

FY 23

**MISSION COMMAND
TRAININGⁱⁿ LARGE-SCALE
COMBAT OPERATION
Key Observations**





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Introduction

The 41st Chief of Staff of the Army provided four focus areas, warfighting and strengthening our profession are two of those focus areas that this publication is about.

The purpose of the Mission Command Training Program (MCTP) is to enable professional warfighting. MCTP designs, plans, executes, and controls the Warfighter Exercise (WFX), which gives commanders a rigorous leader development and training environment for their staff and subordinate commands to achieve Army senior leader approved training objectives on behalf of the Chief of Staff of the Army.

In fiscal year 2023, MCTP provided the Army the ability to strengthen our profession and warfighting skills through the application of the updated Field Manual (FM) 3-0, *Operations* October 2022, doctrine. MCTP WFXs provide the Army the ability to learn warfighting skills in large-scale combat operations supported by doctrinally grounded observer, controller/trainers (OC/Ts) in a constructive training environment.

This publication provides the force a consolidated group of observations from fiscal year 2023, learning with five key observations and additional observations by warfighting function through the lens of four parts of U.S. Army operations process to best assist future training and operations. Fiscal year 2023 provided two corps WFXs and two division WFXs, utilizing both Pacific and European construct operating environments.

Team MCTP is excited to continue enabling professional warfighting in fiscal year 2024 and beyond, driving generational change into our leaders through rigorous WFXs. Please consider us at MCTP a teammate as you train and operate at echelon.

This We'll Defend
Driving Change, Forge Victory
Enabling Professional Warfighting!

Vincent M. Lewis
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Command Sergeant Major

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COL, FA
Commanding

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CHAPTER 1

Mission Command Training Program Top Five Key Observations

Key Observation 1: Operational Framework

Observation(s)

Units develop an incomplete operational framework during the military decision-making process and do not have a system or means to adjust the operational framework during execution. An inability to adapt to the rhythm of the battle often results in missed opportunities and increased risk to friendly formations.

Discussion

The deliberate planning process should develop a complete operational framework. A complete framework requires all necessary coordination and control measures for command and control. The omission of graphic control measures creates confusion (refer to Figure 1-1, Operational Framework). Confusion begins before the operation and accelerates on contact with the enemy. Staff confusion generally revolves around roles, responsibilities, and authorities such as what units are responsible for prosecuting targets or protecting critical assets. These issues are compounded because staffs do not have a formal mechanism to conduct hasty, in-stride adjustments to the operational framework. Instead, staffs usually wait for decisions constrained by battle rhythm timelines. Staff's need an opportunity to affect change that remains synchronized with the air tasking order cycle to integrate joint enablers (Filed Manual [FM] 3-0, *Operations*, 1 October 2022 and FM 3-94, *Armies, Corps, and Division Operations*, July 2021).

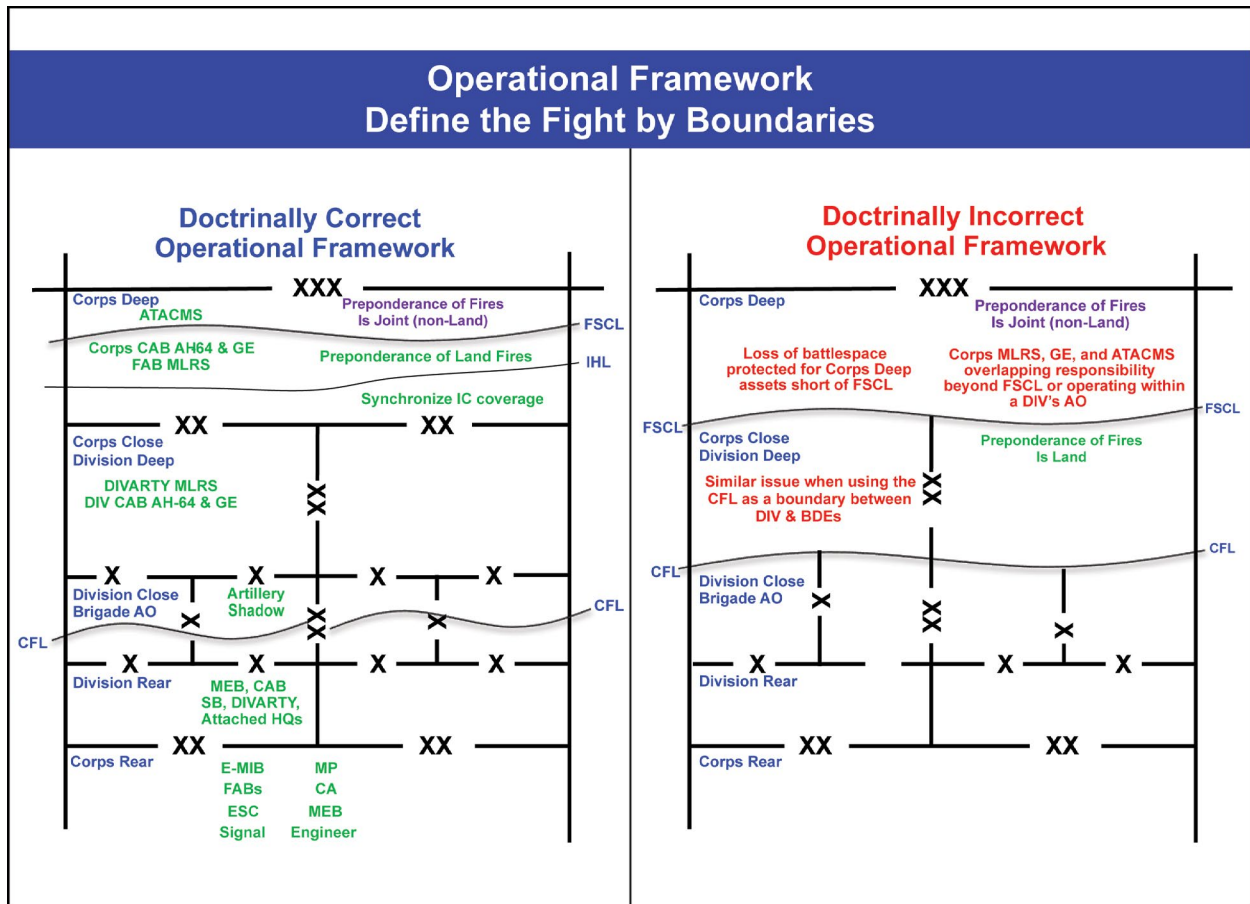


Figure 1-1. Operational Framework

Units do not consistently establish subordinate unit forward boundaries. Doctrine provides guidance on three models to visualize the operational framework (FM 3-0, *Operations*, 1 October 2022):

- Assigned areas
- Deep, close, and rear operations
- Main and supporting efforts (with a reserve)

Forward boundaries are a necessary graphic control measure for all echelons to coordinate roles and responsibilities across all warfighting functions. Headquarters do not retain clear delineation of deep, close, and rear areas without boundaries. This confusion becomes evident when units duplicate resources such as lethal and non-lethal fires, information collection, and protection assets. As a result, information gaps occur, assessments become inaccurate, and risk increases from unclear decision criteria. During a fiscal year 2023 Warfighter exercise (WFX), the lack of division boundaries created the potential for two divisions to converge on each other from opposing directions. This instance demonstrated the cumulative effects created by an incomplete operational framework:

- Unsynchronized tempo
- Confusion
- Increased risk to friendly forces formations

A unit's inconsistent use of existing control measures such as forward boundaries frequently results in a tendency to use fire support coordination measures (FSCMs) in lieu of boundaries or limits of advance, specifically the fire support coordination line (FSCL) and coordinated fire line (CFL). Coordination measures such as the FSCL and CFL enables permissive fires and coordination, such as synchronization across multiple domains, whereas boundaries usually provide ground control in the land domain. In one exercise, a subordinate division's progress resulted in merger between the CFL and FSCL. The merger between the two FSCMs collapsed the division's deep area and resulted in corps resources shaping for brigade units. Corps can only influence the FSCL, but they can control subordinate boundaries and CFLs.

Units often lack a process to adjust the operational framework to synchronize and coordinate information collection in support of shaping operations. Specifically, corps and divisions disregard shifting the intelligence handover lines (IHL) in conjunction with other control measures. This delay in shifting the framework often leads to a loss of tempo and disrupts the transition of responsibility for the collection, processing, exploitation, and dissemination of intelligence information.

All plans change during execution and units must adapt to the rhythm of the battle with a mechanism that delegates appropriate authorities to make these adjustments. Doctrine provides guidance for a rapid decision-making and synchronization process (RDSP) during execution (FM 5-0, *Planning and Orders Production*, 16 May 2022). An observed, self-imposed constraint is rigid adherence to the prescribed battle rhythm. One observed best practice is a target refinement board that enables the unit to adapt to the pace and tempo of large-scale combat operations and use mission command principles through delegated authority. This technique leveraged the units battle rhythm to create a forum for rapid decision making with delegated authority to the deputy commanding general which supported dynamic targeting within the established targeting process.

Additionally, units must adapt a process to adjust the operational framework to reduce risk to friendly forces. During one exercise, a corps staff had difficulty assessing the composition and disposition of the enemy fires network. The difficulty to target and identify the enemy fires structure was exacerbated by an operational framework that lacked clarity and failed to adapt through a continuous assessment process integrated into the unit battle rhythm. Consequently, the division's fires were unable to effectively degrade enemy long-range fires in the division deep area, and combat aviation brigades found themselves assigned to high-risk missions out of contact at an extended range from the CFL. These missions frequently resulted in significant friendly losses to the aviation battalions. A battle rhythm is a necessary tool to drive the operations process; however, units, especially corps, must influence and synchronize desired capabilities across all domains, lethal and non-lethal. These capabilities are almost exclusively at the joint level and require synchronization through the targeting process.

The example scenario below further illustrates the significance of coordinated graphic control measures in conjunction with RDSP during execution to help reduce risk to friendly formations. The graphic on the left presents the current situation and the graphic on the right depicts the realized state and necessary adjustments to the operational framework that synchronizes resources across domains and reduces risk.

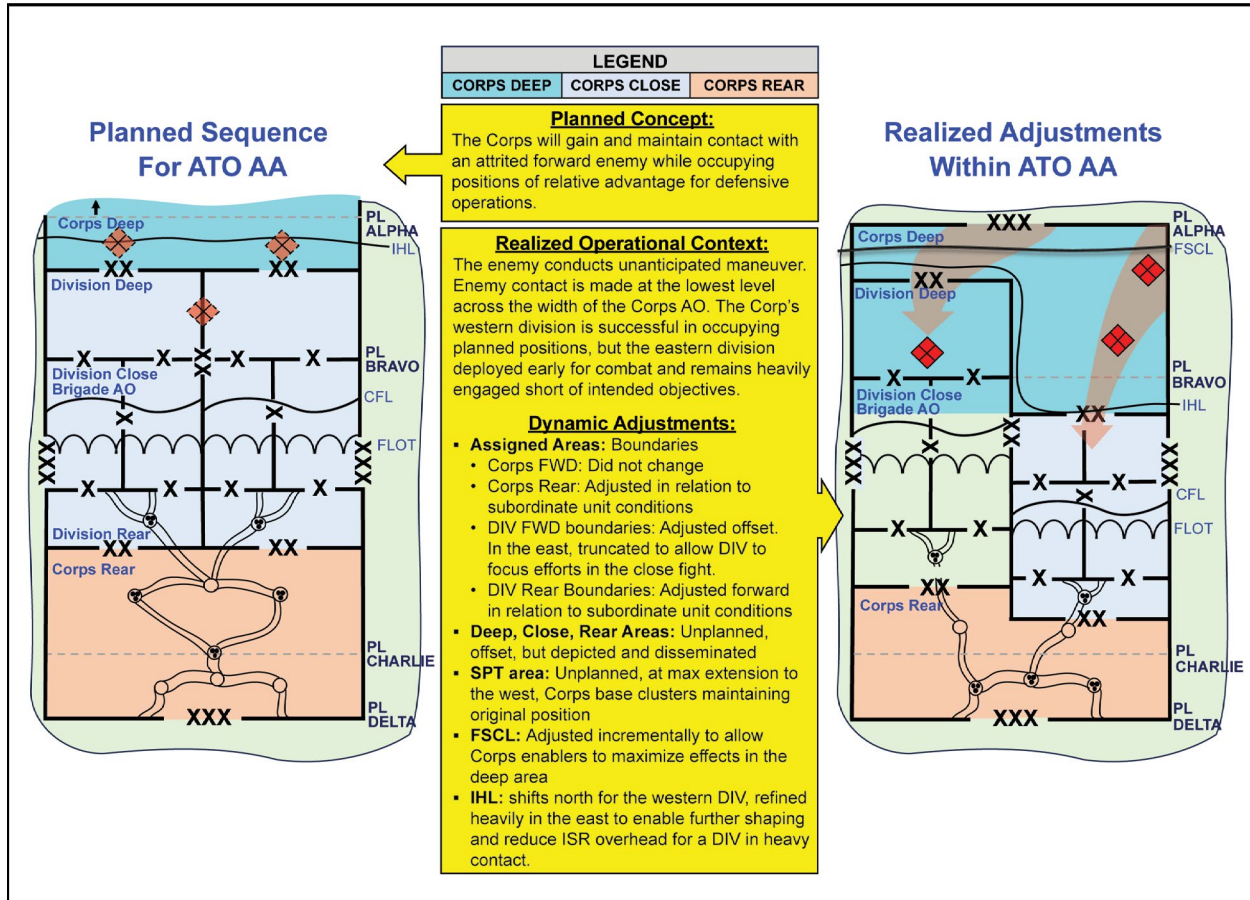


Figure 1-2. Planned Sequences and Realized Adjustments

Recommendation(s)

Define the Framework through the Orders Process with Graphic Control Measures

Units must define the operational framework for each phase in the base order. The output from the detailed planning process results in a concept of the operation, typically by phase. The concept of the operation also describes the identified transition criteria and decision points.

Units should ensure the operational framework includes graphic control measures (GCM) such as:

- Boundaries or limits of advance
- Forward line of own troops
- FSCMs (CFL and FSCL)
- IHL

The corps, as an integrator of joint enablers, leverages joint capabilities. Each GCM implicitly coordinates warfighting capabilities across domains (land, air, space, cyber, and sea). Headquarters staff should review operational terms and symbols definitions to ensure they understand the difference between coordination and control in context with multidomain operations. (refer to Figure 1-3, Corps Operational Framework).

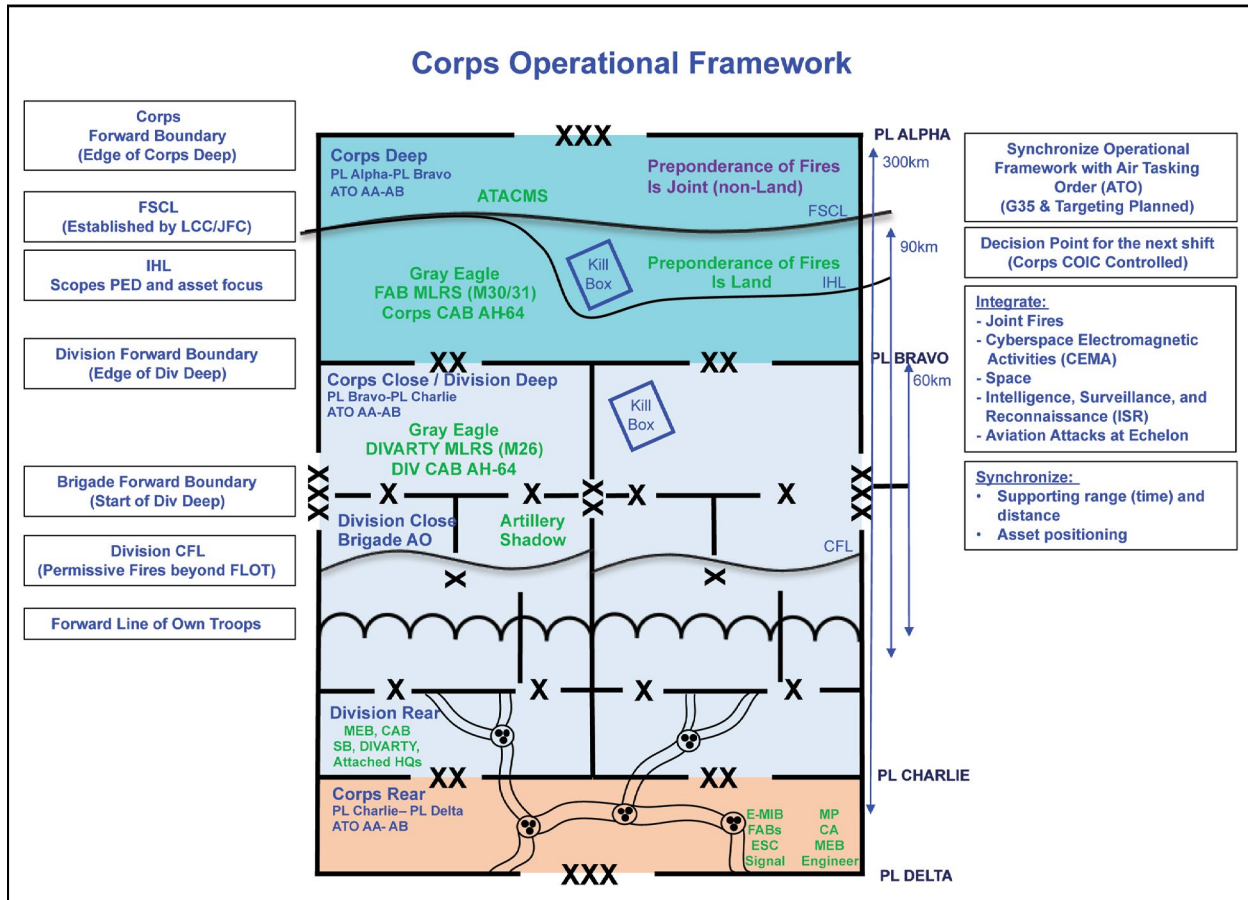


Figure 1-3. Corps Operational Framework

Leverage the Battle Rhythm

For deliberate planning, leverage the battle rhythm to adjust the operational framework with the Air Tasking Cycle. The fires and intelligence warfighting functions (WfF) provide important contributions to adjusting the operational framework through the targeting process. However, other functional cells such as protection and sustainment cells are also essential to form the operational frameworks requirements. Corps must require refinement from divisions to better update their assessments and future requirements. Units should refine their battle rhythm inputs and outputs to clarify resource and positioning requirements that update terrain management and changes to the operational framework. For instance, the fires section should attend the assessment working group (AWG), and the future operations cell with the intelligence section should be able to update the execution matrix at the AWG. A method could be to integrate management of the operational framework into the AWG, targeting working group, sustainment working group, and protection working group (see Figure 1-4 Operational Framework). Outputs from these staff estimates could feed updates into subsequent decision boards such as the plans synchronization board (PSB) and then present staff analysis and recommendations for decision in the operations assessment board or commander's update brief (CUB).

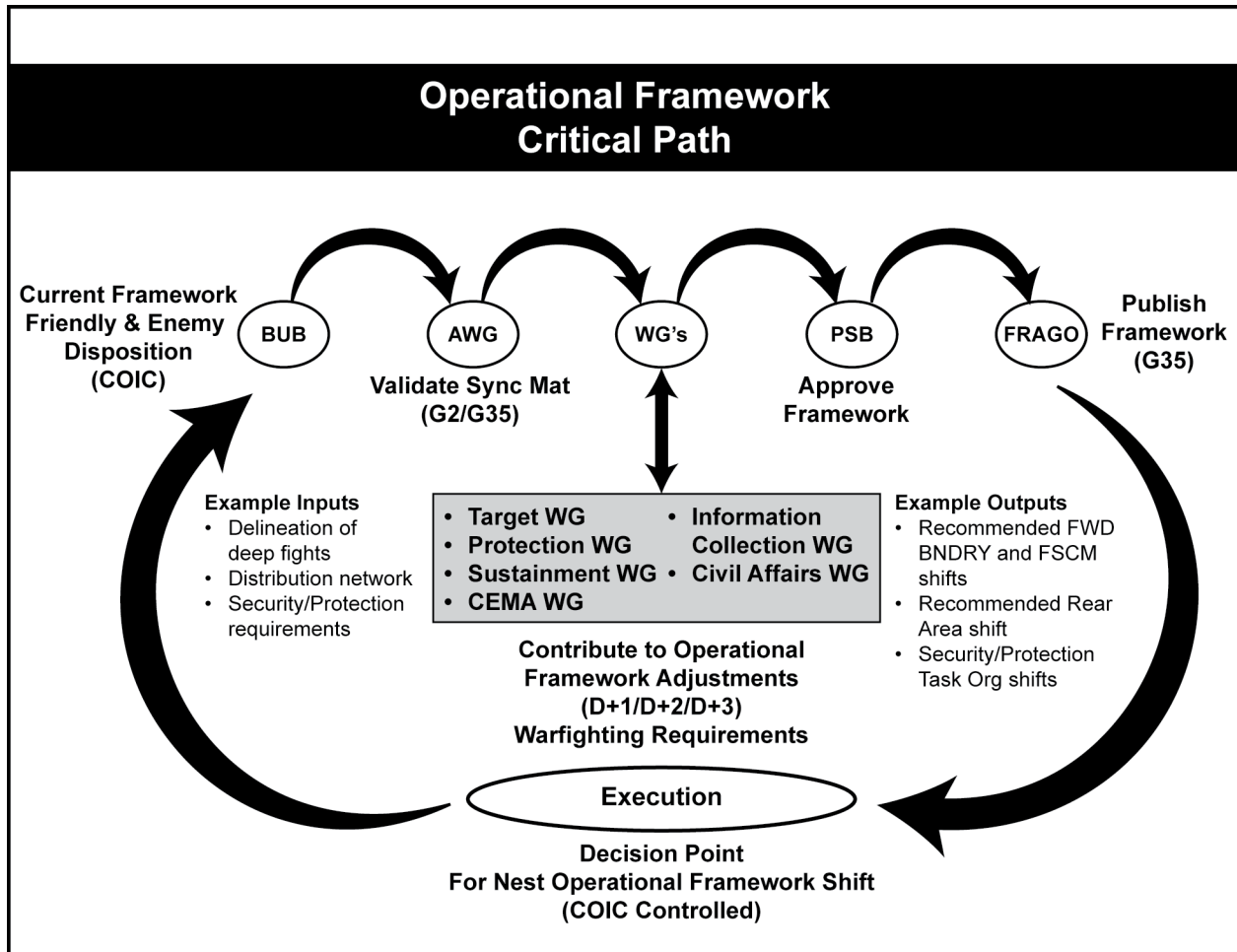


Figure 1-4. Operational Framework

For rapid decision making and synchronization, leverage mission command principles by delegating appropriate authority to key leaders. Deliberate planning and senior leader dialogue should result in publication of a delegation of authorities matrix. Published guidance with delegated authority leads to decentralized execution within the commander’s intent. Units should delegate decision making to the deputy commanding generals to execute within the commander’s intent. Corps collection capabilities remain finite resources and directly correlate to a unit’s success and failure in developing an accurate enemy assessment.

Key Observation 2: Managing Integration and Synchronization at Echelon

Observation(s)

Managing warfighting function integration and planning horizons to enable decisions, synchronize effects, and maintain tempo is critical to success. When staffs do not integrate WfF across planning horizons (integrating cells), the result is ineffective decisions, desynchronized operations, and lost tempo.

Discussion

Tactical success is rooted in the staff's ability to effectively integrate Wffs throughout the operations process. When Wffs are properly integrated, commanders are allowed to make sound and timely decisions as a battle progresses and units achieve decisive effects by synchronizing capabilities. To enable success, units must manage the people, processes, and procedures within the command-and-control system. Important challenges present themselves in the two primary areas of adequate manning of the integrating cells and battle rhythm management.

Gaps in Integrating Cell Manning

Once a battle commences, unit activities are often desynchronized due to rapid changes in the environment that alter the facts and assumptions of the initial plan. In anticipation of rapid changes in the environment, staffs, although well intentioned, often fully man the current operations integration cell (COIC); however, do not provide complete warfighting function (Wff) representation in plans and future operations (FUOPS). The FUOPS cell is responsible for both monitoring current operations and assessing whether the staff must modify ongoing operations to achieve the current phase's objectives (FM 6-0, *Commander and Staff Organization and Operations*, 16 May 2022). Staffs are often unable to keep up with the rhythm of the battle and maintain tempo because the staff has not prioritized manning the FUOPS cells with a dedicated planner from each Wff. Without current and relevant information, planners are unable to produce complete, synchronized plans or provide the commander with the information needed to make the best decision and direct timely action to achieve key objectives for the phase.

Battle Rhythm Management to Enable Integrating Processes across Planning Horizons

The integrating processes are the primary means by which commanders and staffs integrate the Wff and synchronize the force to adapt to changing circumstances on the battlefield (Army Doctrine Publication [ADP] 5-0, *The Operations Process*, 31 July 2019). Without agility, we fight the plan instead of the enemy. When actions are directed in fragmentary orders that are desynchronized and inconsistent with the current enemy or friendly situation, it leads to a stall in tempo and failure to achieve tactical objectives.

The agility required to overcome friction after crossing the line of departure is hindered by rigid battle rhythms that do not integrate staff work across planning horizons (integrating cells). Battle rhythm events need specific meeting instructions. Enforcement mechanisms that ensure key participants across the integrating cells are present and bring accurate and relevant information. Furthermore, battle rhythms should account for the intensity of operations and time available for the staff and subordinate units.

Recommendation(s)

Integrating Cell Manning

Ideally, staff sections man the plans and FUOPS cells with dedicated, full-time planners who have only two jobs: assessments and planning. When FUOPS is adequately manned and has the capacity to assess and quickly refine plans based on changes in the operational environment, units can expect to see better and more synchronized plans.

Integrated Battle Rhythm

Units must develop flexible battle rhythms that respond to the rhythm of the battle and adequately feed daily assessments and plans for future actions. As staffs develop the battle rhythm in their unit standard operating procedure (SOP), they should consider times when the intensity of the fight will curtail division mid-range planning horizons to 24-48 hours. Under compressed planning horizons, units must consider only holding essential meetings, such as the PSB, that enable maneuver and synchronize effects.

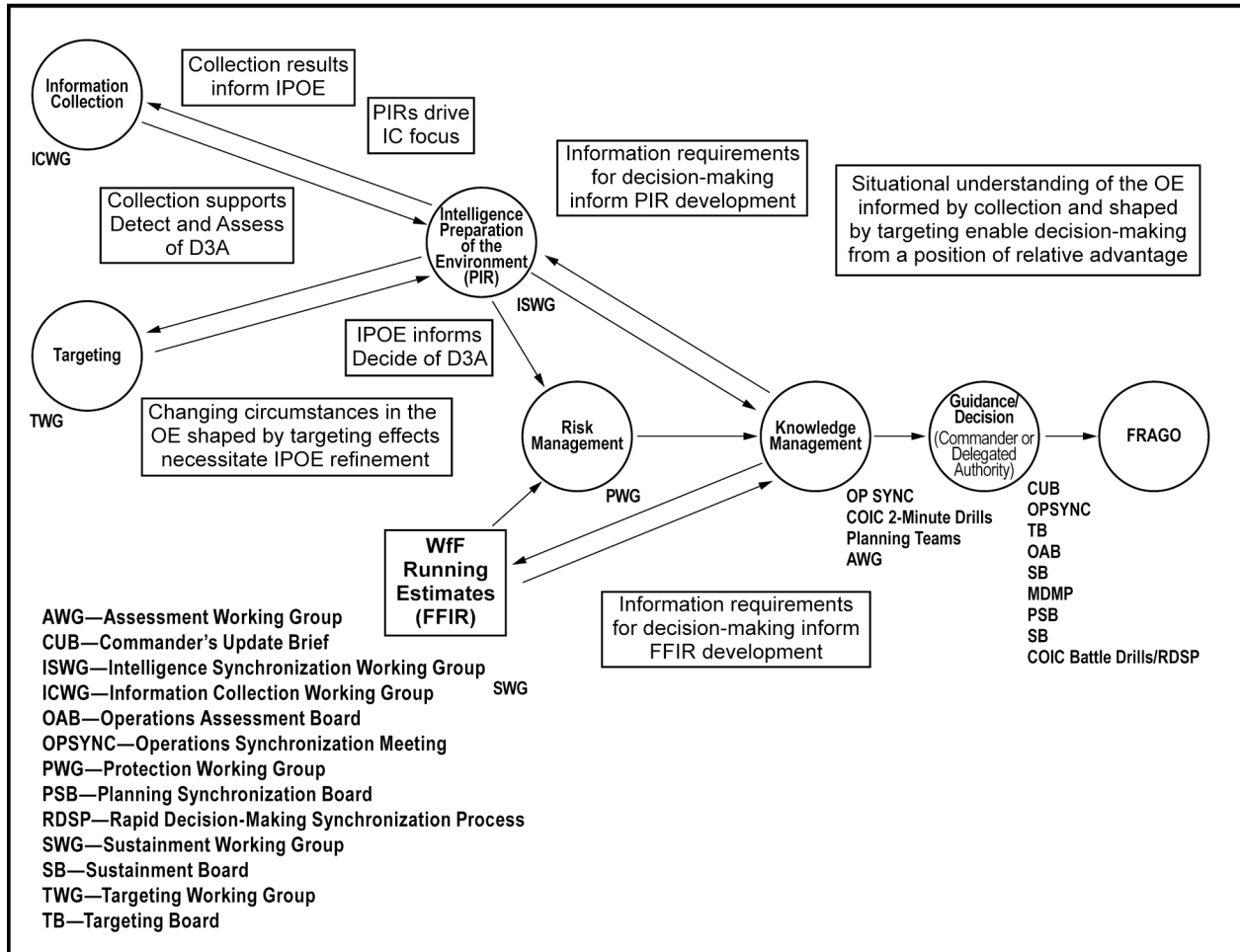


Figure 1-5. Integrating Processes and the Battle Rhythm

Unit battle rhythms and meetings should integrate the staff across functional and integrating cells to effectively enable decisions, produce synchronized plans, and maintain tempo.

Key Observation 3: Operations in the Rear Area

Observation(s)

Developing and implementing an effective rear command post (RCP) is a significant challenge. The main command post (MCP) does not always establish an operational framework and implement terrain management control measures. RCPs do not often collaborate with the MCP for future planning efforts across the WfFs. The result is an unclear command and control (C2) structure, unclear authorities in the rear area, and a lack of a common operational picture (COP) amongst the

tenant units in the rear area.

RCPs can become an effective alternate corps/division command post if adequately manned and trained. The RCP can be capable of integrating sustainment, intelligence, fires, and protection operations with corps and division planning and execute the targeting processes across their respective areas of responsibility (AORs). The G-2 elements in corps and division RCPs can be designed to manage intelligence operations and drive the operations process.

One observed method for managing the rear area is to operationalize the maneuver enhancement brigade (MEB) for the task. There are limitations and considerations such as manning and deployment timelines that must be considered to optimize the MEB for the purpose of rear area management.

There are efficiencies to be gained in RCP operations which better enhance senior leader decision making. Some notable examples include, synchronizing the RCP critical path with the MCP and including rear area tenant units as participants in battle rhythm events.

Discussion

It is critical for corps and division headquarters to understand their respective rear, close, and deep areas of responsibility by phase. However, often the COP of the phased boundaries between the corps and division rear areas do not reflect shared understanding, which inhibits effective coordination of sustainment, fires, and protection WfF efforts between echelons.

Tenant units within the rear area need defined areas of responsibility, characterized by clear boundaries by phase, and clearly defined tasks and purposes. Without assigned boundaries by phase or the necessary control measures written into the plan, the large number of tenant units in the rear area can become a span of control issue if not deliberately planned. Multiple units in the rear area generate requirements for clearance of fires and security responsibilities, and if not clearly developed with tasks and purposes, duplicated efforts and cross boundary confusion are likely to occur. Doctrine (FM 3-81, *Maneuver Enhancement Brigade*, November 2021) and observed best practices suggest using MEB and a tactical combat force (TCF) as the security and rear area terrain management leads. The remaining tenant brigades and specialty units could be assigned base clusters within the MEB's area of operations to further synchronize terrain responsibilities in the congested rear area. The MEB may also serve as the C2 headquarters that synchronizes and controls main supply route and alternate route traffic and congestion.

Fires Considerations in the Rear Area

There should be a clear process for requesting support to include the fires, close air support, and the quick reaction force. Typically, the corps' general support field artillery rocket battalions operate within a division area of operations to support the deep fight. If they are positioned in the corps rear area, the RCP fire support coordinator (FSCOORD) or fire support officer must account for terrain management and airspace deconfliction. Fire support coordination measures in the rear must be more restrictive to protect friendly units.

The RCP must be augmented with fire support personnel, including joint terminal attack controllers (JTAC), to address the challenges of terrain management, airspace management, and clearance of fires. A best practice is to employ a TCF of brigade size or higher, which can include a direct support field artillery battalion and a battalion sized TCF supported by a DS cannon battery.

Generally, corps do not have the capability to control airspace, but division joint air-ground integration center (JAGICs) can. Therefore, the TCF brigade combat team or division's air defense

airspace management (ADAM) cell must be tied into the division JAGIC to clear airspace within the rear area. Army aviation or close air support (CAS) is often the most responsive fire support asset for use in the rear area. Commanders should consider allocating dedicated CAS missions to support the RCP.

Integration of Sustainment and Protection with all WfF

Corps and divisions often delegate authority to the deputy commanding general-support (DCG-S) to manage sustainment and protection WfF efforts across the area of operations, not for just sustainment and protection in the rear area of operations. However, managing sustainment and protection across an area of operations requires integrated planning, information sharing, and operational activities with the MCP.

The RCP and specifically the sustainment and protection WfF leads, must stay abreast of the plans/FUOPS activities in the MCP, which includes understanding sustainment requirements, possible transitions for future maneuver operations, operational framework transitions, rear area boundary shifts, and corps and division support area displacements. Often, units will provide one field grade sustainment officer to the G-5 section of the corps or division staff as the sustainment WfF plans representative.

One field grade sustainment officer usually proves insufficient to support the entire sustainment enterprises planning for the corps, expeditionary sustainment command (ESC), and separate enablers, which increases the gap between maneuver and sustainment planning.

Rear Command Post Decision-making Process

Corps and divisions should also establish a critical path nested with the MCP battle rhythm, an effective RCP layout and organization, and a battle rhythm that is effective at driving decisions and shared understanding. This should be nested and mutually supportive of the MCP's boards, bureaus, centers, cells, and working groups processes. Key meetings must have outputs that feed key informational WGs and boards such as CUBs, battle update briefs, targeting boards, assessments, and planning meetings.

The RCP decision making process could be improved by coordinating planning efforts between the MCP, the RCP, and with the multiple tenant units in the rear area with an effective battle rhythm. This enables a mutually beneficial critical path leading to boards chaired by the DCG-S. The battle rhythm often causes key leaders to attend multiple meetings, working groups, and boards without time to prepare or digest information. This culminates in senior staff members briefing products at decision boards that are insufficiently staffed.

Additionally, meeting instructions and decision briefing formats for boards are not codified causing the staff to undergo a multi-day learning process to create a briefing template that enables the DCG-S to see the battlefield and make decisions.

Rear Command Posts often lack Capabilities and Capacity as an Alternate Command Post

The RCP is not manned or operational in garrison, and therefore, not trained to operate concurrently and complimentary with an MCP. With usually only sustainment and protection trained personnel, the RCP cannot operate as an alternate command post capable of assuming the MCP's responsibilities if it is displaced or destroyed.

RCPs often lack personnel to form G-2 cells, a G-3 battle MAJ/SGM to maintain the COP while providing feedback to the RCP from key battle rhythm meetings. Both an ESC, a MEB and the corps/division protection staff should identify current operations (CUOPS) personnel able to man and operate an RCP COIC. This helps delineate who battle tracks current operations and where future operations or planning can more appropriately take place in the ESC/MEB tactical operations centers.

Lack of Intelligence Capability in the Rear Command Post

Units employing multiple command posts often operate without resilient and redundant intelligence capabilities in each command post. Army doctrine does not prescribe the capabilities, manning, or roles and responsibilities required of the G-2 to support operations within each command post. Thus, G-2 elements in corps or division RCPs often have very few, if any, 35F Intelligence Analysts. Consequently, they are often without collection management and dissemination or processing, exploitation, and dissemination (PED) team support which stifles information collection efforts for the rear area and ultimately results in an incomplete common intelligence picture (CIP).

Due to their small composition, rear area G-2s are often not capable of producing a CIP, perform information collection management duties, or conduct target development. Moreover, the absence of established roles and responsibilities of intelligence entities throughout the rear area often leads to an inconsistent and incoherent threat picture of rear area threats.

Corps and Divisions Allow for the MEB

Distinct roles and responsibilities of the MEB versus a corps or division RCP COIC are not defined in doctrine. A MEB is doctrinally tasked to manage the security of the corps/division support area cluster and key routes and are sometimes asked to manage air and ground security across a vast Corps AOR. MEB augmentation requires mobilization and prescribed training requirements that often leave gaps in capabilities and lead to confusion on rear terrain and providing air and fires capability in the rear area.

Corps/divisions will often demand that the MEB cut out their fires cell and key experts (with equipment) to operate in the RCP vice the MEB TOC, which limits the MEB commander's ability to fight. Perhaps a better alternative is for corps and division staffs to create fires and airspace management plans that incorporate the rear area of operations. MEBs and tenant units will create fires plans with boundaries or phase lines between tenant brigades or between base clusters. The TCF must be adequately resourced for the changing Level I, II, and III threats and may include cannon artillery and air TCF (AH64 helicopters) for threats across a corps/division's expanding rear area of operations.

Recommendation(s)

Develop and train on Rear Command Post Standard Operating Procedures

An RCP SOP must define manning, duties and responsibilities, and fires process and procedures to enable the integration of multiple tenant units. Clearly defined RCP responsibilities in the rear area and area of operations will benefit Distributed Command and Control Node (DC2N) concepts. A complete RCP SOP must include a command post layout, equipment requirements, duties and responsibilities, and a detailed manning document. For example, designating a senior intelligence officer for the rear area and assigning them roles and responsibilities within the RCP SOP will avoid duplicated efforts among rear area tenant units while focusing available collection assets on rear area operations. Another example is increasing and spreading sustainment planner capacity, per SOP, among the MCP and RCP to balance workload requirements during ongoing operations. An RCP SOP must also include a comprehensive description of the processes, procedures, and battle drills to execute fires, risk mitigation, threat assessment/response, and a rear area of operations orders process.

Implement Efficient Rear Command Post Battle Rhythm

Corps and division RCPs must implement a nested and efficient battle rhythm that enables for shared understanding and DCG-S decision making. Although the RCP daily battle rhythm is constrained by numerous factors, focused priorities such as sustainment, protection, and rear area risk mitigation must allow DCG-S decisions and time must be afforded between battle rhythm meetings for staff work. Therefore, an RCP SOP must also include decision board templates, approved by the DCG-S, to align working group inputs and outputs.

Key Observation 4: Multi-nodal (point in a network where pathways intersect), Distributed Command Post

Observation(s)

Army corps and divisions have begun to test the viability of DC2Ns in response to the competitive nature of peer-to-peer engagements across the battle zone and support zone. In fiscal year 2023, Mission Command Training Program (MCTP) observed an Army corps test this theory through geographic separation between headquarters elements by creating the following four nodes: CUOPS, FUOPS, sustainment and protection, and a reach-back node. At the division level, MCTP has observed Army divisions establish a home station mission command node as a reach-back capability for over the horizon support.

Discussion

Adopting and implementing DC2N concepts underscores the importance of command post survivability, which is centered on the following principles:

- Dispersion, hide in plain sight
- Operational security (OPSEC) discipline (reducing electro-magnetic signatures)
- Reach back

Reach-back capability is desired because it limits the amount of personnel and equipment placed in a contested environment.

Units that employ DC2N concepts often experience challenges maintaining both shared understanding and a common operational picture. The challenge of geographical dispersion and competing requirements at each DC2N amplifies the fog of war. Synchronization among nodes and dispersed integrating cells ensures internal functions are manned and equipped to properly complete assigned tasks. Another requirement for implementing DC2N concepts is the various communications architecture considerations that must be planned for. These include network ownership, firewalls, and availability of necessary equipment to support each DC2N, while also having redundant abilities and backup capability.

Recommendation(s)

Army corps and divisions can alleviate these challenges by increasing training events or by physically replicating their vision of these distributed command nodes in a garrison environment. These training events could assist in highlighting funding, personnel, or equipment shortages, and allow for proper programming and budgeting for modified table of organization and equipment (MTO&E) recommended changes. Commanders can leverage best practices by placing emphasis on OPSEC during exercises and maintaining unit and individual discipline.

Key Observation 5: Headquarters Collective Training

Observation(s)

Training units do not establish a framework to plan, prepare, execute, and assess training of the command-and-control warfighting function to verify proficiency through individual to collective training using a certification and validation process within their organization.

Discussion

Competing requirements challenge divisions to establish a framework to plan, prepare, execute, and assess training of the command-and-control warfighting function. Training a division is a lengthy and continuous process that requires disciplined initiative and creative solutions. The Army has placed a wide range of responsibilities on divisions to include serving as the senior headquarters for installations, training responsibilities to subordinate brigades, community relations and recruitment commitments, world-wide deployments, and unexpected global security requirements. Divisions struggle with establishing a unit training plan for the division staff that accounts for the annual personnel changeover each summer. As a result of this, divisions often participate in collective training without fully trained and qualified teammates.

Digital master gunners (DMGs) provide an outstanding capability to the division staff; however, training DMGs is not a substitute for an effective unit training plan. The DMG is critical to preparing and utilizing the command-and-control tools necessary to generate a COP and to enable shared understanding. DMGs serve as the subject matter experts within their respective sections responsible for the training, maintenance, establishment, integration, and operation of their mission command information systems (MCIS). This duty extends to advising the commander and staff on the capabilities and limitations of digital systems and how to effectively use the MCIS to empower the operations process.

Recommendation(s)

Integrate the Mission Command Training Tables for Digital Crews

The staff should train using mission command training tables. The Army established mission command training tables for digital crews, division staff, division command posts, and the division commander in Training Circular (TC) 6-0.4, *Training the Mission Command Warfighting Function for Divisions and Corps*, 10 April 2019. The DMG serves as the facilitator of the digital table training as well as the commander's agent in certifying each digital crew.

Monitoring Individual and Crew Training among the Staff

Division leadership must closely monitor each division staff section's individual and crew training, which builds the foundation for the culminating collective tables, such as command post exercise, exercising full system employment. A combat training center rotation or WFX is not required to collectively train the staff, the mission command training tables were developed for execution at home station. The TC 6-0 series provides a roadmap for the division headquarters to follow. However, leader emphasis is required to implement staff training to ensure the division trains on digital lethality to produce an effective and trained formation capable of warfighting anywhere in the world.

CHAPTER 2

Plan: Close the Distance with Purpose

Each Warfighter exercise is preceded by a year of planning and preparation activities. The intent of this chapter is to describe planning considerations that units can address prior to the start of exercise. Much of this chapter is dedicated to the Army's White Paper, "How the Army 2030 Division Fights," with respect to operational framework, network architecture, and some special attention paid to the importance of digital master gunners (DMGs) in your formation.

Command and Control: Staffing Digital Master Gunner Positions

Observation(s)

Divisions lack school trained DMGs across the staff and do not identify the proper end users to operate, maintain, and integrate the organization's mission command systems.

Discussion

The role of a DMG within an organization is critical to optimizing the command-and-control tools necessary to generate a common operational picture (COP) and allow shared understanding. If a division does not train or monitor training of DMGs, the division is forfeiting an opportunity to understand their units mission command information system capabilities and limitations. For example, command post computing environment (CPCE) receives only some connections from other mission command systems that warfighting function (WfF) planners use. This issue results in missing graphics on the COP and redundant efforts in transcribing graphics to other systems.

DMGs are responsible for ensuring that all systems publish data to the data distribution system, which in turn feeds all other mission command systems like CPCE. Unit training is a critical function that DMGs perform on each system to increase user familiarity and capability. There seems to be a lack of mission command system training throughout fiscal year 2023's exercises which leads to inefficiencies in systems like air and missile defense workstations and tactical airspace integration system (TAIS) during mission execution.

Recommendation(s)

DMGs should have prioritization for the division during discussions of system operators within the organization. The division must deliberately manage to ensure trained personnel fill DMG slots as often as possible. Initially, the division should identify personnel with longevity that can attend the training and prioritize their attendance in the DMG course.

A long-term plan is to incorporate DMG management as a part of the unit's Soldier onboarding program identifying personnel that either already meet the requirements or have the potential to serve in that position. Upon identification, immediately schedule personnel, if necessary, for training to reduce operational friction that may occur once moved into their role. Once additional DMG-trained personnel are in place, the division should progress through digital and command and control training tables in each section. This training should be closely monitored and executed by each section's DMGs leading to culminating table events exercising system integration at the division level.

Command and Control, Network Integration of subordinate units

Observation(s)

Network development was not discussed in detail during technical integration working groups leading up to the final planning event or up to command, control, communications, computers, intelligence (C4I) integration. Subordinate elements were not pulled into the planning process resulting in corps engineers building an inwardly focused hub and spoke network architecture. This architecture created a single point of failure at corps, specifically with a spell-out domain name system (DNS) and routing. This issue resulted in several widespread outages that could have been mitigated by developing a more robust network architecture.

Recommendation(s)

Include subordinate units when conducting network planning and consider their requirements and recommendations. Conduct wargaming and testing of command and control (C2) node outages and record impacts to downtrace units when a node fails. Develop a network plan that mitigates the impact of any single node failure by introducing redundancy and failover (switching to standby systems) mechanisms. Socialize network plans once complete, publish them in orders, and keep them up to date as they change throughout the course of the operation.

Intelligence Support to Multi-nodal, Distributed Mission Command

Observation(s)

Training audiences are challenged with defining roles and responsibilities at each command node when supporting distributed mission command.

Discussion

G-2 sections struggle to establish an intelligence structure that balances finite capabilities (people and equipment) across multi-nodal (point in a network where pathways intersect) distributed mission command, while incorporating elements of redundancy. Establishment of intelligence architecture in all command nodes that enables intelligence synchronization across the dispersed nodes requires defined G-2 roles and responsibilities at each node to support commander and staff situational understanding of the operating environment.

Limited redundancy in intelligence and primary, alternate, contingency, and emergency (PACE) plans, a limited number of systems, and a limited number of trained operators and maintainers in a distributed mission command construct, strain the G-2 section's ability to provide synchronized assessment in support of the commander and staff's situational understanding of the operational environment. When not effectively planned and synchronized, intelligence support to forward elements (CUOPs, G-5, G-35, and targeting cells) increases latency in synchronization between nodes which reduces confidence in the intelligence WfF and causes intelligence estimates to be disconnected with accurate and timely decision making.

Recommendation(s)

In coordination with G-3, G-5, and G-6 staff sections, the G-2 must establish roles and responsibilities for each node across a distributed architecture as part of mission analysis to ensure that there is effective synchronization of redundant intelligence efforts to support distributed mission command. Rehearsals of the distributed architecture and PACE plans will identify friction points that can be mitigated to increase synchronization prior to execution leading to more effective intelligence support to distributed mission command.

Intelligence Considerations in a Mission Partner Environment

Observation(s)

Training audiences are challenged with synchronizing the intelligence picture between U.S. only and mission partner environment (MPE) networks. Establishment of parallel (U.S. only and MPE) network architectures strains training audiences limited organizational equipment and requires additional personnel to manage the intelligence holdings. This is further exacerbated when a distributed command and control nodal (DC2N) concept is employed.

Discussion

Training audiences struggle to incorporate a program of record system in a flexible or scalable role to provide support to all C2 nodes given an MPE. Training audience C4I infrastructure is often established on an MPE, challenging G-2 sections abilities to train and equip a parallel architecture that supports situational understanding across multiple network domains simultaneously. The transfer of intelligence information from U.S. only intelligence systems, to MPE C4I systems causes redundant work, often multiple gaps of intelligence are required between the networks through a foreign disclosure officer (FDO) foreign disclosure officer representative (FDR) process.

In fiscal year 2023, there was limited testing of C4I tactical cross-domain solution to support the automated transport of this information, but no permanent solution has been established. Redundancy of G-2 DC2N strains training audiences with insufficient numbers of systems and trained operators at each node. The shortage of intelligence and electronic warfare (IEW) maintainers (353T/35T) strains the training audiences' ability to establish the intelligence architecture and integrate with other C4I systems at each node, including support to functional/multifunctional brigades. Reallocation of limited IEW support during training is an option but is unrealistic in a geographically dispersed DC2N construct.

Units are reliant on upper tactical internet (Upper-TI) for all intelligence processing, exploitation, and dissemination (PED), not utilizing PACE plans to their fullest extent. Training audiences often fail to develop a thorough logical topology for how the architecture will be employed and information will be disseminated across the intelligence warfighting WfF at various nodes for each intelligence discipline.

Recommendation(s)

Units must execute deliberate planning that includes roles and responsibilities of intelligence systems, personnel, functions, and necessary training by node. For collaboration and placement of intelligence architecture and associated mission command nodes, secure internet protocol router (SIPR) with the high-speed guard and FDO handling the dissemination and sharing of intelligence across MPE at specified nodes, is a best practice.

Incorporation of intelligence systems maintenance and operator training in conjunction with CPCE training will support a DC2N construct. Continuity of operations plans (COOP), or PACE plans for intelligence WfFs, should be planned/rehearsed throughout the exercise life cycle.

Fires- Delineate the Fight

Observation(s)

Implement control and coordinating measures that clearly delineate fights at echelon.

Discussion

When assigning areas, misunderstanding regarding restrictions and permissions associated with boundaries and fire support coordination measures (FSCMs) occur when units use common FSCMs (such as the coordinated fire line [CFL] and the fire support coordination line [FSCL]) as boundaries to delineate fights at echelon.

The CFL is a permissive FSCM used to expedite the surface-to-surface attack of targets. They are usually established by brigade commanders within their assigned areas and consolidated by division headquarters. This enables brigades to fire beyond the line within the division area of operations (AO) without coordinating with adjacent brigades or the division headquarters, given the target does not violate a restrictive FSCM. Non-doctrinal usage of a corps CFL to delineate targeting responsibilities between the corps and divisions creates confusion amongst the staff, subordinate divisions, and multinational forces.

The intended purpose of the FSCL is to establish a coordinated joint fires environment between the land, maritime, and air component.

Joint fires short of the FSCL must be controlled by or coordinated with the establishing commander, which is typically the land component command (LCC).

Joint fires beyond the line must be coordinated with all affected commanders, primarily the air component command.

The FSCL is not a boundary, and usage of the FSCL as a boundary to delineate the corps AO from the LCC or subordinate divisions should be avoided. Unless serving as the LCC, corps can only request to shift the FSCL. Approved changes to the FSCL require notification to all affected forces within the AO. These forces and/or components require time, typically several hours, to incorporate FSCL shifts. Without nesting FSCMs (within the operational framework) creates a restrictive fires environment that reduces responsiveness and desynchronizes operations.

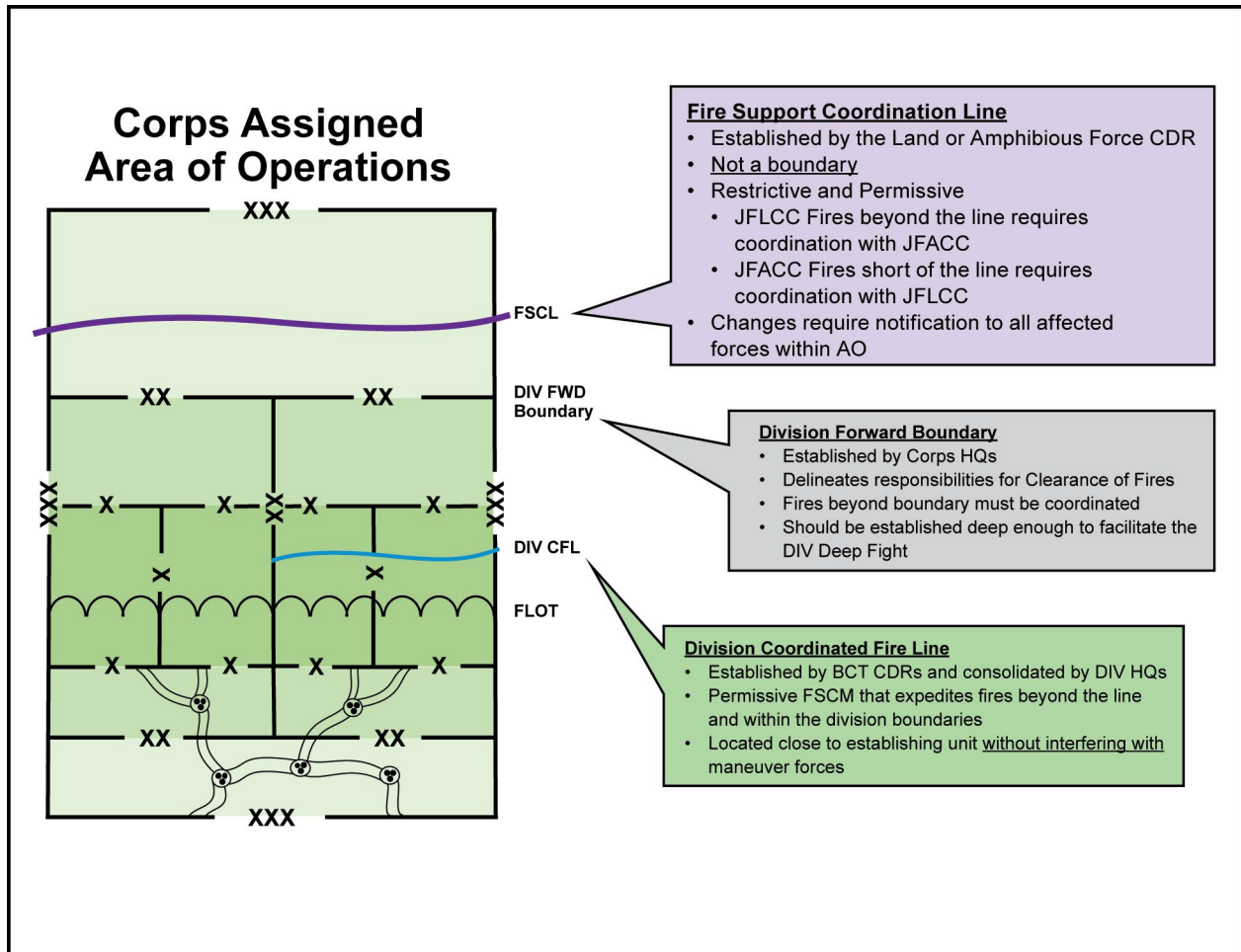


Figure 2-1. Corps Assigned Area of Operations Nested with Fire Support Coordination Measures

Recommendation(s)

Leverage the doctrine associated with graphic control measures and FSCMs to maximize lethality when developing the operational framework. Units can implement forward boundaries instead of FSCMs to delineate fights at echelon and reduce confusion. The division forward boundary enables a division deep fight, so that divisions can set conditions for subordinate brigades.

Clearly establish on-order boundaries and FSCM shifts to facilitate operational tempo, especially during offensive operations. Decision makers across WfFs will collaborate within the battle rhythm to ensure control and coordination measures remain synchronized, understood, and communicated. Delineation of fights must be a deliberate planning effort and rehearsed in venues such as combined arms and fire support rehearsals.

Operational Framework

Observation(s)

The division operational framework, including graphic control measures (GCMs) along with FSCMs on analog and digital COPs, are often not fully planned by the G-5, published by the G-35, and/or tracked and enforced by the G-33.

Discussion

Division planners are not developing operational graphics that identify forward boundaries for divisions and brigades. G-33 current operations (CUOPs) are defaulting to controlling BDEs in a reactive mode by relying on FSCMs to understand the forward line of troops.

Recommendation(s)

Checklists for necessary GCMs and transitions of operational framework knowledge between G-5 and G-33 should be written in unit standard operating procedures (SOPs). G-33 control of maneuvering forces should be rehearsed and actions coordinated across division WfF staffs.

Scheme of Protection and Rear Operational Framework

Observation

Develop a scheme of protection that encompasses the entire battlefield framework with prioritization on the corps and division rear areas.

Discussion

With most protection assets and functional brigades located in the rear areas and task organized under the rear command post, the focus of the protection leaders becomes the rear area due to proximity. This is further emphasized when the protection chief is physically located in the RCP and in many cases dual/triple hatted with a leadership role within the RCP/Node. These C2 structure and geography variables coupled with the non-habitual relationship the corps/division staffs have with their maneuver enhancement brigades (MEBs), make it is easy to see why protection cells and leaders narrowly focus on the security of the rear areas given that is the role of the MEB.

Recommendation(s)

With the role of protection being to preserve combat power, protection leaders must be focused on the layering/synchronization of protection capabilities and the protection tasks at echelon. Attention is needed throughout the close and rear areas while identifying risk to the force and mission to senior commanders as an input into the targeting process for the deep fight.

Sustainment Staff Roles and Responsibilities through the Planning Horizons

Observation(s)

There is a challenge with transition of responsibilities and efforts among integrating cells

Challenge of transition hinders an organization's focus on their planning efforts and shaping of future events.

Discussion

Complexities with sustainment planning horizons for commodities are not being managed by days of supply. Supported units and staffs struggle to develop and anticipate requirements for commodities not on hand or managed by a daily rate of supply in a timely manner. Support units and staff coordination for critical Class V required supply rates (RSRs) are with planned execution and risk to force through operations and sustainment channels.

The shortage of lead time does not allow the sustainment enterprise enough time to plan resupply and provide recommended controlled supply rates (CSRs) to the G-3/deputy commanding general. Instead, the sustainment unit plans resupply based on generic average daily consumption and projected in-bound critical Class V supplies and then conducts all Class V resupply as dynamic/emergency resupply.

Recommendation(s)

Planning horizons should be codified in unit standard operating procedures (SOPs) and enforced by senior leaders across all affected staffs. These efforts set the conditions for effective handover between integrating staff cells. Augment the current operations integration cell (COIC) with additional planners to prevent future operations and plans cells from planning short-term horizon events. Establish on-call operational planning teams for anticipated events, opportunities, or threats which require additional short-term planning. One observed best practice is a formal transition briefing as a battle rhythm event that follows a five-paragraph operation order format.

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CHAPTER 3

Prepare: Setting Conditions for Warfighting

Purpose

This chapter serves to describe preparation activities that will enhance unit performance. From an economy of effort perspective, applying intellectual rigor to solving these challenges, will pay big dividends for units preparing for warfighting. The observations made in this chapter pertain primarily to the structure and purpose of processes, people, and formations.

Command and Control Concerted Employment

Observation(s)

Orders and product publications are systems based, relying on hyper-links to current products from across the digital network. Systems operate functionally but need to contain confirmation of receipt from subordinate units. Most systems had a clear disconnect between publication and time of receipt of orders. Division operated off the assumption that “message sent” meant “message received.”

Discussion

Publication of complete products includes access to all products necessary to understand and execute the plan. Staff time and effort to produce products and updated schemes of maneuver become wasted if subordinate brigades do not have access to, know the location of, or know the products are published. Most divisions utilize a portal methodology as the knowledge management tool for the division. However, it needs the bandwidth to support the large file size of products resulting in unfinished products.

Recommendation(s)

Administrative controls could supplement knowledge management technical controls to enable acknowledgment of receipt. Confirmation reinforces synchronization and expedites shared understanding across the division.

Intelligence Training Progression and Readiness

Observation(s)

Units require a progressive training plan to build individual and collective skills for readiness in support of large-scale combat operations (LSCO).

Discussion

Unit intelligence sections struggle executing intelligence warfighting tasks due to inconsistent training focused on core intelligence tasks: support to force generation, situational understanding, targeting, and conducting information collection. During large scale combat operations, G-2/S-2 sections must ensure the effective and efficient application of the intelligence warfighting function (WfF).

G-2/S-2 sections are commanders’ primary advisors on employing intelligence assets and driving information collection. They are managers and trainers responsible for the proficiency and readiness of their sections, attachments, and personnel. A common challenge for intelligence leaders is

balancing assigned personnel involved in the military decision-making process (MDMP) with other competing requirements. Instead, they assign a minimum number of personnel to accomplish key tasks, participate in working groups and briefings. Therefore, training opportunities do not occur with enough frequency or consistency to allow leaders to assess their Soldiers or teams, correct deficiencies, and reassess their progress at the unit level prior to or during a major training or real-world event.

Furthermore, this approach often reduces training opportunities to learn baseline information with missed opportunities to refine important products and rehearse processes with other staff directorates and Wffs. The military intelligence training strategy (MITS) is primarily designed to focus on intelligence-specific tasks for military intelligence companies but can be used for guidance across multiple echelons. MITS is an intelligence centered certification event designed to train personnel to answer intelligence requirements for the commander and certify respective intelligence disciplines in a field environment.

Recommendation(s)

G-2 sections must advocate for training time with their sections, attachments, and personnel to create cohesive teams which are individually and collectively proficient in intelligence tasks. Corps and division G-2 sections are encouraged to review the unit mission essential task list with the commander and staff to ensure their collective training is focused and prioritized.

G-2 sections are encouraged to use MITS as a foundation to design training plans that are easily understood by the commander and chief of staff. Execute training plans that align with formal MDMP to maximize available time to refine products and improve situational understanding of the environment and processes. Lastly, intelligence teams must conduct rehearsals on specific tasks and information flow to identify roles, responsibilities, and reporting requirements between themselves and external stakeholders outside formalized G-2/S-2 synchronization meetings.

Intelligence G-2 and Expeditionary Military Intelligence Brigade Integration

Observation(s)

The G-2 and expeditionary military intelligence brigade (E-MIB) do not clearly define roles and responsibilities. The G-2 and the E-MIB do not integrate training plans prior to executing operations.

Discussion

E-MIB and intelligence and electronic warfare (IEW) battalions are not typically integrated in the corps' or division's training plan but are expected to perform key functions in the corps collection management process. This lack of coordination and integration creates friction over which the organization is responsible for each portion of the intelligence process, particularly the collection management process. For example, during mission management, the E-MIB/IEW battalion supports and executes information collection (IC) tasks by developing the collection tasking order. The E-MIB/IEW battalion is the intelligence, surveillance, and reconnaissance (ISR) mission manager in the current operations integration cell (COIC). The E-MIB/IEW battalion manages the processing, exploitation, and dissemination (PED) operations. Although the corps and division are responsible for execution management, the E-MIB is essential in providing the battle damage assessment and input into the ISR assessment. This results in E-MIB and G-2 Soldiers executing ineffective processes until they can refine expected requirements.

Recommendation(s)

The G-2 must determine if the E-MIB/IEW battalion is providing a capability the G-2 section does not have or if personnel will fill gaps in an already existing section, and then develop a training plan to make a cohesive intelligence enterprise. The concept of E-MIB employment must be defined to effectively establish who is responsible for requirement management, mission management, execution management, and assessments within the targeting and collection management process. Use training exercises to validate the E-MIB concept of employment and provide recommended doctrine updates or changes to support current and future theater intelligence operations. Units can refer to Army Techniques Publication (ATP) 2-19.3, *Corps and Division Intelligence Techniques*, 8 March 2023, and the U.S. Army Forces Command (FORSCOM) E-MIB Concept of Employment for more details on the employment and roles and responsibilities of an E-MIB.

Fires, Counterfire**Observation(s)**

Corps fail to articulate responsibilities. Corps fail to resource the counterfire headquarters (CFHQ).

Discussion

Corps typically assign the role of CFHQ to a field artillery brigade (FAB) or a division artillery (DIVARTY) headquarters. While preparing for command post exercises (CPXs), corps do not clearly define roles, responsibilities, and authorities for the CFHQ within written orders or standard operating procedures (SOPs). Without defined roles and responsibilities, there is confusion and inaction during execution.

Challenges are amplified when Army National Guard FABs are assigned the role of CFHQ. They are often unable to fully support CPXs and only capable of providing minimally manned and resourced response cells. This results in the force field artillery headquarters (FFAHQ) (typically another FAB) performing duties of the CFHQ as well.

Furthermore, FABs/DIVARTYs are not resourced with necessary assets to enable deliberate, proactive, and timely counterfire operations. Solely relying on organic weapon locating radars for target acquisition is insufficient during multidomain operations. The CFHQ must coordinate with the corps G-2, G-3, and FFAHQ and integrate all available units into the counterfire fight. The CFHQ requires sensor tasking authority from corps, as well as intelligence analysis augmentation to support targeting efforts. Additionally, the CFHQ may require dedicated attack aviation, close air support, and air interdiction sorties to effectively destroy or neutralize enemy fires systems.

Recommendation(s)

The FAB/DIVARTY must be allocated the necessary resources and authorities to win when tasked to serve as the corps CFHQ. The CFHQ requires a combination of sensor tasking priority, intelligence analysis capabilities, and access to attack aviation and joint enablers. In this way, corps must leverage the targeting process and establish command/support relationships to ensure the CFHQ is adequately resourced.

SOPs and written orders must clearly articulate the roles, responsibilities, and authorities of the CFHQ as well as the FFAHQ to ensure shared understanding at echelon. While preparing for multidomain operations, the CFHQ should establish counterfire mission digital and voice procedures, validate counterfire battle drills, and lead technical rehearsals prior to execution.

Employment of Division Reconnaissance (Division Cavalry)

Observation(s)

Divisions do not provide adequate reconnaissance. Divisions do not provide security guidance.

Discussion

Divisions initially provide the elements of commander's reconnaissance and/or security guidance:

- Focus
- Tempo
- Engagement and disengagement (lethal and nonlethal)

This effort wanes as planning horizons collapse or the pace of operations causes the focus of what the division cavalry is doing to fall by the wayside. This often places the division cavalry task force commander in a position left guessing the best way to employ the division cavalry. Uncertainty prevents providing freedom of action to develop the situation or create time and space for the division's commander to react to enemy actions.

Recommendation(s)

Provide clear reconnaissance and security guidance that offers freedom of action to develop the situation as well as adequate direction to ensure that the division cavalry task force can accomplish any reconnaissance or security objectives. Commanders ensure that the elements of reconnaissance and security guidance are included for each phase of the operation. This will ensure that the division cavalry task force has a clear understanding of its task, purpose, objective, and level of detail that is required.

Guidance should also be revisited as the situation develops or changes. Planners and intelligence and security command cloud planners ensure that the division cavalry task force is accounted for while planning the scheme of collection across the depth and breadth of the area of operations.

Protection Integrating Air Defense Artillery in Large Scale Combat Operations

Observation(s)

Establish priorities for air defense artillery (ADA). Enable the employment of assets.

Discussion

There is a temptation, when the supported commander receives ADA units in a direct support role to delegate the allocation of ADA support through the rear command post. Exercising mission command of the supporting ADA unit through the RCP severed ADA planning efforts from the operational planning efforts of critical boards, bureaus, centers, cells and working groups and from commander decisions that occurred in the main command post of the supported command.

Separating air defense planning, either geographically or temporally, results in reactive employment of ADA assets and a scheme of ADA that is unsynchronized from the scheme of maneuver.

Recommendation(s)

In a LSCO environment, supported commanders must have the ability to adjust their ADA coverage in an expeditious manner. Supported commanders are informed by the air and missile defense (AMD) expertise of the supporting ADA commander that serves as the AMD coordinator. One method is to employ a tactical action center directly into the MCP to synchronize ADA planning with the operations process. This gives the supported commander access to the senior AMD advisor. The result is staff integration, and the supported command can refine the linkages between ADA and intelligence and fires, affording ADA its designed role in support to targeting.

Sustainment: Corps/Division Integrated Management Process**Observation(s)**

The LSCO environment presents unique challenges for accurately forecasting mission requirements. These challenges range from supplies, major end items, maintenance, medical support, hauling casualties, and pushing replacements.

Discussion

Sustainment is accomplished through the coordination, integration, and synchronization of resources from the strategic level through the tactical level in conjunction with our joint and multinational partners (Army Doctrine Publication [ADP] 4-0, *Sustainment*, July 2019). In previous operating concepts, like unified land operations, supplies were used less rapidly and in smaller amounts. The LSCO environment presents unique challenges. There is now an increased imperative to anticipate operational requirements and initiate the appropriate actions without waiting for operational orders or daily logistics statistics.

Sustainers must collaborate with planners in the G-5 and G-35 when creating operational plans. Operations drive logistics and sustainment, but the operation must be designed in a way in which sustainment can effectively support. Sustainers understanding the concept of the operation is vital to units being able to forecast requirements in an ever-changing environment.

Supported units are going to be simultaneously engaged in offensive and defensive operations. Sustainers must understand the difference in these types of operations and what commodities are needed with more granularity than historical averages. Furthermore, the sustainment units themselves are being targeted by an adversary that can threaten battalion or larger formations.

Casualty and replacement management requirements are at levels we haven't seen since World War II or the Korean Conflict. It is imperative to forecast casualty estimates, replacement requirements, running combat strength, and provide leaders with both movement recommendations and operational impacts.

There is also increased imperative to understanding where Class VII supply stocks are located, where the theater sustainment stocks are, and who has release authority. All these support elements must flow through the sustainment decision board so that unit leadership can make informed decisions and assume risk where applicable.

Recommendation(s)

Incorporate large scale operational sustainment into training environments and leverage doctrine to maintain combat power, enable operational reach, and provide forces with the endurance required to fight and win in multi-domain environments. Though doctrine is only one factor in how we fight, it is imperative that we train agile and adaptive leaders if we want to prevail in large scale combat operations (Filed Manual [FM] 3-0, *Operations*, 1 October 2022).

Creating realistic scenario-based command post exercises is extremely important so that staffs can train and understand how their processes and procedures feed commanders' timely decision-making processes. Get ahead of some shortfalls by addressing them in Mission Command Training Program academics and after-action reviews. The scenario-based exercises should stress consumption rates, lines of communication, medical treatment facilities/mortuary affairs collection points, and replacement flow.

CHAPTER 4

Execute: Armed and Ready for Warfighting

Purpose

This chapter offers some observations made during mission execution. These observations are made across multiple exercises and speak to challenges that only a rigorous training environment like Warfighter can provide. Observations made during execution are often outputs or consequences of cumulated events or issues.

Command and Control: Airspace Management and Converging Effects

Observation(s)

Synchronizing of operations is crucial. Converging of effects is critical.

Discussion

The ability to effectively synchronize operations and converge effects is crucial to achieving mission success. Warfighter observations suggest there are some challenges in synchronization and convergence indicated by disparate attack aviation assets, desynchronized effects in support of maneuver, and uncoordinated passage of lines (e.g., during wet gap crossings and forward passage of lines [FPOL]). These issues have the potential to disrupt formations, reduce operational tempo, and hinder the overall success of the mission.

Recommendation(s)

Develop a comprehensive synchronization matrix. Create a detailed, actionable plan outlining the requirements to synchronize attack aviation assets, effects, and units passing lines, considering factors such as time, location, and resources available. Ensure all involved units have access to the plan, understand their role, and can provide input or request clarification.

Improve communication and coordination. Establish clear lines of communication and reporting procedures for all involved units. Ensure all relevant information, including changes in plans or operational requirements, is promptly disseminated to the necessary units. Use digital communication tools and real-time data sharing to enable a common operational picture for all units involved.

Conduct regular training exercises. Organize regular training exercises to practice synchronization activities under different scenarios, including wet gap crossings and FPOL. Identify potential challenges and develop solutions through the training exercises to enhance the corps and divisions' ability to synchronize operations effectively.

Fires: Artillery Positioning

Observation(s)

Divisions fail to position artillery assets forward. Divisions rely on limited, long-range munitions to achieve effects against high payoff targets (HPTs).

Discussion

During multidomain operations, there is a constant tension between positioning artillery closer to the forward line of own troops to gain additional range and staying farther back for protection. Divisions often encounter range overmatch against enemy artillery systems and default to overreliance of long-range rockets to mitigate risks of enemy counterfire. These rockets, specifically the M30 dual-purpose improved conventional munitions (DPICM) and the M31 Guided Multiple Launch Rocket System (GMLRS), make up a small fraction of the division's supporting rocket battalions' unit basic load (UBL). The majority of their UBL typically consists of M26, DPICM, which can range targets up to 32 kilometers.

When divisions do not position firing assets forward and instead rely solely on long-range munitions to attack HPTs, the required supply rate (RSR) for those munitions quickly outpaces the controlled supply rate (CSR). This reduces the division's ability to strike HPTs in the deep area as the fight progresses.

Recommendation(s)

Position firing assets forward to increase range, decrease time of flight, and increase volume of fires. Division fire supporters should consider the CSR when developing an effective fires plan that includes positioning guidance, the attack guidance matrix, and target selection standards. Successful units will separate tasks for long-range precision fires, counterfire, and suppressive fires and allocated specific munitions to specific elements for accomplishment of these tasks.

The fires support coordinator (FSCOORD) must identify, communicate, and mitigate risks when the RSR exceeds the CSR. Divisions must dedicate adequate force protection resources, such as air defense, engineer, and maneuver assets, to protect firing units forward. Firing units mitigate risks through dispersion, decoys, camouflage, and frequent survivability moves.

Intelligence: Balancing Intelligence Support

Observation(s)

Corps and Divisions often shift intelligence resources to targeting efforts. Shifting intelligence resources to targeting efforts comes at the expense of maintaining situational understanding.

Discussion

Corps and division information collection plans and intelligence efforts become fixated on targeting objectives, impacting corps and division G-2 sections to achieve the appropriate balance with situational development and commander decision making. While initial collection plans do account for both collection requirements based on the operational plan, dynamic re-taskings during the execution phase are overwhelming in support of targeting.

As a result, analysis as well as processing, exploiting, and disseminating (PED) activities also shift towards targeting and understanding of the next fight can be diminished. The risk assumed in shifting collection and analysis assets is often overlooked in the process of re-tasking collection or analytical resources. The risk assumed is usually in the form of unanswered Priority Intelligence Requirements and enabling commander decision-making.

Recommendation(s)

To ensure a balanced framework, units should develop apportionment guidelines by phase, to establish the priority for intelligence support. Once developed, corps and divisions should demonstrate discipline in adherence to the apportionment plan to enable situational understanding. When G-2 elements detect changes in the operational environment or a high payoff target, re-tasking should be a deliberate process and include the appropriate staff experts to advise the decision maker on the effect the re-tasking will have on future collection, targeting, and operational plans. Following an approved dynamic re-tasking, the G-2 representative within the current operations and integration cell must disseminate the change to the G-2 collection manager to ensure realignment of resources.

Combat Aviation Brigade Deliberate Attacks in the Deep Area

Observation(s)

Synchronize combat aviation brigade (CAB) deliberate attacks in the deep area. Resource CAB deliberate attacks in the deep area.

Discussion

One observed method that leads to success is the constitution of a deep operations planning teams (OPTs) to synchronize warfighting functions (WfFs). This is necessary to effectively employ the CAB in the deep area. Staffs often do not understand the risks and necessary conditions associated with the commander's decision to employ the CAB in the deep area. Individual staff sections often conduct disorganized planning on short-time horizons.

Planners routinely attempt to synchronize and resource CAB attacks through the joint air-tasking cycle within 24 hours of the operation. Frequently, G-2 sections present ambiguous enemy situations in the deep area. Unfocused information collection efforts do not adequately support targeting of air defense threats or the enemy formation in the objective area. Army and joint fires often don't achieve effective joint suppression of enemy air defenses along ingress and egress routes. Sustainment is often not postured correctly to enable the CAB to achieve the commander's destruction criteria.

Without someone to focus their efforts on synchronizing the effects required to set conditions, the CAB executes the mission when conditions really indicate that they should probably delay or cancel the operation until more favorable conditions for success are established. A desynchronized attack results in high losses of AH-64 Apache helicopters and a minimal desired effects on the enemy.

Recommendation(s)

Approach CAB deliberate attacks as a corps or division operation that requires the integration and synchronization of all WfFs to be successful. The 11th Attack Helicopter Regiment's attack on the Medina Division in April 2003 is a useful case study that highlights why units must synchronize and integrate deliberate attacks in the deep area. See Army University Press' (AUP's) documentary video, "Operation Iraqi Freedom: The Drive to Baghdad." See also Chapter 9 of the AUP publication, *Deep Maneuver*. Leader development sessions oriented on this case study allow staffs to compare the Mission Command Training Program's (MCTP's) key observations with an unsuccessful deliberate attack in the deep area.

Establish a deep OPT in the future operations cell to develop a synchronized plan, as outlined in Chapter 3 of Army Techniques Publication (ATP) 3-94.2, *Deep Operations*, September 2016. This helps create a list of deep OPT members, discusses planning requirements for each WfF, and describes how the deep OPT feeds inputs into the deliberate targeting cycle.

Routinely assess the deliberate attack operation throughout the decide, detect, deliver, and assess (D3A) cycle to synchronize joint effects for the CAB. Command Post Exercise 1-3 provides forums for units to practice deep OPTs to synchronize CAB deliberate attacks. Develop a deliberate attack condition check for CUOPs execution at echelon to further ensure integration and synchronization of WfFs and proper conditions have been set for mission success.

Protection Execution of an Effective Protection Working Group

Observation(s)

There are efficiencies gained in protection working groups (PWGs).

Discussion

The protection enterprise covers a typical core cell of four different branches. If aligned with doctrine, this number almost doubles. At the Corps level, each unit also participates (divisions and separate brigades). Within each branch, there are multiple protection mission sets. If each entity and organization brief their running estimates, they would have four minutes per briefer at the corps level, when given an hour on the battle rhythm.

When constrained by time, organizations tend to choose topics to work through, like a box method approach. While this provides an avenue to accomplish task corrections, other areas are forced to deteriorate into a larger problem until the next PWG can work through the issue, or the staff are forced to hold unplanned working groups. When additional time is allocated, briefers often focus too much time on data rather than analysis, primarily during the initial phases of a warfighter event.

Current doctrine does not prescribe a formalized protection-focused decision board. One observed method is to constitute a decision board, chaired by the deputy command general-sustainment (DCG-S), to either elicit a decision or to brief the DCG-S on issues which are then taken to the commanding general for decision.

Almost all seven-minute drills for the PWG highlight the required attendees from other WfFs. In some cases, like intel, they are required to provide a necessary input. When the other WfFs are absent from the PWG, the outputs of the PWG stagnate. The result is a breakdown in the critical path to provide inputs for other working groups, such as the targeting working group. The PWG becomes a stovepipe within organizations.

Recommendation(s)

Provide adequate time to accomplish the sheer number of briefers and the wide range of topics that require coverage. Just like the targeting working group takes large amounts of time due to the number of topics and briefers, the PWG requires the same thought process.

One observed technique is to break out the functional areas into their own working groups (military police; engineer; chemical, biological, radiological, nuclear, explosives (CBRNE); air defense artillery; etc.) which will allow the PWG to focus on overall protection issues and help reduce the time needed in the PWG.

In a time-constrained environment, the chief of protection determines key topics for execution/discussion, in order of priority. This keeps the meeting as a working group rather than a back brief. The chief of protection trains the staff to focus on briefing analysis and having updated running estimates to help maximize the assigned block of time.

Create a decision board that fits the need and based on the authorities delegated. There is no right answer, so long as the protection enterprise has an avenue to achieve decisions rather than making staff decisions. A chief of staff can prioritize staff participation and inputs at the PWG. Added emphasis ensures active participation and prevents information from becoming stove piped.

Sustainment Requirements Forecasting

Observation(s)

In the integrated distribution management process, the corps/division relies on the Transportation Officer (TO) to conduct distribution management.

The TO struggles to turn distribution management into a plan.

Discussion

The corps/division tends to rely solely on the TO for conduct of distribution management. The TO struggles to turn distribution management into a coordinated executable plan. Most tactical standard operating procedures (TACSOPs) or plans at the start don't account for all the involved units and staff sections. Distribution management is a unit fight that requires more than the rear command post to coordinate and execute.

Integration of the maneuver enhancement brigade (MEB) into this process is hard for units as no habitual relationship exists plans in the garrison environment. Units put pressure on the TO for solving the problem, but distribution management is a shared task among the sustainment brigade, MEB, and RCP. The entire staff plays a role in supporting or driving distribution management, as do the subordinate units from the CAB as customer, delivery node, supported units, and battle space owners.

Recommendation(s)

The movement process should be included in the corps/division TACSOP and developed by the TO sustainment brigade, protection chief, MEB, and staff. It should provide detailed transportation procedures. One technique is to create a distribution management working group that feeds the movement board with the requisite inputs to enable decision making. Inputs can include route status and assessment of traffic ability, projected Sustainment Brigade/operational movements, external unit movements into the area of responsibility, pending air mission request (AMR), planned joint mission request (JMR), MEB protection scheme, route patrol schedule, and an intelligence picture of the support area, main and alternate supply routes.

Outputs of the movement board would include the updated movement table over the next 24, 48, 72 hours out annotated with start times, routes to be used, updated priorities of movement, supply, and support, an accurate AMR schedule, and any fixed wing JMR scheduled. These outputs are then codified in a fragmentary order approved by the G-3.

CHAPTER 5

Assessments

Purpose

This chapter acknowledges that assessments occur throughout the operations process. Operational assessments are often what characterize an organization's agility. The observations captured in this chapter detail some ways to improve with a more deliberate approach and key leader engagement.

Corps Assessments Process

Observation(s)

Commanders rely on assessment from subordinate commanders rather than assessment from their staff. The staff does not effectively develop and execute an assessment plan that allows the commander to make timely decisions because they do not set conditions to assess, and they do not put staff rigor into the process.

Discussion

The staff is in the best position to create a formal assessment that considers all mission and operational variables within the unit's area of interest. Commanding generals can then use the formal assessment recommendations from their staff and informal assessments from their subordinate commanders to make the best possible operational decisions. In practice however, staffs show many deficiencies in the assessments process both during planning and execution of an operation.

The primary issue observed during planning is that the staff does not develop an assessment framework during the military decision-making process. An assessment framework incorporates the logic of the plan and uses indicators as tools to determine progress toward attaining desired end state conditions (Field Manual (FM) 5-0, *Planning and Orders Production*, 16 May 2022) (see potential frameworks below in recommendations). The consequence of a lack of framework is that the staff briefs data to the commander rather than a recommendation based on analysis. For example, a staff lacking a framework may brief, "5x9A52s were destroyed yesterday." Whereas a staff with a framework may brief, "We assess that the enemy can no longer range Objective A with long range rocket artillery for the next 24 hours, based on this and the indicators from the other warfighting functions (WfFs), we recommend we execute decision point five, and commence our attack into Objective A in the next twelve hours."

Another issue during the planning process is that the commander's critical information requirements (CCIR) are often underdeveloped. Once the commander designates, or the staff recommends a CCIR, the staff should understand what decisions the CCIR is tied to and develop the assessment indicators and the methods of collection on those indicators. The indicators and collection methods become part of the assessment plan in Annex M of an operations order.

An assessment issue during both planning and execution is the lack of a relative combat power analysis (RPCA). RPCA allows the staff to make an objective determination of the capability of their units to complete assigned tasks based on doctrinal correlation of forces. Proper RPCA requires staff from every WfF to maintain the status of friendly and enemy components of their WfF on their running estimate. Usually, the G-5 operations research and systems analyst (ORSA) will compile the analysis of each WfF to compute the overall RPCA. A positive example of RPCA occurred during a warfighter exercise (WFX) when a corps staff used RPCA to make a clear

determination of when a subordinate division would culminate in the next 96 hours. Based on their analysis, they recommended to the command general to request another division from the land force component command to achieve their operational objectives.

Finally, during execution the staff does not always place the assessments working group (AWG) at the optimal place in the battle rhythm to drive decisions and the AWG is typically run by a G-5 ORSA rather than a senior leader like the chief of staff or a deputy commanding general. We address this and the other common faults observed in the assessments process in the recommendations below.

Recommendation(s)

Develop a clear assessments framework during the military decision-making process (MDMP) and communicate to each WfF what assessment indicators they must update on their running estimate. Two potential frameworks are assessing a detailed decision support matrix (DSM) and assessing conditions for transition from the offense to the defense.

If using the DSM framework, the staff must fully develop each decision point with the supporting CCIR, and what assessment indicators each staff section must collect and maintain on their running estimate to brief during the assessments working group. As an example, imagine a scenario where the commanding general is deciding between conducting a wet gap crossing operation with division 1 along axis A or division 2 along axis B. Examples of possible measures of performance (MoPs) and measures of effectiveness (MoEs) by WfF are:

- Intelligence
 - **MoP:** Were named areas of interest (NAIs) along axis A and B observed by planned assets?
 - **MoE:** Enemy BTG vehicle observed moving through an NAI toward the axis B river crossing site.
- Fires
 - **MoP:** Are the forward artillery brigades in a position to support axis A and B?
 - **MoE:** Counterfire radar acquisitions along axis A and B.
- Movement and Maneuver
 - **MoP:** Actual movement times of divisions 1 and 2 versus planned movement times. Projected movement times to axis A versus B wet gap crossings (WGXs).
 - **MoE:** RPCA of each division versus the defending enemy.
- Command and Control
 - **MoP:** Locations of corps and division command posts is a MoP.
 - **MoE:** Status of communications systems by command post and required command post jumps for each possible WGX site.

- Sustainment
 - **MoP:** Resupply time from the corps support area to the each of the division support areas.
 - **MoE:** Supply status of critical Class V and Class IIIB supplies for the combat aviation brigade, forward artillery brigades, and divisions.
- Protection
 - **MoP:** Crossing area reconnaissance completed and assessed as planned.
 - **MoE:** Number of air interdictions for division 1 and 2.

Based on these indicators and others, the assessments team will make a clear recommendation to the commander on whether to conduct the WGX along axis A or B, or an alternative course of action.

Another assessment framework could be assessment of major transitions such as transition between offensive and defensive operations, and transition of the rear area. For this assessment framework, the staff should consider MoPs and MoEs tailored to conditions for transition, such as the relative combat power of friendly and enemy forces and the sustainability of continuing the planned course of action. Additionally, the staff should assess indicators aligned with the Army tenets of agility, depth, convergence, and endurance.

Ensure the AWG has the right personnel and is at the right place in the battle rhythm. The AWG should be chaired by a deputy commanding general or the chief of staff because they are best suited to ensure that the assessments process is staying disciplined to the assessment's framework and the commander's intent. They can further ensure that the assessments process is producing clear recommendations to the commander. Additionally, the AWG should be consistently attended by key leaders from each WfF that are prepared with their running estimate of assessment indicators. Finally, the AWG must be placed in the battle rhythm where it best supports timely decision making. Ideally, the AWG occurs before the targeting working group and the plans synchronization board so that the targeting team and the commanding general can make timely adjustment decisions.

The assessments process must produce a clear recommendation to the commanding general. Recommendations can include:

- Continue the operation as planned.
- Update, change, add, or remove critical assumptions.
- Transitions between phases, offense, or defense.
- Decision points include CCIR evaluation, execution, or adjustment decisions.
- Change priorities and adjust resource allocations.
- Change command relationships, task organization, and/or main effort.
- Change or add tasks to subordinate units.
- Adjust objectives or end state conditions.
- Refine or adapt the assessment plan.

- Change the priority protection list.
- Change boundaries and/or fire support coordination measures.
- Shift logistics nodes and/or supply routes.
- Move command posts.

The recommendation should be nested to the assessment framework, and the assessments team should clearly articulate and show the logical argument of how indicators led to the recommendation.

Intelligence: Narrating Battle Damage Assessments

Observation

G-2 derived battle damage assessments (BDAs) struggle to articulate achieved effects against enemy critical capabilities and their impacts to future enemy and friendly operations.

Discussion

G-2 produced BDAs typically contain a tally of high-payoff target (HPT) items destroyed, without a narrative of how those losses will affect enemy or friendly commanders' decisions or courses of action. The enemy commander may need to reorganize, reposition, adjust tempo, or begin to conserve assets based on corps targeting and mission success. The friendly commander may have an opportunity to exploit enemy vulnerabilities or may need to delay a specific action if the desired effect is not achieved.

However, this vital information is often left to interpretation by the command and staff because the BDA product only displays percentage graphics or combat slants of enemy equipment without an explanation of what those numbers mean. The absence of this level of analysis negatively impacts friendly operations planners as well as the targeting and information collection staff who often cannot gain situational understanding from the depicted BDA statistics.

Recommendation(s)

G-2s must ensure the individuals writing/briefing each assessment understand the key components that need to be communicated to the commander beyond percentages and equipment numbers. G-2s must build and train a BDA team that articulates effects via a doctrinally sound assessment that enables commanders and their staff to seize opportunities and mitigate risks against the enemy.

The assessment must be empirical and include the “what, so what, which means, therefore” framework, with the addition of recommendations. This method describes the problem posed by the threat, increases situational understanding for the command, and informs friendly commander's decisions. BDAs must enable corps planners to set, evaluate, understand, and inform higher and subordinate units to the operational and target specific conditions needed to enable mission success. Similarly, BDAs must inform collection assessments and targeting boards by recommending refined NAIs and HPTs.

BDAs must help answer whether targeting information was collected when and where it was planned. Lastly, BDAs must inform targeting working groups and boards on effects achieved against the enemy, re-attack recommendations, and opportunities for exploitation. BDAs must address commander decision points and impacts to enemy and friendly operations to allow commanders to visualize the battlefield and make decisions.

Fires: Target Refinement

Observation

There is a need to refine targets based on updated assessments.

Discussion

During the targeting coordination board, the targeting plan is approved 72 hours from execution. After receiving updated assessments, units do not always refine target locations and adjust the unit airspace plan (UAP) accordingly. After transitioning the targeting plan from current operations (CUOPS) to future operations (FUOPS), successful units implemented a deliberate target refinement process to update target locations, fire support coordination measures (FSCMs), and airspace coordinating measures (ACMs). Units also ensured that planned targets aligned with achieving operational objectives, and they re-tasked assets as necessary. Without refined targets and adjusting the UAP based on updated assessments, units are required to dynamically clear airspace, which reduces the effectiveness of fires and decreases lethality.

Recommendation(s)

Develop a deliberate process to refine planned targets throughout the targeting cycle. The process should involve individuals with the authorities to re-task and reprioritize targeting efforts based on the updated enemy and friendly situation.

Dynamic targeting decisions during CUOPS must support the commander's approved targeting approach and inform assessments for future targeting efforts. Airspace managers should update the UAP to facilitate permissive fires. One observed method is to conduct airspace working groups following targeting working groups to refine air support requests and ACMs within the UAP.

During WFX 24-03, III Armored Corps implemented a target refinement board (TRB) into their battle rhythm to assess and adjust targeting efforts within the CUOPS planning horizon. Conducted three times daily, the board enabled the corps to quickly refine the targeting plan, synchronize effects, and adjust resources based on the common intelligence picture. Following the TRB; the staff dynamically re-tasked intelligence, surveillance, and reconnaissance (ISR); corps aviation; fires; and joint assets to adapt to changing enemy actions unforeseen in the corps targeting board. The TRB contributed to agility and increased lethality for III Armored Corps.

**Table 5-1. Target Refinement Board
“7-Minute Drill”**

<p>Purpose: Provide DCG with an assessment of current operations to synchronize or dynamically re-task lethal and non-lethal assets.</p> <p>Frequency: Daily every six hours starting from 0500Z</p> <p>Duration: 30 minutes</p> <p>Location: Xray node conference room</p> <p>Method: CPCE, broadcast via</p> <ul style="list-style-type: none"> P: Skype for Business A: MPE VOIP C: HF E: LNO 	<p>Staff Lead: DFSCOORD</p> <p>Chair: DCG/G-3</p> <p>Members:</p> <ul style="list-style-type: none"> G-2/G-2 ISR Manager G-33 G-35 DFSCOORD SJA CEMA AMD AVN RCP LNOs: G-1/G-4 DIV LNOs: 1AD/1CD/3UK/CAB/Reserve
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**Table 5-1. Target Refinement Board
“7-Minute Drill” (continued)**

<p>Inputs</p> <ul style="list-style-type: none"> -Commander’s targeting guidance -Decision support matrix -Intelligence update -Current ISR collection plan -Assessment last 6-10 hours and running estimates -Friendly forces strength -Battlefield framework -Updates to ATO cycle -Targeting special -Last BDA <p>Outputs</p> <ul style="list-style-type: none"> -Recommended changes in next eight hours -Recommended target refinement -Recommended ATO updates -Recommended lethal/non-lethal employment -Updated running estimates and enemy disposition 	<p>Agenda</p> <ul style="list-style-type: none"> -Intel update/SITEMP (G-2) -ISR collection plan (ISR manager) -Slant (G-4/G-1/LNO) -Battlefield framework: Current and future eight hours out (G-33/G-35) -Lethal Fires (Fires)/non-lethal fires (CEMA) -Adjustments and recommendations <p>Post TRB Checklist</p> <p>Integrating Updates</p> <ul style="list-style-type: none"> -Notify TOC -Adjust ATO -Adjust ISR assets -Notify Yankee and HSMC -Update and changes are posted on Share Portal <p>Implement Changes</p> <ul style="list-style-type: none"> -Disseminate through LNOs -Execute change (ISR/ATO/non-Lethal Assets) -Assess and refine
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**Table 5-1. Target Refinement Board
“7-Minute Drill” (continued)**

Legend	
AMD	air and missile defense
ATO	air tasking order
AVN	aviation
BDA	battle damage assessment
CAB	combat aviation brigade
CEMA	cyber electromagnetic activity
CPCE	command post computing environment
DCG	deputy commanding general
DFSCoord	deputy fire support coordinator
DIV	division
HF	high frequency
HSMC	home station mission command
ISR	intelligence surveillance and reconnaissance
LNO	liaison
MPE	mission partner environment
RCP	rear command post
SITEMP	situational template
SJA	staff judge advocate
TOC	tactical operations center
TRB	target refinement board
VOIP	voice over internet protocol

Sustainment Running Estimates

Observation

Corps staffs do not continuously update Running Estimates.

Division staffs do not continuously update Running Estimates.

Discussion

A running estimate is the continuous assessment of the current situation used to determine if the current operation is proceeding according to the commander's intent and if planned future operations are supportable. In their running estimates, each staff section or cell continuously considers the effects of new information, and they update estimates to share information across the staff, which enable the staff to synchronize actions. During logistics synchronization, casualty working group, reconstitution synchronization, and all operational synchronization meetings, staffs should use running estimates to validate unit plans, anticipate and forecast requirements. Running estimates must consider the maneuver plan, anticipate upcoming transitions, casualty estimates, consumption/loss rates. Additionally, running estimates should help develop and update the common operational picture and synchronization matrix to provide a shared understanding across the division.

Recommendation(s)

Running estimate templates should be established by unit standard operating procedures. Units should integrate these templates into MDMP and orders generation, with drafts built for all phases of the operation. Leaders at all levels should ensure Staffs continuously update their running estimates to validate requirements and update fighting products.

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APPENDIX A

Mission Command Training Program Big Nine Best Practices to Prepare for a Warfighter Exercise

Purpose

Enter the exercise at the highest level of training proficiency possible to optimize the training event.

Decision Makers

Leverage and engage decision makers during the exercise life cycle (early and often) to generate options and ensure unit equities in the process. This should be done administratively and operationally.

Learning from others

1. **Ride along.** Maximize Mission Command Training Program (MCTP) ride along opportunities with deliberate attendance, collection plan, and read-out notes to serve as a catalyst to understanding the environment.
2. Fight for information and insight from all possible sources to gain understanding of potential solutions, systems, and tactics, techniques, and procedures. Deliberately collect and share information after Warfighter exercise to pay it forward.

Organizational

3. **C4I (command, control, communications, computers, intelligence).** Master C4I to enable understanding and staff processes to yield efficient decision making. C4I at the Division level is the pacing item for the command posts.
4. **Army Mission Command Systems (AMCS) operators/pacing items.** Deliberately train to develop mastery across the organization at echelon to manage information that allows for decision making. Invest in your digital master gunners.
5. **Organizational problems/large-scale combat operations battle rhythm.** Establish and refine unit battle rhythms (organizational systems) at echelon during train-up (command post exercises) to enable efficient operational problem-solving during execution.
6. **Train-up.** Plan your train-up by the Training Circular (TC) 6.0 series publications to ensure proficiency in the fundamentals.

Operational

7. **Subordinate training (response cells/brigades).** An untrained response cell creates an untrained brigade. Deliberately select, plan, and train your subordinates for combat to allow efficient tactical problem solving.

8. **Operating environment understanding/road to war.** MCTP updates orders from WFX to WFX. Conduct deliberate “receipt of mission” in accordance with the military decision-making process to ensure the appropriate level of scenario and operational understanding.
9. Implement a field artillery technical rehearsal into your preparations to ensure sensor-to-shooter linkage with cross-organized subordinate units and response cells.

APPENDIX B

Glossary

ADA	air defense artillery
ADAM	air defense airspace management
ADP	army doctrine publication
AH	Apache helicopter
AMCS	Army Mission Command Systems
AMD	air and missile defense
AMR	air mission request
AO	area of operations
AOR	area of responsibility
ASL	Army senior leader
ATO	air tasking order
ATP	army techniques publication
AUP	Army University Press
AVN	aviation
AWG	assessment working group
BDA	battle damage assessment
BTG	Russian-made vehicle
C4I	command, control, communications, computers, intelligence
CAB	combat aviation brigade
CAS	close air support
CBRNE	chemical, biological, radiological, nuclear, and high explosives
CCIR	commander's critical intelligence requirements
CEMA	cyber-electromagnetic activity
CFHQ	counterfire headquarters
CFL	coordinated fire line
CIP	critical information picture
CM&D	collection management and dissemination
COIC	current operations integration cell
COOP	continuity of operations
COP	common operational picture
CPCE	command post computing environment
CSA	corps support area
CSR	controlled supply rate

CUB	commander's update brief
CUOPS	current operations
DC2N	distributed command and control nodes
DCG	deputy commanding general
DFSCOORD	deputy fire support coordinator
DIV	division
DIVARTY	division artillery
DMG	digital master gunner
DNS	domain name system
DPICM	dual-purpose improved conventional munitions
DS	direct support
DSA	division support area
DSM	decision support matrix
E-MIB	expeditionary military intelligence brigade
ESC	expeditionary sustainment command
FA	field artillery
FAB	field artillery brigade
FDO	foreign disclosure officer
FDR	foreign disclosure representative
FFAHQ	force field artillery headquarters
FM	field manual
FORSCOM	U.S. Army Forces Command
FPOL	forward passage of lines
FSCCL	fire support coordination line
FSCM	fire support coordination measures
FSCOORD	fire support coordination
FUOPS	future operations
GCM	graphic control measures
GMLRS	Guided Multiple Launch Rocket System
HF	high frequency
HPT	high-payoff target
HSMC	home station mission command
IC	information collection
IEW	information electronic warfare
IHL	intelligence handover lines
ISR	intelligence, surveillance, and reconnaissance
JAGIC	joint air-ground integration center

JMR	joint air mission request
JTAC	joint terminal attack controllers
LCC	land component command
LNO	liaison
LSCO	large-scale combat operations
MCIS	mission command information systems
MCP	main command post
MCTP	Mission Command Training Program
MDMP	military decision-making process
MEB	maneuver enhancement brigade
MIT	military intelligence training strategy
MPE	mission partner environment
MTO&E	modified table of organization and equipment
NAI	named area of interest
OC	observer, controller
OPSEC	operations security
OPT	operations planning team
ORSA	operations research and systems analyst
PACE	primary, alternate, contingency, and emergency
PED	processing, exploitation, and dissemination
PSB	plans synchronization board
PWG	protection working group
RCP	rear command post
RDSP	rapid decision-making and synchronization process
RPCA	relative combat power analysis
RSR	required supply rate
SIPR	secure internet protocol router
SITEMP	situational template
SJA	staff judge advocate
SOP	standard operating procedure
TACSOP	tactical standard operating procedure
TAIS	tactical airspace integration system
TC	training circular
TCF	tactical combat force
TI	tactical internet
TO	transportation officer

TOC	tactical operations center
TRB	target refinement board
UAP	unit airspace plan
UBL	unit basic load
VOIP	voice over internet protocol
WFX	Warfighter exercise
WfF	warfighting function
WGX	wet gap crossing

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