

// FY22

MISSION COMMAND TRAINING IN LARGE-SCALE COMBAT OPERATIONS MISSION COMMAND TRAINING PROGRAM (MCTP) KEY OBSERVATIONS

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FOREWORD

The Mission Command Training Program (MCTP) has a history of adaptation to institutional change, threats, and doctrine. The prioritized focus on corps and divisions in multidomain operations demands a continuous evaluation of how we train in preparation for the next fight in large-scale combat operations. There has never been a greater time to reinforce and reinvest in realistic, simulation-supported and multi-echelon training alongside joint and multinational allies and partners. Warfighter Exercises (WFXs) provide a venue to allow the U.S. Army to prepare for future conflict in multidomain operations in support of the joint force and multinational coalitions.

MCTP executed four multi-echelon corps and division WFXs in fiscal year 2022. In the first quarter of fiscal year 2023, MCTP conducted a two-division Baltic scenario Warfighter Exercise and our new Pacific scenario, which included joint forcible entry (JFE) and multidomain operations. This publication captures consistent observations from these respective Warfighter exercises to enable training and future operations.

These observations are by MCTP officers, noncommissioned officers, and chief warrant officers, in conjunction with highly qualified expert-senior mentors (HQE-SMs). We would like to recognize the following HQE-SMs who continue to make a difference in our Army through their insight and development of senior leaders: LTG (R)¹ Jeffrey Buchanan, LTG (R) Claude Christianson, LTG (R) David Fridovich, LTG (R) David Hogg, LTG (R) Michael Lundy, LTG (R) David Valcourt, LTG (R) John Thomson, LTG (R) Terry Ferrell, MG (R) Jeffery Colt, MG (R) Edward Dorman, MG (R) Scott Zobrist, MG (R) Richard Longo, MG (R) Robert Walters, MG (R) Kurt Ryan, MG (R) Brian Winski, MG (R) Viet Luong, MG (R) James Kraft, BG (R) Paul Laughlin, BG (R) Mark Odom, BG (R) Burdett Thompson, BG (R) Louis Weber, BG (R) Douglas McBride, BG (R) Mark Spindler, and BG (R) Christopher Spillman. Warfighters!

A handwritten signature in black ink, appearing to read "B. Babich", followed by a horizontal line.

Bryan L. Babich
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Commanding

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INTRODUCTION

A collaborative group of field-grade observer coach/trainers among four MCTP operations groups and the 505th Command and Control Wing Detachment 1 recorded, analyzed, and refined the FY22 key observations. The primary authors of this handbook led this collection and analysis effort, co-authored their individual sections by warfighting function or area of emphasis, and organized the chapters of this handbook. The primary authors:

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Endnotes

¹ Retired.

² Commander, Operations Group.

³ Joint Effects Division.

CHAPTER 1

Top Trends of Fiscal Year 21.2

Trend 1, Planning horizon discipline. Unenforced planning horizon discipline and prioritization of effort desynchronizes staffs and distracts units from focusing on mid- and long-term planning efforts. The loss of focus on efforts prevents effective targeting processes and operational assessments to give an update to corps and division commanders.

Trend 2, Applying standard operating procedures to define the fight. Corps formations trend toward insufficient discipline when applying standard operating procedures and processes to define the fight and enable division maneuver by shaping key enemy formations in the corps deep area. Graphical delineation and specific guidance on effects on critical enemy formations are necessary for corps to focus shaping efforts. Ineffective employment and integration of assessments prevents knowing if shaping goals were achieved, it misinforms fire support coordination measures (FSCM) shifts, and ineffective employment and integration prevents effective handover of enemy formations from one echelon to another.

Trend 3, Combat aviation brigade (CAB) operations are not effectively planned. Corps and division deliberate attacks in the deep area are less effective than anticipated by the commander and staff due to limited multifunctional planning. CAB operations, not planned with the air tasking order cycles or not included in the targeting process, do not achieve the intended results.

Corps and divisions do not effectively:

- **Decide.** Specific targeting with destruction criteria of operational timing, triggers, conditions, and geographic locations as well as criteria of delaying, diverting, and aborting are not effectively accomplished by corps and divisions.
- **Detect.** Synchronizing intelligence collection for target refinement is not effectively accomplished by corps and divisions.

- **Deliver.** Deliberate shaping to create permissive air corridors, integrating lethal and nonlethal fires, aligning protection and sustainment for the CAB is not effectively accomplished by corps and divisions.
- **Assess.** Providing a timely CAB battle damage assessment to drive future targeting is not effectively accomplished by corps and divisions.

Trend 4, Role and manning of the rear command post. The rear command post lacks the structure and functions to synchronize all warfighting functions (WfFs) in the support area. The rear command post needs to sustain the division/corps, clear fires, command and control the tactical combat force, and maintain a synchronized common operating picture with the main and tactical command posts to effectively sustain unit operational tempo.

Trend 5, Risk assessments. Corps and division staffs do not conduct holistic risk assessments in an organized manner to allow commanders to make informed decisions to mitigate risk to mission and risk to the force. WfFs generally conduct risk assessments internally and discuss risk with the commander sporadically during briefings. Staffs rarely run a holistic risk assessments process to determine operational impacts, make synchronized adjustments to plans, and brief the commander coherently to reduce risk.

Table 1-1. Observations.

Observations	Corps	Division	ESC/TSC	Special Operations Forces	Combat Aviation Brigade	Field Artillery Brigade/Division	Military Police Brigade	Engineer Brigade	Sustainment Brigade	Brigade Combat Team	Maneuver Enhancement Brigade
Chapter 1: FY21.2 Top Trends											
1. Planning Horizon Discipline	X	X									
2. Applying standard operating procedures to Define the Flight	X	X	X	X	X	X			X	X	X
3. Combat aviation brigade (CAB) operations not effectively planned	X	X			X						
4. Role and manning of the rear command post	X	X							X		
5. Holistic Risk Assessments	X	X									
FY22 Corps and Division Observations											
Observations	Corps	Division	ESC/TSC	Special Operations Forces	Combat Aviation Brigade	Field Artillery Brigade/Division	Military Police Brigade	Engineer Brigade	Sustainment Brigade	Brigade Combat Team	Maneuver Enhancement Brigade
Chapter 2: Intelligence Warfighting Function											
2.1 Intelligence Architecture	X	X	X	X	X	X	X	X	X	X	X
2.2 Intelligence Handover Line (IHL) Planning and Execution	X	X		X	X	X			X	X	
2.3 G-2 and E-MIB Integration	X	X		X						X	
2.4 Intelligence Support to Assessments	X	X	X	X	X	X	X	X	X	X	X
Chapter 3: Fires Warfighting Function											
3.1 Unit Airspace Planning	X	X		X	X	X			X	X	X
3.2 Airspace Coordination	X	X		X	X	X			X	X	X
3.3 Decision Points	X	X	X	X	X	X	X	X	X	X	X
3.4 Transferring Targeting Guidance	X	X		X	X	X				X	X
3.5 Synchronizing Multidomain Fires	X	X	X	X	X	X	X	X	X	X	X
Chapter 4: Movement and Maneuver Warfighting Function											
4.1 Employment of the CAB	X	X			X	X			X	X	
4.2 Expanding Division Maneuver Options Through Utilization of CAB		X			X	X			X	X	

¹Target acquisition battery.

Table 1-1. Observations (continued).

4.3 Employment of tactics during wet gap crossing	X	X			X	X	X	X	X	X	X
4.4 Division employment of division cavalry		X									
4.5 Division reconstitution operations and the rapid decision-making and synchronization process		X	X		X	X	X	X	X	X	X
Observations	Corps	Division	ESC/TSC	Special Operations Forces	Combat Aviation Brigade	Field Artillery Brigade/Division	Military Police Brigade	Engineer Brigade	Sustainment Brigade	Brigade Combat Team	Maneuver Enhancement Brigade
Chapter 5: Command and Control Warfighting Function											
5.1 Operationalizing the commander's visualization	X	X	X								
5.2 Integrated organizational assessments	X	X	X								
5.3 Command post functionality and survivability	X	X	X	X	X	X	X	X	X	X	X
5.4 Unit communications architecture	X	X	X		X	X				X	
5.5 Linking commanders' critical information requirements to decision points	X	X	X	X	X	X	X	X	X	X	X
Chapter 6: Protection Warfighting Function											
6.1 Protection Working Group vs a Protection Decision Board to Disseminate and drive action	X	X			X	X	X	X	X	X	X
6.2 Operationalizing assessments and risk	X	X	X	X	X	X	X	X	X	X	X
6.3 Maneuver Enhancement Brigade Integration into the rear command post to best fight the division and corps rear areas	X	X									X
6.4 Synchronization of Protection Enablers Through Transitions	X	X			X	X	X	X	X	X	X
6.5 Layering Multi-domain protection effects	X	X	X	X	X	X	X	X	X	X	X
Chapter 7: Sustainment Warfighting Function											
7.1 Sustainment planning and integration	X	X	X		X	X			X	X	
7.2 Casualty estimation and staff integration	X	X	X	X	X	X	X	X	X	X	X
7.3 Medical common operational picture	X	X	X	X	X	X	X	X	X	X	X

CHAPTER 2

Intelligence Warfighting Function

2.1 Intelligence Architecture

Observation. Units neglect establishing the program of record, Distributed Common Ground System-Army (DCGS-A) architecture as the primary in the primary, alternate, contingency, emergency (PACE) plan and instead rely on systems like the U.S. Army's Intelligence and Security Command [INSCOM] Cloud (IC) Initiative to develop the common intelligence picture (CIP) and share intelligence at echelon.

Discussion. Units do not maintain the DCGS-A program of record systems or train Soldiers on how to employ DCGS-A to support intelligence production for large-scale combat operations (LSCO). Units prioritize web-based applications over DCGS-A because of a lack of training and maintenance built into their training plan prior to deployments. This creates an over-reliance on IC, deferring the maintenance and training to INSCOM. Until DCGS-A Capability Drop-2 (CD-2); the new web-based program of record is released in fiscal year 2023, IC is the strategic bridging solution but should not replace or relinquish a unit's responsibility of maintaining and training on DCGS-A.

Recommendation. Coordinate with U.S. Army Forces Command (FORSCOM) G-2, INSCOM, and Information Centers of Excellence leadership to generate intelligence architecture training recommendations to the Military Intelligence Board of Directors for units to follow. This will help codify requirements and generate unit requests for support as the Army works to bridge the gap between the current intelligence architecture and CD-2. Until CD-2 is fully operational, DCGS-A should be the primary part in the PACE with IC as the alternate part when the program of record architecture is inoperable.

Doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P). This is a training and leadership issue. Units do not effectively train their Soldiers or maintain their DCGS-A program of record systems because the use of IC defers the maintenance and training to INSCOM. FORSCOM needs to codify units' intelligence architecture requirements and generate requests for support as the Army field CD-2s.

References. ADP 2-0, *Intelligence*, 31 July 2019; ATP 2-33.4, *Intelligence Analysis*, 10 January 2020.

2.2 Intelligence Handover Line (IHL) Planning and Execution

Observation. Corps and divisions lack a deliberate process to transfer intelligence responsibilities at echelon based on the unit's collection requirements, organic collection reach, and the enemy threat.

Discussion. While corps and divisions are beginning to brief IHLs, they are arbitrarily tied to fire support coordination measures indicating a lack of understanding about intelligence handover planning and execution. Currently, Army doctrine does not define the intelligence handover line in detail or provide examples on how to transfer intelligence responsibilities at echelon. Intelligence handover occurs between the unit assigning or relinquishing responsibility for intelligence to the unit gaining responsibility within the area of operations much like a battle handover. The overarching factors driving intelligence handover are the scheme of maneuver and tempo of the operation. Properly executed intelligence handover lines will reduce unnecessary collection and analysis redundancies. The higher command should carefully consider the placement of an IHL, especially when it will limit a subordinate echelon's ability to conduct intelligence operations in its designated area of operations. If a unit has lost some or all deep sensing intelligence, surveillance, and reconnaissance (ISR) capability; changes to the IHL (along with any coordinating instructions for processing, exploitation, and dissemination [PED]); will help alleviate the collection gap. Another significant factor to consider is if the unit has sufficient personnel available for PED-collected information and conduct analysis. These considerations will help higher headquarters plan and execute IHLs to mitigate collection gaps.

Recommendation. Clearly define the IHL planning and execution process and codify it in the unit's tactical standard operating procedures. The IHL should be established based on organic collection capabilities, operational reach, commanders' critical information requirements (CCIR), and the enemy threat. Incorporate the IHL or other battlefield geometry into the collection plan at corps and division level and G-2 WGs to synchronize collection assets, identify collection gaps, and discuss criteria to move the IHL. Clearly define criteria and authority for which the IHL will shift in the unit's tactical standard operating procedures and through the orders process.

DOTMLPF-P. This is a doctrine, training, and leadership issue. Doctrine does not clearly provide a deliberate process between echelons to conduct the intelligence handover. Many staffs lack practice at conducting intelligence handover. Command post exercise (CPX) 2 and 3 provide sufficient opportunities to practice these procedures between echelons. The G-2/S-2 synchronization provides a venue to communicate IHL requirements prior to submitting requests to the G-3 for approval.

References. ADP 6-0, *Mission Command: Command and Control of Army Forces*, 31 July 2019; ATP 2-01, *Collection Management*, 17 August 2021; FM 3-98, *Reconnaissance and Security Operations*, 1 July 2015; FM 6-0, *Commander and Staff Organization and Operations*, 16 May 2022.

2.3 G-2 and E-MIB Integration

Observation. The G-2 and expeditionary military intelligence brigade (E-MIB) do not clearly define roles and responsibilities or integrate training plans prior to executing operations, creating friction over who is responsible for each portion of the intelligence process, particularly the collection management process.

Discussion. E-MIB and intelligence and electronic warfare (IEW) battalions are typically not integrated in the corps or divisions training plan, but are often expected to perform PED operations, IC mission management, and assessments without understanding the unit's processes. This results in E-MIB and G-2 Soldiers executing ineffective

processes until they can refine expected requirements. 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.

Recommendation. Ensure the G-2 and E-MIB are integrated to develop a trained and cohesive intelligence enterprise for the corps and division. The concept of E-MIB employment must be clearly 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 ATP 2-19.3, *Corps and Division Intelligence Techniques*, 26 March 2015, Appendix D and the FORSCOM E-MIB Concept of Employment for more details on the employment and roles and responsibilities of an E-MIB.

DOTMLPF-P. This is a doctrine and organization issue. The Army is in the process of restructuring intelligence forces across all echelons so Army Service Component Commands (ASCCs), corps, and divisions can fight in LSCO against a peer threat. This will require changes to doctrine to determine how we organize, train, and fight in the new IEW battalion construct. Additionally, it will require the Army to evaluate if the current organizational structure is sufficient to fill deep sensing, IC management, multidomain operations (MDO) targeting, and battle-damage assessment gaps at corps and division level.

References ADP 2-0, *Intelligence*, 31 July 2019; FM 6-0, *Commander and Staff Organization and Operations*, 16 May 2022.

2.4 Intelligence Support to Assessments

Observation. G-2 assessments do not articulate effects against enemy critical capabilities, how those effects have impacted the enemy course of action and decision making to enable the corps commander to make accurate adjustments to the plan and allocate sufficient resources against the enemy.

Discussion. The most important part of the intelligence running estimate is the narrative. G-2 assessments primarily consist of a large amount of information and graphics instead of articulating the effects achieved against the enemy in support of friendly operations. Battle damage assessments are typically a list of high-payoff target list (HPTL) items destroyed, without an explanation of how the loss of critical capabilities will effect 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 not enough air defense was destroyed to enable a planned air assault, for example. Similarly, collection assessments often consist of lists of named areas of interest (NAIs) covered or priority intelligence requirements (PIRs) collected against, instead of providing measures of effectiveness on whether we collected when and where we needed to find the HPTs required for the success of the friendly course of action. If assessments are tied to PIR commander decision points, and impacts to enemy and friendly operations, commander's and staff will be able to clearly visualize the battlefield and make decisions.

Recommendation. G-2s need to articulate effects against the enemy and corps or divisions set required conditions to enable mission success. G-2s ensure the individuals writing/briefing each assessment understand the key components that need to be communicated to the commander. G-2s identify the critical impacts to future enemy and friendly actions instead of just providing numbers and data to help the commander clearly visualize the battlefield and make decisions.

DOTMLPF-P. This is a training issue. Doctrine, ADP 5-0, *The Operations Process*, 31 July 2019, lists six key questions that assessments help answer. Most, if not all these questions should be answered when intelligence provides assessments to the commander. Soldiers need to understand which key questions are most important to their individual commander and practice using those as a guide for their assessments.

References. ADP 2-0, *Intelligence*, 31 July 2019; ATP 2-33.4, *Intelligence Analysis*, 10 January 2020; ADP 5-0, *The Operations Process*, 31 July 2019.

CHAPTER 3

Fires Warfighting Function

3.1 Unit Airspace Planning

Observation. Effective unit airspace planning is needed for the management of airspace at the corps level.

Discussion. Within a corps area of operations, procedural control of airspace above the coordination level and below the coordinating altitude (CA), is executed within each division's assigned airspace and supported from the air support operations cell (ASOC) within the Joint Air Ground Integration Center (JAGIC). Positive control of airspace above the CA is managed by a combined force air component commander-designated airspace control element, such as a control and reporting center (CRC) and Airborne Warning and Control System (AWACS). Corps must provide quality assurance and control for all assigned, attached, and supported airspace users operating within the corps area of operations. Some key elements, which contributed to effective corps unit airspace plan (UAP) development, included a clearly defined operational framework, effective use of kill boxes or zones, effective use of mission command systems, and airspace element integration into the targeting process.

Recommendation. To build expertise, units should leverage the Army Joint Support Team (AJST) which, provides airspace management training for all echelons above brigade and facilitates Specialized Joint Airspace Training (SJAT) opportunities to improve unit airspace management, UAP development, and employment of joint capabilities.

Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTMLPF-P). Effective airspace planning requires routine individual and collective training. Digital sustainment training ensures all mission command systems are fully updated and operational. This training enables the corps airspace element and subordinate JAGICs to validate systems and processes for airspace management.

References. FM 3-52, *Airspace Control*, 20 October 2016; ATP 3-91.1, *The Joint Air Ground Integration Center*, 17 April 2019; FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021.

3.2 Airspace Coordination

Observation. Consistent integration of preplanned airspace coordinating measures (ACMs) into the division unit airspace plan (UAP) is needed.

Discussion. The UAP necessitates integration of preplanned ACMs and fire support coordination measures (FSCMs) through the 72-hour air tasking order cycle. Planning ACMs/FSCMs tailored to support targeting priorities and effects enables judicious use of division-assigned airspace for all airspace users. This ensures the Joint Air Ground Integration Center (JAGIC) digital systems, as well as systems throughout the division, are updated with approved and synchronized control measures prior to air tasking order execution, enabling permissive fires and effectively balancing the shaping efforts of divisions.

Recommendation. Staffs must integrate FSCM and ACM development into the targeting process for approval and inclusion in the UAP and orders. FM 6-0, *Commander and Staff Organization and Operations*, 16 May 2022, Table 4-15, provides a sample airspace control working group outline. This sample lists an agenda, inputs, and outputs for unit reference.

DOTMLPF-P. This is a training issue. Units must conduct deliberate digital sustainment training, incorporating all organic systems while integrating higher and subordinate echelons. Additionally, units can leverage the AJST for additional training and to validate standard operating procedures and battle drills.

References. ATP 3-09.90, *Division Artillery Operations and Fire Support for the Division*, 12 October 2017; ATP 3-60, *Targeting*, 7 May 2015; ATP 3-94.2, *Deep Operations*, 1 September 2016; ATP 3-91.1, *The Joint Air Ground Integration Center*, 17 April 2019; FM 3-09, *Fire Support and Field Artillery Operations*, 30 April 2020; FM 3-52, *Airspace Control*, 20 October 2016; FM 6-0, *Commander and Staff Organization and Operations*, 16 May 2022.

3.3 Decision Points

Observation. Units do not clearly articulate decision points to commanders during targeting boards.

Discussion. The primary purpose of the targeting board is to get the commander's decisions on recommendations from the targeting working group (TWG). These decisions are based on assessments provided by the staff, major refinements to the previously approved plan between hours H-24 to H+48, the targeting approach out to H+72, and approval or adjustment of recommended targeting guidance for H+96. During the targeting board, staffs get decisions regarding the targeting approach and targeting guidance but often fail to articulate the need for a decision regarding assessments from the previous day.

Recommendation. Units should facilitate the commander's decision making by providing battle damage assessments, munitions effectiveness assessments, and reengagement recommendations. If the desired effects were not achieved during the previous air tasking order cycle, commanders can adjust the plan, reattack, or accept risk. During the targeting board, staffs must ensure they deliberately articulate these options and get a decision from the commander.

DOTMLPF-P. This is a training and leadership issue. Staffs must provide assessments from the previous 24-hour air tasking order as referenced in Training and Evaluation Outline Report, *Conduct the Targeting Process* (71-DIVISION-3300). The fire support coordinator, or designated TWG lead, oversees the process and ensures assessments are clearly articulated to support effective decision making by the commander during the targeting board.

References. JP 3-09, *Joint Fire Support*, April 2019; ADP 3-19, *Fires*, 31 July 2019; FM 3-09, *Fire Support and Field Artillery Operations*, 30 April 2020.

3.4 Transferring Targeting Guidance

Observation. Transfer of targeting guidance is needed from future operations (FUOPS) to current operations (CUOPS).

Discussion. Targeting boards produce updated commander's targeting guidance, priority intelligence requirements (PIRs), and approved target nominations. Generally, there is not a battle rhythm event that enables shared understanding between FUOPS and CUOPS regarding the approved targeting outputs. This results in a lack of shared understanding during execution.

Recommendation. Units must execute a deliberate target handover from FUOPS to CUOPS following the targeting board. This event enables key personnel, such as the chief of operations, Joint Air Ground Integration Center (JAGIC) Chief, Field Artillery intelligence officer, senior air director, and airspace manager to receive and understand all updated fighting documents, fire support coordination measures, airspace coordinating measures, and targeting guidance for the current and following air tasking order cycles. This ensures CUOPS personnel shape the deep fight based on the commander's approved targeting guidance.

DOTMLPF-P. This is a training issue. Units must define their process for transferring targeting guidance, rehearse it during command post exercises, and validate that the process enables shared understanding of the commander's targeting guidance throughout the staff.

References. ATP 3-60, *Targeting*, 7 May 2015; ATP 6-0.5, *Command Post Organization and Operations*, 1 March 2017; ATP 3-91.1, *The Joint Air Ground Integration Center*, 17 April 2019.

3.5 Synchronizing Multidomain Fires

Observation. Units do not fully synchronize multidomain fires in support of aviation attacks in the deep area.

Discussion. Aviation attacks in the deep area against a peer enemy require deliberate planning to synchronize multidomain fires throughout the operation. These fires may include artillery strikes, air interdiction, electronic attacks, cyberspace, and joint-suppression of enemy air defense (J-SEAD) to mitigate risks along ingress and egress routes. The use of quick-fire Nets from the combat aviation brigade to the supporting division artillery and/or field artillery brigade has proven successful in shortening the sensor-to-shooter kill chain. Planners must allocate adequate time to secure joint enablers, particularly those in the space and cyberspace domains. Once the mission is resourced, significant adjustments to timing creates delays in execution which may result in the loss of multidomain enablers above the corps level.

Recommendation. To achieve convergence outcomes during deep operations, units must leverage the targeting process to integrate Army and Joint capabilities. Units must build flexibility into their plans to account for delays in execution when requesting strategic-level assets. This involves planning redundant methods of attack and communicating risks to the commander if planned assets become unavailable. Successful units develop airspace plans that facilitate J-SEAD and enable permissive fires in the deep area. Deliberate rehearsals are necessary to ensure synchronization at echelon.

DOTMLPF-P. This is a training issue. Staffs must collectively synchronize efforts to ensure multidomain fires are sequentially and simultaneously planned and resourced prior to execution.

References. JP 3-09, *Joint Fire Support*, April 2019; JP 3-0, *Joint Operations*, June 2022; FM 3-0, *Operations*, 1 October 2022; FM 3-09, *Fire Support and Field Artillery Operations*, 30 April 2020; FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021; ATP 3-94.2, *Deep Operations*, 1 September 2016; ATP 3-92, *Corps Operations*, 7 April 2016; ATP 3-91, *Division Operations*, 17 October 2014.

CHAPTER 4

Movement and Maneuver Warfighting Function

4.1 Employment of the Combat Aviation Brigade, (CAB)

Observation. Divisions improved integration of Army Aviation in the scheme of maneuver but should develop standard operating procedures to expedite integration.

Discussion. Divisions are unable to effectively employ the CAB in the division's reconnaissance or deep area because of a lack of synchronization with joint enablers and integration with the scheme of maneuver. Divisions did not assign responsibility of managing the CAB reconnaissance assets, to a reconnaissance integrator responsible for integrating CAB assets into Annex L. Divisions often executed attack operations in the deep area with incomplete intelligence estimates and products. This lack of enemy visualization led to indecisiveness regarding CAB purpose and indecisiveness in application of effects that could set favorable conditions from across multiple warfighting functions (WfFs). This resulted in insufficient tactical outcomes, leading the division to conduct smaller and less coordinated reconnaissance and attack operations to regain the initiative. Coordination and tactical outcomes can improve through multiple iterations with planning and preparation activities. Aviation operations in the deep area require a high level of synchronization and collaborative planning between the division, CAB, and the CAB's subordinate battalions.

Recommendation. Employment of the CAB requires synchronized information collection, integrated lethal and nonlethal targeting, and conditions checks to reduce risk and increase effects. Ensure collaboration and synchronization of the CAB staff with the division throughout the planning and targeting processes by either utilizing the deep operational planning teams or another mechanism to integrate intelligence fire and maneuver. Continue to utilize conditions and triggers monitored by the division for reconnaissance and attack missions.

Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTMLPF-P). This is a training issue. Many staffs are not practiced in synchronizing intelligence collection, joint effects, and Army aviation in close and deep operations. Command post exercise (CPX) 1-3 provides a forum to practice employment of the CAB in the deep area.

References. ADP 5-0, *The Operations Process*, 31 July 2019; ADP 6-0, *Mission Command: Command and Control of Army Forces*, 31 July 2019; ATP 3-94.2, *Deep Operations*, 1 September 2016; FM 3-04, *Army Aviation*, 6 April 2020; FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021; FM 3-98, *Reconnaissance and Security Operations*, 1 July 2015; FM 5-0, *Planning and Orders Production*, 16 May 2022.

4.2 Expanding the Division's Maneuver Options by Utilizing the Entire Combat Aviation Brigade

Observation. Divisions underutilize the CAB UH-60 and CH-47 helicopter assets.

Discussion. During the military decision-making process (MDMP) the division planned multiple be-prepared-to (BPT) air assaults. Most of these assaults did not get further planned or developed beyond the initial order. The ambiguity behind these operations led the division aviation planners to not plan or utilize UH-60 or CH-47 helicopters in a manner to assist in personnel or cargo movement during critical events to enable division movement. This resulted in 25-35 percent total utilization of UH-60 or CH-47 helicopters. The CAB notified the division and began improving utilization during the exercise and placed liaisons in the division rear command post to facilitate the air movement process.

Recommendation. Divisions and CABs can use the CPX glidepath to exercise UH-60 and CH-47 helicopter utilization in the division movement board. Division maneuver planners can forecast operational requirements with the G-3 aviation section and CAB for UH-60 and CH-47 helicopters which gives remaining requirements to the division movement board process. Liaisons to the division movement board

can provide forecasted availability and capability to improve division-distribution operations of personnel and supplies.

DOTMLPF-P. This is a personnel issue. CAB staffs do not have sufficient liaisons to integrate into the different division command posts to enhance coordination. This is also a training issue. Many staffs are not practiced in synchronizing intelligence collection, joint effects, and Army Aviation in close and deep operations. CPX 1-3 provides a forum to practice employment of the CAB in the deep area.

References. ADP 5-0, *The Operations Process*, 31 July 2019; ADP 6-0, *Mission Command: Command and Control of Army Forces*, 31 July 2019; ATP 3-94.2, *Deep Operations*, 1 September 2016; FM 3-04, *Army Aviation*, 6 April 2020; FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021; FM 3-98, *Reconnaissance and Security Operations*, 1 July 2015; FM 5-0, *Planning and Orders Production*, 16 May 2022.

4.3 Employment of a Tactical Command Post During a Wet-Gap Crossing, WGX)

Observation. Controlling authority assignment is needed of division tactical command post (DTAC) control of combat operations of the lead brigade(s) and coordination with crossing area headquarters to adjust crossing operations in support of the close fight.

Discussion. Some divisions were hesitant to employ their DTAC to assist the current operations integration cell (COIC) commanding and controlling the WGX. The COIC fails to maintain awareness across the operational framework and becomes overwhelmed due to the amount of information and action that is occurring in the close area as brigade combat teams (BCTs) advance to, assault across, and secure the far side. ATP 3-90.4, *Combined Arms Mobility*, 10 June 2022, lays out a recommended way on how tasks could be divided amongst the division to help manage and control the crossing. Additionally, when employing the DTAC, divisions do not effectively transition control to the DTAC.

Recommendation. Divisions should reference ATP 3-90.4, *Combined Arms Mobility*, 10 June 2022, as a baseline for assigning roles and responsibilities by command posts, and then codify those roles in responsibilities in their own standard operating procedures. A deliberate rehearsal should be conducted for the WGX and should include command post transitions of authorities to prevent ambiguity in command and control for all phases of the WGX.

DOTMLPF-P. This is a training issue. Many staffs are not practiced in the conduct of wet gap crossing operations. Leader professional development will provide the staff a knowledge base to enable improved execution during command post exercises and refinement to standard operating procedures.

References. ADP 6-0, *Mission Command: Command and Control of Army Forces*, 31 July 2019; ATP 6-0.5, *Command Post Organization and Operations*, 1 March 2017.

4.4 Division Employment of the Division Reconnaissance (Division Cavalry)

Observation. Divisions do not provide reconnaissance or security guidance.

Discussion. Divisions initially provide the four elements of commander's reconnaissance and/or security guidance, focus, tempo, and engagement/disengagement criteria and displacement criteria. 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 where the commander is left guessing what the best way is to employ the division cavalry and prevents that commander from providing freedom of action to develop the situation or create time and space for the division's commander to react to enemy actions.

Recommendation. Divisions must provide clear reconnaissance and security (R&S) 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 reconnaissance or security objectives. Commanders should ensure that the elements of R&S guidance are included for each phase of the operation. This will ensure that the division cavalry task force will have a clear understanding of its task, purpose, objective, and level of detail required. This guidance should also be revisited as the situation develops or changes. Planners and Intelligence and Security command cloud (IC) planners should ensure that the division cavalry task force is accounted for during planning the scheme of collection across the depth and breadth of the area of operations. A beneficial tactic, technique, and procedure would be to appoint an officer with a R&S background as the division reconnaissance officer to ensure that division cavalry task force is given the best resourcing across WfFs and integrated into the information collection working group.

DOTMLPF-P. This is a training, doctrine, and organization issue. Many staffs lack the experiential or a tacit understanding of R&S doctrine to appropriately plan for and employ a division cavalry task force. Staffs should conduct leader professional development to increase depth of knowledge about R&S prior to command post exercises. The division modified table of organization and equipment (MTOE) lacks a position that is designated as the division reconnaissance officer or chief of reconnaissance. The division also lacks a dedicated R&S formation for the division commander. This is a known gap, large-scale combat operations (LSCO) Gap 6 Optimize division/corps for LSCO, and is being addressed with force design updates.

References. FM 3-98, *Reconnaissance and Security Operations*, 1 July 2015; FM 3-90-2, *Reconnaissance, Security, and Tactical Enabling Tasks*, 22 March 2013.

4.5 Division Reconstitution Operations and the Rapid Decision-Making and Synchronization Process.

Observation. Divisions culminated in the offense and ineffectively reconstituted combat power, minimizing their ability to resume the offensive.

Discussion. Divisions initiated offensive operations with a clear objective based on planning estimates. The division's planning estimates missed the enemy's enablers, which reduced the division's combat power to unanticipated levels. The friendly situation forces the division into a hasty defense, forcing the division staff into the rapid decision-making and synchronization process (RDSP). The division's RDSP for resuming the offensive include the maneuver plan; however, missed other WfF input to complete the plan. For example, the division's holistic engineer effort to produce obstacles, covered by division fires, often is delegated to the brigade combat teams, missing the ability to appropriately weight efforts. Additionally, the sustainment WfF and RDSP team members miss opportunities to discuss medical plans, personnel replacement plans, and equipment repair and replacement plans to ensure the division has adequate combat power to resume the offensive.

Recommendation. Divisions should exercise intentional RDSP during their command post exercises (CPX). The RDSP scenario in unit CPXs should include forecasted and un-forecasted transitions from offense to defense that incorporate all WfF input. Division operations officers should direct planning sections within the division staff to create complete branch fragmentary orders to use when a transition is required.

DOTMLPF-P. This is a training issue. Many staffs are not practiced in synchronizing all WfFs. CPX 1-3 provides a forum to practice division-level transition from the offense to the defense.

References. ADP 5-0, *The Operations Process*, 31 July 2019; ADP 6-0, *Mission Command: Command and Control of Army Forces*, 31 July 2019; ATP 3-94.2, *Deep Operations*, 1 September 2016; FM 3-04, *Army Aviation*, 6 April 2020; FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021; FM 3-98, *Reconnaissance and Security Operations*, 1 July 2015; FM 5-0, *Planning and Orders Production*, 16 May 2022.

CHAPTER 5

Command and Control Warfighting Function

5.1 Operationalizing the Commander's Visualization

Observation. After the first 48 hours, most corps and division staffs face challenges in making operational the commander's visualization to produce synchronized orders.

Discussion. Although commanders and senior leaders can understand and visualize the fight as it evolves, many staffs lack either sufficient integration across other warfighting functions (Wffs), non-lethal effects (sustainment and protection especially) or the requisite tools to expediently translate the commander's understanding and visualization into complete plans. Despite commanders' perception of clear communication of their visualization, the lack of staff focus on operational assessments degrades shared understanding among the staff. This leads to desynchronization in the staff amidst a rapidly changing operating environment. Collapsing planning horizons exacerbate challenges the staff face, resulting in incomplete plans, desynchronized operations, or ineffectual handovers between the integrating cells (particularly plans to current operations). Under the subsequent truncated planning timeline, staffs and subordinate units are unable to conduct rehearsals. Reliance on commander-to-commander dialogue can be helpful to overcome synchronization hurdles, but this may also come at a cost of synchronized execution across the rest of the organization.

Recommendation. Headquarters should make full use of approved planning and fighting products and integrate planning staffs across all Wffs. Corps and division commanders must produce and use a standardized operating procedure that describes pre-approved planning products to maximize the efficiency of truncated planning timelines. Commanders may also consider adding additional touchpoints for the staff to receive or understand their evolving visualizations. Planning and CUOPS staff personnel must formalize and rehearse their product handovers to ensure full transmission of orders products between

functional cells. Staffs must embrace rehearsals, including digital rehearsals, to foster shared understanding across staffs and at echelon.

Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTMLPF-P). This is a training issue. Staff train-ups should include discussion on the use of rapid decision-making and synchronization process (RDSP) to execute rapid operationalization of the commander’s visualization in conjunction with the unit’s fighting products as codified in their planning standard operating procedures.

References. FM 5-0, *Planning and Orders Production*, 16 May 2022; FM 6-0, *Commander and Staff Organization and Operations*, 16 May 2022.

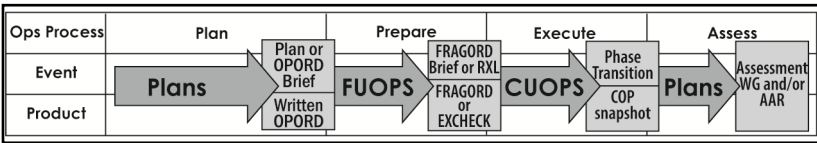


Figure 5-1. Best Practices – Transition Template.

5.2 Integrated Organizational Assessments

Observation. Corps and division staffs lack integrated organizational assessment processes.

Discussion. Corps and division staffs often relegate the assessment process to a subset of the targeting process and therefore fail to distinguish between operational assessments and combat assessments. The confusion between the two processes often inhibits the overall organizational assessment process, instead driving a numerically biased and battle damage assessment-driven assessment process. While our targeting doctrine delineates battle damage assessment as a subset of combat assessments, many units often fail to integrate the operational assessment process across all WfFs. This results in an assessment process that suffers from an overemphasis on the results of the previous air tasking order cycle and does not accurately inform the maneuver planning process or identify risk to mission or risk to force. With the introduction of multidomain operations (MDO), integration across all

pertinent staff elements will continue to present challenges to the organizational assessment processes.

Recommendation. Units that conduct both operational and combat assessments are better able to drive the entire organizational assessment process and update future maneuver planning and subsequent targeting efforts. Operational assessments enable units to better understand and mitigate risk. Full integration of all WfF and staff elements, to include MDO capabilities, throughout all organizational assessments will drive improved commander's visualization and enable shared understanding across the entirety of an organization.

DOTMLPF-P. This is a training and leadership issue. Staff train-ups should include discussion on the difference between operational assessments, combat assessments, and battle damage assessments as sub-sets of the overall organizational assessment process. Leaders must understand the linkage between assessments to plans in their operational critical path.

References. FM 5-0, *Planning and Orders Production*, 16 May 2022; ATP 5-0.3, *Operation Assessment*, 7 February 2020; ATP 3-60, *Targeting*, 7 May 2015.

5.3 Command Post Functionality and Survivability

Observation. Balancing command post (CP) functionality and survivability is a challenge.

Discussion. Given the importance and relative vulnerability of CPs at all echelons, units must take the protective measures that tactical headquarters are increasingly demonstrating. One method of passive protection that many units use is establishing multiple dispersed CP elements. This dispersal masks electro-magnetic signatures and increases overall survivability, but it comes at the potential cost of degrading CP functionality. Without clearly defined roles and responsibilities across CPs, multiple dispersed CPs inhibit organizational efficiency leading to de-synchronized staff efforts and duplicated work. Secondly, as CP dispersal increases, the allocation of Mission Command Information System (MCIS) equipment presents another challenge to CP functionality. Finally, greater CP separation requires an increase in the use of

upper tactical Internet capabilities across the organization, adding additional stress to compressed bandwidth issues.

Recommendation. Units should determine and codify how they will employ and protect their CPs to reduce the enemy’s ability to detect them. Each headquarters should clearly delineate in a CP standard operating procedure the roles, responsibilities, and associated decision-making authorities of each CP node, using an organizational term of reference and decision authorities’ matrix. CP standard operating procedures should also stipulate specific MCIS capability allocation to support the roles and responsibilities associated with each distributed CP. By making full use of the headquarters and headquarters battalion staff throughout the operations process, headquarters gain proficiency with CP deployment and CP survivability. To some degree, modified table of organization and equipment (MTOE) or table of distribution and allowances (TDA) shortages in personnel or materiel may raise to the higher echelons to affect larger changes across the Army.

DOTMLPF-P. This is a training, leadership, and materiel issue. Staff training should include multiple iterations of CP displacement operations. Unit leadership must clearly define the roles and responsibilities of each associated CP and staff CPs accordingly. Further CP dispersion may require additional MCIS support to maintain appropriate functionality as redundant CP nodes.

References. FM 6-0, *Commander and Staff Organization and Operations*, 16 May 2022; ATP 6-0.5, *Command Post Organization and Operations*, 1 March 2017; FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021.

5.4 Unit Communications Architecture

Observation. Unit communications architecture does not meet the competing demands of user needs and new technologies.

Discussion. The proliferation of transmitting devices throughout our operational environment causes significant congestion in our current electro-magnetic (EM) environment. When combined with our organic transmission asset limitations, the EM congestion causes a consistent degradation of command and control. Current use of high-capacity line of sight (HCLOS) and other satellite-based assets exceed

the bandwidth capacity of division and corps requirements for voice, video, and data. Command post computing environment (CPCE) and virtual joint operations center are two bandwidth intensive applications that challenge tactical networks. Although user discipline and proficiency can mitigate the bandwidth demands of these applications. Far too often vague command and staff understandings of these tools makes their use ill-advised.

Recommendation. Commanders and staffs should treat bandwidth like other critical assets and determine its allocation (e.g., how organizations might allocate critical fires assets based on a priority of fires). Units should exercise disciplined and judicious use of their communication assets to overcome the existing limitations in available equipment and bandwidth. Additionally, the gap between network requirements and availability needs to be a consideration throughout the entire operations process.

DOTMLPF-P. This is a training and materiel issue. Staff training should include emphasis on digital discipline to ensure user practices minimize bandwidth consumption. This problem also suggests a materiel solution to acquire equipment that increases bandwidth capability at the unit level.

References. FM 6-02, *Signal Support to Operations*, 19 September 2019; FM 6-0, *Commander and Staff Organization and Operations*, 16 May 2022.

5.5 Linking Commander's Critical Information Requirements to Decision Points

Observation. Unit Commander's Critical Information Requirements (CCIR) are not linked to decision points.

Discussion. In a data-rich environment, there are two fundamental approaches to determining CCIR. One approach begins with mission analysis and uses the data at hand to determine potential decision for the commander. This translates to G-2 sections submitting initial priority intelligence requirements (PIRs) linked to Tactical Airspace Integration Systems (TAIs) during MDMP. These PIR are broad in nature with unspecific information requirements that make subsequent reconnaissance activates untenable. Because this approach lends itself

to broad-natured PIRs, multiple days may pass before the unit is able to collect information to answer the PIRs. Furthermore, these PIRs rarely become linked to decision points developed later in planning, and do not meet the requirements of CCIR.

Alternatively, the other approach is to first determine the decisions the commander must make (informed by the analysis of operational risk and opportunity) and then identify what friendly information, terrain information, or enemy information may be necessary to make those decisions. The apparent benefit to this approach lends itself towards nesting CCIR with the commander's decision points. However, this approach is rarely used because determining the commander's operational decision points requires deliberate and thorough course of analysis. Instead, units become cognitively biased and anchor themselves to the first set of CCIR developed by G-2 during mission analysis and fail to appropriately tie initial PIR to actual decision points.

Recommendation. Doctrine provides misleading guidance in terms of the military decision-making process (MDMP) inputs and outputs. This drives a process that develops CCIR before planning staff personnel have a solid understanding of the potential decision points within the operational approach. Units should exercise appropriate tactical patience when developing CCIR to prevent cognitive biases and wait until course of analysis reveals operational transition points and potential branches and sequels to the initial plan. Just as course of analysis is a collaborative effort across all WfFs, so too is the identification of potential decision points and associated CCIR. This aspect of planning cannot be solitary, but instead must incorporate the necessary information from all staff elements to confirm planning assumptions, and information necessary to determine or mitigate risk.

DOTMLPF-P. This is a doctrine and training issue. Update doctrine to emphasize the linkage between CCIR and decision points, with further emphasis on the need to identify decision points during later stages of MDMP prior to codifying PIR during mission analysis. Staff train-ups should include discussion on the linkage between G-2 and G-3 in risk analysis, branch/sequel planning, and decision support tools. Integrating cells must collaborate to logically link Annexes B (Intelligence) and L (Information Collection).

References. ADP 5-0, *The Operations Process*, 31 July 2019; ADP 6-0, *Mission Command: Command and Control of Army Forces*, 31 July 2019; FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021; FM 3-98, *Reconnaissance and Security Operations*, 1 July 2015; FM 5-0, *Planning and Orders Production*, 16 May 2022; FM 6-0, *Commander and Staff Organization and Operations*, 16 May 2022; FM 3-55, *Information Collection*, 3 May 2013.

Observation 5-5. Table of Best Practices. Assumption, Commander's Critical Information Requirements, Risk/ Opportunity, and Decision Point Crosswalk.

	Planning Assumption	Commanders' critical information requirements, yes/no question; developed with Specific Information Requirements and Indicators)	Risk/Opportunity if Assumption Proven Wrong	Initial Assessment, Considers Severity and Probability	Decision Point: Commander/ Exercise Director Decision Required	Resource Available informs DST	LTOV, Last Time Information of Value	Decision Authority
Terrain and Enemy, PIR)	Normandy hedgerows will not restrict mounted maneuver	Will the hedgerows of Normandy restrict mounted maneuver?	Risk to mission and force. Restricted terrain will slow operational tempo and increase casualties.	High Risk	Branch plan employing different avenues of approach	Engineer assets, etc.	Date time group, Phase, MDMP planning step	Commanding General
	The enemy will execute the MLCOA	Is the enemy executing the MLCOA?	Risk to mission. Combat power ratios not suitable.	Moderate Risk	Reinforce a supporting effort	Reserve, forces out of contact	Date time group, Phase, MDMP planning step	Deputy commanding general-M
Friendly, FFIR	The enemy will not retrograde before a trigger	Has the enemy begun retrograding sooner than anticipated?	Opportunity. Transition to offense, exploitation, or pursuit.	Moderate opportunity, low probability	Commit the reserve and transition phase early	Reserve, forces prepared for transition	Date time group, Phase, MDMP planning step	Commanding General
	Higher HEADQUARTERS will attrit the enemy reserve to 50 percent	Has the enemy reserve been attritted to 50 percent by higher Headquarters?	Risk to mission. Combat power ratios not suitable.	Moderate	Reprioritize fires	Fires brigade, combat aviation brigade (CAB)	Date time group, Phase, MDMP planning step	G-3
	Adjacent unit will defeat enemy and protect our flank	Has our adjacent unit defeated the enemy?	Risk. Our flank is vulnerable.	Moderate, low probability, high severity	Commit reserve to flank	Reserve	Date time group, Phase, MDMP planning step	Deputy commanding general-M

CHAPTER 6

Protection Warfighting Function

6.1 Protection Working Group versus a Protection Decision Board to Disseminate and Drive Action

Observation. Protection working groups (PWGs) spend 1-2 hours discussing data by branch and currently do not feed many decisions.

Discussion. The PWG focuses on current operations to the detriment of future protection planning. Sometimes PWG identifies changes to the protection priority list (PPL); however, PWG changes are not analyzed and presented to a decision maker for approval. Other warfighting function (WfF) attendees do not provide adequate updated running estimates as input to support the identification of risk areas and recommended protection priorities. PWG outputs do not result in actionable adjustments in support of the scheme of protection.

Recommendation. PWGs provide the time to analyze information across future planning horizons. Attendees come prepared with required inputs from their staff sections, built from their branch specific working groups such as engineer WGs across echelons, units, and services. Ensure the PWG outputs are built to inform commanders decisions and staff supporting efforts. PWG outputs and inputs, common attendees and detailed agendas are codified in the unit 7-minute drills and unit standard operating procedures. Key PWG topics or products such as an updated criticality, vulnerability, and threat (CVT) analysis; PPL changes; route status changes; chemical, biological radiological, and nuclear (CBRN) analysis; and enemy threat analysis are then presented in a protection executive council (PEC) or protection board, which turns data and information into actionable knowledge to help facilitate decision making. A best practice is the division or corps deputy commanding general chairs the protection board with decisions that are disseminated back to the orders process and feeds boards, bureaus, centers, cells and working groups (B2C2WG) meetings such as the G-3 plans update; commander's update brief/battle update brief; and targeting WGs. This is a way to synchronize protection effects with other WfFs.

Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTMLPF-P). This is a training issue. Many staffs are not practiced in executing a PWG with effective running estimates into analyzed protection products for outputs to feed other WfF working groups that can integrate protection effects across all WfFs.

References. ADP 3-37, *Protection*, 31 July 2019; ADP 5-0, *The Operations Process*, 31 July 2019; ADP 6-0, *Mission Command: Command and Control of Army Forces*, 31 July 2019; ATP 6-0.5, *Command Post Organization and Operations*, 1 March 2017.

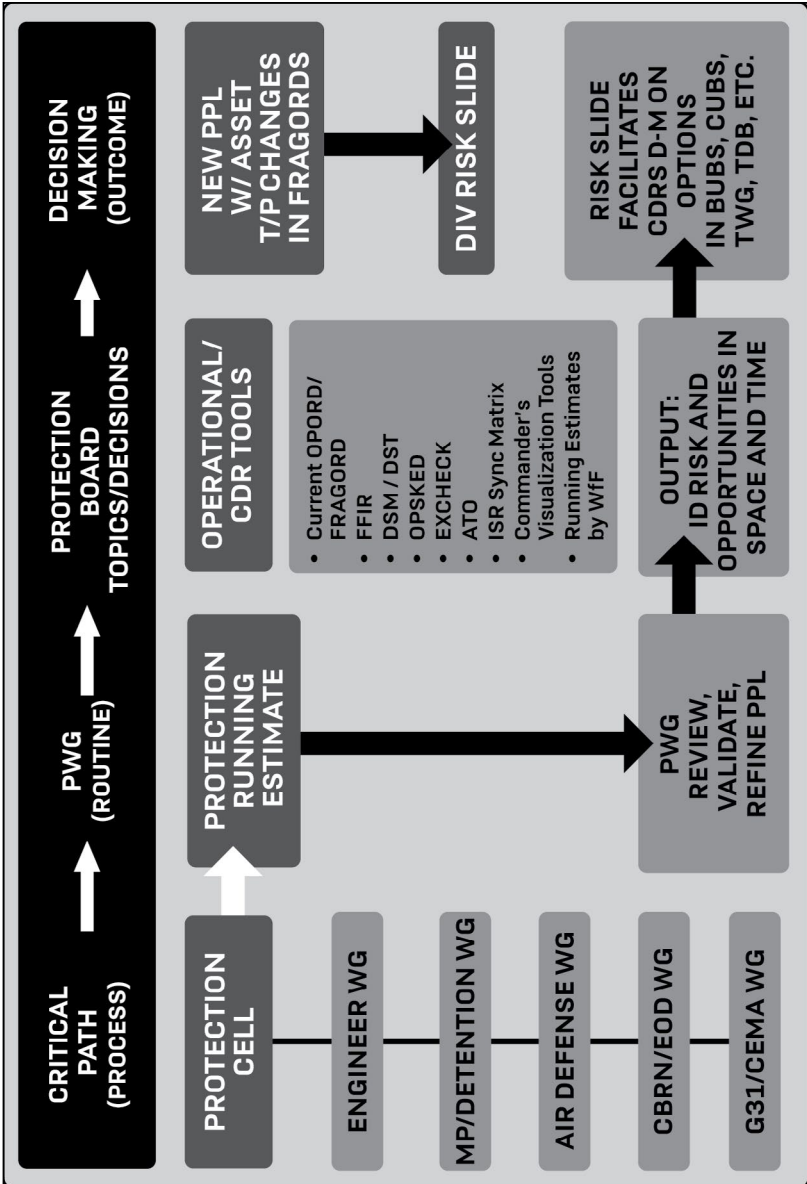


Figure 6-1. Best Practices – Organizing Protection Information to Knowledge.

6.2. Operationalizing Assessments and Risk

Observation. While the protection cell owns risk management in doctrine, the PWG and protection cell are challenged in operationalizing the information outputs and providing a protection assessment output product to drives commanders' decision making.

Discussion. Risks are identified as part of the assessments working group. The PWG also assesses risk areas after understanding enemy threats, enemy attack activities, friendly capability attrition losses, and resulting mitigation effects from passive and active measures. Identified risks are then analyzed as part of the PWG to develop associated mitigation measures and activities with limited protection assets, engineer dig teams, air defense artillery (ADA), cyber electro-magnetic (CEMA) activities, tactical combat force (TCF) security actions, etc. However, those associated mitigation measures are not routinely or effectively synchronized in the division/corps planning process. If the PWG risk slide is then fed into sustainment and maneuver activities, an accurate assessment activities model can feed the assessments working group, plans update, commander's update brief/battle update brief and targeting boards to facilitate decision making.

Recommendation. An effective unit standard operating procedure should identify key participants and inputs as well as the venue for approval and inclusion into orders. Protection cells must ensure risk is a key input as part of the sustainment and maneuver working groups.

Sustainment, and movement and maneuver, must be active participants in the protection working group to help ensure that risks identified during assessment working groups have the adequate resources assigned to mitigate the risk. A number of division/corps staff organizations discuss risk, including operations research systems analysis (ORSA) assessments, planners, and protection cells. We recommend that the PWG and protection cell summarizes protection analysis into a risk output slide to feed key WGs and boards.

DOTMLPF-P. This is a training and doctrine issue. Doctrine expands operational risk models to support the effectiveness of working groups and meetings. Protection cells practice analyzing protection data and producing risk and concepts of protection defined in unit standard operating procedures in order to integrate protection across other WfF

and within the planning process.

References. ADP 3-37, *Protection*, 31 July 2019; ADP 5-0, *The Operations Process*, 31 July 2019; ATP 5-19, *Risk Management*, 9 November 2021.

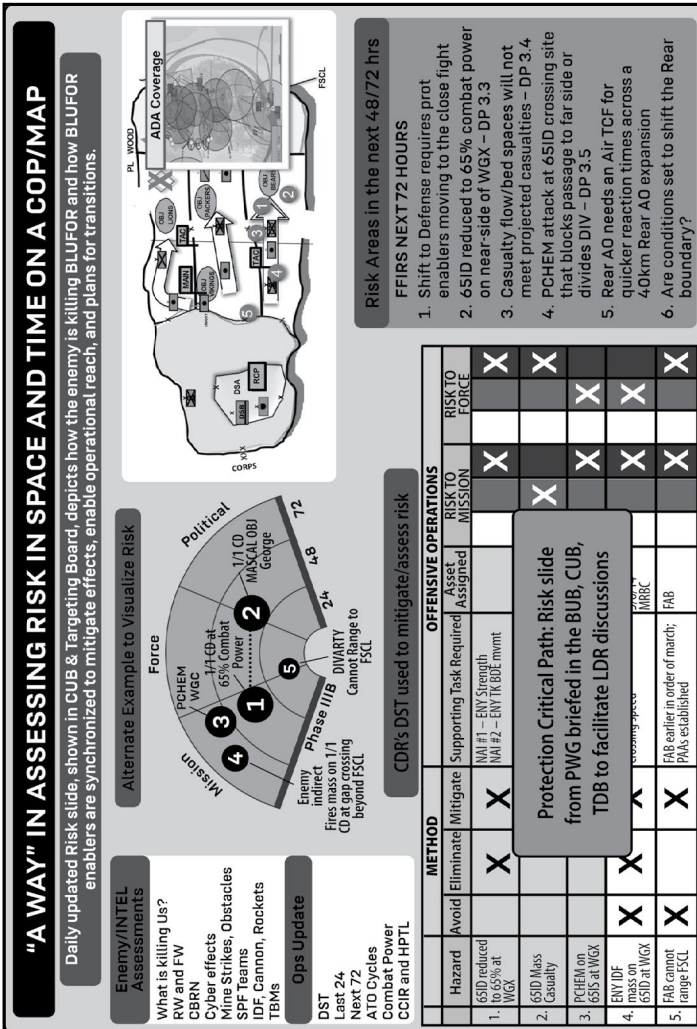


Figure 6-2. Best Practices – Protection Working Group Output.

6.3 Maneuver Enhancement Brigade Integration into the rear command post to Best Fight the Division and Corps Rear Areas

Observation. Maneuver Enhancement Brigade (MEB) integration into and operation of the rear command post has many options to ensure capabilities and duties and responsibilities are in the right location. The rear command post is converting from a 5-year ad hoc team to a defined organization in corps doctrine; however, the integration of MEBs with trained fires and ADA team employment is still in debate.

Discussion. Rear command post equipment and manning on the division/corps modified table of organization and equipment (MTOE) remains insufficient to create a well-established CUOPS cell that can battle track protection and sustainment missions as well as to potentially serve as a contingency command post. There are zero intelligence positions on the rear command post force design update (FDU) and few operational planners able to work on FUOPS/plans planning horizons since they support the tactical and main priorities first. Integration of the MEB to establish an effective corps rear command post in many cases results in the duplication of roles and efforts with functional brigades. In several instances MEB, engineer brigade, military police brigade, and sustainment brigade tasks overlap with the mission of the corps rear command post. Area security roles and responsibilities are not defined nor are they practiced. While MEB doctrine highlights the capability for support to rear command post operations, it does not clearly articulate what that support entails but instead warns against task fratricide. Corps doctrine simply highlights the need for the MEB to integrate and operate the rear command post.

Recommendation. Units practice rear command post and rear area of operations missions in garrison to define missions, roles and responsibilities for people, processes, and systems. MEB and sustainment brigade liaison integration starts in a plan and prepare phase to build effective division/corps rear CPs that can manage all rear area of operations mission sets. Roles and responsibilities for the rear command post and separate roles for the MEB are outlined and trained on with required specialty teams and systems such as the Advanced Field Artillery Tactical Data System (AFATADS), Air and Missile Defense Workstation (AMDWS), and Tactical Airspace Integration System (TAIS) operators with combat aviation brigade (CAB) liaisons to manage rear area activities. Units examine each mission set such as sustainment activities; terrain management; route management; protection; stability tasks; boundary and operational transition management; host-nation coordination and support, and reception, staging, onward movement, integration (RSOI) and defines which unit and which process will be used to manage each one through B2C2WGs and routine procedures. A MEB or functional brigade will then understand their role in execution of these tasks.

DOTMLPF-P. This is primarily a training and doctrine issue. Without clearly defined roles and responsibilities for the rear command post and MEB staff, units, and Soldiers do not have defined responsibilities or expectations regarding security management in the rear area of operations. The training is significantly hindered if staffs do not have a habitually aligned MEB and only practice rear area of operations management if a MEB is participating. The rear area of operations mission sets must be accomplished from one of the other brigades and battalions in the division.

References. FM 3-81, *Maneuver Enhancement Brigade*, 9 November 2021; ADP 6-0, *Mission Command: Command and Control of Army Forces*, 31 July 2019; ATP 6-0.5, *Command Post Organization and Operations*, 1 March 2017; FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021.

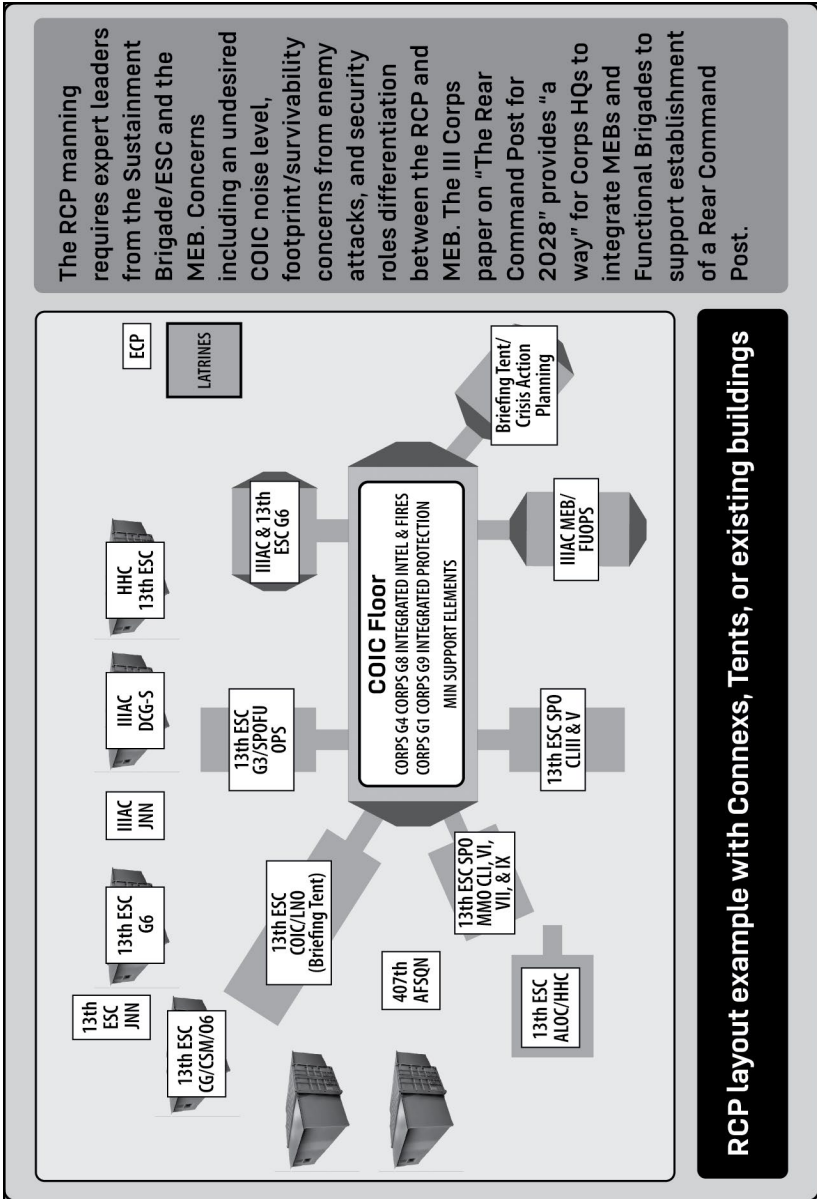


Figure 6-3. Best Practices – Maneuver Enhancement Brigade Integration.

6.4 Synchronization of Protection Enablers to Lead Through Transitions

Observation. Management of protection enablers at division/corps level are an afterthought in planning.

Discussion. The challenge for protection enablers in large-scale combat operations is proper integration and synchronization in support of maneuver elements within the division/corps area of operations. A common theme is improper command and support relationships of key air defense artillery; chemical, biological, radiological, and nuclear assets; military police; explosive ordnance disposal personnel; and engineer capabilities during phases of all operations and not through proper synchronization of plans cell, FUOPS, and CUOPS. Upon red (enemy) force contact or enemy attacks, enablers are routinely utilized in a primarily reactionary role in support of the division support area/corps support area (DSA/CSA) defensive operations and seldom are synchronized or positioned for offensive operations (i.e., air defense assets for WGX, air assault, and DSA/CSA relocation). This lack of synchronization of enablers in supporting maneuver units results in missed opportunities to mass multidomain effects at decisive points. The challenge of employing enabler capabilities through proper roles (command and support relationships and responsibilities) rarely accounts for known enabler limitations (task saturated, command and control, and Sustainment).

Recommendation. Units should invite protection subject matter experts into MDMP planning sessions and understand capabilities and limitations of enablers within division/corps and establish clear command and support relationships and anticipate transition for enabler employment. Along with Fires and Sustainment rehearsals, division/corps conduct protection rehearsals with key operations/intelligence leadership to understand enemy threat capabilities and friendly mitigation activities with critical and limited protection assets.

DOTMLPF-P. This is an organization command structure for large-scale combat operations (LSCO) and is a training systems and processes issue.

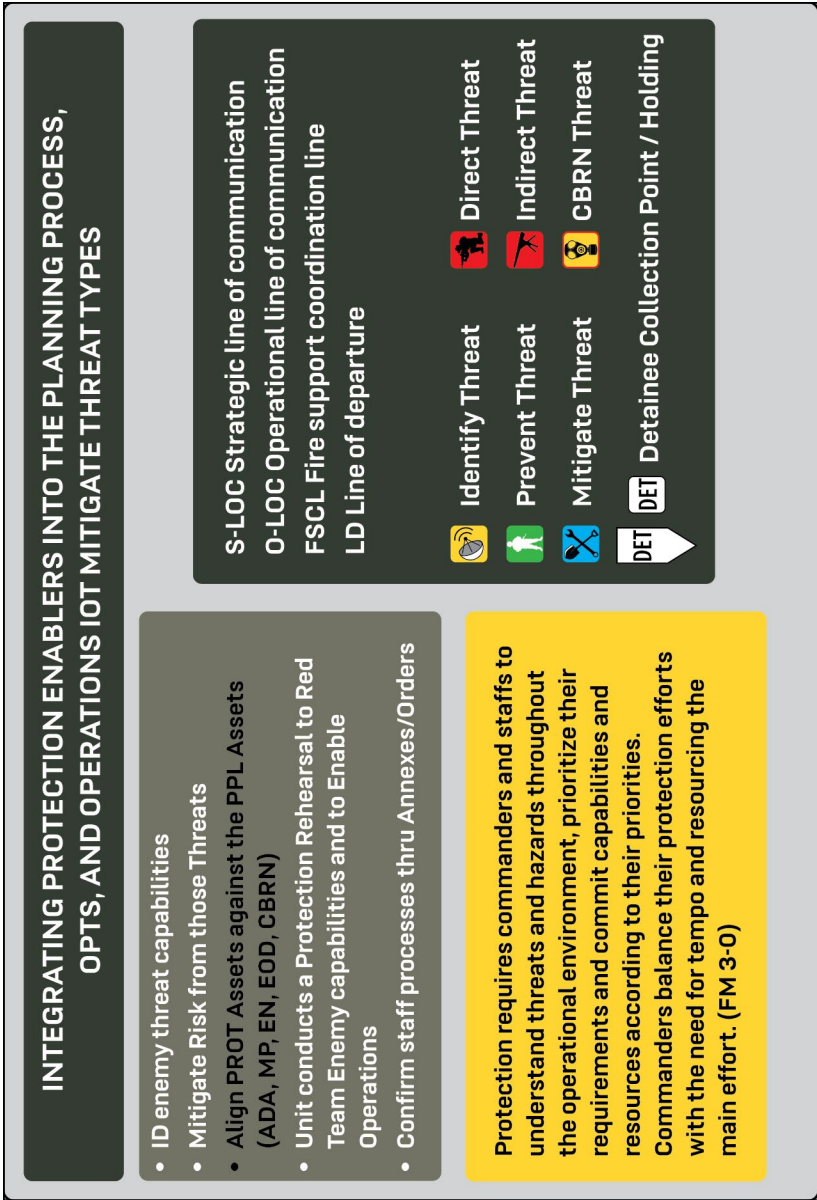


Figure 6-4. Best Practices – Integrating Protection Enablers.

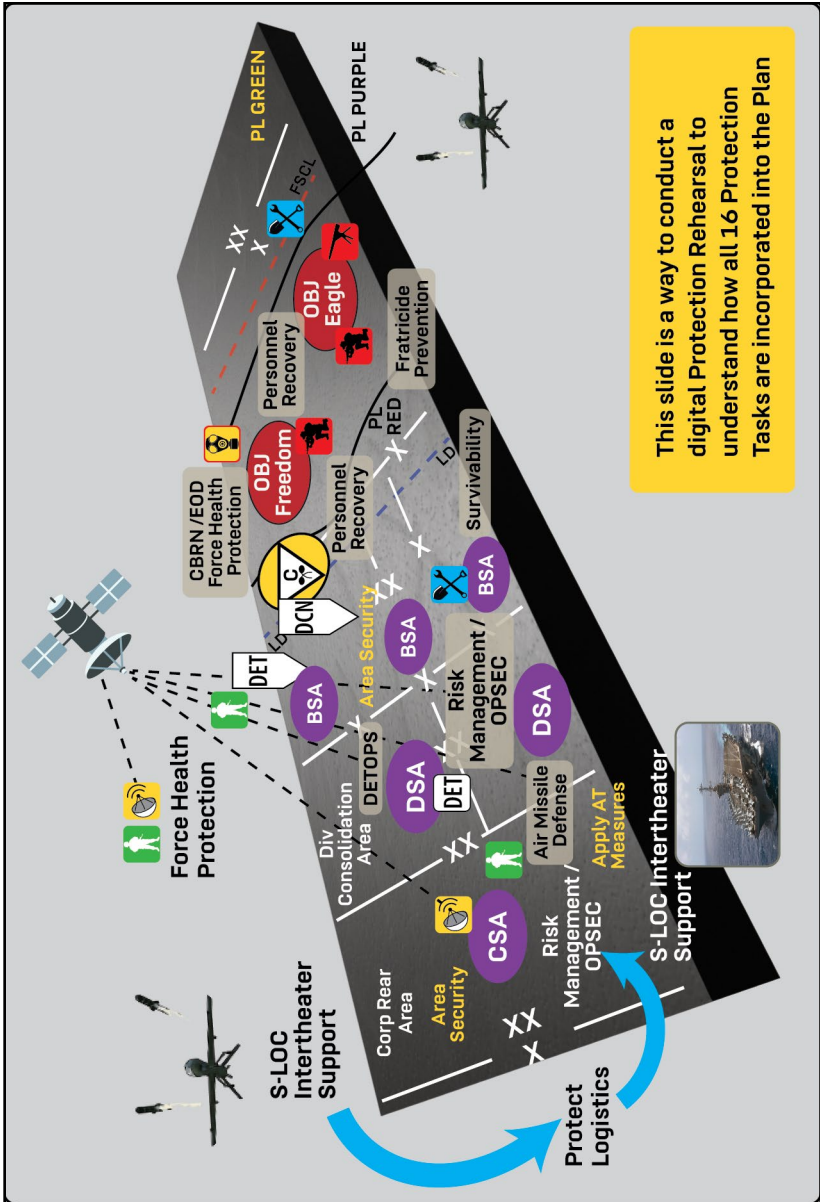


Figure 6-4. Best Practices – Integrating Protection Enablers (continued).

References. FM 3-0, *Operations*, 1 October 2022; ADP 3-37, *Protection*, 31 July 2019; ADP 5-0, *The Operations Process*, 31 July 2019; ADP 6-0, *Mission Command: Command and Control of Army Forces*, 31 July 2019; FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021; ATP 3-91, *Division Operations*, 17 October 2014.

6.5 Layering Multidomain Protection Effects to Fill Risk Gaps

Observation. The protection WfF does not effectively replicate or incorporate a multidomain environment or adversary and friendly capabilities to include defensive cyber, cyberspace jamming, electronic warfare (EW) spoofing, information-related capabilities, countering unmanned aircraft system (UAS), EW integration, space-based capabilities, etc. in training or during primary military education.

Discussion. Multidomain operations (MDO) are inherently Joint in nature and most Army MDO systems, capabilities, and authorities reside at the operational echelon. Consequently, most of the force does not have a baseline understanding of the Army MDO force structure, system capabilities and limitations, or the processes and procedures of the authorities to employ them within the protection WfF. The protection cells work with G-31 CEMA teams to integrate EW contingency operations for specific operations and they can target enemy ground control stations through EW effects to prevent enemy UAS systems. They work with ADA teams to ensure sensors and ADA coverage are incorporated into the concept of protection, as an example of working protection effects through the division/corps staff and across various B2C2WG meetings.

Recommendation. Combat training centers (CTCs) and professional military education (PME) are resourced to provide a standard level of understanding for MDO across the force.

DOTMLPF-P. This is primarily a training issue. Junior leaders will need more robust exposure to MDO as the Army's operating concept, in addition to the systems and authorities that underpin the Army's desired MDO capabilities. Protection chiefs, usually military police, CBRN, or engineer officers, require training practice in garrison to work through targeting, CEMA teams and higher headquarters protection cells to understand and request protection effects outside of division/corps formations. This should occur across the training spectrum to include self-study, institutional education, and operational training environments prior to ascending to key leadership roles at the operational level.

References. TRADOC Pam 525-3-1, *The U.S. Army in Multidomain Operations 2028*; Army Futures Command FC Pam 71-20-7, *Army Future Commands Concept for Protection*, 2028; ADP 5-0, *The Operations Process*, May 2022; ADP 3-37, *Protection*, 31 July 2019; FM 3-0, *Operations*, 1 October 2022.

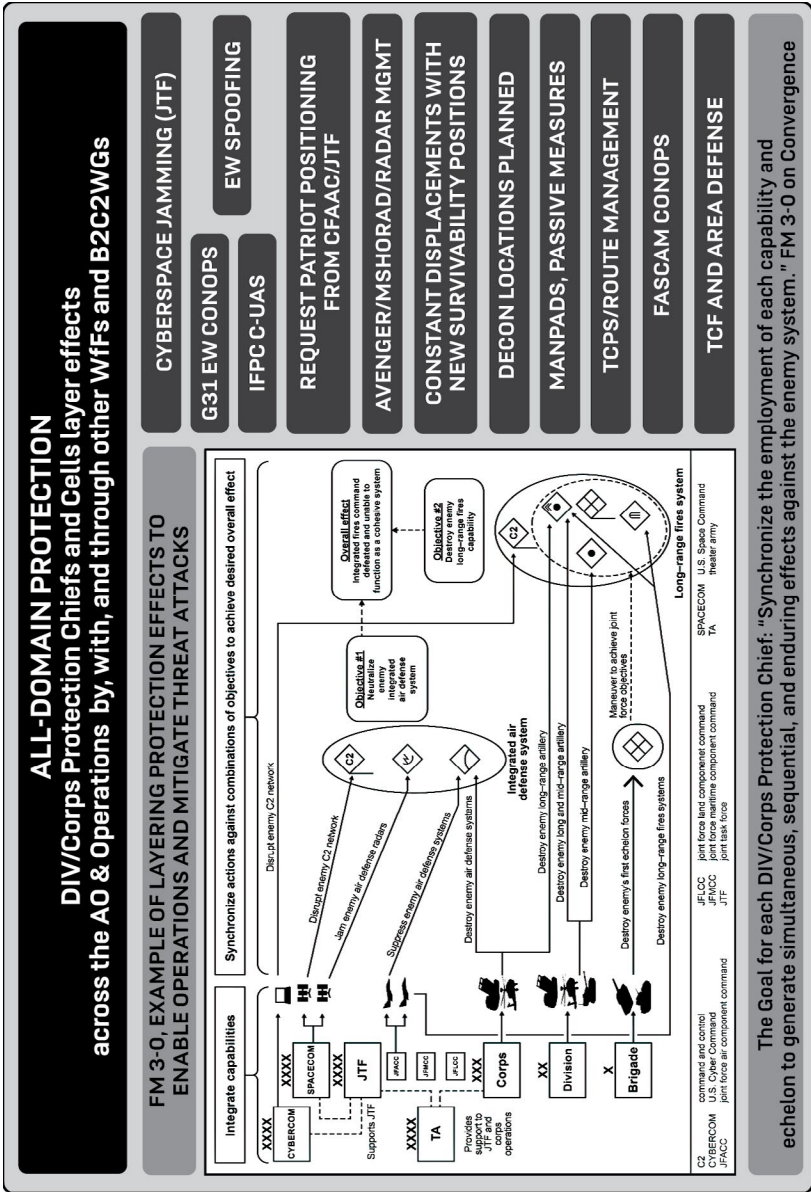


Figure 6-5. Layering Multidomain Protection Effects to Fill Risk Gaps.

CHAPTER 7

Sustainment Warfighting Function

7.1 Sustainment Planning and Integration

Observation. Division boards, meetings, and working groups lack holistic representation from all warfighting functions (WfFs).

Discussion. The sustainment WfF function operated exclusively from the rear command post and did not allocate appropriate personnel in the main command post (MCP) or tactical command post to coordinate with G-5 plans and G-35 future operations (FUOPS) sections to anticipate changes and nest operations with the sustainment plan. Due to the geographical separation between the sustainment staff in the rear command post and the rest of the WfFs within the MCP, participation in boards, meetings, and working groups left the division ineffective in providing holistic and necessary inputs and accurate assessments to adequately feed the planning process. This led to insufficient analysis, lost operational reach, and prolonged endurance.

Recommendation. Each of the division staff sections must integrate across all planning horizons and WfFs to plan and control division operations effectively. The MCP is responsible for the sustained conduct of current operations, future planning, analysis for current and future operations, targeting, and other staff functions while the rear command post enables the commander by unifying the efforts of various units operating in the division's rear area. Furthermore, staff sections need to be cross-functionally organized into integration cells that synchronize all WfF across each planning horizon. All WfFs must permanently assign an individual into each integration cell or adequately define the duties, responsibilities, and inputs/outputs, necessary for coordinating with each integration cell. This solution ensures the flow of inputs and outputs nests within the critical path for operations and ends with a clearly expressed operations order.

Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTMLPF-P). This is an organizational issue, as such that a sustainment planner is rarely involved in the division's planning process to ensure sustainment is integrated and synchronized in the maneuver plan.

References. FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021; ADP 5-0, *The Operations Process*, 31 July 2019; ATP 6-0.5, *Command Post Organization and Operations*, 1 March 2017.

7.2 Casualty Estimation and Staff Integration

Observation. Inconsistent casualty estimation and staff synchronization by the division and corps hinders the casualty estimation process and subsequent coordination for personnel replacement.

Discussion. Divisions and corps complete casualty estimates using three different casualty estimation tools, creating inconsistency amongst the estimates. The division's submit casualty estimates to the corps surgeon and corps G-1, which provide personnel requirements by unit and phase of operation. However, on several occasions, division estimates included corps fires and separate others. Additionally, corps G-1s lack critical personnel requirements by military occupational specialty (MOS), grade, and skill level to provide the higher headquarters the ability to source a replacement shelf. Corps G-1 can integrate the supporting the expeditionary sustainment command (ESC) Human Resources Operations Branch (HROB) into their planning efforts by communicating forecasted losses, which can then synchronize emplacement of human resources and logistics assets to support distribution of corps personnel replacements. This process allows for the successful distribution of personnel to support combat power regeneration necessary to fulfill mission requirements.

Recommendation. Collaboration with the surgeon cell using the medical planners tool kit for the casualty estimate enables identification of critical personnel requirements by MOS, skill, and grade for the higher headquarters to begin planning and sourcing prior to initiation of combat operations. Continue to integrate ESC HROB into corps' planning process to ensure successful coordination for replacement operations.

DOTMLPF-P Training. Train G-1 and surgeon cell on collaborative process to translate casualty estimates into critical personnel requirements by skill and grade of MOS.

DOTMLPF-P Leadership. Codify roles, responsibilities, and processes for casualty and replacement estimates between the G-1, surgeon cell, HROB, and subordinate unit G-1/S-1 sections in the unit tactical standard operating procedures.

References. ATP 1-0.1, *G-1/Adjutant General and S-1 Operations*, 23 March 2015; ATP 1-0.2, *Theater Level Human Resources Support*, 24 January 2017; ATP 4-02.2, *Medical Evacuation*, 12 July 2019; ATP 4-02.55, *Army Health System Support Planning*, 30 March 2020; FM 1-0, *Human Resources Support*, 17 August 2021; FM 4-02, *Army Health System*, 17 November 2020.

7.3 Medical Common Operational Picture (MEDCOP)

Observation. A lack of a standardized medical common operational picture (MEDCOP) precludes leadership from shared understanding of health service support (HSS) capabilities across the corps area of operations.

Discussion. Corps that lacked an accessible MEDCOP that encompassed the coalition and U.S. medical assets within the corps area of operations, resulted in the leadership lacking the ability to visualize the current array of medical assets. MEDCOPs exist on the corps' Command Post Computing Environment (CPCE) but staffs do not routinely utilize this tool effectively. The sustainment decision board is used to highlight the lack of situational awareness for corps surgeons and staffs.

Recommendation. Develop a standardized MEDCOP that provides shared understanding of HSS across the corps' area of operations. Create a process to update, share, and brief the leadership for timely decisions on medical asset displacement during training.

DOTMLPF-P Training. Expand the enabling learning objective during mission command training for building a common operational picture and gaining shared understanding throughout the staff. Incorporate command post computing environment (CPCE) instruction during professional military education (PME) that includes knowledge management processes to facilitate shared understanding.

DOTMLPF-P Leadership. Identify commander's critical information requirements during mission analysis to incorporate into the common operational picture.

References. ADP 5-0, *The Operations Process*, 31 July 2019; FM 4-02, *Army Health System*, 17 November 2020.

APPENDIX A

References

Army Doctrine Publications

ADP 2-0, *Intelligence*, 31 July 2019.

ADP 3-19, *Fires*, 31 July 2019.

ADP 3-37, *Protection*, 31 July 2019.

ADP 5-0, *The Operations Process*, 31 July 2019.

ADP 6-0, *Mission Command: Command and Control of Army Forces*, 31 July 2019.

Army Futures Command Publication

Army Futures Command FC Pam 71-20-7, *Army Future Commands Concept for Protection*, 2028.

Army Techniques Publications

ATP 1-0.1, *G-1/Adjutant General and S-1 Operations*, 23 March 2015.

ATP 1-0.2, *Theater Level Human Resources Support*, 24 January 2017.

ATP 2-01, *Collection Management*, 17 August 2021.

ATP 2-19.3, *Corps and Division Intelligence Techniques*, 26 March 2015

ATP 2-33.4, *Intelligence Analysis*, 10 January 2020.

ATP 3-09.90, *Division Artillery Operations and Fire Support for the Division*, 12 October 2017.

ATP 3-60, *Targeting*, 7 May 2015.

ATP 3-91, *Division Operations*, 17 October 2014.

ATP 3-91.1, *The Joint Air Ground Integration Center*, 17 April 2019.

ATP 3-92, *Corps Operations*, 7 April 2016.

ATP 3-94.2, *Deep Operations*, 1 September 2016.

ATP 4-02.2, *Medical Evacuation*, 12 July 2019.

ATP 4-02.55, *Army Health System Support Planning*, 30 March 2020.

ATP 5-0.3, *Operation Assessment*, 7 February 2020.

ATP 5-19, *Risk Management*, 9 November 2021.

ATP 6-0.5, *Command Post Organization and Operations*, 1 March 2017.

Field Manuals

FM 1-0, *Human Resources Support*, 17 August 2021.

FM 3-0, *Operations*, 1 October 2022.

FM 3-04, *Army Aviation*, 6 April 2020.

FM 3-09, *Fire Support and Field Artillery Operations*, 30 April 2020.

FM 3-52, *Airspace Control*, 20 October 2016.

FM 3-55, *Information Collection*, 3 May 2013.

FM 3-81, *Maneuver Enhancement Brigade*, 9 November 2021.

FM 3-90-2, *Reconnaissance, Security, and Tactical Enabling Tasks*, 22 March 2013.

FM 3-94, *Armies, Corps, and Division Operations*, 23 July 2021.

FM 3-98, *Reconnaissance and Security Operations*, 1 July 2015.

FM 4-02, *Army Health System*, 17 November 2020.

FM 5-0, *Planning and Orders Production*, 16 May 2022.

FM 6-0, *Commander and Staff Organization and Operations*, 16 May 2022.

FM 6-02, *Signal Support to Operations*, 19 September 2019.

Joint Publications

JP 3-0, *Joint Operations*, June 2022.

JP 3-09, *Joint Fire Support*, April 2019.

U.S. Army Training And Doctrine Command Publication

TRADOC Pam 525-3-1, *The U.S. Army in Multidomain Operations 2028*.

APPENDIX B**Glossary**

ACM	airspace coordinating measures
ADA	air defense artillery
ADP	Army doctrine publication
AFATADS	Advanced Field Artillery Tactical Data System
AJST	Army Joint Support Team
AMDWS	Air and Missile Defense Workstation
ASCC	Army Service Component Command
ASOC	air support operations cell
ATP	Army techniques publication
AWACS	Airborne Warning and Control System
B2C2WG	boards, bureaus, centers, cells and working groups
BPT	be prepared to
CA	coordinating altitude
CAB	combat aviation brigade
CALL	Center for Army Lessons Learned
CBRN	chemical, biological, radiological, and nuclear
CCIR	commander's critical information requirements
CD	capability drop
CEMA	cyber-electromagnetic activity
CIP	common intelligence picture
COG	commander, operations group
COIC	current operations integration cell
CP	command post
CPCE	Command post Computing Environment
CPX	command post exercise
CRC	control and reporting center

CSA	corps support area
CUOPS	current operations
CVT	criticality, vulnerability, and threat
DCGS	Distributed Common Ground System
DOTMLPF-P	doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy
DSA	division support area
DTAC	division tactical command post
EM	electro-magnetic
ESC	expeditionary sustainment command
EW	electronic warfare
FA	field artillery
FC	U.S. Army Futures Command
FDU	force design update
FM	field manual
FSCM	fire support coordination measures
FUOPS	future operations
HCLOS	high-capacity line of sight
HPTL	high-payoff target list
HQE	highly qualified expert-senior mentors
HROB	Human Resources Operations Branch
HSS	health service support
IC	U.S. Army's Intelligence and Security Command [INSCOM] Cloud (IC)
IEW	intelligence and electronic warfare
IHL	intelligence handover line
INSCOM	Intelligence and Security Command
ISR	intelligence, surveillance, and reconnaissance
J-SEAD	joint suppression of enemy air defense
JAGIC	Joint Air Ground Integration Center
JED	Joint Effects Division

JFE	joint forcible entry
JP	Joint publication
LSCO	large-scale combat operations
MCIS	Mission Command Information System
MCP	main command post
MCTP	Mission Command Training Program
MDMP	military decision-making process
MDO	multidomain operations
MEB	Maneuver Enhancement Brigade
MEDCOP	medical common operational picture
E-MIB	expeditionary military intelligence brigade
MOS	military occupational specialty
MTOE	modified table of organization and equipment
PACE	primary, alternate, contingency, emergency
PEC	protection executive council
PED	processing, exploitation, and dissemination
PIR	priority intelligence requirements
PME	professional military education
PPL	protection priority list
PWG	protection working group
RDSP	rapid decision-making and synchronization process
RSOI	reception, staging, onward movement, and integration
SJAT	Specialized Joint Airspace Training
TAIS	Tactical Airspace Integration System
TCF	tactical combat force
TDA	table of distribution and allowances
TRADOC	U.S. Army Training and Doctrine Command

TWG	targeting working group
UAP	corps unit airspace plan
UAS	unmanned aircraft system
WfF	warfighting function
WGX	wet gap crossing



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