intelligence, and intuition (FM 4-0).

Responsiveness to a Changing Environment

Responsiveness is the ability to react to changing requirements both anticipated and emerging while maintaining operational reach, freedom of action, and prolonged endurance. It is providing the right support in the right place at the right time. Facilitation of responsiveness by a COP enables commanders to see all supported forces, anticipate requirements based on situational understanding, and provide support when and where needed. Through responsive sustainment, commanders maintain operational focus and pressure, set the tempo of friendly operations to prevent exhaustion, replace ineffective units, and extend operational reach (FM 4-0).

Synchronization across the Enterprise

Sustainment Synchronization across the entire sustainment enterprise is essential for effective planning and execution of the mission. The S-4, S-1, SPO, FSC CDR, and a CSSB LNO are key players that required for seamless integration. The S-4 should develop a sustainment COP in conjunction with the SPO, ensure they are unified, and provide the commander what they need to be able to make decisions rapidly. Upon approval of a template, print analog boards.

Sustainment Rehearsals are another critical aspect of synchronizing the staff and ensuring mission accomplishment and success. Sustainment rehearsals provide an opportunity to create shared understanding of the commander's intent, the overall scheme of maneuver, and how we integrate sustainment across the battlefield.

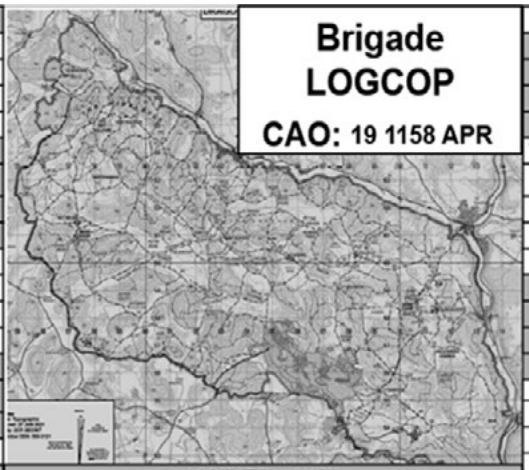
Sustainment Overlays provide commanders and staffs situational understanding and inform the decision making and support processes. Sustainment overlays serve as a tool to facilitate understanding, visualization, and one's ability to describe the sustainment concept of support in relation to the concept of operations and scheme of maneuver. Combined with other staff sections or WfF overlays, the sustainment overlay completes the picture creating a holistic, visualization of the commander's intent.

Sustainment Information Systems are a critical aspect of providing situational understanding among the staff and commander. These systems are an integral aspect of building and maintaining combat power, which in turn, assists commanders with leveraging and managing their assets across the battlefield. Units forfeit training opportunities when utilization of these systems are not employed during their CTC rotation.

Unit Fighting Products

Maintaining a common operating picture is crucial to synchronization and unity of effort. Common Operating Pictures display relevant information and refinements by the staff as situations evolve and the commander's need for information changes. Figure 4-12 depicts a detailed logistics common operating picture.

Status	Report/DNR	1P	
R	CL I – 1600 /4000, 0/ 449		
A	CL III – 8010 / 10000 JP8, 0 / 2500 DF2		
G	CL V		
G	Maintenance		
TOW/ITAS	20	20	100%
M1152	14	14	100%
FLA	4	5	80%
Status	**Report/DNR**	**2P**	
R	CL I – 1600 /4000, 0/ 449		
A	CL III – 8010 / 10000 JP8, 0 / 2500 DF2		
G	CL V		
G	Maintenance		
TOW/ITAS	20	20	100%
M1152	14	14	100%
FLA	4	5	80%
CTCP:	32U PV 971 609		
Status	**Report/DNR**	**1F**	
R	CL I – 1600 /4000, 0/ 449		
A	CL III – 8010 / 10000 JP8, 0 / 2500 DF2		
G	CL V		
G	Maintenance		
TOW/ITAS	20	20	100%
M1152	14	14	100%
FLA	4	5	80%
CTCP:	32U PV 971 609		



LOGSTAT Flow AM/PM
(G=submitted A=incomplete/late R=not submitted)

1P	2P	1F	RECON	COBALT	LOYALTY	GATOR	BDE

5988 (Issue/Received)

1P	2P	1F	RECON	COBALT	LOYALTY	GATOR

VSAT(G: ping A:await ping R:NMC)

1P	2P	1F	Recon	Cobalt	Loyalty	Gator

Status	Report/DNR	RECON	
R	CL I – 1600 /4000, 0/449		
A	CL III – 8010 / 10000 JP8, 0 / 2500 DF2		
G	CL V		
G	Maintenance		
TOW/ITAS	20	20	100%
M1152	14	14	100%
FLA	4	5	80%
CTCP:	32U PV 971 609		
Status	**Report/DNR**	**COBALT**	
G	CL I – 1800 / 2000, 0/150 cases		
R	CL III –4000 / 9200k		
G	CL V		
G	Maintenance		
ESV	7	7	100%
NBCRV	1	2	50%
FLA	2	2	100%
CTCP:	32U PV 974 674		
Status	**Report/DNR**	**LOYALTY**	
A	CL I – 2600 / 4000, 0/130		
A	CL III – 2960 / 4700		
R	CL V (G:1 x UBL, A: .75 UBL, R: .5 UBL)		
G	Maintenance		
M777	0 (8)	6 (18)	33%
Prime MVR	5	6	83%
Q53/50	1	3	33%
CTCP:	32U PV 965 632		
Status	**Report/DNR**	**GATOR**	
G	CL I – 10000 / 10000 // 576 case		
G	CL III – 12050 / 17000		
G	CL V		
G	Maintenance		
FUELER	3	3	100%
WRK	4	4	100%
LHS	16	16	100%
FLA			
MTV	1	1	100%
BSA:	32U PV 95881 62902		

LEGEND			
Maintenance		CL I	
	90-100%		>3 DOS
	80-89%		3 DOS
	70-79%		2 DOS
	<69%		1 DOS
CL III(B)		CL V	
	80-100%		90-100%
	60-79%		80-89%
	26-59%		70-79%
	0-25%		<69%

Critical Combat Power/Vehicle Shortages	
1P	
2P	
1F	
Recon	
Cobalt	
Loyalty	
Gator	

Figure 4-12. Example LOGCOP[14]

Both the LOGSTAT and PERSTAT reports enable the staff to track and assess readiness of systems, commodities, personnel, and equipment. Figure 4-13 depicts a combined LOGSTAT and PERSTAT report.

SURGEON CELL

Trends

During CTC rotations, successful organizations have Medical Common operating Pictures (MEDCOPs) and Medical Concepts of Sustainment (MEDCoS) developed prior to deployment. However, trends observed is that most organizations deploy without a set standard, and only develop their MEDCOPS and MEDCoS after arrival at JMRC, resulting in a subpar and incomplete product that they cannot share with higher and adjacent units. Brigades find themselves unprepared to plan for future operations and unprepared to respond to medical crises that occur during current operations. Their inability to see and understand the medical resources across the battlefield at the tactical level limits the commanders' ability to make decisions and allocate medical assets according to mission requirement, and inhibits higher, lower, and adjacent staffs from having accurate running estimates to conduct proper staff analysis.

The PERSTAT and LOGSTAT are best maintained as digital products. Analogue products are acceptable back-ups but require immense time to properly update.

	NAME, RANK		HEAD COUNT
	UNIT		REPORT SENT TO DTG

	LINE 1: CL I	CURRENT O/H	Need 24 HRS	Need 48 HRS	Need 72 HRS	RECEIVING NEXT 24
A	UGR_A (Meals)					
B	MRE (CASES)					
C	MRE VEG					
D	WATER (GAL)					
E	ICE (PALLETS)					

	LINE 2: CL III	CURRENT O/H	Need 24 HRS	Need 48 HRS	Need 72 HRS	RECEIVING NEXT 24
A	F24 (GAL)					

		CURRENT O/H	Currently Requested #	Purchase Order #
B	MOGAS (GAL)			
C	10WT (CARTON)			
D	30WT (CARTON)			
E	80/90-WT (CARTON)			
F	GAA (TUBE)			
G	FRH (GAL)			
H	OHT (QT)			
I	15/40 WT (QT)			

Logistics is a hard science. Each individual supply item must be planned and tracked to ensure delivery

DAILY PERSTAT REPORT

DATE/TIME OF REPORT: (0800 20170806)

			BOG					UNAVAILABLE								PROJECTED NUMBERS		
UIC	UNIT NAME	EXERCISE	OFF	WO	ENL	CIV	TOTAL	QTRS	HOSP	PRED CROSS / EMERLY	SICK CALL	AWOL	OTHER	TOTAL UNAVAILABLE	TOTAL UNAVAILABLE	24 HOURS	48 HOURS	72 HOURS
	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Figure 4-13. Example LOGSTAT and PERSTAT[15]

At JMRC, U.S. and Multi-National Armed Forces experience a died of wounds (DOW) and/or died on arrival (DOA) rate of greater than 20 percent. This exceeds JMRC standards of excellence of a DOW/DOA rate less tha 10 percent. Soldiers are facing lower survival rates due to decreased proficiency in lifesaving interventions at the point of injury. The brigade surgeon cell must optimize resources and mitigate risk to force through training of non-medical personnel, and the implementation of a viable medical plan that is executable by SGMs and 1SGs at the FLOT. The surgeon cell's ability to effectively plan, communicate, and execute the ten medical functions and simultaneously track internal, external, and adjacent medical capabilities across the area of operations throughout all phases is vital to helping commanders visualize the risk to force through a holistic understanding of the organizations' medical readiness and survivability rates.

The low survivability rates are not indicative of poor patient care at the Role 1 or Role 2, but instead: poor execution of lifesaving interventions at the point of injury, which occurs because of an unsupported or underrepresented combat life saver and CASEVAC training program. Indication that the combat medics is unable to triage and evacuate patients within the prescribed MEDEVAC guidelines to appropriate follow-on Role 1 or Role care. Or it reveals the failure to implement a viable medical plan, reporting requirements, timelines, and core understanding and distributed knowledge of prescribed arraignment of medical assets across the battlefield in support of the maneuver elements' missions.

Best Practices

Surgeon Cell should establish a medical synchronization meeting (MEDSYNC) into its internal battle rhythm. Include LNOs from each battalion Role 1, the brigade Role 2, SPO MEDLOG/OPS, and any other local medical entity around operations. In accordance with T&EO 08-BDE-9005, Evaluate Situations and Operations, the Surgeon Cell is responsible for providing the Commander, Higher HQ, and DRUs with visualization of current and projected medical capabilities, by phase.

The brigade surgeon cell should be proactive in integrating themselves across all warfighting functions, with special emphasis in developing relationships and attending battle rhythm events alongside plans, COIC, sustainment, and the SPO MEDOPS/LOG, Role 2, and Role 1 endeavors. Doing so ensures nested efforts of brigade staff, BSB, and medical community. Invest in Combat Life Saver and First Aid training and empower the SGM/1SGs to incorporate trained personnel into MASCAL plans. Incorporate prolonged care into casualty reduction strategy and conduct rehearsals to ensure mass understanding of medical plans and capabilities per location, by phase. Conduct battlefield circulation to identify any shortfalls or areas that require risk management. Implement routine MEDSYNCHs and with key medical entities to validate medical PACE throughout operations and ensure optimization of all ten medical functions throughout operations; as well as to facilitate outreach to ensure all organizations benefit from ancillary services. Finally, train the staff, by cross-training battle captains and RTOs to recognize the variances between and how to process 9-line MEDEVAC requests versus routine patient transfers.

Unit Fighting Products

The brigade Surgeon Cell should have clearly defined Health Service Support capabilities, based on location and organization prior to deployment. Products should also be codified in TACSOP and reflected in digital and analog MEDCOP. Additionally, MEDCOPs should be updated twice a day or immediately following any sentinel event that decreases or enhances capabilities.

MEDCOPs should be maintained in the MCP, each BN CTCP, battalion aid stations, TOC, and ALOC. At a minimum, the MEDCOP should reflect:

1. CLVIII Status.
2. Patient Bed Status.
3. MEDEVAC Platform Status.
4. Aid Station Readiness.
5. Ambulance Exchange Points (AXP).
6. Helicopter Landing Zone/Landing Zones (HLZ/LZ).
7. Primary and Alternate Route.
8. Ancillary Care, Special Equipment, and Service considerations.

UNIT MINISTRY TEAM

Bottom Line Up Front

Brigade Unit Ministry Teams (UMTs) integrate the chaplain corps capabilities (provide, advise) and competencies (nurture, care, honor) to sustain the brigade's personnel combat power. The UMT attends the LOGSYNC and updates the S-4's LOGCOP to allocate UMT sustainment.

Trends

In this multinational environment we see three challenges emerging regarding Chaplain (CH) planning, Religious Support (RS), and the completion of the Chaplain Corps vision of "providing the right support in the right place at the right time", FM 1-05. Ch. 4-21. CH roles are not frequently defined in unit SOPs; brigade UMTs also fail to pass this guidance on to BN UMTs; and CHs struggle to advise commanders when they do not know what to advise the commander about.

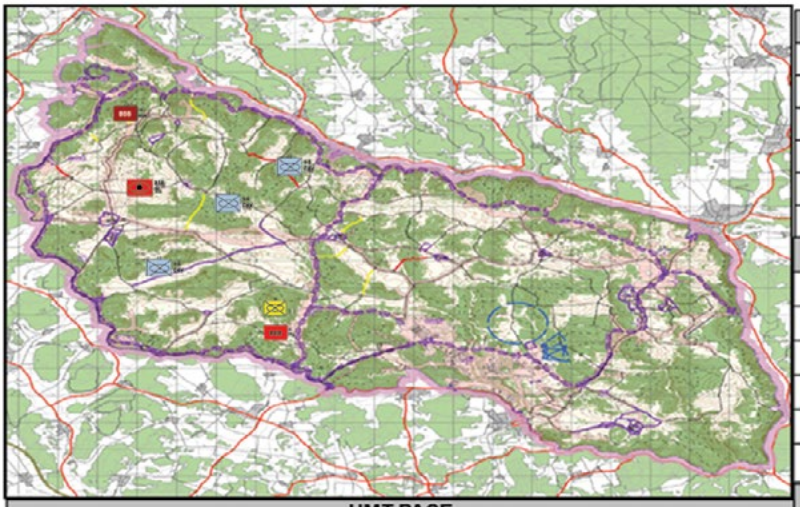
Overall, brigade UMTs are very capable of providing RS. Chaplains exhibit a strong pastoral identity and strong staff relationships. However, providing the right RS at the right place and time with the right Soldiers is often limited by UMTs not integrating into other staff sections. Even when UMTs develop accurate analysis with strong recommendations, they fail to capture these coordinating instructions on other UFPs to disseminate them to subordinate units. The outcome is a parallel Religious Support Plan (RSP) that does not support the maneuver plan.

CHs generally understand operational phases and develop accurate analyses with recommended courses of action. However, CHs offer limited analysis and input for religious, ethical, moral, and morale implications on operations during these events.

Brigade CHs also have a crucial role in mission success of battalion subordinates. They have a critical role in creating shared understanding for battalion UMTs and synchronizing multinational religious support interoperability (MRSI) across the battle space. Brigade CHs role as a supervisory CH clarifies subordinate understanding of the mission, answers request for information, anticipates potential RS requirements, plans, and prepares for the required resources and then develops a priority of RS. Supervisory chaplains ensure subordinates understand the intent and any guidance requirements of the higher headquarters RS attachment that impact the subordinate concept of RS.

Best Practices

CHs should advise the commander, through the S-4, on operations' religious, ethical, moral, and morale implications. UMTs must update the RSP during each LOGSYNC. BDE PSOPs should specify UMT attendance at the LOGSYNC, TWG, and sustainment rehearsal. Specify Religious Impact Assessment (RIA) formats as required inputs to the mission analysis and TWGs. Finally, use the LOGSYNC to allocate UMTs to specific times and locations based on the brigade operations with the greatest anticipated risk to force.



BN 1	1-5 CAV	BN 2	1-5 CAV
Next 24		Next 24	
X CO		M CO	
Next 48		Next 48	
Y CO		N CO	
Location		Location	
32U PV XXXX YYYY		32U PV XXXX YYYY	

BN 1 UMT	1-5 CAV	BN 2 UMT	1-5 CAV
56A	G	56A	G
56M	G	56M	G
Vehicle Status	G	Vehicle Status	G
Comm Status	A	Comm Status	A
Location (8-Digit)		Location (8-Digit)	
32UQV 02784 62146		32UQV 02784 62146	

BN 1 UMT	I IN	BN 2 UMT	15 DSB
Next 24	Coordination	Next 24	Coordination
X CO		M CO	
Next 48		Next 48	
Y CO		N CO	
Location		Location	
32U PV XXXX YYYY		32U PV XXXX YYYY	

UMT PACE				
BDE	BN 1	BN 2	BN 3	BN 4
JBCP (Call Sign)	JBCP (Call Sign)	JBCP (Call Sign)	JBCP (Call Sign)	JBCP (Call Sign)
FM (Freq) (Call Sign)	FM (Freq) (Call Sign)	FM (Freq) (Call Sign)	FM (Freq) (Call Sign)	FM (Freq) (Call Sign)
MPE (address)	MPE (address)	MPE (address)	MPE (address)	MPE (address)

BN 1	# Soldiers	Last Service	BN 2	# Soldiers	Last Service
Catholic	XX	DDMMYY	Catholic	XX	DDMMYY
Protestant	XX	DDMMYY	Protestant	XX	DDMMYY
Jewish	XX	DDMMYY	Jewish	XX	DDMMYY
Islam	XX	DDMMYY	Islam	XX	DDMMYY

Battlefield Circulation Legend	
	No UMT visit last 72
	UMT visit last 48
	UMT visit last 24

CAO: XX HHMM MAY YY **POC:** SSG Doe

Figure 4-14. Example Unit Ministry Common Operating Picture[16]

MOVEMENT AND MANEUVER (M2)

LTC James Horner, LTC Taylor Merritt, MAJ Ludwig Blattner (ITA), MAJ Gabriele Uras (ITA), CPT Jeffrey Nielsen, SGM Michael Dang

Bottom Line Up Front

As stated in FM 3-96, "the S-3 is responsible for coordinating the activities of the movement and maneuver warfighting function. The S-3 is the primary staff officer for integrating and synchronizing the operation for the commander."[16] The S-3's expansive duties make the section synonymous with "Operations" and "Movement and Maneuver." The S-3, maneuver planners, CHOPs, and Battle Captains (BTL CPTs) are essential in staffing the commander's maneuver plan and enabling the commander's decision-making during execution.

To defeat a hybrid threat in the European OE, brigade operations sections must execute the following tasks throughout the operation process:

1. Conduct rigorous reverse-WfF analysis to understand how the enemy fights and understand their EVENTEMP.
2. Conduct detailed assess, generate, array, refine, assign, produce (AGARAP) to create suitable, feasible, acceptable, complete concepts of the commander's plan that account for enemy decisions points.
3. Enforce Wargaming TTPs to synchronize all WfFs onto a single EXMAT written around specific tactical tasks and graphic control measures.
4. Coordinate with C2 to generate a detailed DSM written in an if – then – else format with exact PIR.
5. Conduct continuous cross-WfF assessment during execution to identify variance and generate appropriate adjustment/execution FRAGORDs.
6. Conduct the Troop Leading Procedures (TLPs) for CP administration, security, and movement.

To accomplish these tasks, brigade S-3s must train both MDMP and current operations at home station. Tables I – VI are all essential to certifying that the S-3 has sufficient personnel for two COIC shifts and a plans cell; sufficient equipment to conduct MDMP and CP operations; acceptable and complete PSOP and CPSOP UFP processes; and complete training on unit C2 systems.

Trends

Brigade operations sections generally arrive at JMRC with no home station training in their current duty positions or unit SOPs. Upon debarkation, the brigade operations cell moves to establish the MCP and initiate COIC. As the battle captains and NCOs begin receiving reports, they establish a hasty COP based on the personal office supplies immediately available to them rather than an immediate-use supply box. As one officer is assigned to consolidate reports in a format that is separate from the unit's COP SOP, the other officers are pulled into the FOIC to help with MDMP.

Most operation sections delegate IPB solely to the S-2 and do not help inform the enemy COA or analyze their M2 relative combat power. As the brigade enters COA DEV, the S-3 jumps forward to assigning headquarters to problem sets to simplify the process of generating options. The staff proceeds to generate a COA sketch around these assigned headquarters before presenting them at a COA DEV brief. The COA DEV brief typically does not include any discussion of alternate enemy COAs, possible branch plans, or unit decision points. The staff moves into wargaming and runs into one of two problems. If the staff wargames correctly, the red team planner identifies multiple weaknesses in the COA that reverts the staff back to COA DEV to fix the problems originally made by skipping steps of AGARAP. If the staff does not wargame correctly, they complete a synchronization matrix that is neither feasible nor complete relative to the enemy that they are fighting. The staff continues through the remainder of MDMP with a plan that provides minimum flexibility to the commander, and no tools to help the COIC inform the commander's decisions.

At this point in the operations process, most operations sections fail to conduct a plans-to-COIC transition. The unit will conduct a combined arms rehearsal (CAR), but none of the COIC staff are present to receive the plan and help resolve the friction points that are identified. COIC staff are not afforded the opportunity to back brief the plan or confirm that UFPs were produced to

unit standards by the planners. As the COIC attempts to execute the plan, they are incapable of receiving reports and issue execution FRAGORDs due to the lack of UFPs to assess whether operations are proceeding within acceptable variance from the plan. UFPs are updated irregularly because there is no battle rhythm event or operations synchronization meeting (OPSYNC) to re-synchronize the COP across all HQs.

Most COIC staffs are unable to inform the commander's decision-making, and the commander must invest extraneous personal attention to answer RFIs and make decisions. Brigade commanders have enough experience and intuition to make reasonable decisions based on limited information. However, those decisions cannot be properly executed by subordinate elements because the brigade has not produced the appropriate UFPs or control measures to enable branch plans. The problem becomes most prevalent during CP transitions as the TAC does not have copies of the UFPs to receive a handover and conduct the functions of a CP. MCP jumps take much longer than planned because HHCs do not conduct TLPs that synchronize and secure their staff sections. These trends culminate in brigades that struggle to assess and control operations whether established in one or multiple CPs.

Best Practices

Effective brigade operations sections facilitate the commander's visualization and decision-making continuously throughout the entire operations process. Successful brigades establish COIC and FOIC SOPs prior to deployment so that they initiate operations immediately upon arrival. The COIC uses the CPSOP to establish the MCP and begin performing the functions of a command post without needing direct S-3 supervision.

Successful S-3s can focus more time on MDMP because the COIC is self-sufficient. Starting immediately at Step 1, the S-3 enforces cross-WfF analysis using the units PSOP. The S-3, in coordination with the XO and Chief of Plans, ensures the staff only spends time on UFPs that will drive decisions. The first UFPs the S-3 makes a direct impact on is the reverse-WfF analysis of the EVENTEMP. The S-3 leverages their own, and planners', maneuver expertise to analyze where, when, and how the enemy will fight their maneuver forces. This creates a more accurate enemy EVENTEMP that enables that staff to build flexibility into the commander's plan.

During COA DEV, the S-3 follows the steps of AGARAP regardless of time constraints and number of COAs developed. Even if accomplished in just a few minutes, successful S-3s talk the planning team through AGARAP to produce a concept sketch that is suitable, feasible, acceptable, and complete against a realistic enemy. Rather than skipping to assigning HQs, the S-3 staff the commander's plan by arraying forces two-level-down. This is the only technique that enables staffs to accurately assign forces to problem sets. The S-3 proceeds to COA analysis once each COA is detailed to wargame with tentative task forces, control measures, enemy actions, and an initial sequence of major events. The concept sketch is covered more under "Unit Fighting Products."

As the staff conducts COA analysis, the S-3 ensures that planners are completing the unit's SOP EXMAT and DSM. The S-3 assists the XO in recording the results of wargaming and tasking changes to the staff. Successful S-3s continuously update the DSM during COA analysis to capture specific conditions and actions for execution. A good DSM enables the COIC to identify relevant information, inform commander decisions, and then implement those decisions using deliberate control measures and branch plans.

As the plan is completed and rehearsed, S-3s must ensure that the plan is transitioned from the FOIC to the COIC according to unit standards. It is essential that the S-3 ensures that the COIC

agrees that the UFPs are acceptable, and they can assess operations and inform commander decisions. The COIC must be prepared to perform the functions of a command post or else the brigade commander has no staff.

Execution Tip (XO, Chief of Plans): Display the HOPE-W matrix, battle rhythm, and planning timeline centrally located within the CP. Specify sustainment operations on the HOPE-W matrix. These are essential tools to synchronize staff efforts during combat operations.

Synchronizing WfFs in a time-constrained environment requires a disciplined, efficient allocation of planning time. An effective tool to coordinate staff efforts is a large, visible higher, operational, planning, enemy, weather (HOPE-W) matrix lording over the plans cell and personally maintained by the XO or S-3. An effective HOPE-W specifies culminating MDMP events (MA Brief, or COA DEV brief) and the exact time allocation of MDMP's subsets (reverse-WfF analysis and wargaming) against ongoing current operations. This one tool pays dividends in aligning staff efforts and UFPs directly to commander priorities. Digital COPs on small screens tend to be buried underneath Outlook, Ventrilo, Transverse, and various other software pulling the battle staff's attention away from controlling and assessing operations.

Unit Fighting Products

M2 is the primary WfF responsible for the CONOP, EXMAT, and Ops Graphics Overlay. M2 assists C2 with the DSM as discussed in the C2 section of this document. These products are essential to brigade success against a thinking, breathing enemy that is always liable to exploit gaps and seams to conduct limited-objective or spoiling attacks. Built correctly, these products synchronize the commander's vision for the operation while providing them with the flexibility to react to the enemy situation as it develops.

The staff, led by the commander or appropriate delegate, generates the CONOP during Step 3 of MDMP. Staffs arrive at JMRC generally familiar with a CONOP and how to draft one IAW Army doctrine (see FM 3-0, Figure 5-6). The key to the European OE is that brigades must plan in extra detail to account for the compact diversity of terrain and the adaptive enemy. Brigades can start to plan in this extra detail during Step 3 by following Mustang TTPs for AGARAP.

M2 is also the primary WfF responsible for the Execution Matrix. An EXMAT is distinct from a SYNCMAT because a SYNCMAT is written with Action – Reaction – Counteraction along the X-axis as a product for Wargaming. The X-axis of an EXMAT is time so that tactical tasks, especially those that require echelons-above-brigade (EAB) assets, can be planned, synchronized, and intelligently adjusted during execution. It is essential that the EXMAT account for time blocks in either one-, two-, or four-hour increments because that is the level of detail necessary to synchronize the brigade combined arms fight. While the EXMAT does not replace the ICSM, FSEM, or other products of the targeting working group, the EXMAT does provide a single product for the commander and staff to gain shared understanding of the operation; assess whether operations are proceeding according to plan; and intelligently re-synchronize assets in response to new threats or opportunity. See figure 4-15, Example Execution Matrix for further reference.

Conduct detailed time-distance analysis for all tasks to provide the COIC with a means to control operations and adjust when operations are not proceeding as planned.

Prioritize the timing of maneuver tasks. Then, anticipate, coordinate, and synchronize all other support tasks around those maneuver tasks.

	PH II (Isolate)												PH III (Attack)											
	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
DIV	SHAPING E OF PL SPRUCE						H-HR	ATTACKING OBJs WOLF and HOUND																
ENY	DEFENDING vic PL Ironwood																NET CATK				NET CATK			
1/2 BDE								ATTACKING OBJ WOLF																
1/7 BDE	REDCON 5 in TAA BAYONET prepared to EXPLOIT																				FPOL LANE WHITE			
Our BDE	ATTACKING OBJ HOUND																				HASTY DEFENSE			
Shadow 1				NAI 2000, PIR 1 / 2									NAI 2000, PIR 4								NAI 2100, PIR 4			
Shadow 2								NAI 2000, PIR 1 / 2									NAI 2100, PIR 4							
A TRP						NAI 2000, PIR 1							Resupply									NET FPOL		
B TRP				NAI 20005, PIR 3						ESTABLISH LANE WHITE-W														
C TRP	SCREEN ALONG PL DIAMOND																							
1 BN	@ TAA RAIDER								@ ATK POS 1		R3			R1	LD			SEIZE HOUND N			EST LANE WHITE-E			
2 BN	@ TAA RAIDER					@ ATK POS 2			R3		R1	LD			SEIZE HOUND S		DEFEND ALONG PL RANGER							
3 BN	@ ATK POS 3			R3		R1	LD					SEIZE HOUND W		DEFEND ALONG PL AIRBORNE										
RES	Established in TAA RAIDER														BPT HOUND S			BPT HOUND N			BPT EA DAGGER			
Q-50 1			CFFZ 200								CFFZ 205							CFFZ 210						
A BTRY			IPRT	AE 1010, AE 1020						AE 1030		AE 1040, 1050, 1060						Jump to PAA 3a						
B BTRY			IPRT	AE 1030, AE 1040, Counter-Battery								Jump to 3b	IPRTF			1040, AE 1050, AE 1060, AE 1100, Counter-Battery								
A Sapper	SP		LU	Attached to 1BN																				
B Sapper	SP		LU	Attached to 2BN																				
BSA	Established at BSA 1A														LOGPAC RTE G					LOGPAC RTE BL				
Role 2	Established at BSA 1A																			BN Role 1s Jumping				

Include all WfFs on the EXMAT to provide the COIC and Commander with a single product to assess operations.

Include major Intelligence and Fires tasks on the EXMAT, but this product does NOT replace the ICSM or FSEM.

Figure 4-15. Example Execution Matrix[17]

Execution Tip (CDR, XO, S-3, Chief of Plans): Follow these TTPs for AGARAP to account for a lethal enemy on challenging terrain.

1. Generate Options: Do NOT "brainstorm." Long discussions waste time. Instead, use one of the following techniques to generate options.
    - Reverse WfF: Analysis Technique. Use the IPB products to generate an option that maximizes friendly strengths and mitigates enemy strengths. If the enemy has better tanks but few dismounts, generate a COA that infiltrates small Javelin kill-teams across the AO to destroy tanks.
    - Forms of Maneuver Technique. Pick one of the six forms of maneuver and go. If the enemy is conducting a linear defense, consider conducting a penetration along one AoA. If the enemy is conducting a strongpoint or defense-in-depth, consider an envelopment or turning movement along the least-defended AoA.
2. Array Forces: During the Array Forces sub-step, array maneuver and fires forces two-levels down (companies/batteries) and array critical enablers to the section-level. This enables a more precise time-distance analysis of tactical tasks during COA Analysis.
3. Develop Broad Concept: Account for major decisions in the enemy concept. Use this opportunity to begin completing the DSM.
4. Assign Headquarters: Follow the MNI fundamentals to assign partners with missions they are the most prepared for. Do NOT exacerbate MNI friction by assigning a difficult Reserve mission to an attached MN unit, and do NOT stack multiple MN HQs that speak different languages in the same task org.
5. Prepare the Concept Sketch: Ensure that each WfF contributes their concept to the overall concept sketch. The Concept Sketch is not complete until each WfF can brief their task forces, routes, tactical tasks, triggers, risks, and risk mitigation in support of the maneuver plan.

The EXMAT also serves as the primary BAE UFP to synchronize air assets operations and control measures. This TTP also enables the BAE to visually identify and plan for operational transitions within the Air Tasking Order cycle, further increasing the brigade commander's targeting options. Taken together, these M2 UFPs and best practices synchronize the FOIC and COIC into a cohesive operations process.

WORKING ALONG SIDE RESISTANCE FORCES

Bottom Line Up Front

Numerous Eastern European countries have a ratified Resistance Operating Concept and a longstanding tradition of conducting irregular operations when invaded by adversaries. A Resistance Force does not have to be a part of an organized government structure and might instead consist of the local population organizing independently to repel an occupying force. It is vital to understand the Resistance Force's support requirements from the perspective of training, equipping, or other necessary forms of operational support. Resistance Forces will have varying degrees of requirements derived from their level of experience, resources available, and affiliation–military, government-sponsored civilians, or local partisans.

During the active phase of the conflict, Resistance Forces will likely operate autonomously in denied territory prior to any Joint Force Entry/Large Scale Combat Operations. It is up to the unit to cultivate a healthy 'by, with and through' relationship with a Resistance Force to synchronize efforts and achieve common goals. For any Resistance Forces that a unit supports or maintain a relationship with, they must ensure the Resistance Forces are vetted to establish legitimacy of the forces, dispel human rights concerns, and address ideological differences that come to light on a case-by-case basis (i.e., Ukrainian Azov Battalion).

Benefits of Working with a Resistance Force

It is unlikely that Resistance Forces will have a direct command relationship with conventional forces, and generally relationships to Resistance Forces are maintained through Special Operations Forces. However, a healthy relationship with a Resistance Force can provide a unit with timely intelligence such as enemy force composition, disposition, and movement. In the days leading up to a joint force entry/large scale combat operations, Resistance Forces can conduct operations (fixing, subversion, sabotage, etc.) in support of a unit's overarching objectives. In the European theater, this was best exemplified by the Maquis during Operation Overlord, the Polish Home Army during the failed Warsaw Uprising, and Josip Tito's Yugoslav Partisans in the Belgrade Offensive.

Best Practices

The unit should establish a liaison officer directly with the Resistance or through special operations Forces elements for further coordination. The liaison officer should preferably know the language of the local Resistance Force. If nothing else, this liaison officer can provide awareness on Resistance Force activities. Due to the sensitive nature of Resistance Force organization and members, the unit must maintain operational security to protect the organizations, to include resilient link up and communication procedures to maximize survivability. The unit's access to lethal and non-lethal equipment/supplies to provide the Resistance Force serves as leverage to support the ability to meet objectives. Never assume or expect a command relationship between a unit and a Resistance Force, at best the unit may achieve a coordinating relationship if rapport has been built.

Components of a Resistance Force

To discuss resistance force operations, it is important to conduct self-study to establish a common understanding of resistance concepts. The below definitions are a starting point from which to understand the various resistance force components and their use in Unconventional Warfare.

Resistance: "A nation's organized, whole-of-society effort, encompassing the full range of activities from nonviolent to violent, led by a legally established government (potentially exiled, displaced or shadow) to re-establish independence and autonomy within its sovereign territory that has been wholly or partially occupied by a foreign power.[18]

Underground: "A covert unconventional warfare organization established to operate in areas denied to the guerilla forces or conduct operations not suitable for guerrilla forces."[19]

Guerilla Warfare: "Military and paramilitary operations conducted in enemy-held or hostile territory by irregular, predominantly indigenous forces."[20]

Auxiliary: "The support element of the irregular organization whose organization and operations are clandestine in nature and whose members do not openly indicate their sympathy or involvement with the irregular movement."[21]

Shadow Government: "Governmental elements and activities performed by the irregular organization that will eventually take the place of the existing government. Members of the shadow government can be in any element of the irregular organization (underground, auxiliary, or guerilla force)."[22]

END NOTES

1. Operations Group. Joint Multinational Readiness Center.

2. Ibid.

3 Ibid.

4.Ibid.

5.Ibid.

6.Ibid.

7. Ibid.

8. FM 3-96. Brigade Combat Team. para. 4-252 through 4-256. 19 January 2021.

9. ATP 2-01.3. Intelligence Preparation of the Battlefield. para.1-27 to 1-33. 1 March 2019.

10. Operations Group. Joint Multinational Readiness Center.

11. Ibid.

12. Ibid.

13.Ibid.

14. Ibid.

15. Ibid.

16. Ibid.

17. Ibid.

18. Fiala, Otto C. Resistance operating concept. Stockholm: Swedish Defense University, 2019.

19.Ibid.

20.Ibid.

21. Ibid.

22. Ibid.

CHAPTER 5

Preparation Glidepath

LTC Nicholas Talbot, CPT Jeffrey Nielsen

> "Commanders at echelon must improve their ability to integrate the full measure of their forces during conflict. For example, units that do not incorporate TOW Missile, Javelin teams, mine plow and rollers, [chemical, biological, radiological, nuclear, electronic] CBRNE, communications, and maintenance find themselves challenged to win at the point of contact against a near peer threat. Commanders need to ensure that their training glide path incorporates a holistic approach while gaining efficiency through multi-echelon training to ensure that critical areas are not overlooked."
>
> -General Michael Garrett

> "Training isn't something that we do— it IS what we do."
>
> -Sergeant Major of the Army Michael Grinston

FRAMING

"Winning at the point of contact" includes your staff sections and CP personnel synchronizing the full measure of brigade forces. Regardless of how many times a commander or staff reads this handbook, the key to Winning in Europe is conducting the Staff Training Tables prior to deployment IAW TC 6-0.2 to create unit SOPs that focus MDMP on Unit Fighting Products that account for the enemy, terrain, and flexibility during execution. This chapter discusses how brigades can achieve that at home station while synchronizing brigade staff training with all other operations. For brigades to succeed during Tables I-VI, it is essential that the commander is physically present and provides refined guidance throughout training.

> **Training Tip (CDR):** The most important participant of MDMP is the commander. To win in Europe, the Brigade commander must be physically present during home station staff training tables. The commander must continuously shape unit SOPs to ensure that staff planning translates into unit fighting products that enable the commander's decision-making during execution.

This chapter is organized into three sections: the principles of training from TC 6-0; the importance of refining SOPs during Tables I-VI; and a Combined Arms Training Strategy (CATS) crosswalk training template.

PRINCIPLES OF TRAINING

TC 6-0 outlines the nine principles of training for command and control. Four of them are the most critical for brigades that want to win in Europe.

1. Fight to Train.
2. Train as You Fight.
3. Train to Standard Using Appropriate Doctrine.
4. Sustain Levels of Training Proficiency Over Time.

Fight to Train. The brigade staff must manage training like any other company, platoon, or section in the brigade. The brigade commander is personally decisive in this process as only the commander has the necessary authority and experience to eliminate training distractors and ensure that the staff are actively engaged in training. An effective training management technique is a multiple-lines-of-effort approach, starting with a brigade commander training vision and then captured as Tables I-VI on the calendar by the XO, S-3, and HHC commander. The brigade commander briefs their staff training plan at the division quarterly training brief to protect training time and prioritize resources; the XO and S-3 review training tables at the weekly brigade training meeting to secure training resources; and the HHC commander uses the weekly company training meeting to ensure that staff sections are synchronizing all other operations to maximize training preparation and participation.

Training Tip (XO): The HHC commander is essential to the individual, team, and crew readiness of the Brigade staff. Coordinate directly with the HHC commander while planning training tables to synchronize them with all other maintenance, Brigade support, and current operations. Every Soldier in HHC must be trained on their individual and collective tasks for the Brigade to succeed in the Plans Tent and the COIC floor.

Train as You Fight. A brigade that wants to Win in Europe must conduct Table VI in a tactical environment, using their organic CP equipment, integrating attachments, and executing the plan against a live enemy. These factors, including MNI, can be replicated at any installation mission command training center or training area by assigning staff "MNI role-players" or subordinate battalions to train with the brigade. Like any training event, this requires unit commanders to schedule and resource training in advance. When planning staff training, coordinate directly with JMRC to receive an MND-H OPORD to focus on the European OE's distinct terrain. Finally, gradually escalate complexity during Staff Tables I-VI to avoid overwhelming the staff's ability to train on WfF-specific tasks. Mustang team recommends training on a Movement to Contact first, then an Attack with MNI attachments and DIV enablers, then a defense with the full range of available Protection, Intelligence, and Fires assets available to brigade combat teams (BCTs).

Training Tip (CDR , S-2): Establish a Brigade COIC at home station that conducts the functions of a CP during routine garrison operations and training. A technique to maximize training resources during Table VI is to establish the TAC as the enemy CP while fighting current operations out of the TOC. This incurs some risk to training redundant CP Operations but still provides valuable feedback on the Brigade's ability to assess operations and execute branch plans.

Train to Standard Using Appropriate Doctrine. JMRC rotational units often report not having conducted any of the staff training tables outlined in TC 6-0.2, and some units are not even aware that the manual exists. It is unlikely that a unit will meet the standard if it does not know the standard. The staff training tables present a 'crawl-walk-run' approach that provides staff section leader and NCOs with sufficient time to train individual, team, and crew tasks prior to collective staff training. Those staff sections must also read their corresponding doctrine and train on creating their UFPs.

Sustain Levels of Proficiency Over Time. A risk of using the Table model of training is failing to revert to early Tables to refine SOPs as the staff gains more experience during later Tables. Both TCs 6-0 and 6-0.2 describes brigades must continuously re-visit previous table to ensure that individual, team, and crew tasks have not degraded during personnel turnover. Revisiting tables enables the staff to integrate new personnel without losing collective training value or rushing individuals Soldiers to failure. Remember that brigade operations are inherently complex, and many Soldiers will be serving within a brigade for the very first time in their careers—let alone on the brigade staff. This principle must be conducted for each sub-training audience of the staff that are outlined in the TCs. Commanders, staffs, command posts, and digital crews all have specific tables to maintain proficiency on, and sometimes individuals can fall into multiple sub-divisions and thus require multiple training opportunities to maintain proficiency.

Training Tip (XO): It is the XO's responsibility to assess the staff's training readiness during personnel turnover. A successful TTP is to have staff section leaders brief the XO on their readiness organized by individual, collective, cross-staff, and UFP training.

Training Tip (Staff Section Leaders): Remember that you are not an "OIC," you are a Section Leader. Leaders must continuously integrate and train their Soldiers on individual, team, and crew tasks. By teaching Soldiers how to conduct CP operations and assist with UFPs, staff leaders buy themselves back precious time to focus on the most difficulty cross-WfF sections of MDMP and UFPs.

COMMAND AND CONTROL (C2)

MAJ David Anderson, LTC Jason Young, CPT Jeffrey Nielsen

Personnel, Supply, Readiness

The brigade C2/S-6 authorization for a brigade combat team includes two officers, three warrant officers, 13 NCOs and six junior enlisted Soldiers. A brigade MTOE splits C2 personnel across two separate sections: C4 OPS (TOC) x 20 PAX and C4 TAC OPS x 4 PAX.

When filled to 90 percent, the MTOE for C2 personnel on the brigade staff is sufficient to concurrently establish TOC and TAC operations while allowing day/night shifts and the ability to support additional duties such as perimeter security or kitchen police. However, it is rare for 80 percent of the NCO positions filled and for the 225A/255N positions concurrently filled.

A full NETOPS team of 3x warrant officers and the 26B Systems Engineer is essential in implementing a split TOC/TAC that have autonomous networks. The time required to build both TOC and TAC server stacks takes at least four months for teams with limited experience and at least two months for even the most experienced teams. Brigade (BDE) NETOPS Teams with limited experience will suffer greatly without G-6 support and supervision.

COMSEC personnel are extremely difficult for BDE S-6s to manage. At the BDE level, there must be at least two managers that are E-5 or above in grade and both must have Top Secret clearances. If the designated personnel do not have the proper clearance or training, the process from scheduling the TDY course to system validation averages four months.

In addition to MTOE designated responsibilities such as spectrum management, help desk and radio support, BDE S-6s must ensure personnel are assigned additional duties such as Telephone Control Officers, Satellite Request Agents, SIPR Token Managers, IT Purchase Request Officials and E-mail Entitlement Managers. Individually designating these roles is paramount to shared responsibility and unity of effort across the S-6 staff.

By Signal Assessment Table III, the S-6 OIC, NCOIC, and S-6 hand-receipt holder must inventory and inspect all S-6 communications equipment.[1] The S-6 OIC must also identify key PACE equipment owned by other WfFs and align 2-3 S-6 NCOs to support cross-WfF C2 maintenance and serviceability. S-6s must work with each WfF lead to ensure they have a representative on the Communications and Electronics (C&E) signature card.

Training Tip (XO, Chief of Plans): Uniquely schedule the S-6 COMMEX, C2VE and C2 RXL on the Planning Timeline to assure leaders and key end users understand and leverage the PACE.

The S-6 team must personally inspect any equipment that contributes to the BDE Commander's four-channel PACE. At a minimum the following equipment (or like item) must be tracked on the weekly COMSTAT: Satellite Terminals (such as STTs, T2C2s, and SCOUTS), Communication Nodes (such as TCNs), Flyaway Kits (such as GRRIPs and MBKs), Mission Command Vehicles (such as PoPs and SNEs), Line-Of-Sight Terminals (such as HCLOS or TriLOS), Relay Terminals (such as TR-Ts or VHAs), COP systems (such as CDR/BTL CPT CPCE laptops, TOC JBC-Ps, vehicular JBC-Ps, and WinTAK/ATAK), and Radios (HF, VHF, TSM and UHF/MUOS).

Training

TC 6-0.2 (Training the Mission Command Warfighting Function for BNs, BDEs and BCTs/July 2019) is the definitive guide to integrating C2 training to achieve Mission Command. Throughout Staff Tables I-X, brigade C2 Teams succeed when they train the following six critical tasks: Establish the C2 System, establish a Command Post, Implement the Knowledge Management Plan, Establish the Common Operating Picture, Manage C2 Communications Systems, and Displace the Command Post. The most important factor that distinguishes successful S-6 sections and C2 interoperability at JMRC is executing focused Staff Exercises and Command Post Exercises early in the training cycle that are in the training area rather than on the cantonment area. The units that can use their tactical equipment to control garrison activities are more focused on CP layout, functionality, load plans, spares, SOPs, and effective rehearsals.

Training Tip (S-6): Use the following T&EOs and TTPs during Tables I-X.

1. Establish the C2 System (71-BDE-5005).
   - Coordinate with BDE Staff to establish a PACE for each WfF.
   - Validate Satellite Airtime requests for all available terminals to include Trojan and VSAT (cross-check with S-2 and S-4)
   - Request needed HF/VHF/UHF frequencies.
   - Create/Update Radio Planning Applications
   - Identify necessary COMSEC keys across all WfFs.
   - Validate JBC-P Network (MSCS Transceiver pull, iJBC-P activation)
2. Establish a Command Post (71-BDE-0050).
   - Establish / validate load plans.
   - Designate power generation SMEs for each WfF and limit RF emissions.
   - Sequence set-up priorities of work to match IOC/FOC standards.
   - Conduct a C2VE during each MDMP exercise to refine WfF PACEs
3. Implement the Knowledge Management Plan (71-BDE-5330).
   - Co-Chair KMWG with CoS
   - Contribute standards for digital data repository, file naming conventions, and file sharing size.
4. Establish the Common Operating Picture (71-BDE-5319).
   - Validate SW version/image of Digital COP is consistent with DIV & below.
   - Establish COMSTAT whiteboard that is beneficial to CDR and COIC
5. Manage C2 Communications Systems (71-BDE-5118).
   - Conduct quarterly COMMEXs to ensure serviceability of C2 systems ISO PACE
   - Confirm networking of MCIS feed to DDS and publish over COP.
6. Displace the Command Post (71-BDE-5201).
   - Contribute technical portions to TOC-TAC handover checklist. Use a RED format for emergencies, and a GREEN format for deliberate handovers that includes the entire COP.
   - Meticulously rehearse CP jumps to refine set-up/tear-down delegation of work.

XBCT Training/Signal Tables Progression

Event	Date	Focus	Assessment (Ch. 3 TC 6-02.1)	
Internal COMMEX/ ESB Training Tech Refresh NET	APR21 MAY21 12JUL-13AUG	Signal Equipment IA cert levels GCSS-A enrolled	TABLE I Individual Training Trained by Crew Chief	TABLE II Individual Skills Test Certified by E-6 or above
CPX/ Post-NEF COMMEX	20-30SEP21	Load plans/mvmt Crew tasks, drills, SOPs Site Occupation D/N	TABLE III Crew Training Trained by section SGT	TABLE IV Crew Training Certified by E-7 or above
BCT WFX	04-15OCT21	D/N Crews TAC/TOC Teams Displaced TOC/TAC stacks	TABLE V Section Training Trained by Company	TABLE VI Section Certification Certified by BN or Higher CDR
DIV WFX	01-10NOV21	Advanced OE Dynamic Variables Simultaneous Certification	TABLE VII Section Validation Validated by External Evaluation	

Table 5-1. Internal Training Tables[2]

In a BCT, the LRTC is often too congested for dedicated, low-density signal training. A more realistic way to gauge the readiness of signal crews is for the S-6s and Signal Company Commander to nest the seven training tables from chapter three of TC 6-02.1 (U.S. Army Signal Corps 2019 Training Strategy/July 2019) with key training events from the BDE training plan.

A quarterly Tactical Radio Academy is the one low-density training event that must be featured on the BDE LRTC. The BDE S-6 leadership and the Signal Company Commander must leverage subject matter experts to develop a point of instruction that covers signal propagation/theory, COMSEC, HF/VHF/UHF radio setup/operation, and mission planning laptop configuration/upload. The S-6s coordinate with their XO counterparts to assure class participation includes key personnel (unit como specialists, commander drivers, RTOs, and BTL CPTs) so they receive hands-on training prior to major collective training events. This academy also ensures subject matter expertise is passed on to assistant instructors and persists through deployment and PCS cycles.

BRIGADE LEGAL SECTION

Training

Provide Legal Support to Fires and Targeting (27-OFF-1600)

Typically, the brigade legal section (BLS) is integrated into the fires and targeting battle rhythm, but generally does not understand the relevant COIC picture due to their physical location in the administrative logistics operations center (ALOC). As a result, judge advocates are not present for critical conversations where COIN doctrine is applied to a LSCO fight. This causes the brigade to miss targets of opportunity based on inaccurate ROE beliefs.

When present in the TOC, attorneys provide principled legal advice regarding proportionality analysis, the principle of distinction, target engagement authorities, and other legal considerations in the TOC. Brigades should follow doctrinal suggestions by collocating the brigade judge advocate (BJA) with movement and maneuver (FM 3-96, paragraph 4-242)[3], and make the national security law attorney a standing member of the fires section (FM 1-04; paragraph 3-26)[4] .

Execution Tip (CDR/BJA): A judge advocate needs a seat in the TOC. Specifically, they need to be a part of the SOP OPTs and use doctrine to advocate for their position in the COIC/fires cell. Additionally, a judge advocate should be at all the targeting working groups and decision boards, as well as the effects and protection working groups. Finally, the BLS personnel should meet with both COIC and Fires staff to ensure a common understanding of the ROE, and to identify any RFIs that need to be sent higher.

Provide Legal Support to Admin Investigations (27-SEC-1200)

The standard for administrative investigations in garrison are not the same during LSCO. Thorough investigations into hostile fire deaths as required under AR 638-8 are not a realistic expectation in a contested environment against a peer or near peer adversary. Likewise, many FLIPLs are covered by DD200s as battlefield losses. JMRC focuses on investigations into potential LOAC violations and fratricide. These investigations are most likely to provide the command with information that can be used to implement changes or new procedures to ensure these types of incidents do not become a regular occurrence.

Execution Tip (CDR/BJA): To close the gaps between garrison investigations and those in a LSCO environment with degraded or denied communications, paralegals should be in BN TOCs for awareness on investigable events, and to help provide support to the investigations. CDRs and staffs need clear guidelines on reporting and investigation requirements. The BJA must frame investigations towards improving internal systems and processes to save lives as opposed to a tool to hold leaders accountable for failures. Units should pre-position analog investigation packets with the BN paralegals and designate investigating officers (IO) ahead of time so that the IO can receive briefs during RSOI in the event communications are not available. This will allow the IO to begin their investigations without having to first consult with the legal advisor. The BJA also needs to advise the Commander on when there is enough information to determine that the investigation is complete, even though it may not be as thorough or detailed as what the Commander would see in a garrison environment.

Provide Legal Support to Detention Operations (27-OFF-1800)

Although the BLS does not have a direct role in detainee operations, the BLS is responsible for advising the commander and staff on compliance with the laws of armed conflict. Detention operations are a key component of this compliance. The BLS should leverage their relationship with the BDE PMO who has primary responsibility for conducting detention operations, to ensure compliance and reporting is taking place.

Execution Tip (CDR/BJA): To help with compliance, the BLS should produce an EPW handling card, like a ROE card. They should also conduct EPW training with their attached military police unit to ensure that all understands the standards and requirements. Detention operations discussed at the protection working group, with a representative from the BLS and the attached military police attending.

INTELLIGENCE

MAJ David Von Bargen, LTC William Avera, CPT Steven Bebo, CW2 Jacob Lyons, CW2 David Pierce II, CW2 Hector Ruelas

Personnel, Supply, Readiness

BDE and echelons above BDE (EAB) intelligence assets provide commanders and their staff situational awareness of enemy locations, enemy intent, and support targeting to shape the battlefield. To win in Europe, ensure a high level of equipment readiness for all intelligence systems. The operational readiness of intelligence equipment is crucial to support BDE operations through the conflict continuum. Reliance on external support (e.g., Foundry) for equipment or instruction to conduct intelligence training or Military Intelligence Training Strategy (MITS) Tier certification will not prepare soldiers or leaders to execute their mission in combat.

Equipment maintenance continues to present challenges for units that lack command emphasis on maintenance and property accountability. The tactical ground station (TGS), Prophet Enhanced (POR-B), Trojan, and Intelligence Processing Center version 2 (IPC-2) are critical intelligence systems that require a high level of maintenance to operate. There is not enough time or personnel in the IEW section to repair every intelligence system without maintenance prioritization according to required schedules. Intel Soldiers conduct 10-level maintenance to alleviate additional requirements on the IEW section. Failure to conduct routine maintenance results in units deploying with non-mission capable equipment and significantly hampers BDE intelligence operations.

All operators must maintain and be able to proficiently employ their program of record (POR) systems and integrate with subordinate, adjacent, and higher echelon intelligence architectures. Prior coordination with BDE S-3 and BDE S-6 is crucial to ensure all communication and system requirements achieved. Conducting realistic training in a field environment, certifications events, and COMMEXs are vital to validate crews, equipment, TTPs prior to a unit deployment or CTC rotation. Additionally, all available sensors (e.g., SIGINT, HUMINT, UAS, EW, GEOINT, BDE/BN S-2 sections) are integrated into COMMEXs to test and validate PACE plans.

Training

The BDE S-2 is the senior intelligence trainer and responsible for the MITS across the BDE. MITS tier evaluations are an assessment of the BDE intelligence readiness, not an event meant to train untrained Soldiers, for example tank gunnery. Intelligence leaders must continually train their Soldiers using the Critical Tasks List found (CTL) on the Army Training Network (ATN). MITS Tiers 4 and 3 are continuous events, which require continuous reevaluation and training events for training new Soldiers (Tier 4) and recertifying crews (Tier 3) due to personnel moves. The BDE S-2 must track the status of all intelligence crews. When crews meet condemnation criteria due to personnel movement, the BDE must conduct a MITS tier 3 evaluation to rectify the broken crew.

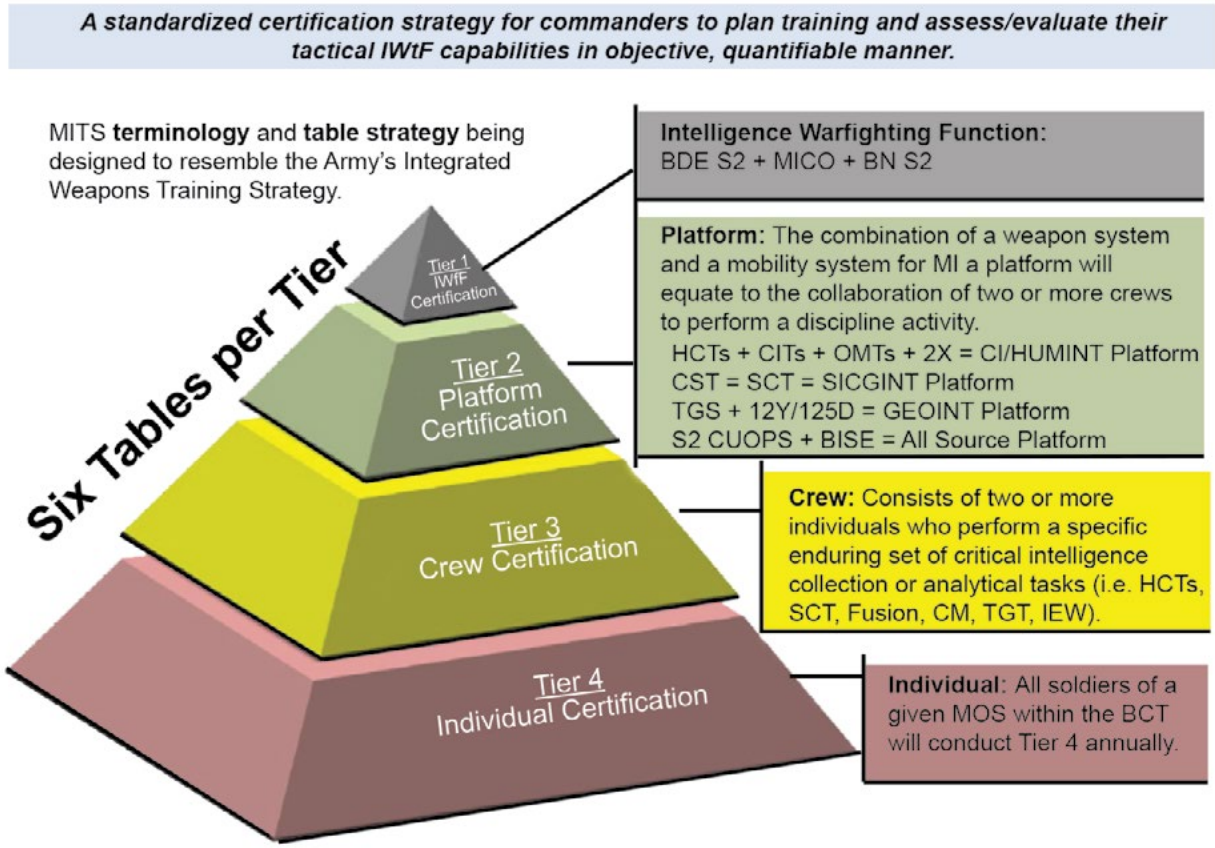


Figure 5-2. MITS Tier Structure[5]

The BDE S-2 must find opportunities to incorporate subordinate BN S-2 sections into intelligence training. BDE S-2s accomplish this by supporting BN individual and crew training events, focused on BN S-2 operations using the BN's Capability Drop 1 system, as well as, incorporating the BN S-2's into BDE platform level (Tier 2) training and certification.

Training Tip (S-2): Train prior to MITS evaluations). MITS is the evaluation, not the train up. Consider the following Key Tasks when developing the BDE intelligence training plan:

1. Conduct MDMP (71-BDE-5111)
2. Conduct Mission Analysis (71-BDE-5112)
3. Determine CCIR (71-BDE-5113)
4. Conduct RDSP (71-BDE-5002)
5. Manage Information and Data (71-BDE-5310)
6. Establish the Common Operational Picture (71-BDE-5319)
7. Conduct Information Collection (71-BDE-2300)

Training Tip (S-2):

- Build and train a CM Cell IAW TC 2-19.403: 1x O2 (35D), 1x E6 (35F30), 1x E4 (35F10), and 1x E4 (35N10). Send to ICPC, train as a section.
- Define the roles and responsibilities of the MICO Commander in a field environment.
- Build, refine, and approve product templates for all IPB, Intel Fighting Products, and Intelligence Summary.
- Implement a rigorous home station command maintenance for all intelligence systems. Maximize home station global agile integrated transport (GAIT) and temporary sensitive compartmented information facility (TSCIF) training.
- Architecture integration – training and theater intelligence architecture integration requires early, detailed planning ICW S-6, higher command.

FIRES AND EFFECTS

LTC Michael Myers, LTC Brett Edwards, MAJ Thomas Howard, MAJ Timothy Jantzen (DEU), CPT Kelly Turner, CW4 Jarrod Frank, MSG Andrew Baier, SSgt Samuel W Parmentier

Fire Support Element Personnel					
Position	BDE FSO	AFSO	FS NCO	FS SGT	FAIO
Observation	*Generally filled with rank appropriate officers *Typically little to no experience in Plans or CUOPS but still able to produce adequate plan meeting the CDR guidance	*Generally filled with rank appropriate officers *Typically not given clear responsibilities or tasks	*Generally filled with Jr. NCO and often lack the appropriate ASIs and experience required to fully contribute on both CUOPs and FUOPs, often causing inefficiencies when conducting fire missions for the BDE	*Most often overlooked position for operations of the FSE *Typically manned with a 13F not a 13J. This does not allow the BDE FSE to utilize the AFATDS to its fullest potential and hampers the ability to troubleshoot across the BDE fires enterprise	*Generally manned with the appropriate rank of WO *Typically given under guidance on roles and responsibilites, translating to being woefully deficient in situational awareness for the execution of their partnership role within the BISE/S2 cell *Usually required to attend multiple battle rhythm events with associated due-outs, the FAIO is unable to keep a constant pulse on the intelligence picture resulting in information loss for target nominations
Recommendations	*BDE FSO must be manned by the senior 13A (MAJ) within the BDE, having completed either FABN S3 or XO key development time	*Must be manned by an experienced company grade officer (Post Command CPT or a 1LT that has completed FSO/PL time)	*Correct manning for this position should be a 13F40 *Attend properly sourced advanced AFATDS training from the senior 13J20 within the BDE FSE	*Correct manning for this position should be a 13J20 *BDE FSE must conduct continuous home station training on AFATDS operations led by the 13J20	*FAIO must be closely tied to the BDE ICM within the BISE *FAIO, TARGO and FSO must have a good relationship to help inform the targeting and plans process *FAIO does not need to be directed by CUOPs for due-outs or execution of a battle rhythm meeting

Figure 5-3. FSE Personnel[6]

PERSONNEL

Most brigade FSEs have the required staff to execute operations. Personnel shortfalls do occur in key positions throughout the brigade Combat Team MTOE. Shortfalls typically occur in O-3 (Assistant Fire Support Officer and Fire Control Officer), E-7 (Fire Support NCO), and E-5 (Fire Support Sergeant) positions. These positions either go unfilled or substituted with a lower-ranking, undertrained individual, resulting in lower quality planning and longer fire mission processing times. The ability to accomplish the mission remains, but slight manning adjustments and training can maximize the potential and effectiveness of the brigade FSE. 13Js are AFATDS (Advanced Field Artillery Tactical Data System) subject matter experts, and adding one to the brigade MTOE would maximize the use, training, and effectiveness of brigade-level digital fires as well as adding a member to the team that understands how to implement digital fires SOPs.

SUPPLY

To ensure the expeditious sharing of dynamic targeting information and technical data, units must ensure that the AFATDS, Tactical Airspace Integration System (TAIS), and the DCGS-A are operational and capable of sharing digital information. The correct systems, functioning properly allows data sharing between the AFATDS, TAIS, and DCGS-A greatly reduces fire mission processing times. Units that fail to ensure that these systems are present and can communicate digitally, often struggle to achieve fire mission processing times under ten minutes from target detection to rounds on target as depicted in Table 5-1.

Broken Data Chain	Unbroken Data Chain	Time Deviation
BISE identifies target	Same	None
BISE uses Transverse or Voice to transmit target data to BDE FSE	DCGS-A transmits TIDAT directly to BDE AFATDS and TAIS, enabling digital clearance of fires	Observed average of 10+ minutes delay in Broken Data Chain
BDE FSE generates mission on AFATDS		
BDE clears Air/Ground analogue		
Fire mission sent to FA BN	Same	None
Fire mission sent to firing battery	Same	None
Shot	Same	None
Processing Time: 12-15 min	Processing Time: 2-5 mins	10 mins saved

Table 5-1. Broken vs Unbroken Data Chain[7]

Training

Training Tip (BDE FSO): Use the following T&EOs and TTPs during Artillery Tables and BDE field training exercises.

1. Execute the Targeting Process (06-BDE-5431).
   - Conduct LPD session with the entire BDE staff, led by the FSCOORD, with emphasis placed on inputs and outputs for a TDB.
   - Conduct a full Targeting Cycle in every BDE level field training event.
2. Synchronize Fire Support (06-BDE-1084)
   - Review and revise SOPs after every Field Artillery Table XVIII.
   - Incorporate and adhere to FSCM scrubs into the BDE battle rhythm.
   - Incorporate and adhere to Fire Support Tech rehearsals into the BDE battle rhythm.
   - Conduct concurrent training with the Field Artillery Battalion and the Division Artillery to ensure complete synchronization.
3. Employ Fires (06-BDE-5066)
   - Process fire support requests, utilizing the full spectrum of BDE fires capabilities.
   - Maintain the analog and digital common operational picture.
   - Ensure constant coordination with higher, subordinates, and adjacent units.

INFORMATION-RELATED CAPABILITIES

Personnel, Supply, Readiness

With the Army's shift to division-centric operations, most of the brigade's information activities planning assets are pulled to the division or corps staffs. This leaves one Civil Affairs officer, one Psychological Operations NCO, a Public Affairs officer and NCO, and a cell of ten cyber and electromagnetic activities (CEMA) personnel as part of the brigade staff. In addition, the Army has removed the Information Operations officer from maneuver brigade MTOEs. Without the individual who was responsible for integrating information-related capabilities (IRCs) into a unit's operations, brigades struggle to understand how to incorporate IRCs while planning operations or targeting.

Compounding on those issues, the members of a brigade staff that make up the IRC section typically have little experience with conventional tactical operations. The Civil Affairs officer and Psychological Operations Soldier on a brigade staff likely just came from a small Special Operations team, so they do not typically understand conventional Army operations and have little to no staff experience. Public Affairs officers are trained in planning strategic communication, they are often unfamiliar with multi-media production, which is how tactical PA sections should be supporting LSCO. In addition, the NCO position is vacant or filled by a non-Career Management Field 46 Soldier.

The lack of IRCs on the brigade staff MTOE is not conducive to integrating information operations into brigade missions however brigades do regularly receive U.S. Army Reserve CA, PO, and PA attachments. These attachments must allocate personnel to the brigade to supplement the brigade's

few IRC planners. They will enhance the brigade's capacity to conduct multi-domain operations in the information dimension through assisting in developing courses of action, targeting, and performing C2 of over 60 Soldiers.

Brigade IRC planners are seen as staff members, the commander and staff must understand that the handful of organic staff members become an operations center if/when the brigade receives its normal supplemental package of a CA company (32 personnel), tactical PO detachment (13 personnel), PA detachment (12 personnel), and the organic CEMA platoon (14 personnel). To perform their necessary C2 function, the IRC planners must have access to upper T/I and lower T/I consistent with their subordinate units.

A CA company will have some of the necessary systems like HF and VHF radios but have no way to link to upper T/I systems without server space and CAT V cable. The PO detachment, PAD, and even the brigade's organic CEMA section have even less C2 capability, which supports the assertion that the CA company's CMOC functions as the IRC operations center. To enable the CA Company to C2 the different elements, the brigade's S-9 must coordinate with the company commander, 1SG, and communications specialist prior to the CTC rotation or deployment to ensure the company has everything it needs to run an operations center. Additionally, the brigade's S-9, PO planner, and PA officer need to link the CA Company to any other IRC attachment to ensure that all elements have the necessary upper and lower T/I equipment synchronized with the brigade's communication PACE SOP.

Training Tip (XO, S-9): Establish attachment /detachment procedures in the CPSOP. Include communication and battle rhythm SOPs.

Training

While the IRCs may not be co-located at home station, it is imperative they work together while conducting training. Staff Training Table I offers a good opportunity for the IRC planners to begin synchronizing their efforts and become familiar with information operations TTPs. The S-9, PA officer and NCO, PO planner, and CEMA cell should work together to develop a comprehensive CIO and section running estimate. These products will form the foundation of how the section's members work together and feed the staff's MDMP and targeting process.

Training Tip (XO, S-9, PAO, PO NCO, CEWO): Use the following T&EOs and TTPs during Tables I- VI. Instead of listing all key tasks for each branch grouped into the order, list the most essential key task per IRC branch (PAO, PO, CA, GEMA). Integrate all the capabilities through the following key task:

Integrate IO into the Targeting Process (150-IPO-0002).

- When engaging a target, recommend required IRC effects to the S-3 and FSO.
- Integrate IO target data into the attack guidance matrix and target synchronization matrix.

Public Affairs: Coordinate PA Operations (71-BDE-5334).

- Coordinate with other staff sections to communicate the Army's perspective and support to the mission's tactical and operational objectives.
- Facilitate media efforts to cover operations by expediting the flow of complete, accurate, and timely information.

Psychological Operations: Integrate MISO into the Supported Unit's MDMP (331-37A-2200).

- Provide MISO support to intelligence preparation of the battlefield
- Task organize MISO forces and synchronize MISO activities to support the unit's plan.

Civil Affairs: Integrate Civil Knowledge into the Operations Process (1-SEC-3008).

- Provide civil knowledge to units' operations working groups through collaboration and integration in support of commander's critical information requirements

Ensure the commander s update receives civil knowledge inputs.

Cyber & Electromagnetic Activities: Plan EW (13-BDE-2020).

- Plan EW actions during through planning EW preparation and execution.
- During mission analysis, develop the enemy's EW situation and COA.

During Tables II and III, the IRC section must conduct their own inputs to MDMP but also need to synchronize efforts through developing a scheme of information operations, as found in FM 3-13, during course of action development. This scheme of IO will help template all the information activities and effects (tasks and purposes) for the IRC enablers.

During Table IV, the IRC section needs to facilitate an Information Operations Working Group, as outlined in FM 3-13, to synchronize the information-related capabilities with the staff's operations; and develop targets to nominate at the targeting working group. Successful IRC sections at JMRC have taken a large part in the brigade's targeting process, enabling the approval of information-related targets to populate the brigade's HPTL. This ensures the brigade puts a concerted effort to have multi-domain effects that encompass the information dimension. Once the IRC section has developed and refined its IOWG format, the working group is part of the unit's battle rhythm.

IRCs integration into the staff prior to deployment or a CTC rotation is paramount. In order test the IRC's integration with brigade operations, during Table IV, the staff should execute a battle drill for dislocated civilians identified on both a maneuver axis of advance and another battle drill

regarding a civil situation disrupting operations in the brigade's support area. This will test the staff's ability to conduct civil military operations in both the close and support areas and ensure the brigade has assets placed appropriately to control both situations. Not only will Public Affairs, Civil Affairs, and Psychological Operations planners must work with each other to achieve the desired effects, but it will force the IRCs to collaborate with COIC and maintain communication with enablers that are able to conduct synchronized information activities on the ground. This will help solidify the IRC section as part of a staff.

The IRC section of a brigade staff is always underutilized which limits a brigade's ability to wield the entirety of its combat power to counter near-peer adversary's multi-domain capabilities. The brigade's IRC section integration into the staff's MDMP or targeting process is vital. The brigade is prepared to receive its IRC supplements during CTC rotations or deployments, or it will quickly find itself on a backburner in the brigade's plans. While brigade's may be able to get away with ineffective information operations during CTC rotations, ignoring the information dimension in combat operations could be detrimental to the brigade's ability to enable strategic objectives through its tactical missions.

PROTECTION

LTC Samantha Hoxha, LTC Ryan Hintz, MAJ Lance Daley, MAJ Christopher Stachura, CPT Brian Custer, CPT Jeffrey Nielsen, CPT Edward Rivera, SFC Bryant Kennedy

Personnel, Supply, Readiness

Training Tip (XO, S-3): During Staff Table I, initiate contact with U.S. Army Reserve Command through your division CA officer to request CA, PO, and PA enabler support for Staff Table VI. This provides sufficient time to coordinate training with your actual deployment attachments.

Brigade staff personnel responsible for integrating protection capabilities into operations must understand the requisite key tasks. Chemical Biological Radiological Nuclear (CBRN), air defense artillery (ADA), Engineer, and Military Police (MP) staff members serve as the foundational experts for protection functions on the brigade staff. The brigade is only authorized a few officers and NCOs to fulfill the Protection WfF requirements within the staff. The challenges faced by brigades regarding the protection cell include the slating of these low-density MOS personnel to fulfill authorizations, and ensuring personnel are trained and certified to fulfill their roles and responsibilities. When personnel are unavailable, untrained, or lack the experience to perform the protection cell responsibilities, the brigade loses its ability to support operations through the planning, synchronization, integration, and organization of capabilities to preserve combat power and identify and prevent or mitigate the effects of threats or hazards.

Specialized training required by key protection staff personnel include additional skill identifier (ASI) producing courses. Staff members should attend training prior to arrival at the unit or seven to ten months prior to deployment to leverage the skills developed during integrative staff training. The brigade 74D, E-7 CBRN NCO and 31B, E-6 Military Police Operations NCO are authorized by MTOE to attend the battle staff NCO four-week course (250-ASI2S) to achieve additional skill identifier (ASI) 2S. This course is offered quarterly in Army training requirements and resources system (ATRRS). The PMO NCO is also authorized by MTOE to have the ASI of H3 (Physical Security). Upon assignment to the unit, the PMO NCO should attend the physical security course if not already certified. The 14A, Air Defense Officer, and at least one 14G Soldier should attend

the Air Defense Airspace Management/Brigade Aviation Element (ADAM/BAE) course at Ft. Sill. This is a three-week course that standardizes planning and operational tasks expected of ADAM/BAE cells, preparing crew members to facilitate the efficient and safe use of airspace, maximum combat power generation, and prevent fratricide in large-scale combat operations. The unit should identify the 14A as a critical shortage if the position is vacant.

Additionally, the ADAM/BAE defines its role within the current unit they are operating. While its primary role is procedural airspace management, its emphasis and CP interactions can vary immensely if supporting a BDE Fires element as opposed to a Maneuver BDE element. This can shape the final form of the necessary fighting products. During brigade staff training Table I the ADAM cell OIC develops fighting products to include COP integrating approved/planned ACM and AD fighting positions, equipment readiness reports, current Air Defense Warnings (ADW) and BDE AD Weapon Control Status (WCS). Once the cell is integrated to the Joint Data Network (JDN), the COP can be augmented to offer air situational awareness to the commander via near real time feed of flying assets in the area of operations (AO).

Within the Protection WfF, CBRN and ADA operations demonstrated the impact of specialty equipment to brigade operations. The brigade often faced challenges regarding the operability of equipment due to training and/or maintenance as well as their ability to effectively leverage their ADA and CBRN capabilities when operational. Six months prior to deployment, the CBRN section should review the chemical defense equipment (CDE) reports with brigade executive officer to better understand CBRN equipment and maintenance shortfalls for the M26 joint service transportable decontamination systems, M8 paper, M9 tape, M256 kits, nuclear biological chemical reconnaissance vehicles (NBCRV) and dismounted, reconnaissance sets, kits and outfits (DRSKO). Prior to execution of Table I training, the ADAM officer should inventory all ADAM cell equipment to begin filling shortages. The primary Air Defense equipment possessed by the ADAM Cell are the Air and Missile Defense Workstation (AMDWS), Tactical Airspace Integration System (TAIS), Forward Area Air Defense System (FAAD), and Air Defense System Integrator (ADSI). Other equipment includes the ADAM shelter, prime mover, multiple radios, and antennae.

Training

Protection emphasizes the importance of planning and expanding protection priorities, to include protecting mission partners, civilian populations, equipment, resources, infrastructure, and cultural landmarks across the range of military operations. The synchronization, integration, and organization of protection capabilities and resources to preserve combat power from the effects of threats and hazards are essential. When properly integrated and synchronized, the tasks and systems that relate to protection effectively protect the force, preserve combat power, and increase the probability of mission success (ADP 3-37, 1-13). Table 1-1, ADP 3-37 provides a complete list of primary protection tasks for staff to consider during training of Tables I-VI. Below are the key tasks and best practices identified from the JMRC Mustang Team to support training development within the Protection WfF.

Training Tip (Protection): Use the following TE&Os and TTPs during Tables I-VI.

Provide ADAM Input to the Common Operating Picture (44-SEC-9102)

- TOCSOP specifies ADA information requirements, format of presentation and location of this information in the COP.
- The ADAM Cell updates information charts and Situation Map (SITMAPs), which display the friendly situation, enemy situation, and the battlefield environment to maintain the current operational picture in accordance with tactical SOPs.

Coordinate Air Defense in Support of Brigade Combat team (BCT) Operations (44-BDE-1007)

- Early warning dissemination is not limited to a technical capability but involves a process of information flow. Units that train and rehearse early warning dissemination in accordance with ATP 3-01.48 and unit SOPs effectively perform this task.
- During MDMP and TLPs, commanders coordinate with the ADAM Cell to account for the early warning network and battery communication architecture.

Conduct Mobility Activities (07-BDE-6082)

- Brigade staffs seek clear guidance from the Brigade commander on whether to weight mobility assets toward a Brigade main effort or to distribute assets across maneuver battalions to maximize flexibility.
- Engineer staff officers and Brigade S-2 should prioritize collection of obstacle intelligence to inform breach or bypass options.

Conduct Countermobility Activities (07-BDE-6083)

- Units that have a plan to package CLIV and standing guidance on what should be carried by combat platform, Task Force FSC, and by the BSB. Then the engineer battalion designates an LNO to own the CLIV life cycle from packaging, through movement forward to establish the defense, and finally through turn in.
- SOPs developed to standardize the Brigade's method for reporting obstacle emplacement, synthesizing data into a comprehensive obstacle overlay, and sharing that information across the formation in both analogue and digital form.

Conduct Survivability Activities (07-BDE-6084)

- Including the commander's approval of the Prioritized Protection List and deliberate risk assessment of critical assets in the initial mission analysis brief to the commander.
- Developing triggers to bring engineer survivability assets from the security zone forward, maximizing PPL dig effort, limiting exposure to enemy recon and security elements.

SUSTAINMENT

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Personnel

The brigade S-1, S-4 and medical authorization for an armored brigade combat team includes a total of 23 personnel. Key positions include three O4s as the BDE S-1, BDE S-4, and Field Surgeon, two O3s as the Medical Operations Officer and the Assistant S-4 and one O2 as the Strength Manager along with four Warrant Officers, nine Non-Commissioned Officers and four junior Soldiers.

Despite being properly manned, the S-1, S-4 and medical shops frequently come to CTCs with less than 35 percent of their assigned personnel, often leaving a sizeable portion of their section in the rear or on white cell duties. This often leaves the brigade S-1, S-4 and medical sections undermanned for 24-hour operations and limited in their ability to conduct simultaneous planning, battle tracking, and COIC coordination.

It can be difficult for brigade to place a company grade officer with longevity in the S-4 section due to limited logistics personnel at any time across the brigade. Placing the right leaders with the right knowledge and experience within the S-1 and S-4 shop ensures that the brigade can coordinate sustainment functions during prolonged 24-hour operations even while the S-4 is not available during brigade battle rhythm events (LOGSYNC, maintenance meetings, etc.) or other duties and responsibilities.

Supply/Equipment

Critical S-1, S-4 and medical section equipment at the brigade level includes multiple CLVII C2 systems, consumable CLII as the tools of MDMP and battle tracking on analog products, and power generation, for the ALOC section. The three MTOE sections that cover sustainment (S-1, S-4, medical) include a cumulative of five computer workstations, two joint battle command-platforms, four radios of mixed variants, and one Combat Service Support Very Small Aperture Terminal (CSS VSAT) for additional NIPR and VOIP capability.

Two pieces of equipment that are critical across the S-1 and S-4 which require personnel to inspect and conduct extensive training on prior to deployment are the CSS VSAT and JBCP. These have direct impacts on the sustainment collection, coordination, and dissemination of information throughout all phases of the brigade's operations. The S-1 and S-4 must ensure that their unit deploys with at least two large white boards for analog tracking of the brigade LOGSTAT, combat power tracker, convoy trackers, and transportation sync matrix. Additionally, the S-4 must deploy with at least one map and appropriate wood, fiberglass, or other rigid material to display the analogue LOGCOP.

Training

ADP 4-0 (Sustainment), ADP 5-0 (The Operations Process) and FM 3-96 (Brigade Combat Team), are essential Army publications to read and implement during the lead up to any CTC or brigade level training event. Sustainment personnel succeed when they prepare and train the following critical tasks prior to arrival at JMRC:

- Establish brigade ALOC
- Develop a codified LOGSTAT format and logistic synchronization meeting (LOGSYNC) format
- Establish the logistic common operational picture (LOGCOP)
- Perform a sustainment rehearsal

The key factor that separates successful units from those who fall short in sustainment operations at JMRC is their ability to fight for time at home station to train or operationalize those routine garrison operations into a tactical training scenario.

Sustainment staff sections can incorporate training within brigade daily operations by rotating weekly LOGSYNC and maintenance meetings over systems they will use in the field. This will ensure personnel at all levels receive hands on experience, ensure critical sustainment information collected, coordinated, and disseminated across all levels on multiple systems to re-enforce knowledge and expertise. Additionally, units can incorporate LNOs between supported battalions and brigade staff sections when conducting company and battalion level training events to exercise the flow of information and ensure all personnel understand requirements and expectations at echelon.

Surgeon cells can train their processes while supporting garrison operations. Medical planners should create and maintain their LSCO running estimate products during normal operations at home station. Conduct sick call operations and ensure that the BDE surgeon is personally seeing 10 percent of their patients to maintain medical licensing. Medics must also maintain their Table VIII training, coordinated, and resourced by unit headquarters and headquarters company/troop/battery commanders.

The religious support (RS) personnel participating in the training will depend on the OPS and unit that is coming to train. A BCT would bring anywhere from 7 to 9 Unit Ministry Teams (UMT) to include a 56A (Chaplain) and 56M (Religious Affairs Specialist) per UMT. Each UMT should bring at least 90-day RS resupply kit and any other resource needed to provide the best RS at the right place, time, and uniform. To prepare for operations, the BDE CH will create a training plan to help his team meet and exceed the training objectives. These objectives can be from higher, personnel or unit. The T&EO that we will use is below and assists units to create the training plan.

Training Tip (S-4): Use the following T&EOs and TTPs during Staff Tables.

1. **Develop the Internal Sustainment Plan (TE&O 63-6-2034).**
   - Participate in the MDMP process and provide logistics-related input to all command/ Brigade estimates, plans, orders.
   - Develop Brigade-wide internal logistics support plan for current and future operations and manage estimates of future logistical support requirements based on assigned/ attached units reports, consumption rates, and tactical situations.
2. **Establish the Administrative and Logistics Operations Center (TE&O 63-6-4019).**
   - Develop and define roles and responsibilities of personnel operating within the ALOC.
   - Develop Brigade LOGCOP and ensure it captures all necessary updates; disseminate at echelon.
3. **Provide Internal Sustainment (TE&O 63-BDE-4021).**
   - Ensure concept of support is synchronized with the scheme of maneuver and determine support requirements necessary to sustain BCT operations.
   - Manage the logistics status report (LOGSTAT) for the BCT.
   - G4/S-4 coordinate contracting support for the internal sustainment mission.

MOVEMENT AND MANEUVER (M2)

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Personnel, Supply, Readiness

The movement and maneuver authorization for an armored brigade combat team includes five officers, six NCOs and one soldier to assume roles in the future operations integration cell (FOIC) and current operations integration cell (COIC).

A brigade MTOE splits movement and maneuver personnel across four separate sections:

- TAC COIC
- MCP COIC
- FOIC
- LNO to division

The MTOE for M2 personnel on the brigade staff is insufficient to concurrently man the FOIC; establish two (day/night) COIC shifts; and provide LNOs to their higher /adjacent units. Successful brigades supplement the M2 section with at least two additional infantry or armor officers, including a Chief of Operations (CHOPs) and LNO. The CHOPs enforces COIC battle rhythm events, FUOPs to CUOPs transition, CP battles drills, and FRAGORD production. The other officer performs liaison functions to echelons above brigade, an adjacent brigade or a MN attached battalion.

Maneuver officers are essential to an effective COIC. It can be challenging for a BDE to attain two additional maneuver officers with longevity in the S-3 section. Placing the right leaders with the right knowledge on the COIC floor ensures that the brigade is always conducting the functions of a CP even while the CDR, COS, and S-3 are with plans, leader's reconnaissance, or other duties.

Essential M2 equipment at the brigade level includes COIC C2 systems, consumable CLII as the tools of MDMP and rehearsals, power generation, and BII for the CP. The four MTOE sections that cover M2 include a cumulative five computer workstations, four joint capabilities computers, and six radios of mixed variants, meaning U.S. brigades have sufficient equipment to establish two CPs. However, a very successful TTP utilized by our MN partners is to establish a third CP focused solely on current operations.

Vignette (CDR, XO, S-3): Allied Spirit is a yearly exercise that features the greatest number of MN partners in one rotation at JMRC. A common technique during Allied Spirit is for MN partners to deploy and disperse three CPs. This technique increases the survivability of the overall Brigade C2 structure but incurs significant risk to Brigade's situational understanding and ability to control operations. If CDRs can assign sufficient personnel and equipment to three command posts for them to be mission capable, those CDRs must also personally inspect battle handover procedures or else risk degrading the COP to the point where none of the CPs are effective.

During Table II, the S-3 must designate a member of the operations section to inventory and inspect all COIC's C2 equipment. The C2 section of this chapter highlights equipment specific and architecture.

Training Tip (S-3): Assign the S-3 Platoon Sergeant to train the entire COIC staff on setting up the MCP. Setup the MCP at least once per month to inventory, inspect, and maintain your tentage, COP, and power generation equipment.

The S-3 Platoon Sergeant must ensure that the unit deploys with at least one large white board with colored markers to display the higher, operational, planning, enemy, weather (HOPE-W) matrix during MDMP. The S-3 section must also deploy with the appropriate wood, fiberglass, or other rigid material to display the analogue COP. While these two pieces of equipment may seem trivial to an organization capable of leveling small towns, staffs still consist of human beings who tend to pay more attention to whatever is directly in front of them.

TRAINING

ADP 5-0 The Operations Process, ADP 3-90 Offense and Defense, FM 3-96 Brigade Combat Team, and ATP 6-05 Command Post Organization and Operations are core publications to read during Table I. During Table II and beyond, brigade operations section succeeds when they train the following five critical tasks:

- Establishing command posts
- Conducting plans to COIC transition
- Conducting a rehearsal
- Conducting an operations synchronization meeting (OPSYNC)
- Establishing the common operational picture (COP)

The most important factor that distinguishes successful operations sections at JMRC is their ability to fight for time at home station to train on their collective tasks prior to deployment.

To gauge the readiness of the operations section prior to deployment and separately from Table VI, conduct a small tactical decision-making exercise with the S-3 planning and COIC sections. Using a division level OPORD, allocate approximately two hours to complete an enemy situation template, a concept of the operation, an execution matrix, a DSM, and ops graphics. Designate a Red Team to do the same from the enemy's perspective. Next, allocate approximately 1 hour to wargame both plans against each other using a map, unit icons, and the Action – Reaction – Counteraction format.

An untrained operations staff will fail to account for rapid transitions in terrain when specifying tasks to reconnaissance and maneuver forces. Those forces will make first contact under unfavorable conditions and without responsive fire support. As the brigade loses combat power early in the operation and must make decisions about where to assume more risk, neither the EXMAT nor DSM provides suitable decision support to the commander. During these dilemmas, the enemy identifies, and exploits gaps, seems, and under-defended routes while massing effects against C2, fires, protection, and sustainment nodes dealing a fatal blow to the brigade.

A trained operations staff will account for rapid transitions in terrain across all six WfFs, ensuring that reconnaissance and maneuver units adjust their routes and tempo to initiate contact under favorable conditions. As the enemy situation develops, the brigade compares the observed enemy against the template enemy and DSM to allocate specific assets against specific targets and rapidly execute branch plans where appropriate. Synchronizing assets on the EXMAT, the brigade disrupts enemy fires, intel, and protection support, denying them the ability to mass at any point along the line of contact. Eventually, the brigade identifies more opportunities than threats and exploits those opportunities to achieve decisive results. While this exercise is sensitive to the senior trainer's combat experience and intuition, it is an effective tool to gauge the operations staff readiness to staff the brigade commander's plan in the time constrained LSCO OE of Europe.

Training Tip (S-3): Use the following T&EOs and TTPs during Tables I-VI.

1. **Establish a Brigade Command Post (71-BDE-0050).**
   - Conduct HHC and Staff Section TLPs (including an HHC OPORD) for all CP PCCs, convoy operations, node establishment, security, and sustainment operations.
   - Generate a TOC-TAC handover checklist. Use a RED format for emergencies, and a GREEN format for deliberate handovers that includes the entire COP.
   - Meticulously rehearse CP jumps to accurately plan them in the EXMAT.
   - Establish an alternate BDE CP for rear area COIC at a BN CP.
   - In case the MCP is NMC for >24hrs, prepare an alternate COA for establishing a CP with BDE planning capabilities.
   - Conduct two Mission Command Validation Exercises during Tables IV-VI, one to equipment shortages and the other to validate CP processes.
   - Establish a garrison CP that mirrors tactical operations to train COIC staff on their equipment and processes during lower echelon training.
2. **Conduct Plans to Current Operations Transition (71-BDE-5104).**
   - Specify a deliberate handover from plans to the COIC overseen by the CDR, COS, or XO. Include a back brief from the COIC to the CDR.
3. **Perform a Rehearsal (71-BDE-5122).**
   - Establish a CAR Script in the PSOP to ensure that rehearsals do not regress into Wargaming or just becomes BN back briefs of the BDE plan.
   - Publish a BDE FRAGORD after the CAR to resolve critical Brigade friction points identified during the CAR.
4. **Conduct an Operations Synchronization Meeting (71-BDE-5135).**
   - Designate a Chief of Operations (CHOPs) to receive the plan, conduct the OPSYNC, enforce CP SOPs, and write adjustment FRAGORDs.
   - Review the COP, DSM, and EXMAT 24/48 /72 hours out.
5. **Establish the Common Operating Picture (71-BDE-5319).**
   - Establish a battle rhythm to update the COP and remove stale reports.
   - Establish analogue and digital SOPs for disseminating the COP to the TAC; to higher HQ; to adjacent units; and to subordinate units.

STAFF TRAINING TABLES

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This section synchronizes TC 6-0.2, CATS, and the ABCT MTOE to present a Staff Tables I-VI training template for brigades. This is a flexible brigade staff training plan that units can adapt to their timeline, resources, and commander's guidance to prepare to win in Europe.

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

Table 5-2. Brigade Mission Command Training Tables Summary[8]

Mustang team used the CATS 'Training Event Matrix' and 'Events List' functions to allocate training time to events. Figure 5-6 depicts four discrete training events (Planning Exercise (PLANNEX) 1 and CPX 1-3) to certify the BDE staff prior to external validation. This figure also depicts a VALEX and MCTC rotation to complete tables VII-X as available to maximize the value of CTC rotations. Our recommendation deviates from doctrine in three ways:

1. Visualize the collective brigade fight during Table I.
2. Establish the COP and UFPs during Table I to frame MDMP training.
3. Establish the MCP during Staff Table II to initiate maintenance.

Table 5-3. Brigade Staff Tables I-IV Home Station Training Template[9]

Method	Table	CATS Task Set			Training Events	Time Allocation	Cumulative Training Days
		Staff	Command Post	Digital Crews			
Section Training	I	71-TS-6221 (Perform S-6 Functions) 71-TS-6236 (Perform S-1, Legal, and Unit Ministry Functions) 71-TS-6235 (Perform S-2 Functions) 71-TS-6214 (Employ Fires) 71-TS-6204 (Synchronize Information Related Capabilities) 71-TS-6232 (Conduct ADA and Air Space Management) 71-TS-6233 (Perform S-4 Functions) 71-TS-6234 (Perform Combat Health Planning) 71-TS-6226 (Perform S-3 Functions)			TW 1: - BDE CDR Visualization. - Establish UFPs. - Section-Internal Training. - Read doctrine and existing SOPs.	Execution - 3 Days	3
		43-BDE-0001 (Coordinate Maintenance Support)			TW 2: - Establish the CP.	Execution - 2 Days	5
	II	71-C2-6003 (Conduct Staff Certification)		71-C2-6001 (Conduct Digital Crew Certification)	TW 3: - Train individual staff tasks. -Section-Internal Certification.	Execution - 2 Days SOP Updates - 1 Day	8
Cell Training	III	150-MC-5126 (Integrate Staff Cells for Operations)			TW 6: - PLANNEX 1 (DIV OPORD 1, FOIC)	Execution - 3 Days SOP Updates - 1 Day	12
	IV	71-C2-6001 (Conduct Command Post Certification)			TW 8: - CPX 1 (DIV OPORD 1, COIC). - PLANNEX 2 (DIV OPORD 2, FOIC). - CPX 2 (BDE OPORD 2, COIC) - Publish FRAGORD to COIC.	COMMEX - 1 Day Execution - 4 Days SOP Updates - 1 Day	18
Collective Training	V	71-C2-6003 (Conduct Staff Certification)	71-C2-6001 (Conduct Command Certification)	71-C2-6001 (Conduct Digital Crew Certification)	TW 12: - PLANNEX 3 and CPX 3 (DIV OPORD 3, FOIC and COIC). -React to DIV FRAGORD 1.	COMMEX - 1 Day Execution - 4 Days SOP Updates - 1 Day	24
	VI	71-C2-6005 (Conduct Command and Control System Validation)			TW 13: - PLANNEX 4 and CPX 4 (DIV OPORD 4, FOIC and COIC). - Displace the CP.	Execution - 5 Days SOP Updates - 1 Day	30
	VII-VIII	71-C2-6005 (Conduct Command and Control System Validation)			TW 16: - VALEX 1 (DIV OPORD 4, BN CPs, FOICs and COICs).	MCVE - 1 Day Execution - 5 Days SOP Updates - 1 Day	36
Formal Evaluation	IX	71-C2-6005 (Conduct Command and Control System Validation)			TW 20: - VALEX 2 (DIV OPORD 5, BDE, BNs).	IAW CTC Timeline (CATS allocates 19 days)	46
	X	07-TS-6211 (Conduct Area Security) 17-TS-6106 (Conduct Movement to Contact) 17-TS-6106 (Conduct an Attack) 17-TS-6109 (Conduct an Area Defense) 71-TS-6214 (Employ Fires)			TW 28: - MCTC Rotation (DIV FRAGORDs 1-2 to OPORD 5, BDE, BNs)	IAW CTC Timeline (CATS allocates 19 days)	67

Brigade Commanders must allocate at least 30 training days annually to validate their staffs prior to external validation. Assuming 48 training weeks per year, these 30 training days represent 13 percent of the 240 training days available to brigades. If time and resources are available, we also recommend that commanders allocate an additional 16 training days to complete Staff Tables VII-IX prior to CTC deployment. A strict allocation of CATS training recommendations includes 141.5 training days – our recommendation balances staff training with all the other brigade operations happening before deployment. These cumulative 46 training days can be decisive in preparing staffs for the LSCO OE of Europe.

Staffs organically develop their preferred processes and formats to accomplish tasks. To maximize training, it is essential that brigades capture these preferred processes and formats in unit SOPs. In the short-term, SOPs enable units to continuously improve their processes while saving time during each subsequent operation. In the long-term, SOPs capture lessons-learned and reduce training requirements during personnel turnover. The act of writing unit SOPs is itself an extremely high-payoff task that validates the staff's understanding of their roles, responsibilities, and best practices.

TC 6-0.2 refers to "refined SOPs'" of various types as an output of staff training tables. Mustang team recommends four specific SOPs, in the following order of priority, to enable brigades to understand how they fight; adapt how they fight to the current OE; control operations during the fight; and capture refined details along the way:

1. The Tactical SOP (TACSOP).
2. The Planning SOP (PSOP).
3. The Command Post SOP (CPSOP).
4. Sections SOPs (S-3 SOP, S-2 SOP, Protection SOP, etc.)

	TACSOP	PSOP	CPSOP	Section SOPs
Audience	• Brigade Staff • Battalion Staff • BN/CO CDRs	• Brigade Staff • Battalion Staff • Attached LNOs	• Brigade Staff • Battalion Staff • Attached LNOs	• Staff individuals, Teams, Crews, and Sections
Content	• CDR Vision on "How the Brigade Fights" • Document Templates • Select Brigade Crew-level PCIs	• All UFPs. • Steps and sub-steps of MDMP • Order and Annex templates	• CP Design. • CP Layout. • COP Layout. • How to use UFPs • Battle Rhythm • Battle Drills • Meeting formats	• Section Purpose • Individual D&R • Section UFPs • Refined Section MDMP sub-steps • Section Support to COIC

Table 5-4. Brigade SOPs[10]

TACSOP: Produce the brigade TACSOP during Staff Table I and refine it during Staff Tables II-VI. The brigade must publish a basic TACSOP during Staff Table I to frame the training environment and help the staff understand the functions of a brigade. The TACSOP should focus primarily on the brigade commander's vision of "how the brigade fights." This includes the brigade's role in division and corps operations; document templates for brigade operations like movement to contact, attack, and defense; and actions that the brigade anticipates assigning to enablers and subordinate units during operations. A successful TACSOP also delegates responsibilities to subordinate unit TACSOPs, such as assigning maneuver battalions to standardize company formations, movement techniques, and pre-combat inspections. The brigade updates the TACSOP templates and develops processes during Staff Tables II-VI.

PSOP: Produce the brigade PSOP during Staff Tables II-IV then validate it during Staff Tables V-VI. The brigade's PSOP captures all activities of the brigade staff related to the 'plan' and 'prepare' activities of the operations process. The PSOP must address all brigade planning activities from receipt of mission to the Plans-COIC transition, and onward through execution to publish FRAGORDs as needed. The PSOP's primary focus is how the staff receives the commander's vision for the operation, conducts collaborative planning processes to generate UFPs, and transitions those UFPs to subordinate units and the COIC staff. As covered in Chapters 2 through 4, format UFPs around the commander's decision-making during execution.

The PSOP should also include detailed MDMP sub-steps for each WfF with specific emphasis on cross-WfF integration like reverse IPB, the CONOP, wargaming, the EXMAT, and the DSM. For example, the Mission Analysis portion of the PSOP should outline who is doing what specific subtask, on what timeline, in which command post, with what tools, and how those outputs communicated to the commander and staff. This level of detail enables individual sections to integrate their planning processes to produce cohesive and consistent products.

PSOPs are NOT regurgitations of doctrinal references: that defeats the purpose of a unit SOP. The PSOP cannot balloon into a 100-plus page document that is incoherent and unusable. Commanders and staff must mitigate "SOP Creep" by consolidating products and content during each SOP review.

Vignette: A brigade commander arrived at the Leader Training Program with a massive unit PSOP that nobody read. The commander made a good decision to revert the staff to Training Table I and create new SOPs rather than jump straight to the "run" phase of training.

CPSOP: Produce the brigade CPSOP during Staff Tables II-IV and validate it during Tables V-VI. The brigade's CPSOP focuses on all activities of the brigade staff related to the 'execute' and 'assess' portions of the operations process. The CPSOP should also include TTPs for CP site selection, emplacement, survivability, sustainment, and displacement. The CPSOP includes COIC TTPs like battle rhythm, battle drills, report formats, UFP formats, COP management, and controling operations.

The primary audience of UFPs is the commander, followed by the COIC staff so that they can help drive the commander's decision-making. The CPSOP must cover exact COP and battle drill responsibilities for each COIC team of the WfF sections. Specify how UFPs enable the COIC to assess operations, provide recommendations, and publish FRAGORDs. Establish a PACE of decision-makers for each decision. Quality UFPs are what enable the commander's delegated decision-makers (XO, S-3, FSCOORD, CHOPs) to act with initiative and confidence in the commander's absence.

Training Tip (CDR): The Mustang Team recommends that the CPSOP cover the Rapid Decision Synchronization Process (RDSP). FM 5-0 specifies two types of variances for the progress of operations: execution changes (minor) and adjustment changes (major). FRAGORD contains execution changes (verbal or written) produced by the COIC staff conducting RDSP. Adjustment changes must instead be reverted to MDMP because the current situation is so different from the planned situation that the Brigade's plan is no longer suitable, feasible, acceptable, or complete.

Section SOPs: Section-specific SOPs next with the PSOP and CPSOP while providing additional details unique to that WfF. Section-specific SOPs should provide the greatest level of specificity and detail of all the SOPs, and used for continuous individual, team, and crew staff training. Section SOPs will vary in length and content for each WfF. Section-specific SOPs should address higher and subordinate HQ WfF SOPs. As an example, the brigade intelligence section SOP should address how their division intelligence section operates; the capabilities of the brigade's military intelligence company; and how dissemination of brigade products reaches subordinate battalions.

Staff Table I

Training Tip (CDR): the training objectives of Staff Table I are:

1. Establish staff purpose, duties, and responsibilities.
2. Familiarize the staff with MDMP and CP organization.
3. Familiarize the staff with UFPs, SOPs, and DPT.

Organize and Acclimate the Staff to Organization. The commander is the most important participant of MDMP. The first step of acclimating the staff is to articulate your vision of the brigade fight to them and describe the functions of your CPs, WfFs, and integrating cells. In a combined setting with all staff section leaders and section sergeants, display a graphic of the brigade fight (preferably from the TACSOP) and talk through the OE, enemy, and friendly actions of LSCO in Europe. Discuss your operational framework and tentative UFPs to help the staff establish a clear link between Staff Training Tables, effective SOPs, and assessment operations during execution.

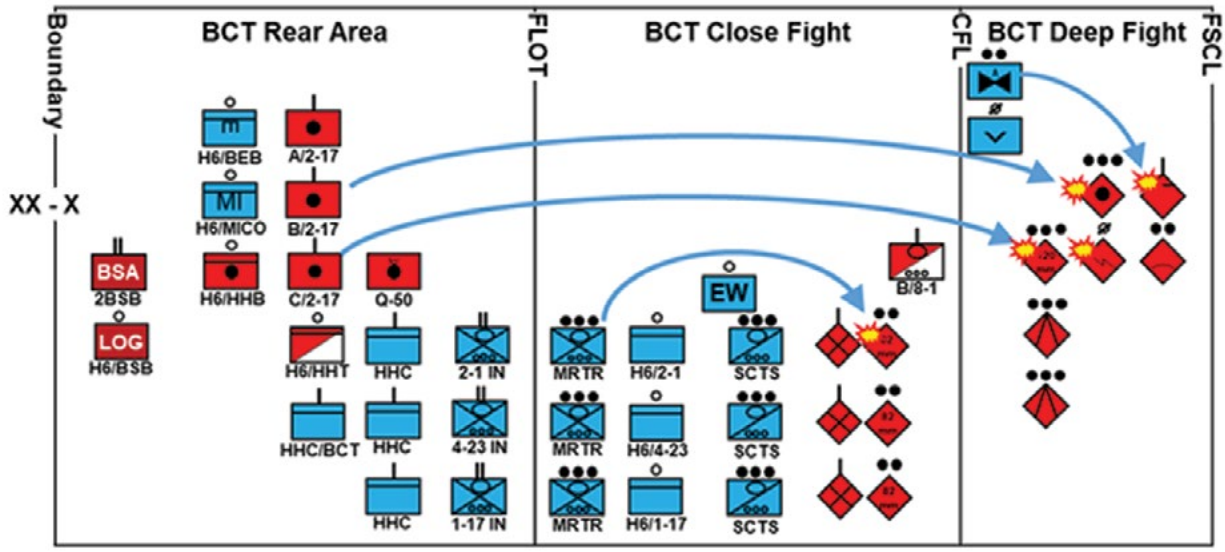

Figure 5-4. Example Brigade Sketch to Visualize "How the Brigade Fights"[11]

Training Tip (CDR): Many of your staff members have never served in a BCT before. It is essential that you personally visualize the Brigade fight for your staff. During Staff Table I, you can accomplish this with a simple 1- or 2-page concept sketch like Figure 5-4 to discuss your intent for each WfF.

Remember to focus on unit fighting products (UFPs) and decision-point tactics (DPT). After framing the purpose of the Staff Training Tables, establish the COIC COP in a classroom setting with staff primary officers. Identify the purpose and technical requirements of each UFP and assign training responsibilities to each WfF. For the rest of Tables I-IV, design your PSOP around efficiently creating UFPs and design your CPSOP around efficiently using UFPs.

Conduct the rest of Staff Table I at the section-level. Training should include each WfF's purpose, task organization, equipment, MDMP contributions, UFPs, and individual planning tasks. As with any training, planning further ahead increases your ability to protect time and reserve resources. Include training plans in the HHC training meeting and calendar to synchronize all other staff operations.[12] Staff Leaders should reference the T&EOs listed in Figure 5-6 to draft training plans. The staff can conduct Staff Table I entirely within the brigade HQ or similar classroom environments using five training days.

Staff Table II

Training Tip (CDR): The training objectives of Staff Table II are:

1. Train and certify staff section on individual tasks.
2. Train and certify the staff on existing unit SOPs.
3. Inventory staff equipment and initiate maintenance.

Develop MDMP Skills at the Section Level. Transition to Staff Table II once organizations of each WfF for internal operations. During Staff Table II, each section trains their individuals and teams on conducting planning and execution tasks internal to the section. This is the opportunity for Section Leaders and NCOs to ensure that each of their Soldiers understand how to setup their equipment, create analogue products using office supplies, and create digital products using a communication information system (CIS) and software. Just like any other gated progression in the Army, Soldiers must be proficient on their individual equipment and TTPs before they can progress to collective training. Provide the staff at least three days to train these skills and update their SOPs.

Organizations can use existing unit SOPs and accessible product formats to train individual skills. To progress to those skills that require training aids, like a higher OPORD to prepare an enemy SITTEMP or existing EVENTEMP to create a Concept Sketch, contact your higher HQ to use one of their Division OPORDs as a training aid. Staff Table II is NOT the opportunity to conduct full MDMP across functional cells. Instead, provide each section with just enough input to conduct their planning tasks in isolation so that they focus on fundamental skills. Sections can still train their Soldiers on what the other WfF's inputs and expected outputs are for a given task. Train Soldiers on the purpose of each product and processes to understand how UFPs enable each other and then enable the COIC and subordinate units to execute BDE orders. At the end of Staff Table II, update all unit SOPs.

Training Tip (XO): Staff Table II is a protected opportunity to develop individual skills that everyone must maintain throughout the rest of training. These are example skills for each WfF to train.

C2: Establish CP equipment; establish COIC software; troubleshoot CIS; analyze the effects of terrain on C2; prepare a C2 overlay.

Intelligence: Analyze the military aspects of terrain; draw a MCOO; prepare a SITTEMP; draw an EVENTEMP; update a BDA tracker.

Fires: Fires equipment and capabilities; enemy equipment familiarization; preparing a fires overlay; preparing an FSEM; processing a fire mission.

Protection: Protection equipment and capabilities; survivability, mobility, and counter-mobility operations; draw a MCOO; prepare a Protection overlay.

Sustainment: Sustainment equipment and capabilities; classes of supply; consumption rates; casualty evacuation operations; replacement operations; prepare a Sustainment overlay; route planning.

M2: M2 equipment and capabilities; enemy equipment familiarization; operational fundamentals; preparing a Concept Sketch; receiving reports; sending reports; using an EXMAT; using a DSM; using C2 CIS.

Staff Table III

Training Tip (CDR): The training objectives of Staff Table III are:

1. Conduct a full repetition of MDMP in accordance with the unit PSOP.
2. Validate UFP formats and how UFP production occurs during MDMP.
3. Validate the staff's ability to plan a Movement to Contact.

Establish Staff/Cell Processes and Integrate WfFs. Transition to Staff Table III once each staff section has certified their personnel on individual tasks and updated their corresponding SOPs. Staff Table III is the first opportunity to conduct a full MDMP repetition on a division OPORD to publish a brigade OPORD. The first step in this process is establishing the two primary brigade functional cells: the COIC and FOIC (commonly called "plans" at brigade and battalion). The XO is decisive in establishing these two cells, designating cell leaders (CHOPs for the COIC, Chief of Plans for the FOIC), and establishing cell processes. COIC staff should integrate into plans for Staff Table III to provide them context on UFP production and how to provide feedback on whether UFPs are enabling the COIC. The COIC will focus on its own operations during Staff Tables IV-VI.

Once the XO has established the functional cells, conduct a staff-wide review of the unit's MDMP steps in the PSOP. Focus on the purpose of steps, how the outputs of one step drives the products of the next step, and how WfFs integrate with each other to unify their planning efforts. To finish collecting the tools for MDMP, receive a division OPORD (OPORD 1) from your higher HQ or any of the CTCs. We recommend that you conduct Staff Table III on a Movement to Contact order because those operations are easier to plan than Attacks or Defenses.

Training Tip (CDR): Be physically present for every step of MDMP during Staff Table III. This is a critical opportunity to shape your staffs' processes in accordance with your vision and practice issuing written planning guidance for each WfF.

Begin PLANNEX 1 and conduct MDMP according to your unit PSOP. Allocate three training days to execute PLANNEX 1 and then one day to update unit SOPs. A brigade classroom environment with analogue product supplies and unclassified digital workstations is sufficient to complete Staff Table III. In accordance with the TTPs highlighted earlier in Chapter 4, create a deliberate planning timeline at the start of the exercise and enforce it.

Staff Table III is an opportunity for the commander and XO to certify that their individual staff sections can complete their internal planning tasks efficiently. PLANNEX 1 culminates in the brigade publishing and briefing a complete OPORD with all unit SOP annexes and UFPs. Conduct internal after action reviews (AARs) and update SOPs based on lessons learned from PLANNEX 1.

Staff Table IV

Training Tip (CDR): The training objectives of Staff Table IV are:

1. Validate unit FOIC-COIC transition and rehearsal SOPs.
2. Validate the staff's ability to plan an attack.

Synchronize Command Post Operations. Transition to Staff Table IV after providing the staff sufficient time to update SOPs and recover equipment from PLANNEX 1. Staff Table IV will begin integrating both integrating cells by executing CPX 1 for the COIC, PLANNEX 2 for the FOIC, and then executing PLANNEX 2's brigade plan as CPX 2. An important aspect of the operations process is training the COIC to execute and assess operations. This method trains the COIC and FOIC simultaneously in their separate portions of the operations process. Staffs must leverage wargaming and constructive training aids to train their COIC staffs at home station. Prior to execution, resource an OPFOR element and appropriate training aids like a large map of the BDE OPORD 1 AO and unit icons.

To begin Staff Table IV, conduct a FOIC-COIC transition of BDE OPORD 1, Movement to Contact. The S-3 or XO should personally lead this transition to begin training the staff on the FOIC-COIC transition SOP. The COIC will also already be familiar with the plan of BDE OPORD 1 because they helped create the plan during Staff Table III. To maximize training time during Staff Table IV, we recommend that the COIC begins CPX 1 wargaming BDE OPORD 1's movement to contact against an OPFOR element while the FOIC conducts MDMP on a new division OPORD (OPORD 2). We recommend conducting an attack in BDE OPORD 2.

Training Tip (CDR): The COIC already benefited from conducting MDMP during Staff Table III. Separate the COIC for the rest of Tables IV-VI to focus on using the units UFPs to assess operations, provide recommendations, and issue fragmentary orders during execution. Provide the COIC staff with the time and resources to train battle drills, conduct battle rhythm meetings, update the unit's CPSOP, and provide PSOP recommendations back to the FOIC.

Staff Table IV is the FOIC's second iteration of MDMP. The benefits of this iteration come from conducting a more complicated operation, increasing the detail and efficiency of staff processes, and developing multiple COAs. Staff Table IV should be very similar to Staff Table III for WfF planners except for added complexity. The brigade should include special tactical tasks in the plan like forward passage of lines, air movement, combined arms breach, and close air support. The increased complexity of an Attack over a Movement to Contact provides opportunities for commanders and XOs to adapt unit PSOP processes and UFPs to current OEs and mission variables.

Once the staff has completed MDMP, issued BDE OPORD 2, and completed rehearsals, conduct another PSOP-standard FOIC-to-COIC transition. Have the COIC receive the plan and then execute CPX 2 of BDE OPORD 2 also against a live OPFOR element in a constructive training environment. Just as the COIC staff participated in MDMP during Staff Table III, have the FOIC staff observe current operations during Staff Table IV CPX 2. This provides both the FOIC and COIC mutual understanding of how their operations converge on controlling a brigade, conducting targeting, assessing operations, and adjusting operations when the situation deviates from the plan. Organizations can achieve this through a 4-hour tabletop exercise within the brigade footprint.

After completing PLANNEX 2 and CPX 2, once again task specific portions of the staff to update the unit SOPs. Table IV is the first opportunity for the brigade to learn which of their UFPs and brigade's tactics are effective or ineffective against a live OPFOR element. Task the S-3, planners, and CHOPs to update the brigade TACSOP's document templates for offensive operations. Focus all other PSOP and CPSOP updates on generating UFPs and conducting battle drills that maximize those UFPs to make decisions.

Training Tip (CDR): Anticipate personnel turnover during the 20 training weeks it takes to conduct Staff Tables I-IV. If any key leaders or full section leadership teams have switched out, considering reverting part of the staff back to Staff Tables I and II for 2 days of training prior to Staff Table V.

Training Tip (XO): Adapt this training plan to your other Brigade operations. Plan Staff Tables to occur separately from lower-echelon training that requires Brigade participation like company live-fires or battalion field exercises. This minimizes training distractors that pull staff Soldiers away to solve routine problems.

Staff Table V

Training Tip (CDR): The training objectives of Staff Table V are:

1. Validate the COIC's ability to perform the functions of a command post.
2. Validate the staff's ability to plan a Defense.

Conduct Staff Rehearsals. Staff Table V and VI constitute the most significant shift in the brigade's internal staff training because they require the most training resources and time. Plan Staff Tables V and VI to occur during consecutive training days at your closest Mission Command Training Center (MCTC). MCTCs have resident experts and equipment to help brigades conduct these Staff Tables and can provide coaching to the commander and staff. To succeed, leadership

must protect Staff Tables V and VI from other training distractors. This training event is likely to be the brigade's final opportunity to certify staff internally before external evaluations or deployment.

We recommend using division OPORD 3 to conduct a Defense. Defense is the most complicated operation of the European LSCO OE because of Europe's multiple maneuver corridors, hybrid threat, and MNI considerations. To plan a successful brigade defense against an enemy division, the staff must successfully leverage the full spectrum of assets available. The brigade must accurately template enemy movements and COAs to provide early warning. The brigade must integrate air defense and obstacle emplacement along non-contiguous AOAs. The brigade must synchronize mortar, howitzer, rocket, fixed wing, rotary wing, and radar effects across the entire AO. The defense is the right operation to train for Staff Tables V-VI, and the right opportunity to invite enabler augmenters to train with you.

Complete Staff Table V using your now well-developed SOPs and trained staff. Establish the CP and conduct an MCVE to validate the brigade's equipment. Issue BDE OPORD 3 and conduct a CAR, IC/Fires RXLs, Sustainment RXL, and C2 technical rehearsal. Transition the plan to the COIC and fight the plan using UFPs in a constructive environment against a live OPFOR element. When the wargame situation demands an adjustment change, conduct RDSP to re-synchronize the brigade COA. Receive a division FRAGORD 1 to OPORD 3 and conduct MDMP to publish a BDE FRAGORD. Finally, establish the alternate CP to validate its systems and crews in preparation for transitioning CPs during Staff Table VI.

Training Tip (XO): Train the HHC command team during Staff Table V. Provide time for the HHC commander to conduct the TLPs for staff crews and duty shifts to synchronize administering the CP, securing the CP, and conducting convoy operations for CP movements.

Training Tip (CDR): The training objectives of Staff Table VI are:

1. Certify the unit PSOP, TACSOP, and CPSOP.
2. Certify the FOIC and COIC on their collective tasks.

Staff Table VI

Conduct Staff Certification. Conduct Staff Table VI at the MCTC using a division OPORD 4 of your choosing. Mustang team recommends combining a Movement to Contact with a Defense. If there is available MCTC support and training time, also react to a division FRAGO to conduct a counterattack after the defense succeeds. These division orders will prepare your brigade for their operations in the LSCO OE of Europe.

Certify the staff during Staff Table VI. Conduct the full operations process, using unit SOPs, and meeting the commander's intent. During this training event, all staff sections, WfFs, and integrating cells should be conducting the operations process efficiently and effectively to produce UFPs for the COIC and subordinate units. The brigade commander, XO, and S-3 must maximize Staff Table VI by actively participating in it as the training audience. Even with a trained staff, field grade officers are decisive to the brigade operations process and the brigade commander is the single most important participant of MDMP.

A key event that distinguishes Staff Table VI is conducting a TOC-TAC transition and physically displace the MCP. After publishing BDE OPORD 4 and transitioning the plan to COIC, also

conduct a formal TOC-TAC transition, break down the MCP, conduct a tactical road march to a new CP location, and re-establish the CP.

Finally, complete Staff Table VI by conducting formal section, WfF, integrating cell, and full staff AARs. Use these AARs to update your PSOP, CPSOP, and TACSOP for upcoming external validation exercises.

END NOTES

1. TC 6-02.1. The United States Army 2029 Signal Corps Training Strategy. 11 July 2019.

2. Operations Group. Joint Multinational Readiness Center.

3. FM 3-96. Brigade Combat Team. 19 January 2021.

4. FM 1-04. Legal Support to Operations. 8 June 2020.

5. TC 2-19.400. Military Intelligence Training Strategy. 1 August 2019.

6. Operations Group. Joint Multinational Readiness Center.

7. Ibid.

8. TC 6-0.2. Training the Mission Command Warfighting Function for Battalions, Brigades, and Brigade Combat Teams. 15 July 2019. page 2-2.

9. Operations Group, Joint Multinational Readiness Center.

10. Ibid.

11. Ibid.

12. Nielsen, Jefferey. 2022. "The Transition from Line Company to HHC: A Guide for Second-Time Commanders." Infantry Magazine Summer. 2022: 32–36.

CHAPTER 6

Conclusion

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The European OE is distinct and challenging. To win in the European OE, brigades must plan efficiently and effectively to build plans that maximize strengths, mitigate weaknesses, and build execution flexibility for the commander. Brigades accomplish this level of staff proficiency by conducting staff training tables I – VI at home station, during which they create SOPs; specify UFPs; and validate the entire brigade operations process and C2 infrastructure. Brigades that arrive to JMRC with these tables completed will maximize the value of fighting against a replicated hybrid threat in a realistic European LSCO OE. Brigade Commanders are personally decisive in this entire process as only they have the vision, experience, and authority to manage the entire staff's training. By planning and executing the staff training tables, commanders create:

1. Detailed Planning, Command Post, and Tactical SOPs that are up-to-date and understood by the staff.
2. Standardized UFPs produced efficiently during MDMP and transitioned over to the COIC for execution.
3. A standardized COP that is suitable, feasible, acceptable, and complete to assess operations and drive decision-making.
4. Cross-WfF integration across all UFPs and planning horizons.

Mustang Team recommends the following UFPs. Based on our observations and trends, these are the critical UFPs that enable quality planning that translates efficiently to subordinate unit plans and COIC execution. These products empower the COIC to perform the functions of a command post and inform the brigade commander's decisions. Effective UFPs then enable the COIC and subordinate units to act on command decisions because the right plans and control measures are already in place.

1. Modified Combined Obstacle Overlay (MCOO).
2. Enemy Event Template (EVENTEMP).
3. Information Collection Synchronization Matrix (ICSM).
4. Concept of the Operation (CONOP).
5. Execution Matrix (EXMAT).
6. Fire Support Execution Matrix (FSEM).
7. Decision Support Matrix (DSM).
8. Operations Graphical Overlay (Ops Graphics).

By following these recommendations, brigade commanders can produce staffs and subordinate battalions at home station that are prepared to maximize the unique training environment of JMRC. Once validated against the realistic enemy and OE of JMRC, your brigade will be ready to win in Europe.

ANNEX A

Further Reading

Operations Certain publications are available to authorized CAC holders only.

MNI

1. JP 3-16 Multinational Operations
2. AR 34-1 Interoperability
3. STANAG 2490, AJP-3 Allied Joint Doctrine for the Conduct of Operations
4. STANAG 2518, AJP-3.10 Allied Joint Doctrine for Information Operations
5. STANAG 6518, AJP-3.10.2 Allied Joint Doctrine for Operations Security and Deception
6. STANAG 2288, AJP-3.2 Allied Joint Doctrine for Land Operations
7. STANAG 2526, AJP-5 Allied Joint Doctrine for the Planning of Operations

C2

1. Center for Army Lessons Learned (CALL), CTC Quarterly Bulletin 1Q FY97, Decision-Point Tactics.
2. CALL publication 20-06, How to Master Wargaming
3. CALL publication 19-18, Commander and Staff Guide to Rehearsals
4. ATP 6-0.5 Command Post Organization and Operations
5. ADP 6-0 Mission Command: Command and Control of Army Forces
6. AR 350-50 Combat Training Center Program
7. FM 6-02 Signal Support to Operations
8. FM 6-0 Commander and Staff Organization and Operations, May 2022
9. STANAG 2199 ATP-3.2.2 Command and Control of Allied Land Forces
10. STANAG 2284 APP-14(A) Land Compendium of Hand Signals
11. STANAG 4208 The NATO Multi-channel Tactical Digital Gateway
12. STANAG 4660 Interoperable Command and Control Data Link for UAS

INTELLIGENCE

1. ADP 2-0 Intelligence
2. FM 2-0 Intelligence
3. FM 2-22.3 Human Intelligence Operations
4. ATP 2-01.3 Intelligence Preparation of the Battlefield
5. ATP 2-19.4 Brigade Combat Team Intelligence Techniques
6. ATP 2-22.6 Signals Intelligence Techniques
7. ATP 2-22.7 Geospatial Intelligence
8. ATP 2-22.31 Human Intelligence Military Source Operations Techniques
9. ATP 2-33.4 Intelligence Analysis
10. STANAG 2192 Allied Joint Doctrine for Intelligence Procedures

11. STANAG 4777 NATO ISR Interoperability Architecture
12. STANAG 4676 NATO ISR Tracking Standard
13. STANAG 2578 HUMINT TTPs
14. STANAG 6527 Joint Intelligence Preparation of the Operating Environment
15. STANAG 2640 ATP-108 Intelligence Support to Land Operations
16. STANAG 2620 ATP-87 Battalion and Company Intelligence Support

FIRES

1. ADP 3-19 Fires
2. FM 3-09 Fire Support and Field Artillery Operations
3. ATP 3-09.12 Field Artillery Counterfire and Weapons Locating Radar Operations
4. ATP 3-09.30 Observed Fires
5. ATP 3-09.42 Fire Support for the Brigade Combat Team
6. ATP 3-09.90 Division Artillery Operations and Fire Support for the Division
7. STANAG 2484 AArtyP-5 NATO Fire Support Doctrine
8. STANAG 2644 AArtyP-02 NATO Counter Battery Fires Doctrine
9. STANAG 2245 Field Artillery and Fire Support Data Interoperability
10. STANAG 4119 Adoption of a Standard Indirect Fire Firing Table Format
11. STANAG 2449 ATrainP-2 Training in the Law of Armed Conflict
12. STANAG 2597 ATrainP-4 Training in NATO Rules of Engagement
13. Lieber Institute, Civilian Risk Mitigation: Why Context Matters

PROTECTION

1. ADP 3-37 Protection
2. FM 3-11 CBRN Operations
3. JP 3-40 Joint Countering Weapons of Mass Destruction
4. ATP 3-11.36 CBRN Planning
5. ATP 3-11.32 CBRN Passive Defense
6. ATP 3-11.37 CBRN Reconnaissance and Surveillance
7. TM 3-11.32 CBRN Warning and Reporting and Hazard Prediction Procedures
8. TC 3-01.50 Air Defense Airspace Management/Brigade Aviation Element (ADAM/BAE) Gunnery Program
9. ATP 3-01.50 Air Defense and Airspace Management (ADAM) Cell Operation
10. FM 3-34 Engineer Operations
11. ATP 3-37.34 Survivability Operations
12. ATP 3-34.22 Engineer Operations – Brigade Combat Team and Below
13. AJP 3.14 Allied Joint Doctrine for Force Protection
14. ADP 5-0 The Operations Process
15. AR 190-8 [EPW, Retained Personnel, Civilian Internees, and Other Detainees]
16. FM 3-63 Detainee Operations
17. FM 3-39 Military Police Operations

18. ATP 3-39.30 Security and Mobility Support
19. ATP 3-57.10 Civil Affairs Support to Populace and Resources Control
20. ATP 3-07.6 Protection of Civilians
21. JP 3-10 Area Security
22. ADP 3-90 Offense and Defense
23. ATP 3-37.2 Anti-terrorism
24. ATP 3-39.32 Physical Security
25. AJP-3.14 Allied Joint Doctrine for Force Protection
26. AJP-3.2.3.3 Allied Joint Doctrine for Military Police (STANAG 2296)
27. AJP-3.21 Allied Joint Doctrine for Military Police
28. ATP-3.7.2 NATO Military Police Guidance and Procedures
29. STANAG 2085 NATO Combined Military Police (NCMP)
30. AJP-2.5 Allied Joint Doctrine for Captured Persons, Materiel and Documents (STANAG 2195)
31. AJP-3.22 Allied Joint Doctrine for Stability Policing

SUSTAINMENT

1. AJP-4 Allied Joint Doctrine for Logistics, Dec 2018
2. ATP 4-90 Brigade Support Battalion, Jun 2020
3. ATP 4-93 Theater Sustainment Operations, May 2023
4. ATP 4-93.1 Combat Sustainment Support Battalion, June 2017
5. FM 3-0 Operations, Oct 2022
6. FM 3-96 Brigade Combat Team, Jan 2021
7. FM 4-0 Sustainment Operations, Jul 2019
8. FM 5-0 Planning and Orders Production, May 2022
9. JP 4-0 Joint Logistics, May 2019
10. AR 638-8 Army Casualty Program
11. ATP 1-0.1 Techniques for Human Resource Support to Operations, Nov 2023
12. AJMedP-1 Allied Joint Medical Planning Doctrine, Sep 2018
13. AJMedP-2 Allied Joint Medical Doctrine for Medical Evacuation, Sep 2018
14. AJMedP-4 Allied Joint Force Health Protection Doctrine, Jul 2018
15. JG 1-05 Religious Affairs in Joint Operations, Feb 2018
16. FM 1-05 Religious Support, Jan 2019

MOVEMENT AND MANEUVER

1. ADP 3-90 Offense and Defense
2. ADP 5-0 The Operations Process
3. ATP 2-01 Collection Management
4. ATP 3-01.81 Counter-UAS Techniques
5. ATP 3-04.1 Aviation Tactical Employment
6. ATP 3-06 Urban Operations

7. ATP 3-09.42 Fire Support for the Brigade Combat Team
8. ATP 5-0.2-1 Staff Reference Guide Volume 1
9. ATP 5-0.2-1 Staff Reference Guide Volume 2
10. FM 1-02.1 Operational Terms
11. FM 1-02.2 Military Symbols
12. FM 3-0 Operations
13. FM 3-04 Army Aviation
14. FM 3-16 The Army in Multinational Operations
15. FM 3-90-2 Reconnaissance, Security, and Tactical Enabling Tasks
16. FM 3-99 Airborne and Air Assault Operations
17. FM 5-0 Planning and Orders Production
18. FM 6-99 U.S. Army Report and Message Formats
19. FM 7-0 Training

GLOSSARY

ACRONYMS AND ABBREVIATIONS

ACRONYM	Definition
ABCT	armored brigade combat team
AFATDS	Advanced Field Artillery Tactical Data System
ADA	air defense artillery
AGARAP	assess, generate, array, refine, assign, produce
AGM	attack guidance matrix
ALOC	administrative logistics operations center
AO	area of operations
ASCA	Artillery Systems Cooperation Activities
ASI	additional skill identifier
AXP	ambulance exchange point
BAS	battalion aid station
BCT	brigade combat team
BDA	battle damage assessment
BDE	brigade
BJA	brigade judge advocate
BSB	brigade support battalion
BTG	battalion tactical group
C2	command and control
CA	civil affairs
CALL	Center for Army Lessons Learned
CASL	common authority stockage list
CATS	Combined Arms Training Strategy
CBRNE	chemical, biological, radiological, nuclear, explosives
CCM	convention on cluster munitions
CDE	collateral damage estimation
CDR	commander
CEMA	cyberspace electromagnetic activities
CH	chaplain
CIO	combined information overlay
CIS	communication information system
CM	collection management
CMO	civil-military operations
CMOC	civil-military operations center
CMOWG	civil-military operations working group
COA	course of action

COA DEV	course of action development
COB	civilian on the battlefield
COCOM	combatant command
COIC	current operations integration cell
COIN	counterinsurgency
COMMEX	communications exercise
COMSEC	communications security
COMSTAT	communications status
CONOP	concept of operation
COP	common operating picture
COS	chief of staff
CPCE	Command Post Computing Environment
CP SOP	command post standard operating procedure
CPX	command post exercise
CTC	combat training center
CUOPs	current operations
DCGS-A	Distributed Common Ground System - Army
DP	decision point
DPICM	dual-purpose improved conventional munitions
DPT	decision-point tactics
DOS	Department of State
DSM	decision support matrix
EAB	echelons above brigade
EA DEV	engagement area development
EEFI	essential element of friendly information
EWP	enemy prisoner of war
ESB SATCOM	expeditionary signal battalion satellite communications
EVENTEMP	enemy event template
EXMAT	execution matrix
FDR	foreign disclosure representative
FLOT	forward line of own troops
FOIC	future operations integrating cell
FRAGORD	fragmentary order
FSC	forward support company
FSCM	fire support coordination measure
FSCOORD	fire support coordinator
FSE	fire support execution (matrix)
FSE	fire support element
GAIT	global agile integrated transport

GC	Geneva Convention
GCSS-Army	Global Combat Support System–Army
GEOINT	geospatial intelligence
HF	high frequency
HLZ	helicopter landing zone
HOPE-W	higher, operational, planning, enemy, weather
HPTL	high-payoff target list
HQ	headquarters
HUMINT	human intelligence
IBCT	infantry brigade combat team
IC	information collection
ICRC	International Committee for the Red Cross
ICSM	information collection synchronization matrix
IFS	intelligence fusion system
IHL	intelligence handover line
IO	information operations
IPB	intelligence preparation of the battlefield
ISR	intelligence, surveillance, and reconnaissance
IRC	information-related capabilities
JBC-P	joint battle command – platform
JEMSMO	joint electromagnetic spectrum management operations
JMRC	Joint Multinational Readiness Center
JP8	jet propellant 8
LNO	liaison officer
LOAC	law of armed conflict
LOGCOP	logistics common operating picture
LOGPAC	logistics package
LPD	leader professional development
LSCO	large scale combat operations
LZ	landing zone
M2	movement and maneuver
MCG	mobile command group
MCOO	modified combined obstacle overlay
MCP	main command post
MCVE	mission command validation exercise
MDMP	military decision-making process
MEDCOP	medical common operating picture
MEDCoS	medical concept of sustainment
MITS	military intelligence training strategy

MN	multinational
MNI	multinational interoperability
MOGAS	motor gasoline
MP	military police
MPE	mission partner environment
MRSI	multinational religious support interoperability
MTOE	modified table of organization and equipment
MTF	medical treatment facility
NAI	numbered area of interest
NATO	North Atlantic Treaty Organization
NGO	nongovernmental organization
OE	operational environment
OPFOR	opposing force
OPORD	operation order
PACE	primary, alternate, contingency, emergency
PAO	public affairs officer
PAN	partner accessible network
PED	processing, exploitation, dissemination
PERSTAT	personnel status
PIR	priority intelligence requirement
PLANNEX	planning exercise
PMESII-PT	political, military, economic, social, information, infrastructure, physical environment, time
PMO	provost marshal officer
PO	psychological operations
POR	program of record
POR-B	prophet enhanced
PPL	protection prioritization list
PSOP	planning standard operating procedure
PSRT	personnel, supply, readiness, training
ROE	rules of engagement
RSOI	reception, staging, onward movement, and integration
RSOM	reception, staging, onward movement
RS	religious support
RTU	rotational unit
RXL	rehearsal
SBCT	Stryker brigade combat team
SIGACT	significant activity
SIGINT	signals intelligence

SME	subject matter expert
SOI	signal operating instructions
SOPs	standard operating procedures
SSA	supply support activity
STANAG	standardization agreement
STAFFEX	staff exercise
T&EO	training and evaluation outline
TAC	tactical command post
TACSOP	tactical standard operating procedures
TDB	targeting decision board
TEA	target engagement authorities
TGS	tactical ground station
TSCIF	temporary sensitive compartmented information facility
TTP	tactics, techniques, and procedures
TWG	targeting working group
TVB	tactical voice bridge
UAP	unified action partner
UAS	unmanned aircraft system
UFP	unit fighting product
UMT	unit ministry team
URN	unique reference number
USAID	United States Agency for International Development
USARC	United States Army Reserve Command
USASOC	United States Army Special Operations Command
UN	United Nations
VALEX	validation exercise
VHF	very high frequency
WARNORD	warning order
WfF	warfighting function
XO	executive officer

ANNEX B

Points of Contact

M07	Senior Brigade Trainer	314-522-5337
M04	Senior Brigade NCO Trainer	314-522-5074
M02	Brigade Executive Officer Trainer	314-522-5447
M03	Brigade Operations Trainer	314-522-5876
M34	Brigade Operations NCO Trainer	314-522-5329
M03A	Brigade Multinational Interoperability Trainer	314-522-5054
M03B	Brigade Current Operations Trainer	314-522-7253
M05	Brigade Staff Judge Advocate Trainer	314-522-5581
M08	Brigade Sustainment Trainer	314-522-5126
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