ATP 4-91

Division Sustainment Operations

NOVEMBER 2022

Headquarters, Department of the Army

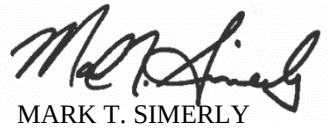
Foreword

In the last five years, our Army has refocused on its ability to conduct large-scale combat operations. That shift has significantly changed the way we fight, the way we train, and the way we assign, organize, and equip Soldiers to win the next war.

Part of that shift involves a renewed emphasis on the Army division as the unit of action. Army divisions provide the joint force with warfighting formations capable of planning, integrating, and executing complex military operations over extended time and distance. The speed, scale, and lethality of large-scale combat operations place a premium on commanders' ability to synchronize all warfighting functions across multiple domains. The division's mobility, firepower, and operational reach enable this synchronization, making it the ideal formation to deter aggression and defeat our enemies.

Just as we are changing the way we fight, we are simultaneously changing the way we support that fight. This manual's publication marks an important transition within sustainment doctrine, as we shift away from specific unit types towards a holistic discussion of how to sustain at echelon. This manual, and its partner volumes, ATP 4-92, *Field Army and Corps Sustainment Operations*, and ATP 4-93, *Theater Sustainment Operations*, reflect the growing importance of communicating, synchronizing, and coordinating the four elements of sustainment—logistics, personnel services, financial management, and health service support-- across all warfighting functions. Additionally, because of sustainment's inextricable connection to operations, these manuals deliberately complement corresponding operational manuals currently being developed by the Mission Command Center of Excellence.

Updating doctrine is a good start, but our success or failure depends largely on our ability to provide Soldiers with the tough, realistic training they deserve. The tactics, techniques and procedures within this manual will shape the tasks, conditions, and standards that produce sustainers and units that are trained and ready to fight.



MARK T. SIMERLY
MAJOR GENERAL, USA
COMMANDING

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Change 1
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Division Sustainment Operations

1. This change replaces Figure C-2 on page C-4, which was missing information.

2. An asterisk (*) marks new material.

3. ATP 4-91, 8 November 2022, is changed as follows:

Remove Old Pages	**Insert New Pages**
page iii	page iii
page C-4	page C-4

4. File this transmittal sheet in front of the publication for reference purposes.

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RANDY A. GEORGE
General, United States Army
Chief of Staff

Official:

MARK F. AVERILL
Administrative Assistant
to the Secretary of the Army
2333304

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Preface

ATP 4-91 provides sustainment doctrine at echelon. It describes sustainment support at the division echelon with particular emphasis on the division sustainment brigade (DSB), division sustainment troops battalion, and the division sustainment support battalion. This manual is also a companion manual to ATP 3-91 and provides the foundation for Army sustainment operations at the division level.

Readers should first familiarize themselves with the principles of operations and division operations contained in FM 3-0 and ATP 3-91 respectively, and the principles of sustainment contained in FM 4-0.

The principal audience for ATP 4-91 is commanders and staffs assigned to divisions and DSBs. It applies to other operational and sustainment echelons above division organizations. Trainers and educators throughout the Army will also use this publication.

Commanders, staffs, and subordinates must ensure that their decisions and actions comply with applicable United States, international, and, in some cases, host-nation laws and regulations. Commanders at all levels will ensure that their Soldiers operate in accordance with the law of armed conflict and the rules of engagement. (See FM 6-27/MCTP 11-10C.)

ATP 4-91 uses joint terms where applicable. Selected joint and Army terms and definitions appear in both the glossary and the text. For definitions shown in the text, the term is italicized and the number of the proponent publication follows the definition. This publication is not the proponent for any Army terms.

ATP 4-91 applies to the Active Army, Army National Guard/Army National Guard of the United States and United States Army Reserve unless otherwise stated.

The proponent of ATP 4-91 is the United States Army Combined Support Command. The preparing agency is the G-3/5/7 Doctrine Division, United States Army Combined Arms Support Command. Send comments and recommendations on a DA Form 2028 (*Recommended Changes to Publications and Blank Forms*) to Commander, United States Army Combined Arms Support Command, ATTN: ATCL-TDID (ATP 4-91), 2221 Adams Ave, Bldg. 5020, Fort Lee, VA, 23801-1809; or submit an electronic DA Form 2028 by e-mail to: us.army.lee.tradoc.mbx.lee-cascom-doctrine@army.mil.

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Introduction

ATP 4-91 describes sustainment at echelon and provides details on sustainment organizations operating at the division echelon. It is written for commanders, staffs and Soldiers at all levels, leaders and instructors at military institutions, students, and doctrine and training developers. It provides relevant information on the capabilities of the DSB and DSB employment considerations.

ATP 4-91 is organized to provide an overview of the division echelon and the subordinate units supporting each echelon. It describes the DSB's role, characteristics, organizational designs, and command post activities that support the division. It also describes key division sustainment personnel and how the division synchronizes and integrates logistics, human resources, finance, and health service support for large-scale combat operations.

ATP 4-91 contains six chapters and three appendices:

Chapter 1 provides an overview of the division's roles and functions in operations and its organization. This chapter also describes the operational framework.

Chapter 2 describes division-level sustainment organizations focused on the DSB, division sustainment troops battalion, and division sustainment support battalion. It also describes the headquarters organizations' staffs.

Chapter 3 explains sustainment planning at the division level. The chapter includes discussions on the operations process, describes support operations, and details support operations staff integration in sustainment operations at the division echelon.

Chapter 4 describes sustainment support to offensive and defensive operations and considerations for sustainment operations during these operations.

Chapter 5 describes the division support area and considerations for the DSB and subordinate organizations' establishment, operation, protection, and displacement.

Chapter 6 describes health service support within the division area of operations.

Appendix A provides sustainment planning factors contained in current staff planning manuals, FMSWeb, Operational Logistics Planner, and other Combined Arms Support Command-developed data.

Appendix B shows one way a division and its DSB may synchronize sustainment in support of large-scale combat operations. The primary focus for this appendix is class III, class V, maintenance, and medical functions.

Appendix C describes tactical sustainment steps and procedures during the military decision-making process.

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Chapter 1
The Division

The division is the Army's unit of action for decisive action against threats with peer capabilities during large-scale combat operations. This chapter discusses Army division roles and functions across the competition continuum and throughout the range of military operations. It also discusses the various options for command relationships with assigned and provided units.

DIVISION OVERVIEW

1-1. The division is the Army's principal tactical warfighting formation during large-scale combat operations. Its primary role is to serve as a tactical headquarters commanding brigades. A division conducts operations in an area of operations (AO) assigned by its higher headquarters – normally a corps. A division typically commands between two and five brigade combat teams (BCTs), a combat aviation brigade, division artillery, and a division sustainment brigade (DSB). It task organizes its assigned and provided units to accomplish its mission according to mission variables., Winning battles and engagements remains the division's primary purpose. During limited contingencies, it can organize itself to serve in multiple competencies. When the division is uncommitted to a specific operation, it focuses on building and sustaining readiness to prevail in large-scale combat operations.

1-2. The division is manned, equipped, and trained to function as a tactical headquarters. The division can transition to a joint or multinational headquarters for operations other than large-scale combat with significant augmentation in personnel and equipment. When it is the senior Army formation assigned to a joint task force, it may also serve as an ARFOR. *ARFOR* is the Army component and senior Army headquarters of all Army forces assigned or attached to a combatant command, subordinate joint force command, joint functional command, or multinational command (FM 3-94).

DIVISION ROLES AND FUNCTIONS

1-3. A division can conduct one of four core roles. Its primary role is that of a tactical headquarters during operations on land, but a division may also serve in the following roles:

- Tactical headquarters.
- ARFOR headquarters.
- Joint force land component commander (JFLCC).
- Joint task force (JTF) headquarters.

1-4. Even with considerable augmentation a division is not structured and manned to perform the role of an ARFOR or JFLCC in a large-scale combat environment. A division may, however, perform these missions in a limited contingency or crisis response operation for a limited duration.

DIVISION TACTICAL HEADQUARTERS

1-5. The division is organized, trained, and equipped to command between two and five BCTs in combat as well as support the BCTs with a mix of functional and multifunctional brigades and other enablers. A division headquarters may command any mix of armored, infantry, and Stryker BCTs as well as joint and multinational land forces. Divisions employ BCTs to conduct operations in the close fight against enemy formations. Divisions conduct deep operations against an enemy to set conditions for success in the current and future close fights. They synchronize and coordinate rear operations to maintain their tempo and operational reach.

1-6. A division's core functions as a tactical headquarters are—

- Task-organizing, employing, integrating, and synchronizing brigades and battalions.
- Training and preparing for large-scale combat operations.
- Massing effects at decisive points.
- Employing joint capabilities.
- Assuming directed Army, joint, and multinational authorities and responsibilities.

DIVISION AS ARFOR

1-7. In limited contingencies, or when a division is the senior Army unit, the division becomes the ARFOR. As the ARFOR, the division retains operational control (OPCON) of all Army forces not subordinate to another component of the JTF. The Army Service component command will determine which Army support to other Services tasks the division will perform for the JTF and must resource the division appropriately.

1-8. The role of the ARFOR is significantly broader and more diverse than that of a division operating as a tactical headquarters within a corps. When serving as an ARFOR, a division continues to perform all of the functions of a tactical headquarters and—

- Army support to other services as directed by the Army Service component command.
- Administrative control of all Army forces in the JTF, including those subordinate to other components.

DIVISION AS JOINT FORCE LAND COMPONENT COMMANDER

1-9. The joint forces commander may organize a JTF with a division as the JFLCC for limited contingency operations. The joint force land component of such a JTF may have tactical control of United States (U.S.) Marine Corps or multinational forces. When a brigade-size or smaller Marine air-ground task force is under control of an Army division, the division employs it as a BCT with unique capabilities. When operating as a JFLCC, the division headquarters receives staff augmentation from other services and individual Army augmentation and communications support from higher echelons.

1-10. The division's higher echelon headquarters (corps, Marine expeditionary force, or combined JTF) assesses the additional load placed on the command and control (C2) systems of the division headquarters as multinational forces come under the division's control. As a JFLCC, the division headquarters requires communications and personnel augmentation to fill liaison requirements. As the intensity of combat increases, the higher echelon headquarters should assess the span of control of any division commanding multiple multinational brigade equivalents.

1-11. When the division serves as a JFLCC, it performs all the functions of a tactical headquarters, plus the additional functions of—

- Setting the land joint operations area.
- Assessing the threat in the land joint operations area.
- Developing the joint land operations plan.
- Receiving and employing the land force.

See Joint Publication (JP) 3-31, for additional information on the JFLCC.

DIVISION HEADQUARTERS AS JOINT TASK FORCE HEADQUARTERS

1-12. A division headquarters may become the base for a JTF headquarters during limited contingencies involving peacekeeping operations, humanitarian operations, or limited combat. When it becomes a JTF headquarters, the division headquarters organizes and operates in accordance with joint doctrine, which requires extensive augmentation from both joint and Army forces. The combatant commander provides joint network capabilities, each Service provides C2 detachments, and the U.S. Air Force provides the JTF with a joint air component coordination element. If present, U.S. Navy forces normally have a supporting relationship with the JTF. See JP 3-33 for additional information on options for augmenting the JTF headquarters.

1-13. When the division serves as a joint task force, it has all the functions of a tactical headquarters, plus the additional functions of—

- Providing the overall mission, purpose, and objectives for military operations.
- Developing and promulgating the rules of engagement and use of force tailored to the situation.
- Establishing and assisting liaison with U.S. embassies and foreign governments involved in the operation.

See JP 3-33, for additional information on JTFs.

LIMITATIONS

1-14. There are limitations and dependencies that must be considered throughout a division's employment. Those limitations include, but are not limited to, division mobility, security concerns, and Reserve Component mobilization.

Mobility and Security

1-15. Normally, the main command post (CP) deploys by a combination of air and sealift. Deployment of the division main CP into theater by air requires transport by numerous C-130 and C-17 sorties. The division main CP during deployment by ground requires additional transportation support due to limited organic transportation assets. It also requires reception, staging, onward movement, and integration to reach full capacity. CPs lack organic security and require the division headquarters to task subordinate units to provide CP security. *Organic* refers to those elements assigned to and forming an essential part of a military organization as listed in its table of organization for the Army, Air Force, and Marine Corps and are assigned to the operating forces for the Navy (JP 1, Volume 2).

Reserve Component Mobilization

1-16. Two critical Reserve Component organizations mobilize to support a division when it deploys. These are the main CP operational detachment and the maneuver enhancement brigade (MEB). The main CP operational detachment provides additional depth to the division staff for sustained operations. The MEB is integral to C2 of the division support area (DSA). If a division does not have an MEB, then it must either assign another organization to control the DSA or assume direct control itself. Additionally, without an MEB to collaborate with the rear CP, a division headquarters would either have to integrate with another organization or devote additional staff and equipment from the main CP to properly staff the rear CP. When a division is preparing to deploy, commanders, staffs, and planners must take care to coordinate for Reserve Component mobilization with enough time to assemble the formation for deployment. Alternatively, the division may not have enough time to incorporate mobilizing members prior to deployment. When this occurs, they must either assemble the entire formation in theater from other formations until mobilized forces arrive or operate without the key elements of the formation.

DIVISION ORGANIZATION

1-17. A division typically commands between two and five BCTs, a mix of functional and multifunctional brigades, and a variety of smaller enabler units to accomplish its mission.

1-18. The task organization of sustainment units in the division area may be complex. Multiple echelons above division sustainment units and elements of the medical brigade (support) (MEDBDE [SPT]) may be operating in the area alongside the DSB and its organic division sustainment support battalion (DSSB). Medical units of the MEDBDE (SPT) are normally OPCON to the division with the parent MEDBDE (SPT) retaining administrative control. Refer to FM 4-02 for additional information.

DIVISION HEADQUARTERS

1-19. A division headquarters is organized and equipped for sustained combat operations. The headquarters and headquarters battalion consists of a main CP, a tactical CP, a rear CP, and a mobile command group. When necessary, a division can form an early entry CP. Plans and operations across the staff sections, cells, CPs, and echelons are facilitated by a network and suite of C2 systems to enhance collaboration and

synchronization. The division commander may command the division from any of the CPs. See ATP 3-91 for additional information on division headquarters and CP functions.

1-20. The division headquarters and headquarters battalion provides administrative support, life support, communications, and limited transportation for the division's CPs and mobile command group. The headquarters and headquarters battalion has a complete battalion staff. The headquarters and headquarters battalion consists of two companies with distinct missions: the headquarters and support company, and the signal, intelligence, and sustainment company. Based on the mission and operational variables, a division headquarters may require additional security elements to augment the headquarters and headquarters battalion. The division band (if present) is usually attached to the headquarters and headquarters battalion.

1-21. The organization of the division headquarters and headquarters battalion is similar to that of the corps headquarters and headquarters battalion. The headquarters and support company includes life support and maintenance sections for the division CPs and provides administrative support to the movement and maneuver, fires, and protection sections of the staff. The signal, intelligence, and sustainment company provides administrative support to the signal, intelligence, and sustainment sections of the division staff. It connects the division headquarters into the Army global network enterprise, and through it, into the Department of Defense information networks. The signal company ties into the network through a supporting expeditionary signal battalion from either the corps or theater signal brigade, depending upon the division's role. Both companies task-organize to support the division CPs.

ASSIGNED FORCES

1-22. The division has units that are assigned to it. These include two to five BCTs, a DSB, division artillery, a combat aviation brigade (CAB), and a main CP-operational detachment.

Brigade Combat Teams

1-23. BCTs conduct decisive action to seize and retain key terrain, exerting constant pressure on the enemy, and break the enemy's will to fight by maneuvering against, closing with, and destroying the enemy. BCTs are the principal ground maneuver units of a division. The three BCT designs—armored, infantry, and Stryker—make up the ground maneuver combat power of a division. *Combat power* is the total means of destructive and disruptive force that a military unit/formation can apply against an enemy at a given time (JP 3-0). All divisions can command any type of BCT. The three types of BCTs currently have two to three maneuver battalions, a cavalry squadron, a field artillery battalion, a brigade support battalion (BSB), and an engineer battalion. See FM 3-96 for more details on BCTs.

1-24. The BSB is organic to the BCT that provides sustainment support to the formation. BSBs have the capability to operate a supply support activity (SSA), operate a modular ammunition transfer point (MATP), and perform field-level maintenance support and distribution operations. BSBs contain a medical company, brigade support (BSMC) that provides Role 1 medical care for units without organic medical assets on an area support basis and Role 2 medical care to all units in the brigade AO. Forward support companies provide distribution, field feeding, and field-level maintenance support to their supported battalions.

Division Sustainment Brigade

1-25. The DSB is assigned to a division. The DSB commander is the senior sustainment commander in the division. The commander is responsible for the integration, synchronization, and execution of sustainment operations in the division AO. The DSB employs sustainment capabilities to create desired effects in support of the division commander's objectives.

1-26. The DSB and its subordinate units provide sustainment support to all units assigned or attached to the division. The DSB depends on the division staff for long-range planning capability. The DSB may command up to seven battalions based on operational and mission variables. A DSB includes an organic division sustainment troops battalion (DSTB) and an organic DSSB to support tactical-level sustainment operations. Additional modular combat sustainment support battalions (CSSBs) and companies may be attached to a DSB to sustain large-scale combat operations. See chapter 2 for additional information on the DSB.

1-27. The division's DSB can provide logistics capability not organic to the BSB or provide additional capacity to support the BSB. The organic DSSB provides water treatment and storage, non-mobile petroleum storage, and troop transportation support to the BCT. The DSSB also provides heavy equipment trailer transportation support to the heavy tracked vehicles within the division. This includes both delivery of combat vehicles forward of the rear area and catastrophic recovery from the close area. The *close area* is the portion of the commander's area of operations where the majority of subordinate maneuver forces conduct close combat (ADP 3-0).

Combat Aviation Brigade

1-28. A CAB is organized to synchronize operations of multiple aviation squadrons, battalions, and joint aviation units. The core competencies of the CAB are to provide accurate and timely information collection; provide reaction time and maneuver space; destroy, defeat, disrupt, or delay enemy forces; air assault maneuver forces; air movement of personnel, equipment, and supplies; evacuate wounded and conduct personnel recovery; and enable C2 over extended ranges and complex terrain.

1-29. A CAB may include some combination of the following subordinate units:

- Headquarters and headquarters company (HHC).
- Attack/reconnaissance squadron (Heavy).
- Attack/reconnaissance battalion (AH-64).
- Assault helicopter battalion.
- General support aviation battalion.
- Aviation support battalion.

1-30. A CAB is modular and tailorable, and it is typically task-organized as required to support offensive, defensive, and stability operations in support of ground maneuver forces. A CAB may split into four aviation maneuver battalion/squadron task forces and one aviation support battalion. It can also operate the subordinate battalions as organic organizations. A CAB can receive two additional aviation battalion/squadron task forces without staff augmentation, but would require additional maintenance personnel and equipment. A CAB can also be task-organized with ground maneuver, joint aviation, and other non-aviation joint and Army units. Each aviation battalion has an organic forward support company.

1-31. The aviation support battalion organic to the CAB consists of a headquarters support company, a distribution company, an aviation support company, and a brigade signal company. The aviation support battalion provides aviation and ground field maintenance, ground and aviation recovery, network communications, resupply, and Role 1 medical support for the CAB. The aviation support battalion provides maintenance augmentation to aviation battalions when required. The aviation support battalion supports the CAB's forward support companies/troops, aviation maintenance companies/troops, the brigade's HHC, and the unmanned aircraft systems, if applicable. The aviation support battalion provides distribution of classes I, II, III (bulk), IV, V, and IX. It provides water storage and operates both a MATP and SSA.

1-32. The aviation support battalion consists of four companies: headquarters and support company, distribution company, aviation support company, and brigade signal company. The aviation support battalion is configured differently from other BSBs. Unlike other support battalions, the aviation support battalion does not have an assigned medical company but has a medical platoon that provides Role 1 medical care to the aviation support battalion and its units. Additionally, the forward support companies and aviation maintenance companies are organic to the aviation brigade's battalions and not the aviation support battalion.

Division Artillery

1-33. The division artillery is a brigade-level command. Division artillery is assigned to each division and plans, prepares, executes, and assesses fires for the division. The division artillery commander is the fire support coordinator for the division, and is also the primary advisor to the division commander for the fires warfighting function.

1-34. The division artillery is not allocated organic firing units, but is task-organized with additional units from corps or theater-level field artillery brigades based on mission requirements. The division artillery is dependent on the division headquarters for unit level administration, religious, legal, chemical, biological,

radiological, and nuclear (CBRN), signal, and force health protection support. It is dependent upon appropriate elements of the DSSB for field-maintenance, distribution, and field feeding support. The division artillery CP provides the division with the ability to establish an alternate main, tactical, or rear CP, and it can perform division-level C2 functions for a limited time. See Army techniques publication (ATP) 3-09.90 for additional information on division artillery.

PROVIDED FORCES

1-35. Based on the division's role and mission, it can be task organized with provided forces to assist it in matching capabilities to requirements. The most common of the provided forces are rocket or cannon battalions from a field artillery brigade; an expeditionary-CAB or subordinate battalions; a MEDBDE (SPT) or its elements operating in the division AO; an MEB; a military police battalion; an intelligence and electronic warfare battalion from the corps expeditionary-military intelligence brigade; civil affairs battalion; explosive ordnance disposal battalion; CBRN battalion; psychological operations company; theater tactical signal support element; military history detachment; mobile public affairs detachment; cyberspace electromagnetic activities team; Army space support team; and special operations forces. These forces can be attached, OPCON, or under the tactical control of the division.

1-36. Sustainment support for provided forces is defined based on the command relationship each organization has with the division. Units that are assigned or attached to the division will receive sustainment support from the DSB.

THE OPERATIONAL ENVIRONMENT

1-37. The *operational environment* is a composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander (JP 3-0). An operational environment (OE) encompasses physical areas of the air, land, maritime, space and cyberspace domains, as well as the information environment (which includes cyberspace), the electromagnetic spectrum, and other factors. These include enemy, friendly, and neutral actors that are relevant to a specific operation. The OE involves interconnected influences from the global or regional perspective that impact on conditions and operations. Army Doctrine Publication (ADP) 3-0 and FM 3-0 describe the OE in detail.

1-38. A *threat* is any combination of actors, entities, or forces that have the capability and intent to harm United States forces, United States national interests, or the homeland (ADP 3-0.) Threats exist in all domains and may include individuals, groups of individuals (organized or not organized), paramilitary or military forces, nation-states, or national alliances. Threats are an inherent part of the OE. Brigade commanders and staff must understand how current and potential threats organize, equip, train, employ, and control their forces. These leaders must continually identify, monitor, and assess threats and their effects on logistics support and distribution operations in the OE, as they adapt and change over time.

1-39. Commanders and staffs use operational and mission variables to help build their understanding of the OE. However, commanders must realize that uncertainty and time preclude achieving complete understanding before deciding and acting. Commanders and staffs use several tools to assist with understanding, visualizing, and describing an OE. These tools include —

- Running estimates, as described in FM 6-0.
- The military decision-making process (MDMP).
- Intelligence preparation of the battlefield (IPB).
- Sustainment preparation of the OE/battlefield.

1-40. *Sustainment preparation of the operational environment* is the analysis to determine infrastructure, physical environment, and resources in the OE that will optimize or adversely affect friendly forces means for supporting and sustaining the commander's operations plan (ADP 4-0). It is a continuous shaping activity involving analysis to determine infrastructure, environmental, or resource factors in the OE that impact the Army's ability to sustain the commander's operations plan. When commanders are given missions, staffs begin the military MDMP and use mission variables (mission, enemy, terrain and weather, troops and support available, time available, civil considerations, and informational considerations) to develop the tactical plan.

OPERATIONAL FRAMEWORK

1-41. An *operational framework* is a cognitive tool used to assist commanders and staffs in clearly visualizing and describing the application of combat power in time, space, purpose, and resources in the concept of operations (ADP 1-01). The operational framework is part of the Army's operations structure (operations process, combat power, and the operational framework). The components of the operational framework are—

- Assigned area.
- Deep, close, rear, and support operations.
- Main effort, supporting effort, and reserve.

ASSIGNED AREA

1-42. Within the operational framework, sustainment forces typically operate in an AO. An *area of operations* is an operational area defined by a commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces (JP 3-0).

1-43. To understand how sustainment units fit within an AO, leaders must first understand the different types of AOs. A *contiguous area of operations* is an area of operations where all of a commander's subordinate forces' areas of operations share one or more common boundary (FM 3-90-1). A *noncontiguous area of operations* is where one or more of the commander's subordinate forces' areas of operation do not share a common boundary (FM 3-90-1). Support areas are part of contiguous and noncontiguous areas. Each type of AO has unique considerations for the commander and staff to consider when developing the sustainment and protection plans. FM 3-90-1 provides further discussion about offense and defense of AOs.

1-44. The higher headquarters will direct the specific component within the operational framework to be used by subordinate headquarters; the operational framework component should be consistent throughout all echelons. ADP 3-0 includes a discussion of the operational framework.

DEEP, CLOSE, REAR, AND SUPPORT AREAS

1-45. The deep, close, and rear areas are historically associated with terrain orientation but can be applied to temporal and organizational orientations as well. A division employing deep-close-and rear areas is more likely to employ a contiguous AO since it will facilitate operations in an area with certain geographical characteristics.

1-46. In contiguous areas of operations, the *deep area* is where the commander sets conditions for future success in close combat (ADP 3-0). Usually, the deep area extends from the forward boundary of subordinate units to the forward boundary of the controlling echelon in contiguous areas of operations. Close operations are operations that are within a subordinate commander's AO.

1-47. The close area is the area within the subordinate commanders' AO. The higher commander may redefine the boundaries of specific AOs as necessary to shape operations, reallocating resources to ensure subordinate headquarters can adequately cover their assigned AOs.

1-48. The division rear area is the portion of the division AO that extends forward from the division rear boundary to the rear boundary of the division's subordinate units, most likely BCTs. It is an area where forces and assets are positioned to support and sustain forces in the close area. The DSAs are typically found within the division rear area.

1-49. Commanders designate support areas within the rear area. A *support area* is the portion of the commander's area of operations that is designated to facilitate the positioning, employment, and protection of base sustainment assets required to sustain, enable, and control operations (ADP 3-0). It is where most of the echelon's sustainment capabilities locate and includes the line of communications (LOC) connecting the support area to adjacent AOs. In these areas, the division designates a unit, usually an MEB but possibly a BCT, to provide security to allow sustainment units to focus on their primary function, providing sustainment support. See chapter 5 for more detail on the support area.

MAIN AND SUPPORTING EFFORTS

1-50. A *main effort* is a designated subordinate unit whose mission at a given point in time is most critical to overall mission success (ADP 3-0). Usually, the main effort is weighted with the preponderance of combat power. Designating a main effort temporarily prioritizes resource allocation. When commanders designate a unit as the main effort, it receives priority of support and resources to maximize combat power. Commanders establish clear priorities of support and shift resources and priorities to the main effort as circumstances and the commander's intent require.

1-51. A *supporting effort* is a designated subordinate unit with a mission that supports the success of the main effort (ADP 3-0). Usually, supporting efforts include only the minimum assets necessary to accomplish the mission. Forces often realize success of the main effort through success of supporting efforts.

SUSTAINMENT SUPPORT DURING ARMY OPERATIONS

1-52. Army sustainment enables multidomain operations by providing the support required to keep the Army and its unified action partners engaged in operations across the OE as described in FM 4-0. The DSB supporting division operations provides sustainment support and services within the Army operational context of competition, crisis, and conflict to ensure the division commander's freedom of movement, operational reach, and prolonged endurance.

SUSTAINMENT SUPPORT TO DIVISION OPERATIONS DURING COMPETITION

1-53. The Army conducts operations during competition to obtain geographic, informational, functional, and leadership positions of relative advantage across the land domain at the theater strategic and operational levels of warfare. This simultaneously assists the joint force in deterring an adversary while contributing to alliance, coalition, or partner nation assurance activities. Army competition activities augment joint cooperation and, if required, position the Army to contribute to joint adversarial competition below armed conflict and armed conflict. Army forces consistently compete in an attempt to keep relations with adversaries from escalating into a crisis or conflict.

1-54. The DSB's role during competition is to build and maintain the readiness of the division. The DSB coordinates with the expeditionary sustainment command (ESC), Army field support brigade, and Army field support battalions for strategic support. DSBs conduct support operations and provide distribution management in support of the division. Support operations is the staff function of planning, coordinating, and synchronizing sustainment in support of units conducting decisive action in an AO.

SUSTAINMENT SUPPORT TO DIVISION OPERATIONS DURING CRISIS

1-55. The Army conducts operations during crisis for two purposes. The first is to rapidly deploy Army forces to provide deterrence capability or, if necessary, compel an adversary to cease or reduce the actions that threaten U.S. national interests. The second reason the Army conducts crisis operations is to respond to a natural or humanitarian disaster that threatens the homeland or the stability of an ally or partner.

1-56. During crisis, the DSB supports division crisis response and limited contingency operations. During crisis, the DSB sustainment planners conduct sustainment preparation of the OE and develop sustainment estimates for the division concept of operations.

1-57. Sustainment preparation of the OE is a continuous activity involving analysis to determine infrastructure, environmental, or resource factors in the OE that impact the Army's ability to sustain commander's operations plan. The sustainment preparation of the OE identifies resources available to friendly forces and factors that impact sustainment.

SUSTAINMENT SUPPORT TO DIVISION OPERATIONS DURING CONFLICT

1-58. During conflict, Army forces focus on the defeat and destruction of enemy ground forces as part of the joint team. As described in ADP 3-0, Army forces close with and destroy enemy forces in any terrain, exploit success, and break their opponent's will to resist. Army forces attack, defend, and conduct stability tasks to

attain objectives. The ability to prevail in ground combat is a decisive factor in breaking an enemy's will to continue a conflict.

1-59. Characteristics of sustaining during conflict include volume, lethality, precision, and tempo. Operations during conflict will require a volume of reinforcements, materiel, and equipment significantly greater than those of other types of operations. Sustainment activities will occur at a higher tempo than other types of operations and will require flexible and adaptable sustainment structure to meet mission requirements.

1-60. During conflict, the DSB supports divisions operating as combined arms tactical formations organized to defeat or destroy enemy forces or seize terrain. In support areas, the DSB focuses on maintaining and extending friendly operational reach to prevent friendly culmination. If given an area support task, the DSB will support other units operating in the division AO. A division may have one or multiple support areas to avoid presenting a single lucrative target and to facilitate sustainment when the division is operating along multiple axes on a wide front.

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Chapter 2

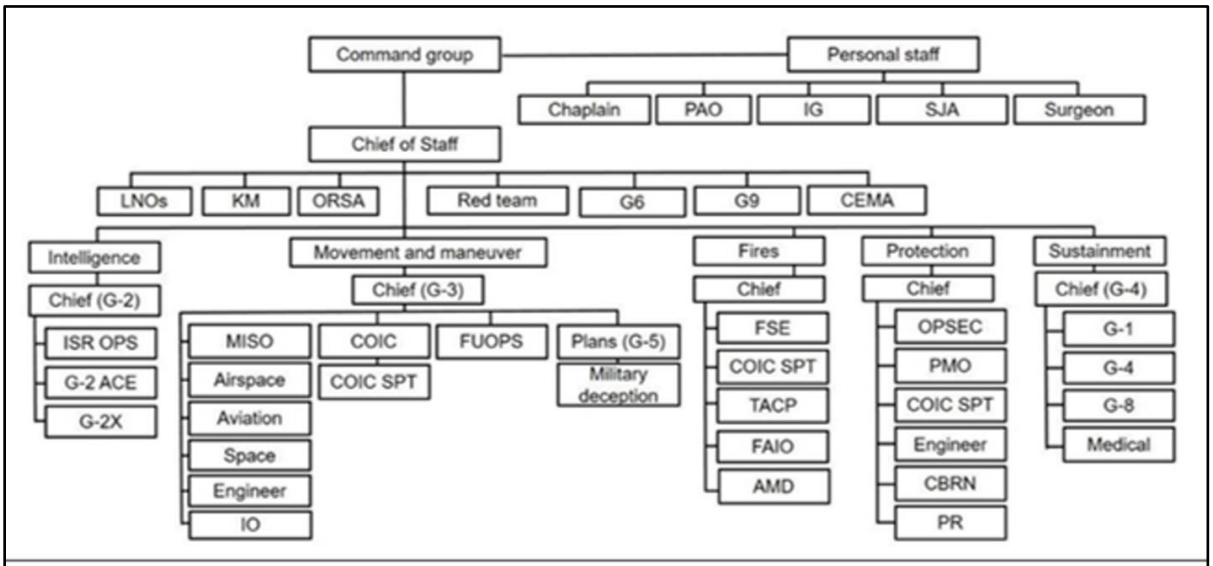
Division Echelon Sustainment Organizations

The DSB is the senior sustainment headquarters in a division. This chapter provides an overview of the DSB, DSTB, and DSSB's roles, capabilities, and organizations.

KEY DIVISION SUSTAINMENT PERSONNEL

2-1. The purpose of sustainment at the division echelon is to build and maintain combat power. Sustainment planners ensure that the division synchronizes the four primary sustainment elements of logistics, personnel services, financial management, and health service support (HSS). These elements enable operational readiness, endurance, and tempo to accomplish the commander's objectives.

2-2. Staff effectiveness depends in part on relationships of the staff with commanders and other staff. Collaboration and dialogue aids in developing shared understanding and visualization among staffs at different echelons. A staff acts on behalf of, and derives its authority from, the commander. Although commanders are the principal decision makers, individual staff officers make decisions within their authority based on broad guidance and unit standard operating procedures (SOPs). Commanders insist on frank dialogue between themselves and their staff officers. A staff gives honest, independent thoughts and recommendations so that commanders can make the best possible decisions. Once the commander makes a decision, staff officers support and implement the commander's decision even if the decision differs from their recommendations. Figure 2-1 on page 2-2 depicts a division headquarters organization.



ACE	analysis and control element	G-9	assistant chief of staff, civil affairs
AMD	air and missile defense	IG	inspector general
CBRN	chemical, biological, radiological, and nuclear	IO	information operations
CEMA	cyber electromagnetic activities	ISR	intelligence, surveillance, and reconnaissance
COIC	current operations integrity cell	KM	knowledge management
FAIO	field artillery intelligence officer	LNO	liaison officer
FSE	fire support element	MISO	military information support operations
FUOPS	future operations	OPS	operations
G-1	assistant chief of staff, personnel	OPSEC	operations security
G-2	assistant chief of staff, intelligence	ORSA	operations research and systems analyst
G-2X	assistant chief of staff, human intelligence	PAO	public affairs officer
G-3	assistant chief of staff, operations	PMO	provost marshal office
G-4	assistant chief of staff, logistics	PR	personnel recovery
G-5	assistant chief of staff, plans	SJA	staff judge advocate
G-6	assistant chief of staff, signal	SPT	support
G-8	assistant chief of staff, financial management	TACP	tactical air control party

Figure 2-1. Division headquarters organization diagram

2-3. Teamwork within a staff and between staffs produces the staff integration essential to synchronized operations. A staff works efficiently with complete cooperation from all staff sections. A force operates effectively in cooperation with all headquarters. Commanders and staffs contribute to foster this positive climate during training and sustain it during operations. However, frequent personnel changes and augmentation to the headquarters adds challenges to building and maintaining the team. While all staff sections have clearly defined functional responsibilities, none can operate effectively in isolation. Therefore, coordination is extremely important. Commanders ensure staff sections are properly equipped and manned. This will allow staffs to efficiently work within the headquarters and with their counterparts in other headquarters. Commanders ensure staff integration through developing the unit's battle rhythm, including synchronizing various meetings, working groups, and boards. The *battle rhythm* is a deliberate cycle of command, staff, and unit activities intended to synchronize current and future operations (FM 6-0). Figure 2-2 depicts how different staff elements contribute towards sustainment.

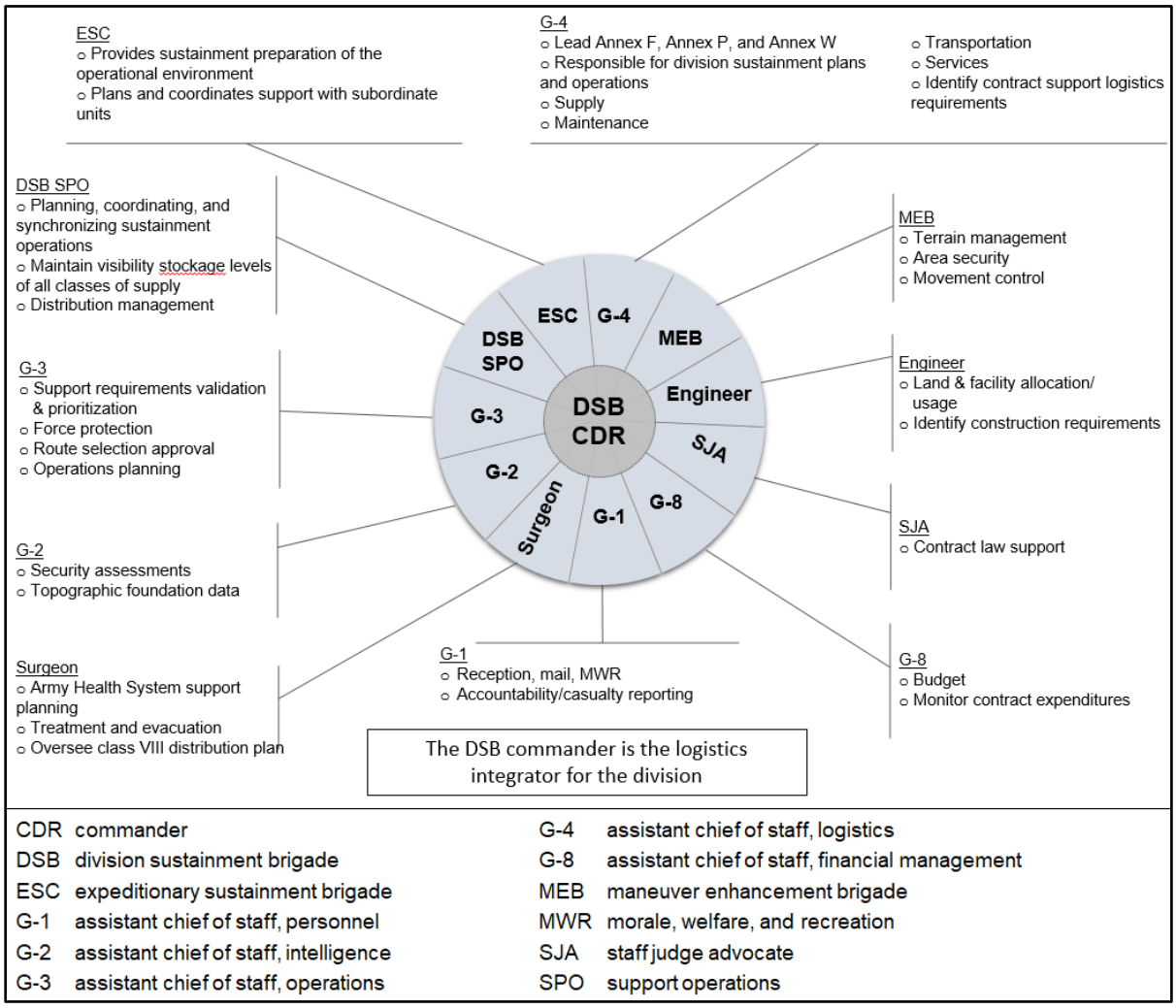


Figure 2-2. Staff contributions to sustainment

2-4. The division sustainment cell coordinates activities and systems that provide support and services to ensure freedom of action, extend operational reach, and prolong endurance. This section includes those tasks associated with human resources, maintenance, logistics, supply and services, personnel services, resource management, and HSS.

2-5. The division sustainment cell is composed of the G-1, G-4, G-8, and surgeon staff sections. The G-4 serves as both the division logistics officer and the chief of the sustainment cell. The G-4 has coordinating staff responsibility for the G-1, G-8, transportation officer, and the surgeon within the division sustainment cell. As part of the division staff, the sustainment cell participates in the operations process and develops the sustainment support concept based on the assistant chief of staff, operations (G-3) operations concept.

G-1, PERSONNEL

2-6. The G-1 is the principal staff officer for all matters concerning human resources support (military and civilian). The G-1 also serves as the senior adjutant general officer in the command. Specific responsibilities of the G-1 include manning, personnel services, personnel support, and headquarters management. The G-1 has coordinating staff responsibility for civilian staff duties and responsibilities, the personnel officer, and the equal opportunity advisor. The G-1 prepares a portion of Annex F (Sustainment) to the operation order (OPORD) or operation plan. See FM 1-0 for more details.

Man the Force

2-7. Manning the force impacts the effectiveness of all Army organizations, regardless of size, and affects the ability to successfully accomplish all other human resource core competencies and key functions. Manning includes five functional tasks: personnel readiness management, personnel accountability, personnel strength reporting, retention operations, and personnel information management. The division G-1 maintains overall responsibility for personnel readiness management of subordinate elements. The division G-1 maintains the responsibility to assist brigade S-1s and the national provider in shaping the force to meet mission requirements. Personnel accountability is the by-name management of the location and duty status of every person assigned or attached to a unit. Personnel strength reporting is a numerical product of the accountability process. Personnel information management is a process to collect, process, store, display, and disseminate information about Soldiers, Army civilians, units, and other personnel as required.

Provide Human Resources Services (Essential Personnel Services)

2-8. Essential personnel services are initiated by the Soldier, unit commanders, unit leaders, G-1s, or from the top of the human resource command. Typical actions initiated by the Soldier are personnel action requests, requests for leaves or passes, changes to record of emergency data or life insurance elections, changes to dependent information, allotments, saving bonds, and direct deposit information. Typical actions initiated by commanders include requests for awards or decorations, promotions, reductions, and bars to reenlistment. Normally, supervisors at all levels initiate evaluation reports (such as change of rater and complete the record reports). The military postal system operates as an extension of the United States Postal Service. Casualty operations record, report, verify, and process casualty information from the unit level to the casualty and mortuary affairs operations center, notify appropriate individuals, and provide casualty assistance to the next-of-kin.

Coordinate Personnel Support

2-9. Personnel support activities encompass those functions and activities that contribute to unit readiness by promoting fitness, building morale and cohesion, enhancing quality of life, and providing recreational, social, and other support services for Soldiers, Army civilians, and other personnel who deploy with the force. Personnel support encompasses the following functions: morale, welfare, and recreation, command interest programs, and Army band operations. Commanders at all levels are responsible for the morale, welfare, and recreation support provided to their Soldiers and civilians. Command interest programs include family readiness, Army substance abuse program, suicide prevention program, and other programs as directed. Army bands provide music for ceremonial and morale support in all operations to sustain Soldiers and to inspire leaders.

Headquarters Management

2-10. Headquarters management includes, but is not limited to—

- Managing the organization and administration of the headquarters.
- Providing administrative support for military and civilian personnel, including leaves, passes, counseling, transfers, awards, and personal affairs.
- Providing information services, including publications, printing, distribution, and material for the Freedom of Information Act.
- Providing administrative support for non-U.S. forces, foreign nationals, and civilian internees.
- Administering discipline, law, and order (with the provost marshal), including desertion, court-martial offenses, punishments, and straggler dispositions.

G-4, LOGISTICS

2-11. The G-4 is the principal staff officer for sustainment plans and operations, supply, maintenance, transportation, services, and operational contract support (OCS). The division G-4 performs the role of chief of sustainment with coordinating staff responsibility for the G-1, G-8, transportation officer, and surgeon. The G-4 helps the support unit commander maintain sustainment visibility with the commander and the rest

of the staff. The G-4 prepares Annex F (Sustainment), Annex P (Host-Nation Support) and Annex W (Operational Contract Support) to the OPORD or operation plan. See ADP 4-0 for more details.

Sustainment Plans and Operations (General)

2-12. The G-4 responsibilities for sustainment plans and operations include, but are not limited to—

- Developing the logistics plan to support operations (with the G-3).
- Coordinating with the G-3, the assistant chief of staff, intelligence (G-2), and engineer officer to requisition cataloged topographic foundation data and existing mission-specific data sets from the Defense Logistics Agency.
- Coordinating with the G-3 and G-1 on equipping replacement personnel and units.
- Coordinating with the support unit commander on the current and future support capability of that unit.
- Coordinating the selection of main supply routes (MSRs) and logistic support areas (with the engineer officer) and recommending them to the G-3.
- Performing logistics preparation of the battlefield (with the support command).
- Recommending command policy for collecting and disposing of excess property and salvage.

Supply

2-13. The G-4 responsibilities for supply include, but are not limited to—

- Determining supply requirements, except medical (with the support unit commander and the G-3).
- Coordinating all classes of supply except class VIII (which is coordinated through medical supply channels).
- Coordinating the requisition, acquisition, and storage of supplies and equipment and the maintenance of materiel records.
- Recommending sustainment priorities and controlled supply rates (CSRs).
- Ensuring that accountability and security of supplies and equipment are adequate (with the provost marshal).
- Calculating and recommending basic and prescribed loads to the G-3 and helping the G-3 determine the required supply rate (RSR).

Maintenance

2-14. The G-4 responsibilities for maintenance include, but are not limited to—

- Monitoring and analyzing equipment readiness status.
- Determining maintenance workload requirements, except medical (with the support command).
- Coordinating equipment recovery and evacuation operations (with the support command).
- Determining maintenance timelines.

Transportation

2-15. The G-4 responsibilities for transportation include, but are not limited to—

- Conducting operational and tactical planning to support mode and terminal operations and movement control.
- Planning administrative troop movements (with the G-3).
- Coordinating transportation assets for other Services.
- Coordinating with the G-9 for host-nation support.
- Coordinating special transport requirements to move the CP.
- Coordinating with the G-1 and the provost marshal to transport replacement personnel and enemy prisoners of war.
- Coordinating with the G-3 for sustainment of tactical troop movements.

Services

2-16. The G-4 responsibilities for services include, but are not limited to—

- Coordinating the construction of facilities and installations, except for fortifications and signal systems.
- Coordinating field sanitation.
- Coordinating organizational clothing and individual equipment exchange and replacement.
- Coordinating unit spill-prevention plans.
- Coordinating or providing food preparation, water purification, mortuary affairs, aerial delivery, laundry, shower, and clothing and light textile repair.
- Coordinating the transportation, storage, handling, and disposal of hazardous material or hazardous waste.

Staff Planning and Supervision

2-17. The G-4 has the following staff planning and supervisory responsibilities:

- Identifying requirements the unit can meet through contracting.
- Identifying requirements and restrictions (in conjunction with the staff judge advocate) for using local civilians, enemy prisoners of war, civilian internees, and detainees in sustainment operations.
- Coordinating with the staff judge advocate on legal aspects of contracting.
- Coordinating with financial managers on financial resources availability.
- Coordinating real property control and fire protection for facilities.

2-18. A support operations (SPO) officer is authorized in support units. As the principal staff officer for coordinating logistics, the support operations officer provides technical supervision for the sustainment mission of the support units and is the key interface between the supporting and supported units. The responsibilities of the support operations officer or materiel officer include, but are not limited to—

- Advising the commander on support requirements versus support assets available.
- Coordinating external support requirements for supported units.
- Synchronizing support requirements to ensure they remain consistent with current and future operations.
- Planning and monitoring support operations and adjusting to meet support requirements.
- Coordinating with other staff.
- Preparing and distributing the external service support SOPs that provide guidance and procedures to supported units.

DIVISION TRANSPORTATION OFFICER

2-19. The division transportation officer is a staff officer normally assigned in the sustainment cell of the division headquarters involved in the movement of units and maneuver elements in coordination with the division G-3. Additionally, the division transportation officer is a staff planner that advises the commander and coordinates transportation support with the division G-3 and G-4. The division transportation officer coordinates with the G-3 on operational movements, the G-4 on sustainment, and provides guidance and coordinates transportation issues with other staff sections and commanders. The division transportation officer advises the commander and staff on transportation matters that include—

- Division priorities for transportation and movement to support division plans and orders.
- The availability of subordinate brigade transportation assets.
- Movement regulation of MSRs and alternate supply routes the division will control.
- Assisting the G-4 in preparing, updating, and maintaining the transportation portion of the logistics estimate. The division transportation officer provides subordinate brigades with policies and priorities. Participation in the MDMP for future operations.

2-20. In addition to the above-mentioned tasks, the division transportation officer coordinates with other division staff offices including the provost marshal, engineers, the United States Air Force air mobility liaison

officer, and subordinate staffs. The division transportation officer movement control efforts also require close coordination with the movement control battalion and the movement control team (MCT) providing area support. Additional coordination can occur with the following:

- DSB
- Combat aviation brigade
- MEB
- Corps transportation officer

2-21. The division transportation officer is the focal point for transportation technical guidance and assistance for the staff during the planning and execution of operations. With the mobility warrant officer assigned to this office and an attached MCT, the division transportation officer—

- Conducts route synchronization (in coordination with the G-3 and supporting military police units) to include movement regulating teams and providing movement credits and march tables for sustainment convoys.
- Assists in the container management and tracking process.
- Provides technical assistance in planning for unit movement by all modes.
- Participates in MDMP as a member of the division planning staff.
- Conducts concurrent planning with the staff to integrate movement, maneuver, and transportation sustainment operations.
- Prepares a movement program.
- Develops the deployment, movement, and route synchronization portions of division operation plans and OPORDs.
- Validates and coordinates requirements for external transportation when requirements exceed a brigade's organic capability.
- Maintains the status of subordinate brigade transportation assets.

G-8, FINANCIAL MANAGEMENT

2-22. The division G-8 is the division staff proponent for all financial management within the division AO. The G-8 provides the commander with mission essential funding to ensure operational success and protects funds from fraud, waste, and abuse. When the division serves as the JTF headquarters, the division G-8 is singularly responsible for all financial management within the JTF AO. The division G-8 coordinates, synchronizes, and funds validated resource requirements by identifying the appropriate source of funds. The division G-8 primarily provides advice and guidance concerning resources and ensures that adequate funding sources are available to the division commander, the division staff, and subordinate BCTs.

2-23. The division G-8 conducts a continuous analysis of the commander's tasks and priorities in order to identify sources of funding and to ensure that appropriate financial resources are available and properly controlled. Responsibilities include the following:

- Provides financial management advice to the commander and provides budget estimates for preparing and conducting operations.
- Conducts financial management planning and synchronizes execution with the contingency contracting battalion, the fiscal lawyer, the ESC financial management SPO, and the financial management support unit in the division AO.
- Receives funding from higher headquarters and then distributes and controls funds; provides status of funds and monitors obligations rates.
- Estimates, tracks, and reports costs for specific operations to support data call requests to higher headquarters, the Army Budget Office, Office of the Secretary of Defense, and the U.S. Congress for appropriations.
- Performs analysis, planning, administration, and control of fiscal, financial, material, and other Department of Defense resources.
- Provides policy and fiscal guidance for contingency operations through the division OPORD and fragmentary orders issuing process.

- Establishes the appropriate funded levels of support for each BCT based on approved spend plan from higher headquarters.
- Establishes audit readiness and the manager's internal control program throughout the division AO in order to provide reasonable assurance that financial resources are being used appropriately and that funds, property, and other assets are safeguarded against fraud, waste, and abuse.
- Provides input to higher headquarters for the annual supplemental funding request with appropriate justification.

Budget Execution Section

2-24. The budget execution section is responsible for direct funding support to the division headquarters and subordinate assigned BCTs in the division AO. Primary functions include operating the financial management commitment and obligation system of record; managing, loading, and reconciling the document register; certifying funds for all validated, approved, and funded requirements; developing and executing the division spend plan; managing the funding of recurring contracts; and providing support to the BCTs. The budget execution section—

- Provides planning, programming, and budgeting support, budget analysis, management services, and force management support.
- Tracks and reports costs of battlefield operations to support efforts of reimbursement of costs initially paid from available training and readiness funds.
- Provides fund control, monitors fund execution, tracks and reports costs and obligations.

Special Programs Section

2-25. The special programs section is responsible for managing all specially created theater-specific appropriated funds and provides financial oversight for all special funding programs. Ideally, it will be separate and distinct from the budget execution section with its own resource management tool ledger and document register. The special programs section—

- Identifies, certifies, and manages special funds available for immediate expenses for supported BCTs.
- Provides special funds planning, programming, and budgeting support, budget analysis, management services, and force management support.
- Tracks and reports special programs cost of battlefield operations.
- Provides fund control, monitors fund execution, and tracks and reports costs and obligations of all special programs.

Note: Special funding could include funding approved projects that support the civilian populace (not U.S. Forces), a rewards program, and support to non-U.S. military forces.

DIVISION SURGEON

2-26. The division surgeon is a member of the commander's personal and special staff. The division surgeon is the principal advisor to the commander on the health status of the division and advises the division commander and staff on medical capabilities and capacities and all medical or medical-related issues necessary to support plans. The division surgeon interfaces with all coordinating, special, and personal staffs to coordinate Army Health System (AHS) support across the warfighting functions. The division surgeon coordinates echelons above brigade (EAB) medical support and ensures information is integrated into the division commander's ground tactical plan. See chapter 6 for more information on AHS and the division surgeon.

DEPUTY COMMANDING GENERAL-SUPPORT

2-27. The deputy commanding general–support controls the division rear area, which extends from the division rear boundary to the division close area and includes the DSA. Units operating within the division

rear area, whether divisionally aligned or not, are subject to the control of the division rear CP. From the rear CP, the deputy commanding general–support provides general officer oversight for—

- Conducting division support and rear area operations.
- Performing terrain management.
- Movement control.
- Defeating threats.
- Protection synchronization.
- Enabling stability operations.
- Enabling transitions.
- Enabling sustainment operations.

2-28. The DSB commander, the division's sustainment integrator, and the deputy commanding general–support directly synchronize sustainment operations to enable the division's tempo, transitions, and operational reach.

DSB COMMANDER

2-29. The DSB commander synchronizes and integrates sustainment for the division. As the senior sustainer in the division, the DSB commander is the primary senior advisor to the division commander and the deputy commanding general (support) for the sustainment warfighting function. The DSB commander is responsible for the integration, synchronization, and execution of sustainment operations at echelon.

COMMAND AND SUPPORT RELATIONSHIPS

2-30. Command and support relationships establish clear responsibilities and authorities between higher headquarters, subordinate, supported, and supporting units. Commanders task organize the force to provide specific capabilities in support of mission requirements by establishing command and support relationships. Doctrine sets general guidelines for command and support relationships, but mission orders will determine the details of the relationships. For each operation, commanders develop and issue orders that clearly identify command and support relationships. Commanders and staffs must understand the command and support relationships with respect to supported and supporting units. Changes in command relationships do not necessarily require changes in support relationships, especially if the nature of the support does not change. Figure 2-3 on page 2-10 depicts the relationships of sustainment units in the division and the coordination of staffs.

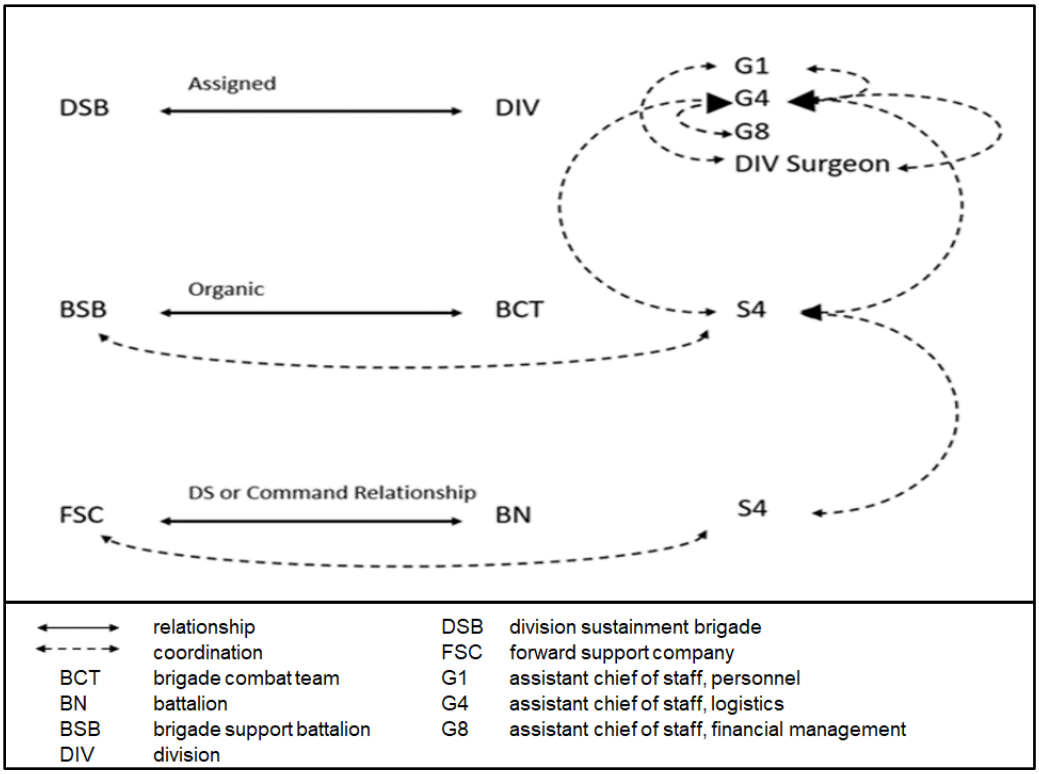


Figure 2-3. Division sustainment unit relationships

COMMAND RELATIONSHIPS

2-31. Command relationships define responsibility and authority of a command over a subordinate unit. Army command relationships are organic, assigned, attached, OPCON, and tactical control. Command relationships unify effort and enable commanders to organize, direct, and employ subordinate forces with maximum flexibility. The type of command relationship often relates to the expected longevity of the relationship between the headquarters involved and can shift throughout phases of an operation. The relationship quickly identifies the inherent responsibilities of the gaining and losing Army commanders. Leaders and Soldiers must understand the different kinds of command relationships and the impact those relationships have on providing and receiving sustainment support as well as the task organization and employment of subordinate organizations.

2-32. Command and support relationships establish clear responsibilities and authorities between higher headquarters, subordinate, supported, and supporting units. Doctrine sets general guidelines for command and support relationships, but mission orders will determine the details of the relationships. For each operation, commanders and subordinate commanders must develop and issue orders that clearly identify command and support relationships. Additionally, commanders and staffs must understand their unit's command and support relationships, its higher headquarters, units within the task organization, and supported units. ADP 5-0 and FM 6-0 define and explain doctrinal relationships.

2-33. Commanders task organize the force to provide specific capabilities in support of mission requirements by establishing command and support relationships. Changes in command relationships do not necessarily require changes in support relationships, especially if the nature of the support does not change.

2-34. *Organic* forces are those assigned to and forming an essential part of a military organization as listed in its table of organization for the Army, Air Force, and Marine Corps and are assigned to the operating forces for the Navy (JP 1, Volume 2). *Assign* is to place units or personnel in an organization where such placement is relatively permanent, and/or where such organization controls and administers the units or personnel for the primary function, or greater portion of the functions, of the unit or personnel (JP 3-0). Unless specifically

stated, the assigned relationship includes administrative control. *Attach* is the placement of units or personnel in an organization where such placement is relatively temporary (JP 3-0).

2-35. *Operational control* is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission (JP 1, Volume 2). *Tactical control* is the authority over forces that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned (JP 1, Volume 2).

2-36. Table 2-1 outlines the specific authorities and responsibilities authorized by the higher headquarters and parent unit of a subordinate based on command relationships.

Table 2-1. Command relationships

If relationship is—	***Then inherent responsibilities—***							
	Have command relationship with—	May be task organized by—[1]	Unless modified, ADCON responsibility goes through–	Are assigned position or AO by—	Provide liaison to—	Establish and maintain communications with—	Have priorities established by—	Authorities commander can impose on gaining unit further command or support relationship of—
Organic	All organic forces organized with the HQ	Organic HQ	Army HQ specified in organizing document	Organic HQ	N/A	N/A	Organic HQ	Attached, OPCON, TACON, GS, GSR, R, DS
Assigned	Gaining unit	Gaining HQ	Gaining Army HQ	OPCON chain of command	As required by OPCON	As required by OPCON	ASCC or Service-assigned HQ	As required by OPCON HQ
Attached	Gaining unit	Gaining unit	Gaining Army HQ	Gaining unit	As required by gaining unit	Unit to which attached	Gaining unit	Attached, OPCON, TACON, GS, GSR, R, DS
OPCON	Gaining unit	Parent unit and gaining unit may pass OPCON to lower echelon HQ[1]	Parent unit	Gaining Unit	As required by gaining unit	As required by gaining unit and parent unit	Gaining unit	OPCON, TACON, GS, GSR, R, DS
TACON	Gaining unit	Parent unit	Parent unit	Gaining unit	As required by gaining unit	As required by gaining unit and parent unit	Gaining unit	TACON, GS, GSR, R, DS

Note: [1] In NATO, the gaining unit may not task-organize a multinational force. (See TACON.)

ADCON	administrative control	HQ	headquarters
AO	area of operations	N/A	not applicable
ASCC	Army Service component command	NATO	North Atlantic Treaty Organization
DS	direct support	OPCON	operational control
GS	general support	R	reinforcing
GSR	general support-reinforcing	TACON	tactical control

SUPPORT RELATIONSHIPS

2-37. Support relationships define the desired purpose, scope, and effect when one organization supports another. There are four support relationships in Army doctrine: direct support, reinforcing, general support-reinforcing, and general support. Army support relationships are not command authorities and are more specific than joint support relationships. Commanders establish support relationships when subordination of one unit to another is inappropriate but when support responsibilities must be established. If a command relationship is established, there is no need for a support relationship. When a command relationship exists, it provides the commander adequate authority to direct the actions of the subordinate supporting unit. Commanders assign a support relationship when—

- The support is more effective if a commander with the requisite technical and tactical expertise controls the supporting unit rather than the supported commander.
- The echelon of the supporting unit is the same as or higher than that of the supported unit. For example, the supporting unit may be a brigade, and the supported unit may be a battalion. It would be inappropriate for the brigade to be subordinated to the battalion; hence, the echelon uses an Army support relationship.
- The supporting unit supports several units simultaneously. The requirement to set support priorities to allocate resources to supported units exists. Assigning support relationships is one aspect of C2.

2-38. FM 6-0 discusses Army and joint support relationships. JP 4-0 has more information about the authorities, organizations, and control mechanisms that enable the synchronization of logistics in support of the joint and multinational force commander.

2-39. The higher headquarters designates the support relationship through appropriate orders to specify the details of the support relationship. For example, the CSSB normally has a general support relationship with units in an area of operation. However, it may be designated to provide direct support to multifunctional support brigades, functional brigades (such as the MEB or engineer brigade), and special operations forces. *Direct support* is a support relationship requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance (FM 3-0). A CSSB with a direct support relationship has the priority set by the supported unit. Each support relationship directed in unit orders reinforces the commander's priority of support. Using area support allows units to gain efficiencies, but it is not a support relationship and does not guarantee support. Reinforcing and general support-reinforcing support relationships are not normally used by sustainment units. *Reinforcing* is a support relationship requiring a force to support another supporting unit (FM 3-0). *General support-reinforcing* is a support relationship assigned to a unit to support the force as a whole and to reinforce another similar-type unit (FM 3-0).

2-40. The general support relationship requires the DSB to identify all supporting units and the units each supports by name. The DSB identifies the duration of the support relationship if a change is expected during the operation. The OPORD establishes the priority of support for all supported units. This information is included in the OPORD and must set the priorities for each company within the battalion based on the priorities established by the parent unit. For example, a support maintenance company might support five units. All five units must be identified by name in the order. One unit may have priority over the other units. This ensures the maintenance company knows the supported units and can plan based on this. This logic applies to all types of supporting units, such as supply, transportation, field service, and mortuary affairs. If a supported unit requires a higher priority, the supporting unit must query its parent unit and request a higher priority. The parent unit will decide whether to change the priority of support or not, and will issue new orders if the priority is changed. Priorities may change through phases of the operation and the parent unit will issue orders identifying the changes.

2-41. Table 2-2 lists Army support relationships and the responsibilities associated with each. Army support relationships are not a command authority and are more specific than joint support relationships.

Table 2-2. Army support relationships

If relationship is—	*Then inherent responsibilities—*							
	Have command relationship with—	May be task-organized by—	Receives sustainment from—	Are assigned position or an area of operations by—	Provide liaison to—	Establish and maintain communications with—	Have priorities established by—	Authorities a commander can impose on gaining unit further command or support relationship by—
Direct support[1]	Parent unit	Parent unit	Parent unit	Supported unit	Supported unit	Parent unit, supported unit	Supported unit	See note 1
Reinforcing	Parent unit	Parent unit	Parent unit	Reinforced unit	Reinforced unit	Parent unit, reinforced unit	Reinforced unit, then parent unit	Not applicable
General support-reinforcing	Parent unit	Parent unit	Parent unit	Parent unit	Reinforced unit and as required by parent unit	Reinforced unit and as required by parent unit	Parent unit, then reinforced unit	Not applicable
General support	Parent unit	Parent unit	Parent unit	Parent unit	As required by parent unit	As required by parent unit	Parent unit	Not applicable

Note: [1] Commanders of units in direct support may further assign support relationships between their subordinate units and elements of the supported unit after coordination with the supported commander.

OTHER AUTHORITY

2-42. Administrative control is not a command or support relationship—it is a Service authority. It is exercised under the authority of, and is delegated by, the Secretary of the Army. JP 1, Volume 2, ADP 1-01, and FM 6-0 provide details about relationships and authorities.

2-43. Coordinating authority and direct liaison authorized apply to Army forces. Coordinating authority is a consultation relationship, not an authority through which command may be exercised. Coordinating authority is more applicable to planning and similar activities than to operations.

2-44. Direct liaison authorized is a coordination relationship, not an authority through which command may be exercised. Direct liaison authorized is more applicable to planning than operations and always carries with it the requirement of keeping the commander granting direct liaison authorized informed.

THE DIVISION SUSTAINMENT BRIGADE

2-45. The DSB is a multifunctional logistics headquarters that provides logistics, personnel services, and finance support to a division. The DSB can provide C2 for up to seven battalions with two organic and optional space for five additional battalions. Figure 2-4 on page 2-14 depicts a notional task-organized DSB in support of a heavy division.

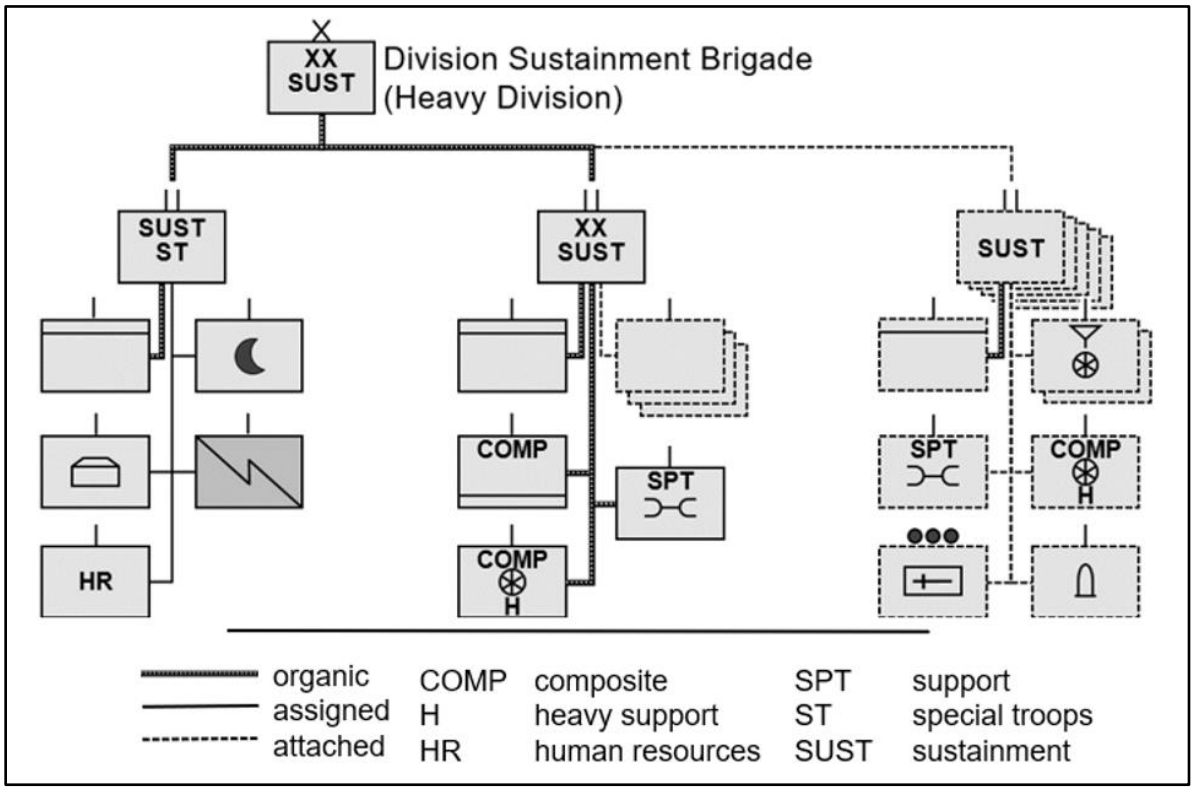


Figure 2-4. Notional task-organized division sustainment brigade for a heavy division

DSB ROLE, CORE COMPETENCIES, AND FUNCTIONS

2-46. A *role* is the broad and enduring purpose for which the organization or branch was established (ADP 1-01). An organization or branch has only one role. The role of the DSB is to provide C2 to all subordinate units of the DSB and plan, synchronize, and integrate all sustainment support (including medical) for the division.

2-47. A *core competency* is an essential and enduring capability that a branch or an organization provides to Army operations (ADP 1-01). The core competencies of the DSB are—

- C2 of sustainment formations assigned and attached to the division.
- Provide distribution management.
- Conduct support operations.

2-48. A *function* is the broad, general, and enduring role for which an organization is designed, equipped, and trained (JP 1, Volume 1). The purpose of a function is to delineate the set of executable capabilities that an organization requires to accomplish its role. The DSB performs the following functions: distribution management and operations, transportation, supply support, field maintenance, human resources, financial management, personnel services, and OCS requirements determination in coordination with subordinate units and the division staff.

DSB CHARACTERISTICS AND CAPABILITIES

2-49. A *characteristic* is a feature or quality that marks an organization or function as distinctive or is representative of that organization or function (ADP 1-01). Characteristics describe the attributes that the organization requires to be effective. The DSB is expeditionary, inter-operable, and agile. The DSB can deploy task-organized forces on short notice to austere locations and conduct sustainment operations upon

arrival. The DSB can organize rapidly and integrate joint, inter-organizational, and multinational requirements and capabilities.

2-50. The DSB headquarters is not designed with a standalone tactical CP capability. The DSB can create or operate a tactical CP, but not without accepting risk in other areas. More information about the CP is provided at the end of this chapter.

2-51. The DSB conducts local security around its base or base cluster against level I threats. Level II and level III threats require coordination with designated combat reaction forces. A *base cluster* is a collection of bases, geographically grouped for mutual protection and ease of command and control (JP 3-10). *Command and control* is the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission (JP 1, Volume 2). The division designates a unit (usually an MEB but possibly a BCT) to provide terrain management, information collection, movement control, and clearance of fires for the DSA. Protection is discussed further in chapter 5.

DSB Headquarters Organization

2-52. The DSB comprises a command group, staff, DSTB, and DSSB. A division-aligned contracting battalion may also be assigned. The DSB headquarters plans, synchronizes, integrates, and echelons sustainment capabilities, and performs distribution integration, transportation operations, materiel management, OCS, human resources, and financial management in support of the division. A DSB provides sustainment support to units assigned or attached to the division based on the OPORD.

THE DIVISION SUSTAINMENT TROOPS BATTALION

2-53. The DSB has an organic DSTB, which includes the brigade HHC. The DSTB may provide C2 for up to seven companies or teams based on mission requirements.

DSTB Role, Core Competencies, and Functions

2-54. The role of the DSTB is to provide C2 for organic, assigned, and attached units and integrate, synchronize, and control the execution of operations for human resources (HR), financial management, and field service (field feeding and mortuary affairs) units supporting division operations.

2-55. The core competencies of the DSTB are—

- C2 for assigned and attached units.
- Planning, coordinating, and synchronizing human resource, financial management, and field service operations for the division.

DSTB Characteristics and Capabilities

2-56. The DSTB is capable of operating at the tactical level throughout the operational area. The DSTB normally has an attached signal company, human resources company, and field feeding company (EAB).

DSTB Organizations

2-57. The following paragraphs describe DSTB subordinate units along with functions, roles, and capabilities.

Division Sustainment Troop Battalion Headquarters

2-58. The DSTB headquarters has a limited staff capability to provide administrative and life support. The DSTB comprises a command group, unit ministry team, coordinating staff, medical treatment and evacuation team, and headquarters company with maintenance section. It depends upon the brigade staff for signal and legal support.

DSTB Headquarters Company

2-59. The HHC provides oversight of all company-level operations and Soldiers assigned to the DSB headquarters and DSTB. In addition to responsibilities common to all commanders, the HHC commander coordinates food service, billeting, field sanitation, supply, field maintenance for organic equipment, and AHS support.

2-60. The headquarters company has a maintenance section that provides field maintenance for vehicles and equipment belonging to the DSB headquarters, the DSTB headquarters, and the assigned brigade signal company. Additional attached units that do not have organic maintenance capability will receive maintenance support from the division support maintenance company (DSMC).

Human Resources Company

2-61. The HR company attached to a DSTB provides command, planning, and technical support to all assigned or attached human resources and postal platoons. This headquarters includes a command section, a plans and operations section, and a headquarters support section. The capabilities of the company depend on attached platoons and detachments. Company capabilities include postal directory services, integrating personnel arriving to or transiting the theater, postal inspections, and casualty liaison teams or personnel accountability teams.

2-62. The HR company receives operational guidance from the DSTB SPO section. The HR company may receive additional technical guidance from the human resources operations branch in the DSB and the theater personnel operations center. There are many capability configurations available for the HR company and platoons. Composition changes according to mission and operational variables. The three platoons most likely to be in the human resources company are two human resources platoons and one postal platoon. A short explanation of these platoons is below. FM 1-0 provides a full explanation of all the human resources capabilities and organizational relationships.

2-63. The HR platoon has the capability to provide HR squads to perform the casualty liaison team and personnel accountability team missions. The postal platoon provides postal support to all individuals and units in the division AO.

Field Feeding Company (EAB)

2-64. The field feeding company (EAB) attached to a DSTB has the mission to provide field feeding to EAB operational forces during deployed operations, during field training, and in a garrison environment. When deployed, field feeding companies execute the field feeding operation in their area of operation.

2-65. The standard company design consists of a company headquarters, operations section, and a maintenance section, along with two to four platoons. Platoons consists of three to four teams, and each team can feed up to 700 Soldiers. Planners use the following guidelines to allocate field feeding elements during operations:

- One field feeding team per 700 EAB Soldiers not supported by internal capabilities.
- One field feeding team per 1000 detainees in a theater detention facility.
- One platoon headquarters per every two to five field feeding teams.
- One company headquarters per every two to four platoons.

2-66. The field feeding company (EAB) depends upon either the DSTB or the supported unit for religious, legal, AHS, finance, personnel and administrative services, and CBRN defense support. The field feeding company (EAB) has organic maintenance for wheeled vehicles and ground support equipment. It is dependent upon on a support maintenance company for small arms, electronic, and communications security field maintenance, and a composite truck company for the distribution and return of supplies, multi-temperature refrigerated containers, and empty flat racks. The field feeding company (EAB) depends on a composite supply company for class I supply support.

2-67. The field feeding company (EAB) headquarters provides C2, unit level administration, unit supply, limited field maintenance, vehicle recovery, and supervision of field feeding operations. OPORDs or fragmentary orders issued by the DSTB identify supported units, the support relationship with each unit,

priority of support, and attachments and detachments to the field feeding company (EAB) as required. The field feeding company (EAB) commander and key leaders use troop-leading procedures to conduct mission analysis.

2-68. Each platoon consists of a platoon headquarters and four teams. The platoon leader coordinates mission support with the company headquarters operations officer and supported unit. At home station, the platoon leader serves as the dining facility accountable officer. The platoon headquarters is assigned two vehicles and two assault kitchens that can be used by teams to provide support to remote locations.

2-69. Field feeding teams provide field feeding to supported EAB units. At home station, the field feeding teams operate garrison dining facilities supporting EAB Soldiers on the installation. Each field feeding team consists of 15 personnel, four trucks, two mobile kitchen trailers, two water buffalos, two field sanitation centers, and two assault kitchens. Each field feeding team provides support for up to 700 personnel at one site; however, it can be split to provide field feeding at multiple smaller sites. It can provide field feeding for up to 300 at two smaller sites, or can be further separated to provide support utilizing one of the two assault kitchens assigned to the platoon headquarters. See figure 2-5.

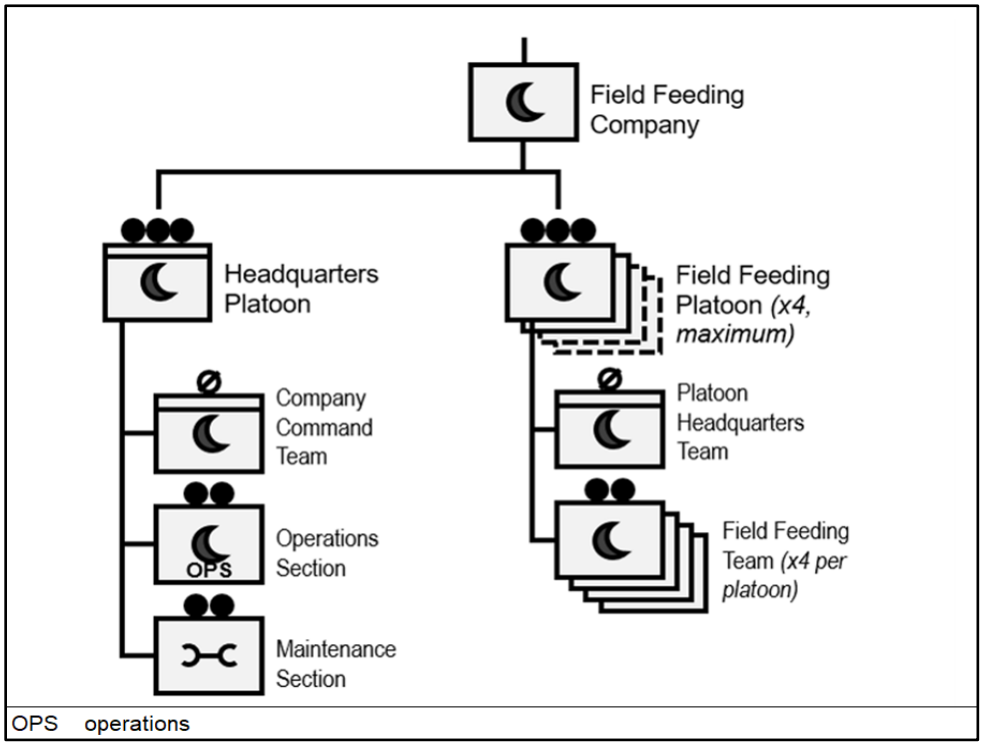


Figure 2-5. Field feeding company (EAB)

Signal Company

2-70. The brigade signal company attached to a DSTB consists of a headquarters and two platoons. The brigade signal company headquarters section provides C2, logistics, and administrative support for the unit. The range extension platoon has two small CP teams and three retransmission teams. Each CP team is equipped with a CP node capable of supporting a battalion size CP. Each retransmission team provides extended-range access for frequency modulation radio networks. The second platoon consists of a Joint Network Node team, a line-of-sight team, and another retransmission team. The Joint Network Node team supports the brigade headquarters. The line-of-sight team provides Joint Network Node line-of-sight connectivity to the network.

2-71. The brigade signal company provides 24-hour operational command, control, communications, computer, intelligence, surveillance, and reconnaissance signal systems network support. Unit subordinate elements (platoons and teams) deploy throughout the DSB's assigned support area. Elements of the signal

company engineer, install, operate, maintain, and defend the joint enterprise theater network supporting operations.

2-72. The brigade signal support company extends defense information systems network services to the DSB's subordinate elements operating in the assigned support area and provides basic network management capabilities. The DSB battalion signal staff officer (S-6) and battalion operations staff officer (S-3) coordinate to determine allocation and positioning of signal assets in the brigade's assigned support area.

2-73. The network extension platoon provides support to the DSB CP. The range extension platoon employs three Single Channel Ground and Airborne Radio System wireless network extension teams for coverage of the DSB's assigned support area and two small CP support teams that have CP nodes support for the DSTB and DSSB CPs. Additional signal support is required from the expeditionary signal battalion as additional sustainment battalions are attached to the DSB. FM 6-02 offers details about the brigade's signal company.

FINANCE BATTALION

2-74. The finance battalion attached to a DSB provides tailorable general finance operations support to units in the DSB's AO and is responsible for its finance companies. Supported entities in the AO include joint and multinational commands, units, Soldiers, and authorized civilians and contractors. The DSB S-8 plans and integrates finance and comptroller operations.

2-75. The finance battalion analyzes the supported commander's tasks and priorities to identify the financial resource requirements that will enable mission accomplishment. The finance battalion is capable of augmenting other finance elements to meet requirements at echelons above division. It ensures regulatory guidelines, directives, and procedures are followed by operational elements.

2-76. The finance battalion commander is responsible for funding subordinate companies, determining currency requirements and replenishment (U.S. and foreign) needs, receiving collections, making payments on certified vouchers, supporting detainee operations, safeguarding funds, and protecting funds from fraud, waste, and abuse.

2-77. The finance battalion is responsible for the execution of electronic commerce programs, to include eagle cash kiosks and point-of-sale machines. Strong consideration should be given to co-locating finance elements in the proximity of the division G-8 and supporting contracting battalion due to their critical role in OCS.

2-78. The finance battalions and companies rely on the Financial Management Tactical Platform as an integrated system with multiple software capabilities. Just as important is the General Funds Enterprise Business System, which performs vendor pay and accounting transactions. The finance battalion requires continuous connectivity to perform these functions. Connectivity is especially critical during theater opening operations. Finance and comptroller operations also depend on electronic submission of finance documents through the Finance and Comptroller Tactical Platform to the Defense Finance and Accounting Service for disbursing, vendor support, and travel and pay support. See FM 1-06 for more information about financial management support organizations and operations.

THE DIVISION SUSTAINMENT SUPPORT BATTALION

2-79. The DSSB is a multifunctional battalion that is organic to a DSB and provides logistics support to a division. The DSSB organizational design includes four organic companies. The DSSB has the capability to C2 up to four additional companies, detachments, or teams.

DSSB ROLE, CORE COMPETENCIES, AND FUNCTIONS

2-80. The role of the DSSB is to provide C2 for organic and attached units, and synchronize and coordinate logistics operations in a division task organization.

2-81. The core competencies of the DSSB are—

- C2 for organic and attached units.
- Synchronize, integrate, and control the execution of logistics operations.

- Administrative and logistics support for attached units, which includes communications and CBRN defense for attached units.

2-82. The DSSB performs the C2 function and the logistics functions of transportation, field maintenance, and supply with its organic units.

DSSB CHARACTERISTICS AND CAPABILITIES

2-83. The DSSB is a headquarters with organic company-level capabilities to support supply, transportation, and maintenance operations. The DSSB can expand its capability by task organizing up to four additional logistics companies, detachments, or teams based on the mission requirements.

2-84. The DSSB is expeditionary, interoperable, and agile. DSSBs are expeditionary as they can deploy task organized forces on short notice to austere locations and conduct logistics operations immediately upon arrival. DSSBs are interoperable as they can task organize rapidly and integrate joint, inter-organizational and multinational requirements and capabilities. DSSBs are agile as they can transition logistics support across all decisive action tasks.

2-85. The DSSB is dependent upon appropriate elements of the DSB for religious, legal, finance, personnel, and logistics services support. The DSSB is dependent upon the DSB for satellite communications and AHS and administrative support. Additional dependencies include a medical company (area support) (MCAS) for both Role 1 and Role 2 medical support, a field feeding company (EAB) for field feeding support, and a modular ammunition ordnance platoon for munitions accountability and handling.

DSSB ORGANIZATION

2-86. DSSBs include an HHC, composite supply company, composite truck company, and DSMC. Other capabilities are task organized in accordance with requirements. Figure 2-6 shows the DSSB for a heavy division (note that the composite truck company is heavy). The DSSB organizational design includes four organic companies and optional space for four additional companies. Figure 2-7 shows the DSSB for a light division with a light composite truck company.

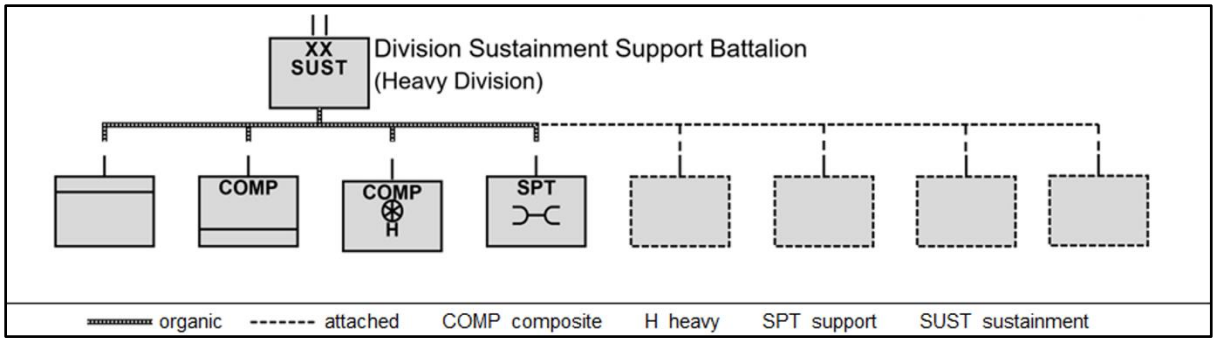


Figure 2-6. Division sustainment support battalion for a standard heavy division

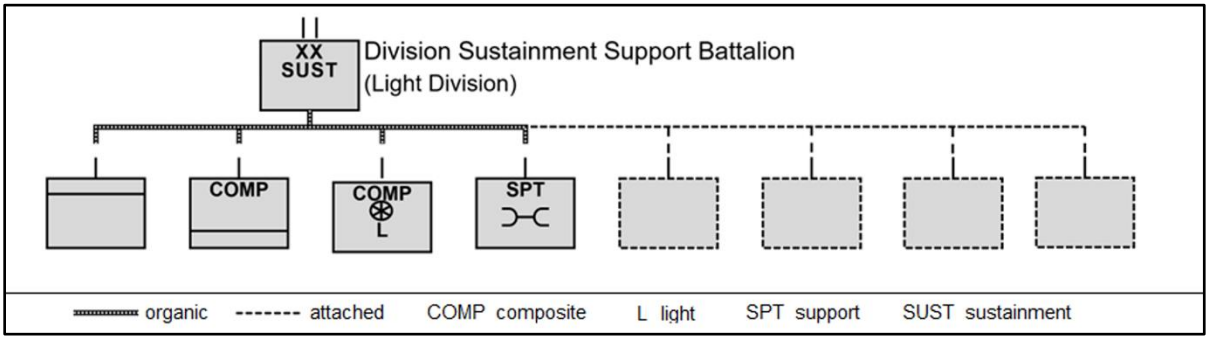


Figure 2-7. Division sustainment support battalion for a standard light division

Headquarters and Headquarters Company

2-87. The DSSB HHC consists of the command group, personal and coordinating staff, and company headquarters. The HHC provides C2 and administrative and logistics support for all DSSB organic, assigned, and attached units. The command staff conducts planning, synchronization, and coordination of logistics operations execution for all assigned and attached units.

2-88. The DSSB company headquarters provides leadership, supply, and human resources support to HHC personnel including the battalion commander, personal staff, and coordinating staff. This small organization includes the company commander, first sergeant, and supporting supply, maintenance, unit ministry team, a Role 1 medical treatment section and medical evacuation (MEDEVAC) teams, a signal retransmission team, and CBRN Soldiers.

Note: The medical treatment and MEDEVAC sections provide Role 1 HSS and MEDEVAC support for units organic to the DSSB.

DSSB Composite Supply Company

2-89. The mission of the composite supply company is to provide class I, II, III (bulk and packaged), IV, VII, IX, water purification, and water supply support. The company consists of a company headquarters section, supply platoon, bulk petroleum platoon, and water purification platoon. Elements from the company may operate as far forward as the brigade support areas.

Note: Due to force design changes approved for implementation in fiscal year 2022, the company's bulk fuel capability increases by replacing the shower and laundry capability.

2-90. Composite supply companies are dependent upon appropriate elements within the DSA for religious, legal, AHS, finance, personnel and administrative, and supplemental transportation support, as well as support for interpreters and translators. The composite supply company is dependent upon the DSMC for maintenance of electronics, communications security, small arms, and engineer equipment. Composite supply companies depend upon the composite truck company for the distribution and return of supplies, flat racks, and multi-temperature refrigerated container systems.

2-91. The company headquarters provides C2, unit level administration, unit supply, and CBRN defense support to unit personnel. An operations section coordinates supply, petroleum, and water, shower, and laundry field service operations. The maintenance section performs limited field-level maintenance on organic unit vehicles and equipment.

2-92. The supply platoon receives, store, issues, and retrogrades materiel including class I (perishable and semi-perishable), II, III (packaged), IV, VII, and IX, maps, and bottled water. The supply platoon consists of the following:

- Supply platoon headquarters—provides leadership, mission planning, and operational guidance to the sections assigned to the platoon.
- Stock control section—provides control and quality assurance of the multi-class SSA and subsistence supply mission. Stock control also coordinates external logistics, transportation, and movement control functions.
- Receiving section—receives and processes up to 51.6 short tons per day of class II, III (packaged), IV, VII, IX, and maps.
- Storage section—manages storage of class II, III (packaged), IV, VII, and IX items for issue to customer units upon request.
- Packing and crating section—provides receipt, storage, inventory, transfer, and issue of materiel. This section ensures for the optimum life, utility, and performance of materiel through prevention of deterioration or damage as it prepares class II, III (packaged), IV, VII, and IX for shipping and storage.

- Class I operations section—performs class I stock control functions for subsistence supply operations.
- Class I quality analysis section—performs class I quality control and inspections on subsistence receipt, storage, and issue operations.
- Class I receiving section—receives and processes perishable and semi-perishable class I and bottled water (where provided), not to exceed 51.6 short tons per day.
- Class I warehouse section—stores perishable and semi-perishable class I and bottled water (where provided). It packages and palletizes class I loads and bottled water for shipment.

2-93. The petroleum platoon receives, stores, and issues bulk petroleum. The petroleum platoon performs quality surveillance by monitoring the condition of fuel until it is issued to the supported unit. The unit has two 120,000-gallon fuel system supply points that can be pushed forward to be closer to a BCT if required. A petroleum platoon may augment up to three BCTs with additional capability to store and distribute fuel using 5,000-gallon tankers and heavy expanded mobility tactical trucks with modular fuel system tank racks on palletized load system (PLS) trailers. It provides limited local bulk fuel distribution. A transportation truck company may also use modular fuel system tank racks and PLS trailers. The petroleum platoon consists of the following:

- The petroleum platoon headquarters provides leadership, supervision, and technical guidance to the petroleum platoon. The petroleum platoon headquarters includes petroleum laboratory specialists who provide quality surveillance and control measures for fuel stored and distributed by the platoon.
- The storage and issue section has two Type 3, 120,000-gallon fuel system supply points and one Type 4, 300,000-gallon fuel system supply point. With these two systems, the platoon receives, stores, and issues up to 540,000 gallons of bulk petroleum per day.
- The distribution section can issue up to 125,000 gallons per day using a combination of 5,000-gallon M969 tankers (60,000 gallons) and 2,500-gallon heavy expanded mobility tactical trucks and modular fuel tank racks (65,000 gallon) on PLS trailers. The section includes forward area refueling equipment capable of up to four aircraft refuel points.

2-94. The water purification platoon headquarters provides C2 of personnel and equipment to support water production, storage, and local distribution. The water purification platoon consists of the following:

- The water production section purifies up to 120,000 gallons of water per day with four 1.5k tactical water purification systems, treating 30,000 gallons per tactical water purification system from a fresh water source or 24,000 gallons from a brackish water source. The section is capable of operating four lightweight water purifiers, which can produce 2,500 gallons of potable water per day.
- The water storage section can store 80,000 gallons of potable water using its two water storage and distribution systems. It may also store an additional 60,000 gallons of water in load handling system compatible water tank racks (HIPPOs) when not used as distribution platforms. When HIPPOs are loaded on PLS trailers, this section can distribute 8,000 gallons via line haul, or 16,000 gallons locally based on two trips per day. The section may direct exchange HIPPOs with supported customer units. All of the elements within a composite supply company are depicted in figure 2-8 on page 2-22.

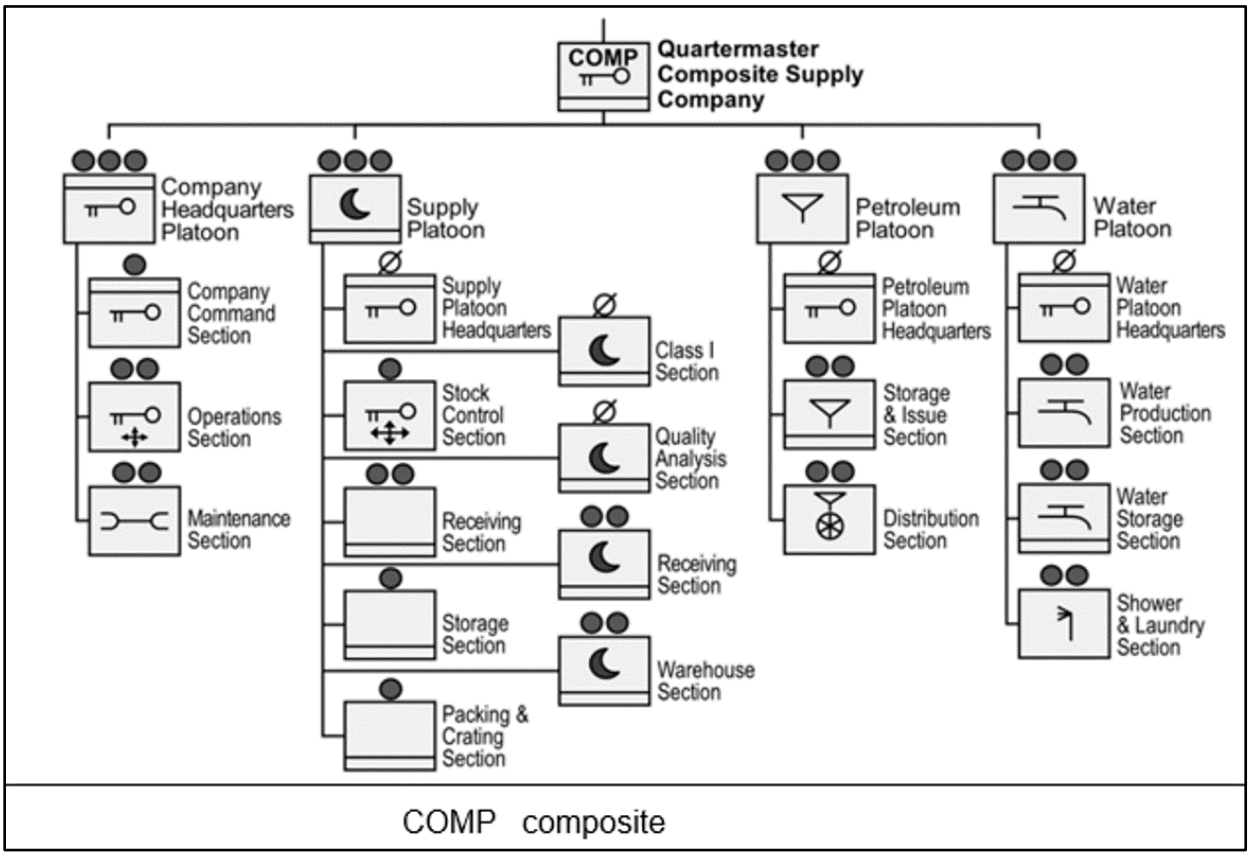


Figure 2-8. Composite supply company

DSSB Composite Truck Company

2-95. The role of the composite truck company is to provide transportation assets for the movement and distribution of general non-containerized cargo, ammunition, bottled water, and bulk water (when equipped with tank racks/HIPPOs) in support of the division. The composite truck company consists of two designs: heavy and light. A heavy division will have a composite truck company (Heavy) organic to the DSSB and a light division will have a composite truck company (Light) that is also organic to the DSSB.

Composite Truck Company (Heavy)

2-96. The transportation composite truck company (heavy) primary mission is to provide transportation and convoy security support to DSB operations for a heavy division. The company has a company headquarters, an operations section, one platoon with heavy equipment transport (HET) systems, two platoons with PLS, one platoon with medium tactical vehicles (MTVs), and a maintenance section for field-level maintenance on organic equipment. It is employed in the brigade and DSAs. This unit is organic to DSSBs in heavy divisions. This unit is capable of conducting both line haul and local haul in all threat environments. It can perform escort missions for contracted trucks integrated into unit convoys. Its primary role is to distribute ammunition, containers, unit equipment, dry cargo, and bulk water (when equipped with tank racks/HIPPOs). It also performs unit moves and transports personnel.

2-97. The composite truck company (heavy) is dependent upon appropriate elements within the DSA for religious, legal, finance, field feeding, and personnel and administrative services. The company is dependent on the DSMC for allied trades support and field maintenance of power generators, engineer equipment, quartermaster light equipment, chemical equipment, small arms, communications and electronic equipment, special electronic devices, and communications security and computers.

2-98. Assuming a 100% total vehicle availability rate, the composite truck company (heavy) provides 18 HET trucks, 18 HET trailers, 40 PLS trucks, 40 PLS trailers, 20 MTV trucks, 20 MTV trailers, and 20 mine resistant ambush protected all-terrain vehicles for missions, and has a one-time lift capability as indicated in table 2-3.

***Note*:** The composite truck company cannot perform at 100 percent since it has no organic personnel to crew convoy protection platforms. To operate at 100 percent requires external security.

Table 2-3. Composite truck company (heavy) one-time lift capability

Type	*100% Total Vehicle Availability Rate*
Breakbulk General Cargo	494.4 STONS
Breakbulk Ammunition	929.6 STONS
Pallets	880
463L Pallets	200
Containers, Twenty Foot (TEU)	80
Containers, Forty Foot (FEU)	0
Personnel With Gear	300
Bulk Water	160,000 gallons*
Bulk Fuel	200,000 gallons**
* must be equipped with 2,000-gallon Load Handling System compatible water tank rack (HIPPO) ** must be equipped with the modular fuel system tank rack FEU forty-foot equivalent unit STONS short tons TEU twenty-foot equivalent unit	

Composite Truck Company (Light)

2-99. The primary mission of the transportation composite truck company (light), organic to the DSSB in light divisions, is to provide transportation and convoy security support to DSB operations. The company includes a company headquarters, an operations section, two platoons with PLS, two platoons with MTVs, and a maintenance section for field-level maintenance on organic equipment. The company is employed in the brigade and division AO. It is capable of conducting both line haul and local haul missions in all threat environments. It provides its own organic convoy security and can perform escort missions for contracted trucks integrated into unit convoys. Its primary role is to distribute dry and refrigerated containerized cargo, general non-containerized cargo, ammunition, bottled water, and bulk water (when equipped with tank racks/HIPPOs). It also performs unit moves and transports personnel.

2-100. The composite truck company (light) is dependent upon appropriate elements within the DSA for religious, legal, finance, field feeding, and personnel and administrative services. The company is dependent on the DSMC for technical assistance and field maintenance on power generators, quartermaster light equipment, chemical equipment, small arms, communications and electronic equipment, special electronic devices, communications security, computers, and allied trades support.

2-101. Assuming 100% total vehicle availability rate, the composite truck company (light) provides 40 PLS trucks, 40 PLS trailers, 40 MTV trailers, and 20 mine resistant ambush protected all-terrain vehicles for missions, and has a one-time lift capability as indicated in table 2-4 on page 2-24.

***Note*:** The composite truck company cannot perform at 100 percent since it has no organic personnel to crew convoy protection platforms. To operate at 100 percent requires external security.

Table 2-4. Composite truck company (light) one-time lift capability

Type	*100% Total Vehicle Availability Rate*
Breakbulk General Cargo	660 STONS
Breakbulk Ammunition	1,129.6 STONS
Pallets	1,120 STONS
463L Pallets	240
Containers, Twenty Foot (TEU)	80
Containers, Forty Foot (FEU)	0
Personnel With Gear	600
Bulk Water	160,000 gallons*
Bulk Fuel	200,000 gallons**
* must be equipped with 2,000-gallon Load Handling System compatible water tank rack (HIPPO) ** must be equipped with the modular fuel system tank rack FEU forty-foot equivalent unit STONS short tons TEU twenty-foot equivalent unit	

Division Support Maintenance Company

2-102. The DSMC is organic to the DSSB. The DSMC is a maintenance company that provides field-level maintenance support to units designated through an OPORD from its higher headquarters. It also provides maintenance support on an area basis to units at EAB when tasked to do so.

2-103. DSMCs provide allied trades support, wheeled vehicle recovery, quality control, and maintenance for wheeled vehicles, communication, electronics, special electronic devices, ground support equipment, power generation equipment, utility equipment, and test, measurement, and diagnostic equipment. The DSMC has three platoons: an automotive/armament platoon, an electronic maintenance platoon, and a ground support equipment maintenance platoon. The company is able to task organic maintenance teams to provide support in multiple locations. The DSMC in a DSSB provides test, measurement, and diagnostic equipment support from an organic team. CSSBs attached to the DSB may include an attached test, measurement, and diagnostic equipment team. Figure 2-9 depicts the DSMC organization.

***Note*:** The DSMC does not have the maintenance capability to work on major combat systems such as the M-1 Abrams or M-2/3 Bradley unless a maintenance surge team is attached.

2-104. The DSMC establishes communication with all supported units to enable effective maintenance support and coordination. This communication ensures the DSMC has all supported unit locations and equipment density. The DSMC uses this coordination to assist in planning and work loading their on-site maintenance teams. The DSMC may also coordinate with supporting transportation units designated to deliver materiel. The coordination includes providing accurate locations for delivery. The DSMC is responsible for management of all shop stock and bench stock required to support its maintenance function, predominately class III (packaged) and class IX.

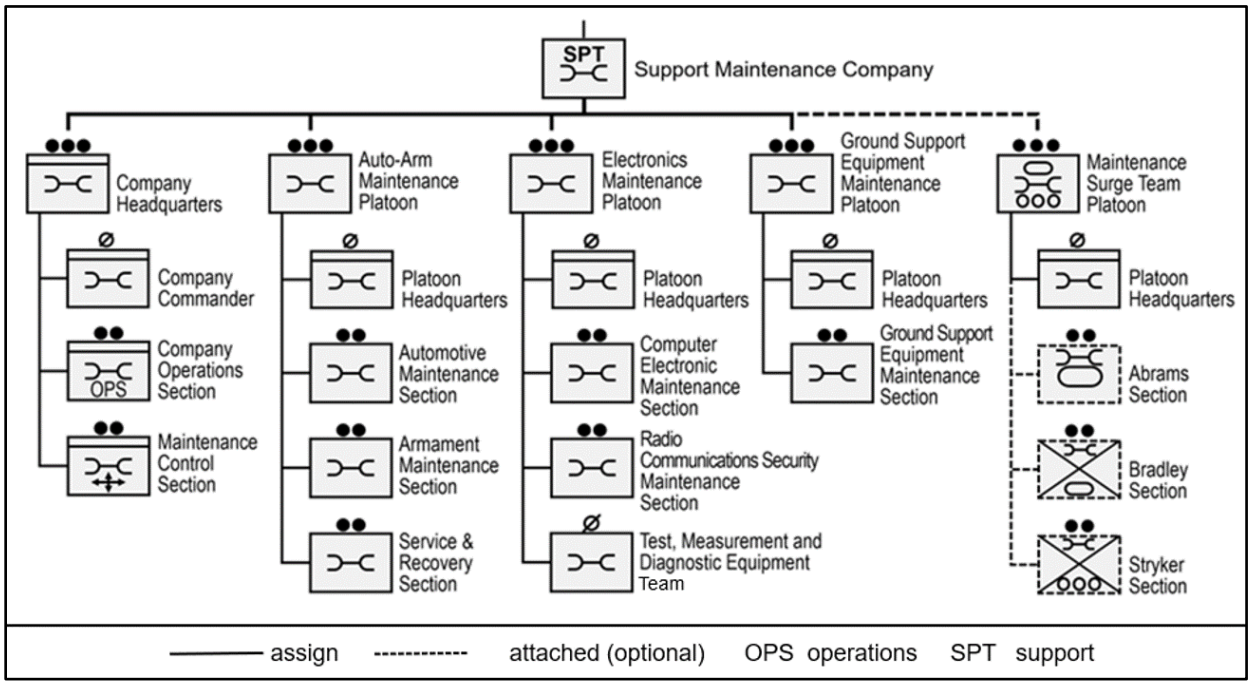


Figure 2-9. Division support maintenance company

Maintenance Surge Team

2-105. The maintenance surge team's role is to provide a field-level maintenance surge capacity to reinforce maintenance units supporting critical missions at any location within operational areas. The platoon headquarters and section noncommissioned officers provide C2 and maintenance management for the surge team sections. The team has multiple core competencies. It provides an EAB surge maintenance capability that is tailorable and flexible to fill gaps in maintenance support for M1, M2/3, and Stryker weapon systems. The maintenance surge team enhances the division commander's ability to rapidly generate combat power by providing maintenance depth and flexibility at critical points of need. Regardless of its location within an operational area, the team integrates into and synchronizes with the reinforced maintenance organization and mission. The team represents a temporary capability to accelerate repairs but does not offset workload performance by unit maintenance personnel. The team allows commanders to weight the main effort by providing a rapid surge capability at a specific place and time. The team generally augments unit or battalion maintenance capability.

***Note*:** The maintenance surge team is not a third layer of maintenance. The team provides reinforcing support for field-level maintenance operations and serves as a reinforcement element for two-level maintenance.

2-106. Characteristics of the maintenance surge team includes the ability to operate at any echelon or location within an operational area. It is capable of supporting any mission that requires field maintenance support for the M1, M2/3, and Stryker weapon systems.

2-107. Each maintenance surge team consists of a platoon headquarters and two to four maintenance sections. The maintenance sections are composed of maintainers for either M1, M2/3, or Stryker weapon systems. The platoon headquarters and each section have separate standard requirements codes so the teams can be tailored and allow independent attachment to a supported unit. This flexibility allows planners to tailor critical maintenance capability based on specific mission requirements at any required location. Figure 2-10 on page 2-26 depicts the mix of maintenance surge teams.

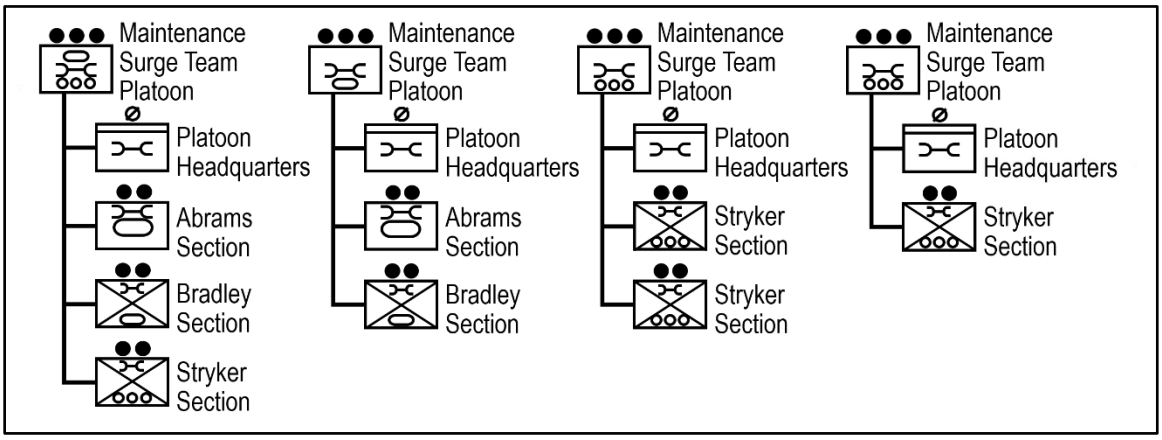


Figure 2-10. Maintenance surge team configurations

2-108. The normal command relationship of the maintenance surge team is attached. It will normally be attached to a support maintenance company in a DSSB. Once attached to the DSSB, the gaining headquarters includes the team within its planning and operations process. The maintenance surge team assumes the support relationship of the support maintenance company to which it is attached. The DSSB will designate a different support relationship based on priorities directed by higher headquarters if required. A direct, general, or reinforcing support relationship may be designated by order.

2-109. Based on the corps or division commander's priorities, the maintenance surge team may be attached to a field maintenance company within the BSB. In this configuration, the team operates within the BCT support or close area.

2-110. The unit to which the maintenance surge team is attached assumes administrative control over the team and is responsible for all life support, protection, logistics, field feeding, and AHS support. The maintenance surge team has no organic maintenance automation or personnel to operate automation. When supporting a unit, the team leverages the supported organization's maintenance automation to accomplish its mission. The team also relies on its parent unit or supporting support maintenance company for wheeled vehicle, small arms, and communications maintenance.

2-111. The maintenance surge teams have the capability to support high demands on enhanced activity sets or mitigate risk based on geographical dispersion.

2-112. Planning considerations for maintenance surge teams attached at the division level include—

- Integrating the team into the support maintenance company or field maintenance company's Global Combat Support System-Army (GCSS-Army) to track man-hours and class IX requirements.
- Limited bench and shop stock.
- Incorporating maintenance surge team movement into movement plans. The team requires security for independent movement.
- Providing HET support to move the M88 during mid-range to long-range moves (for maintenance surge teams supporting tracked units).

THE CONTRACTING BATTALION

2-113. Contracting battalions are co-located with, and generally aligned to, division and ESC headquarters to assist in OCS-related planning, advise requirement validation boards, and provide staff assistance to their aligned units. Like the corps-aligned contracting support brigades (CSBs), contracting battalions are intended to deploy with their aligned command. When deployed, contracting battalions are under the command and contracting authority of the supporting CSB and have a direct support relationship with their aligned division, theater sustainment command, or ESC headquarters. When a contracting battalion is deployed as the senior

Army contracting unit in the AO, it will deploy under the command and contracting authority of the theater Army-aligned CSB. It will have a direct support relationship to the designated senior ARFOR headquarters.

2-114. Contracting battalions have two organic contracting detachments, also known as CONDETs. The contracting battalion headquarters commander and staff focus on command and contracting oversight tasks and do not usually develop, solicit, award, or manage individual contracts unless augmented. Contracting battalions are aligned to each division, theater sustainment command, and ESC (when deployed) and provide mission command and C2 over two organic contracting detachments. In this alignment, the contracting battalion delivers direct support to divisional maneuver BCTs and general support to division troops (CAB, fires brigade, MEB, and others). The contracting battalion commander within the division AO determines actual support arrangements based upon mission variables. When supporting small-scale operations, the contracting battalion may deploy separately from the CSB headquarters. In this situation, the contracting battalion commander, when designated, serves as the Army senior contracting officer in the AO. In some major sustained operations, a contracting battalion may be combined with other Service contracting elements to form a regional contracting center. If designated regional contracting center chief, the contracting battalion commander serves as chief of the contracting office and oversees subordinate contracting activities.

2-115. The contracting battalion operations staff section monitors and tracks ongoing battalion operations, ensures compliance with CSB OPORD s and plans, and publishes battalion operation plans and orders as required.

2-116. The contracting battalion SPO staff performs functions focusing on policy, field support, and assessment. This staff section works very closely with the CSB SPO staff to monitor applicable contracting policy, ensuring subordinate contracting detachments maintain currency through policy updates and through metrics management and reporting. The SPO section oversees subordinate contracting detachment contract administration in areas of quality assurance, property administration, and contract closeout. The SPO section also coordinates supported unit field ordering officer, government purchase card, and contracting officer representative management programs. It also provides training and advisory support to other specially authorized, mission-specific programs.

2-117. Contracting detachments are organic to each contracting battalion and represent the Army's primary operational contracting capability. Contracting detachments are small table of organization and equipment organizations led by a field grade officer and made up of nine contracting personnel. The primary mission of the contracting detachment is to develop, solicit, award, manage, and close out theater support contracts. The contracting detachment provides requirements development advice and assistance, such as an informal review of a draft requirements package, to supported units.

2-118. When a contracting battalion deploys, the contracting detachment commander, in coordination with the contracting battalion commander, may employ a forward contracting element to provide theater support contracting services to elements in the affected AO (theater sustainment command, ESC, division, and others) per mission variables. Examples of contracting detachment forward contracting element support are—

- Direct support to individual maneuver BCTs, particularly in early operational phases.
- Direct support to sustainment brigade headquarters.
- General support to divisional units and other organizations, to include other services or multinational organizations, operating in the affected AOs, particularly in later operational phases.

ARMY FIELD SUPPORT BATTALION

2-119. An Army field support battalion provides direct support sustainment functions to each division installation. These Army field support battalions enable readiness with backup field-level maintenance, supply support (such as central issue facility, fuel, ammunition, laundry, and dining facilities), and support to power projection and mobilization force generation installations.

2-120. The Army field support battalion deploys a division logistics support element OPCON to the division when it deploys to integrate and synchronize all Army Materiel Command materiel enterprise and acquisition, logistics, and technology support to the division. The remainder of the Army field support battalion remains at home station to continue ongoing installation logistics, power projection, and mobilization force generation installation support. Division logistics support element support to the deployed division includes—

- Comprehensive sustainment, minor construction, and other services executed through pre-awarded contracts through the logistics civil augmentation program. For additional information see AR 700-137 and ATP 4-10.1.
- Expert technical support and solving systemic readiness trends through logistics assistance representatives. See AR 700-4 for more details on the logistics assistance program.
- Reach back to all other Army Materiel Command and acquisition, logistics, and technology support, and coordination with Army Materiel Command call forward capabilities for sustainment maintenance and other strategic capabilities.

2-121. Army Materiel Command authorities flow into theater through the theater Army field support brigade, and capabilities are employed in accordance with Army Service component command priorities. If a corps is present, the corps logistics support element employs capabilities allocated to the corps in accordance with the corps priorities; the same happens at the division level. Requests for Army Materiel Command and acquisition, logistics, and technology materiel enterprise capabilities beyond the capacity of the resources present with the division logistics support element flow up along the same coordination channels.

2-122. The logistics support element is dependent upon appropriate elements within the DSA for religious, legal, finance, field feeding, communications, and personnel and administrative services. The element is dependent on the support maintenance company for field maintenance on power generators, small arms, communications and electronic equipment, special electronic devices, communications security, and computers. See ATP 4-98 for more details.

SUSTAINMENT STAFF ORGANIZATION

2-123. The following paragraphs describe staff sections within the DSB, DSTB, and DSSB.

COMMAND GROUP

2-124. A command group consists of the commander and selected staff members who assist the commander in controlling operations away from a command post (FM 6-0). The command group is organized and equipped to support the commander's and leadership requirements while enabling the commander to accomplish critical command and control warfighting function tasks anywhere in the AO. The DSB, DSTB, and DSSB command groups consist of the commander, the executive officer, and the command sergeant major (CSM).

2-125. The executive officer is the commander's principal staff officer whose responsibilities include directing the staff and ensuring effective and prompt staff actions. The commander normally delegates authority to the executive officer for management of coordinating and special staff officers. The executive officer monitors the status of all subordinate units and ensures they report status to the commander.

2-126. The CSM is the senior enlisted leader in the brigade or battalion and a member of the commander's personal staff. The CSM provides knowledge, experience, and judgement to the command group. The CSM provides technical and tactical advice to the commander on the planning, training, preparation, and execution of all missions.

COORDINATING STAFF

2-127. The coordinating staff is a key component of the command and control warfighting function. The staff's primary role is to support the commander. It assists the commander in understanding, visualizing, and describing the OE, making decisions, directing and leading subordinate units, and assessing the effectiveness of the unit's operations. The DSB staff establishes and maintains coordination with the division, DSTB, DSSB, attached and assigned units, adjacent units, and BSBs. If additional functional and multifunctional elements are attached to the DSB for support, the DSB staff establishes coordination with those elements. The staff keeps subordinate units well informed of current and future operations. The brigade staff reviews the plans of their counterpart in subordinate units.

2-128. The coordinating staff includes the sustainment 1, operations, intelligence, network operations, and sustainment 2 sections. The sustainment 1 section includes the staff elements that provide internal brigade sustainment support and comprises the S-1, S-8, and the S-4. The sustainment 2 focuses on sustainment support external to the brigade and consists of the SPO.

Sustainment 1 S-1

2-129. The S-1 is the principal staff officer for internal HR support for all assigned and attached Soldiers. HR support includes personnel information management, personnel accounting and strength reporting, HR support to replacement operations, HR support to casualty operations, personnel readiness management, postal operations, essential personnel services, and morale, welfare, and recreation operations. The S-1 is directly linked with Human Resources Command for strength management, replacement operations, personnel accounting, and strength reporting. The DSB S-1 is also linked to the G-1 staff and can seek their assistance if needed. The DSB S-1 provides technical guidance to all subordinate battalion S-1s. See ATP 1-0.1 for more information on the S-1.

Sustainment 1 S-4

2-130. The S-4 is the principal staff officer for internal sustainment and readiness. The S-4 staff officer's primary tasks include sustainment operations, plans, supply, maintenance, transportation, and field services internally for the unit. The S-4 advises the commander and staff on all internal logistics issues, and coordinates estimates, plans, annexes, and orders for internal sustainment operations. The S-4, in coordination with the SPO, conducts sustainment preparation of the OE. The S-4 tracks the current operation and provides staff oversight of food service operations, property book operations, and maintenance operations for the unit. The S-4 coordinates with the S-3 to plan the deployment and redeployment processes of the unit. The S-4 mobility section oversees the administrative requirements for deployment and redeployment. The S-4 prepares Annex F (Sustainment) to the OPORD for internal sustainment support.

2-131. The DSTB and DSSB S-4s manage their battalion's budget (including the funding approval portion of execution management under GCSS-Army), acquire and assign facilities, and develop the internal battalion logistics status (LOGSTAT) report.

Financial Management S-8

2-132. The DSB S-8 is the principal staff officer for financial management. The S-8 is the focal point for the brigade's finance and comptroller planning and support. The S-8 integrates all financial management requirements into the DSB's operational planning and assists with developing the finance and comptroller concept of support. The S-8 identifies, certifies, and manages funds available for immediate expenses. The S-8 monitors all expenditures, including contract expenditures.

2-133. The S-8 is a part of the entire brigade's OCS, local purchase, and credit card processes. The brigade S-8 submits spending plans and monitors the status of requirements packets. The S-8 coordinates the financial aspect of OCS and financial management support for the DSB field ordering officers and pay agents. The S-8 also coordinates and manages the audit and internal control program.

2-134. As part of the coordinating staff, the S-8 section receives, develops, and disseminates financial management guidance. The S-8 is part of the fiscal triad, along with the OCS element and staff judge advocate. The S-8 considers aspects of fiscal law when developing funding requirements submitted to the higher headquarters. FM 1-06 provides more details about the S-8 and financial management.

Intelligence S-2

2-135. The battalion or brigade intelligence staff officer (S-2) is the principal intelligence advisor to the commander and is responsible for providing intelligence to support current and future operations and plans. The S-2 leads the staff in the conduct of the IPB process, provides terrain, weather, civil considerations, and geospatial engineering analysis, supports security programs, and oversees the intelligence functional cell.

2-136. The S-2 prepares Annex B (Intelligence) of the OPORD, supports the S-3 in the development of Annex L (Reconnaissance and Surveillance) of the OPORD, monitors the intelligence requirements to

support current and future operations, monitors intelligence analysis of higher, lower, adjacent, and subordinate units, and coordinates with other intelligence agencies to provide timely, relevant, accurate, and predictive intelligence to support logistics missions. Examples of S-2 input to operations includes analysis regarding how weather affects the LOC and the impact of enemy activity on convoys, supply routes, and sustainment hubs. The S-2 develops a means to collect, analyze, and disseminate information from subordinate units conducting support missions. These sources include any contractors or civilian personnel who participated in the support mission. The S-2 must evaluate all information to determine value, answer commanders' priority intelligence requirements, and update intelligence annexes, daily intelligence summaries, and intelligence estimates. ADP 2-0 provides more detail of intelligence operations.

2-137. The geospatial engineer section in the DSB conducts storage, dissemination, and exploitation of geodetic, geomagnetic, imagery, gravimetric, aeronautical, topographic, hydrographic, littoral, and toponymical data accurately referenced to a precise location on the Earth's surface. This section also conducts geospatial analysis of the terrain to inform IPB and sustainment preparation of the OE in support of sustainment operations.

Operations S-3

2-138. The DSB S-3 synchronizes and integrates sustainment operations with all warfighting functions across the current and future operations planning horizons. The brigade S-3 integrates current and future operations with the plans integrating cells in accordance with the commander's intent and planning guidance. The S-3 supervises the tasks conducted by all sections under the movement and maneuver and protection warfighting functions. The S-3 is responsible for execution of the operations process, to include MDMP, in collaboration with the support operations officer. The S-3 conducts the operations synchronization meeting. The S-3 section forms the core of the current operations integration cell, which maintains the common operational picture that informs all staff members as well as higher, subordinate, and adjacent units of the current status of sustainment operations. Much of this information sharing occurs through conducting the operations synchronization meeting or by connecting C2 systems. The current operations section ensures all warfighting functions are synchronized and integrated into sustainment operations within the short-range planning horizon. This section is responsible for publishing orders (warning, operation, fragmentary), receiving and responding to requests for information from other units, maintaining running estimates, and directing task organization changes for the DSB. The S-3 ensures all operations meet the commander's intent. The S-3 is responsible for Annex A (Task Organization), Annex C (Operations), Annex L (Information Collection), Annex M (Assessment), Annex R (Reports), Annex V (Interagency Coordination), and Annex Z (Distribution) of the OPORD. The S-3 is also responsible for Annex D (Fires) of the OPORD since the DSB does not have a fires cell.

2-139. The S-3 coordinates with supported units to synchronize future operations and the transition from future operations to the current operation without loss of momentum or unit integrity. The S-3 also plans for and synchronizes staff mission planning, course of action development, rehearsals, operational planning, and after action reviews.

2-140. The S-3 prepares, coordinates, authenticates, publishes, reviews, and distributes written orders (warning, operations, and fragmentary). The S-3 also develops the unit task organization, plans and executes operations security, and develops force module packages. The S-3 section plans tactical troop movements including route selection, priority of movement, timing, security, quartering, staging, and preparing movement orders.

2-141. The S-3, in coordination with other staff elements (surgeon, engineers, military police, and others), is responsible for overseeing, coordinating, planning, and implementing the protection warfighting function to include force health protection, engineer support, CBRN, electronic warfare, and military police support.

2-142. The S-3 is reliant on support from the owning division for civil affairs and fires support. The DSB and subordinate units are not assigned civil affairs and fires personnel.

2-143. The S-3 protection element is the principal advisor to the commander and staff for protection operations in both current and future operations. The protection element writes the local security plan and establishes and enforces physical security measures and standards that preserve the force through risk management. They also integrate the DSB's local security plan and critical assets into the scheme of

protection of the division and the unit responsible for operational area security (for example, MEB). *Area security* is a type of security operation conducted to protect friendly forces, LOC, installation routes, and actions within a specific area. (ADP 3-90)

2-144. The protection element ensures mobility considerations are incorporated into the operations process. This element requests and coordinates for mobility (route clearance, bridging, traffic management, and enforcement) and geospatial engineering support (beyond organic capabilities). The protection element also requests and coordinates for obscuration support when required. It is responsible for Annex E (Protection) and Annex G (Engineer) of the OPORD and augments the current operations integration cell staff when required. The protection element includes personnel from the CBRN, engineer, and operations security sections.

Signal S-6

2-145. The S-6 supports the commander's communications requirements across the AO and oversees the unit's network operations and information management. The S-6 provides technical staff supervision over signal support activities throughout the DSB. The S-6 provides technical supervision of all communications assets, units, and attachments, and coordinates with the supporting signal unit to maintain access to higher echelons' common user signal networks. The S-6 also develops and coordinates signal support plans, identifies potential information network constraints, and takes action to mitigate or adapt to these constraints by ensuring redundant signal means are available to maintain the network. The DSB S-6 coordinates with the S-3 to direct the actions and movements of signal company elements to support operations through the orders process. FM 6-02 provides additional details about the signal officer's role in operations.

2-146. The DSSB S-6 includes a retransmission team. The retransmission team establishes communications in a remote location and re-transmits the communication signals for the battalion to conduct C2 of the task organization.

Sustainment 2 Support Operations

2-147. The DSB SPO officer is the principal staff officer for planning, coordinating, and synchronizing sustainment operations for all units within the division AO. The SPO and its subordinate sections are primarily focused on support operations in the mid-range planning horizon, but must maintain visibility of current operations (such as current stockage levels of all classes of supply and whether planned logistics packages were successful). The SPO section is responsible for conducting distribution management by integrating the functions of distribution planning, transportation, and materiel management, and for the sustainment services of field services, maintenance, OCS, and HR for the DSB. The SPO is also responsible for sustainment automation policy, systems administration, and network administration. SPOs are the focal point for new enterprise business system fielding, software changes, engineer change proposals, and other sustainment automation actions requiring coordination between elements both inside and outside of the command. SPOs monitor the health of the network through the cybersecurity functions of identifying and mitigating conditions that disrupt network operations. It is the responsibility of the SPO officer to describe the operational area's sustainment situation to the commander, enabling the commander to understand the environment and visualize future actions. The SPO officer must understand the complex dynamics involved when coordinating distribution with multiple entities.

2-148. Sustainment support at the DSB level requires the staff to recognize nuances in the operational situation and respond accordingly. The SPO officer synthesizes analytical information provided by the staff to create a picture for the commander. The SPO officer uses professional judgment resulting from experience, education, and situational understanding to develop the picture and make a recommendation to the commander. The SPO officer conducts tasks that include developing the concept of support to meet mission requirements and validating the overall requirements for the supported force.

2-149. The SPO section supports the S-3 and the operations process by contributing to mission analysis and course of action development, analysis, and comparison. The SPO section contributes information to the brigade S-3 for use in paragraph three (Execution) of the DSB OPORD. The SPO section also contributes information to Annex F (Sustainment) of the division OPORD.

2-150. The DSTB SPO section integrates, synchronizes, and controls the execution of operations by HR, financial, and field services (field feeding and mortuary affairs) units supporting current division operations. The DSTB SPO section synchronizes HR, financial management, and field services (field feeding and mortuary affairs) operations established by the DSB SPO officer in accordance with DSB commander and division commander priorities.

2-151. The DSTB SPO ensures that the emplacement and displacement of subordinate HR, financial management, and field services organizations are synchronized with the concept of support. The DSTB SPO coordinates, tracks, and monitors financial management, HR, and field services unit tactical operations.

Distribution Integration Branch

2-152. The distribution integration branch plans, coordinates, and synchronizes distribution operations plans for the division and contributes information towards the development of the division movement plan. This support includes, but is not limited to, assistance with course of action development and analysis. The distribution integration branch integrates anticipated available transportation assets (by mode and node as provided by the transportation operation branch) with forecasted materiel and service requirements (provided by the materiel management branch) to develop a distribution plan. By integrating the transportation assets anticipated to be available against the forecasted materiel, service, and movement requirements of the division, the distribution integration branch can develop a distribution plan that satisfies the division's future requirements by priority, identifies shortfalls, and informs the division G-4 of the risk associated with the shortfalls. This information enables the division G-4 to justify requests for additional common-user land transportation assets from the corps while in the mid-range planning horizon.

2-153. The distribution integration branch monitors the execution of distribution operations to ensure the distribution plan is executed in accordance with the concept of support. The branch synchronizes operations within the distribution system to maximize throughput. The distribution integration branch consolidates distribution requirements from all sections of the support operations staff and creates the division's distribution plan. This branch receives all transportation requirements for prioritization and integration into a movement plan.

2-154. The distribution integration branch supports the division G-4 by contributing to the development of the division movement plan. The branch receives all transportation requirements for prioritization and integration into a movement plan. The branch must receive all transportation requirements for personnel, equipment, unit movement, or resupply in order to determine all movement requirements for the next planning horizon and begin forecasting movement requirements for future planning horizons. Transportation requirements will originate from both outside and within the SPO. Transportation requirements for classes of supply will come from the materiel management branch. Transportation requirements for mail, individual troops, or dislocated civilians will come from the HR operations branch. Transportation requirements for bulk cash will come from the finance unit attached to the DSB. Transportation requirements from units without sufficient capability to move themselves will come from the units' brigade and battalion S-4s. Transportation requirements for detainees will come from military police units or the units who initially captured the detainees.

2-155. The distribution integration branch must maintain visibility of all transportation requirements to balance requirements against available transportation capabilities. If sufficient capabilities exist to satisfy the transportation requirements, they then become movement requirements and part of the division movement plan. If shortfalls exist in the movement plan (such as insufficient trucks, insufficient routes, insufficient available time on a route, or temporarily inoperable airfields), then the distribution integration branch in conjunction with the transportation operations branch will plan and recommend solutions (such as request additional transportation assets, request additional time on a route, or delay the movement requirement until the next planning period).

2-156. The DSTB and DSSB do not have a distribution integration branch. The DSSB SPO officer designates personnel within the SPO section to perform functions associated with distribution management.

Transportation Operations Branch

2-157. The transportation operations branch supports the division G-4 by contributing to the development of the division movement plan. The transportation operations branch coordinates the transportation requirements for supported units and synchronizes movements with MCTs. The branch balances transportation capabilities with requirements to meet mission requests and develops the movement plan. The distribution integration branch includes the movement plan in the distribution plan.

2-158. The branch provides technical assistance on the employment and capabilities of air, land, and water transportation for subordinate units, to include hub and node operations. The transportation operations branch assesses the transportation system to determine the workload capacity of each route by mode and the capabilities at each node. Information on transportation capabilities at each node must include available transportation assets, loading and unloading capability (materials handling equipment, container handling equipment, ramps) storage capability, and any other factors that affect transportation services. As required, the transportation operations branch produces transportation overlays that display the transportation nodes and routes by mode available to support transportation requirements.

2-159. The branch manages common-user logistics transportation assets allocated to the DSB. Common-user land transportation assets are division-controlled land transportation assets and facilities designated for common use in the division AO. The transportation operations branch maintains liaison with host-nation transportation agencies, mode operators, and supported units. The branch can also manage allocated host-nation or contract support transportation capabilities. See ATP 4-16 for specifics of movement control.

2-160. The transportation operations branch determines transportation mode capabilities available at each node for each applicable planning horizon. Transportation capabilities may include Army trucks, aircraft, and watercraft as well as available joint, host-nation, multi-national partner, and contracted transportation assets used to support division operations.

2-161. The transportation operations branch monitors transportation mode and node capability and capacity. It coordinates internally with the supply and distribution integration branches for distribution management of all commodities and unit movements (reception, staging, onward-movement, and integration, redeployment, and retrograde).

Materiel Management Branch

2-162. The materiel management branch in the DSB supervises the materiel management process in support of division operations. It is comprised of the general supply, class VII, fuel and water, munitions, maintenance, and field services sections. See chapter 3 for additional information on DSB SPO materiel management sections.

2-163. The materiel management branch conducts supply planning and maintains asset visibility of the distribution system's current (and forecasted) supply inventory and capacity by node for all classes of supply (less class VIII). The branch develops logistics estimates of requirements and recommends stock objectives of supplies. The materiel management branch monitors the requisition of commodities and makes recommendations for redistribution within the division's assigned area. The materiel management branch recommends priorities for resupply by class of supply, time, and location that support the division commander's priorities of effort. The branch maintains visibility of on-hand and in-transit supply stocks using automated logistics systems.

2-164. In accordance with the concept of support, the materiel management branch coordinates with the Army Materiel Command division logistics support element to prioritize the allocation of logistics assistance representatives providing expert technical advice. The branch also works with the logistics assistance representative teams to identify systemic readiness trends and readiness issues unique to the OE. See AR 700-4 for more details on the logistics assistance program. The logistics support element is also the linkage to Army Materiel Command sustainment maintenance and call forward teams handling battle loss and battle-damaged equipment.

2-165. The DSTB SPO section integrates and synchronizes field services specific to field feeding and contingency fatality operations. Based on priorities from the DSB SPO, the DSTB SPO coordinates the field feeding company (EAB) platoons. The DSTB SPO balances the external support missions to the division and

internal field feeding support to the DSB units. The DSTB SPO ensures the field feeding company (EAB) platoons and teams are resourced, correctly positioned, and properly allocated to support both the DSB and supported units. The DSTB SPO section integrates and synchronizes the execution of mortuary affairs operations. For more information on mortuary affairs, see ATP 4-46/MCRP 3-40G.3/NTTP 4-06/AFTTP 3-2.51.

Human Resources Operations Branch

2-166. The human resources operations branch is responsible for planning, coordinating, integrating, and synchronizing the activities of subordinate human resources companies, platoons, and teams in the DSB AO based on the division's HR concept of support. This includes ensuring HR assets are resourced, positioned, and allocated to provide required postal and personnel accountability and HR support to casualty operations. They are responsible for HR plans and operations, personnel accountability and casualty operations, and postal operations. FM 1-0 has more details about the human resources operations branch activities.

2-167. One of the primary functions of the human resources operations branch is to serve as an integrator. It integrates the efforts of the division and the assigned or attached human resources organizations. The human resources operations branch ensures that the emplacement and displacement of HR support organizations are synchronized with the concept of support for personnel accountability, casualty, and postal operations.

2-168. The DSTB SPO section serves as an integrator of human resources between the executing HR company and the HR operations branch of the DSB SPO section. The DSTB SPO section also coordinates and synchronizes the financial support provided by the assigned finance battalion. The DSTB SPO section ensures the assigned and attached finance elements are resourced, positioned, and allocated to provide financial management support to divisional units and units within the owning division's AO.

Operational Contract Support Branch

2-169. *Operational contract support* is the process of planning for and obtaining supplies, services, and construction from commercial sources in support of combatant commander-directed operations (JP 4-10). OCS integrates commercial sector support into military operations. The OCS branch conducts contract support integration by synchronizing the requirements development process with supporting contracting execution in support of the deployed military forces and other designated organizations in their assigned area. Specifically, they assist units and staffs to develop and review statements of work, performance work statements, independent government estimates, requirement justification documentation, and purchase requests. The aligned contracting battalion assists the OCS branch with OCS-related planning and advises requirement validation boards.

2-170. The DSB OCS branch also conducts contractor management by developing a contractor management plan that integrates contractor personnel and their equipment into military operations. The branch monitors, tracks, and coordinates required unit actions associated with contracting officer representatives and receiving officials. Members of the OCS branch also participate in unit operational planning teams and develop Annex W (Operational Contract Support). For more information, see ATP 4-10/MCRP 4-11H/NTTP 4-09.1/AFMAN 10-409-O.

Sustainment Automation Support Management Office

2-171. The sustainment automation support management office (SASMO) is the network administrator of the tactical very small aperture terminal and wireless Combat Service Support Automated Information Systems Interface network. The SASMO provides support for sustainment information systems to the DSB. As the network administrator, the SASMO manages the sustainment information technology network configuration and supervises access related to supported units. The SASMO coordinates with the S-6 to integrate into the division's communications and electronic warfare plan to ensure security and use of its vital functions. The SASMO performs the function of the first-tier help desk for sustainment information systems such as GCSS-Army, Medical Communications for Combat Casualty Care, Financial Management Tactical Platform, and Integrated Personnel and Pay System-Army. The SASMO performs system administration to include roles and permission management. Refer to ATP 4-0.6 for more information about the SASMO duties and certifications.

2-172. The DSSB and DSTB support operations sections do not have a SASMO cell and rely on the DSB support operations SASMO section for sustainment automation support.

SPECIAL AND PERSONAL STAFF

2-173. Every staff has special staff officers. If a special staff officer is not assigned, the officer with coordinating staff responsibility for the area of expertise assumes those functional responsibilities. Special staff officers help the commander and other staff members perform their functional responsibilities. Special staff officers routinely deal with more than one coordinating staff officer.

2-174. Personal staff members work under the commander's immediate control. They also may serve as special staff officers when they coordinate with other staff members. When performing their duties as special staff officers, personal staff officers may work through the brigade executive officer and under a coordinating staff officer for coordination and control purposes.

Public Affairs Section

2-175. The public affairs office is a special staff section that advises the DSB commander on public affairs issues, assists in making well-informed decisions, and translates decisions into effective public affairs operations. The public affairs section conducts public affairs planning and integrates and synchronizes information-related actions and themes with the overall brigade plans and orders. The public affairs section assesses the information requirements and expectations of the Army and the public, monitoring media and public opinion, and evaluating the effectiveness of public affairs plans and operations. This section also develops and educates the command on policies and procedures for protecting against the release of information detrimental to the mission, national security, and personal privacy.

2-176. This section works closely with the brigade staff to integrate strategy and unity of effort to communicate the commander's perspective and message. The public affairs section conducts media analysis and develops communication strategies that support the brigade's operations. As skilled communicators and members of the commander's special staff, the public affairs section is closely and continuously involved in the operations, staff coordination, and communication processes. Public affairs Soldiers accomplish their mission through public information, command information, and community engagement functions. The public affairs section provides media support to the DSB and the division, develops embed plans, and works with information-related capabilities such as combat camera, military information support operations, and lessons learned programs. FM 3-61 provides details about public affairs at every level of command.

Brigade Judge Advocate

2-177. The brigade judge advocate is the primary legal advisor to the DSB commander. As a member of both the brigade commander's personal staff and special staff, the brigade judge advocate occupies a unique role on the staff. As a personal staff officer, the brigade judge advocate requires direct access to the brigade commander on matters relating to the administration of military justice. When performing special staff functions not related to the administration of military justice (such as participating in MDMP), the brigade judge advocate may be supervised by the brigade executive officer. The brigade judge advocate deploys as a member of the brigade staff and serves as the officer in charge of the brigade legal section. As a member of the brigade staff, the brigade judge advocate normally attends the meetings that the brigade staff primaries attend. See FM 1-04 for additional information about the brigade judge advocate or brigade legal support.

2-178. The command judge advocate section consists of a command judge advocate, operational law judge advocate, paralegal NCO, and battalion paralegal Soldier assigned to the DSSB and DSTB S-1 sections. The command judge advocate and command judge advocate section are responsible for advising the commander and staff on military justice, administrative law, contract and fiscal law, and other areas of the law as required, and ensure the timely delivery of legal services to the brigade across all legal functions.

2-179. The section also plans, coordinates, and oversees Soldier and Family legal services, Soldier readiness programs, and preventive law programs for the brigade. When necessary to avoid conflicts of interest, the legal section refers Soldiers undergoing disciplinary action to the U.S. Army Trial Defense Service for appropriate services.

Brigade Surgeon

2-180. The DSB surgeon is a member of both the personal and special staff and reports directly to the commander. The surgeon's staff is considered special staff and executes the actions required of the surgeon. The surgeon advises the commander on the health of subordinate units within their assigned organization and ensures operation plans and orders include all AHS support functions. The surgeon utilizes medical C2 to coordinate and synchronize the ten medical functions (these are split between the protection and sustainment warfighting functions) and serves as a link between these varied commands and staffs. With the AHS split between two warfighting functions and for the sake of clarity, the brigade surgeon or medical operations officer should brief the AHS support plan to the commander in its entirety. The brigade surgeon's specific duties in this area include, but are not limited to:

- Ensures implementation of the AHS support section of the brigade tactical SOPs.
- Participates in the S-4's sustainment cell working group to integrate and synchronize HSS tasks. Prepares a portion of Annex F (Sustainment) to the OPORDs and plans.
- Participates in the S-3's protection cell working group to integrate and synchronize force health protection tasks and systems for each phase or transition of an operation or major activity. Prepares a portion of Annex E (Protection) to the OPORs and plans.
- Determines the allocation of medical resources within the brigade.
- Supervises technical training of medical personnel and the combat lifesaver program within the brigade.
- Determines procedures, techniques, and limitations in the conduct of routine medical care, emergency medical treatment, and trauma management.
- Monitors aeromedical and ground ambulance evacuation.
- Monitors the implementation of automated medical systems.
- Informs the division surgeon on the brigade's AHS support situation.
- Monitors the health of the command and advises the commander on measures to counter disease and injury threats.
- Provides the medical estimate and health threat for inclusion in the commander's estimate.

2-181. The surgeon section consists of a medical operations officer, a medical logistics (MEDLOG) officer, an operations noncommissioned officer, and a behavioral health team consisting of a behavioral science officer and two behavioral health enlisted personnel. They assist the surgeon with medical planning, monitoring and reporting medical operations, and the overall behavioral health of the brigade. The surgeon section ensures that adequate AHS support is available to the DSB in a timely and efficient manner.

2-182. In order to fully accomplish their medical C2 responsibilities, the surgeon section coordinates with many personal, special, and coordinating staffs at higher, adjacent, and supported elements that may include including Army special operations forces operating within the DSB's AO. This section also coordinates with the division surgeon section and supporting MEDBDE (SPT) for AHS support within the DSB operational area to include the placement and support requirements of medical units and elements. This coordination ensures that medical support is integrated and synchronized with the DSB's concept of operations and helps determine which capabilities are required to meet the medical requirements identified by the surgeon. The brigade surgeon section is also responsible for coordinating general support and direct support relationships of organic medical units and supported medical units and elements whether OPCON or attached to the brigade. This section updates the brigade commander as required on the status of AHS support in the brigade. The staff of the brigade surgeon section assists the brigade surgeon in planning and conducting brigade AHS support operations. For more information on surgeon and surgeon section staff coordination, see FM 4-02. For more information on medical planning, see ATP 4-02.55.

2-183. Specific functions of the brigade surgeon include, but are not limited to:

- Provides current information on the brigade AHS support plan and medical common operational picture to surgeons and medical operations staffs of the next higher, adjacent, and subordinate headquarters to maintain medical situational awareness.
- Plans and ensures the timely and efficient establishment of Roles 1 and 2 AHS support for the brigade.

- Plans and coordinates AHS support operations for brigade medical assets including attached and OPCON EAB assets.
- Coordinates with the division surgeon section for prioritizing the reallocation of organic and corps medical augmentation assets as required by the tactical situation.
- Coordinates and prioritizes MEDLOG and blood management requirements for the brigade.
- Coordinates with the DSB distribution integration branch and division surgeon section regarding the division class VIII distribution plan.
- Collects health threat information and coordinates medical intelligence requirements with the brigade S-2.
- Coordinates and directs patient evacuation from forward areas to supporting medical treatment facilities.
- Coordinates the MEDEVAC of all patients from the brigade AO.
- Coordinates the disposition of captured medical materiel.
- Coordinates, plans, and prioritizes operational public health missions.
- Coordinates with the supporting veterinary element for subsistence and animal disease surveillance.
- Coordinates with medical and CBRN units to assist in establishing patient decontamination operations.

2-184. The DSTB and DSSB each have a medical treatment section or team and a MEDEVAC team to provide medical support within the unit. The sections/teams provide Role 1 medical support to the battalions' assigned and attached units. They operate under the supervision of the DSB surgeon. The medical treatment section/team is primarily responsible for providing unit level (Role 1 medical) support, which includes emergency medical treatment, combat and operational stress control (COSC), and sick call services. The MEDEVAC team is primarily responsible for providing tactical combat casualty care and ground MEDEVAC from the point of injury to the medical treatment section or team for Role 1 medical care. A task-organized DSB is dependent on a MCAS for Role 2 medical support.

2-185. Medical treatment and MEDEVAC teams are dependent on the brigade surgeon's section for planning, coordination, and synchronization of AHS support. The MEDEVAC team provides tactical combat casualty care, en route medical care, and ground MEDEVAC from the point of injury to the medical treatment team for Role 1 care. Refer to FM 4-02, ATP 4-02.55, and ATP 4-02.3 for additional information.

Unit Ministry Team

2-186. The unit ministry team consists of a chaplain and a religious affairs specialist. The chaplain serves as a personal staff officer with direct access to the commander. The DSB unit ministry team provides religious support to all assigned or attached service members, family members, and authorized civilians. The unit ministry team provides religious, moral, and ethical advice to the command. The unit ministry team coordinates with higher, subordinate, and adjacent unit ministry teams and chaplain sections for area and denominational coverage requirements.

2-187. The religious support mission is to assist commanders in the responsibility to provide for the free exercise of religion, and to provide religious, moral, and ethical leadership to sustain a ready force of resilient and ethical Soldiers and leaders. Unit ministry teams and chaplain sections possess three core competencies: nurture the living, care for the wounded, and honor the dead. The religious support mission is executed through two required capabilities—providing support and advising the command. For additional information on religious support, see FM 1-05, ATP 1-05.01, ATP 1-05.03, and ATP 1-05.04.

DIVISION SUSTAINMENT BRIGADE COMMAND POSTS

2-188. A *command post* is a unit headquarters where the commander and staff perform their activities (FM 6-0). The DSB and subordinate unit CPs conduct activities supporting sustainment tasks, tasks the commander assigns, and tasks common to all CPs. The brigade executive officer leads and provides staff supervision for the CP. The DSB and subordinate unit CP functions include—

- Planning, preparing, controlling, and assessing operations.

- Integrating resources and synchronizing current operations.
- Receiving, analyzing, and disseminating information.
- Developing and disseminating orders.
- Coordinating with higher, lower, and adjacent units.
- Conducting knowledge management and information management.
- Conducting network operations.
- Maintaining the common operational picture.
- Providing a facility for the commander to control operations, issue orders, and conduct rehearsals.

2-189. There are three types of CPs: main CP, tactical CP, and early entry CP. The *main command post* is a facility containing the majority of the staff designed to control current operations, conduct detailed analysis, and plan future operations (FM 6-0). The *tactical command post* A portion of a unit headquarters designed to command and control operations as directed (FM 6-0). An *early-entry command post* is a lead element of a headquarters designed to control operations until the remaining portions of the headquarters are deployed and operational (FM 6-0).

2-190. The DSB headquarters design and organic communications capability provides commanders a flexible C2 structure to support only a main CP. They do not easily allow the DSB to operate a tactical CP. DSB commanders can subdivide their main CP to create a tactical CP or an early entry CP in limited instances while assuming risk in overall C2 capabilities.

2-191. The DSB's main CP includes representatives of all staff sections and a full suite of information systems to plan, prepare, execute, and assess operations. The commander considers the size, location, and mobility requirements of the CP configuration.

2-192. Figure 2-11 depicts one way a DSB CP may be configured. The example uses equipment that is authorized by the table of organization and equipment or common table of allowances. DSB commanders develop a CP configuration that works best for their unit, mission, and location. The CPs must be able to integrate and understand information quickly for it to function. Commanders modify the equipment and workspace depending on requirements and mission variables.

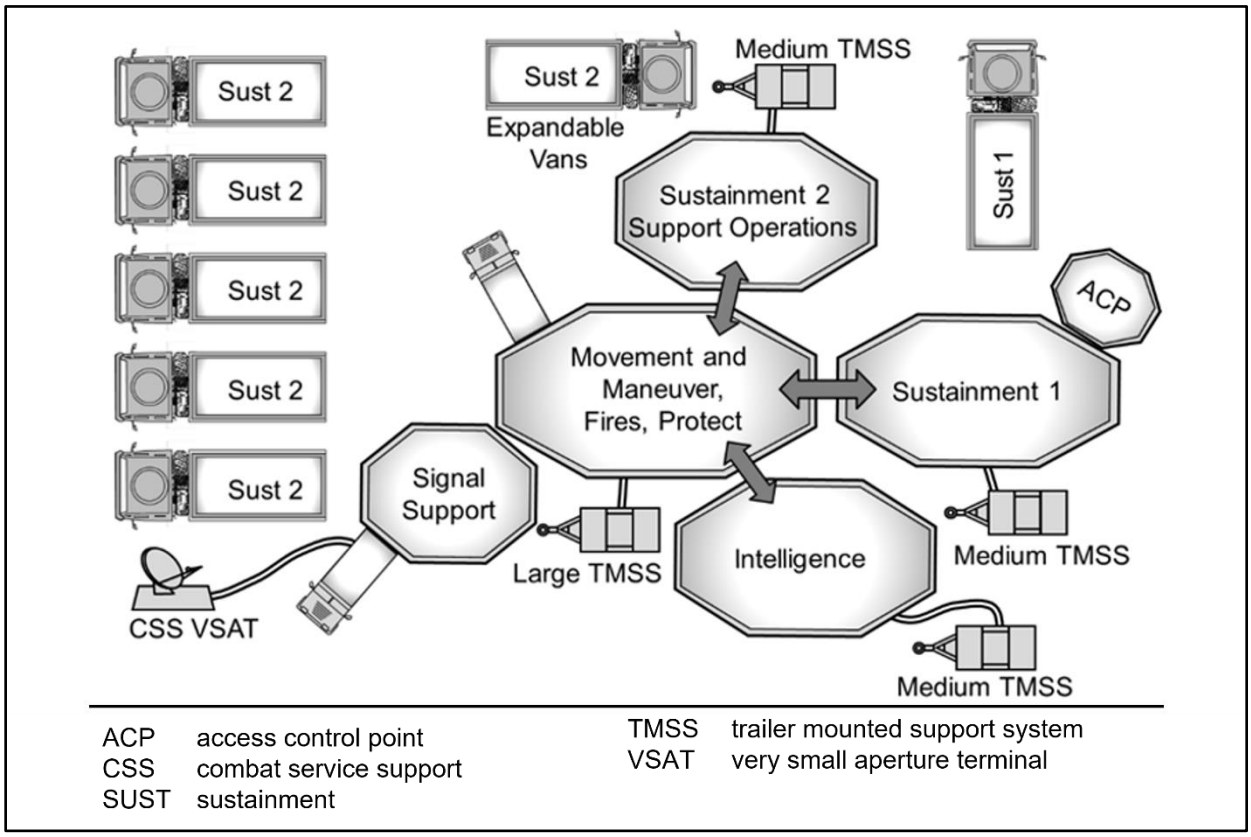


Figure 2-11. Notional division sustainment brigade command post

2-193. Commanders organize their CPs into functional and integrating cells. Functional cells are organized by warfighting function, while integrating cells are organized by planning horizon.

DIVISION SUSTAINMENT BRIGADE WARFIGHTING FUNCTIONAL CELLS

2-194. The functional cells within the DSB CP coordinate and synchronize forces and activities by warfighting function and include command and control, intelligence, movement and maneuver, protection, and sustainment. The command and control warfighting functional cell consists of the commander, deputy commander, CSM, and the brigade staff. The entire CP assists the commander in the exercise of mission command.

2-195. The functional cells provide a standardized method of integrating closely related tasks. The DSB headquarters organizational design does not permit the commander to staff all functional cells. The DSB coordinates with higher or adjacent units for subject matter expertise in the fires and protection functional cell.

Intelligence Cell

2-196. The DSB CP intelligence cell includes the brigade S-2, assistant S-2, intelligence analysts, and geospatial engineers. The intelligence cell coordinates activities and systems that help commanders understand the threat, terrain, weather, and civil considerations. The intelligence cell requests, receives, and analyzes information from all sources to produce and distribute intelligence products. The cell also completes tasks associated with the intelligence process, IPB, MDMP, information collection, and targeting.

Movement and Maneuver Cell

2-197. The DSB CP movement and maneuver cell is the brigade S-3 operations section. It coordinates and synchronizes activities and systems to support mission requirements. The brigade S-3 maintains synchronization by continuously updating running estimates, the synchronization matrix, and the decision support template to arrange C2 activities across time, space, purpose, and warfighting functions to accomplish the mission effectively. The support operations staff provides logistics information to the movement and maneuver cell.

Protection Cell

2-198. The DSB CP protection cell is responsible for integrating, coordinating, and synchronizing protection tasks and activities. The protection cell advises commanders on the priorities for protection and coordinates the implementation and sustainment of protective measures to protect assets according to the commander's priorities. The protection cell helps develop a concept of protection tailored to the type of operation the unit is conducting. The protection cell develops the scheme of protection after receiving guidance and considering the principles of protection in relation to mission variables, the incorporation of efforts, and the protection required. The protection cell is typically comprised of Soldiers from the brigade S-3 section. Elements of the following staff sections form the DSB protection cell: surgeon section (for force health protection), CBRN, engineer, and military police.

Sustainment Cell

2-199. The DSB CP has two sustainment cells. The brigade S-1, brigade S-4, brigade S-8, and brigade surgeon sections form the sustainment I cell. This cell is responsible for coordinating activities and systems that provide human resources, logistics, financial management, and HSS for units assigned and attached to the DSB. The brigade SPO section forms the sustainment II cell. The sustainment II cell is responsible for coordinating activities and systems that provide support and services to the supported units to ensure operational reach, freedom of action, and prolonged endurance of supported maneuver forces.

DIVISION SUSTAINMENT BRIGADE INTEGRATING CELLS

2-200. Integrating cells are organized by planning horizon. They coordinate and synchronize forces and warfighting functions within a specified planning horizon and include the plans, future operations, and current operations integrating cells.

2-201. The staff must consider mission variables and be able to transition between the different planning horizons to synchronize sustainment operations across the DSB AO. The staff must also consider the tempo and lethality of large-scale combat operations throughout each planning horizon. The staff should be very deliberate in planning sustainment support and only plan for support that is essential to mission accomplishment. Planning for non-essential support puts unnecessary demands on already limited distribution and transportation assets and puts capability at needless risk.

2-202. A *planning horizon* is a point in time commanders use to focus the organization's planning efforts to shape future events (ADP 5-0). Planning horizons are short, mid, and long-range and correspond to the integrating cells within a headquarters. The integrating cells comprise current operations, future operations, and plans cells. The timelines associated with planning horizons depend on the unit and operational and mission variables. For example, the long-range planning horizon for a sustainment command is different from a company. The DSB typically assigns the windows for the planning horizons and provides guidance.

Current Operations Integrating Cell

2-203. The DSB CP's current operations integrating cell is the focal point for operations execution. This involves assessing the current situation while regulating forces and warfighting functions in accordance with the mission, commander's intent, and concept of operations. The current operations integrating cell displays the common operational picture and conducts shift changes, assessments, and other briefings as required. It provides information on the status of operations to all staff members and to higher, subordinate, and adjacent units. The operations synchronization meeting is the most important event in the battle rhythm in support of

the current operation. The brigade S-3 section forms the core of the current operations integrating cell. Elements or watch officers from each staff section and liaison officers from subordinate and adjacent units form the remainder of the cell. All staff sections are represented in the current operations integrating cell, either permanently or on call.

Future Operations Integrating Cell

2-204. The future operations integrating cell is responsible for planning operations in the mid-range planning horizon. The DSB must execute mid-range planning tasks. These include considering the requirement for convoy support centers, centralized receiving and shipping points, and other tasks that facilitate the continuation of the current operation. The future operations integrating cell plans operations beyond the time frame that the current operations integrating cell is focused upon. The future operations integrating cell monitors current operations and determines implications for operations within the mid-range planning horizon. In coordination with the current operations integrating cell, the future operations cell assesses whether the ongoing operation must be modified to achieve the current phase's objectives.

2-205. The brigade SPO distribution integration branch updates and adds details to the distribution plan supporting the current operation. The brigade S-3 operations personnel within the future operations integrating cell update and add details to branch and sequel plans foreseen in the current operation and prepare any orders necessary to implement a branch or sequel to the current operation. The current operations integrating cell develops the fragmentary order necessary to implement the change.

COMMAND POST OPERATIONS

2-206. DSBs must staff, equip, and organize CPs to control operations for extended periods. Effective CP personnel use information systems and equipment to support 24-hour operations while they continuously communicate with all subordinate, higher, and adjacent units. Commanders arrange CP personnel and equipment to facilitate internal coordination, information sharing, and rapid decision-making. Commanders use the battle rhythm, SOPs, and meetings to assist them with effective CP operations. See FM 6-0 and ADP 5-0 for more information on CP operations.

2-207. DSB commanders use LOGSTAT reports to identify logistics requirements to support decisive action. The LOGSTAT report informs the logistics common operational picture, running estimates, and logistics synchronization. The LOGSTAT report is a compilation of data that requires analysis before action. It is a snapshot of current stock status, on-hand quantities, and future requirements. Some common logistics reports include the LOGSTAT report, bulk petroleum report, and maintenance status report.

DIVISION SUSTAINMENT BRIGADE INTEGRATING PROCESSES AND CONTINUING ACTIVITIES

2-208. The DSB uses integrating processes and continuing activities to integrate the warfighting functions and synchronize the force. Because of their distributed nature, large-scale combat operations require a significant amount of integration and synchronization.

Integrating Processes

2-209. The DSB uses integrating processes to synchronize specific functions throughout the operations process. The brigade uses two integrating processes:

- IPB.
- Risk management.

Intelligence Preparation of the Battlefield

2-210. *Intelligence preparation of the battlefield* is the systematic process of analyzing the mission variables of enemy, terrain, weather, and civil considerations in an area of interest to determine their effect on operations. (ATP 2-01.3) Led by the S-2, the entire staff participates in IPB. IPB helps identify options available to friendly and threat forces.

Risk Management

2-211. Identifying and accepting prudent risk is a principle of mission command. Throughout the operations process, commanders and staffs use risk management to identify and mitigate risks associated with all hazards that have the potential to injure or kill friendly and civilian personnel, damage or destroy equipment, or otherwise impact mission effectiveness. All staff sections incorporate risk management into their running estimates and provide recommendations for control measures to mitigate risk. Risk management integration during all operations process activities is the primary responsibility of the DSB S-3 protection cell.

Sustainment Preparation of the Operational Environment

2-212. DSB commanders and staffs should link to the ESC or theater sustainment command's sustainment preparation of the OE to understand and visualize their area of operation. The sustainment preparation of the OE identifies friendly resources (host-nation, contractible, or accessible assets) or environmental factors (such as endemic diseases and climate) that influence sustainment operations. Sustainment preparation of the OE assists planning staffs in refining the logistics estimate and concept of support. The DSB S-4 is the primary staff section responsible for linking with the ESC or theater sustainment command sustainment preparation of the OE, with assistance from the SPO distribution integration branch.

Continuing Activities

2-213. The DSB executes numerous tasks throughout the operations process. DSB commanders and staffs plan for and coordinate for continuing activities that include battle rhythm, information collection, liaison, SOPs, meetings, running estimates, security operations, and protection efforts.

Battle Rhythm

2-214. DSB commanders and staffs establish a battle rhythm to integrate and synchronize numerous activities, meetings, and reports within their headquarters, with their higher headquarters, and with subordinate units. The executive officer oversees the battle rhythm, ensuring activities are conducted in logical order so that the output from one activity informs another activity's inputs and the unit's battle rhythm is nested with the higher headquarters. An effective battle rhythm—

- Establishes a routine for staff interaction and coordination.
- Facilitates interaction between the commander, staff, and subordinate units.
- Facilitates planning by the staff and decision-making by the commander.

2-215. The DSB commander adjusts the battle rhythm as operations progress. The DSB's mission, task organization, and supported units may change throughout the operation. These changes may cause adjustments to the unit's battle rhythm. The DSB's battle rhythm and reporting system facilitates timely and effective information exchange among CPs and higher, lower, adjacent, and supported headquarters.

2-216. The types of reports, format, submission frequency, and the required information contained within them are normally listed in the unit SOP. Planners should identify nonstandard reports in Annex R (Reports) of the operation plan and OPORD. Reports, including LOGSTAT reports, must be able to inform the commander's critical information requirements. See FM 6-99 for standardized report and message formats.

Information Collection

2-217. *Information collection* is an activity that synchronizes and integrates the planning and employment of sensors and assets as well as the processing, exploitation, and dissemination systems in direct support of current and future operations (FM 3-55). It integrates the functions of the intelligence and operations staffs focused on answering the commander's critical information requirements. Information collection activities are the primary responsibility of the DSB S-3 and S-2. A higher headquarters could also augment the DSB with unmanned aerial surveillance capability to perform this function.

2-218. Commander's critical information requirements and decision points focus the staff's monitoring activities and prioritize the unit's collection efforts. The staff can monitor information collection and operations through friendly reports, post-mission briefs from returning convoys, and information from the common operational picture. Commanders and staffs continuously collect, validate, and analyze timely information to help satisfy the commander's critical information requirements and other information

requirements. The staff may use information gained from the sustainment preparation of the OE to develop information requirements. Effective information requirements may include, but are not limited to—

- Information requested based on assumptions made during mission analysis.
- Specific indicators of the desired activity to assist the collector in identification.
- Special reporting guidance.

Liaison

2-219. Liaison is that contact or intercommunication maintained between elements of military forces or other agencies to ensure mutual understanding and unity of purpose and action. Most commonly used for establishing and maintaining close communications, liaison continuously enables direct, physical communications between commands. DSBs coordinate with higher, lower, adjacent, supporting, and supported units and civilian organizations using different means to include embedding a liaison. The DSB participates in boards, bureaus, centers, cells, and working groups that often require liaison or active staff participation. Commanders must understand that use of liaisons may increase the workload of organic staff manpower and must establish a balance between liaison requirements and staff operations.

2-220. Liaison activities increases communication and help ensure that leaders internal and external to the headquarters understand their unit's role in upcoming operations. Available resources and the need for direct contact between sending and receiving headquarters determine when to establish liaison. Establishing liaisons with civilian organizations is especially important in stability operations because of the variety of external organizations and the inherent coordination challenges.

2-221. The DSB sends liaisons to the sustainment command, supported Army forces, division headquarters, unified action partners, or other organizations as appropriate. Liaisons to the DSB include members of the supported unit's sustainment staff, a representative of supporting contractors, and host-nation representatives. The commander and staff must consider the role they require of any liaison staff elements, where to locate the liaison, the tasks the commander expects the liaison to do, and the liaison officer's requirements for access to the local area network and power.

Standard Operating Procedures

2-222. SOPs assist with effective C2 and serve two purposes. Internal SOPs standardize each CP's internal operations and administration. External SOPs developed for the entire force standardize interactions between the DSB, attached subordinate units, and supported units. Effective SOPs require all Soldiers to know their duties, train and practice CP battle drills, and shift-change briefings. See FM 6-0 for more information.

Meetings

2-223. Meetings (including working groups and boards) take up a large amount of the DSB battle rhythm. Meetings are gatherings to present and exchange information, solve problems, coordinate action, and make decisions. Meetings may involve the staff, the commander and staff, or the commander, subordinate commanders, staff, and other partners. Possible meetings that DSB commanders and staffs may lead or participate with include sustainment synchronization meetings, movement boards, maintenance meetings, and acquisition review boards.

Running Estimates

2-224. Each staff element and CP functional cell maintains a running estimate focused on how its specific areas of expertise are postured to support both current and future operations. 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 (ADP 5-0). FM 6-0 explains types of running estimates, information included in running estimates, how information in the running estimate fits in the operations process, and provides a generic running estimate format.

2-225. Staffs use logistics estimation tools to develop an estimate of sustainment requirements for an operation. Electronic estimation tools include Operational Logistics Planner and Quick Logistics Estimation Tool. Army Readiness Common Operating Picture (AR-COP) is a web-based information tool where staffs can access current information to update and maintain running estimates and the common operating picture.

Security Operations

2-226. *Security operations* are those operations performed by commanders to provide early and accurate warning of enemy operations, to provide the forces being protected with time and maneuver space within which to react to the enemy, and to develop the situation to allow commanders to effectively use their protected forces (ADP 3-90). MEBs are primarily responsible for security operations in the support area, but DSBs must still plan and implement local security measures.

2-227. *Local security* refers to the low-level security activities conducted near a unit to prevent surprise by the enemy (ADP 3-90). The requirement for maintaining local security is an inherent part of all operations. Establishing a comprehensive local security plan is essential when forming base clusters in the rear area, since units will be responsible for the security of their base as part as the overall area security plan.

Protection Efforts

2-228. *Protection* is the preservation of the effectiveness and survivability of mission-related military and nonmilitary personnel, equipment, facilities, information, and infrastructure deployed or located within or outside the boundaries of a given operational area (JP 3-0). Commanders and staffs synchronize, integrate, and organize capabilities and resources throughout the operations process in order to preserve combat power and mitigate the effects of threats and hazards. DSB commanders and staffs must be able to protect essential class I and water, IIIB, V, maintenance and medical stocks, and facilities from threats.

Chapter 3

Sustainment Planning for Division Operations

Chapter 3 explains the operations process to include sustainment planning and execution. It further describes the support operations staff and the staff involvement in sustainment operations. This chapter also discusses CP operations.

THE OPERATIONS PROCESS

3-1. Commanders and staffs integrate the distribution management process into the operations process to develop a distribution plan that is synchronized with operations and all warfighting functions. Failure to execute this integration leads to operational conflicts that hinder or prevent timely supply distribution. DSB planners must be linked into the division planning process with the division G-3, G-4, G-1, and surgeon. Commanders and staffs realize that support operations offices and the plans developed therein are an integral part of the unit's operations. Although sustainment headquarters S-3 and SPO are separate sections, they are inextricably linked during the operations process and MDMP. The sustainment headquarters S-3 and SPO collaborate continuously through the phases of planning, preparation, execution, and assessment.

PLANNING

3-2. *Planning* is the art and science of understanding a situation, envisioning a desired future, and determining effective ways to bring that future about (ADP 5-0). Planning allows leaders to understand situations to include potential problems; develop solutions to problems; direct, coordinate, and synchronize actions; prioritize efforts; and anticipate events. For distribution management, planning helps leaders determine the best method to apply existing supply capability to meet operational requirements, identifying potential opportunities and threats along the way.

3-3. Planning may be highly structured or less structured depending on mission and operational variables, especially the variable of available time. During planning, the staffs execute the MDMP appropriate for the planning horizon. Regardless of the horizon, the outcome of a plan is an executable OPORD. The order synchronizes subordinate unit actions in time, space, and purpose to achieve objectives and accomplish the mission. Understanding the distribution management process, to include subordinate functions that are executed, facilitates the planning process. The order also informs others outside the organization on how to cooperate and provide support. The order describes the situation, establishes a task organization, describes the concept of operations, assigns tasks to subordinate units, and provides essential coordinating instructions. The order may be in fragmentary order form issued as needed to change or modify an OPORD during execution.

3-4. Commanders and staffs apply the philosophy of mission command when planning, understanding that no one has complete knowledge of the situation. Commanders do not attempt to obtain perfection in planning. Imperfect knowledge and assumptions about the future are inherent in planning and it cannot precisely predict how enemies will react during operations. Planning does not eliminate uncertainty, but instead identifies actions to take in the midst of uncertainty. Regardless, planning results in improved situational understanding and facilitates future decision-making. Planning and plans help leaders to—

- Understand the situations to include supply requirements and develop solutions to problems.
- Task-organize the supply and transportation units and prioritize efforts.
- Direct, coordinate, and synchronize action.
- Anticipate events and adapt to changing circumstances.

3-5. Planning allows sustainment commanders and staffs to stay focused on the future in spite of requirements of current operations. During planning, commanders and staffs of sustainment units anticipate enemy action and problems and develop contingency plans to provide flexibility. Decision points, branches, and sequels are tools used to accomplish this. A decision point is a point in space in time where commanders and staffs expect to make a key decision on a course of action. A decision point is tied to the commander's critical information requirements, enemy action, and friendly action. At such points, based on assessment, commanders may decide to alter the initial operations concept. During planning, sustainment commanders and staffs develop branches and sequels as part of the order. A branch is a contingency option built into the base plan that allows flexibility and adjustment to the plan beyond the initial stages of the operation. A sequel is a subsequent operation based on the possible outcomes of current operations.

3-6. During planning, the unit S-3 and SPO collaborate throughout MDMP from receipt of mission until the OPORD is published and disseminated. Figure 3-1 depicts one way in which the S-3 and SPO can interact during planning to develop an order. The materiel management, transportation operations management, and distribution integration functions are shown to depict which of those functions supports MDMP at a specific point. Commander and staffs may adjust this interaction based on mission variables.

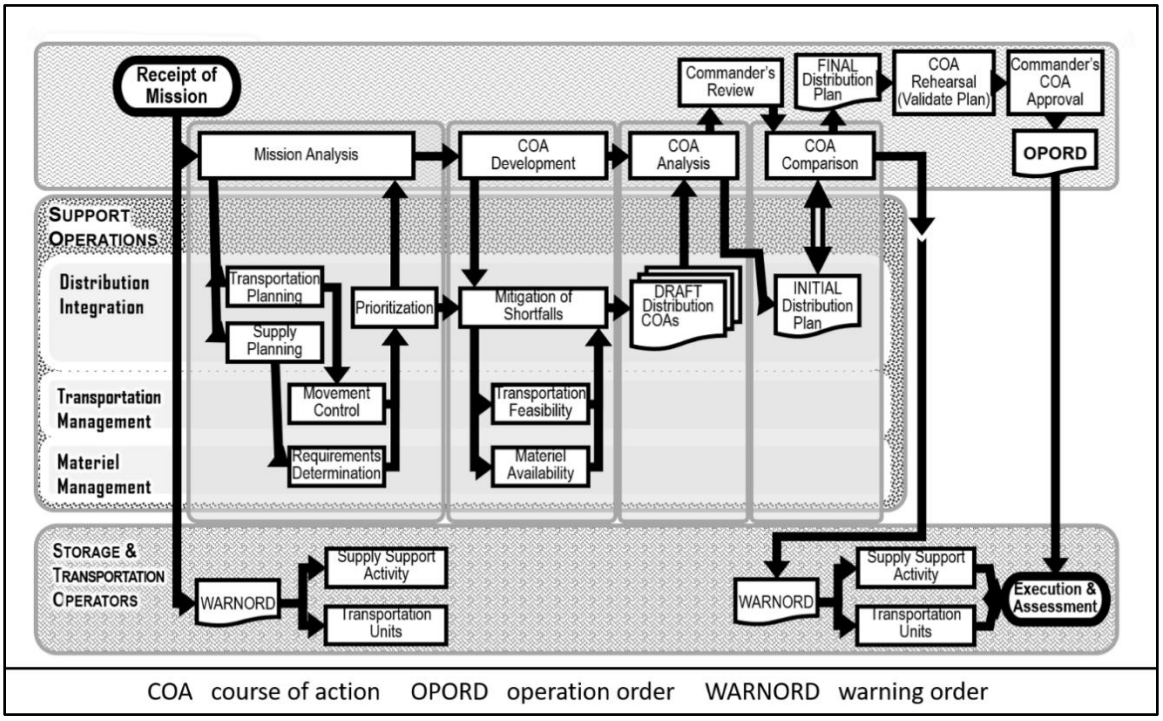


Figure 3-1. Collaboration between the S-3 and support operations

PREPARATION

3-7. Preparation includes activities performed by sustainment units and Soldiers to improve their ability to execute an operation. Preparation creates conditions that improve sustainment unit opportunities for success and include activities such as rehearsals, training, and inspections. It requires commander, staff, unit, and Soldier actions to ensure units are ready to execute operations. Again, understanding the required distribution management functions assists in preparation. This understanding allows commanders to properly position sustainment capability in the most advantageous manner. Preparation helps the force transition from planning to execution. Preparation normally begins during planning and continues into execution by uncommitted units. Like the other activities of the operations process, commanders drive preparation activities with a focus on leading and assessing. The functions of preparation include the following:

- Improve situational understanding. This is accomplished through intelligence channels, analysis of LOGSTAT reports, and information management.

- Develop a common understanding of the plan. This includes a thorough understanding of the higher headquarters and supported commander OPORD s, detailed OPORD briefings, and confirmation back briefs.
- Train and become proficient on critical tasks. These activities are normally home station events, but continue when deployed to maintain proficiency.
- Task-organize and integrate the force. This includes establishing appropriate command and support relationships and describing them clearly in the OPORD. Every sustainment unit needs to understand the units with whom they have a support relationship and command relationship.
- Ensure forces and resources are positioned. All sustainment capability is positioned to provide the most responsive support to the maneuver commander. All units have the maximum sustainment assets on hand to support the operation.

EXECUTION

3-8. Execution is the act of putting a plan into action by applying capability to accomplish the mission and adjusting operations based on changes in the situation. Commanders, staffs, and subordinate commanders focus their efforts on translating decisions into actions. A part of execution is deciding whether to execute planned actions or to modify the plan using branches and sequels based on unforeseen opportunities or threats. Although a plan provides a reasonable forecast of how execution will occur, it remains a starting point for operations and is not to be followed exactly if circumstances dictate otherwise. Subordinate commanders need maximum latitude to take advantage of situations and meet the higher commander's intent when the original order no longer applies. Effective execution requires leaders trained in independent decision-making, aggressiveness, and risk taking in an environment of mission command.

3-9. Sustainment commanders develop situational understanding that prompts them to adjust plans to exploit opportunities or counter threats. Major activities of execution include assessment, decision-making, and directing action.

3-10. Decision making is required when commanders determine the situation requires an unanticipated decision to alter the plan. Execution decisions implement actions that are anticipated and planned into the order. These decisions may be based on anticipated circumstances such as route changes, the need to commit additional sustainment assets, or the need to execute a branch. The current operations integration cell oversees the synchronization and integration needed to implement execution decisions. Adjustment decisions may be required and are more complex. These decisions modify the operation based on unanticipated circumstances or threats. Adjustment decisions include reallocating resources, changing the operations concept, or changing the mission.

3-11. During execution, commanders and staff may use the rapid decision-making and synchronization process. Unlike MDMP, the rapid decision-making and synchronization process does not seek optimal solutions. Instead, the rapid decision-making and synchronization process seeks a timely and effective solution within the commander's intent, mission, and concept of operations. The rapid decision-making and synchronization process avoids the time-consuming requirements of developing decision criteria and multiple courses of action. When using the rapid decision-making and synchronization process, sustainment commanders and staffs combine their experiences and intuition to quickly understand the situation, develop a viable option, and direct adjustments to the current order using the decision-making techniques described above.

ASSESS

3-12. Throughout the operations process, commanders integrate their own assessments with those of the staff, subordinate commanders, and other unified action partners. Primary tools for assessing progress of the operation include the OPORD, the common operational picture, personal observations, running estimates, and the assessment plan. The commander's visualization forms the basis for the commander's personal assessment of progress. Use of assessments and supporting data provides the feedback necessary to improve sustainment effectiveness and efficiency and to optimize sustainment operations.

3-13. Assessment is an integral phase of the operations process and is executed continuously during all phases, including execution. Assessment allows sustainment commanders and staffs to determine if the plan

is achieving the desired end state and commander's intent. If it is not, assessment allows commanders and staff to make prudent adjustments to the plan to ensure success. Assessment may indicate the plan may be executed more effectively than expected if the plan is altered. Conversely, assessment may indicate high risk of failure if the plan is not altered. The situation and type of operations affect the characteristics of assessment. During large-scale combat, assessment is rapid and focused on the effectiveness of distribution operations. Identifying what and how to assess requires significant effort from the commander and staff. Regardless, assessment includes monitoring the current situation to collect relevant information, evaluating progress toward attaining end state conditions, achieving objectives, performing tasks, and recommending or directing changes to the plan.

3-14. The commander has multiple tools to use as a check and balance: mission command systems, logistics information systems, internal assessment, and feedback from supported units. As the commander and the CSM execute their battlefield circulation plan, they are checking on their Soldiers and speaking with supported units and logistics staffs to verify the quality of support.

3-15. Assessment is continuous; it precedes and guides every operations process activity and concludes each operation or phase of an operation. Broadly, assessment consists of, but is not limited to, the following activities:

- Monitoring the current situation to collect relevant information.
- Evaluating progress toward attaining end state conditions, achieving objectives, and performing tasks.
- Recommending or directing action for improvement.

3-16. The commander assesses unit task organization throughout the operation. If the DSB or a subordinate unit is not achieving its objectives, the commander directs the staff to evaluate the situation and develop recommendations for improvement. This assessment includes the task organization.

3-17. The commander and staff periodically assess the DSB's capabilities and capacities against division requirements. For example, is one support maintenance company sufficient for the supported population? Can the commander redirect supported units to another support maintenance company?

DISTRIBUTION MANAGEMENT PROCESS

3-18. The success of division sustainment operations depends heavily on the distribution management process. The distribution management process is comprised of materiel management and transportation management functions as depicted in figure 3-2. Materiel managers control the end-to-end supply pipeline through the monitoring and managing of receipts, storage, and issue of all supply classes. Transportation managers allocate transportation assets and regulate movements according to command priorities. Distribution managers integrate the functions of transportation and materiel management to move cargo from the source of supply to the supported unit.

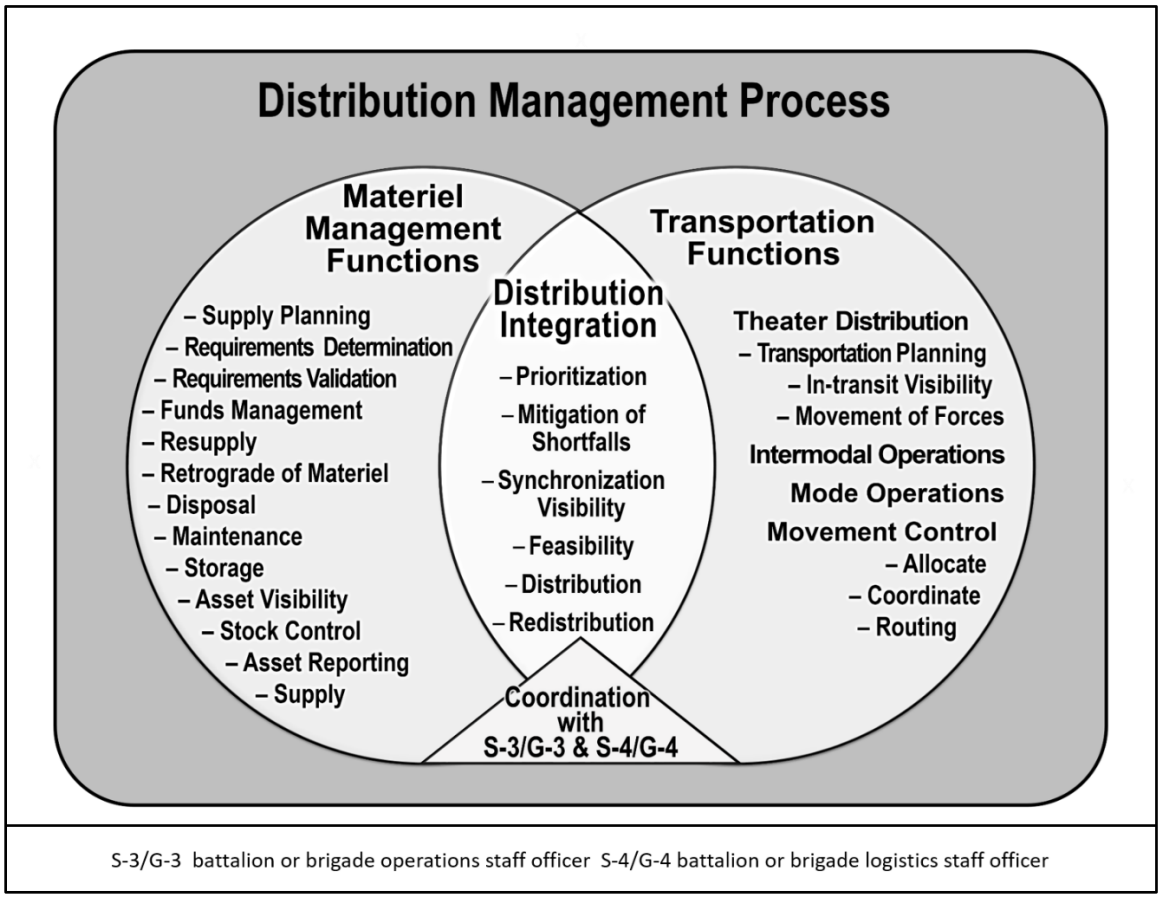


Figure 3-2. Distribution management process

3-19. The process begins with receipt of mission, followed by identifying tactical unit requirements, and ends at item disposal. Materiel managers determine and validate materiel requirements for distribution to supported units, obtain materiel to be distributed by appropriate commodity and quantity, and coordinate distribution according to command priorities. Transportation managers identify units with adequate modes to meet distribution requirements. Transportation managers pass this information to the distribution integrators, who in turn develop a distribution plan based on distribution requirements and available transportation. Distribution integrators use the information provided by the materiel managers to coordinate with the transportation managers to allocate transportation by commodity, quantity, priority, and recommended mode. This information is communicated to the brigade S-3 for inclusion in the OPORD concept of operations.

3-20. The distribution management process is multifaceted. Materiel managers must understand the supported commander's priorities and requirements in order to plan, prepare, integrate, and distribute within the division AO. Inefficiency in any of the supporting networks can affect the effectiveness of the overall distribution system. Challenges to the distribution management process are consequences of—

- Multiple independent and mutually supporting networks. (For example, physical, information, communications, and financial networks)
- Diverse agencies, working groups, sections, facilities, methods, and procedures.
- Multi-nodal, multimodal, intertheater, and intratheater transportation operations for moving materiel and troops in the assigned area.

3-21. The distribution management process and planning efforts must be synchronized with the supported headquarters operation and across all warfighting functions. Failure by commanders and planners to achieve this synchronization may result in an impractical distribution plan.

SUPPORT OPERATIONS STAFF

3-22. Planning at the division level drives operations. The DSB SPO plans and coordinates external support operations, linking with the division G-3 and G-4 to enable anticipation and synchronization. The DSB SPO section balances external sustainment support requirements with the brigade's sustainment capabilities.

3-23. The DSB SPO section generally coordinates OCS, sustainment automation systems management office operations, distribution integration, transportation operations, materiel management (supply, property book, field services, fuel and water operations, munitions, and maintenance), and human resources support.

3-24. The DSB SPO section coordinates and provides technical supervision for sustainment support provided to the division. The SPO straddles mid-range (future operations) to short-range planning and execution. The DSB SPO assists the division G-4 in sustainment preparation of the OE and battlefield. The SPO also assists the brigade S-3 in communicating sustainment concepts of operations by way of the OPORD process. Figure 3-3 depicts the DSB SPO staff section.

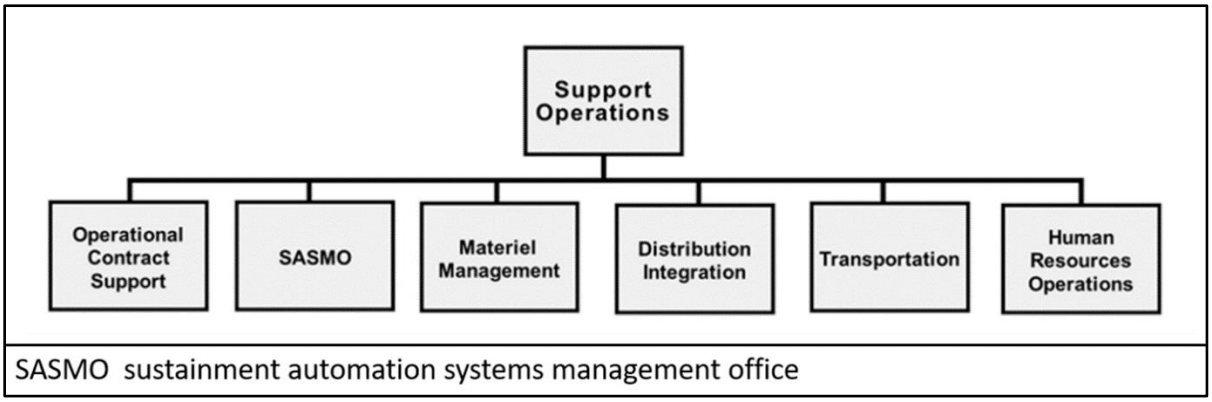


Figure 3-3. Support operations task organization

TRANSPORTATION

3-25. The transportation operations branch plans and synchronizes the movement of supplies and personnel for the division in accordance with the movement priorities established by the division commander. The division G-4 creates the movement plan, and the DSB transportation operations branch manages the execution of the plan. The SPO transportation officer is responsible for the following:

- Providing route synchronization of the supply routes within the division operational area.
- Ensuring uninterrupted movement of divisional sustainment convoys as well as corps sustainment convoys entering division or brigade area.
- Managing the movement request process to ensure an efficient and effective use of internal assets while providing an expedient process for receiving external transportation support.
- Planning and coordinating aerial delivery operations within the division operational area.
- Establishing periodic movement boards (in coordination with the division transportation officer) to ensure inbound corps sustainment movements, internal sustainment movement and supporting coordination are synchronized and forecasted.

3-26. The SPO transportation officer is a staff officer in the DSB transportation operations branch involved in the movement of units and maneuver elements in coordination with the division G-3. The SPO transportation officer assists the G-4 and division transportation officer in resolving transportation issues. The SPO transportation officer advises the SPO, division transportation officer, and G-4 on transportation matters that include—

- Availability of brigade transportation assets.
- Movement regulations associated with MSRs and alternate supply routes that the division will control.

- Preparation, update, and maintenance of the transportation portion of the logistics estimate, including participation in MDMP for future operations.

3-27. The movement request process in the division starts with the requiring unit (for example, a BCT). If the requirement exceeds the BSB's capabilities, the BSB SPO will forward the movement requirement to the movement control officer and inform the BCT S-4 of the request. The movement control officer is responsible for validating and prioritizing requirements before submitting requirement requests for external support. If it is prudent to use another BCT's transportation assets, the movement control officer must inform the division transportation officer. The division transportation officer makes recommendations to the division G-3 in order to task assets across the division. If external support is required, the division transportation officer will coordinate with the corps transportation officer for additional assets.

3-28. The division transportation officer will normally chair division movement boards, but the division G-4 or the deputy commanding general for support could chair them if in a joint or multinational environment. An output of the board is a validated division movement program. The program ensures all internal movement requirements are matched with the appropriate capabilities, and it confirms the coordination and synchronization for mission execution of movements occurring with the next 24–48 hours. For movement occurring outside of 48 hours, it is important to identify potential requirements along with the availability of committed assets. Representatives in the movement board should include but are not limited to—

- Division transportation officer.
- DSB SPO transportation officer.
- Division G-2, G-3, G-4, and surgeon cell.
- Subordinate BCT S-4s and BSB SPO.
- Representatives from brigades, battalions, and companies attached to the division headquarters.
- Provost marshal.
- Division engineers.
- MEB.
- MCTs providing area support.
- Movement control battalion representative.
- Protection enablers (to include biometric capabilities).
- Cyberspace electromagnetic activities cell.

MATERIEL MANAGEMENT

3-29. Materiel management is the continuous situational understanding, planning, and execution of supply, maintenance, and transportation capabilities to anticipate, synchronize, and direct all classes of supply to maximize combat power and enable freedom of action in accordance with the supported commander's priorities.

3-30. The materiel management branch in the DSB SPO executes divisional materiel management functions. It is responsible for managing materiel within the division AO and executing the priorities established by the division commander. Materiel management functions are the warehousing, managing, cataloging, requirements determination, and requirements validation and prioritization for procurement, distribution, redistribution of excess, and retrograding of materiel. The sections within the materiel management branch include supply, fuel and water, munitions, maintenance, class VII, and field services.

3-31. The DSB S-4 executes property accountability and class VII management for the headquarters and all assigned and attached units, and the SPO materiel management branch is responsible for the remaining materiel management tasks to include—

- Review work at the SSA and subordinate support operations to ensure appropriate levels of effectiveness.
- Monitor subordinate SSA excess posture to ensure that either the excess is justified based on future operations or the SSA has requested disposition instructions.
- Monitor SSA overage reparable report to ensure materiel is being processed and turned in within allotted timeframe.

- Monitor SSA overdue deliveries to ensure they are being resolved effectively and in a timely manner.
- Monitor SSA performance statistics to ensure appropriate supply performance and customer support.
- Review the report comprised of on-hand, due-in, and due-out information on materials that are authorized to be stocked.
- Review, manage, and process release strategy.
- Manage authorized stockage list review boards to support the readiness of supported units.

3-32. Materiel managers must develop a clear understanding of operational requirements. Requirements determination is the process that results in a clear understanding of the actual supply requirements to meet operational needs and aids materiel managers in defining capabilities to support anticipated workloads. Materiel managers must have visibility of all division requirements to ensure the distribution system operates effectively. When determining requirements, division G-4 logistics planners, assisted by DSB materiel managers, identify a quantity of supply that must be retained in the DSA. That number may change as the OE changes.

3-33. DSB materiel managers validate all requirements against commander's priorities. Validation and prioritization is the function of certifying movement and resource requirements against commander's priorities. Managers satisfy the commander's requirements and priorities through appropriate sourcing, maintenance, and distribution of materiel and equipment.

3-34. DSB materiel managers maintain accountability and visibility of materiel and cross-level materiel across the DSA to fill shortages and ensure availability to meet operational needs. The DSB materiel managers also identify the decision points at which priority, quantity, or delivery dates could change in order to fulfill shortages or accommodate operational requirements.

MATERIEL MANAGEMENT FUNCTIONS

3-35. Activities supporting materiel management include the following but may expand based upon operational and mission variables. The sections below outline the thirteen functions supporting materiel management.

- **Supply planning** is forecasting and establishing supply stock levels at each support echelon to meet mission requirements. It is a translation of an operating force's composition into specific supply requirements. Planning ensures that adequate supplies and transportation assets are available.
- **Requirements determination** is the determining and understanding of a supply requirement to support an operating force. It aids materiel managers in defining priorities of support. It is based upon requirements communicated from operating forces and forecasted by sustainment organizations supporting these forces.
- **Requirements validation** involves validating and prioritizing available logistics assets against an established or forecasted requirement. Requirements validation is critical to avoid excess materiel and to avoid misuse of logistics transportation and maintenance assets. It ensures that no requests for logistics support are passed to a higher headquarters until on-hand assets are determined insufficient to meet the requirement. Requirements validation also includes establishing controlled rates of supply if necessary.
- **Funds management** involves contracting officers with warrant authority, and finance officers who manage the obligation of funds in support of supply operations.
- **Resupply** consists of obtaining supplies to meet operational requirements. It includes the requisition process, contracting, and local purchase.
- **Retrograde of materiel** is an Army logistics function of returning materiel from the owning or using unit back through the distribution system to the source of supply, directed ship-to location, or point of disposal.
- **Disposal** involves systematically removing materiel that is uneconomically repairable or obsolete. It is accomplished through the process of transferring, donating, selling, abandoning, or destroying

materiel. It is normally directed through program management channels, but may also be a command decision if the OE dictates.

- **Maintenance** is all actions necessary for retaining an item in or restoring it to a specified condition to support the supply system.
- **Storage** includes organizing, sorting, and safeguarding materiel. Warehousing includes warehouse management, receiving, storing, issuing, securing, inventory management, and accounting for materiel. Warehousing does not imply the use of fixed facilities. Tents, containers, and open areas may also serve as warehouses.
- **Asset visibility** provides materiel managers with the capability to determine location, movement, status, and identity of assets by commodity, nomenclature, and unit, enabling improved decision-making on sources of support and prioritization.
- **Stock control** is maintaining proper location and identification of materiel. Materiel managers need correct identification and location of materiel stored in warehouses to ensure the proper item of supply is issued to meet requirements. Stock control also addresses unidentified, improperly cataloged items that result in excess items being ordered by materiel managers.
- **Asset reporting** is the vertical and horizontal reporting of asset status. It is a critical component of asset visibility, requirements determination, and requirements validation. It occurs at all echelons with frequency and commodities to be reported determined by the command.
- **Supply** involves providing all items necessary to equip, maintain, and operate a military command. It involves requesting, receiving, storing, issuing, maintaining, and establishing accountability of all classes of supplies required to execute a unit's mission.

MATERIEL MANAGEMENT BRANCH

3-36. The DSB materiel management branch in coordination with multifunctional and functional support brigades manage all materiel management functions within the DSA. The materiel management branch supervises the materiel management process in support of division operations. The branch conducts supply planning and maintains asset visibility of the distribution system's current (and forecasted) supply inventory and capacity by node for all classes of supply. The materiel management branch must continuously analyze stock status to manage workload and control potential backlogs or bottlenecks generated by competing requirements and priorities. Near-real-time situational awareness of the OE and supported commander's requirements drives the distribution, redistribution, and reprioritization of materiel. The materiel management branch consists of six sections outlined in figure 3-4.

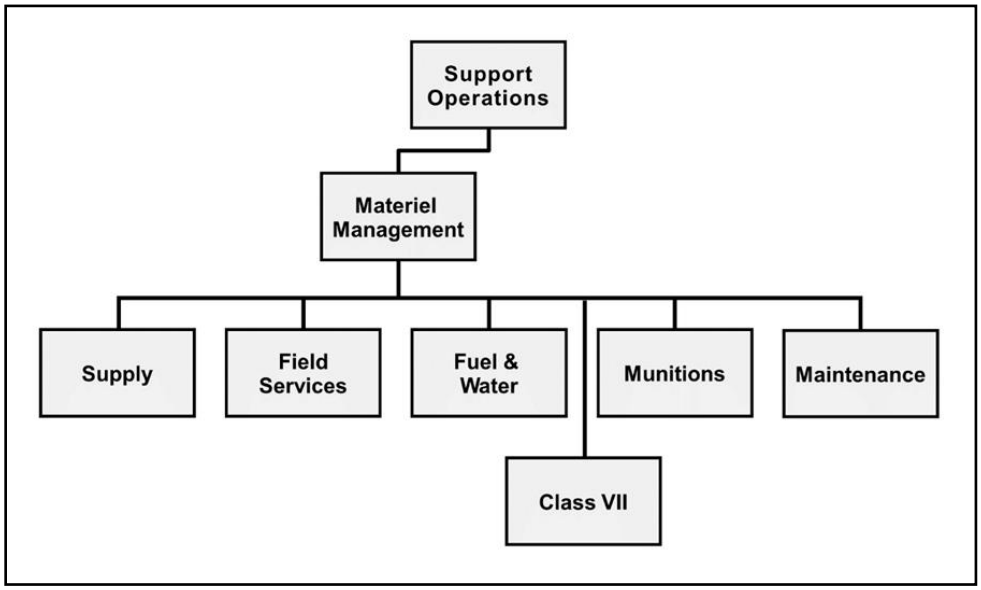


Figure 3-4. Materiel management branch

3-37. Effective, efficient materiel management is critical for supply support to meet all operational supply requirements adequately and on time. Materiel management is anticipatory and flexible to meet unforeseen and unexpected supply requirements that invariably arise during large-scale combat operations. DSB materiel managers direct the materiel management process in support of division operations. DSB materiel managers identify, plan, resource, and implement management actions to ensure that all classes of supply are available for distribution to supported units. DSB materiel managers engage in detailed, methodical planning synchronized with the supported operation and across all warfighting functions. Materiel managers anticipate supply requirements, where supplies are needed, and how supplies will be distributed to the supported unit. Failure by DSB commanders and planners to achieve synchronization may cause support concepts to be unexecutable and infeasible, and unknown until the operation begins.

General Supply Section

3-38. The general supply section controls, manages, and directs the receipt, storage, and distribution of class I, II, III (packaged), IV, VIIIA (medical consumables not including blood), and IX supplies to supported units within the DSB AO. The general supply section's two primary functions are to —

- Coordinate and supervise supply management to enhance the performance of tactical supply support activities.
- Provide commanders with real time solutions for supply shortfalls and long lead-time repair parts.

3-39. In conjunction with the maintenance section of materiel management, the general supply section reviews equipment status reports from GCSS-Army to—

- Identify errors that could stall repair parts distribution (for example, an incorrect project code).
- Identify shortfalls due to GCSS-Army limitations.
- Identify potential lateral support.
- Facilitate lateral support between tactical SSAs.

3-40. To mitigate supply shortfalls, the general supply section routinely communicates with strategic sustainment partners such as an Army field support battalion (division logistics support element when deployed), which provides reach back to the Army Sustainment Command, Army Materiel Command, Defense Logistics Agency, and other contractors and agencies as required. The general supply section routinely attends logistics synchronization meetings and division maintenance meetings. Contributions to these meetings include overage reparable reports and issues identified or resolved for critical repair parts.

3-41. General supply operations include the requisition, receipt, storage, protection, maintenance, issue, distribution, redistribution, and retrograde of supplies. Levels of supply are broadly classified under the levels of warfare as strategic, operational, and tactical. Strategic supplies are items under the control of Defense Logistics Agency or the U.S. Army Materiel Command life cycle management commands. Operational supplies are theater supplies that are positioned to replenish tactical stocks. Tactical supplies are under the control of the BSB and forward support companies. The following paragraphs provide information about who manages them and how each class of supply may be distributed.

Class I

3-42. Division assigned and attached units submit class I supply requisitions to their unit class I manager, normally located at the brigade and battalion level, using LOGSTAT reports. The brigade and battalion class I managers fill requisitions from on-hand stocks and, using LOGSTAT reports, submit replenishment requisitions to the class I materiel managers at the DSB SPO. The DSB class I materiel managers direct the composite supply company through the distribution integration branch to fill requisitions from on-hand stocks. Class I materiel managers coordinate with the transportation operations branch to ensure transportation assets are allocated to transport stocks to the requesting unit based on priorities of support established by the division G-3 and G-4. DSB class I materiel managers maintain visibility of on-hand stocks and forecast division consumption over the next 24, 48, and 72 hours. DSB class I materiel managers submit LOGSTAT reports to the sustainment brigade at the corps level for replenishment of class I stocks required to support the division.

Class II, III (Packaged), IV, VIIIA, and IX

3-43. The division arrives in theater with a predetermined amount of class II, III (packaged), IV, VIIIA (medical consumables not including blood), and IX supplies. Class II, III (packaged), IV, and IX are commonly known as general supplies. Classes II, III (packaged), VIIIA, and IX are requisitioned and issued through GCSS-Army. Class IV stocks are tracked using the LOGSTAT reporting format, however all CL IV stocks are requisitioned through GCSS-Army.

3-44. Division assigned and attached units submit general supply requisitions using GCSS-Army. The brigade and battalion general supply managers fill class IV requisitions from on-hand stocks and submit replenishment requisitions to the general supply managers at the DSB SPO using LOGSTAT reports. The DSB general supply managers direct the composite supply company through the distribution integration branch to fill class IV requisitions from on-hand stocks. General supply managers coordinate with the transportation operations branch to ensure transportation assets are allocated to transport stocks to the requesting unit based on priorities of support established by the division G-3 and G-4. DSB general supply managers maintain visibility of class IV on-hand stocks and forecast division consumption over the next 24, 48, and 72 hours. DSB general supply managers submit LOGSTAT reports to the sustainment brigade at the corps level for replenishment of class IV stocks required to support the division. DSB general supply managers maintain awareness of future operations to anticipate increases in class IV requirements and prepare to fill requisitions on short notice.

3-45. The DSB general supply section monitors the BCT's SSA performance metrics and directly manages the performance of the DSB supporting SSA to ensure it can provide responsive support.

Fuel and Water Section

3-46. The DSB fuel and water section centrally manages, controls, and allocates class III (bulk) petroleum and water according to the division commander's priorities. It directs the receipt, storage, inspection, testing, quality, issue, distribution, and accountability of the bulk fuel and water stocks for the division. Division assigned and attached units submit fuel resupply requests to their fuel commodity manager at the brigade and battalion level using LOGSTAT reports. The brigade and battalion fuel commodity managers fill fuel supply requisitions from on-hand stocks and submit LOGSTAT reports to the fuel commodity managers at the DSB SPO to request replenishment. The DSB fuel commodity managers direct the composite supply company through the distribution integration branch to fill requisitions from on-hand stocks. Fuel commodity managers coordinate with the transportation operations branch to ensure transportation assets are allocated to transports stocks to the requesting unit based on priorities of support established by the division G-3 and G-4. DSB fuel commodity managers maintain visibility of on-hand stocks and forecast division consumption over the next 24, 48, and 72 hours. They submit LOGSTAT reports to the sustainment brigade at the corps level for replenishment of class III (bulk) stocks required to support the division.

3-47. The brigade and battalion water commodity managers fill water supply requisitions from on-hand stocks and use LOGSTAT reports to submit replenishment requisitions to the water commodity managers at the DSB SPO. The DSB water commodity managers direct the composite supply company to fill requisitions from on-hand stocks. Water commodity managers coordinate with the transportation operations branch to ensure transportation assets are allocated to transport stocks to the requesting unit based on priorities of support established by the division G-3 and G-4. DSB water commodity managers maintain visibility of on-hand stocks and forecast division consumption over the next 24, 48, and 72 hours. They submit LOGSTAT reports to the sustainment brigade at the corps level for replenishment of water stocks required to support the division.

Munitions Section

3-48. The DSB munitions section manages class V at each node throughout the distribution system within the division AO. It reviews RSRs from the division G-3 and compares them with CSRs from corps. This section forecasts munitions requirements as well as capability and capacity changes required to support future operations. It requisitions, redistributes, and retrogrades munitions in support of the division. The section monitors the requisition of munitions and maintains visibility of on-hand and in-transit ammunition. The DSB munitions section, in coordination with the quality assurance specialist (ammunition surveillance), is

responsible for quality surveillance operations for the division to ensure that materiel in the stockpile meets established explosive safety and serviceability criteria and is properly classified.

3-49. Brigade ammunition officers receive requests for resupply through a standard Army ammunition system from subordinate units. The brigade ammunition officer fills the requirement from on-hand stocks at the brigade level. Each brigade ammunition officer transmits a consolidated request for resupply of ammunition to the DSB munitions managers. The DSB munitions managers, in coordination with the division G-3 and G-4, review all requests and balance them against the CSR and division commander's priorities. The DSB munitions managers direct the attached modular ammunition company to fill requisitions from on-hand stocks. Some ammunition requirements are prioritized due to scarcity and may not be issued due to unavailability. Munitions managers coordinate with the transportation operations branch to ensure transportation assets are allocated to transport munitions to the requesting unit based on priorities of support. This section will also coordinate special transportation (road, rail, air, or airdrop) requirements for munitions with the distribution integration branch and transportation operations branch. The section develops and recommends combat and unit configured loads of munitions to the division G-4.

Maintenance Section

3-50. The lethal nature of large-scale combat increases the propensity for mass casualties and large-scale personnel and equipment replacements. The DSB maintenance section monitors and maintains visibility of the division's combat power using visualization tools such as AR-COP and Commander's Actionable Readiness Dashboard. The DSB maintenance section conducts predictive analysis to provide DSB and division leadership estimates on when equipment will be repaired and available for use. The DSB maintenance section's projections on when an equipment fleet will reach a specific operational readiness rate can assist division staff in determining when to begin an operation or transition from offensive to defensive operations.

3-51. The DSB maintenance section (within the SPO materiel management branch) maintains running estimates of maintenance requirements for future operations and maintenance capabilities within the division. It identifies shortfalls and recommends solutions based on division priorities and ensures compliance with maintenance plans, policies, and priorities established by the division G-4. The maintenance section uses automated tools such as AR-COP, Commander's Actionable Readiness Dashboard, and GCSS-Army to conduct trend analysis of the division's vehicles and equipment to identify systemic problems. This section provides technical support for electronic and ground maintenance and forecasts the quantity of vehicles that will require transportation support (especially HET support) for evacuation. These requirements are submitted to the distribution integration branch for inclusion in future operations.

3-52. The DSB is the link from EAB sustainment to the division. When at home station, the DSB maintenance section coordinates with the Army field support battalion SPO for U.S. Army Materiel Command, materiel enterprise, and acquisition, logistics, and technology capabilities to assist in resolving systemic materiel-related equipment problems. When deployed, the DSB maintenance section coordinates with the division logistics support element for those capabilities. The DSB maintenance section coordinates for sustainment-level technical expertise and maintenance capabilities to build and maintain division combat power.

3-53. In preparation for deployments, future operations, changes in support relationships, or changes in task organization, the maintenance section reviews the authorized stockage list of SSAs within the division to ensure the stocked class IX will meet forecasted requirements of the supported force.

3-54. The DSB maintenance section manages sustainment operations for division forces operating in the DSA who do not have an organic maintenance capability. The DSB maintenance section coordinates with the DSMC to provide support to units on an area basis. The DSB maintenance section recommends employment of maintenance surge teams based on the commander's priority of support.

3-55. The Army's repairable management process recovers and repairs unserviceable repair parts to replenish inventories and satisfy equipment readiness requirements. The DSB maintenance branch uses GCSS-Army and AR-COP to maintain visibility of the status of reparable parts turn-in across the division.

Class VII Section

3-56. The DSB class VII section is responsible for asset visibility for the division. The section provides timely and accurate information on the location, movement, and status of assets. The DSB class VII section maintains visibility of major end items such as weapons and vehicles in accordance with division policies and procedures.

3-57. The DSB class VII section, in coordination with the division G-3 modernization branch and the direct support readiness Army field support battalion (the division logistics support element when deployed), assists the division G-4 in developing and executing the division's portion of the equipment field plan. The DSB class VII section monitors and ensures the receiving unit completes and turns in documents required to accept property and has access to the appropriate technical manuals.

3-58. The DSB class VII section assists the division G-4 in conducting analysis on divestiture, redistribution, and cross-leveling in order to determine and reduce excess equipment. This analysis is important in reorganization during large-scale combat operations and assists the division in determining which units will be required to transfer equipment in order to replace damaged or destroyed equipment in another unit.

Field Services

3-59. The DSB field services section manages field services support for supported forces. Field service functions include aerial delivery, food services, shower and laundry, mortuary affairs, and water purification. The DSB field services section assists the division staff in integrating field services support into current and future plans to include validating requirements for field service support. The field services section may coordinate directly with field services units assigned or attached to DSSBs or DSTBs of the DSB. Although aerial delivery and water purification are field service functions, the transportation operations branch of support operations is responsible for planning and coordinating aerial delivery, and the fuel and water section of the materiel management branch is responsible for planning and coordinating water purification in support of the division area. The field services section monitors the combat effectiveness of units providing field service support in the division operational area to ensure continued and responsive support. A degradation in support requires a notification to the DSB SPO and commander as well as the division G-3 and G-4.

3-60. The field services section must be integrated with the distribution integration branch and be aware of changes in current and future operational plans. The field services section recommends relocation of field service units, changes to support relationships, or procedures based on changes to the operational plan.

3-61. In coordination with the division G-4, the field services section recommends the mortuary affairs collection points and develops the evacuation plan for the division rear area. The field services section coordinates with other brigades in the division AO to integrate all mortuary affairs planning into a comprehensive plan.

MATERIEL MANAGERS RESPONSIBILITIES

3-62. DSB materiel managers receive requirements, determine where the materiel is available, and direct materiel release based on command guidance and priority. They continuously analyze stock status to manage workload and control potential backlogs or bottlenecks generated by competing requirements and priorities. Near-real-time situational awareness of the OE and supported commander's requirements drives the distribution, redistribution, and reprioritization of materiel.

3-63. DSB materiel managers ensure the uninterrupted flow of materiel. They frequently evaluate supply support through supply operations assessments to determine trends, isolate deficient areas, and correct deficiencies. An operations assessment is a process for evaluating performance (including customer service), inventory accuracy, space utilization, facility layout, automation equipment utilization, general housekeeping, and safety. Areas that do not fall within acceptable ranges receive intensive review and management.

3-64. DSB materiel managers satisfy the materiel requirements of divisional and non-divisional units. When deployed, the DSB manually manages subsistence and bulk fuel, but these require the same level of control as supply classes managed in an enterprise resource planning system. DSB materiel managers take action to

resolve current issues and prevent potential issues from developing. These issues include—

- Specific repair parts problems that need action and coordination with the user, suppliers below the national level, and national suppliers.
- Shortages that could influence the materiel readiness of subordinate and supported units.
- Delays or other problems associated with establishing contracts or with existing contracts (coordinated with the OCS section, the brigade S-8, and division G-8).
- Trends that may necessitate modification of support plans or procedures.

3-65. Actions on the battlefield drive the materiel management process. Situational awareness of the OE provides information on where to place supply points and which transportation approach will ensure supplies reach the supported unit. DSB materiel managers coordinate with movement control managers to synchronize multi-nodal, multimodal transportation operations to move materiel around the battlefield. Planning considerations include the following:

- Supported unit mission.
- Support priorities.
- Threat level.
- Road networks and competing road priorities.
- Distance from source of supply to supported unit when deciding where to establish warehousing operations and supply points.
- Availability of personnel and equipment (for example, trucks, helicopters, and materials handling equipment).

3-66. The type, amount, and availability of transportation assets and the resupply method depend on the location of supply points in relationship to the supported units. Coordination for transportation involves determining the time required for local haul and line haul round trips to and from supported and supporting units.

3-67. DSB materiel managers coordinate equipment disposal according to materiel life cycle sustainment plans. The process of turn in requires coordination, validation, and approval before a unit turns in items to the supporting supply point. Supply point personnel follow disposition instructions provided by national-level materiel managers.

DISTRIBUTION INTEGRATION

3-68. Distribution integration is the process of aligning personnel, equipment, and materiel movement requirements with transportation capabilities to synchronize distribution in support of the concept of operations. The DSB distribution integration branch relies on coordination and information exchange between the materiel management and transportation operations branches.

3-69. The DSB distribution integration branch synchronizes the distribution plan for classes of supply with current division operations. The brigade MEDLOG officer and the division surgeon section coordinate with the DSB distribution management branch for the class VIII distribution plan. The distribution integration branch focuses its planning efforts on changes to the distribution plan generated by changes to the division's tactical plan. The planning horizon for the distribution plan at the DSB is 72-120 hours.

3-70. During distribution integration planning, DSB materiel managers share information (commodity, quantity, and priority) with the transportation movement control section to coordinate allocation of transportation modes. The sections below outline functions supporting distribution integration:

- **Prioritization**. This function ensures commodities to be distributed are organized and queued in order of priority as determined by the command. Priority is expressed as both commodity and unit priority.
- **Mitigation of Shortfalls**. This function links materiel management to transportation in terms of commodity, quantity, and priority. It ensures that adequate transportation assets are identified and allocated for requirements.

- **Synchronization**. This function ensures that distribution is synchronized with transportation operation cycles to ensure modes with sufficient capacity are available when commodities are positioned for movement. It also aligns distribution with operational tasks, phases, and objectives.
- **Feasibility**. This determines if the capability exists to move forces, equipment, and supplies from the point of origin to the final destination within the time required.
- **Distribution**. This function is the operational process of synchronizing all elements of the logistics system to deliver the "right things" to the "right place" at the "right time" to support the commander.
- **Redistribution**. This is the process of reallocating excess materiel to other locations in theater using all transportation assets available. Excess materiel in theater may fill shortages and meet operational requirements.
- **Visibility**. This provides the materiel managers the awareness of commodities that are queued, prioritized, and have transportation allocated for movement.

3-71. The DSB distribution integration branch coordinates with the division G-3 and G-4 to integrate sustainment operations to the division's future operations.

3-72. The distribution integrators collaborate with materiel managers, transportation managers, and operations officers to synchronize elements of the logistics system to support the commander. Successful distribution occurs when distribution planners and integrators—

- Determine if a transportation capability exists to move forces, equipment, and supplies from the point of origin to the final destination within the time required. If transportation is not feasible, it is reported to the materiel management branch and transportation branch.
- Ensure commodities to be distributed are organized and queued for delivery in order of priority as determined by the command. Priority is both by commodity and by unit.
- Synchronize distribution with transportation operation cycles and operational tasks, phases, and objectives.

3-73. Additionally, the distribution integration branch provides materiel managers visibility of commodities that are queued for distribution.

3-74. The DSB distribution integration branch evaluates the distribution system using the following: precision, responsiveness, efficiency, and robustness. Collectively, these measures serve as a basis for the development of distribution system metrics that are defined in collaboration with the division staff. Precision is measured as the ability to deliver the correct commodity, in the correct amount, to the correct location and unit at the precise time required. Responsiveness is measured as the ability to meet supply requirements at the time of requisition. Efficiency is measured as the ability to optimize the distribution system with the assets available to support mission requirements. Robustness is measured by the ability to continue to provide support to units in a changing OE.

HUMAN RESOURCES OPERATIONS

3-75. The DSB HR operations branch is responsible for planning, coordinating, integrating, and synchronizing the activities of subordinate human resource companies and platoons in the division AO. The human resources branch ensures human resource units are resourced, correctly positioned, and properly allocated to accomplish their mission. The DSB human resources operation branch assists the division G-1 in developing HR plans and operations. It forecasts personnel placement and future division operational support requirements for postal operations and human resource squads performing personnel accountability and casualty liaison team missions. FM 1-0 details human resources operations branch activities.

3-76. The human resources operations branch integrates efforts of the division and assigned or attached human resources organizations. The branch also coordinates between supported unit HR staffs and sustainment organizations for the execution of external HR support. This coordination includes synchronizing non-HR support requirements with other sustainment elements and organizations such as transportation, billeting, and feeding for transient personnel. The human resources operations branch ensures the emplacement and displacement of HR support organizations are synchronized with the concept of support plan for personnel accountability, casualty, and postal operations.

OPERATIONAL CONTRACT SUPPORT

3-77. OCS is the process of planning for and obtaining supplies, services, and construction from commercial sources in support of combatant commander-directed operations. The DSB OCS section conducts contract support integration. It synchronizes operational planning in coordination with the division G-4 and supporting contracting elements and validates requirements for division and attached units. The DSB OCS section reviews statements of work or performance work statements, independent government estimates, requirement justification documentation, and purchase requests from division subordinate units. The DSB OCS section participates in operational planning teams and assists the division G-4 in developing Annex W (Operational Contract Support).

3-78. The DSB OCS section also conducts contractor management by managing and integrating contractor personnel and their equipment into military operations. The section monitors, tracks, and coordinates required contracting officer representative and contractor personnel issues with the supporting contracting battalion or logistics support element.

SUSTAINMENT AUTOMATION SUPPORT MANAGEMENT OFFICE

3-79. The DSB SASMO provides support for all sustainment information systems within the division. The DSB SASMO monitors the operational status of very small aperture terminal and Combat Service Support Automated Information Systems Interface and is the network administrator of the tactical very small aperture terminal and wireless Combat Service Support Automated Information Systems Interface network. As network administrator, the SASMO manages network configuration and supervises access operation, to include roles and permissions management, for the division headquarters, DSB, and units operating in the DSA.

3-80. The DSB SASMO coordinates with the division assistant chief of staff, signal (G-6) and unit S-6 to integrate into the command's communications and electronic warfare plan to ensure security and use of automated sustainment systems. The DSB SASMO serves as the first-tier help desk for sustainment systems at the division level. The DSB SASMO also provides backup sustainment information systems support to supported units.

Chapter 4
Sustainment Support to Division Combat Operations

This chapter provides planning considerations for large-scale combat operations. Chapter 4 also provides sustainment planning considerations unique to offensive and defensive operations.

LARGE-SCALE COMBAT OPERATIONS

4-1. Large-scale combat operations are characterized by simultaneous, geographically dispersed operations that occur in various OEs and are challenged across multiple domains. They require greater sustainment than other types of operations because of the higher operational tempo, greater lethality, and significantly increased consumption of supplies and equipment. The lethal nature of large-scale combat operations increases the propensity for mass casualties, requirements for mortuary affairs, increased requirements for a robust medical architecture, and large-scale personnel and equipment replacements. Large-scale combat operations will require the distribution system to move a greater volume of personnel and equipment than in other types of operations. Increased velocity and precision will be required to sustain operations.

4-2. Within division operations, planners must consider the scope of support provided by the DSB. All units attached to the division are supported by the DSB and its organic DSSB. These include any attached BCTs as well as other organizations supporting the division's operation. Engineer, military police, chemical, air defense, and other divisional and non-divisional units may operate in the division's rear area. If the scope of support requirements exceeds the capacity of the organic DSSB, additional modular logistics companies or an additional CSSB may be required to meet support requirements. The division G-4 and the DSB commander must continually assess the situation and make organizational changes as necessary.

PLANNING CONSIDERATIONS FOR SUPPORTING OFFENSIVE AND DEFENSIVE OPERATIONS

4-3. Sustainment planning is both a continuous and a cyclical activity of the operations process. For sustainment planning, the most important factors are requirements, capabilities, and shortfalls. As outlined in this chapter, planning considerations assist planners in identifying specific support or operational requirements based upon available information.

4-4. Many planning considerations affect the ability to execute large-scale combat operations. These considerations must be recognized, analyzed in the time available, and prioritized based on the commander's intent.

4-5. Planning considerations must encompass all warfighting functions to ensure the plan is integrated across all functions and domains. A planning consideration may have various levels of effects that drive support requirements across all warfighting functions. The following discussion describes considerations that must be considered during planning for sustaining large-scale combat operations.

PLANNING CONSIDERATIONS FOR COMMAND AND CONTROL SYSTEMS

4-6. The planning considerations for C2 systems are listed below:

- Expect enemy attacks on space and cyberspace domains (including the electromagnetic spectrum) that will degrade communications and digital information transmission. Attacks on these domains affect sustainment operations in terms of satellite communications, positioning, navigation, timing, information collection, internet operations, computer systems, and frequency modulation communications. Commanders must develop and execute a primary, alternate, contingency, and emergency communications plan to ensure redundancy.

- Assess sustainment task organization frequently to ensure it is adequate and positioned properly to support the sustainment mission. Plan for reconstitution of units that are degraded as a result of enemy attack.

PLANNING CONSIDERATIONS FOR MOVEMENT AND MANEUVER

4-7. The planning considerations for sustaining movement and maneuver are listed below:

- In defensive operations, expect sustainment resupply and support elements to operate forward of the main defensive positions while supporting covering, guard, and screening forces, and counter and spoiling attack forces. Sustainment units must understand tactical enabling tasks such as a forward passage of lines and operational control measures used by maneuver forces in perimeter defense.
- While supporting offensive operations, expect sustainment resupply and support elements to operate in the deep and close areas. Sustainment units must understand operational control measures to include passage of lines and crossing of boundaries with maneuver forces in the offense.
- Anticipate how terrain, enemy action, defense obstacles, fire support coordination measures, movement restrictions, and terrain will affect the methods of resupply. These factors influence all distribution management and movement control plans.
- Expect an increase in items (class III, VIII, and IX) to support offensive operations. Ensure adequate transportation assets are available to move supplies and equipment forward in the operational area.
- Task and coordinate with movement control units for road usage or de-confliction during retrograde operations. This coordination is critical to ensure the retrograde is not hindered by uncoordinated or conflicting unit movement on available routes. Commanders must identify main and alternate movement routes.
- Coordinate with the G-3 (air) to deconflict airspace for aerial delivery, Air Force air land delivery, and aeromedical evacuation requirements.

PLANNING CONSIDERATIONS FOR INTELLIGENCE

4-8. Intelligence is critical for planning sustainment operations in support of large-scale combat operations. It starts with an understanding of the overarching operational variables but then extends to detailed intelligence estimates, IPB products, and other intelligence products that describe enemy capabilities and courses of action. From these products, planners can estimate friendly casualty rates and munition expenditure rates, plan protection operations, and have a better understanding of where and when sustainment capabilities are needed. See ADP 2-0 and FM 2-0 for more information on the intelligence warfighting function.

PLANNING CONSIDERATIONS FOR FIRES

4-9. The planning considerations for fires are listed below:

- Anticipate frequent and rapid relocation of fires units to shift supporting units accordingly.
- Ensure quantity and positioning of modular ammunition units at EAB are sufficient to support fires ammunition requirements.
- Ensure that ammunition transportation assets are adequate and properly positioned to support ammunition distribution for fires operations.

PLANNING CONSIDERATIONS FOR PROTECTION

4-10. The planning considerations for protection are listed below:

- Plan for establishing base cluster operations to create dispersion and facilitate concealment during defensive operations. Commanders should plan to disperse large, consolidated bases from which sustainment units operate into smaller bases to form a base cluster. Consider all security integration implications of the base cluster.

- Plan for CBRN conditions. This planning includes increased requirements for non-potable water, decontaminants, and chemical defense equipment. CBRN defense planning must include detailed procedures for the processing of contaminated wastes, contaminated human remains, and equipment decontamination.
- Expect direct enemy attack by small unit, special operations ground forces, attack aircraft, and long-range artillery. Commanders must ensure that base defense measures are adequate to detect and defeat small unit operations (level I or level II threats). Units must use adequate cover and concealment measures to prevent detection by enemy forces. Dispersion mitigates effects of long-range fires and attack aircraft.
- Provide adequate convoy security for convoys supporting the mobile defense. This security may be from internal sources or from coordinated external sources.

OFFENSIVE OPERATIONS

4-11. An *offensive operation* is an operation to defeat or destroy enemy forces and gain control of terrain, resources, and population centers (ADP 3-0). The intent of an offensive task is to impose the commander's will on the enemy. Against a capable, adaptive enemy, the offense is the most direct and sure means of seizing, retaining, and exploiting the initiative to gain physical, temporal, and cognitive advantages and achieve definitive results.

4-12. There are four offensive operations executed during large-scale combat operations: movement to contact, attack, exploitation, and pursuit. These operations enable commanders to impose their will on the enemy and deprive the enemy of resources, seize decisive terrain, deceive or divert the enemy, develop intelligence, or hold an enemy position. See FM 3-90-1 for more information on offensive operations.

4-13. Sustainment determines the depth, duration, and endurance of Army operations, and plays a key role in enabling decisive action. Failure to provide adequate sustainment during offensive operations can result in a tactical pause or culmination of offensive operations and may prevent consolidation of gains. Operational and sustainment planners at each echelon of command work closely to synchronize sustainment support to allow commanders the freedom of action to maneuver and provide extended operational reach for the offense.

4-14. Offensive operations involve an intense operational tempo, requiring sustainers to continually update their running estimates to anticipate friction points on the battlefield. Sustainers must accurately envision the offensive operation in time and space to accurately forecast operational requirements. Continuous coordination between planners at the various echelons is required for mission success. Sustainment brigades at the corps set conditions for the transitions. DSB actions during a phase set conditions for the next phase. BSBs execute the current phase of an operation.

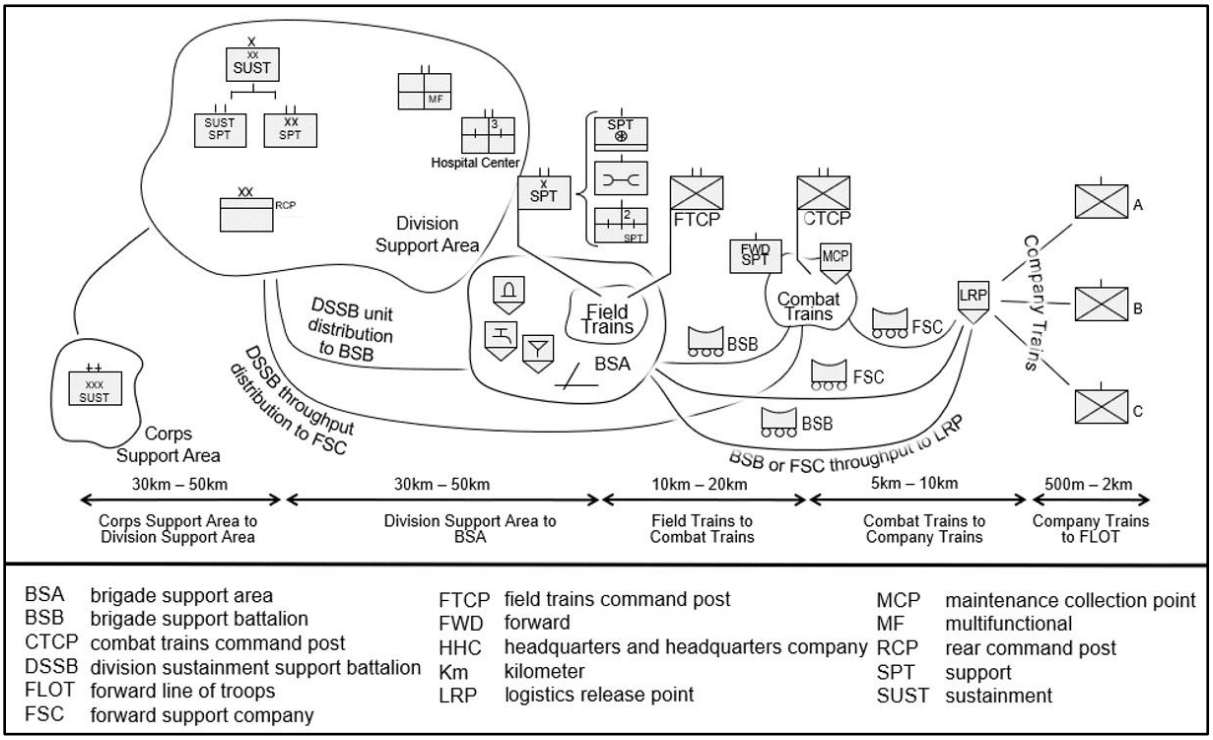
4-15. If offensive momentum is not maintained, the enemy may recover from the shock of the first assault, gain the initiative, and mount a successful counterattack. Maintaining an understanding of offensive operations and future operations allows sustainment planners to simultaneously transition between offensive operations and the consolidation of gains. What starts out as a movement to contact could rapidly turn into a lengthy pursuit of enemy forces requiring extended operational reach to capitalize on opportunities. Effective sustainment of such operations requires robust planning and consideration for all possible outcomes.

4-16. Offensive operations require situational understanding of the enemy threat. Sustainment commanders should not assume unobstructed LOCs and should anticipate challenges across multiple domains. These commanders prepare for the challenges of degraded sustainment systems, interdicted LOCs, and challenges from an enemy that has equal or overmatch capabilities. Sustainment commanders and planners prepare to push forward critical supplies in an OE where degraded systems and communications exist.

4-17. Continued forward movement of units and sustainment support is critical to maintain the initiative and combat power necessary for the successful performance of offensive operations. Maintaining the initiative in the close area often results in significant numbers of bypassed enemy forces and remnants of defeated units as friendly forces maneuver deep into enemy areas by avoiding enemy units in well-prepared positions.

4-18. Sustainment of offensive operations is a high-intensity operation. Sustainment commanders and staffs plan for increased requirements in class III (bulk), medical (which includes class VIII) to sustain the pace and tempo of operations, and maintenance (which includes class IX) to enable rapid transition and rebuild

combat power. All units should plan and rehearse C2, forward positioning of supplies, orders issuance, personnel accounting, logistical support, processing of requisitions, transportation of replacements, and most critically, integration of replacements into maneuver units. Sustainment planners anticipate where the greatest need might occur during offensive operations. Planners consider positioning sustainment units in close proximity to operations to reduce response times for critical support. Planners also consider alternative methods for delivering sustainment in emergencies. Extended LOCs require analysis of how to best emplace forward sustainment elements to support the commander. It is important to clearly identify key actions for rehearsing offensive operations such as casualty evacuation routes, logistics release points, support area displacement times and locations, detainee collection points and holding areas, and fuel and ammunition resupply points to anticipate potential problems and the means to mitigate them. Figure 4-1 provides a notional division logistics structure.



BSA	brigade support area	FTCP	field trains command post	MCP	maintenance collection point
BSB	brigade support battalion	FWD	forward	MF	multifunctional
CTCP	combat trains command post	HHC	headquarters and headquarters company	RCP	rear command post
DSSB	division sustainment support battalion	Km	kilometer	SPT	support
FLOT	forward line of troops	LRP	logistics release point	SUST	sustainment
FSC	forward support company				

Figure 4-1. Notional division logistics structure

PLANNING CONSIDERATIONS FOR SUSTAINMENT

4-19. The sustainment planning considerations listed below are common examples of what sustainment planners may anticipate during offensive operations. If an offensive operation has a special consideration, it is indicated in the list:

- Forecast expected number of casualties and prepare appropriate medical treatment, surgical, and evacuation capabilities. Medical planners must also assess the best positioning of medical units to ensure support to offensive operations. Plan for the use of dedicated casualty evacuation vehicles to augment limited number of ground and aeromedical evacuation assets.
- Anticipate integration of new or additional units assigned or attached to the division in accordance with a time-phased force deployment data list or a planned operational phase.
- Anticipate replacement operations during offensive operations in support of high casualties to maintain momentum and prolong endurance.
- Weight the main effort by cross leveling sustainment assets. These include maintenance and recovery capabilities.

- Plan for all sustainment functions required to build combat power: personnel, supply, maintenance, and medical. Preposition supply classes I, water, IIIB/P, IV, V, VIII, and IX as far forward as the tactical situation permits. Consider the use of combat configured loads (CCLs). Balance forward positioning of resupply and rapid mobility.
- Expect high demand for class III (bulk), maintenance (which includes class IX) and medical (which includes class VIII) to support the offensive preparation efforts. Ensure adequate transportation assets are available to move the required tonnage.
- Plan for HET assets to support retrograde of damaged and destroyed equipment. This transportation is required to move unserviceable main battle tanks, infantry, and cavalry fighting vehicles, Stryker systems, and other heavy equipment to maintenance collection points.
- Ensure field maintenance capability is adequate to repair or evacuate damaged equipment to meet the readiness requirements and the maneuver commander's intent. This requires planned coordination between the maintenance and transportation units and likely requires movement control points along routes.
- Anticipate time needed to execute logistics as distances increase.
- Anticipate requirements to provide subsistence, medical treatment, transportation, and shelter to enemy prisoners of war and displaced civilians.
- Capture increased costs, apply available resources to validated requirements, identify unfunded requirements, and secure funding for reconstitution requirements.
- Plan for water distribution. During large-scale combat, division sustainment planners should expect to distribute only bulk water.
- Prepare to support reconstitution operations in coordination with maneuver commanders two levels up. This process requires substantial sustainment support.
- Plan to execute mortuary affairs operations for fatalities.

4-20. Refuel on the move operations are tailorable, rapidly-employed capabilities that extend reach and sustain tempo for offensive operations. Refuel on the move operations provide maneuver forces with the ability to refuel rapidly (timed) with a predetermined amount of fuel and return to their convoy or formation. The refuel on the move provides the necessary amount of fuel to reach the next secure area or after completion of operations on the objective. Rapid employment of the refuel on the move distinguishes it from routine convoy refueling operations. Ideally, refuel on the move operations utilize rear fuel assets while forward assets remain full. The DSSB may provide the refuel on the move for the whole division while the entirety of the BCT's fuel assets remain topped off. For additional information, see ATP 4-43.

4-21. While it is advantageous to locate sustainment as far forward as possible in support of offensive operations, sustainment planners must be aware of various threats and risks to operations, such as direct action from bypassed enemy forces, special operations forces, and long-range artillery. Planners should avoid large, consolidated bases and position units in dispersed, temporary base clusters. Sustainment assets must be mobile and able to move with advancing maneuver forces. This mobility requires sustainment professionals to understand, balance, and take risks to ensure sustainment of the operational force. Sustainment commanders must assess and mitigate risk continuously throughout large-scale combat operations. The following is a list of risk considerations:

- Are sustainment forces properly dispersed and camouflaged? Are movements in and out of sustainment areas coordinated to avoid drawing attention to the area?
- Does the force have a sufficient number of mobile fueling vehicles to maintain offensive momentum? At what point will a loss of tankers cause mission failure?
- Are sufficient quantities of the correct class V available for rapid replenishment? Are ammunition transfer points established forward and their contents dispersed?
- Are sustainment systems hardened against cyberspace attack? How will sustainers validate requirements received through electronic systems? Does the threat have the capability to change information verses directed denial of service attacks?
- Do medical units have sufficient class VIII to address mass casualty events?
- Are sufficient recovery vehicles available and placed to support rapid transportation of disabled vehicles to maintenance collection points?

- Does the enemy have plans to leave stay-behind forces to interdict sustainment lines of supply? Do friendly forces have sufficient explosive ordnance disposal assets available and positioned to remove enemy ordnance or improvised explosive devices emplaced on the MSRs?
- Are reinforcements available by skill and grade, and accessible in sufficient quantity to replace losses and maintain units at strength? Which units are the resourcing priority at what points during the operation?

Commanders and planners should consider and mitigate these risks as part of the sustainment plan.

4-22. During the offense, class III supply is critical for maintaining momentum. Sustainment planners also forecast the various types of ammunition used by the division. For example, protection from enemy air attack requires large quantities of air defense munitions. Units fighting enemy infantry in restricted and urban terrains use large quantities of small arms ammunition. Units attacking enemy armored forces require large quantities of anti-armor munitions. Sustainment planners proactively prepare to support maneuver units in the offense with configured loads of ammunition, along with fuel and repair parts. Considerations for storage points include proximity to main and alternate supply routes, supported units, terrain, and security. Additionally, ammunition holding area personnel displace forward as the offense progresses to ensure responsive support as part of the concept of support.

4-23. In the offense, combat intensity and the depth of the AO increases. During periods of air superiority and while operating in areas with limited enemy air defense capability, the use of aerial delivery reduces the ground threat to transportation and distribution operations and can be used to extend LOCs. In addition, if forces become isolated, aerial delivery can be used as a means of resupply. It is also an effective method of resupplying combat outposts where it is difficult for ground transportation and distribution lines to reach. Aerial delivery may allow the commander to retain the initiative while reducing the likelihood of overextending supply lines.

4-24. In offensive operations, two basic problems confront the supporting MEDEVAC units: maintaining contact with the supported unit and maintaining mobility of the medical treatment facility (MTF) supporting operational formations. To solve these problems, medical planners coordinate with other sustainment planners and with staffs within the other warfighting functions to determine the scope of the operation, estimate the quantity and types of support required, and develop a priority of support based on the anticipated need. MEDEVAC is an integral planning factor when preparing for an offensive operation. Planning for both aerial casualty and aeromedical evacuation must be coordinated with the division CAB.

4-25. Maintenance personnel place maximum effort on preparing equipment for combat. The maintenance assets move closely behind the combat unit's main body to ensure rapid recovery, repair, and return of damaged and disabled equipment. Risk is high when performing on-site maintenance and recovery operations during offensive operations. Planners balance risk with support requirements to ensure critical capabilities are not lost.

4-26. Sustainers should identify and position critical class IX items as far forward as possible to reduce the strain on transportation networks. Sustainers anticipate increased consumption of class IX items due to substantial maneuvering while on the offense. Logistics packages are the most common and efficient means of class IX resupply for tactical units. The increased requirement for transportation assets will inherently increase maintenance requirements across the board.

4-27. During offensive operations, financial management focuses on securing and safeguarding captured currency (enemy, allied, neutral, U.S., or mutilated currency) and supporting contracting and local procurements. Other tasks executed during offensive operations include commercial vendor services and contract payments, disbursing and funding support, controlling currency (U.S. or local), pay support to enemy prisoners of war and civilian internees, special programs, and supporting monetary compensation and consolation.

4-28. Sustainment planners should expect large numbers of casualties over extended battlefield depth during offensive operations and must prepare to process mass casualties and large-scale personnel replacements to sustain combat power. High operational tempo and potentially degraded systems and communications will negatively impact personnel status and casualty reporting.

4-29. Replacement operations entail the coordinated support, accountability, and delivery of individual replacements from the point of origin to requesting commanders in deployed units. The DSB coordinates transportation for movement of replacements to prioritized units within the division AO.

MOVEMENT TO CONTACT

4-30. *Movement to contact* is a type of offensive operation designed to develop the situation and establish or regain contact (ADP 3-90). Commanders conduct a movement to contact when an enemy situation is vague or not specific enough to conduct an attack. A movement to contact employs purposeful and aggressive reconnaissance and security operations conducted with the smallest force possible to gain contact with the enemy main body and develop the situation.

4-31. Sustaining a movement to contact increases demands on BCT and EAB sustainment resources. Once forces make contact, the commander makes the decision to attack, defend, bypass, delay, or withdraw, allowing sustainers to focus and prioritize efforts.

4-32. Supporting forces occupy positions that facilitate a flexible response to requests for support. Preparations should be made to push as far forward as possible those supplies needed by the covering, guard, and screen forces of the security elements. Sustainment planners should anticipate increased requirements for fuel, ammunition, and maintenance during movement to contact. The division staff informs the commander of any shortfalls in available sustainment support so the movement to contact concept of operations and tactical plan can adjust to meet sustainment capabilities.

ATTACK

4-33. An *attack* is a type of offensive operation that destroys or defeats enemy forces, seizes and secures terrain, or both (ADP 3-90). Attacks incorporate coordinated movement supported by fires. Attacks may be part of either main or supporting operation. A commander may describe an attack as hasty or deliberate, depending on the time available for assessing the situation, planning, and preparing.

4-34. Attacking forces place large demands on BCT and EAB sustainment. Sustainment units locate as far forward as prudence allows. From these forward locations, sustainment units can sustain the attacking force and provide priority of support to the units conducting the main operation.

4-35. Units should be replenished with fuel and ammunition as they arrive in the assembly area or prior to movement into attack positions or crossing the line of departure. The preparations in the assembly area include protecting the force, performing reconnaissance, moving sustainment support forward, conducting rehearsals, refining the plan, and positioning the force and sustainment assets for subsequent actions to maintain momentum, prolong endurance, and ensure freedom of maneuver.

4-36. During an attack, sustainment planners should anticipate increased requirements for fuel, maintenance, and casualty operations due to the rapid tempo and violent nature of these operations. Aerial resupply may be necessary to support a large-scale attack or to maintain the momentum of the main body. The commander ensures that attacking maneuver forces have the sustainment assets necessary to conduct the operation and maintain the attack's momentum as part of the preparation process.

EXPLOITATION

4-37. *Exploitation* is a type of offensive operation that usually follows a successful attack and is designed to disorganize the enemy in depth (ADP 3-90). Sustainment support to exploitation forces includes large demands, especially for logistical capabilities.

4-38. Transportation assets and supplies are necessary to sustain maneuver forces and become increasingly important as an exploitation progresses. As supply lines lengthen, security of routes will also become a problem. The largest possible stocks of fuel, spare parts, and ammunition should accompany the exploiting force so that momentum does not slow for lack of support. Aerial resupply may be necessary to move critical supplies forward during the exploitation. When possible, EAB sustainment assets should follow an exploiting force along LOCs for distribution. Organic maintenance teams within the attacking BCTs repair disabled vehicles or send them to collection points along designated MSRs for evacuation and repair.

4-39. The commander must anticipate the exploitation and ensure the sustainment plan supports the force throughout the duration of the exploitation. This support includes designating future MSRs, logistics release points, maintenance collection points, casualty collection points, medical treatment facilities, and ambulance exchange points. In sustaining the exploitation, fuel consumption and vehicle maintenance are primary concerns of sustainment planners. Supplies and the transportation assets to deliver them become increasingly important as an exploitation progresses.

4-40. The exploitation force typically covers a wider front than an attacking force. This may cause both sustainment support and fire support assets to operate outside of normal supporting range to their supported elements. Sustainment operators must be prepared to bound their sustainment assets farther forward and move them more often than in an attack. Sustainers can normally plan on subordinate forces using less ammunition during an exploitation than in an attack because fleeing enemy forces rarely occupy prepared positions.

PURSUIT

4-41. *Pursuit* is a type of offensive operation designed to catch or cut off a hostile force attempting to escape, with the aim of destroying it (ADP 3-90). Sustainment commanders must understand the appropriate application of the mission command philosophy prior to execution and support of pursuit. Pursuit requires the sustainment planner to take into account the effects of fatigue, dwindling supplies, diversion of friendly units to other tasks, and approaching darkness. These may affect the ability to support the maneuver commander's objectives.

4-42. Pursuit requires increased consumption of fuel and ammunition. Equipment failures and increased maintenance requirements may also occur during pursuit. Sustainment planners must anticipate these requirements and push packages of fuel, ammunition, and repair parts to division forces in the pursuit. Sustainment planners must also be prepared to support the direct-pressure force and encircling force during the pursuit.

4-43. Engineer mobility and counter-mobility assets are instrumental in sustaining the rate of advance and hindering the enemy's withdrawal. Engineers prepare the route of advance and support the lateral dispersion of units transitioning to the pursuit. During the pursuit, the commander must plan for engineers to provide assault bridging and emergency road repairs to sustain the tempo of the pursuit. The commander also plans to use engineer assets to block any bypassed enemy's withdrawal routes by using antivehicle mines, demolitions, and obstacles. Heavy engineer breaching demands that support maneuver include increased amounts of demolitions, mine-clearing line charges, and special ammunition.

4-44. The commander uses all available sustainment assets to provide essential support to the force pursuing the enemy. Sustainment units should plan for increased demand for fuel and maintenance as the tempo of operations increases. Sustainment units should be highly mobile and able to provide prolonged endurance and reach during the pursuit. Priority for sustainment normally goes to units having the greatest success. Sustainment planners need to anticipate success since the depth of the pursuit depends on the capability of sustainment assets to support. Sustainment planners supporting the encircling force need to be prepared to provide casualty evacuation over possibly unsecured LOCs. The commander may also need aerial resupply or heavily guarded convoys to support this force. Security for sustainment convoys and LOCs become major planning considerations.

DEFENSIVE OPERATIONS

4-45. A *defensive operation* is an operation to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability operations (ADP 3-0). As a component of large-scale combat operations, the defense is a combination of highly complex operations that places tremendous and continuous demands on division sustainment organizations. Situational awareness, mission analysis, and detailed planning are keys to successful support operations. Commanders take advantage of the time available during a defense to build combat power. However, the time available is likely to be unknown since the enemy typically has the initiative. As a result, sustainment organizations and the functions they execute play a critical role in supporting the defense and the success of subsequent future operations.

4-46. There are three defensive operations executed during large-scale combat operations: mobile defense, area defense, and retrograde. A mobile defense defeats the attacking forces by permitting the enemy to advance into a position that exposes them to counterattack. *Area defense* is a type of defensive operation that concentrates on denying enemy forces access to designated terrain for a specific time rather than destroying the enemy outright (ADP 3-90). *Retrograde* is a type of defensive operation that involves organized movement away from the enemy (ADP 3-90). A retrograde moves the friendly forces away from the enemy to gain time, preserve forces, place the enemy in unfavorable positions, or avoid combat under undesirable conditions.

4-47. The transition to offensive operations will normally be a planned operation but may also be a hasty operation conducted to capitalize on tactical opportunities or an identified enemy weakness. Because of this, sustainment commanders and leaders must stay cognizant of the status of the operation. Leaders must also use all available time to execute required sustainment functions, knowing the mission may change quickly and frequently.

4-48. Sustainment commanders and staffs plan for increased requirements in water, class IV, V, and IX items to support the defensive effort and build class III (bulk and package) stocks to prepare to transition to offensive operations. Sustainment planners anticipate where the greatest need might occur during operations and consider pre-positioning sustainment stocks far forward to reduce response times for critical support. Planners also consider alternative methods for delivering sustainment in emergencies. Sustainment of defensive operations requires a coordinated planning effort designed to maximize synchronization, integration, and continuity of support at all echelons. Commanders and staffs must anticipate operational requirements, be responsive in requisitioning and distributing resources, and be prepared to improvise tactics and techniques for execution that ensure responsiveness even in unexpected situations.

PLANNING CONSIDERATIONS FOR SUSTAINMENT

4-49. The planning considerations listed below for sustainment are examples of what sustainment planners may take into account during defensive operations. These should not be considered all-inclusive. Considerations will vary for individual operations. The list identifies common planning considerations for sustainment during all defensive operations. If a defensive operation has a special consideration, it is indicated in the list:

- Preposition supply classes I, water, III (bulk and packaged), IV, V, VIII, and IX centrally and well forward. Consider the use of mission-configured loads. Balance forward positioning of resupply and rapid mobility.
- Expect high demand for classes IV and V to support defensive preparation efforts. Ensure adequate transportation assets are available to move the required tonnage.
- Plan for HET assets to support the retrograde operation. These will move serviceable and unserviceable main battle tanks, infantry and cavalry fighting vehicles, Stryker systems, and other heavy equipment away from the enemy.
- Plan for mobility and transportation support to units fighting over a dispersed area in a static area defense, and in a dynamic mobile or retrograde defense.
- Plan for troop transportation assets to support the retrograde operation. This is required to move large numbers of personnel during the retrograde.
- Plan for back-haul of equipment and supplies during the retrograde. This is for serviceable and unserviceable equipment and repairable class IX items.
- Plan for the DSSB to provide support to BCT units when the BSB is in retrograde movement.
- Plan for maximum use of unit distribution of classes of supplies.
- Plan for reinforcing support to aviation brigades for downed aircraft recovery operations.
- Priorities for replenishment are normally bulk water, ammunition, and materials to construct obstacles for defensive positions.
- There is normally a reduced need for bulk fuel.
- There may be an increased demand for decontaminants, filters, and CBRN collective and personal equipment.

4-50. The tactics, techniques, and procedures employed by sustainment forces are just as significant as the commodity requirements for supporting a large-scale defense. Sustainers anticipate how terrain, defensive obstacles, fire support coordination measures, and movement restrictions will affect sustainment operations. These factors shape distribution management and movement control plans. Planners expect to weight support for spoiling attacks, counter attacks, and follow-on offensive operations. This may require sustainers to weight the main defensive effort by cross-leveling sustainment assets. Sustainers also consider operational control measures to include passage of lines with maneuver forces in perimeter defense. Finally, sustainment leaders identify sustainment forces that will support the defense reserve force in all types of defense tasks. Commanders determine what risk is acceptable in attaching sustainment units to that reserve force.

4-51. Large-scale defensive operations also place a burden on medical resources due to the magnitude and lethality of forces involved. Medical units anticipate large numbers of casualties in a short period of time due to the capabilities of modern conventional weapons and the possible employment of weapons of mass destruction. These mass casualty situations can exceed the capabilities of organic and direct support medical assets. To mitigate this risk, medical planners should anticipate the possibility for mass casualty situations and coordinate with area support medical units to help absorb the acute rise in battlefield injuries. The brigade surgeon or medical operations officer works with the brigade staff to develop mass casualty plans and advise commanders on integrating all available resources into an effective plan. Casualty response and evacuation are unit responsibilities that occur concurrently with operations and must be rehearsed.

4-52. The casualty response and evacuation plans should complement and be synchronized with the medical treatment and evacuation plans (casualty collection points, ambulance exchange points, and routes), for the use of both standard and nonstandard air and ground platforms in addition to platforms of opportunity. For additional information on mass casualty operations, see ATP 4-02.3 and ATP 4-02.13.

4-53. Mortuary affairs planners must strive to support the defense in depth. Because of the fixed nature of mortuary affairs assets and evacuation routes, these assets and routes are more vulnerable to enemy action. Mortuary affairs planners must identify both primary and secondary LOCs for evacuating the human remains of friendly, enemy, and local nationals. Planners ensure that policies and procedures are established for the prompt, dignified return of these human remains to local government officials, Red Cross, Red Crescent, or family members. For additional information, see ATP 4-46, and JP 4-0.

4-54. During the defense, commanders determine which supplies are needed, how often to supply, and which method of supply best supports defensive operations. Priorities for replenishment are normally bulk water, ammunition, and materials to construct obstacles for defensive positions. There is normally a reduced need for bulk fuel. There may also be an increased demand for decontaminants, filters, and CBRN collective and personal equipment.

4-55. DSB distribution builds and maintains combat power with the delivery of supplies, personnel, and equipment as replenishment support to a BSB, extends operational reach of maneuver forces, maintains freedom of action, and prolongs endurance.

4-56. Troop movements and resupply convoys with combat-configured loads are delivered to maneuver units on a scheduled basis during the defense. The DSSB's composite truck company provides transportation support and executes convoys to move supplies, equipment, and personnel replacements in support of defensive operations.

4-57. Commanders provide maintenance support as far forward as possible during the defense. Maintenance collection points help reduce the need to evacuate equipment. The thrust of the maintenance effort is to fix as far forward as possible those systems that can quickly return to the unit in combat-ready condition. The support maintenance company is the only EAB unit performing field-level maintenance, including all low density and limited recovery support to units on an area basis. The support maintenance company provides field maintenance support to units that do not have organic maintenance capability in EAB. Test, measurement, and diagnostic equipment capabilities reside in the DSMC to provide calibration and repair support to divisional and EAB units.

4-58. During defensive operations, financial management focuses on supporting contracting and local procurements by funding paying agents to pay local vendors for specific defense operations requirements. Other tasks executed during defensive operations include securing and safeguarding captured currency (enemy, allied, neutral, U.S., or mutilated currency), commercial vendor services and contract payments,

disbursing and funding support, controlling currency (U.S. or local), pay support to enemy prisoners of war and civilian internees pay support, special programs, and supporting monetary compensation and consolation.

4-59. Sustainment planners should expect large numbers of casualties in a short period of time during defensive operations and must be prepared to process mass casualties and large-scale personnel replacements to maintain combat power in preparation for future offensive operations.

4-60. Evacuation of fatalities during the defense may be especially challenging. Commanders will likely prioritize limited transportation assets to support casualty evacuation and resupply operations. Task-organized mortuary affairs teams for echelons at or below brigade will have limited fatality storage. Planners should make every effort to conceal fatalities from the view of the living and safeguard human remains from access of carrion scavengers.

AREA DEFENSE

4-61. The area defense focuses on retaining terrain where the bulk of the defending force positions itself in mutually supporting, prepared positions. Units maintain their positions and control the terrain between these positions.

4-62. The sustainment mission during area defense requires a careful balance between forward positioning of supplies and maintaining the responsiveness and rapid mobility necessary to ensure survivability of sustainment assets. The area defense typically requires less fuel consumption, provides more time for maintenance repairs, and requires less complex casualty evacuation procedures due to the static nature of this defense.

4-63. Priorities for replenishment are normally ammunition and materials to construct obstacles and defensive positions. Maintenance and medical support (along with their associated repair parts and medical supplies) are located as far forward on the battlefield as possible. There may be an increased demand for decontaminants, filters, and CBRN collective and personal protective equipment. The commander may stockpile or cache ammunition and limited amounts of petroleum products centrally within the main operational area.

4-64. Push packages of obstacle materials ensure units engaged in defensive operations receive needed supplies. The commander plans for the transportation and manpower required to obtain, move, and uncrate barrier material and associated obstacles-creating munitions, such as demolition charges and mines.

MOBILE DEFENSE

4-65. *Mobile defense* is a type of defensive operation that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force (ADP 3-90). The mobile defense focuses on defeating or destroying the enemy by allowing enemy forces to advance to a point where the enemy is exposed to a decisive counterattack by the striking force. The striking force is a dedicated counterattack force in a mobile defense constituted with the bulk of available combat power. A fixing force supplements the striking force. The commander uses the fixing force to hold attacking enemy forces in position, to help channel attacking enemy forces into ambush areas, and to retain areas from which to launch the striking force.

4-66. The sustainment of a mobile defense operation requires sustainment planners to look beyond the fixing force's supporting operation in order to support the striking force's counterattack. The greater the distance the striking force must cover when moving from its assembly area to its final objective, the greater the amount of supplies needed to support that move. The mobile defense typically requires more fuel, provides less time for maintenance repairs, and requires more complex casualty evacuation procedures due to the dynamic nature of this operation.

4-67. Commanders establish casualty evacuation procedures for both the fixing force and the striking force and ensure that all unit personnel are trained in casualty response procedures (self-aid, buddy-aid, and combat lifesaver), evacuation of the sick and wounded, and medical aspects of injury prevention. The fixing force will likely suffer a higher percentage of casualties than the striking force as it absorbs the enemy's attack. When the striking force must move a considerable distance from its support area, the commander should consider establishing a forward logistics element (FLE).

RETROGRADE

4-68. The enemy may force a retrograde or a commander may execute it voluntarily. In either case, the higher commander of the force executing the retrograde must approve the operation before its initiation. Retrograde is a transitional operation; it is not conducted in isolation. It is part of a larger maneuver scheme designed to regain the initiative and defeat the enemy.

4-69. During retrograde operations, sustainment units echelon their movements to maintain adequate support to the committed force. Planners should allocate HET assets to support the retrograde defense task. Sustainment units also maintain maximum dispersion consistent with control and local security. Their goal is to provide uninterrupted support and maximum protection during the time it takes to conduct the retrograde operation. By echeloning support, the commander reduces the amount of time each sustainment unit spends moving, preventing it from performing its primary support tasks. To reduce congestion and interference with the operations of combat, functional, and multifunctional support units, the commander should displace supporting sustainment assets as early as possible, normally during periods of limited visibility.

4-70. Commanders anticipate the effects of retrograde movements on sustainment elements to ensure adequate support for the operation and the prompt evacuation of casualties. Only essential medical and logistics support should be located in the area involved in retrograde operations. Retrograde movements generally result in increased distances between sustainment and combat units, which makes providing this support more difficult. The sustainment commander must prevent unnecessary supplies from accumulating in areas that will be abandoned. Retrograde operations generally require more class III and possibly more class V supplies than during the other defensive tasks. Increased supply of bulk fuel and ammunition combine to increase the demand for transportation assets and space on MSRs. This, in turn, increases the need for movement control and pre-positioned services and supplies. Sustainment units carry and cache necessary fuel and ammunition stocks as required by the specific situation. Supplies that cannot be moved and facilities left behind may require destruction. Sustainment commanders must plan for this contingency. See FM 3-90-1 for details on denial operations.

Chapter 5
Division Support Area

This chapter describes the DSB emplacement in a support area as part of an AO. This chapter focuses on considerations for establishment, operation, security, and displacement of the base in the support area.

SUPPORT AREA

5-1. The division commander assigns a DSA as a subordinate area of the rear area. Within the DSA, a designated unit (usually an MEB but may be a BCT) provides reconnaissance, area security, terrain management, movement control, mobility support, clearance of fires, CBRN response, and required tactical forces. This capability allows sustainment units to focus on their primary functions.

5-2. DSAs include assigned division assets and additional corps assets that may co-locate in order to facilitate the conduct of operations. Units in the DSA will conduct those tasks essential to ensuring freedom of action in the division deep and close area. The division rear CP controls movement short of the BCT boundaries. The division rear CP orchestrates movement and terrain management in the division rear area, protection of sustainment assets, and planning to support continuous operations. In large-scale combat operations the division headquarters temporal horizon for sustainment planning is 48-96 hours.

5-3. The support area is normally positioned within the division rear area. It is where most of the division's operations occur. The geographic size of the support area depends on mission and operational variables and is difficult to quantify. These variables include the number of units assigned to the support area, the existing threat, and the amount of terrain that can be influenced by the unit assigned support area responsibility. An example for a DSA (if it is assumed to be a brigade-sized area) will be approximately 10 square kilometers (or 6.2 miles). This number is for general planning consideration and provides an idea of the geographic scope of a DSA and the impact it has on C2 and protection. In practice, DSA size may vary widely.

5-4. Depending on the situation, including threat, size of the support area, and number of units within the rear area, the division commander may employ a rear CP to assist in controlling operations. The rear CP enables the division commander to exercise C2 over disparate functionally-focused elements operating within the rear area that may exceed the effective span of control of the division main CP.

5-5. The DSB has a limited role in establishing the rear CP, but must coordinate with the rear CP for support prioritization. The primary role of the rear CP is to provide command authority and general officer oversight of division rear area operations, sustainment, and other division support activities. The rear CP performs tasks and functions, as defined by the commander, based on operational and mission variables. The division rear CP in the support area normally co-locates with the MEB, which provides the CP with signal connectivity, life support, security, and workspace. Functions of the CP include planning and directing sustainment, terrain management, movement control, and area security. When augmented by the MEB staff, the CP may also manage airspace, employ fires, and plan and control combined arms operations with units under division or corps control.

DIVISION SUPPORT AREA OPERATIONS

5-6. The division commander is responsible for the DSA. The division commander may designate the MEB or a divisional BCT as terrain manager. The terrain manager will work with the DSB commander to designate the proposed locations of sustainment units. The DSB commander, subordinate commanders and staffs reconnoiter the designated location either in person, by map, or via satellite imagery with terrain, vegetative analysis, and hydrology overlays to determine if the designated site is suitable.

5-7. Enemy commanders look for opportunities to counter or at least hinder the performance of division offensive operations. Enemy commanders will target DSAs using multiple combinations of lethal and nonlethal effects from multiple domains. The enemy may employ special purpose forces, irregular forces, electronic warfare, long-range artillery, rockets, missiles, information capabilities, or cyberspace electromagnetic activities to disrupt sustainment activities.

5-8. Sustainment units synchronize with maneuver units to ensure there is security at the support area. The division headquarters must plan to keep CPs operating, sustainment capabilities functional, respective LOCs open, and supply stocks at an acceptable level. The conduct of noncontiguous operations increases the difficulty of these tasks, as does the lack of friendly host-nation security forces.

5-9. The enemy will seek to employ special purpose forces, irregular forces, electronic warfare, long-range artillery, rockets, missiles, information capabilities, and cyberspace electromagnetic activities to disrupt sustainment activities. The enemy may exploit use of electronic signals such as cell phones and geotagged photos to assist in targeting of sustainment units and locations. Sustainment commanders must be aware of these unintended threats and focus on those efforts that would help set the conditions necessary to regain the initiative during defensive operations.

SITE SELECTION

5-10. Many factors govern site selection, and all should be considered when establishing the DSA. The DSA is normally positioned near an MSR. It should be large enough to allow adequate space for unit occupation and executing sustainment operations, but not too large to hinder effective security and control. If line-of-sight communications are required, the site terrain must be conducive to it.

5-11. Commanders evaluate the worthiness of a site with respect to mission accomplishment and then consider camouflage, concealment, and survivability. DSB planners must also consider trafficability and soil composition when selecting a DSA location.

5-12. Dispersion requirements often dictate the size of a site. A site has limited usefulness if it will not permit enough dispersion for survivability moves and effective operations. Support assets from a CSSB should be able to maneuver through the traffic pattern without causing unnecessary massing of vehicles.

ESTABLISHMENT AND OCCUPATION

5-13. The establishment and occupation of a DSA is an organized and thoroughly planned action. During initial planning, the division staff and the DSB staff perform a map reconnaissance of the proposed division AO. During this reconnaissance, the staffs identify the area for the initial DSA, planned base location(s) in the DSA, and unit occupation of the base(s). All units planning to occupy the DSA will use this information. Similar actions occur for division movement and subsequent DSA establishment and occupation.

5-14. Upon arrival at the division AO, the DSB uses quartering party operations for initial occupation. The quartering party verifies the site selection of the DSA and makes limited preparations for receiving units that occupy the DSA. It consists of representatives from the DSB S-3, S-2, and SPO sections. The quartering party is typically a small portion of each unit empowered by its commander to establish locations for personnel and equipment. If a single base is used to contain all units in the DSA, the quartering party locates that base position. If a base cluster is used, the quartering party locates each base position. The arrival of the quartering party is the first opportunity to see the terrain and adjust the DSA layout and defenses as necessary. Sequence of establishment is fluid. Capabilities are based on the division operation and sequence of requirements.

5-15. On arrival at the DSA site, the quartering party executes its priorities of work. Priorities of work is a set method of determining the precedence of tasks when establishing a new location and conducting a defense of a location. A unit's SOP will dictate the exact steps in that specific unit's priorities of work. The commander may change priorities based on the situation and mission variables. Although listed in sequence, the DSB may perform several tasks in its priorities of work at the same time. The following is an example priority of work sequence:

- Establish local security.
- Check for CBRN contamination and unexploded ordnance.

- Position vehicles, crew served weapons, and Soldiers; assign sectors of fire.
- Establish communications.
- Position other assets, such as CPs.
- Designate final protective fires.
- Clear fields of fire and prepare range cards and sector sketches.
- Prepare fighting positions.
- Emplace obstacles.
- Identify artillery targets and direct fire control measures (day and night).
- Improve primary fighting positions with overhead cover.
- Prepare alternate and supplementary positions.
- Establish observation posts and listening posts.
- Adjust positions and control measures as required.
- Assess ammunition, food, and water stockage levels.
- Reconnoiter surrounding area.
- Prepare commodity supply points as necessary.
- Establish a sleep and rest plan.
- Continue to improve positions.

5-16. The quartering party establishes initial communications to begin the transfer of C2 from a tactical assembly area, intermediate staging base, or previous DSA to the new DSA location. The quartering party establishes a tactical CP. Commanders employ the tactical CP as an extension of the main CP. The functions of a tactical CP typically include—

- Controlling overall unit operations for a limited time when the main CP is displacing or otherwise not available.
- Controlling a specific task within larger operations, such as the establishment of a DSA, a gap crossing, a passage of lines, a relief in place, or air assault operations.
- Providing a forward location for issuing orders and performing rehearsals.
- Performing short-range planning.
- Contributing to future operations planning.

5-17. After the quartering party, the commander divides other elements of the DSA into serials to perform a tactical road march to the new site. The S-3 divides these vehicle movements into the advance party, a number of main body movements, and a trail party. The main body begins the move in accordance with the OPORD issued by the DSB main CP and the unit's tactical SOP. The DSB S-3 carefully plans the movement of the DSA's main body echelons by serial. The DSB planners should not include an entire DSB subordinate company's sustainment capability in a single serial. Otherwise, loss of a serial would eliminate all of the DSB's capability in a functional area. In addition, if an entire company moves at the same time, it will have difficulty maintaining continuity of support. There would be periods with blackouts of particular commodities or logistics capabilities. Instead, each DSB company should move by echelon.

Division Support Area Layout

5-18. The DSA is not a single large base. It may be a base cluster comprised of multiple bases, each established by units assigned to the support area. The MEB manages terrain within the DSA. It assigns units to bases, designates base clusters when necessary, and appoints commanders for bases and base clusters. The DSB commander should collaborate with the MEB commander to determine if all elements of the DSB should occupy a single base or a cluster of smaller bases. The commanders must consider the advantages and disadvantages of each option. Terrain features, terrain patterns, natural concealment, and soil composition must be considered from practical and security points of view. Bases must be located in defensible areas suitable to execute sustainment operations.

Single Base Operations

5-19. A single base is advantageous in terms of simplified C2 and perimeter security. However, a single base containing multiple DSB units will be very large and easily detected by enemy reconnaissance. A single base masses a large number of units in a single location that simplifies targeting and attack by enemy artillery, attack aircraft, and ground forces. It also puts a significant portion of the division sustainment and support structure at risk from a single attack.

5-20. Locations of elements within the base will vary depending on mission variables. The DSB commander and S-3 use their best judgment in positioning DSB units and assigning sectors for security of the DSB base. Troop safety guidelines also influence unit placement. The ammunition supply point (ASP) often locates outside the base due to net explosive weight distance factors.

5-21. In addition to staff elements and units, a single base may include multiple supply points. The composite supply company has an SSA, a fuel point, ASP, and a class I breakbulk point in addition to a convoy staging area. The field maintenance company may establish a maintenance collection point.

5-22. Emplacement considerations within the base include the following—

- Make supply points accessible to both customers and resupply vehicles and helicopters. Keep class III points away from supplies and at least 100 feet from water sources to prevent contamination.
- Locate the medical treatment areas away from lines of drift and likely target areas (such as the ASP, class III point, and road junctions).
- Ensure evacuation routes and an open area for landing air ambulances are readily accessible by medical personnel.
- Position the ASP near, but off the MSR, so that resupply vehicles bringing ammunition into the area do not block the MSR. See ATP 4-35 for more information on ASPs.
- Establish separate entry and exit entry control points if possible to control the flow of traffic for the base.
- Position CPs near the center of the base for C2, data and voice connectivity, and security reasons.
- Position units with greatest firepower along the most threatening avenues of approach.

5-23. The DSB commander and S-3 section adjust security responsibilities as tenant units enter and leave the base.

Base Cluster Operations

5-24. The preferred employment is one to two DSAs, with base clusters within the DSA. The commander designated with the control of the support area executes terrain management to locate a base for each element in the support area and designates a unit responsible for controlling each base. The commander controlling the support area establishes a base cluster operations center. Security, communications capability, proximity to road network, and other factors influence base placement.

5-25. A base cluster dispersion complicates enemy detection and targeting. A base cluster spreads sustainment and support assets over a larger geographic area that minimizes the effects of artillery, air, or ground attack. However, a base cluster complicates C2 and perimeter security. Each base requires perimeter defense to allow adequate and mutual protection of other bases, while minimizing the likelihood of striking an adjacent base with small arms fire.

5-26. Base cluster considerations include—

- Coordinating with tenant and transient units, subordinate base clusters, adjacent base camps, and higher headquarters.
- Establishing reasonable span of control based on the number and echelon of tenant and transient units or subordinate base clusters.
- Transporting personnel, equipment, supplies, and waste within the bases and between base camps as part of base camp functions, services, and support.

5-27. A base cluster often lacks a well-defined perimeter or established access points. Although individual bases in the cluster maintain perimeter security, entry, and access control, security requires more personnel than a single base.

SUPPORT AREA SECURITY

5-28. Security includes those operations undertaken by a commander to provide early and accurate warning of enemy operations. The unit uses this to react to the enemy and to develop the situation to prevent surprise. In a support area, units execute local and area security.

5-29. Area security neutralizes or defeats enemy operations in a specified area. It includes reconnaissance and security of personnel, airfields and landing zones, facilities, MSRs, LOCs, equipment, and critical points.

5-30. Local security actions are those that are an inherent part of self-protection and mission assurance measures. Local security consists of base perimeter security, manning observation and listening posts, local security patrols, access control, barriers, a reserve of personnel to augment perimeter security, and other measures to provide security for a base. Every unit assigned a base or collocated on a base with another unit has local security responsibility.

Base Security

5-31. The DSB commander is responsible for securing the base cluster to which the DSB and its subordinate units are assigned. Area security measures are necessary for convoys and other logistics sites and actions that do not occur on a base, including ASP operations.

5-32. As the threat increases, the DSB commander may temporarily halt sustainment support to adequately protect personnel and equipment. Failure to provide adequate protection may cause personnel and equipment losses so significant they disrupt sustainment support to supported units.

5-33. The DSB commander ensures logistics missions and associated activities continue without restriction and that all logistics units can perform protection operations against a level I threat. A level I threat is a small enemy force that can be defeated by those units normally operating in the echelon support area or by the perimeter defenses established by friendly bases and base clusters.

5-34. A level II threat is an enemy force or activities that can be defeated by a base or base cluster's defensive capabilities when augmented by a response force. A typical response force is a military police platoon with appropriate supporting fires or a larger combined arms maneuver element. Level II threats consist of enemy special operations teams, long-range reconnaissance units, mounted or dismounted units, and bypassed combat units. Typical objectives for a level II threat include the destruction and disruption of friendly C2 nodes and logistics facilities. A level II threat may interdict LOCs and disrupt sustainment operations.

5-35. A level III threat is an enemy force or activities beyond the defensive capability of both the base and base cluster and any local reserve or response force. Possible objectives for a level III threat include seizing key terrain, interfering with the movement and commitment of reserves and artillery, and destroying friendly combat forces. Its objectives include destroying friendly sustainment facilities, supply points, CP facilities, airfields, aviation assembly areas, arming and refueling points, and interdicting LOCs and major supply routes. A level III threat is capable of causing sustainment mission failure.

5-36. Although the threat is described by levels (level I, II, and III threats) as a planning guide, these threat levels do not restrict responses. Threat levels are simply a planning guide for base defense.

Components of Base Security

5-37. The commander and S-3 analyze the terrain in detail and then verify on the ground to select engagement areas and positions that allow for the massing of fires and the concentration of forces on likely enemy avenues of approach. Emphasis is placed on preparing and concealing positions, routes, obstacles, logistical support, and C2 facilities and networks. The commander plans, coordinates, and uses rehearsals to ensure subordinates

understand the base defense concept of operations. To be effective, a support area defensive plan must include four components:

- Protect the base.
- Detect the enemy.
- Disrupt the enemy.
- Destroy the enemy.

Protect the Base

5-38. The base requires continuous protection from the beginning of occupation until displacement. Properly designed perimeter security is the base's first line of defense. Perimeter security incorporates layered defense in depth and integrates security elements including cleared fields of fire, interlocking fires, a final protective line, barriers, surveillance, and access control.

5-39. Units organize a perimeter defense to accomplish a specific mission (such as protecting a base or providing immediate self-protection). While they lack personnel to secure all 360 degrees of the perimeter, sustainment units employ early warning, key defensive positions, and a quick reaction force. During a perimeter defense, leaders at all levels ensure that—

- Units physically tie into each other.
- Units utilize indirect fire assets.
- Communications are secure and redundant systems are in place.
- Units employ obstacles.
- Units establish a final protective line.

5-40. The S-3 coordinates with unit commanders and confirms that units in the base have coordinated their boundaries of fire with adjacent units. If a base cluster is used, each unit that controls a base performs the same actions as described for elements on the base. All elements of units in or transiting through the base help establish and defend the base perimeter. Perimeters vary in shape depending on the terrain and situation. If the commander determines the most probable direction of enemy attack, the commander may choose to reinforce that part of the perimeter covering that approach with additional resources.

5-41. All companies and tenants on the base provide sector sketches to the S-3. Figure 5-1 depicts an example of a completed company sector sketch. All units in the base draw sector sketches as close to scale as possible. The S-3 combines each sector sketch from the subordinate units to create a realistic, complete, and to-scale base sector sketch. Each sector sketch shows at a minimum—

- Main terrain features in the area of operation and the range to each.
- Each primary position.
- Primary and secondary sectors of fire covering each position.
- Machine gun final protective line or principal direction of fire.
- Type of weapon in each position.
- Reference points.
- Observation post locations.
- Dead space.
- Obstacles.
- Indirect fire targets.
- Engagement areas if applicable.

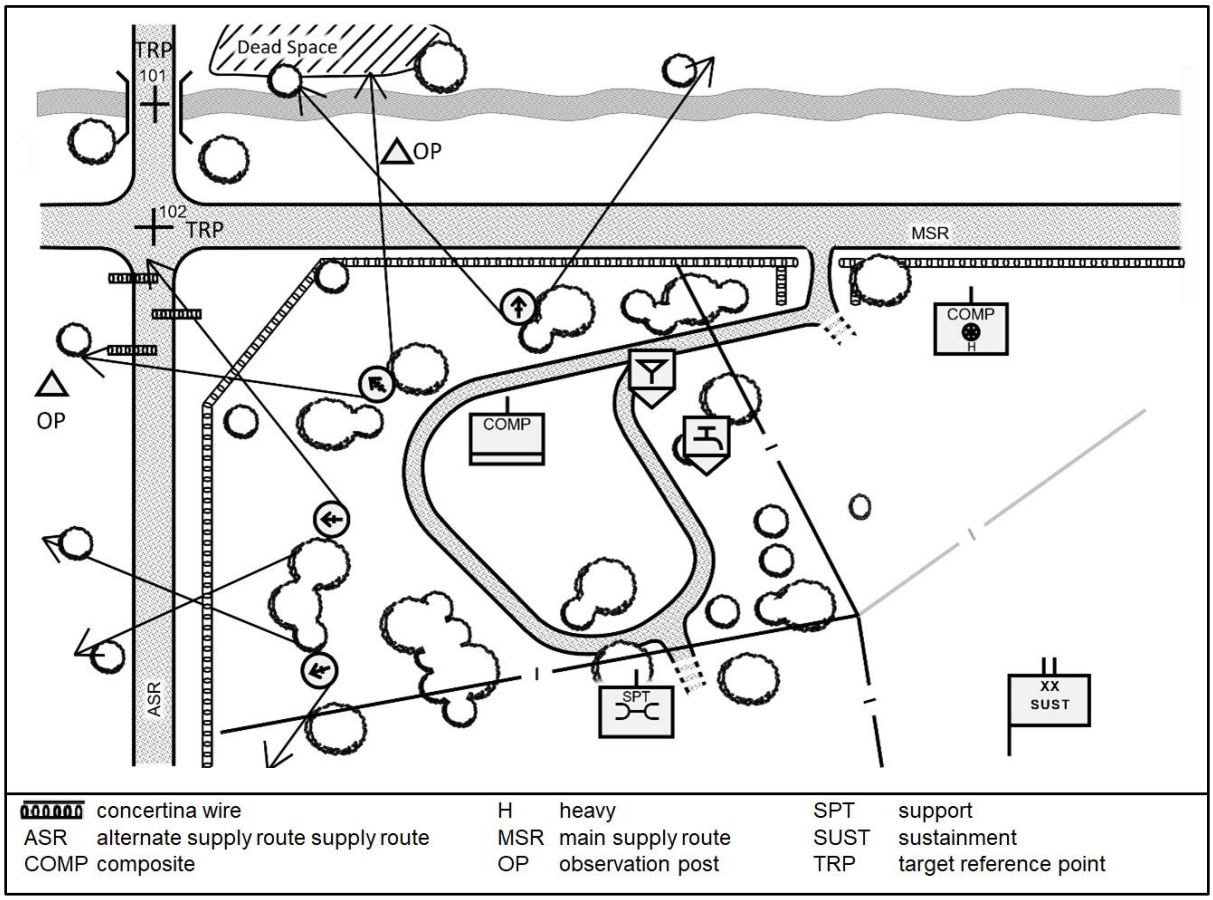


Figure 5-1. Example of a completed company sector sketch

5-42. Leaders are involved in developing the sector sketch and ensuring that units execute it to standard. Units construct fighting positions to standard and ensure the fighting positions are mutually supportive with interlocking fields of fire. Units establish a final protective line across broad fronts or likely enemy avenues of approach. The final protective line is a selected line of fire where an enemy assault is halted by interlocking fire from all available weapons. The S-3 develops a coordinated, predetermined signal for Soldiers on the perimeter to shift fire to the final protective line. Once the final protective line is initiated, all Soldiers fire weapons at maximum cyclic rate along the line. Soldiers spare no ammunition in repelling the enemy.

5-43. Fighting positions for both crew-served and individual weapons develop range cards to standard to aid in developing situational understanding of the base terrain. The company compiles range cards from fighting positions using Department of the Army (DA) Form 5517 (*Standard Range Card*) to build sector sketches up to a complete company sector sketch. Figure 5-2 on page 5-8 depicts an example of a completed range card using DA Form 5517.

5-44. Units develop an obstacle plan as part of the base or base cluster defense. Units use obstacles to disrupt, turn, fix, and block an enemy's progress. The S-3 analyzes the situation and plans hasty or engineer-emplaced obstacles to support the base defense. Companies in the base also develop their own internal company obstacle plan that nests with the battalion's obstacle plan. Commanders integrate reinforcing obstacles with existing obstacles to improve the natural restrictive nature of the terrain to halt or slow enemy movement, canalize enemy movement into engagement areas, and protect friendly positions and maneuver. Units must integrate obstacles with fires to be effective. Improvement to defensive positions is continuous. Given time and resources, the defending force constructs additional obstacle systems in-depth, paying special attention to its assailable flanks and rear.

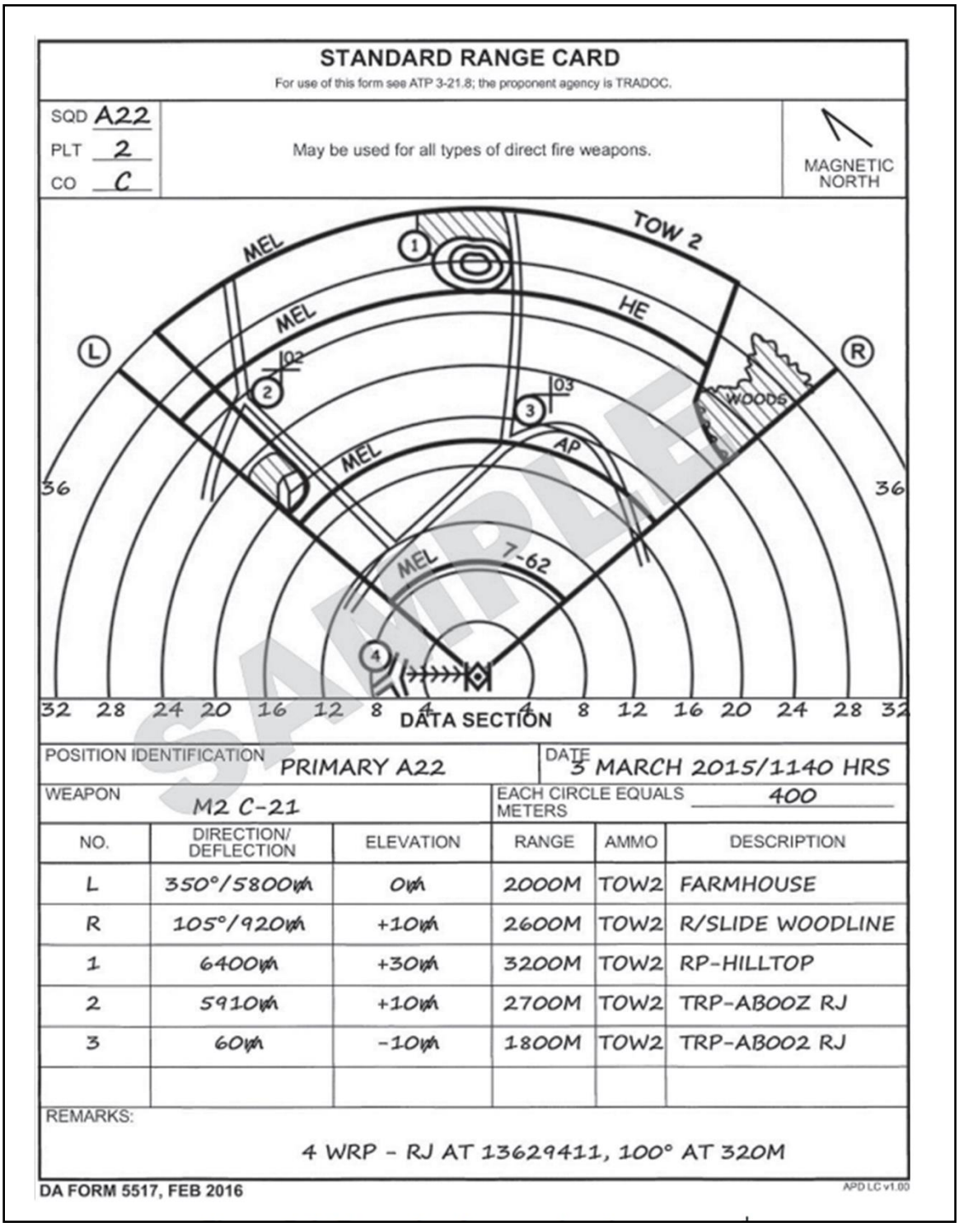


Figure 5-2. Example of a completed range card

5-45. Units develop engagement areas during base defensive planning and operations. For more information on engagement area development, see ATP 3-90.1. An engagement area channels enemy forces into terrain or routes advantageous to the defense. An engagement area is where the commander intends to trap and destroy an enemy force using massed fires. The success of any engagement area depends on how effectively

the commander can integrate the obstacle plan, the indirect fire plan, and the direct fire plan in the engagement area to achieve the defense of the base. The seven steps listed below represent a way to build an engagement area:

- Identify all likely enemy avenues of approach.
- Determine likely enemy concept of operations.
- Determine where to kill the enemy.
- Plan and integrate obstacles.
- Emplace weapons systems (includes preparation of fighting positions).
- Plan and integrate indirect fires.
- Rehearse the execution of operations in the engagement area.

5-46. While the S-3 is overall responsible for developing the support area security plan, the S-2 assists by developing the information collection plan to support security operations in and around the base. The S-2 also provides intelligence updates from the division especially during periods of heightened threat activity.

5-47. The perimeter shape may conform to the terrain features that best use friendly observation and fields of fire. The commander can increase the effectiveness of the perimeter by tying it into a natural obstacle that allows the unit to concentrate combat power in vulnerable areas or operations. The shape and size of the defensive perimeter depends on mission variables. In anticipation of the need for a quick reaction force or tactical combat forces, the S-3 develops and rehearses procedures to hand-off the battle to arriving quick reaction forces, military police response forces, or tactical combat forces.

5-48. All units occupying the base must coordinate with adjacent units to form a cohesive defense. The company commander coordinates with adjacent units to integrate fires and cover gaps between positions. Companies establish contact points between each other to ensure friendly forces meet at some specific point on the ground to tie supporting direct and indirect fires between their flanks. In many cases, companies can accomplish this with the exchange of sector sketches. Typical information exchanged includes—

- Locations of primary, alternate, and supplementary positions.
- Sectors of fire for all crew served weapons.
- Location of dead space between platoons and how it is to be covered.
- Location of observation posts.
- Location and types of obstacles and how the company will cover them.
- Size, type, time of departure and return, and routes of any patrols.

5-49. The DSB leverages all available enablers to defend the support area, including indirect fires. Planners develop the unit's fires plan with the higher headquarters. The S-3 synchronizes direct and indirect fires to mitigate level I, II, and III threat avenues of approach and infiltration lanes. The S-3 should have radio contact with the fire support cells for nearby battalion mortar sections, brigade fire support elements, and field artillery battalions to request fire support if needed.

5-50. Artillery target reference points are easily recognizable natural or man-made points on the ground used to control indirect fires through grid coordinates or target numbers. Units should identify targets where the S-3 section anticipates enemy contact. Target reference points allow for units to easily call for fire to suppress an enemy attack on the support area.

5-51. The S-3 maintains the fires overlay, fire support task matrix, and fire support execution matrix displayed in the CP. The DSB S-3 ensures the fire support coordinator of the division and, if assigned, the tactical combat force, have the current fires information for the DSA. All base CPs within the base cluster must have the same fire support information. Units incorporate these fires planning documents into their common operational picture. The fires overlay serves as the primary means for planners to conceptualize and leverage fires coverage. The fires overlay provides a visual depiction of all approved targets, indirect fire coverage areas, and pre-planned targets in the brigade's AO. The fire support task matrix provides all the fires support tasks in the AO. These products are also useful for the planning of enablers during convoy operations. See ATP 3-09.90 for more information on fire support.

5-52. The DSB staff coordinates directly with units in adjacent or nearby bases to plan mutually supporting fires and to prevent fratricide. Units also consider the defensive perimeter planning for logistics elements that operate or move outside of the base.

5-53. Bases are vulnerable to detection and attack by enemy rotary and fixed-wing aircraft. The base defense plan includes an air defense plan using available organic and non-organic assets. If non-organic assets (such as Avenger systems) are not available, massing fires from crew served and individual weapons can be effective against low flying aircraft.

5-54. Passive base protection measures include using camouflage, movement control, noise and light discipline, proper communications procedures, and night-vision devices. Units understand the principles of camouflage and concealment including covering all reflective surfaces. Camouflage and concealment prevent detection from the air, ground, and radars. To effectively camouflage and conceal activities, Soldiers consider an enemy's point of view. In some cases, camouflage and concealment activities may succeed by merely preventing an enemy from identifying a target. Simply avoiding identification is often sufficient to increase survivability.

5-55. Rows of vehicles and stacks of materiel create equipment patterns that are easier to detect than randomly dispersed equipment. Units manage equipment patterns and use the surroundings for vehicle and equipment dispersal. However, units should not disperse equipment in such a way that it reduces a unit's ability to accomplish its mission.

5-56. Natural background is random, and most military equipment has regular features with hard, angular lines. Even an erected camouflage net takes on a shape with straight-line edges or smooth curves between support points. An enemy can easily see silhouetted targets, and its sensors can detect targets against any background unless the shape is disguised or disrupted. Size, which is implicitly related to shape, can also distinguish a target from its background. Use lightweight camouflage screen systems to conceal vehicles, tents, shelters, and equipment. Use vegetation to further disrupt the outline of the target rather than completely hide it. For more information on camouflage and concealment, see ATP 3-37.34.

5-57. Units should avoid patterns in their operations. An enemy can often detect and identify different types of units or operations by analyzing the signature patterns that accompany their activities. For example, the forward movement of engineer obstacle-reduction assets, petroleum, oils, and lubricants, and ammunition precedes an offensive. Such movements are very difficult to conceal.

5-58. The base or base cluster defense plan adjusts to meet changing AO conditions. The battalion S-3 communicates all defense adjustments throughout the formation to ensure shared understanding.

Detect the Enemy

5-59. Detection includes discovery of enemy forces in the immediate vicinity and knowing as much about their positions and intentions as possible. Detection is critical in achieving timely response to an enemy threat and disrupting the threat quickly before it affects sustainment operations.

5-60. Units within the base employ early warning systems, trip flares, and listening and observation posts in sufficient quantities to provide adequate coverage of the base perimeter. Units assign areas around their base for random reconnaissance patrols. Active patrolling, unit SOP, and continuous reconnaissance are active measures that help provide detection. Units also employ their chemical detection equipment as part of the detection and base defense plan.

5-61. Units detecting enemy activity immediately notify the base CP or base defense operations center and provide as much information as possible about the enemy. Units should report the time of detection with information on the enemy element size, activity, location, uniforms, and equipment and weapons. The base CP or base defense operations center immediately relays the report to the brigade CP.

5-62. Units have pre-arranged and rehearsed signals to alert the base of enemy activity and its location. The unit can use devices, including sirens, pyrotechnics, and vehicle horns, to provide the alerts. These signal the base reinforcements to mobilize and move to the site of detection.

Disrupt the Enemy

5-63. The defensive plan is structured to disrupt an attacking enemy's progress after detection and provide warning to allow time for the base defense forces to react. Disruption also allows time for mobilization of a tactical combat force for reinforcement, if necessary.

5-64. Defending commanders use all available means to disrupt enemy forces. Effective small arms fire will disrupt enemy activity and delay its actions. Commanders disrupt attackers and isolate them from mutual support to defeat them. Repositioning forces, aggressive local protection measures, and employment of obstacles, indirect fires, and ambushes combine to disrupt the threat of an attack.

Enemy Destruction

5-65. Once base defenses have detected and disrupted the enemy force, they must destroy the enemy. Well-disciplined, well-aimed, and concentrated small arms and grenade fire can destroy an enemy. Preplanned or adjusted artillery or mortar fire is also extremely effective. Commanders and leaders are conscious of the proximity of the enemy and notify the fire direction center if the fires will be danger close.

5-66. If units cannot destroy the threat with internal capabilities and their quick reaction forces, they coordinate with the higher headquarters for external support. If the threat exceeds the available defensive assets, the unit's preplanned defensive measures must delay the enemy force until reinforcements can destroy the enemy.

DISPLACEMENT OF THE DSA

5-67. The DSB commander must position the DSA near supported units to maintain responsive sustainment. As such, the DSA will have to displace frequently, especially during offensive operations. The forward movement of the BCTs and the corps commander's movement of the division rear boundary will dictate when the DSA must displace. The DSB commander may coordinate with the division rear CP and MEB to move the base within the division rear even if the division rear boundary does not move. Such moves may be necessary to maintain responsive support or enhance survivability. The DSB plans base displacement immediately after occupying a new site. Units follow the displacing procedures in their unit's tactical SOP.

5-68. Considerations for displacing and reestablishing the base by a DSB include—

- Inability for the DSB to provide uninterrupted support to the division and changing operational requirements.
- Persistent chemical threat to the DSB base.
- Continued degradation of logistics capability due to enemy indirect fire.
- Degradation of BSB combat power, necessitating additional throughput from the DSB.

5-69. The DSB commander, with close coordination from the MEB commander and division S-3, determines when to displace the DSB base and recommends to the division commander for approval. Both commanders and staff understand how the displacement of the base will disrupt division support operations. The disruption may be in terms of time, capability, or a combination of both.

5-70. The division G-3 ensures the displacement of the base is coordinated with all supported units, subordinate units, and supporting units. The DSB makes all units, and most importantly the supported units, aware of when support operations will cease at the existing DSB base location, the location of the new DSB base, when operations will begin at the new DSB base site, and location of a FLE supporting the displacement.

5-71. A *forward logistics element* is comprised of task-organized multifunctional logistics assets designed to support fast-moving offensive operations in the early phases of decisive action (ATP 4-90). When displacing the DSB, a FLE enables the DSB to continue uninterrupted support to the division while relocating. See ATP 4-90 for more information about FLE operations. Commanders should consider security requirements when establishing a FLE. Considerations include the number of personnel, types of weapon systems required for security, and the impact this has on DSB operational area security. Another FLE consideration is the impact its vehicle transportation composition has on DSB convoy operations.

5-72. The DSB CP is responsible for coordinating the shift to the new support base with the corps' ESC and all supported units. The DSB must direct resupply operations to the new base site at the right time, and units must know where the new base site and resupply points are and when to begin using them.

5-73. Supported units must recognize that DSB support operations are degraded while the elements of the DSB move to a new location. DSB elements move in echelons to minimize support disruption. Planners carefully consider the timing of the displacement of the DSB base, employment of a FLE, and FLE composition to ensure the DSB maintains adequate support throughout the transition.

5-74. The DSB does not have sufficient organic transportation assets to move 100% of its personnel and organic equipment in one lift. This lack of organic transportation may necessitate the further echeloning of sustainment capabilities during displacement. Additionally, downloaded supplies at supply points and disabled equipment at the support maintenance company place additional demands on transportation. Disabled equipment may need to wait for evacuation to the new DSB site. The DSB maintains supplies uploaded for rapid mobility.

5-75. Upon receipt of the warning order, DSB units initiate action in preparation to displace. Units load equipment according to their unit SOPs and internal load plans. The DSB units also begin reducing perimeter concertina wire and defenses. BSB assets should arrange to resupply units with fuel, water, food, ammunition, and repair parts as much as possible before DSB units close supply points.

5-76. The DSB will upload remaining materiel and move to the new DSB location with permission of the CP. The DSB main CP then transfers control to the tactical CP at the new DSB location, breaks down its equipment, and displaces.

5-77. The trail party closes out any remaining operations, ensures the old DSB site is clear of anything of intelligence value to the enemy, and moves to the new DSB site. The trail party includes maintenance elements to repair or recover disabled vehicles from the rest of the DSB elements moving to the new location. The trail party may also need to retrieve guides or markers along the route.

Chapter 6
Health Service Support

This chapter describes HSS within the division AO.

HEALTH SERVICE SUPPORT

6-1. AHS support to division operations includes HSS and force health protection (FHP), which are critical capabilities embedded within formations across all warfighting functions. The FHP mission falls under the protection warfighting function and will not be covered in detail in this publication. See FM 4-02 for a complete description of AHS support, the ten medical functions, and six AHS principles.

6-2. Medical commanders and surgeons utilize medical C2 to tie both FHP and HSS support together within the division as they work within their staffs to plan, coordinate, synchronize, and integrate AHS support. This ensures all ten medical functions are included in the division or brigade running estimates, operations plans, and OPORDs.

6-3. HSS within the division AO is the responsibility of the division commander. The division surgeon, a member of the commander's personal and special staff, provides the medical control for the division commander as it relates to AHS support, which includes clinical, medical, and technical consultative services for assigned and attached medical units. The surgeon provides medical information, recommendations, and professional HSS advice to the division commander and to other staff and functional cells. The surgeon, in coordination with the supporting MEDBDE (SPT), is responsible for maintaining current data on the status and capabilities of and requirements for FHP and HSS in the division AO. The surgeon also plans, coordinates, and develops the division AHS plan and policies for the FHP and HSS missions.

HEALTH SERVICE SUPPORT MISSION

6-4. Army *health service support* encompasses all support and services performed, provided, and arranged by the Army Medical Department to promote, improve, conserve, or restore the mental and physical well-being of personnel in the Army. Additionally, as directed, provide support in other Services, agencies, and organizations. This includes casualty care (encompassing a number of Army Medical Department functions—organic and area medical support, hospitalization, the treatment aspects of dental care and behavioral/neuropsychiatric treatment, clinical laboratory services, and treatment of chemical, biological, radiological, and nuclear patients), medical evacuation, and medical logistics. (FM 4-02). Additionally, as directed, the AHS provides support to other Services, agencies, and organizations. HSS also consists of the treatment of CBRN patients. Direct Patient Care in the Division

6-5. Direct patient care in the division encompasses Roles 1 and 2 medical treatment support. These roles of care are provided by organic assets (medical platoons of maneuver forces and treatment teams assigned to units) or on an area support basis from supporting medical companies or detachments. Within the BCT and EAB AHS units, the BSMC and the MCAS provide this support. The area support function encompasses COSC and support, emergency dental care, operational public health, routine sick call, and tactical combat casualty care. Maneuver brigades may be augmented with a medical detachment or forward resuscitative and surgical detachment (FRSD) based on mission variables. The division may also be augmented with a Role 3 hospital based on mission variables.

DIVISION MEDICAL OPERATIONAL CHALLENGES

6-6. AHS support to the division faces several operational and ethical challenges to include MTF mobility, finite MEDEVAC capacity, and prolonged care. Difficult decisions regarding patient care may be required

and based more on the tactical situation, availability of MEDEVAC, access to medical supplies, and force protection considerations than they have been in recent history.

6-7. Organic divisional medical personnel provide en route medical care, but current medical capabilities are not designed to hold or treat non-stabilized patients on the move. Continued treatment and holding of high priority patients (for example, surgical cases) is necessary until stabilized for movement. Once treatment of high priority patients begins, it must be continued until completed to reduce the risk of loss of life, limb, or eyesight.

6-8. Current medical formations will culminate quickly if required to conduct forward movement or relocation with patients. Current medical formation design and equipping may not be capable of providing continued support within the timelines allotted by maneuver forces and the constraints placed by logistics common-user transportation. This is especially true for Role 3 hospitals in support of the division.

HEALTH SERVICE SUPPORT MEDICAL FUNCTIONS

6-9. HSS pertains to the treatment and MEDEVAC of patients from the battlefield and the MEDLOG in support of them. HSS includes four of the ten medical functions:

- Medical treatment (organic and area support), which includes CBRN patients.
- Hospitalization.
- MEDEVAC (to include medical regulating) and the provision of en route care to patients being transported.
- MEDLOG (to include blood management) inclusive of all class VIII supplies, equipment, and services necessary to sustain these operations.

6-10. A brief description of each HSS medical function in support of the division is provided in the following paragraphs. For more information on each medical function refer to FM 4-02, ATP 4-02.1, ATP 4-02.2, ATP 4-02.3, ATP 4-02.4, and ATP 4-02.10.

MEDICAL TREATMENT (ORGANIC AND AREA SUPPORT)

6-11. The medical treatment function encompasses Roles 1 and 2 medical treatment support and includes the treatment of CBRN patients. Role 1 medical treatment is provided by the combat medic in the maneuver platoon or by the physician, the physician assistant, or the health care specialist in the battalion aid station or Role 1 MTF. Role 2 medical care provides greater resuscitative capability than is available at Role 1 and is rendered by the BSMC in the BSB or by the MCAS, which is an EAB asset. These roles of care are provided by organic assets (medical platoons of maneuver forces and treatment teams assigned to units) or on an area support basis from supporting medical companies or detachments. Within the BCTs and EAB AHS units, the BSMC and the MCAS provide this support. The area support task encompasses COSC support, emergency dental care, operational public health, routine sick call, and tactical combat casualty care. For more information on medical treatment, refer to FM 4-02, ATP 4-02.3, and ATP 4-02.4.

Treatment of Chemical, Biological, Radiological, and Nuclear Patients

6-12. HSS operations in a CBRN environment are complex. Medical personnel may be required to treat CBRN injured and contaminated patients in large numbers. Medical treatment is provided in protected environments and medical personnel must wear personal protective equipment. Movement of CBRN casualties can spread contamination to clean areas. All casualties are decontaminated as far forward as the situation permits and are decontaminated at the patient decontamination site before being admitted into a clean MTF. The admission of one contaminated casualty into a clean MTF will contaminate the facility, medical staff, and the medical equipment, thereby reducing treatment capabilities in the facility. Refer to ATP 4-02.7/MCRP 4-11.1F/NTTP 4-02.7/AFTTP 3-42.3 for additional information.

Medical Treatment Primary Tasks

6-13. The medical treatment medical function is responsible for the following tasks:

- Provide first aid.

- Provide tactical combat casualty care.
- Provide forward resuscitative surgery.
- Conduct routine sick call.
- Provide patient holding.
- Promote casualty prevention measures.
- Provide MEDEVAC.
- Provide physical therapy.

Division-Level Medical Treatment Capabilities

6-14. Role 1 medical treatment is provided by the combat medic in the maneuver platoon or by the physician, the physician assistant, or the health care specialist in the battalion aid station or Role 1 MTF. Role 2 medical care provides greater resuscitative capability than is available at Role 1 and is rendered by the BSMC in the BSB or by the MCAS, which is an EAB asset. Role 2 medical support is provided by the—

- Medical company (brigade support) assigned to the BCT.
- MCAS, which is an EAB asset that provides Role 2 medical care for units in the supported area that do not have organic medical treatment assets. Refer to FM 4-02 and ATP 4-02.3 for additional information.

6-15. Forward resuscitative surgery is also a primary task of medical treatment, which provides damage control surgery capability close to the point of injury or wounding. This care is provided by the FRSD or forward surgical team when collocated with a Role 2 MTF. The FRSD is assigned to the medical command (deployment support) (MEDCOM [DS]) or MEDBDE (SPT) and attached to a Role 3 hospital when not deployed forward to support a Role 2 MTF. When not deployed forward, the FRSD can also augment surgical capability of the Role 3 hospitals.

HOSPITALIZATION

6-16. A *medical treatment facility* refers to any facility established for the purpose of providing medical treatment. This includes battalion aid stations, Role 2 facilities, dispensaries, clinics, and hospitals (FM 4-02). A hospital is an MTF capable of providing inpatient care. An *inpatient* is a person admitted to and treated within a Role 3 and 4 hospital and who cannot be returned to duty within the same calendar day (ATP 4-02.10). The hospital is staffed and equipped to provide diagnostic and therapeutic services, as well as the necessary supporting services required to perform its assigned mission and functions. In addition, a hospital may discharge the functions of a clinic. Though Roles 1-3 are considered MTFs, a Role 3 hospital provides hospitalization. Roles 1 and 2 MTFs do not provide all of the capabilities included in hospitalization; therefore, Roles 1 and 2 MTFs are not hospitals. For more information on hospitalization, refer to FM 4-02 and ATP 4-02.10.

6-17. The Army's hospitalization capability consists of Role 3 hospitals purposely positioned to provide support in the AO. Role 3 hospitals expand the support provided at Role 2 and are staffed and equipped to provide care for all categories of patients, including resuscitation, initial wound surgery, damage control surgery, and postoperative treatment.

6-18. Hospitalization within the division provides essential care within the theater evacuation policy to either return a patient to duty or stabilize a patient for evacuation to a definitive care facility outside the AO. *Essential care* is medical care and treatment within the theater of operations and which is mission, enemy, terrain and weather, troops and support available, time available, and civil considerations-dependent. It includes first responder care, initial resuscitation and stabilization as well as treatment and hospitalization. Forward care may include stabilizing surgery to ensure the patient can tolerate further evacuation as well as en route care during evacuation. The objective is to either return the patient to duty within the theater evacuation policy, or to begin initial treatment required for optimization of outcome (FM 4-02). These services encompass primary inpatient and outpatient care, emergent care, and enhanced medical, surgical, and ancillary capabilities. *Outpatient* involves a person receiving medical/dental examination and/or treatment from medical personnel and in a status other than being admitted to a hospital. Included in this

category is the person who is treated and retained (held) in a MTF (such as a Role 2 facility) other than a hospital (ATP 4-02.10).

6-19. The modular design of the Role 3 hospital provides the capability for medical planners to tailor and deploy capabilities as modules or multiple individual capabilities that provide incrementally increased medical services. The Role 3 hospital in support of a division may be augmented by one or more medical detachments, hospital augmentation teams, or medical teams designed to enhance its capabilities to provide HSS within the division AO. Since supporting units within the division AO will need to remain as agile as possible, medical planners should consider establishing the minimum amount of hospital modules necessary to accomplish the hospitalization mission. The Role 3 hospital is assigned to the MEDBDE (SPT) or MEDCOM (DS).

6-20. Hospitalization consists of essential care to all patients who are evacuated out of theater and definitive care to those Soldiers capable of returning to duty within the theater evacuation policy. Hospitalization support is provided by the Role 3 hospital center (up to 240 bed) or combat support hospital (up to 248 bed).

6-21. Hospital capabilities include triage and emergency care, outpatient services, inpatient care, pharmacy, clinical laboratory, blood banking, radiology, physical therapy, MEDLOG, operational dental care (emergency and essential dental care), oral and maxillofacial surgery, nutrition care, and patient administration services. *Triage* is the process of sorting casualties based on need for treatment, evacuation, and available resources (FM 4-02). Triage consists of the immediate sorting of patients according to type and seriousness of injury and likelihood of survival, and establishing priority for treatment and evacuation to assure medical care of the greatest benefit to the largest number. The categories of triage are:

- MINIMAL (OR AMBULATORY)—those who require limited treatment and can be rapidly returned to duty.
- IMMEDIATE—patients requiring immediate care to save life, limb, or eyesight.
- DELAYED—patients who, after emergency treatment, incur little additional risk by delaying further treatment.
- EXPECTANT—patients so critically injured that only complicated and prolonged treatment will improve the chances of survival.

MEDICAL EVACUATION (INCLUDING MEDICAL REGULATING)

6-22. *Medical evacuation* is the timely and effective movement of the wounded, injured, or ill to and between MTF on dedicated and properly marked medical platforms with en route care provided by medical personnel (ATP 4-02.2). The provision of en route care on medically equipped vehicles or aircraft enhances the patient's potential for survival and recovery and may reduce long-term disability. For more information on MEDEVAC, refer to ATP 4-02.2.

6-23. The mission of Army MEDEVAC assets in the division is the evacuation and provision of en route medical care. MEDEVAC functions include the emergency movement of medical personnel, equipment, and supplies (this includes class VIII, blood, and blood products) and serving as messengers in medical channels. MEDEVAC is a system that provides the vital linkage between the roles of care necessary to sustain the patient during transport. This is accomplished by providing en route medical care and emergency medical intervention, if required, which enhance the individual's prognosis and reduce long term disability.

6-24. Army MEDEVAC is a multifaceted mission accomplished by a combination of dedicated ground and air evacuation platforms synchronized to provide direct support, general support, and area support within the AO. At the operational level, organic or direct support MEDEVAC resources acquire and locate, treat and stabilize, and conduct intratheater MEDEVAC of Soldiers from the point of injury or wounding to an MTF staffed and equipped to provide essential care within the AO. Essential care focuses on saving life, limb, and eyesight and returning as many Soldiers to duty as quickly as possible within the theater evacuation policy, or beginning initial treatment required for optimization of outcome and stabilization to ensure the patient can endure evacuation.

6-25. The appropriate roles of medical care must be maintained throughout the continuum of care. A patient who has received complex care such as damage control resuscitation or damage control surgery requires continuous maintenance of the critical care support that was initiated at the forward MTF. Based on the

appropriate level of care, the medical personnel providing en route care may be paramedics, other properly trained medical specialists, or nurses. When possible, this en route care should be used as far forward as mission variables allow.

Medical Regulating

6-26. *Medical regulating* refers to the actions and coordination necessary to arrange for the movement of patients through the roles of care and to match patients with a MTF that has the necessary HSS capabilities and available bed space (JP 4-02). This system is designed to ensure the efficient and safe movement of patients. For more information on medical regulating, refer to ATP 4-02.2.

6-27. Medical regulating entails identifying patients awaiting evacuation, locating available beds, and coordinating transportation for movement. Careful control of patient evacuation to appropriate hospitals is necessary to—

- Effect an even distribution of cases.
- Ensure adequate beds are available for current and anticipated needs.
- Route patients requiring specialized treatment to the appropriate MTF.

6-28. The factors that influence the scheduling of patient movement include—

- Patient's medical condition (stabilized to withstand evacuation).
- Operational situation.
- Availability of evacuation means.
- Locations of MTFs with special capabilities or resources.
- Current bed status of MTFs.
- Surgical backlogs.
- Number and location of patients by diagnostic category.
- Location of airfields, seaports, and other transportation hubs.
- Communications capabilities (to include radio silence procedures).

Division-Level Medical Evacuation Capabilities

6-29. MEDEVAC employs standardized air and ground MEDEVAC units and resources and provides en route medical care to patients being evacuated. Evacuation from Roles 1 and 2 are a unit responsibility. The following units provide MEDEVAC within the division AO—

- Organic MEDEVAC platoons, squads, and teams.
- Medical company (ground ambulance).
- Medical company (air ambulance).
- Medical company, area support (ambulance platoon).

MEDICAL LOGISTICS (INCLUDING BLOOD MANAGEMENT)

6-30. The MEDLOG function encompasses a system for planning and executing all class VIII supply support. The system is anticipatory with select units capable of operating in a split-based mode. For more information on MEDLOG, refer to FM 4-02 and ATP 4-02.1.

6-31. The MEDLOG system (including blood management) provides intensive management of medical products and services critical for the AHS mission. The MEDLOG system anticipates the needs of the customer to continuously provide end-to-end sustainment of the AHS mission throughout the competition continuum. Medical units are the predominant driver of MEDLOG demands within the division as AHS priorities drive MEDLOG priorities for support. Providing timely and effective AHS support requires a team effort that integrates the clinical and operational aspects of the mission.

Medical Logistics Primary Tasks

6-32. The MEDLOG medical function is responsible for the following tasks:

- Execute medical materiel procurement.

- Conduct class VIII management and coordinate distribution.
- Perform medical equipment maintenance and repair.
- Conduct optical fabrication and repair.
- Provide blood management (and coordination for distribution).
- Perform centralized management of patient movement items.
- Conduct health facilities planning and management.
- Provide medical contracting support.
- Ensure hazardous medical waste management and disposal.
- Ensure production and distribution of medical gases.

Division-Level Medical Logistics Capabilities

6-33. MEDLOG (including blood management) encompasses management of the above mentioned MEDLOG primary tasks. The Army class VIII management and distribution process is described in greater detail in subsequent paragraphs. Operational MEDLOG support is provided by the—

- BSMC brigade medical supply office (BMSO).
- Division and DSB MEDLOG officer.
- MEDLOG company (MLC).
- Medical detachment (blood support).
- Medical detachment (optometry).

Division Medical Logistics Systems

6-34. MEDLOG support in the division is an integral part of the patient treatment and evacuation system. Medical supply activities are located along patient evacuation routes to facilitate backhaul of medical materiel by returning ambulances.

6-35. The division surgeon, in coordination with the supporting MEDBDE (SPT) or MEDCOM (DS), advises the division commander in the development of the division medical materiel and maintenance system. The surgeon recommends division policies, establishes priorities, and plans and provides technical oversight of this system. The surgeon also determines division requirements for medical equipment and supplies and exercises staff supervision over the medical supply and distribution system.

6-36. The requirement to support other components in a joint service operation may arise. This contingency should be coordinated with the component concerned and the support provided on an area basis.

Division Class VIII Management and Distribution Process

6-37. The division and DSB surgeons, in coordination with the supporting MEDBDE (SPT), oversee MEDLOG support within the division. The division and DSB surgeons coordinate through the sustainment brigade's distribution integration branch and liaisons with the corps surgeon, if needed. The MEDBDE (SPT) plans, coordinates, and supervises class VIII supply and resupply within the division AO and can serve as the single integrated MEDLOG manager when designated by the geographical combatant commander. The MEDBDE (SPT) also coordinates with the division sustainment staff and the DSB SPO section for class VIII distribution.

6-38. The medical battalion (multifunctional) (MMB) plans and supervises class VIII supply and resupply within the unit's AO. MEDLOG elements within the MMB can also assist the MEDBDE (SPT) by performing portions of the single integrated MEDLOG management mission when designated by the GCC. The medical company (logistics) provides direct support for medical materiel, medical equipment maintenance, and single and multi-vision optical lens fabrication and repair to supported units at brigade and below and EAB medical units. The BMSO in the BSMC provides organic class VIII and medical equipment maintenance and repair support to medical elements of the BCT. For additional information on MEDLOG management and distribution of class VIII supply and resupply, see ATP 4-02.1.

Medical Logistics Support for Roles 1 And 2 Medical Treatment Facilities

6-39. The class VIII supply functions for AHS units and elements operating Roles 1 and 2 MTFs are primarily the management of medical equipment sets, basic ordering for replenishment, and field-level medical equipment maintenance and repair support. Within the BCT, these functions are performed by the BMSO of the BSMC, the BSB SPO medical team within the maneuver brigade, the DSB and division surgeon sections, and the MLC operating at EAB.

Adherence to the Law of Land Warfare Concerning Class VIII

6-40. The law of land warfare relevant to class VIII derives from two sources, custom and lawmaking treaties such as the Geneva and Hague Conventions. During large-scale combat operations, commanders may be required to assume prudent risk in storage and transportation of class VIII with other classes of supplies. These decisions are required in tactical situations where mission variables indicate that measures to preserve protected status for class VIII presents greater risk to the mission or personnel.

6-41. The following ethical considerations apply to the conduct of the MEDLOG function of HSS:

- Class VIII supplies and equipment are afforded protective status under the Geneva Conventions under certain conditions:
  - Vehicles transporting only casualties or medical supplies and marked with a red cross are afforded protected status. Carrying medical supplies intermixed with other classes of supply does not confer protected status.
  - Class VIII stored in a separate area or building away from other supplies and marked with a red cross is required for protected status. Storage of class VIII with other classes of supplies such as food or ammunition negates their protected status.
- Captured medical supplies and equipment are protected from intentional destruction. Units having custody of enemy supplies and equipment will turn them over to the supporting medical facility.
- Local or captured Class VIII materiel will only be used to support enemy prisoners of war or civilian detained or retained personnel.

6-42. For more information on the law of land warfare as it applies to class VIII, refer to FM 4-0, FM 4-02, and FM 6-27/MCTP 11-10C.

HSS COMMAND AND SUPPORT RELATIONSHIPS WITHIN THE DIVISION

6-43. Medical C2 is an overarching function including the medical, clinical, and technical control of all FHP and HSS support. A key to the successful accomplishment of AHS support is the synchronization of health care activities and the surgeon's clinical, medical, and technical supervision at echelon of ongoing medical and clinical operations.

6-44. Command and support relationships provide the basis for unity of command and unity of effort in operations. Establishing clear command and support relationships of organic and EAB medical units operating within the division is a key aspect of any operation that includes medical C2. These relationships establish responsibilities and authorities between subordinate and supporting units. For more information on command and support relationships, refer to FM 3-0 and FM 4-02.

COMMAND AND CONTROL OF MEDICAL UNITS IN THE DIVISION

6-45. Role 1 and Role 2 MTFs are organic within the division maneuver brigades. EAB medical units in support of the division are organic to a MEDBDE (SPT) or MMB. Based on the corps operations plan, these EAB medical units are either attached, OPCON, or under tactical control of the division. Medical elements of the MEDBDE (SPT) are normally OPCON to the division commander and their parent medical organization retains administrative control. This relationship provides the flexibility through medical C2 to shift medical assets to support additional division buildups, reallocate medical assets to accommodate patient workload, and reinforce or reconstitute maneuver brigade medical units.

SUPPORT RELATIONSHIPS OF MEDICAL UNITS IN THE DIVISION

6-46. Medical units assigned to the division maneuver brigades are organic to and directly support their brigades. Commanders assign EAB medical units to a support relationship for a variety of reasons. These include—

- The support is more effective if a commander with the requisite technical and tactical expertise controls the supporting unit rather than the supported commander.
- The echelon of the supporting unit is the same as or higher than that of the supported unit. For example, the supporting unit may be a brigade, and the supported unit may be a battalion. It would be inappropriate for the brigade to be subordinated to the battalion; hence, the echelon uses an Army support relationship.
- The supporting unit supports several units simultaneously.

6-47. The corps surgeon, in coordination with either a supporting MEDBDE (SPT) or MEDCOM (DS), is integral in developing the corps AHS support plan. Based upon the corps operations plan, which includes the division EAB medical requirements determined by the division surgeon, EAB medical units may be assigned to perform one of the following four support relationships in support of the division:

- Direct support is a support relationship requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance. A unit assigned a direct support relationship retains its command relationship with its parent unit, but it is positioned by and has priorities of support established by the supported unit.
- *General support* is support given to the supported force as a whole and not to any particular subdivision thereof (JP 3-09.3). It is not given to any particular subdivision of the force. Units assigned a general support relationship are positioned and have priorities established by their parent unit.
- *Reinforcing* is a support relationship requiring a force to support another supporting unit (FM 3-0). Only like units (for example, medical to medical) can be given a reinforcing mission. A unit assigned a reinforcing support relationship retains its command relationship with its parent unit, but it is positioned by the reinforced unit.
- *General support-reinforcing* is a support relationship assigned to a unit to support the force as a whole and to reinforce another similar-type unit (FM 3-0). A unit assigned a general support-reinforcing support relationship is positioned and has its priorities established by its parent unit and secondly by the reinforced unit.

***Note*:** Medical units are modularly designed to provide AHS support in their area of expertise on an area support basis within a specified AO. Area support is not a support relationship, but a task assigned to a sustainment unit directing it to support units in or passing through a specified location (ATP 4-90).

ECHELONS ABOVE BRIGADE MEDICAL UNITS IN SUPPORT OF THE DIVISION

6-48. The AHS is a foundational capability that supports the division commander’s efforts to shape OEs. Leaders recognize the AHS medical functions are complex in nature. Medical C2 organizations and the surgeon’s medical control facilitate the integration, coordination, and synchronization of FHP and HSS throughout the division to ensure the interoperability of all medical assets and optimize the effective functioning of the entire system. Briefly discussed below are the medical units—MEDBDE (SPT), MMB, and hospital center (240-bed) or combat support hospital (248-bed)—normally associated with supporting the division. For more information on medical units that support the division, refer to FM 4-02.

MEDICAL BRIGADE (SUPPORT)

6-49. The MEDBDE (SPT) provides the appropriate medical C2 and planning capabilities necessary to deliver responsive and effective AHS support to the division. The MEDBDE (SPT) acts on behalf of the

MEDCOM (DS) to ensure the right mixture of medical professional (operational, technical, and clinical) expertise to synchronize the complex system of medical functions required to maintain the health of the force. This effort consists of preventing casualties from disease and non-battle injury, promoting fitness, promptly treating and evacuating those injured on the battlefield, and ensuring the identification and countermeasures required to address any health threats in the AO. These functions enable the MEDBDE (SPT) to transition from expeditionary health care support operations to providing quality AHS support in the AO. The MEDBDE (SPT) in coordination with the MEDCOM (DS) provides health facility planning support within the division AO.

6-50. The mission of the MEDBDE (SPT) is to provide C2 of assigned and attached medical units providing AHS support to a corps or division AO, to include joint and multinational forces. It further provides medical C2 for the corps or division commander as it relates to AHS support for the FHP and HSS missions, to include administrative assistance, staff, and clinical, medical, and technical consultative services for assigned and attached medical units. To accomplish its roles and functions, the MEDBDE (SPT) is organized with two CPs:

- Tactical CP—Provides the MEDBDE (SPT) commander with a deployable CP that can forward deploy the early entry module and elements of the expansion module with a division or corps tactical CP.
- Main CP—Performs the AHS roles and functions in support of a division or corps main CP with the campaign module and elements of the expansion module.

6-51. The MEDBDE (SPT) is assigned to the MEDCOM (DS). The basis of allocation for the MEDBDE (SPT) is one per two to six subordinate battalion-sized organizations. The combinations of the early entry, campaign, and expansion modules form the nucleus of the MEDBDE (SPT). For a complete overview of the composition and capabilities of the MEDBDE (SPT) refer to FM 4-02. See figure 6-1 on page 6-10 for a graphic representation of a deployed MEDBDE (SPT).

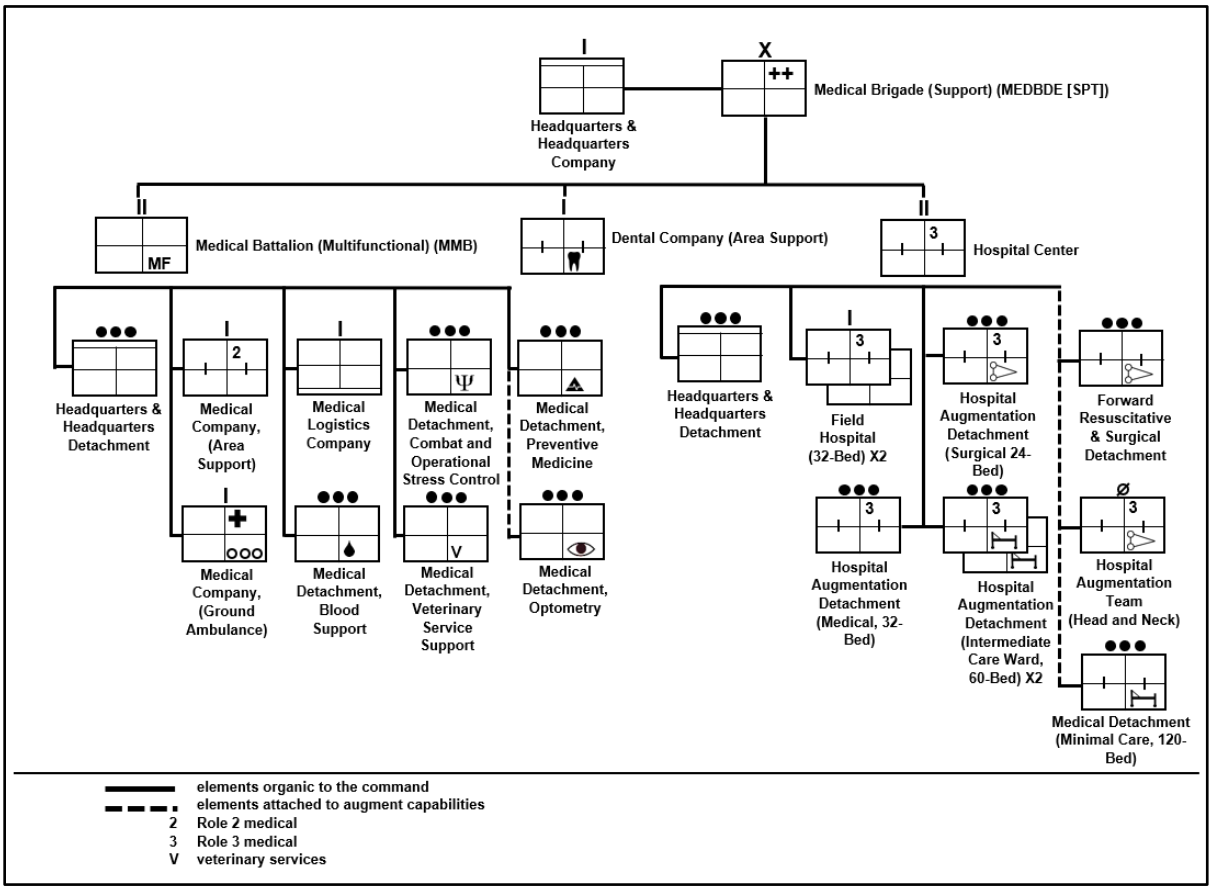


Figure 6-1. Notional deployed medical brigade (support)

6-52. The MEDBDE (SPT) in support of division MEDLOG operations plans, coordinates, and supervises EAB class VIII supply and resupply (including blood management) within the supported AO. The MEDBDE (SPT) can also provide support as the single integrated MEDLOG manager, when designated by the combatant commander. Refer to ATP 4-02.1 for information related to the role of the single integrated MEDLOG manager within the division.

MEDICAL BATTALION (MULTIFUNCTIONAL)

6-53. The MMB is an EAB headquarters. Its mission is to provide C2 and logistical support for assigned and attached medical organizations (companies, detachments, and teams) task-organized for providing AHS support to a corps or division. It further provides medical C2 for AHS support for the FHP and HSS missions, administrative assistance, staff, and technical and consultative services for assigned and attached medical units and for the combatant commander. To accomplish its roles and functions, the MMB is organized with two elements:

- Early entry element—Provides the MMB commander with a deployable CP that can forward deploy within a corps or division AO.
- Campaign support element—Performs the MMB AHS roles and functions in support of a corps or division.

6-54. Modularity has resulted in a smaller deployed medical footprint through enhancing the capability to rapidly task-organize scalable medical capabilities. The MMB can be deployed to provide C2 of medical forces during early entry operations and facilitate the reception, staging, onward movement, and integration of division medical forces. All EAB medical companies, detachments, and teams in the division are assigned, attached, or OPCON to an MMB. This unit will be assigned to the MEDBDE (SPT) or the MEDCOM (DS).

An MMB is allocated as one per combination of three to six subordinate medical companies or medical detachment size units. Refer to FM 4-02 for a complete overview of the composition and capabilities of the MMB. Refer to Figure 6-2 (on page 6-10) for notional deployed MMB.

6-55. Depending on its mission, the division may require an MMB in support of its AO. Based upon the requirements, the MMB provides several medical functions and capabilities specifically geared to support the division. For more information on the MMB and the units assigned refer to FM 4-02, ATP 4-02.1, ATP 4-02.2, ATP 4-02.3, and ATP 4-02.19. Based on mission variables the MMB can provide any combination of the following:

- Role 2 medical care in the form of the MCAS.
- Additional ground MEDEVAC capabilities with the medical company (ground ambulance).
- Army MEDLOG support with the MLC.
- Dental services with elements from the dental company (area support).
- COSC support from elements of the medical detachment.
- Veterinary services with elements of the medical detachment (veterinary services).
- Operational public health support from the medical detachment (preventive medicine).
- Blood support from elements of the medical detachment (blood support).
- Ophthalmic support from a team from the medical detachment (optometry).

ROLE 3 HOSPITAL

6-56. The hospital center (240 bed) (to include the combat support hospital [248 bed]) in support of a division provides essential care within the theater evacuation policy to either return the patient to duty or stabilize patients for evacuation to a continental United States based Role 4 MTF or safe haven outside the AO. The Role 3 hospital's assigned medical personnel, facilities, equipment, and materials provide the requisite capabilities to render significant preventive and curative health care. These services encompass primary inpatient and outpatient care; emergency care; and enhanced medical, surgical, psychiatric, and ancillary capabilities. The modular design of the hospital provides the capability to tailor and deploy capabilities as modules or multiple individual capabilities that provide incrementally increased medical services. Refer to Figure 6-2 (on page 6-10) for a notionally deployed hospital center.

6-57. The hospital center is a modular MTF designed to provide Role 3 medical capability in a tailored organizational structure to support the Army's varied multidomain operation missions. The organization was designed to support the Army's decisive action requirement to conduct a mix of offensive, defensive, stability tasks, and defense support of civil authorities simultaneously in a variety of scenarios. The hospital center may be augmented by one or more hospital augmentation detachments, other medical detachments, or smaller medical teams designed to enhance its capabilities. These augmentation detachments or teams should normally be assigned or attached to the field hospital (32 bed) and absorbed into sections with like functions.

6-58. Other augmentation organizations aligned with the hospital center include:

- The FRSD.
- The medical detachment, minimal care (120 bed).
- The medical team, head and neck.

6-59. The HHD and field hospital (32 bed) comprise the core and lowest denominator of the hospital center. The field hospital (32 bed) is the only company-sized unit that provides complete clinical capabilities and staffing required to be designated as a Role 3 hospital. This hospital is deliberately designed to be self-supporting while remaining light, transportable, and expandable. However, once set up and full of patients, the hospital cannot quickly displace. The HHD, hospital center and field hospital (32 bed) are designed as the first increments to be deployed in support of an expeditionary force and can be expanded incrementally to a maximum of a 240-bed hospital by adding augmentation detachments. The HHD, hospital center can command one or to two field hospitals (32 bed), with requisite augmentation detachments and teams, in one or separate locations (dual-based operations) without staff augmentation. Refer to ATP 4-02.10 for more information related to hospitalization and types of units that can augment the hospital.

ROLES AND RESPONSIBILITIES OF KEY DIVISION MEDICAL PERSONNEL

6-60. Medical commanders and surgeons utilize medical C2 to coordinate and synchronize the medical functions. Surgeons at echelon further serve as a link between the varied commands and staffs they operate within to supervise medical, clinical, and technical support. The following paragraphs provide more detail on the roles of several key division medical personnel.

MEDICAL COMMANDER

6-61. The medical commanders are the focus of C2 and use two processes in their decision-making process. The commander uses an analytic approach to evaluate information and data systematically, proposes courses of action, and determines which course of action will provide the optimal results. The commander also makes decisions intuitively through a decision-making process guided by professional judgment gained from experience, knowledge, education, and intelligence in the field of AHS support operations. Experienced medical staff members use their intuitive ability to recognize the key elements and implications of a particular problem or situation, reject the impractical, and select an adequate solution.

6-62. Leader-developed medical professionals have been trained in critical thinking, assessing situations, determining requirements for follow-on services, and decisive decision-making skills since the beginning of their professional careers. These are critical skills which have been taught, nurtured, and cultivated throughout their professional medical education and training. A medical commander's experience base cannot be viewed from a purely military perspective of when that commander entered the Army, but must be viewed holistically to encompass all of the training, education, and experience this leader received.

6-63. The medical C2 structure enables the medical commander to retain AO focus in support of the division commander, while still providing effective and timely direct support to the supported operational commanders and providing general support on an area basis to division forces at EAB.

DIVISION SURGEON

6-64. The division surgeon is a division-level officer and member of the commander's personal and special staff. The division surgeon normally works under the staff supervision of the division chief of staff. The division surgeon is the principal advisor to the commander on the health status of the division and advises the division commander and staff on medical capabilities, capacities, and all medical or medical-related issues necessary to support plans. The division surgeon interfaces with all coordinating, special, and personal staffs to coordinate AHS support across the warfighting functions. The division surgeon operating from within the section coordinates EAB medical support and ensures information is integrated into the division commander's ground tactical plan. As the chief of the division surgeon section, the division surgeon is able to contribute to the division's warfighting capability by providing timely and effective AHS support planning (to include developing patient estimates) for inclusion in the division planning process and the conduct of large-scale combat operations. The division surgeon works closely with the MEDLOG officer in the division rear CP, the DSB surgeon, and the supporting MEDBDE (SPT) in coordinating the class VIII distribution plan for the division. The division surgeon is also responsible for the clinical, medical, and technical oversight of all medical activities in the command. The division surgeon ensures the division's current and future operations and plans are coordinated with the supporting MEDBDE (SPT) or MEDCOM (DS).

DIVISION SUSTAINMENT BRIGADE SURGEON

6-65. Brigade surgeons are members of the commander's personal and special staff. They are assigned to the HHC and normally work under the staff supervision of the brigade executive officer. The brigade surgeon plans and coordinates the brigade AHS support activities with the brigade's personal, special, and coordinating staffs. The brigade surgeon is responsible for the clinical, medical, and technical control of all medical activities in the command. The brigade surgeon oversees and coordinates AHS support activities through the brigade surgeon section and the brigade S-3. The brigade surgeon keeps the brigade commander informed on the status of AHS support for brigade operations and the health of the command.

6-66. The brigade surgeon (in coordination with the division surgeon and DSB SPO) oversees the class VIII distribution plan for the division. The brigade MEDLOG officer and the division surgeon section coordinate with the DSB distribution management branch on the class VIII distribution plan.

BRIGADE SUPPORT BATTALION SUPPORT OPERATIONS MEDICAL TEAM

6-67. The BSB SPO medical team is the principal staff team responsible for synchronizing both FHP and HSS operations for the maneuver brigade. It primarily focuses on the preparation and execution of AHS support operations in the short-range planning horizon. The BSB SPO medical team prepares detailed health and medical input to operation plans and fragmentary orders for brigade SPO.

6-68. The BSB SPO medical team concentrates on medical operations and coordinating the distribution of class VIII for the brigade. The BSB SPO medical staff coordinates the ordering, receipt, and distribution of class VIII and blood products. The BSB SPO medical team coordinates with the BSMC to ensure class VIII visibility and casualty reporting are accurate and timely across the brigade. Additionally, the BSB SPO medical team coordinates with the brigade surgeon section to maintain the brigade's medical common operating picture. For more information on the BSB SPO medical team, refer to ATP 4-02.3 and ATP 4-90.

BRIGADE MEDICAL SUPPLY OFFICE

6-69. The BMSO is organic to the BSMC within the maneuver brigade. It is responsible for providing class VIII supplies and equipment, to include unit-level medical maintenance and repair, and executes the brigade MEDLOG plans. The BMSO serves as the forward distribution point responsible for coordinating the resupply and distribution of class VIII materiel through the BSB SPO to supported units at the brigade level and below in accordance with AR 40-61. The BMSO coordinates medical supply distribution, typically with the BSB's distribution company for further unit distribution by the forward support companies to the maneuver battalions.

6-70. The BMSO maintains a safety level of critical class VIII materiel consisting of a limited amount of supplies (100 to 300 lines of critical line items) for emergency release to support Roles 1 and 2 medical requirements for units at brigade and below. These critical line items are released to support the brigade when routine replenishment operations do not meet mission requirements. The medical equipment sets and dental equipment sets of the BSMC treatment and ambulance platoons can also be used as a backup source for emergency resupply to the battalion aid stations.

6-71. Within the BCT, the BMSO—

- Serves as the forward distribution point for medical materiel.
- Provides field-level medical maintenance sustainment support.
- Processes optical fabrication requisitions.

6-72. Within the BCT, the BMSO provides field maintenance for the BSMC and medical platoons in the BCT; this includes emergency medical repair. It also provides medical device reporting and oversight for all brigade medical devices. The BMSO supports the requisition of emergency replacement eyewear or inserts through the spectacle request transmission system as the established emergency request system or the government eyewear system. For more information on the BMSO, refer to ATP 4-02.1, ATP 4-02.3, and TC

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Appendix A

Sustainment Planning Factors

This information is contained in current staff planning manuals, FMSWeb, Operational Logistics Planner, and other Combined Arms Support Command-developed data. Planning factors take into account various environments, echelons, and activities. Planners should modify or adjust these standard planning factors based on the latest logistics preparation of the battlefield assessments or other unique conditions associated with a given operation or AO.

A-1. The data in this appendix is based on current operational planning factors, and planners should understand there are many variables that affect the data and there are no fixed inputs. Planners must analyze all mission and operational variables in determining inputs. Sustainment planners should start with these planning factors and then adjust them based on considerations including the unit's particular circumstances, task organization, and historical usage factors. Table A-1 provides general supply planning data for each class of supply, specifically regarding the weight of each commodity and its packaging configuration.

Table A-1. General supply planning data

Class of Supply	*Planning Factors*
Class I (MRE)	1.75 lbs. per meal M-M-M = 5.50 PPD U-M-M = 7.41 PPD / U-M-U = 9.39 PPD
Class II	1.6 PPD
Class III (packaged)	1.2 PPD
Class IV	Barrier = 1.638 PPD Construction = 2.324 PPD Combined = 3.962 PPD
Class VI	Temperate = 2.06 PPD Tropic / Arid = 3.74 PPD Arctic = 1.78 PPD
Class IX	NA – Calculated in tonnage
Mail	Average = 1.75 PPD
M meals ready to eat MRE meal ready to eat	lbs. pounds PPD pounds per person per day
U unitized group ration	

CLASS I RATIONS PLANNING FACTORS

A-2. Sustainment planners use personnel numbers when determining class I ration planning requirements. The planning factors for class I are solely derived from the supported units' headcounts. Based on task organization, class I planners should also determine the number of joint and coalition forces that should be included in the feeding plan.

A-3. Planners may also need to potentially consider other categories of personnel in the class I planning factors and headcount such as Department of the Army Civilians, Army and Air Force Exchange Service personnel, Morale Welfare and Recreation, Red Cross, non-government organizations, contractors, local-hire

personnel, and enemy prisoners of war. Table A-2 provides the transportation planning factors for meals ready to eat.

Table A-2. Class I transportation planning factors (meals ready to eat)

Ration Package	*Items, Weight, or Dimensions*
Meals per case	12
Cases per pallet	48
Weight per case	22.7 pounds
Weight per pallet	1,089 pounds
Pallet size	43” x 52” x 44”

A-4. The issue cycle is the number of days of rations the class I points issue to their supported units each time they draw rations. The issue cycle is expressed in a three number combination such as 2-2-3, 2-2-2, or 4-4-4. For example, on a 2-2-2 issue cycle, the class I point will issue 2 days of rations during each issue and the supported unit will draw rations every other day. An example of a 2-2-3 issue cycle is a unit drawing 2 days of rations on Monday, 2 days of rations on Wednesday, and 3 days of rations on Friday, with the cycle starting over again on the following Monday.

A-5. All supported units are not necessarily issued rations on the same days. The number of supported units issued rations each day depends upon the size of the class I point and the number of units its supports. Class I planners will establish the issue cycle based on the ration cycle, tactical requirements (for example, convoy security), distribution capabilities, and storage capabilities at each level.

A-6. The ration cycle specifies the type of rations to be served for each meal (breakfast, lunch, and dinner). The ration cycle is published in the sustainment annex of the OPORD and is normally expressed as a three-letter combination such as M-M-M or U-M-U (meal, ready to eat = M, unitized group ration, also known as a UGR = U). Further guidance on which type of unitized group ration (heat and serve [H&S] or A ration [A]) will also be stated. The operational commander approves the ration cycle, which is the ration standard that all supported units will follow. For more information about class I planning factors, see ATP 4-41.

A-7. Additionally, planners must understand the lift capacity and number of pallet positions for supply vehicles in the Army inventory. Table A-3 shows the number of pallet positions (standard wooden warehouse pallets) for different vehicles, flatracks, and containers and the associated number of meals that would equate to in meals ready to eat.

Table A-3. Vehicle lift capacity for meals ready to eat

Vehicle	*Pallets*	*Meals*
5-Ton Truck, Gate Up	4	2,304
5-Ton Truck, Gate Down	6	3,456
M871 22.5-Ton Trailer	12	6,912
M872 34-Ton Trailer	18	10,368
M977/985 HEMTT Truck	8	4,608
M1078 LMTV, 2.5-Ton	3	1,728
M1083 FMTV, 5-Ton	6	3,456
PLS Flatrack	10	5,760
463L Pallet	8	4,608
20-foot ISO Container	16	9,216
40-foot ISO Container	36	20,736

FMTV family of medium tactical vehicles
HEMTT heavy expanded mobility tactical truck
ISO International Organization for Standardization
LMTV light medium tactical vehicle
PLS palletized load system

A-8. Class I planners can use ration planning to assist in determining transportation and storage requirements. When unitized group rations (heat and serve) and unitized group rations (Option A) are employed, tonnage and cube figures will vary depending on the menu number. Data is also affected by the use of the milk supplement and authorized enhancements. Class I managers should know that tonnage and cube figures will be greatly affected based on the ration mix and ration cycle. The type of rations used will determine the weight and space used to transport the subsistence. Table A-4 shows the ration pallet planning factors for different types of rations.

Table A-4. Ration pallet planning factors

Ration/Item	*Unit of issue*	*Servings per item*	*U/l per pallet*	*Servings per pallet*	*Pallet Weight*	*Pallet Cube*	*Pallet Dimension (l/w/h)*
MRE	cs	12	48	576	1098	56.9	43x52x44
MCW/LRP	cs	12	48	576	758	56.9	43x52x44
HDR	cs	10	48	480	1237	56.9	43x52x44
Religious Meals	cs	12	30	360	540	56.9	43x52x44
FSR	cs	91	48	4322	1098	56.1	43x52x44
UGR-H&S	mod	50	8	400	10363	47.8	48x40x42
UGR-A (1 box) Perishable	mod	50	24	1200	642		48x40x40
UGR-A (2 boxes) Semi perishable	mod	50	12	800	844		48x40x40
Pouch Bread	bx	96	15	1440	330	51.1	48x40x46
UHT Milk	cs	27	120	3240	1970	42.8	48x40x43
Cereal	cs	72	50	3600	460	50.0	48x40x65
HCP I	bx	10	12	120	736		48x40x48
HCP II	bx	10	16	160	328		48x40x48
HCP III	bx	10	16	160	328		48x40x48
Ice					19606		48x40x48
FF&V					15006		48x40x48
Bottled Water (24 x 0.5 Liter)	cs	24	72	1728	2128		48x40x48
Bottled Water (18 x 1.0 Liter)	cs	18	60	1080	2620		48x40x48
Bottled Water (12 x 1.5 Liter)	cs	12	50	600	2140		48x40x48

Table A-4. Ration pallet planning factors (*continued*)

Notes:
1. The serving consists of a full day's food for one Soldier and is equivalent to three MREs.
2. A pallet of FSR provides 1,296 meals (432 rations each containing the equivalent of three meals).
3. The weight for UGR & H&S pallets is an average of all the menus only. Each menu weighs a different amount based on the menu.
4. The number of servings on each UGR-A perishable pallet will differ depending upon the menu number.
5. The weight for UGR-A pallets is an average of all menus only. Each weighs a different amount based on the menu number.
6. Pallet weight planning factors for bagged ice and FF&V are estimates only.

Bx	box	MCW	meal cold weather
cs	case	mod	module
FF&V	fresh fruits and vegetables	MRE	meal ready to eat
FSR	first strike ration	UGR	unitized group ration
HCP	health and comfort pack	UGR A	UGR A rations
HDR	humanitarian daily ration	UGR H&S	UGR heat and serve
LRP	long range patrol	UHT	ultra-high temperature
l/w/h	length/width/height	U/I	unit of issue

A-9. Table A-5 shows general class I transportation planning factors for meal types that are different from meals ready to eat. The table specifically shows planning information for unitized group rations – heat and serve.

Table A-5. Class I transportation planning factors for unitized group rations – heat and serve

Ration Package	*Items, Weight, or Dimensions*
Servings per module	50
Modules per pallet	8 (400 servings)
Weight per module	129 pounds
Weight per pallet	1,038 pounds
Pallet size	40" x 40" x 42"

A-10. Table A-6 shows class I vehicle lift capacity planning factors for unitized group rations – heat and serve based on the type of vehicle used to transport the class I and the number of pallet positions available in each vehicle type.

Table A-6. Vehicle lift capacity for unitized group rations – heat and serve

Vehicle	*Pallets*	*Meals*
5-Ton Truck, Gate Up	4	1,600
5-Ton Truck, Gate Down	6	2,400
M871 22.5-Ton Trailer	12	4,800
M872 34-Ton Trailer	18	7,200
M977/985 HEMTT Truck	8	3,200
M1078 LMTV, 2.5-Ton	3	1,200
M1083 FMTV, 5-Ton	4	1,600
PLS Flatrack	10	4,000
463L Pallet	8	3,200
20-foot ISO Container	20	8,000
40-foot ISO Container	40	16,000

FMTV	family of medium tactical vehicles	LMTV	light medium tactical vehicle
HEMTT	heavy expanded mobility tactical truck	PLS	palletized load system
ISO	International Organization for Standardization		

WATER PRODUCTION AND CONSUMPTIONS FACTORS

A-11. Planning for water support begins with determining the amount and quality of water required. This will depend on mission guidance from the tactical commander, mission scope, mission duration, stage of operation, OE, enemy CBRN capabilities, and size of the force.

A-12. These water planning factors enable sustainment planners to assess capabilities and identify water purification, storage, and distribution requirements to support military force projection operations. There is no formal supply accountability for water. In regions with an extreme environment, the commander may issue water restriction guidance to conserve and prioritize water supplies. All levels of command must monitor the quantity and quality of water.

A-13. Potable water is required for drinking, ice, food preparation, medical treatment, personal hygiene, mortuary affairs, and certain types of CBRN decontamination operations. Preventive medicine personnel may approve the use of non-potable water for certain activities. If non-potable water is used, it is preferable to use fresh water whenever possible. Brackish and saltwater are minimally acceptable and may lead to significant corrosion if used. Non-potable water falls into different classes based on filtration and is suitable for laundry, engineer construction, aircraft maintenance, vehicle maintenance, vehicle and cargo washing, firefighting, dust and pest control, and certain types of CBRN decontamination operations. For more information on water operations and water planning factors, see ATP 4-44/MCRP 3-17.7Q.

A-14. The following table depicts water production assets, allocation of water assets, and consumption factors. Table A-7 lists the current equipment in the Army inventory that produces water and its capacity to produce or store water.

Table A-7. Water production and storage equipment

Equipment/System	*Capacity*
Load Handling System Compatible Water Tank Rack (HIPPO)	2,000-gal tank designed for palletized load system (PLS)/ load handling system (LHS) transport.
Tactical Water Purification System (TWPS)	1,500 gallons per hour (GPH) from fresh and 1,200 GPH from salt water.
	PLS/LHS-compatible flatrack mounting system
Semi-Trailer Mounted Fabric Tank (SMFT) (Army pre-positioned stocks only)	SMFT is moved either completely empty or full. 5,000 gallons (40-feet) M872 trailer.
	SMFT can only be moved on improved roads.
	Linehaul truck units do not have SMFT in possession and do not have training in moving the SMFT.
Lightweight Water Purification Unit (LWPS)	- Light vehicle transportable. - Maximum production: 125 GPH (freshwater)/ 75 GPH (saltwater).
Reverse Osmosis Water Purification Unit (ROWPU) 3,000 Mounted on an M871 trailer	Maximum production: 3,000 GPH (freshwater) 2,000 GPH (saltwater).
Expeditionary Water Packing System (EWPS) (Marine)	600 each 1-liter bottles per hour. 12 each 1-liter bottles per case. 50 cases per 48” pallet, 600 liters per 48” pallet.

A-15. The type of environment where operations take place will significantly impact water consumption planning factors. The four types of environments (tropical, arid, temperate, and cold) each present different planning considerations. The planning factors in table A-8 account for each type of environment. Tropical areas of the world have an annual mean daily temperature of more than 80 degrees Fahrenheit. In tropical regions, water sources are expected to be abundant. Arid areas of the world have an annual daily temperature of more than 80 degrees Fahrenheit. In arid regions, available water sources are typically limited and widely dispersed. Temperate areas of the world have an annual mean daily temperature ranging from 32 degrees to 80 degrees Fahrenheit. In temperate regions water sources are normally abundant. Cold areas of the world have an annual mean daily temperature of less than 32 degrees Fahrenheit. Location and exploitation of water sources convenient for water supply operations may be difficult in cold environments. For more information on water operations and planning factors, see ATP 4-44/MCRP 3-17.7Q.

A-16. The planning factor for potable ice is based on two pounds per Soldier per day in a temperate climate (32 to 80 degrees Fahrenheit) and up to 6 pounds per Soldier per day in hot tropic and arid climates (more than 80 degrees Fahrenheit). Planners can adjust these figures to operations based on actual unit demands.

A-17. Water requirement planning is necessary regardless of theater location. The numbers in the chart below are expressed in gallons per Soldier per day. Sustainment planners should start with these planning factors and then adjust them based on considerations such as the unit's particular circumstances, task organization, and historical usage factors in addition to mission variables. Table A-8 provides planning factors for water consumption based on the type of operation and climate for operations.

Table A-8. Water planning factors in gallons per Soldier per day

	Hot				***Temperate***		***Cold***	
	Tropical		***Arid***					
	Sust	***Min***	***Sust***	***Min***	***Sust***	***Min***	***Sust***	***Min***
Universal Unit Level Consumption	6.91	4.87	7.27	5.23	5.26	3.22	5.81	3.77
Role 1 and 2 Medical Treatment	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Role 3 Medical Treatment	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Central Hygiene – Showers	2.07	1.87	2.07	1.87	2.07	1.87	2.07	1.87
Mortuary Affairs Operations	0.03	0.03	0.22	0.22	0.03	0.03	0.03	0.03
Potable Total	9.92	7.68	10.47	8.23	8.27	6.03	8.82	6.58
Centralized Hygiene – Laundry	0.26	0.12	0.26	0.12	0.26	0.12	0.26	0.12
Mortuary Affairs Operations	0.19	0.19	N/A	N/A	0.14	0.14	0.14	0.14
Engineer Construction	1.98	0.00	1.98	0.00	1.98	0.00	1.98	0.00
Aircraft Maintenance	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14
Vehicle Maintenance	0.36	0.36	N/A	N/A	0.19	0.19	0.19	0.19
Non-Potable Total	2.93	0.81	2.38	0.26	2.72	0.60	2.72	0.60
Theater Total	12.86	0.81	12.86	8.49	10.99	6.63	11.5	7.18
Note: All figures are for gallons per Soldier per day.								
Sust Sustaining Min Minimum								

FUEL PLANNING FACTORS FOR CLASS III BULK

A-18. Table A-9 shows the fuel consumption rate for vehicles in the Army inventory for one hour of operation. The table provides historic averages for fuel consumption while the vehicle sits idle with the engine running, driving cross-country over uneven terrain, and on hard paved roadway surfaces.

Table A-9. Major ground equipment fuel consumption by gallons per hour

Vehicle	*Idle*	*Cross-Country*	*Road*
M1A2	12.8	61.9	59.1
M2 or M3	1.4	19.1	18.8
Stryker ICV	1.57	9.86	5.18
M113	1.0	7.9	8.0
M88	3.5	42.8	40.9
M9 ACE	1.4	12.6	9.3
M109A6	1.4	18.9	18.5
MLRS	1.4	18.3	18.2
HEMTT	1.7	15.8	6.1
MTV	1.1	9.6	4.0
JLTV	1.2	7.4	3.2
HMMWV	1.3	4.5	2.6

ACE armored combat earthmover
HEMTT heavy expanded mobility tactical truck
HMMWV high mobility multi-purpose wheeled vehicle
ICV infantry carrier vehicle
JLTV joint light tactical vehicle
MLRS multiple launch rocket system
MTV medium tactical vehicle

A-19. The following tables show consumption planning factors from the Combined Arms Support Command Planning Data Branch. For more up-to-date class III (bulk) planning factors, consider Operational Logistics Planner and unit historical data. Table A-10 shows the estimated daily maximum and average fuel consumption for specific units and is shown to help in initial planning efforts.

Table A-10. Estimated daily fuel consumption planning factors

Unit Type	*Personnel*	*Maximum Fuel (gallons)*	*Average Fuel (gallons)*
Combat Aviation Brigade	2,800	120,000	80,000
Stryker Brigade Combat Team	4,500	40,000	25,000
Armored Brigade Combat Team	4,300	143,500	74,000
Infantry Brigade Combat Team	4,300	31,000	20,000

AMMUNITION PLANNING FACTORS

A-20. Ammunition consumption is determined by computing ammunition requirements versus capabilities. The goal of ammunition consumption calculation is to determine a viable stockage objective for tactical ammunition support activities, thereby avoiding stockpiling in forward locations while efficiently rearming the force.

A-21. A stockage objective is the quantity of munitions required to ensure all training and operations in a theater can be conducted until resupply occurs. Properly calculating and adhering to stockage objectives enables freedom of action, reduces the hazards of stockpiling, and economizes limited resources.

A-22. Planning factors required for determining ammunition consumption include the ammunition basic load, daily estimated expenditure rate or RSR, and resupply capability or CSR within the context of the proposed or ongoing operation and operational timeframe.

A-23. The RSR is subtracted from the projected resupply capability expressed as a CSR. The on-hand balance is added to the result in order to determine the projected balance. This calculation is utilized to determine if the CSR can meet the RSR. Any delta to this result that cannot be met will require resolution prior to start of operations. Balance + (Resupply [CSR] – Expenditure [RSR]) = Projected Balance.

A-24. The RSR indicates how much ammunition is needed for an operation and is an expression of operational requirements from supported units. It is a communication of warfighting requirements, not logistics capabilities. To sustain tactical operations for specific periods, units determine their munitions requirements and submit an RSR. The RSR is the amount of ammunition that a maneuver commander estimates will be needed to sustain tactical operations without ammunition expenditure restrictions over a specified time. The RSR is expressed as rounds per weapon (on-hand) per day, a bulk allotment per day, or per unit mission. Units route the RSR computations through unit operations sections, and unit S-4 sections assist in the process.

A-25. Maneuver commanders develop RSR and submit them to their next higher headquarters. Each level reviews, adjusts, and consolidates RSR information. Commanders determine the CSR by comparing the total unrestricted ammunition requirements to the total ammunition assets on hand or due in. Several factors limit the amount of ammunition available for an operation such as mission objectives, priorities, the projected threat, and ammunition availability. A commander establishes the CSR, which is based on the amount of munitions available for issue.

A-26. A CSR is established when the RSR exceeds the capability of the munitions support system. Several factors limit the amount of ammunition available for an operation such as stockage or lift capabilities. Other considerations for emplacing CSRs are for the priority weighting of main and supporting efforts, economizing limited resources, and the reduction of the hazards of stockpiling. CSRs control ammunition issues. The Army Service component command gives subordinate commanders the CSR for each ammunition item. The CSRs may vary from unit to unit based on the mission objectives, priorities, projected threat, and ammunition availability. Each maneuver commander gives the CSR to each subordinate maneuver commander. Commanders making CSR allocations to subordinate units should retain a portion of the CSR to meet unforeseen contingencies.

A-27. Properly calculating and adhering to stockage objectives enables freedom of action, reduces the hazards of stockpiling, and economizes limited resources. When determining a stockage objective, units must also take logistics factors such as storage space and transportation capabilities into account. For more information on ammunition planning factors, see ATP 4-35.

TRANSPORTATION PLANNING FACTORS

A-28. The following planning factors are used in transportation planning to compute vehicle and truck requirements. Operational and mission variables may affect these factors, and sustainment planners must take these variables into consideration.

LINE HAUL AND LOCAL HAUL OPERATIONS

A-29. The Army's family of MTVs, heavy expanded mobility tactical truck series such as the load handling system and PLS versions, M915 tractor trucks, and others are capable of both local and line haul operations.

A-30. The distance of a line haul leg is based on a 10-hour shift per driver and one hour of delay. Using this planning factor, each driver can complete one round trip per shift. This eliminates the need for billeting drivers away from their assigned unit, provides rested drivers for each trip, and allows for vehicle maintenance.

A-31. The planning factors for line haul operations are—

- Two trips per day (one round trip per shift).
- Approximately 144 kilometers (or 90 miles) each way per shift.

A-32. The planning factors for local haul operations are—

- Four trips per day (two round trips per shift).
- Approximately 34 kilometers (or 20 miles) each way per shift.

A-33. The planning factors for the average speed for both local haul and line haul transportation operations are—

- 32 kilometers per hour (or 20 miles per hour) over good road conditions.
- 16 kilometers per hour (or 10 miles per hour) over poor road conditions.

MOVEMENT PLANNING FACTORS FOR VEHICLE TACTICAL ROAD MARCHES

A-34. Transportation planning factors are basic to the process of planning and organizing convoys. These factors provide the formulas and information necessary to plan highway movements and develop movement tables.

A-35. Movements are measured by calculating how long it takes to move a convoy over a route. These calculations involve time and distance factors. Movement planners should use rate of march in performing movement calculations. The rate of march is the average number of kilometers expected to be traveled in any specific time period. Since the rate of march is an average, it compensates for short periodic halts and short delays caused by congestion. It does not include long halts, such as those for consuming meals or for overnight stops. March rate is expressed in kilometers per hour or miles per hour.

A-36. Combining these tonnage and distance data, sustainment planners assemble a workload model or diagram as shown in figure A-1. Such a requirements sketch, along with the supporting data estimates, aid planners in determining and assembling the units and other necessary resources. Planners can compare workload of the materiel and transportation requirements against the designed capabilities of logistical units by type.

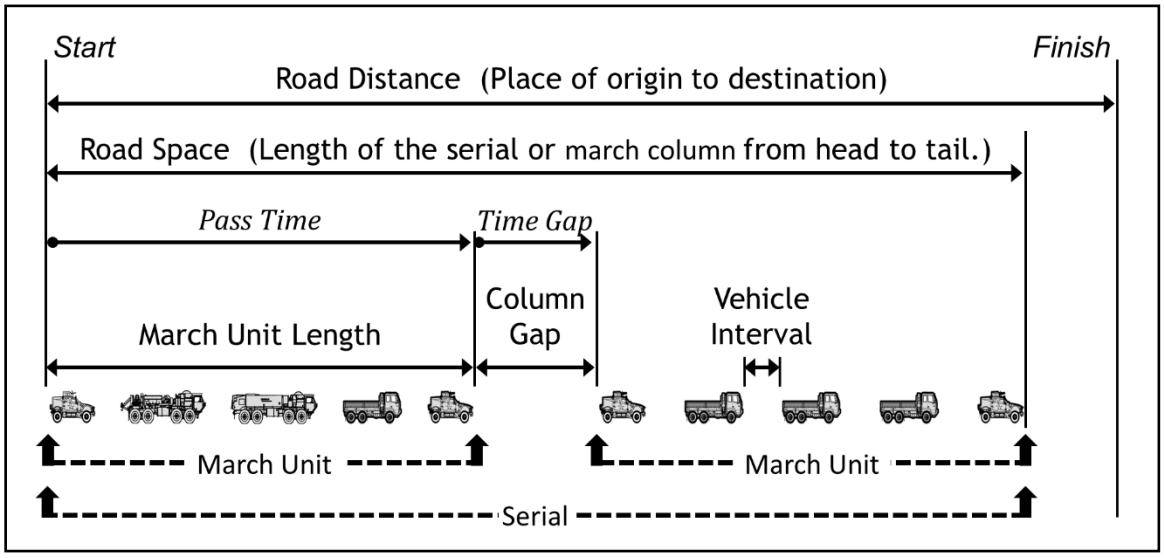


Figure A-1. Movement planning factors diagram

A-37. Effective staffs at BCT through corps must understand the complexity involved in moving large formations, the amount of road space such formations require, their rates of fuel consumption, and other considerations for such movements under varying conditions and circumstances.

A-38. The fighting power and tactical flexibility of heavy and motorized formations depends fundamentally on their ability to move and to do so efficiently. Efficiency, control, and coordination become more important than raw speed. Corps, divisions and BCTs are powerful weapons when they can move, deploy, and maneuver quickly in fluid situations. To realize this potential, they must have the space to march and maneuver along multiple routes and avenues of approach and have sufficient march time allotted.

A-39. Moving a typical corps by tactical road march involves moving some 25,000 vehicles, which at a 100-meter vehicle interval would require 2,500 kilometers of road space. The pass time on a single route at 25 kilometers per hour, even without march units and serial gaps, would be more than 4 days. Conducting

tactical operations, units must march on multiple routes at the greatest speed, making the most economical and efficient use of road space. Increasing the number of routes adds flexibility and speed, although mutual support among moving formations must be assured. Economizing road space requires greater vehicle density on routes in use, a function of shorter intervals between vehicles, march units, and serials. Figure A-2 shows an example of convoy serials, march units, and march columns.

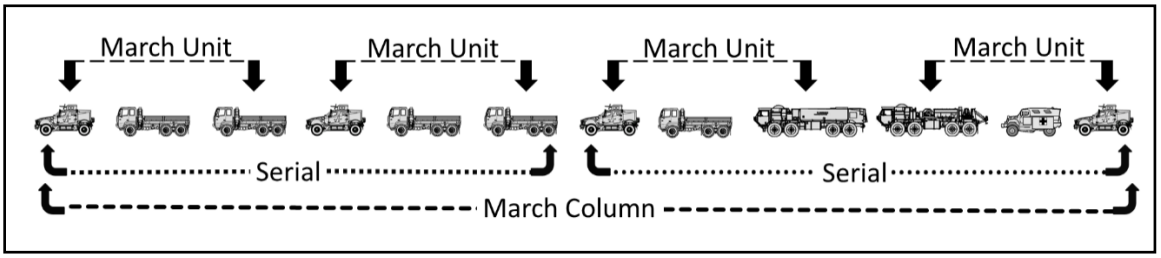


Figure A-2. Example of serials, march units, and march columns

TACTICAL AND SUSTAINMENT MOBILITY

A-40. Tactical mobility is the ability for units to displace personnel and equipment during combat operations in order to survive enemy threats, maintain momentum, and extend operational reach. Achieving tactical mobility varies based upon unit composition. Based upon operational requirements, units will require external support from EAB transportation enablers. A BCT with organic equipment takes three turns over the course of 24 hours to displace 25-30 miles. Displacing the DSB without external transportation support requires six to eight turns and 48-72 hours. The total time for a division task organized with enablers and three BCTs to displace is 11 days. The DSB is unable to conduct sustainment operations while displacing. Additionally, without augmentation the BSB will have to pull supplies from the DSB. Pulling supplies from the BSB limits the senior tactical commander's flexibility and the ability to seize and maintain momentum.

A-41. An example of a unit requiring additional external transportation support would be an infantry BCT. An infantry BCT is unable to move all of its organic personnel and equipment in one move. To move its organic personnel and equipment, it requires an additional 70 MTVs for troop transport, eight load handling systems with PLS trailers, and 14 M1088 trucks with M172 trailers. Assuming it would take three turns to complete movement, it requires an additional 24 MTVs, three load handling systems with PLS trailers, and five M1088 trucks with M172 trailers. Moving a distance of 15 kilometers over unimproved surfaces and not taking into account enemy threat would take approximately 30 minutes and an estimated 30 minutes to load and unload personnel and equipment. It would take an estimated six hours to get the remainder of the infantry BCT from its starting point to its destination using three turns.

A-42. Sustainment mobility is the ability to move all classes of supply from the DSA to the forward line of own troops. A DSB requires 140 palletized-load systems to hold and store one day of supply for organic BSBs and provide limited distribution to EAB units operating in the division's AO. The DSB's composite truck company requires augmentation to support sustainment mobility. Without augmentation, the composite truck company's capacity is consumed with supporting tactical mobility. The lack of augmentation requires BSBs to pull supplies from the DSA instead of receiving supplies from the DSB. The forward support companies in turn must then pull supplies from the brigade support area and push supplies to the forward line of own troops multiple times a day. This method limits the division's operational reach to 100-145 miles.

CLASS VI PLANNING FACTORS

A-43. Class VI supply support can be limited to basic health and comfort items or expanded to include food and beverages and entertainment items. Army personnel normally deploy with required minimum health and comfort items. The Army Service component commander may authorize the issue of health and comfort packs through the supply system until Army and Air Force Exchange Service support can be established. Delivery of health and comfort packs is based on the headcounts provided for field feeding. Health and comfort packs provide everyday necessities when the Army and Air Force Exchange Service is not available. Table A-11 provides some planning factors for class VI and health and comfort packages.

Table A-11. Health and comfort packages class VI (Soldier personal hygiene items)

Item	*Contents*	*Weight per case*	*Usage*
Health and Comfort Pack (HCP) I	Male and female personal hygiene items	58 pounds	10 persons for 30 days
HCP II	Female unique personal items	20 pounds	10 persons for 30 days
HCP III	Personal body wipe packet. 40 packets per box, each packet with 10 washcloths	22 pounds	10 persons for 30 days

MAIL PLANNING FACTORS

A-44. The planning factor for mail is 1.75 pounds per Soldier per day to determine the estimated mail volume. One 20-foot container equals 8,000 pounds and one 40-foot container equals 16,000 pounds of mail in most instances. For more information about mail operations and planning for mail operations, see FM 1-0.

CBRN PLANNING FACTORS

A-45. Operations in CBRN environments rely on sustainment capabilities. The sustainment of protection capabilities, consumables for CBRN detection, and identification equipment requires detailed planning. CBRN operations require intense water sustainment, resupply of decontaminants, vehicle replacement parts, and medical chemical defense material. Medical and sustainment units must be postured to support units operating in contaminated environments and when conducting decontamination.

A-46. Support areas are likely targets for CBRN attack and must plan appropriately to protect supplies from contamination. The DSB's capability to resupply impacts the capability to conduct decontamination or sustain operations in contaminated environments. Measures must be taken to prevent contamination of any supplies during movement, using uncontaminated routes if available.

A-47. Clean water will be of the utmost importance in CBRN environments. Prior planning must take into account how to protect water supplies before attacks, such as covering tanks or purification systems. After an attack, systems must be decontaminated where possible, and tested to ensure they are safe. Plans must be made for resupplying critical water needs for sustained operations of both drinking water and water for decontamination. Table A-12 on page A-12 provides some basic planning considerations for sustainment in CBRN environments.

Table A-12. Planning considerations for chemical, biological, radiological, and nuclear

Item	*Consideration*
Replacement individual protective equipment (including hydration systems)	Soldiers operating in areas in range of indirect fires will require additional components of the Uniform Integrated Protective Ensemble General Purpose variant which will replace the JSLIST. These components will increase the liquid protection level of the base suit by providing an additional layer.
Filters (masks, collective protection, vehicles)	Upon deployment, Soldiers will begin using a new mask filter and carry a spare to replace their filter when conducting MOPP gear exchange. Soldiers will require replacement filters following MOPP gear exchange or detailed troop decontamination. Mask filters will provide 24 hours of protection for up to one year of use. Replacement filters for vehicles should be on hand and replaced for units that have received chemical attacks. Change all filters every 30 days, with the exception of blood agents (such as Cyanogen Chloride). Filters are only good for one blood agent attack and select toxic industrial materials.
Decontaminants	Individual skin decontamination and equipment decontamination kits, hypochlorite. STB 600 pounds for 40 personnel for detailed troop decontamination. STB 50 pounds per vehicle for detailed equipment decontamination.
Water for consumption in CBRN environments	The multipurpose personal hydration system is useable for 12 months once it is removed from its protective storage packaging and 12 hours following use in a contaminated environment. The multipurpose personal hydration system holds 3 liters (3.2 quarts) of water, therefore, either full replacement or the ability to refill while operating in a contaminated environment will be required. For planning considerations, Soldiers will require 1 quart (0.95 liters) per hour for no more than 12 quarts (11 liters) per 24-hour period.
Water for vehicle wash-down	Approximately 150-200 gallons of water per vehicle.
Water for detailed equipment decontamination	Approximately 450 gallons of water per vehicle.
Water for Troop decontamination	Approximately 318 gallons per 40 personnel.
Medical CBRN defense materials	Nerve agent antidote kit.

CBRN chemical, biological, radiological, and nuclear
JSLIST joint service lightweight integrated suit technology
MOPP mission-oriented protective posture
STB super tropical bleach

Appendix B

Synchronizing Class III, V, Maintenance, and Medical

This appendix shows one way a division and its DSB may synchronize sustainment in support of large-scale combat operations. This appendix discusses class III, class V, maintenance, and medical functions.

The following discussion focusses on the planning and execution of support to an armored division comprising three ABCTs, an aviation brigade, DIVARTY, the DSB, and other enablers.

SECTION I – SYNCHRONIZING DIVISION SUSTAINMENT

B-1. Given the diverse number of personnel and organizations required to sustain a division of 22,000 Soldiers and thousands of pieces of equipment, planning and synchronizing sustainment operations is both a detailed and daunting task. As the senior sustainment commander in the division, the DSB commander serves as the division's lead integrator for sustainment. The DSB commander is responsible for integrating all sustainment functions, (logistics, AHS, HR, and FM) with the scheme of maneuver in accordance with the commander's priorities. This involves ensuring information sharing and coordination among the division staff, the SPO staff of the DSB, and the medical units supporting the division. In order to accomplish this coordination, the DSB commander leverages several sustainment-related boards comprising members of these commands and staffs.

B-2. Sustainment-focused boards must be linked to the operations cycle at each echelon. Sustainment planning is vital to the plans process, as the feasibility of plans is intrinsically linked to sustainment. Some of the boards managed by the DSB to synchronize and prioritize sustainment for the division include:

- Division Sustainment Board
- Division Distribution Management Board
- Division Movement Board

B-3. Boards typically address issues in a manner similar to the targeting cycle. This approach allows time to develop concepts in working groups prior to approval in boards, while maintaining synchronization with operations.

B-4. Table B-1 on page B-2 shows typical planning horizons for large-scale combat operations and the sustainment horizons for each. Table B-2 on page B-2 exemplifies how boards are synchronized and the focus area for each board.

Table B-1. Sustainment planning horizons

	Maneuver Horizons			*Sustainment Horizons*	
	Current Operations	***Future Operations***	***Plans***	***Sustainment on-hand (including en route)***	***Sustainment Planned***
Brigade Combat Team	0–12 hours	–	12–48 hours	3 combat loads of all supplies	Continuous replenishment
Division	0–24 hours	24–72 hours	72–96 hours	3 days	48–96 hours
Corps	0–48 hours	48–96 hours	96 hours–7 days	5 days	72 hours–6 days
Field Army	0–3 days	3–7 days	7–10 days	7 days	96 hours–9 days
Theater	–	–	–	15–30 days	30–90 days
Note 1: At each echelon, sustainment planners must plan concurrently with their supported headquarters. The time and distances that comprise large complex supply chains required to sustain large scale combat operations limit their responsiveness. As commanders determine future courses of action, sustainers will have to anticipate requirements and acquire the supplies necessary to support the operation.					
Note 2: A brigade combat team is designed to carry approximately three basic loads for classes I, III, and V. Planners at the division level should continually replenish the brigade combat teams as supplies are consumed. At the division level and above, sustainment planners must plan out to the plans section planning horizon to ensure freedom of action for their command. At any given time, an echelon should have sufficient quantities of class I, III, and V on-hand or en route to support all future plans (the current plan plus anticipated branches and sequels).					

Table B-2. Sustainment board synchronization

D-4	***D-3***	***D-2***	***D-1***	***D***	***D+1***	***D+2***	***D+3***	***D+4***	***D+5***
					Sust. Bd.	DM Bd.	Mvmt. Bd.	Synch. & Prep.	Execute
				Sust. Bd.	DM Bd.	Mvmt. Bd.	Synch. & Prep.	Execute	
			Sust. Bd.	DM Bd.	Mvmt. Bd.	Synch. & Prep.	Execute		
		Sust. Bd.	DM Bd.	Mvmt. Bd.	Synch. & Prep.	Execute			
	Sust. Bd.	DM Bd.	Mvmt. Bd.	Synch. & Prep.	Execute				
Sust. Bd.	DM Bd.	Mvmt. Bd.	Synch. & Prep.	Execute					
DM Bd. distribution board Mvmt. Bd. movement board Sust. Bd. sustainment board Synch. & Prep. synchronize and prepare									

B-5. Although all three boards occur on a daily basis, each focuses on a different future date. As the sustainment board allocates resources on D-4, the distribution management board gains DSB commander approval of the distribution plan on D-3. Given the distribution plan and maneuver requirements, the movement board approves the movement tables on D-2 and division G-3 publishes the order, allowing units time to prepare for execution on D-day.

SUSTAINMENT BOARD

B-6. The sustainment board meets at division and higher echelons to synchronize sustainment functions and provide guidance and sustainment priorities in accordance with the commander's intent and concept of operations. Chaired by a deputy commander, the board approves recommendations from sustainment-related working groups such as fuel, munitions, or maintenance. Table B-3 provides sample instructions for a division-level sustainment board.

Table B-3. Sustainment board

General Information	***Participants***
Title: Sustainment Board Purpose: Prioritize and allocate sustainment resources for future operations Frequency: Daily (OPTEMPO dependent) Duration: One hour Location: Rear Command Post Medium: Face-to-face, defense collaboration services	Staff lead: G-4 or DSB SPO Chair: Deputy commanding general Members: G-1, G-2, G-3, G-4, G-6, G-8, surgeon, transportation officer; provost marshal; chaplain; staff judge advocate; DSB SPO branch chiefs; DLSE and contracting support battalion representatives, FSE targeting representative, and liaison officers
Inputs and Outputs	***Agenda***
Inputs: • Targeting guidance for D+4, • Updated running estimates. • Current Distribution Plan • Recommendations from sustainment related working groups. • Higher and sustainment organizations plans, orders, directives, and policy. **Outputs**: • Updates to Annex F, Sustainment • Approved or changes to sustainment policy and priorities. • Approved allocations for D+3	Roll Call Current LOGSTAT (G-4) Current slant of sustainment platforms (G-4 Mx) <u>Next 72 hours</u> Projected operations (G-33) Anticipated resupply to division (G-4) Planned sustainment operations (DSB) <u>72-96 Hours</u> Projected operations (G-33) Anticipated resupply to division (G-4) Projected LOGSTAT (G-4) Planned sustainment operations and decision support matrix (DSB) <u>96-120 Hours</u> Projected operations (G-33) Anticipated resupply to division (G-4) Projected LOGSTAT (G-4) Planned sustainment operations and decision support matrix (DSB) <u>CDRs guidance</u>

CDR	commander	G-33	current operations
DLSE	division logistics support element	G-4	assistant chief of staff, logistics
DMC	distribution management center	G-4 Mx	assistant chief of staff, maintenance
DSB	division sustainment brigade	G-6	assistant chief of staff, signal
FSE	fire support element	G-8	assistant chief of staff, financial management
G-1	assistant chief of staff, personnel	LOGSTAT	logistics status
G-2	assistant chief of staff, intelligence	OPTEMPO	operating tempo
G-3	assistant chief of staff, operations	SPO	support operations

B-7. While current sustainment estimates are an input to the board, the focus of this board is on future operations, leveraging the targeting guidance from the targeting board, and future operations from the G-35. The main output from the board is an approved allocation of resources to support future operations. Once these resources are allocated, the DSB conducts the distribution management working group and board to plan and approve the distribution plan, which will feed into the division movement board and then the G-3 operations synch.

DISTRIBUTION MANAGEMENT BOARD

B-8. The distribution management board builds upon the output of the sustainment board. Once the division has approved prioritization and allocation of resources, the DSB will conduct the distribution management working group to create the plan. This culminates in the distribution management board where the DSB commander approves the plan. Once the distribution plan is approved, it proceeds to the division movement working group where the division transportation officer, SPO transportation branch and the MCT integrate unit movements provided by the G-3 into an overall movement schedule. That schedule will proceed to the division movement board at D+2. Table B-4 gives sample instructions for a division-level distribution management board.

Table B-4. Distribution management board

General Information	*Participants*
Title: Distribution Management Board **Purpose**: Approve the sustainment distribution plan for D+3 **Frequency**: Daily (OPTEMPO dependent) **Duration**: One hour **Location**: DSB Command Post **Medium**: Face-to-face, defense collaboration services	**Staff Lead**: DSB SPO **Chair**: DSB commander **Members**: G-1, G-2, G-3, G-4, G-6, G-8, surgeon, transportation officer; provost marshal; chaplain; staff judge advocate; DSB branch chiefs; DLSE and contracting support battalion representatives, FSE targeting representative, and liaison officers
Inputs and Outputs	***Agenda***
Inputs: • Targeting guidance for D+4. • Updated running estimates. • Current distribution plan. • Recommendations from sustainment-related working groups. • Higher and sustainment organizations plans, orders, directives, and policy. **Outputs**: • Updates to Annex F, Sustainment. • Approved or changes to sustainment policy and priorities. • Approved allocations for D+3.	Roll Call Current LOGSTAT (G-4) Current slant of sustainment platforms (G-4 Mx) <u>Next 72 hours</u> Projected operations (G-33) Anticipated resupply to division (G-4) Planned Sustainment Ops (DSB) <u>72-96 Hours</u> Projected operations (G-33) Anticipated resupply to division (G-4) Projected LOGSTAT (G-4) Planned sustainment operations and decision support matrix (DSB) <u>96-120 Hours</u> Projected operations (G-33) Anticipated resupply to division (G-4) Projected LOGSTAT (G-4) Planned sustainment operations and decision support matrix (DSB) <u>CDRs guidance</u>

CDR	commander	G-33	current operations
DLSE	division logistics support element	G-4	assistant chief of staff, logistics
DMC	distribution management center	G-4 Mx	assistant chief of staff, maintenance
DSB	division sustainment brigade	G-6	assistant chief of staff, signal
FSE	fire support element	G-8	assistant chief of staff, financial management
G-1	assistant chief of staff, personnel	LOGSTAT	logistics status
G-2	assistant chief of staff, intelligence	OPTEMPO	operating tempo
G-3	assistant chief of staff, operations	SPO	support operations

MOVEMENT BOARD

B-9. The movement board is the key to synchronizing the distribution plan with protection and operations. Chaired by the deputy commanding general, with the division transportation officer as the staff lead, the board addresses any short-term issues with currently approved movement plans for the next 48 hours and approves the movement plan for D+2. This approved movement plan is vital to the G-3 synchronization board, as it ensures movements are deconflicted and support the commander's intent. Table B-5 on page B-6 gives sample instructions for a division-level movement board.

Table B-5. Movement Board

General Information	*Participants*
Title: Movement Board **Purpose**: Approve the movement plan for D+2 **Frequency**: Daily (OPTEMPO dependent) **Duration**: One hour **Location**: Rear command post **Medium**: Face-to-face, defense collaboration services	**Staff lead**: Transportation officer **Chair**: Deputy commanding general **Members**: G-1, G-2, G-3, G-4, G-6, surgeon, transportation officer; MEB S-3, movement control team, SPO transportation branch, and liaison officers
Inputs and Outputs	***Agenda***
Inputs: Targeting guidance for D+4. Updated running estimates. Current distribution plan. Recommendations from sustainment related working groups. Higher and sustainment organizations plans, orders, directives, and policy. **Outputs**: Updates to Annex F, Sustainment. Approved or changes to sustainment policy and priorities. Approved allocations for D+3.	Roll Call Current LOGSTAT (G-4) Current route conditions (DTO) <u>Next 24 hours</u> Projected operations and unit movements (G-33) Route clearance and maintenance surge team (MEB) Planned sustainment operations (DSB) <u>24-48 Hours</u> Projected operations and unit movements (G-33) Route clearance and maintenance surge team (MEB) Planned sustainment operations (DSB) <u>48-72 Hours</u> Projected operations and unit movements (G-33) Route clearance and maintenance surge team (MEB) Planned sustainment operations (DSB) <u>CDRs guidance</u>

CDR	commander	G-4	assistant chief of staff, logistics
DSB	division sustainment brigade	G-6	assistant chief of staff, signal
DTO	division transportation officer	LOGSTAT	logistics status
G-1	assistant chief of staff, personnel	MEB	maneuver enhancement brigade
G-2	assistant chief of staff, intelligence	OPTEMPO	operating tempo
G-3	assistant chief of staff, operations	SPO	support operations
G-33	current operations		

B-10. The SPO distribution integration branch in the DSB is the hub of sustainment activity within the division. The DSB takes the requirements and priorities of the command and its units and develops detailed plans to sustain the force. Each of the SPO's branches, distribution integration, OCS, human resource operations, transportation operations, and materiel management (which includes the supply, munitions, fuel and water, maintenance, and field services sections), is responsible for planning a portion of the sustainment mission.

SECTION II – DIVISION CLASS III OPERATIONS

B-11. The division can move only as long as vehicles and aircraft receive fuel. While mission variable factors affect daily fuel consumption, the DSB may need to supply up to 600,000 gallons of fuel per day in support of a division and its supporting units. Non-divisional elements in the division sector may require an additional 80,000 gallons each day. Petroleum and composite supply units need to stock sufficient fuel throughout dispersed class III points.

PLANNING FUEL SUPPORT

B-12. To support the movement and momentum of initial clashes, the DSB pushes fuel forward and deep from the outset of battle. DSB fuel and water section staff officers preplan bulk fuel resupply 96 hours in advance. Plans need to include the uninterrupted flow of fuel to operational forces. The DSB support operations officer ensures that the division's class III bulk distribution plan agrees with the corps inland distribution plan for bulk fuel.

SUSTAINMENT PREPARATION

B-13. DSB fuel and water section personnel coordinate with DSB S-2 and S-3 staff on collecting and assessing data which impact on planning fuel support operations. They also identify priority intelligence requirements.

B-14. During initial planning stages, knowledge of the AO and threat capabilities helps petroleum officers project petroleum requirements and plan efficient fuel support operations. Fuel and water branch personnel can find the following information from IPB products:

- Projected bulk fuel storage sites.
- Highway and rail networks and capacities (verified by the transportation branch).
- Threat weapon systems ranges.
- Location of threat fuel resources.
- Threat air and ground named areas of interests.
- Projected areas to conduct refuel on the move operations.
- Areas that support bulk fuel and bulk potable water storage sites.
- Locations for bulk potable water production and storage reconnaissance.
- Areas suitable to conduct forward arming and refueling points.
- Locations for future logistics release points.
- Primary and secondary fuel throughput movement corridors within the division boundary.

B-15. Petroleum officers use IPB area evaluation products and friendly and enemy forces to recommend the number and placement of sustainment units and petroleum and water units on time-phased deployment lists. IPB products on enemy capabilities, composition, weaponry, and how the enemy might fight help petroleum officers preplan the type and quantity of bulk fuels, bulk potable water, and packaged products (both petroleum and water) required to support initial operations. They also help them plan ways to protect bulk potable water production sites, class III points, and distribution systems.

DISTRIBUTION INTEGRATION BRANCH

B-16. Distribution integration branch personnel assigned to the DSB support operations section ensure that fuel and bulk potable water support annexes conform with operation plans. They coordinate with fuel and water section personnel in preplanning ways in which to redistribute or shift the flow of bulk fuel to support a main effort. They prepare a bulk potable water production and distribution plan that supports the commander's intent while maximizing the resources on hand and adjusting for future requirements. They coordinate with staff assigned to the other branches of the support operations section in determining the best way to synchronize resources. They prepare the support operations estimate and annex to DSB operation plans and OPORDs. In planning fuel and potable water support, they must consider—

- Mission, size, and composition of the force to be supported.

- Division commander's intent.
- Battlefield terrain.
- Fuel and bulk potable water distribution resources available.
- Amount and type of fuel to be distributed (requirements of the force).
- Fuel and bulk potable water distribution system or method (transportation mode).
- Bulk potable water production requirements and systems availability.
- Water sources, availability, and drilling requirements.
- Petroleum supply or direct support supply units required to operate the system.
- Special seasonal requirements, such as antifreeze, fuel additives, and oil weight.
- Method and timing of resupply from corps.
- Determine if there are gaps in quantity of bulk water production, distribution, and resources.
- Determine if there are gaps in bulk fuel storage or distribution assets.

FUEL AND WATER SECTION

B-17. Fuel and water section personnel assigned to the DSB support operations section oversee petroleum support planning. They develop plans, policies, and procedures involving the receipt, storage, and distribution of bulk fuels and the production, storage, and distribution of bulk potable water. They also—

- Build the bulk fuel and bulk potable water concept of support.
- Assess petroleum requirements and consumption factors and recommend changes to storage requirements and delivery schedules.
- Project fuel requirements by type of fuel based on the quantity of fuel-consuming equipment and vehicles.
- Project bulk potable water production requirements and distribution planning.
- Track the shelf life and service life of bulk fuel and water storage fabric collapsible tanks within the division.
- Develop and track the division's bulk fuel quality surveillance program for operational bulk distribution systems.
- Coordinate bulk and packaged potable water quality testing and reporting with preventive medicine support teams.
- Determine policy and track the division's basic loads of water production chemicals and filter replacements.
- Establish policies on fuel quality surveillance based on corps and theater guidelines.
- Establish procedures for collecting and reporting petroleum management information.
- Coordinate with the transportation branch and distribution integration branch to identify class III movement requirements as part of movement programming.
- Coordinate with service partners, special operations, and allies operating within or transiting through the division AO for fuel and bulk potable water support requirements.
- Maintain an inventory of the division's on-hand bulk fuel handling adaptors that support operations with allies, especially those used by nations within NATO.
- Ensure policies and procedures are in place to oversee subordinate units' petroleum operations and accountability through the use of the organizational inspection program and command supply discipline program.
- Track the certification status and mission readiness of petroleum quality analysis system-enhanced labs within the division.

B-18. Time, space, distance, terrain, existing resources, scope of requirements, and OE also require consideration. More specifically, fuel and water section personnel must consider—

- Number and types of fuel-consuming equipment and vehicles that use motor gasoline (also called MOGAS), diesel, and aviation gasoline.
- Availability and capability of subordinate units to provide the required support.
- Number and location of class III points, to include throughput distribution.

- Organic ground fuel distribution and storage means (assault hose lines, bulk fuel distribution system, tactical fuel distribution system, mobile tactical retail refueling system, refuel on the move kits, modular fuel system-tank rack module, modular fuel system-pump rack module, advanced aviation forward refueling systems, HEMTT, HEMTT tanker aviation refueling system, forward area refueling equipment, and fuel system supply points).
- Type of terrain and distance between units.

SUSTAINMENT FUEL REPORTS

B-19. Fuel and water section personnel plan fuel support for operations 48 to 96 hours in the future. LOGSTATs provide class III asset visibility on bulk class III within the division area. Unit LOGSTATs should report motor gasoline, jet fuel (known as F-24), and aviation gasoline. LOGSTATs should include other petroleum assets only if they appear on the AR-COP. Class III packaged asset data flows into GCSS-Army.

B-20. Fuel and water section personnel use LOGSTATs and GCSS-Army data to assess the current and projected availability of class III assets for the division. They evaluate class III storage and distribution requirements against capabilities of units to support shifts in tactical operations. Based on projected asset information from class III points, they coordinate with the transportation branch for extra transport capability.

FUEL CONSUMPTION FACTORS

B-21. DSB petroleum officers use fuel consumption factors in ATP 5-0.2-1 to develop plans for supporting the division. For NATO operations, STANAG 2115 provides factor percentages used to adjust fuel consumption estimates to the type of combat, terrain, and climate expected in the AO. Petroleum staff officers use fuel consumption factors to help determine the number and types of fuel distribution equipment needed.

FUEL FORECASTS

B-22. The DSB pushes bulk fuel forward in response to forecasted requirements. Forecasts vary depending upon the probable level of activity. S-4 personnel forecast requirements based on usage and fuel consumption data for periods of similar-level activity and operations (historical data method). The DSB SPO, in coordination with the DSB's fuel and water section staff, modifies fuel forecasts based upon sustainment stock status, commander's priorities of support, and the tactical situation. The DSB fuel and water section keeps the SPO informed of forecasted workloads.

PLANNING CONSIDERATIONS

B-23. Supported units typically operate in great depth and across wide fronts. Requirements for increased dispersion of forces, increased movement of maneuver units, and stock losses result in increased fuel requirements. To ensure availability of adequate fuel support, the bulk fuel supply system needs some redundancy. Bulk fuel storage sites must be dispersed and camouflaged to avoid presenting a lucrative target. The fuel distribution network should be resilient enough to deal with the loss of fuel assets and tactical disruptions.

SHORTFALLS

B-24. As appropriate, DSB fuel and water section personnel recommend the steps listed in table B-6 on page B-10 to offset shortfalls in DSB fuel support capability.

Table B-6. Class III shortfalls

Equipment Shortfalls
Cross-level equipment (tankers, pumps, storage).
Revise maintenance priorities on fuel support equipment.
Request support from higher headquarters or from host-nation sources.
Distribution Shortfalls
Pre-position fuel forward if the risk analysis supports that decision.
Distribute fuel in 55-gallon drums.
Restrict unit distribution temporarily.
Increase throughput.
Implement fuel allocations.
Change tankers from one fuel type to another.
Utilize an assault hose line or pipeline.
Seek assistance from supported units.
Request host nation support.
Storage Shortfalls
Keep equipment tanks full.
Change containers from one fuel type to another.
Contract for host nation support.
Request use of host nation fixed facilities.

MANAGING FUEL SUPPORT OPERATIONS

B-25. The DSB SPO is responsible for centralized control of bulk petroleum allocation and distribution within the division. The SPO determines allocation according to priorities set by the division. The DSB fuel and water section implements these priorities.

FUEL AND WATER SECTION

B-26. DSB fuel and water section personnel establish stockage requirements and distribution priorities. They keep the SPO and G-4 informed of changes in petroleum stocks and distribution capabilities. Section personnel compare petroleum requirements to capabilities and make recommendations on use of petroleum resources. They establish the frequency for subordinate units submitting petroleum forecasts. They also establish procedures and standards for petroleum inspections within the policies and guidance provided by corps. As required, they provide guidance on containment and cleanup of spills or leaks.

B-27. The DSB fuel and water section performs integrated materiel management for bulk and packaged petroleum fuels, packaged petroleum products, containers and accessories, and bulk potable water. It consolidates requirements and performs centralized control of bulk petroleum distribution. It reports distribution problems to the fuel and water section chief and the DSB SPO.

B-28. The DSB fuel and water section manages the supply of petroleum fuels and products to the division. Branch personnel—

- Lead the division fuel working group
- Participate in the ESC's petroleum working group
- Build and maintain the commander's bulk fuels and bulk potable water logistics common operations picture.
- Receive and coordinate requirements from brigades, separate units, and non-divisional units in the division AO.

- Consolidate requirements and submit totals to the corps or ESC.
- Direct the issue of bulk petroleum stocks.
- Provide prioritized shipping instructions to petroleum units.
- Monitor the availability and condition of petroleum handling and distribution support equipment.

FUEL ALLOCATION

B-29. When demands exceed availability, the commander establishes an allocation system. The DSB SPO receives allocation instructions from the division G-4. The DSB's fuel and water section implements those instructions.

DSB FUEL ORGANIZATION

B-30. The DSB's fuel organization depends upon the type and level of conflict, type and size of supported forces and their missions, availability of host-nation petroleum assets, and estimated length of the operation. It also depends upon the division reserve policy, availability of bulk fuels in underdeveloped theaters, and the requirement for petroleum quality surveillance. Allocation of habitually supporting medium truck companies (petroleum) depends on commander's priorities, road conditions, and throughput distances.

FUEL SUPPORT ORGANIZATION

B-31. While there is no set organization for fuel at the division level, the fuel network is based on two principal capabilities—fuel storage and fuel distribution. Most fuel units focus primarily on one or the other, while the composite supply company provides both limited storage and distribution. Typical units found in the fuel network may include—

- Composite Supply Company (fuel platoon).
- Petroleum support company.
- Medium truck companies (petroleum).
- Petroleum product laboratory (mobile).

For further information on fuel units and capabilities, refer to ATP 4-43.

SAMPLE BATTLEFIELD EMPLOYMENT

B-32. Figure B-1 on page B-12 depicts how a DSB might employ its petroleum assets in support of the example division force. In this example, the ESC attached a composite supply company to each of two forward CSSBs. As shown, each composite supply company establishes a class III supply point near the brigade's rear boundaries. Each company provides general support bulk fuel to supported non-divisional units and reinforcing support the brigades as required. In the division rear, a petroleum support company gives the division additional storage to receive fuel from corps.

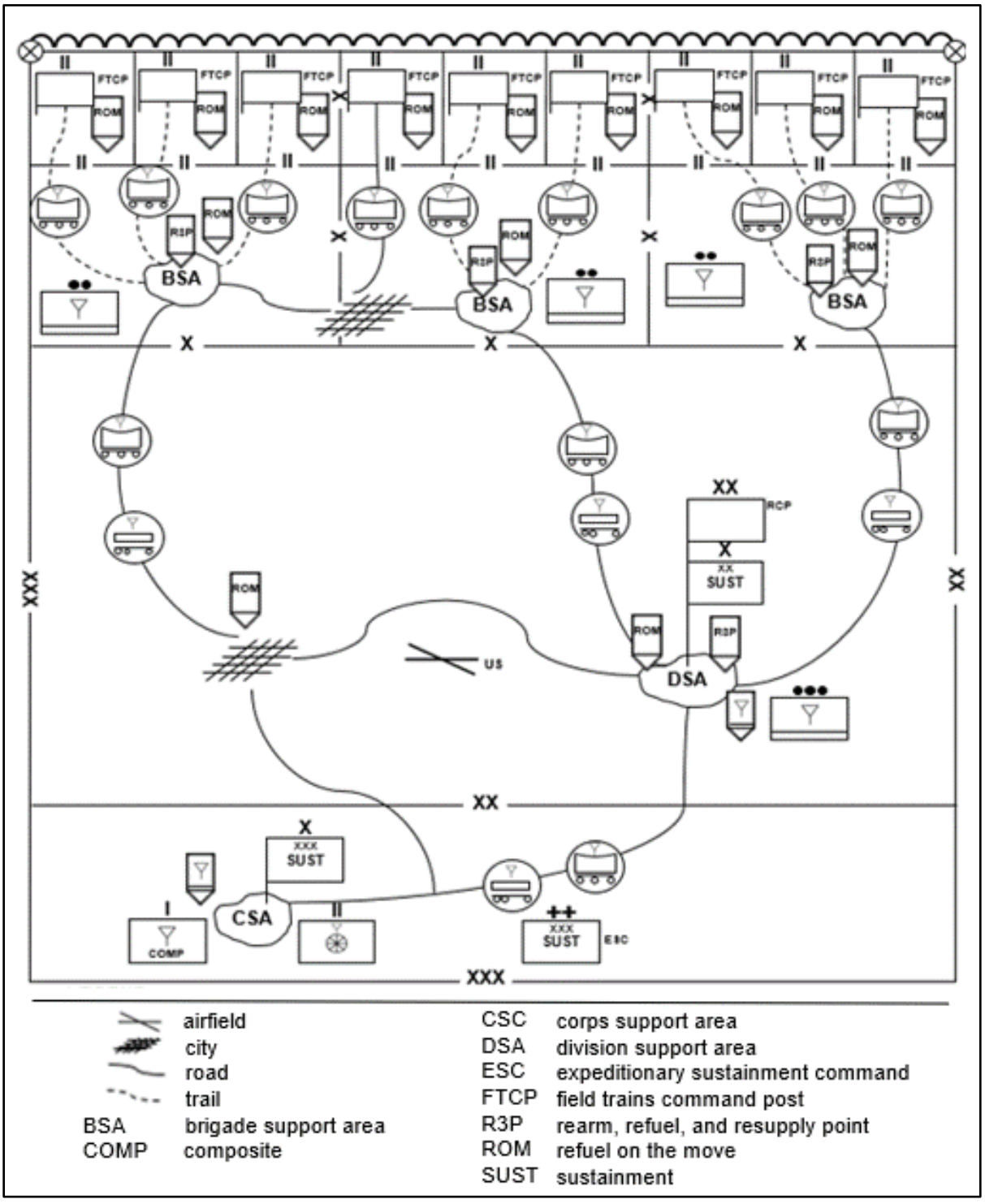


Figure B-1. Notional fuel operational array

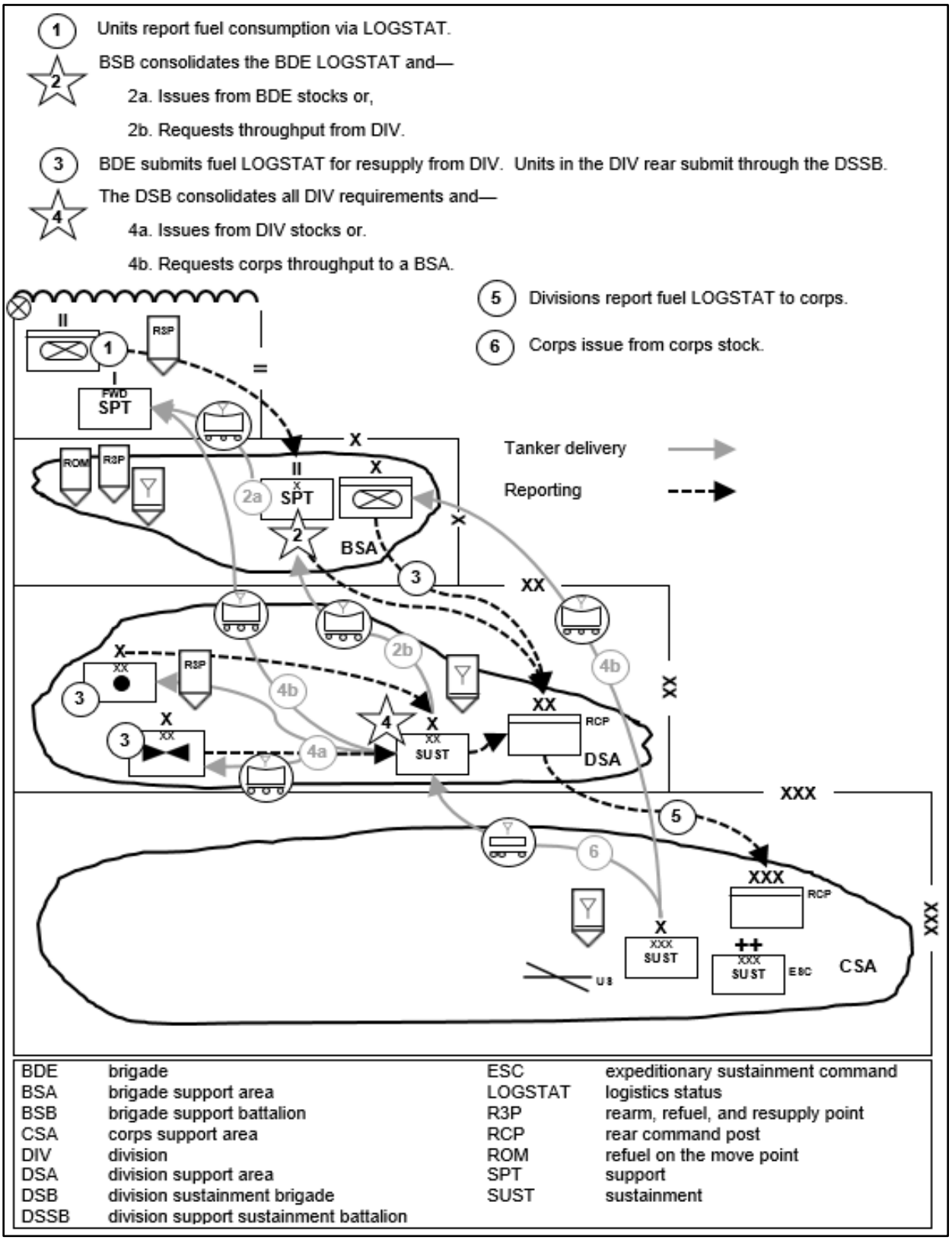
DIVISION FUEL DISTRIBUTION

B-33. The fuel distribution system is an automatic resupply system based on fuel forecasts and status reports. It relies on the routine rapid push of bulk fuel, with distribution both lateral and forward. The goal of a class III resupply mission should always be to leave the forward unit at full capacity whenever possible.

B-34. Figure B-2 on page B-14 depicts the bulk fuel distribution system. Requirements flow from brigades, separate units, and class III supply points. S-4s forecast requirements for the next 96-hour period in the division fuel working group. The output from the fuel working group is then incorporated into the DSB distribution management board, so it can be prioritized with other sustainment requirements in accordance with division priorities. They base their forecasts on projected consumption data for the probable level of activity. The frequency of submitting forecasts varies, depending upon the intensity of operations.

B-35. DSB fuel and water section personnel compare bulk requirements against quantities available for issue. As appropriate, the DSB submits consolidated requirements to either the corps or the ESC.

B-36. The corps ships bulk fuel, either by pipeline or bulk carriers, to the furthest points practicable in the division. Medium truck companies (petroleum) transport fuel from tankage in the corps rear area to class III supply points operated by petroleum support companies and composite supply companies.



BDE	brigade	ESC	expeditionary sustainment command
BSA	brigade support area	LOGSTAT	logistics status
BSB	brigade support battalion	R3P	rearm, refuel, and resupply point
CSA	corps support area	RCP	rear command post
DIV	division	ROM	refuel on the move point
DSA	division support area	SPT	support
DSB	division sustainment brigade	SUST	sustainment
DSSB	division support sustainment battalion		

Figure B-2. Typical fuel distribution operations

SECTION III – DIVISION AMMUNITION OPERATIONS

B-37. The division can fight only as long as it remains supplied with munitions. Large-scale combat operations have the potential to place unprecedented demands on the division munitions distribution system to provide the right types and quantities of munitions at the decisive time and place. To ensure continuous, responsive distribution support, ammunition supply units require the habitual support of transportation truck companies, as they lack organic capability to transport ammunition to supported units.

PLANNING MUNITIONS SUPPORT

B-38. Because of the dependency of modern warfare on complex weapon systems, effective and timely munitions support is imperative. The DSB establishes and maintains a munitions support system which can respond quickly to the demands of the tactical situation. Detailed staff planning helps ensure that DSB units supply the right mix and quantities of munitions. Planning munitions support is a continuous effort that requires input from the munitions subject matter expert at each echelon of war.

SUSTAINMENT PREPARATION

B-39. DSB SPO munitions section personnel coordinate with the S-2 and S-3 to collect and assess data relative to ammunition operations for the division for specific contingency areas or theaters of operations.

B-40. During initial planning stages, munitions section personnel use sustainment preparation of the OE products to assess and recommend the number and placement of ammunition units. IPB threat evaluation products can help munitions section personnel estimate the type and quantity of munitions required to support tactical operations. Munitions section personnel use mission and operational variables, such as IPB terrain analysis products and threat integration products to plan ways to protect munitions units.

B-41. Although sustainment preparation of the OE is specific to initial planning, the munitions section personnel must continuously assess the OE in an attempt to counter or evade the threat, eliminate risks, and optimize the infrastructure.

DSB SUPPORT OPERATIONS DISTRIBUTION AND INTEGRATION BRANCH

B-42. Distribution integration branch personnel monitor division operations in order to anticipate munitions requirements resulting from changes in the tactical situation and to meet the division commander's intent. They perform the following tasks:

- Coordinate with division G-3 staff on balancing requirements against ammunition controls.
- Recommend ways to allocate DSB resources to support or weight the main effort.
- Provide the G-4 with recommended policies and related information on controlled items.
- Revise the DSB's operation plans and orders to reprioritize the ammunition support in accordance with supported commander's priorities.

SUPPORT OPERATIONS, MATERIEL MANAGEMENT BRANCH, MUNITIONS

B-43. The munitions section exercises staff supervision over class V support operations. These include supply as well as maintenance operations relating to ammunition, missiles, special weapons, and associated repair parts, special tools, and test equipment. The munitions section chief—

- Informs the division G-4 in developing plans and policies involving munitions supply and maintenance.
- Assists in the development of the CSR based on unit RSR and division priorities.
- Provides staff input for munitions planning to the SPO staff.
- Develops policies concerning surveillance of munitions.
- Maintains a running estimate of munitions requirements.
- Coordinates munitions requirements with division G-3 and G-4 staff.

- Coordinates munitions support for division units operating in brigade areas and provides support to other Services or coalition forces.
- Establishes ammunition stockage levels based on division requirements.
- Establishes and maintains an ammunition surveillance program as prescribed by DA PAM 742-1.
- Recommends ammunition supply and storage site locations to the DSB commander.

B-44. Munitions section personnel develop SOPs and plans to implement class V supply policies in accordance with commander's priorities. They also—

- Facilitate the division ammunition working group, providing input to the distribution management board.
- Coordinate preplanned and preconfigured push packages based on trends and problem areas.
- Coordinate munitions movement and cargo transfer to support surges.
- Provide technical advice and assistance to ammunition officers in subordinate brigades and ammunition units.
- Recommend movement of ASPs as the situation dictates.
- Review and update class V ammunition planning factors based on changes in the tactical situation.
- Monitor suspensions of ammunition.
- Recommend adjustments to class V stockage levels.
- Recommend appropriate class V stocks to accompany division forces supporting coalition forces and other Services.
- Coordinate the resupply of class V stocks for attrited units.

REQUIRED SUPPLY RATE

B-45. The RSR and CSR impact the allocation and supply of ammunition. The RSR refers to the quantity of ammunition that a commander estimates is needed to support tactical operations for a specified time without ammunition expenditure restrictions. The RSR changes based on the type of operation, the overall objective, unit and enemy capability, and revised ammunition forecasts.

B-46. Each S-3 develops an RSR estimate in coordination with the S-4 and S-2. ATP 5-0.2-1 provides gross planning factors for ammunition consumption estimates when enemy assessments and actual use factors have not been developed. RSR reports list the rounds per weapon per day or a bulk allotment per day or per mission. The S-3 submits the RSR through command channels to the next higher headquarters.

B-47. At each level of command, S-3 staff officers review, consolidate, and forward their subordinate units' RSR to the next higher-level operations staff officer.

B-48. Brigade and separate battalion headquarters pass RSR data through S-3 channels to the division G-3. They pass the consolidated division RSR to the division G-4. The division G-4 then coordinates with the DSB SPO to assess whether munitions stocks can support requirements. The support operations section determines current stock status and restrictions on availability. The DSB support operations staff prepares a supportability assessment for the division G-4. The G-4 then recommends munitions distribution to support the G-3's plans for current and future operations.

CONTROLLED SUPPLY RATE

B-49. The CSR is the amount of ammunition that can be allocated over a specific time period. It depends on the availability of ammunition and the ability to move the ammunition as required within the required time frame.

B-50. In concert with the division G-3, the division G-4 establishes the CSR for units in the command. The division commander is the approval authority for the CSR.

B-51. Commanders publish their CSR in OPORDs, located in the sustainment (F) annexes, fires (D) annexes, and engineer (G) annexes. CSRs are expressed as the number of rounds per weapon per day or rounds per specific operation, mission, or period of time. The CSR is a guiding principal in determining the average amount of a particular munition available to sustain the unit for a specified period of time.

B-52. At each level, G-3s or S-3s work with G-4s or S-4s to better allocate ammunition assets according to priorities. The division G-4 advises the division commander of the risks associated with expenditure rates exceeding the CSR. The division commander should exercise discretion when employing capabilities requiring munitions identified on the CSR.

MANAGING MUNITIONS SUPPORT OPERATIONS

B-53. Munitions management focuses on the requirement to supply large quantities of diverse types of munitions to units dispersed on the battlefield. The support operations section manages the distribution of munitions.

MUNITIONS MANAGEMENT

B-54. The DSB munitions section provides management of class V assets in its assigned retail point inventory. It manages stocks in DSB subordinate units. This section reviews and analyzes demands and computes division sustainment requirements for ammunition. When on-hand balances are compared to units' requests in the division ammunition working group, the group can make appropriate recommendations to the DSB commander based on commander's priorities.

MUNITIONS SECTION

B-55. The DSB munitions section provides technical staff supervision through the DSB. This office reports materiel problem areas to the ESC munitions support branch. The DSB SPO and G-4 recommend class V distribution priorities and meet with the division G-3 on problems that significantly impact support of tactical operations.

B-56. Munitions officers and their staffs recommend ways to offset shortfalls in the DSB's ability to arm the division (some recommendations are listed in table B-7 on page B-18). They perform the following tasks:

- Review the division-directed CSR and forward distribution recommendations to the division G-4 and G-3 based on ammunition status.
- Assess recommended locations for ASPs, ATHPs, and MATPs in relation to the transportation network.
- Monitor reports on the supply status of class V items and assess the impact of critical theater-wide shortages and theater suspensions.
- Review Standard Army Ammunition System output reports of assets in transit between storage points to ensure timely supply support to customer units.
- Monitor stockage and distribution of munitions, missiles, and associated equipment.
- Evaluate and analyze data for trends and potential support problem areas.
- Recommend ways to resolve munitions support problems to the DSB SPO.
- Coordinate the redistribution or realignment of class V resources within the division.
- Help resolve division-wide distribution problems by recommending courses of action such as relocating ASPs or operating an ammunition company from two separate locations.
- Recommend displacement or relocation of ASPs as the situation dictates.
- Provide advice on the adequate dispersal of munitions to prevent or reduce losses by enemy action or accident, and ensure ammunition companies and BSBs have established explosives safety site plans and conduct continuous risk management for their ammunition operations locations.
- Monitor munitions malfunctions throughout the division AO.
- Develop procedures for the receipt, storage, and maintenance of munitions, the renovation of salvageable munitions, and the destruction of condemned stocks.
- Monitor movement of contaminated munitions through the division AO in coordination with DSB transportation operations branch staff.

Table B-7. Techniques for mitigating class V shortfalls

Ammunition Shortfalls
Substitute with like Department of Defense identification codes.
Redistribute between ammunition storage areas.
Demand reduction.
Distribution Shortfalls
Pre-position ammunition forward if the risk analysis supports that decision.
Reprioritize transportation assets.
Task organize supported units for tailored mission sets.
Optimize infrastructure and distribution methods.
Review and revise movement priorities.
Request host-nation support.
Materials Handling Equipment Shortfalls
Redistribute and realign assets between storage areas.
Task units to provide support.
Review and revise materials handling equipment maintenance priorities.
Request use of host-nation support.

CLASS V REPORTS

B-57. The munitions branch tracks munitions items on the tracked items list. Using the Standard Army Ammunition System, the munitions section provides status displays of class V assets within the division area. Ammunition stockage data flows from ASPs and brigades to the DSB support operations section.

B-58. Munitions section officers assess the current and projected availability of ammunition assets for the force. They assess the unique situation at a particular ammunition supply unit or the status at a particular ASP, ammunition transfer holding point (ATHP), or MATP to better tailor stock levels to support requirements.

B-59. The DSB SPO uses this analysis to recommend adjustments to distribution plans, allowing additional supply of ammunition to committed units.

DSB MUNITIONS SUPPORT ORGANIZATION

B-60. The DSB and subordinate battalions employ ammunition units to best support the operational plans of tactical commanders. DSBs tailor munitions resources, realign priorities, and synchronize support assets to meet changing tactical situations. Tactical commanders should plan their operations and commit their forces following a comprehensive review of the support capabilities, capacities, and dependencies of the ammunition support structure.

AMMUNITION SUPPORT ORGANIZATION

B-61. Specific divisions have organic ammunition support units. Other divisions must identify requirements and request ammunition support capabilities from the force pool. The division's ammunition support organization provides for the replenishment and delivery of ammunition to users as depicted in figure B-3 on page B-19. Based on mission variables, the DSB shifts the flow of class V or redistributes class V stocks from less affected areas to support high priority operations.

MODULAR AMMUNITION ORDNANCE COMPANY

B-62. Based on workload, one or more modular ammunition platoons are required to operate an ASP. A modular ammunition company normally includes three modular ammunition platoons but may provide C2

for up to five platoons. The ASPs provide continuous resupply to the ATHPs and MATPs. Stockage levels at the ASPs vary based on tactical plans, availability of ammunition, and vulnerability of LOCs to interdiction. Stockage needs to cover surge and emergency requirements. ATP 4-35 describes ammunition unit operations.

B-63. One company with up to five platoons is allocated per division, based on forecasted requirements. The DSB commander may attach platoons from the ammunition company to separate CSSBs or the DSSB. The DSSB or CSSB headquarters provides the C2 element for the ammunition platoon.

B-64. Modular ammunition companies establish an ASP in the division rear area and up to two additional locations. Allocation depends upon mission variables and the size of the division's stockage objective. Division ASPs provide direct support to assigned units. They serve as the primary source of ammunition for the division.

B-65. Based on divisional forecasted needs, ASP personnel configure CCLs and ship ammunition to ASPs, ATHPs, and MATPs on vehicles using a supporting truck company's assets. ASPs also provide general support to units operating in the division rear. See ATP 4-35 for more information on ammunition operations.

HOST-NATION SUPPORT

B-66. Support agreements identify dedicated sources of host-nation support. During joint operations, a host-nation support organization can augment conventional ammunition support. National agreements define the interaction between host-nation and U.S. units. The concept of obligatory cooperation is initiated after mobilization of host-nation units. Depending on the support agreements for the theater of operations, host nations could provide ammunition supply units and battalions to augment ammunition operations, but responsibility for accountability for host-nation or contractor-supported ASPs must be managed in accordance with AR 735-5.

SAMPLE BATTLEFIELD EMPLOYMENT

B-67. Figure B-3 on page B-20 depicts how a division might employ ammunition units. Employment follows sustainment doctrine.

B-68. Each BSB distribution company operates an ATHP or MATP as required to resupply the battalions of the brigade. These BSB ATHPs or MATPs support their brigades, and when tasked, other units that may be operating in the brigade area. In cases where corps elements (such as a corps artillery unit) operate in the division rear, the corps may coordinate ammunition support through the division.

B-69. In this scenario, the ESC attached an ammunition company to a corps CSSB in the division rear area. Each of the ammunition companies can provide—

- C2 of three to five modular ammunition platoons.
- Up to three ASPs that prepare ammunition for ground or aerial transport to the ATHPs and units in the division rear area. One or more platoons are required to operate each ASP depending on workload. Each ASP may be 5 to 6 kilometers square or larger.

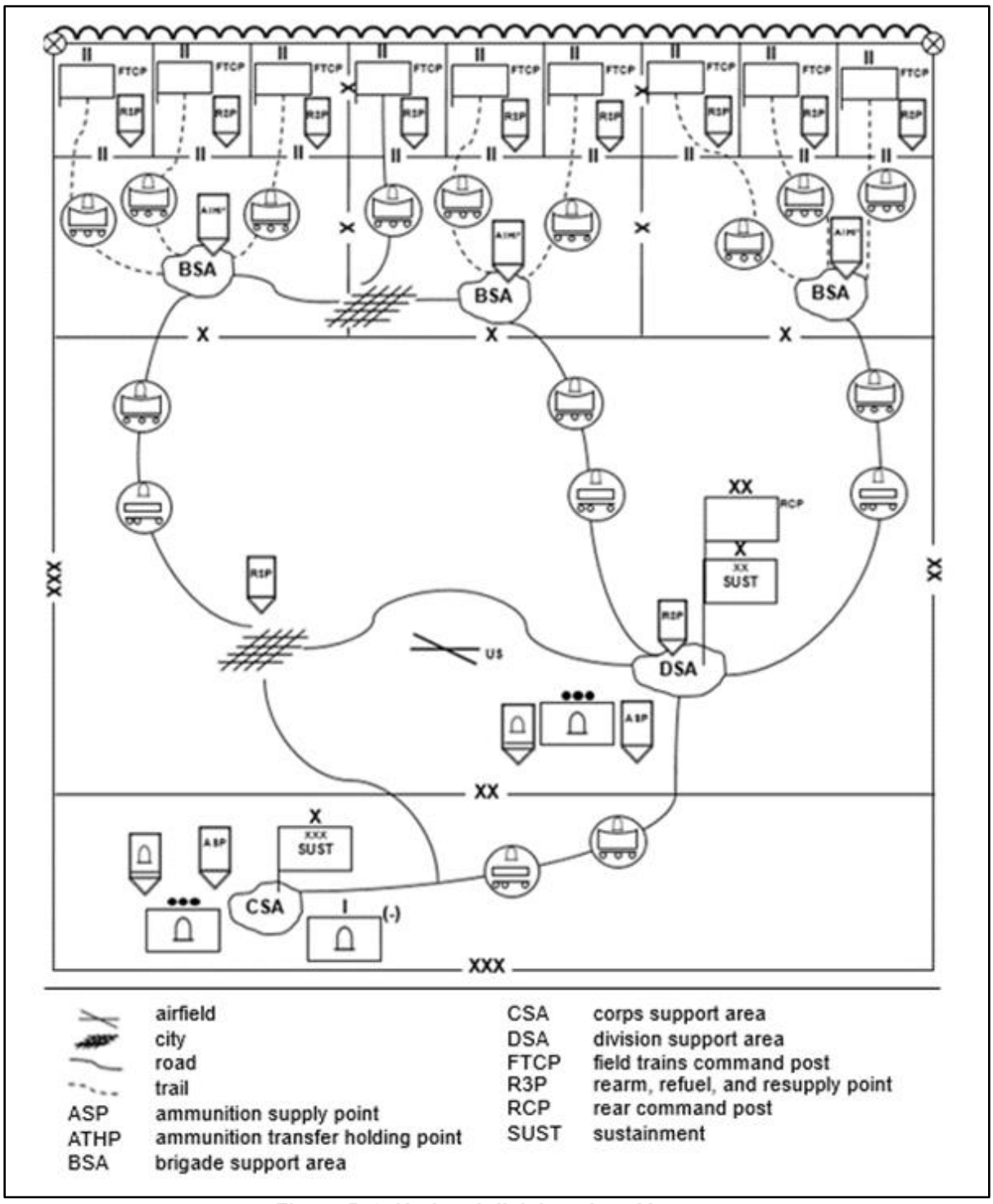


Figure B-3. Notional division class V array

MUNITIONS DISTRIBUTION SYSTEM

B-70. To support generation of combat power by maneuver units, the DSB designs the ammunition distribution system to provide the right types and quantities of munitions at the decisive time and place. Heavy threat activity in the division rear area could place unprecedented demands on that distribution system.

Ammunition supply units push high volumes of ammunition forward while at the same time maintaining minimum essential stocks to support future combat operations.

HABITUAL SUPPORT

B-71. To ensure continuous, responsive munitions support, the DSB allocates and assigns truck companies to provide habitual transportation support to ammunition units. The truck units support routine, recurring daily movement of ammunition from storage activities to forward units.

B-72. Because the distribution of ammunition from EAB ASPs to tactical ASPs, ATHPs, or MATPs must occur on a routine basis, the supporting MCT replicates a series of transportation movement requests committing the trucks. The ammunition storage site, supporting truck unit, and the DSB must maintain close coordination. The DSB transportation branch tasks the truck unit to move the munitions. The truck company requests convoy clearance from the MCT and picks up the shipment from the ASP.

AMMUNITION REQUIREMENTS

B-73. A heavy division expends an estimated 3,500 short tons per day. The ammunition support system depends on continuous resupply of the forward units' ammunition basic load. Maneuver and maneuver support units submit ammunition requirements. The division commander establishes CSRs based on ammunition availability and transportation capability.

REQUIREMENTS FLOW

B-74. The brigade S-3 consolidates ammunition requirements and passes them through the brigade ammunition officer to the DSB munitions section. The munitions section consolidates these requirements and directs the issue of ammunition from an ATHP, MATP or ASP.

B-75. In the division rear area, units pass their requirements through their higher headquarters to the DSB SPO munitions section. Depending on the OE, the ESC may either push replenishment stocks to the division ASP based on unanticipated fill requirement or the DSB requests replenishment stocks from the corps ESC. The DSB directs shipments from division stocks to meet user requirements.

STATUS REPORTS

B-76. ASPs, ATHPs, and MATPs use daily transaction reports to provide ammunition status to the DSB. The DSB munitions section must receive daily status reports from each ammunition supply activity in its AO. Stock status reports flow through the DSSB and BSB support operations sections to the DSB support operations section. This data includes information on ammunition issues, receipts, condition code changes, and losses. Critical ammunition status is reported in the class V asset report. The DSB prepares an ammunition stock status report to inform the DSB support operations officer and division G-4 of the current ammunition stockage posture. Ammunition in the hands of troops is reported through the S-4 channels to the division G-4.

AMMUNITION DISTRIBUTION

B-77. The ESC distribution management center transmits a copy of the manifest or manifest data to the DSB prior to shipment arrival. This information allows the DSB time to review stock status and determine if a change of delivery location is required. Priority of resupply is to ASPs identified for buildup to support tactical plans.

B-78. The DSB notifies the MCT after receiving notice of incoming shipment. The DSB informs the MCT of type, compatibility, weight, cube, quantity, and destinations of the shipment. The MCT then coordinates movements.

B-79. ASPs configure ammunition into CCLs for shipment to ATHPs and MATPs. Replenishment shipments to ATHPs and MATPs flow from the ASPs, with backup supply provided by the corps ASP. To reduce handling time, the corps ASP may ship CCLs as throughput directly to the ATHPs or MATPs, bypassing the division ASPs whenever possible.

B-80. To reduce the burden on the distribution system and to maximize the availability of transportation assets to distribute ammunition to forward units, the division OPORD may direct that certain units, particularly those operating in the division rear, pick up their ammunition stocks from a nearby ASP in the support area.

B-81. Aviation units can provide emergency or rapid resupply of low density, high value class V to an ATHP or directly to a unit to meet unforecasted demands. ASPs should be located in proximity of a helipad for aerial resupply.

COMBAT CONFIGURED LOADS

B-82. CCLs consist of preplanned packages of high-density ammunition tailored to support a certain type of unit, a task force, or weapon system. CCLs facilitate loading mission support vehicles with a minimum breakdown of ammunition. Instead of preparing unique mixed loads for each DODIC requested, ammunition units configure and load complete rounds of CCLs for shipment when directed by the DSB. ASPs construct CCLs for shipment to ATHPs and MATPs.

B-83. CCLs simplify ammunition resupply planning and coordination. The DSB munitions section reviews proposed CCL configurations submitted by S-4s. They submit a consolidated division CCL request to the corps G-4. The corps G-4 coordinates with distribution management center munitions managers in developing a corps CCL set of standard loads to support corps maneuver units. Division and corps staffs should define 15 to 20 standard CCLs.

B-84. CCL sets also help speed transmission of ammunition resupply requirements. Instead of ordering ammunition by each single DODIC, units request CCLs by their identifier. The munitions section coordinates with the distribution integration branch within the DSB SPO to ensure that CCLs are distributed to the right ATHP or MATP at the right time.

MINES AND EXPLOSIVE ORDNANCE

B-85. Mines and explosive demolitions help delay, disrupt, or channel enemy movement and halt or slow their offensive or counterattack. They help stop enemy advances and enable offensive and counterattacking forces to maneuver.

B-86. During the offense, maneuver units breach minefields and obstacles to regain the full use of routes and terrain. To counter enemy movement, defending forces emplace obstacles quickly. They need to be kept supplied with ground-delivered scatterable mines, cratering devices, and hasty bridge demolition materials.

B-87. Threat forces employ mines and obstacles in depth. Enemy artillery or air strikes on bridges, airfields, roads, and urban areas also create obstacles to maneuver. Maneuver forces maintain momentum by conducting hasty breaches using available countermine assets. Mines and explosives provide a way to quickly breach wire obstacles, destroy log obstacles, and clear aside debris to reopen routes.

Deliberate breaches require combat engineer support and mines or explosives as well as organic engineer equipment. Engineers use mines and obstacles in counter mobility operations, to include closing the most probable avenues of approach, destroying bridges, and creating obstacles at critical areas along the flanks of advancing forces. Engineers coordinate breaching materiel requirements with the DSB. Figure B-4 provides a notional depiction of ammunition operations.

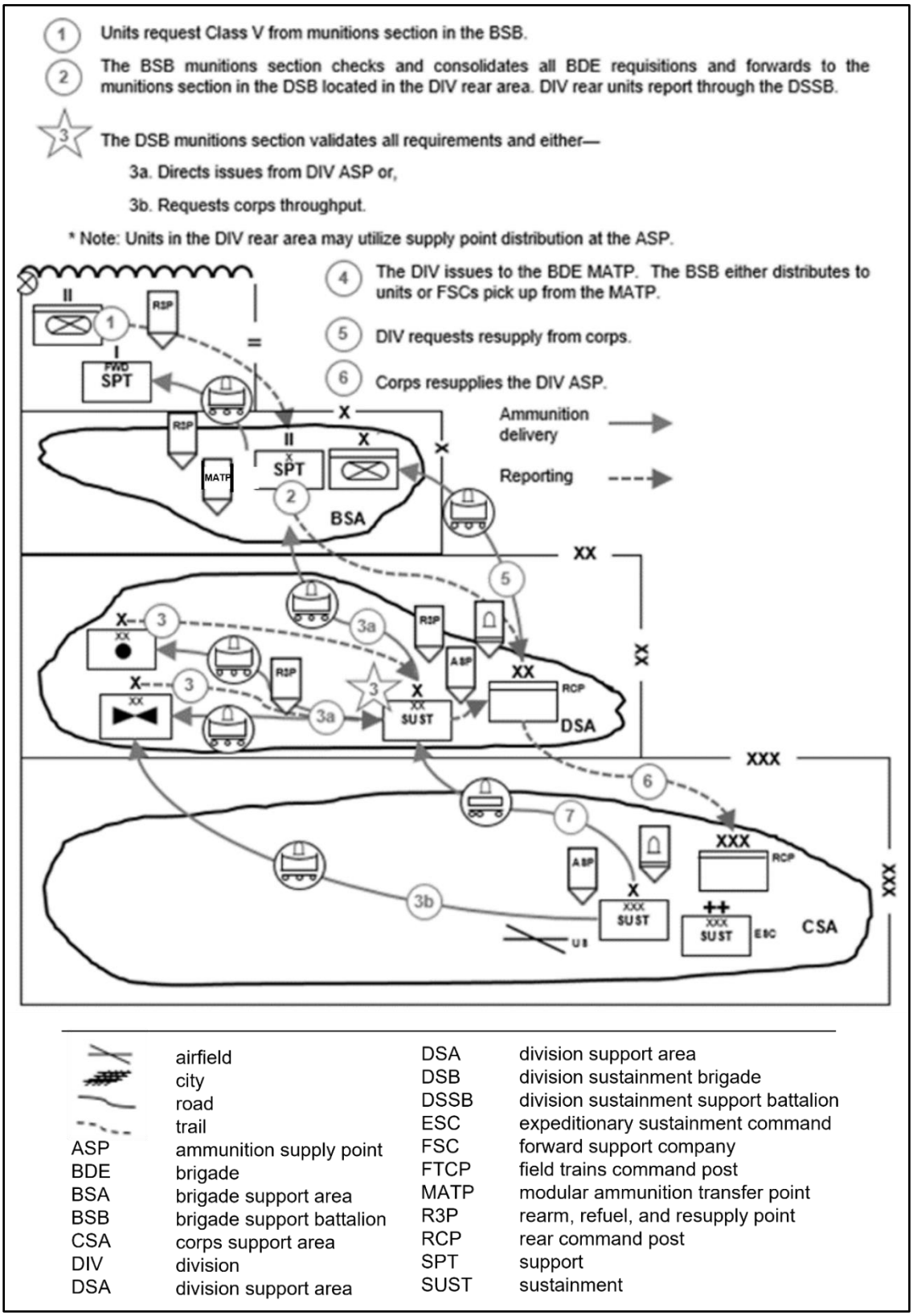


Figure B-4. Ammunition operations

SECTION IV – MAINTAINING THE FORCE

B-88. The highly destructive capability of modern weapon systems and the high operations tempo expected of future large-scale combat operations will most certainly lead to a large number of combat systems requiring repair.

B-89. The Army's maintenance system is a combat multiplier. It ensures that friendly forces remain operationally ready by repairing and returning weapon systems and equipment to battle as soon as possible. Maintenance restores operational forces to a state of materiel readiness. It enables them to maintain the tempo of operations.

B-90. Maintenance units repair and return damaged or disabled equipment to using units. Whenever possible, the DSB sends maintenance surge teams forward to perform on-site repair of damaged or inoperable equipment as close to the line of contact as possible.

PLANNING MAINTENANCE SUPPORT

B-91. The goal of maintenance operations is to return the maximum number of weapon systems and critical items to the battlefield. Maintenance ensures the combat readiness of supported units. DSB SPO personnel project maintenance workloads for future operations. They organize, coordinate, and control DSB maintenance resources to ensure timely support.

DISTRIBUTION INTEGRATION BRANCH

B-92. Distribution integration branch personnel assigned to the DSB SPO section prepare support operations estimates and external mission support portions of division orders. Using sustainment preparation of the OE products, they plan in conjunction with the maintenance section how the DSB's maintenance units support the division in accordance with the commander's intent and priorities. Based on coordination with the division G-3, they plan how to best synchronize maintenance support with tactical requirements. They update plans based on estimates and recommendations from maintenance section staff. As required, they plan how to adjust maintenance workloads and allocate maintenance resources to support regeneration.

MAINTENANCE SECTION

B-93. The DSB SPO maintenance section establishes maintenance support policies, plans, and procedures for the maintenance support provided by subordinate maintenance units. This includes development of plans and procedures to meet class IX repair parts requirements.

Maintenance Section Chief

B-94. The maintenance section chief serves as the maintenance staff advisor to the DSB support operations officer. The section chief exercises staff supervision over DSB maintenance support operations and performs the following tasks:

- Establishes maintenance support policies, plans, and procedures for external maintenance support.
- Provides recommendations on maintenance unit allocations and priorities to the DSB SPO officer.
- Provides policy and procedural guidance to DSB maintenance-related commodity divisions.
- Provides advice to the DSB S-3 on maintenance unit assignment.
- Establishes maintenance data collection and staff analysis procedures.
- Assesses repair parts stockage requirements (authorized stockage list range and depth).
- Establishes maintenance procedures.
- Helps develop the division's policy on cannibalization and controlled exchange.
- Develops a salvage policy.

Maintenance Section Staff

B-95. To support the division, maintenance support branch personnel need to know maintenance requirements, the type of equipment requiring repair, and the current capability of division maintenance units. They recommend how to tailor the division's maintenance organizations to offset deficiencies. They use GCSS-Army maintenance reports to monitor projected maintenance of critical equipment.

B-96. Maintenance section personnel perform the deployment planning tasks listed on table B-8. Other staff areas of responsibility include—

- Developing maintenance portions of service support plans and orders.
- Recommending maintenance priorities.
- Establishing repair time guidelines.
- Developing the evacuation policy.

B-97. Maintenance section personnel continually coordinate with transportation branch personnel on the recovery and evacuation of unserviceable items to maintenance collection points. Maintenance section personnel continually coordinate with their staff counterparts in the DSB concerning maintenance work loads, repair time limits, and repair priorities.

Table B-8. Maintenance deployment planning tasks

Pre-Deployment
Provide input to the maintenance portions of division plans and orders.
Recommend serviceability standards for repairs.
Compile force equipment density data, including substitute items using supported unit modified table of organization and equipment.
Determine the requirements for maintenance units based on the materiel density across the division.
Monitor the equipment readiness status of subordinate units selected to deploy.
Monitor the availability of replacement items in subordinate maintenance units.
Assess the maintenance workload requirements of units to be supported.
Develop priorities for maintenance repairs.
Establish maintenance support priorities.
Determine special maintenance requirements such as missile, military intelligence systems, and test, measurement, and diagnostic equipment.
Deployment
Provide technical advice and assistance to subordinate deploying maintenance units.
Establish a deployment Department of Defense activity address code for all deploying maintenance units.
Ensure all deploying maintenance units possess their full authorization of equipment and supplies.
Coordinate with division sustainment brigade operations staff on location and facility requirements for maintenance units.
Staging
Coordinate the processing of incoming maintenance units.

B-98. Maintenance section personnel assigned to the support operations section ensure mission-critical items are maintained to meet future and current operational requirements. The maintenance section chief monitors the readiness status of command-controlled items. The maintenance section chief recommends allocations and criteria for controlled items.

SUSTAINMENT PREPARATION OF OPERATIONAL ENVIRONMENT

B-99. DSB maintenance personnel ensure that the DSB S-2 and S-3 are aware of maintenance priority intelligence requirements. They coordinate to obtain IPB products which impact planning, execution, and protection of maintenance support operations.

B-100. Maintenance section personnel can obtain data on the following areas from IPB products:

- Industrial capacity and resources in the division rear area.
- Locations of warehouses and industrial parks.
- Sources of electrical power.
- Concealment or cover noted on ground observation overlays.
- Data on building heights in urban areas.
- Built-up areas and congestion area overlay.

B-101. Maintenance personnel use IPB area evaluation products which describe the AO and friendly forces to assess maintenance work loads and recommend the number and placement of maintenance units on time-phased deployment lists. They use IPB threat evaluation and doctrine products and threat integration products to help plan how to employ and protect maintenance organizations.

COMMAND DETERMINATION

B-102. Before or early in the conflict, the division commander determines the priority and level of repair. Priority of repair should go toward equipment that can become combat serviceable with minimum manpower expenditure. Items that cannot be repaired under the established criteria are reported for later recovery or destroyed if necessary.

CANNIBALIZATION AND CONTROLLED EXCHANGE

B-103. Commanders determine whether to utilize battle damage assessment and repair on battle-damaged equipment when standard maintenance repairs are not practical. The commander may also approve the use of controlled exchange or cannibalization to meet repair parts requirements. Cannibalization is only utilized during combat operations. Commanders must clearly communicate the authority to use battlefield damage assessment and repair, controlled exchange, and cannibalization in the OPORD.

B-104. Cannibalization is the authorized removal of components from materiel designated for disposal. Extensively damaged equipment that is not economically repairable is usually designated as salvage. In spite of the damage, many serviceable parts and components are recoverable. Controlled exchange is the removal of serviceable components with the commander's authorization in accordance with AR 750-1 from unserviceable but economically reparable equipment for immediate reuse in restoring another like item of equipment to combat serviceable condition.

B-105. Table B-9 lists steps that maintenance management officers may recommend to offset maintenance capability shortfalls. The DSB SPO officer coordinates materiel management problems that require top-level decisions with the division G-4. AR 710-2 prescribes repairable management procedures.

Table B-9. Offsetting maintenance planning shortfalls

Major Component Shortages
Implement selected piece part repair.
Search for substitution items.
Establish collection and classification operations.
Authorize controlled exchange.
Delegate cannibalization to lower levels.
Move critical components by air.
Maintenance Personnel Availability
Cross-level workloads between units.
Task other maintenance units to provide contact teams.
Seek host-nation support.
Movement (Class IX or Equipment)
Cross-level transportation assets.
Fix forward to reduce evacuation requirements.
Divert assets from less critical missions.
Seek assistance from supported units.
Increase throughput.
Request host-nation support.

MANAGING MAINTENANCE OPERATIONS

B-106. DSB SPO officers oversee division maintenance operations. They use their maintenance sections and materiel management branches as a whole to bring parts and repair personnel together to restore combat power.

MAINTENANCE SECTION

B-107. The maintenance section in the DSB provides technical staff supervision through its interface with subordinate brigade maintenance staffs and the DSB's commodity sections. DSB maintenance management officers implement priorities established for maintenance of critical weapon systems. They monitor maintenance status of command-controlled items. Maintenance personnel monitor equipment status reports and data on class IX stocks. As necessary, they redirect the maintenance efforts of subordinate brigades. They indirectly manage maintenance by—

- Providing policy and procedural guidance to and coordinating the activities of maintenance managers in coordination with the division G-4.
- Recommending changes in mission assignment and allocation of maintenance surge teams.
- Recommending redistribution of maintenance support capability in response to changing tactical requirements.
- Recommending changes to maintenance repair time limitations based upon division priorities, maintenance workload, availability of repair parts, the tactical situation, and stockage of major assemblies.
- Coordinating the transportation branch to prioritize critical class IX and maintenance-related class II movements.
- Recommending changes in evacuation policies.
- Developing instructions for maintenance units relative to evacuation of unserviceable equipment requiring higher-level maintenance.
- Developing instructions on evacuation of unserviceable materiel and scrap.

- Authorizing repair of specific end items.
- Monitoring backlogs of critical items awaiting repair.
- Recommending tailoring of units and the forming of like sections from several units for high-priority maintenance to support regeneration operations.
- Recommending augmentation for maintenance units.
- Coordinating the evacuation of unserviceable end items, assemblies, and components to rear maintenance units.

DSB MAINTENANCE MANAGEMENT MISSION

B-108. The DSB provides routine day-to-day maintenance management following guidance and direction furnished by the DSB SPO and division G-4. DSB maintenance and materiel branch personnel focus maintenance and repair parts resources on the repair and return of critical weapon systems.

B-109. Personnel assigned to the DSB commodity sections implement the policies and plans of the DSB SPO. Depending on branch assignment, personnel—

- Collect and analyze maintenance and materiel status data.
- Analyze supply and maintenance support operations and apply corrective actions directed by the DSB SPO or subordinate branch chief.
- Coordinate and perform liaison functions with BSBs and the ESC.
- Maintain liaison with counterparts at supported non-division maintenance units and supply support activities.
- Direct the storage and distribution of class IX stocks.
- Review and analyze demands.
- Identify items which require intensive management.
- Review authorized stockage lists received from BSBs and non-division maintenance units.
- Analyze not mission capable maintenance backlog.
- Take action to satisfy authorized stockage list zero balance lines.
- Monitor the materiel readiness status of the command.
- Forecast maintenance requirements.
- Establish and coordinate repair priorities.
- Monitor repair parts usage and resulting not mission capable supply support problems.
- Monitor modification work orders.
- Cross-level maintenance unit workloads.
- Coordinate sustainment maintenance support to the division.
- Initiate actions to meet stockage objectives within guidelines from the division G-4.
- Coordinate stock status reporting procedures with subordinate DSB units.
- Perform inventory management functions for commodity items stored and distributed by applicable DSB units.
- Evaluate on-hand supply assets to determine if they are sufficient to accomplish the DSB's support mission.
- Maintain the stock record account.
- Evaluate the workload and capability of applicable DSB units.
- Cross-level workloads and resources to achieve compatibility.
- Coordinate movement requirements as required.
- Inform supply units of in-transit assets.

DIVISION MAINTENANCE ORGANIZATIONS

B-110. The DSB tailors its maintenance organization to perform rapid repair and return to the user. The primary focus is on repairing and returning weapon systems to the battlefield as quickly as possible. Figure

B-5 on page B-30 depicts the DSB's ground maintenance organizations on a notional battlefield. They include—

- Support maintenance companies.
- Maintenance surge teams.
- Composite supply companies.

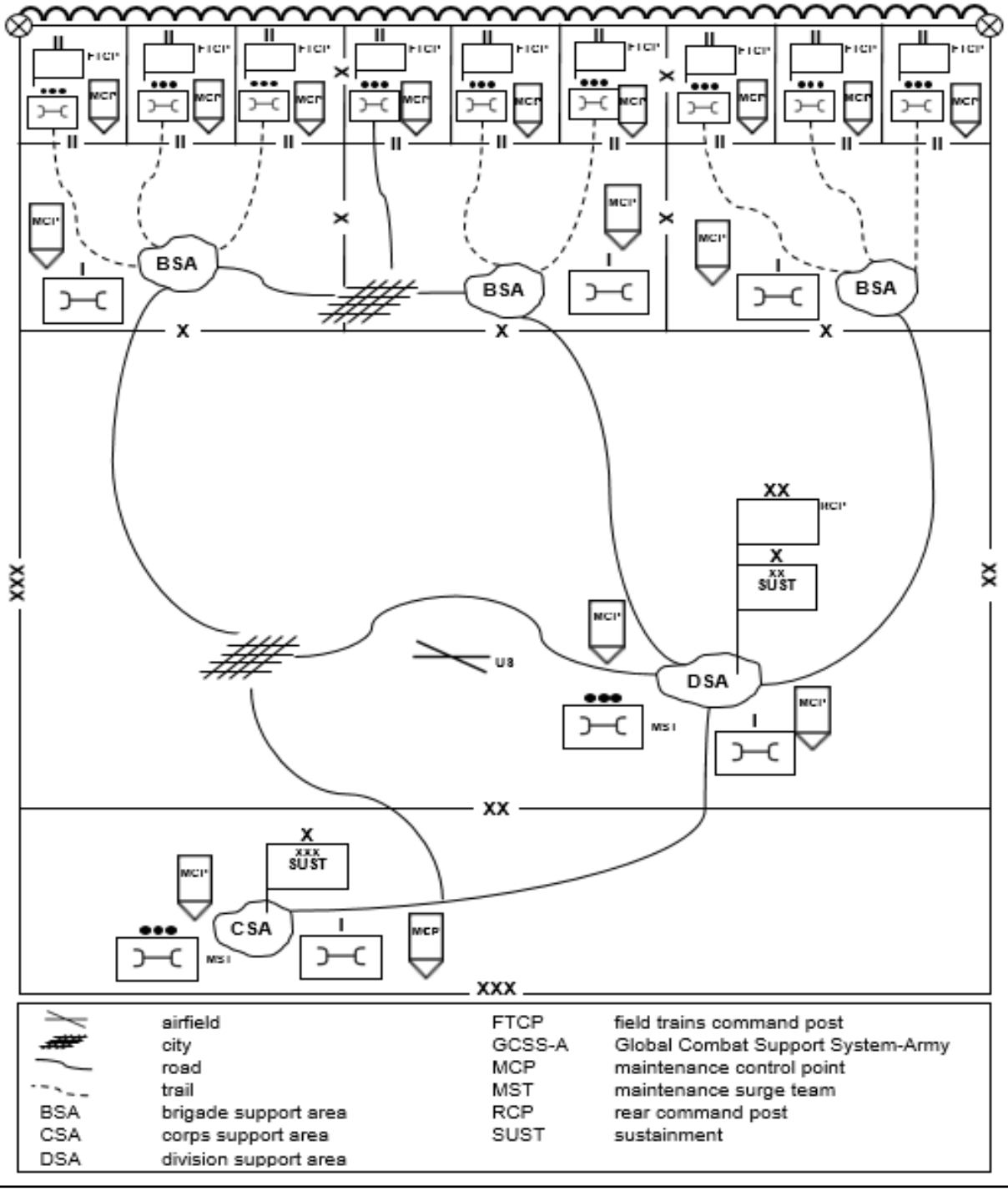
B-111. For more information on these units refer to chapter 2.

B-112. In the following example, a division comprises three armored BCTs, division artillery, DSB, an aviation brigade, and other supporting units. Based on typical allocations, each DSB receives a maintenance surge team. The DSB commander can decide to use the maintenance surge team in either one or two locations, allowing the commander to weight a main effort, respond to increased workloads in a BSB, or allow BSBs to evacuate maintenance work orders to the DSSB.

B-113. Anticipating the need to evacuate significant numbers of not mission capable equipment, the DSB commander also resources each CSSB with a composite truck company to provide the HET support required. This composite truck company also provides vital support to class III and class V operations in addition to evacuation of not mission capable equipment.

NOTES:

1. Maintenance companies in the BSA do not have the organic capability to repair combat systems.
2. The MST can operate as two section, but must be co-located with a maintenance unit for GCSS-Army access and Class IX requisitioning.
3. Maintenance hold times established at echelon will guide the level of repairs that a unit can accomplish.



	airfield	FTCP	field trains command post
	city	GCSS-A	Global Combat Support System-Army
	road	MCP	maintenance control point
	trail	MST	maintenance surge team
BSA	brigade support area	RCP	rear command post
CSA	corps support area	SUST	sustainment
DSA	division support area		

Figure B-5. Division maintenance array

ASSESSMENT, RECOVERY, AND EVACUATION SUPPORT

B-114. When opposing forces possess parity in the number and destructive capability of weapon systems, the side which can assess, recover, evacuate, repair, and return disabled weapon systems to battle the fastest gains a decided edge. The ability to perform these maintenance functions could become a decisive combat multiplier.

Battle Damage Assessment and Repair

B-115. Battle damage assessment and repair includes any expedient action that returns a damaged item or assembly to a mission capable or limited mission capable condition. Repairs are often temporary. They may not restore full system capability.

B-116. The objective is to return disabled combat equipment for support of a specific combat mission or to enable self-recovery. Maintenance personnel assess whether repairing the disabled item significantly impacts on the outcome of a combat mission. Operator, crew, and maintenance personnel perform battle damage assessment and repair by—

- Using shortcuts in parts removal or installation.
- Fabricating parts.
- Installing components from other vehicles.
- Bypassing noncritical components.
- Cannibalizing equipment.
- Using substitute fuels, fluids, or lubricants.

B-117. Battle damage assessment and repair manuals have been developed for major weapon systems. They are issued with the TM set for the weapon system. See ATP 4-31/MCRP 3-40E.1 for more information on battle damage assessment and repair.

Recovery and Evacuation

B-118. Owning units recover unserviceable equipment to the maintenance collection point established by their supporting forward support company. Recovery operations are often centrally managed at the battalion level. Based on mission variables, division and corps maintenance units provide recovery assistance on an area basis to units without a recovery capability.

B-119. Aerial recovery involves attaching the aircraft to airlift recovery equipment, connecting it to the lifting helicopter, and flying it to a maintenance collection point. Aircraft which cannot be repaired and flown out under their own power may need to be disassembled or modified for surface recovery. Aviation units use the organic lift capability of their aviation unit maintenance element. The aviation brigade tactical operations center has overall control of aircraft recovery.

B-120. Evacuation begins at the maintenance collection point. Evacuation needs to be coordinated among maintenance, supply, and transportation elements. Using automatic disposition instructions for certain items prevents delays in evacuating critical equipment. As appropriate, the DSB support operations branch coordinates transportation required to support evacuation operations.

B-121. The ESC evacuates items not reparable at the field maintenance level to sustainment maintenance forward repair activity units in the joint security area.

Repair Parts and Replacement Items Distribution Systems

B-122. Repair parts and replacement items are essential to returning weapon systems and damaged or inoperable major items to battle. Army aviation assets routinely move high-cost, low-density, critical repair parts as a part of the intratheater distribution system.

B-123. Class IX support for all ground and aviation maintenance comes through existing supply channels. Units order required class IX through GCSS-Army. Sustainment units at echelon conduct distribution operations to deliver required parts to fulfill these requisitions.

SECTION V – MEDICAL SUPPORT TO THE FORCE

B-124. HSS within a division AO is the responsibility of the division commander. The division surgeon, a member of the commander's personal and special staff, provides the medical control for the division commander as it relates to AHS support, which includes clinical, medical, and technical consultative services for assigned or attached medical units. The surgeon provides medical information, recommendations, and professional HSS advice to the division commander and to other staff and functional cells. The surgeon also plans, coordinates, and develops the division AHS plan and policies for the FHP and HSS missions.

HEALTH SERVICE SUPPORT IN THE DIVISION

B-125. HSS pertains to the treatment and MEDEVAC of patients from the battlefield and the required class VIII supplies, equipment, and services to necessary to sustain these operations. HSS encompasses three components: direct patient care, which includes medical treatment (organic and area support) and hospitalization, MEDEVAC to include medical regulating, and MEDLOG to include blood management. HSS also consists of the treatment of CBRN patients.

DIRECT PATIENT CARE

B-126. The mission set of direct patient care includes the medical functions of medical treatment (organic and area support, to include the treatment of CBRN patients) and hospitalization. Although these medical functions are aligned with specific tasks, the execution of the individual functions are interrelated, interconnected, and independent and require close coordination and integration from medical C2 elements. Refer to Chapter 6 and ATP 4-02.3, ATP 4-02.4, and ATP 4-02.10 for a more detailed description of direct patient care and the units responsible for executing it.

MEDICAL EVACUATION

B-127. MEDEVAC encompasses both the evacuation of Soldiers from the point of injury or wounding to an MTF staffed and equipped to provide essential care in the AO and further evacuation from the AO to provide definitive, rehabilitative, and convalescent care in continental U.S. Refer to Chapter 6 and ATP 4-02.2 for a more detailed description of the Army MEDEVAC system and the units responsible for executing it.

MEDICAL LOGISTICS

B-128. The Army's MEDLOG system (including blood management) provides intensive management of medical products and services that are used almost exclusively by the AHS and are critical to its success. MEDLOG capability anticipates the needs of the customer and is tailored to continuously provide end-to-end sustainment of the AHS mission throughout the competition continuum. Providing timely and effective AHS support is a team effort which integrates the clinical and operational aspects of the mission. Refer to Chapter 6 and ATP 4-02.1 for a more detailed description of the Army MEDLOG system and the units responsible for executing it.

PLANNING HEALTH SERVICE SUPPORT

B-129. The HSS support plan in Annex F (Sustainment) Appendix 3 (HSS) is designed to support the operational commander's scheme of maneuver while still retaining a focus on the delivery of health care.

B-130. The rationale for medical operational planning factors is based on the prevention of diseases and injuries and the evolving clinical concept that demonstrates that with timely and adequate medical care, the trauma victim's chances of survival are greatly improved.

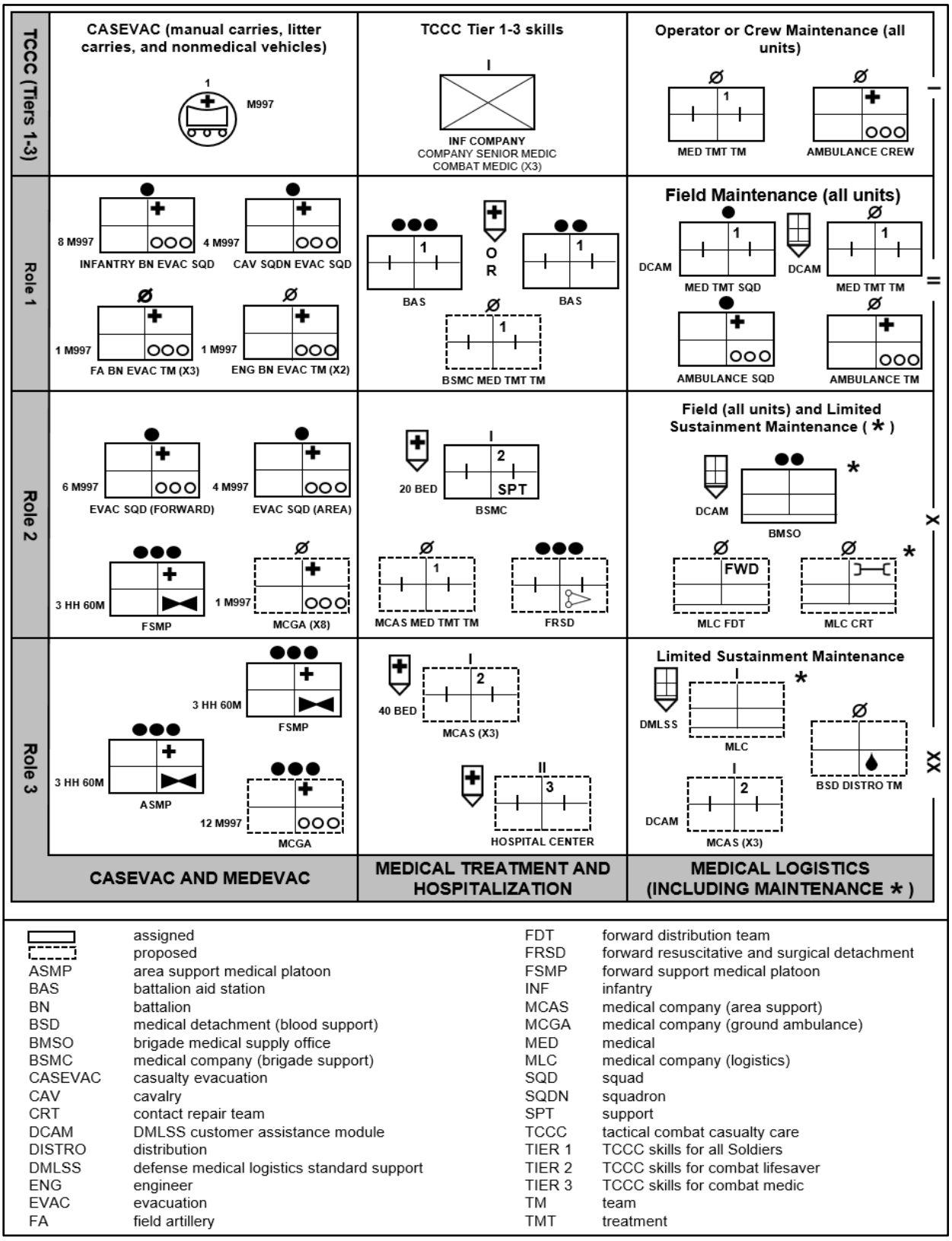
B-131. Commanders and medical planners should apply the following Army medical operational planning factors in order of precedence for establishing HSS priorities in support of operations. The Army medical operational planning factors are—

- Be there — maintain a medical presence with the Soldier.

- Maintain the health of the command.
- Save lives.
- Clear the battlefield of casualties.
- Provide state of the art medical care.
- Ensure early return to duty. *Return to duty* is a patient disposition which, after medical evaluation and treatment when necessary, returns a Soldier for duty in his unit. (FM 4-02).

B-132. These medical operational planning factors guide commanders and medical planners in designing HSS for the tactical commander. Although medical personnel always seek to provide the full range of HSS in the best manner possible, during every combat operation there are inherent possibilities of conflicting support requirements.

B-133. Figure B-6 on page B-34 depicts an example of division-level HSS broken down by echelon, medical function, and role of care. This example depicts HSS at each echelon within the division and the types of medical units and capabilities (assigned and proposed) within each medical function and role of care.



assigned	
proposed	
ASMP	area support medical platoon
BAS	battalion aid station
BN	battalion
BSD	medical detachment (blood support)
BMSO	brigade medical supply office
BSMC	medical company (brigade support)
CASEVAC	casualty evacuation
CAV	cavalry
CRT	contact repair team
DCAM	DMLSS customer assistance module
DISTRO	distribution
DMLSS	defense medical logistics standard support
ENG	engineer
EVAC	evacuation
FA	field artillery
FDT	forward distribution team
FRSD	forward resuscitative and surgical detachment
FSMP	forward support medical platoon
INF	infantry
MCAS	medical company (area support)
MCGA	medical company (ground ambulance)
MED	medical
MLC	medical company (logistics)
SQD	squad
SQDN	squadron
SPT	support
TCCC	tactical combat casualty care
TIER 1	TCCC skills for all Soldiers
TIER 2	TCCC skills for combat lifesaver
TIER 3	TCCC skills for combat medic
TM	team
TMT	treatment

Figure B-6. Health service support at echelon within the division

DIRECT PATIENT CARE

B-134. Direct patient care includes the medical treatment and hospitalization medical functions. The medical treatment function encompasses Roles 1 and 2 medical treatment support and includes the treatment of CBRN patients. Role 1 medical treatment is provided by the combat medic in the maneuver platoon or by a provider in the Role 1 battalion aid station. Role 2 medical care provides greater resuscitative capability than is available at Role 1 and is rendered by the BSMC in the BSB or by the MCAS, which is an EAB asset. The hospitalization medical function is centered on the Role 3 hospital and the surgical, medical, medical holding detachments and teams that augment it. Chapter 6 covers the units that perform direct patient care. For additional information on direct patient care, refer to FM 4-02, ATP 4-02.3, ATP 4-02.4, and ATP 4-02.10.

MEDICAL TREATMENT PRIMARY TASKS AND PURPOSES

B-135. Figure B-7 on page B-36 graphically depicts Role 1 and 2 medical treatment in the division. The medical treatment medical function is responsible for the following tasks:

- **Provide Tactical Combat Casualty Care**—Provide lifesaving intervention at the point of injury or wounding and decrease killed-in-action rate. This task is performed by nonmedical Soldiers performing tier 1 (self-aid, buddy aid) or tier 2 (combat lifesaver) support prior to arrival of the combat medic or other health care personnel. Tier 3 is performed by the combat medic who locates, acquires, stabilizes, and evacuates patients with combat trauma. At EAB, this task is referred to as emergency medical treatment in noncombat operations.
- **Provide Forward Resuscitative Surgery**—Provide a damage control surgery capability close to the point of injury or wounding. This care is provided by a forward resuscitation and surgical detachment collocated with a Role 2.
- **Conduct Routine Sick Call**—Provide primary care services as close to patient's unit as possible.
- **Provide Patient Holding**—Provide a short-term holding capability (not to exceed 72 hours) for patients requiring minimal care prior to returning to duty.
- **Promote Casualty Prevention Measures**—Promote wellness and enhance Soldier medical readiness to decrease morbidity and mortality. There are no operational public health or COSC assets at Role 1; however, they are available at Role 2.
- **Provide MEDEVAC**—Provide MEDEVAC by ground ambulance on an area support basis and to provide en route medical treatment during transport.
- **Provide Physical Therapy**—Role 2 medical treatment facilities may be augmented with a physical therapy team to provide assistance in strengthening Soldiers' physical resiliency, assisting in the prevention of neuromusculoskeletal injuries, and treating Soldiers with neuromusculoskeletal injuries, allowing them to return to duty as soon as possible.

HOSPITALIZATION PRIMARY TASKS AND PURPOSES

B-136. A Role 3 hospital in the division echelon is dependent upon mission variables but is normally a 32-bed field hospital. Though other augmentation detachments may accompany the field hospital, it still bears the responsibility for providing robust primary inpatient care, outpatient services, triage and emergent care (including emergency and essential dental care), enhanced medical, surgical (general and specialty), anesthesia, and ancillary services. It also provides increased capabilities to perform damage control resuscitation and damage control surgery. Figure B-7 on page B-36 graphically depicts the Role 3 hospital in the division. A Role 3 hospital is also responsible for providing the following hospitalization medical function tasks and purposes:

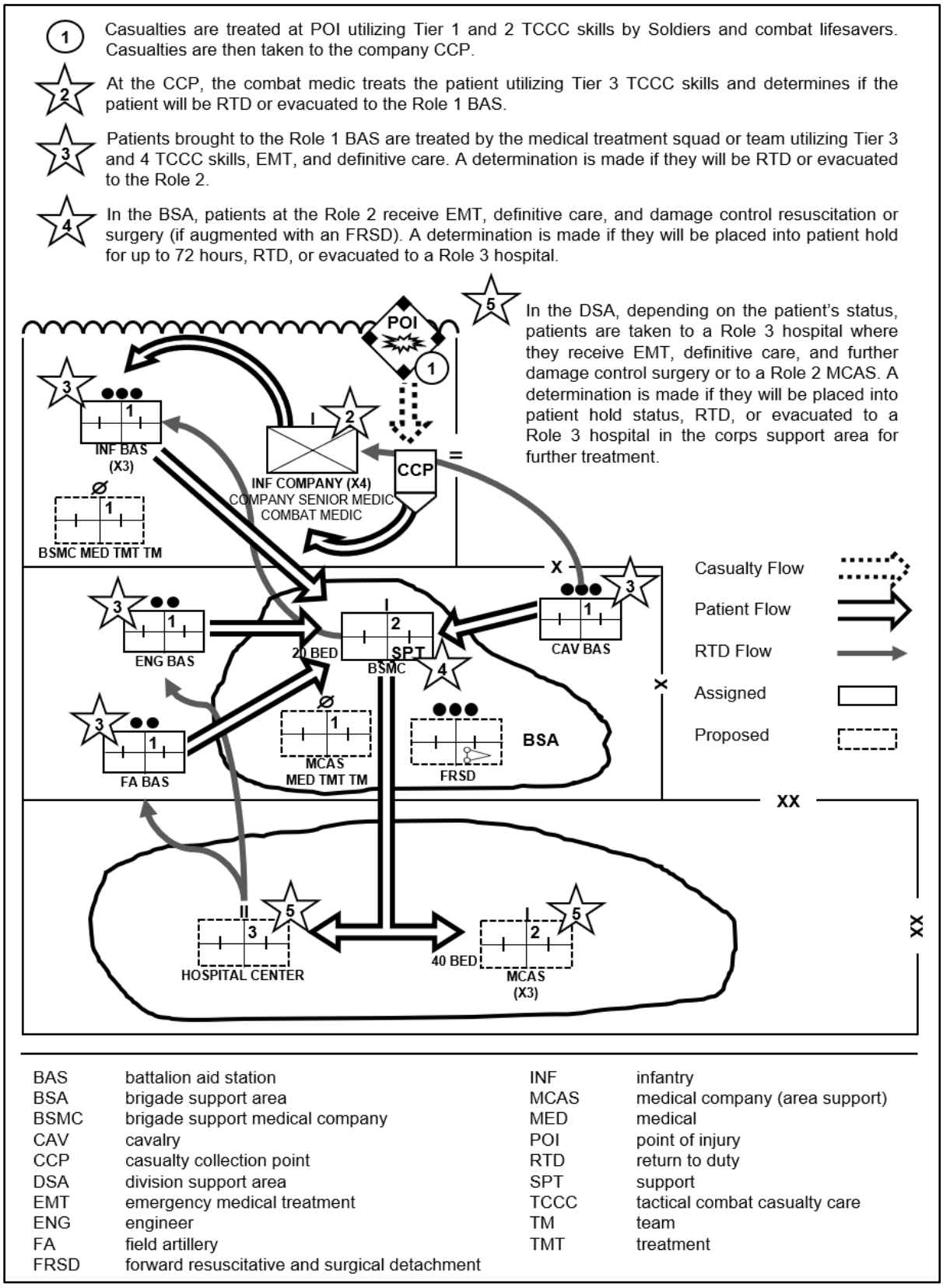
- **Pharmacy, Laboratory, and X-Ray Support**—Includes three sub tasks:
  - Provide Pharmacy Support—Operates a fully functioning pharmacy and exercises appropriate control, accountability, and distribution of medications and controlled substances to both inpatients and outpatients as prescribed by medical staff.
  - Perform Clinical Laboratory and Blood Banking—Performs analytical procedures in hematology, urinalysis, chemistry, blood banking, and microbiology screening. Includes all

routine blood grouping and typing, abbreviated cross-matching procedures, emergency blood collection, and storage and issuing liquid blood components and fresh frozen plasma.

- Provide Radiology Services—Provides radiological services to all areas of the hospital and operates on a 24-hour basis to include computed tomography in the field hospitals.

- **Conduct Physical Therapy**—Provides a physical-occupational clinic to evaluate and treat neuromusculoskeletal injuries, minor soft tissue wounds to include burn wound treatment, behavioral health, injury prevention, and human performance optimization.
- **Provide MEDLOG** —Provides class VIII management, requisitioning, and resupply as well as maintenance on medical equipment of the Role 3 hospital. Coordinates with supporting MLC and medical detachment (blood support) for required external MEDLOG support of the Role 3 and for distribution with the distribution management center for delivery of supplies.
- **Manage Nutrition Care**—Provides food service management, meal preparation, modified diet food preparation, and distribution of foods to patients and staff.
- **Provide Behavioral Health Services**—Provides outpatient psychiatry and inpatient neuropsychiatric consultation and education services.
- **Provide Patient Administration Services**—Manages admission and disposition of patients, maintaining patient records, security of patient valuables, statistical reporting, patient privacy policies, and coordination for patient evacuation out of theater.
- **Provide Medical Consultation Support**—Provides specialty medical consultation to Role 1 and 2 medical providers to enhance the care given in forward areas, potentially eliminating the need to evacuate some patients rearward.

B-137. Figure B-7 illustrates direct patient care (medical treatment and hospitalization medical functions) from point of injury through the DSA.



BAS	battalion aid station	INF	infantry
BSA	brigade support area	MCAS	medical company (area support)
BSMC	brigade support medical company	MED	medical
CAV	cavalry	POI	point of injury
CCP	casualty collection point	RTD	return to duty
DSA	division support area	SPT	support
EMT	emergency medical treatment	TCCC	tactical combat casualty care
ENG	engineer	TM	team
FA	field artillery	TMT	treatment
FRSD	forward resuscitative and surgical detachment		

Figure B-7. The medical treatment function within the division

MEDICAL EVACUATION (INCLUDING MEDICAL REGULATING)

B-138. *Medical evacuation* is the timely and effective movement of the wounded, injured, or ill to and between medical treatment facilities on dedicated and properly marked medical platforms with en route care provided by medical personnel (ATP 4-02.2). The provision of en route care on medically equipped vehicles or aircraft enhances the patient's potential for survival and recovery and may reduce long-term disability. For more information on MEDEVAC, refer to ATP 4-02.2.

B-139. The mission of Army MEDEVAC assets in the corps and division is the evacuation and provision of en route medical care. MEDEVAC functions also include the emergency movement of medical personnel, equipment, and supplies (this includes class VIII, blood, and blood products) and to serve as messengers in medical channels.

B-140. Army MEDEVAC is a multifaceted mission accomplished by a combination of dedicated ground and air evacuation platforms synchronized to provide direct support, general support, and area support within the AO. At the operational level, organic or direct support MEDEVAC resources acquire and locate, treat and stabilize, and conduct intratheater MEDEVAC of Soldiers from the point of injury or wounding to an MTF staffed and equipped to provide essential care within the AO.

B-141. The MEDEVAC medical function is responsible for the following tasks:

- **Acquire and Locate**—Provide a rapid response to acquire wounded, injured, and ill personnel. Clear the battlefield of casualties and facilitate and enhance the tactical commander's freedom of movement and maneuver. This task is performed by the MEDEVAC crew of the evacuation platform.
- **Treat and Stabilize**—Maintain or improve the patient's medical condition during transport and provide en route care as required. This task is performed by MEDEVAC crewmembers and providers when necessary.
- **Provide Intra-theater MEDEVAC**—Provide rapid evacuation utilizing dedicated assets to the most appropriate role of care. Provide a capability to cross-level patients within the theater hospitals and to transport patients being evacuated out of theater to staging facilities prior to departure. This task is performed by the evacuation platforms in the medical company (ground ambulance) and medical company (air ambulance).
- **Provide Emergency Movement of Medical Personnel, Equipment, and Supplies**—Provide a rapid response for the emergency movement of scarce medical resources throughout an OE.

B-142. Figure B-8 follows a Soldier throughout the evacuation system from point of injury through the DSA.

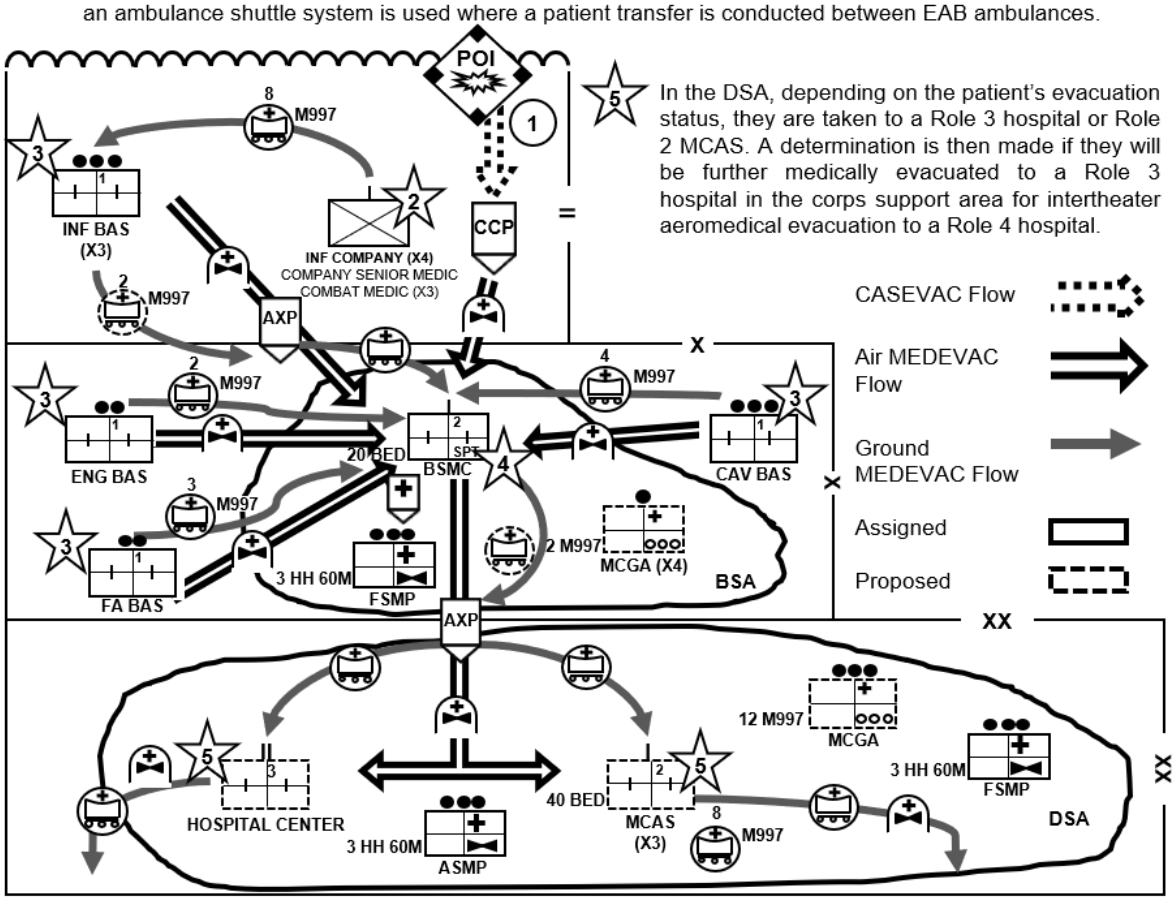
1 Casualties are treated and then evacuated from POI utilizing CASEVAC and taken to the CCP. In certain scenarios overflight of roles of care is authorized.

2 At the company CCP, the combat medic treats the patient and determines if the patient will be medically evacuated to the Role 1 BAS. The combat medic then packages the patient for MEDEVAC or CASEVAC. The evacuation squad or team then evacuate the patients to the Role 1 BAS.

3 Patients are brought to the Role 1 BAS and treated. A determination is made if they will be medically evacuated (ground or air) to the Role 2. The Role 1 BAS then packages the patient for MEDEVAC. Using aeromedical evacuation or Role 2 ambulances collocated at the Role 1 BAS, patients are evacuated. If by ground MEDEVAC, an ambulance shuttle system is utilized where a patient transfer is conducted between Role 2 ambulances.

4 Patients are then received at the Role 2 via ground or air evacuation. At the Role 2 a determination is made if they will be further medically evacuated (ground or air) to a Role 3 hospital. Utilizing aeromedical evacuation or EAB ambulances collocated at the Role 2, patients are evacuated. If by ground MEDEVAC, an ambulance shuttle system is used where a patient transfer is conducted between EAB ambulances.

5 In the DSA, depending on the patient's evacuation status, they are taken to a Role 3 hospital or Role 2 MCAS. A determination is then made if they will be further medically evacuated to a Role 3 hospital in the corps support area for intertheater aeromedical evacuation to a Role 4 hospital.



ASMP	area support medical platoon	ENG	engineer
AXP	ambulance exchange point	FA	field artillery
BAS	battalion aid station	FSMP	forward support medical platoon
BSA	brigade support area	INF	infantry
BSMC	brigade support medical company	MCAS	medical company (area support)
CASEVAC	casualty evacuation	MCGA	medical company (ground ambulance)
CAV	cavalry	MEDEVAC	medical evacuation
CCP	casualty collection point	POI	point of injury
DSA	division support area	SPT	support
EAB	echelon above brigade		

Figure B-8. The medical evacuation function within the division

MEDICAL LOGISTICS (INCLUDING BLOOD MANAGEMENT)

B-143. The MEDLOG system includes planning, coordinating, and executing all class VIII supply support operations to include management of the following functions: medical materiel (class VIIIA), medical equipment maintenance and repair, patient movement items, medical gases, blood (class VIIIB) storage and distribution, regulated medical waste (including hazardous material), health facilities planning and management, and medical contracting

B-144. The MEDLOG function encompasses a system for planning, coordinating, and executing all class VIII supply and distribution support. The system is anticipatory with select units capable of operating in a split-based mode. For more information on MEDLOG, refer to FM 4-02 and ATP 4-02.1. Medical units are the predominant driver of MEDLOG demands within the division as AHS priorities drive MEDLOG priorities for support.

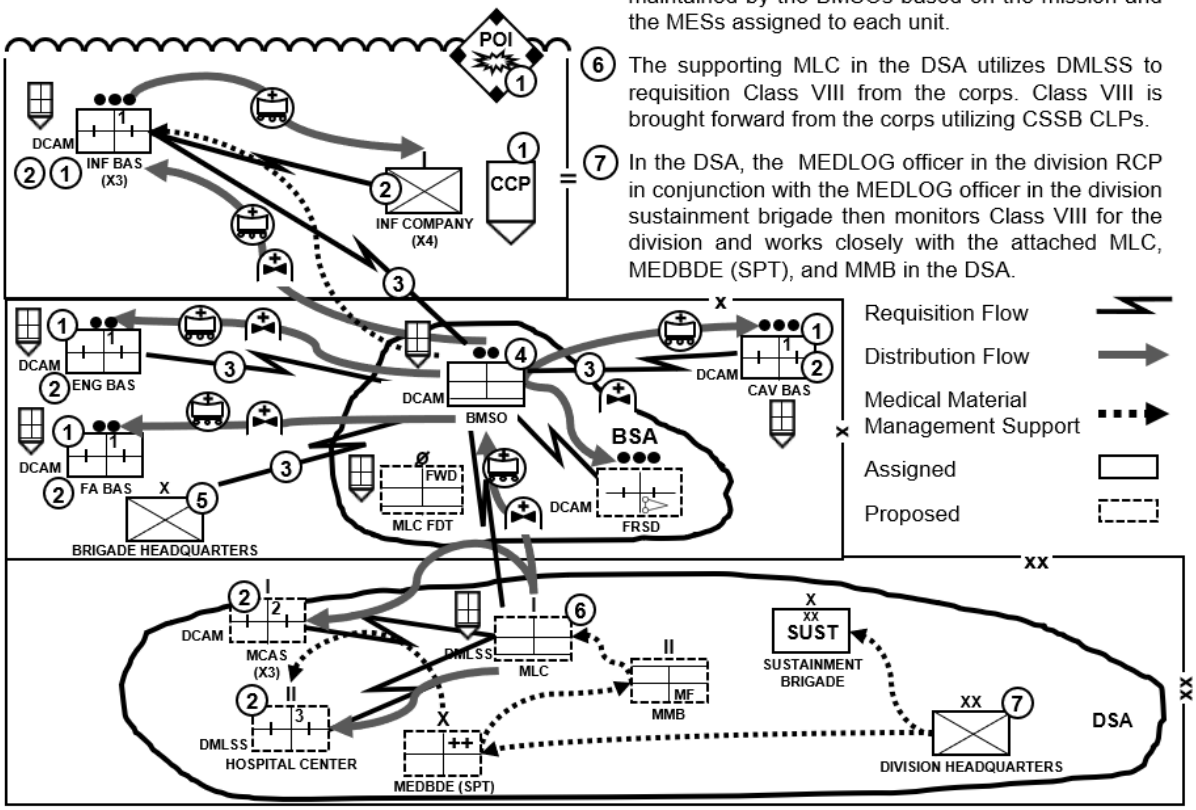
MEDICAL LOGISTICS PRIMARY TASKS AND PURPOSES

B-145. Within division-level HSS, the MEDLOG medical function is responsible for the following tasks:

- **Conduct class VIII Management and Coordinate Distribution**—Provide intensive management and coordinated distribution of specialized medical products and services required to operate an integrated AHS anywhere in the world in peace and throughout the competition continuum. Refer to figure B-9 on page B-40.
- **Perform Medical Equipment Maintenance and Repair**—Perform appropriate maintenance checks, services, repairs, and tests on medical equipment set component equipment items as specified in applicable technical manuals or manufacturer operating instructions. Refer to figure B-10 on page B-43.
- **Conduct Optical Fabrication and Repair**—Fabricate and repair prescription eyewear that includes spectacles, protective mask inserts, and similar ocular devices for eligible personnel in accordance with applicable Army policies and regulations.
- **Provide Blood Management (and Coordination for Distribution)**—Provide collection, manufacturing, storage, and distribution of blood and blood products to EAB AHS units. Provide coordination for distribution of blood and blood products to Role 2 medical treatment facilities and forward surgical teams through the distribution management center.
- **Perform Centralized Management of Patient Movement Items**—Support in-transit patients, exchange in-kind patient movement items without degrading medical capabilities, and provide prompt recycling of patient movement items from initial movement to the patient's final destination.
- **Ensure Hazardous Medical Waste Management and Disposal**—Ensure the proper collection, control, transportation, and disposal of regulated medical waste in accordance with applicable Army and host-nation policies and regulations.
- **Ensure Coordination, Production, and Distribution of Medical Gases**—Ensure the coordination, production, receipt, storage, use, inspection, transportation, and handling of medical gases and their cylinders in accordance with all applicable regulations.

B-146. Figure B-9 showcases the class VIII requisition process, distribution flow, and the medical materiel management support network from point of injury through the DSA.

1. Class VIII is expended by Soldiers, combat lifesavers, and combat medics at POI and at the CCP.
2. After treating and evacuating patients, the company senior medic or medical leadership determines the amount of Class VIII consumed between the Soldier's individual first aid kit and MES and includes it in the unit logistics resupply report (LOGRESREP), medical situation report (MEDSITREP), or medical status report (MEDSTAT) and ensures a copy is sent to the Role 1 BAS.
3. The Role 1 BAS utilizes DCAM and requests resupply of Class VIII. The resupply will go to the Role 2 BSMC BMSO in the BSA. The BMSO fills the supply request, builds Class VIII push packages, and utilizes ground and air ambulance backhaul or FSC CLPs to resupply the Role 1 BAS.
4. The BMSO, which normally maintains 100-300 lines items of Class VIII, receives the resupply request from the Role 1 BAS and utilizes DCAM to order the Class VIII from the MLC located in the DSA. A FDT from the MLC may be attached to Role 2 BSMC to augment medical logistics operations within the brigade combat team.
5. In the BSA, the brigade surgeon determines the ASL maintained by the BMSOs based on the mission and the MESs assigned to each unit.
6. The supporting MLC in the DSA utilizes DMLSS to requisition Class VIII from the corps. Class VIII is brought forward from the corps utilizing CSSB CLPs.
7. In the DSA, the MEDLOG officer in the division RCP in conjunction with the MEDLOG officer in the division sustainment brigade then monitors Class VIII for the division and works closely with the attached MLC, MEDBDE (SPT), and MMB in the DSA.



ASL	additional stockage list	FRSD	forward resuscitative and surgical detachment
BAS	battalion aid station	FSC	forward support company
BMSO	brigade medical supply office	FWD	forward
BSA	brigade support area	INF	infantry
BSMC	brigade support medical company	MCAS	medical company (area support)
CAV	cavalry	MEDBDE (SPT)	medical brigade (support)
CCP	casualty collection point	MEDLOG	medical logistics
CLP	combat logistics patrol	MES	medical equipment set
CSSB	combat support sustainment battalion	MF	multifunctional
DCAM	DMLSS customer assistance module	MLC	medical company (logistics)
DMLSS	defense medical logistics standard support	MMB	medical battalion (multifunctional)
DSA	division support area	POI	point of injury
ENG	engineer	RCP	rear command post
FA	field artillery	SUST	sustainment
FDT	forward distribution team		

Figure B-9. The medical logistics function within the division

Medical Maintenance at Role 1

B-147. At the Role 1 battalion aid station, operator maintenance is performed on assigned equipment and a medical maintenance support plan is established and coordinated with the Role 2 BSMC. The Role 1 is authorized several types of medic equipment sets that contain multiple maintenance significant items. When a repair is needed, the Role 1 reports the equipment status immediately to the BMSO. The medical equipment is then transported to the BSMC via logistics or medical vehicle, if available. If the medical equipment cannot be evacuated to the BSMC, a contact repair team from the MLC will be dispatched to diagnose and remedy the fault through on-system repair or by issuing a medical maintenance regeneration enabler. Any medical element operating in the sustainment area of the supported BCT will follow these procedures.

Medical Maintenance at Role 2

B-148. The BSMC's BMSO provides primary field maintenance for the company and may provide emergency medical equipment maintenance for the medical platoons in the BCT. The BMSO provides medical equipment maintenance, medical equipment reporting, and oversight for all medical equipment within the brigade. Units within the BCT that do not have organic medical equipment maintenance and repair capabilities are required to coordinate with the BMSO for field maintenance support. Units in the BCT must also coordinate with the BMSO for sustainment maintenance support, which is provided by the MLC contact repair teams through the supporting MMB. The BMSO carries minimal class VIII repair parts in support of the brigade. When required, class VIII repair parts are requested from the supporting MLC. All medical equipment within the brigade shall be reported through the theater-approved automated information system to the supporting MLC.

B-149. The biomedical equipment specialist at the BSMC is responsible for field maintenance (scheduled and unscheduled) on medical equipment within the brigade. The biomedical equipment specialist also maintains patient movement item assets as deemed necessary and—

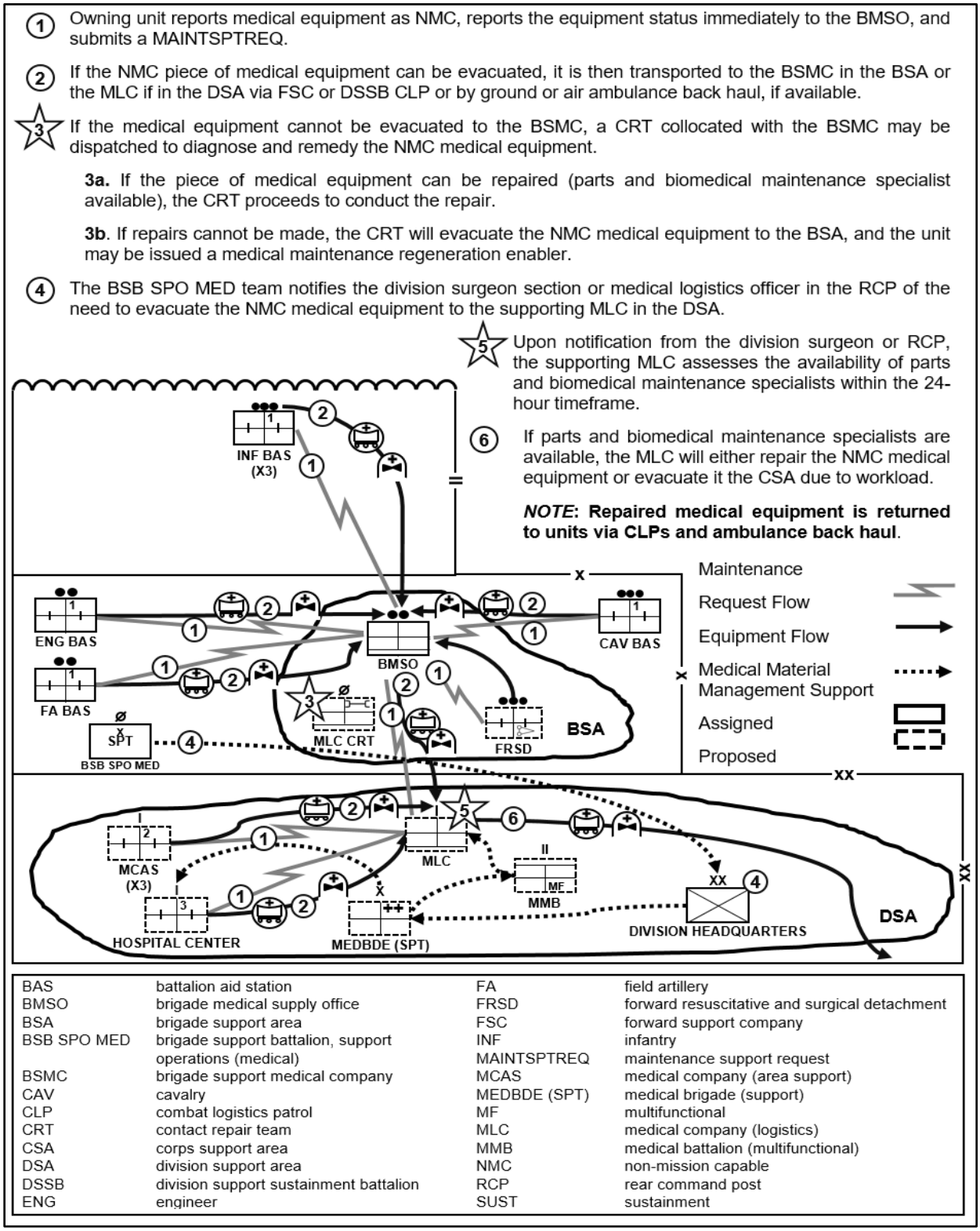
- Troubleshoots the equipment in accordance with the maintenance allocation chart and the original equipment manufacturer service literature.
- Repairs and returns the equipment if the repair is within the scope of field maintenance and the parts are on hand.
- Turns the equipment in to the battalion or brigade S-4 for evacuation to the MLC if the repair exceeds field-level capabilities.
- Coordinates with the supporting MLC for medical maintenance regeneration enablers if the equipment is a critical item.
- Generates a parts requisition through MEDLOG channels if a part is needed and the equipment is not a critical item.

B-150. When the BSMC is deployed and an FRSD is attached, a contact repair team is dispatched from the MLC to the BSMC's location to assist the unit biomedical equipment specialist in providing the necessary medical equipment maintenance and repair support. The contact repair team remains with the BSMC as long as the FRSD is forward engaged to provide the necessary medical equipment maintenance and repair support to all units in the BCT AO. The contact repair team can also be called forward of the BSMC to support MEDEVAC platforms and other medical assets, then return to the BSMC location once repairs are made.

Medical Maintenance at Role 3

B-151. The biomedical equipment specialists and the health services maintenance technician at the Role 3 hospital are responsible for field maintenance of medical equipment assigned or attached to the Role 3, including the FRSD that is collocated with the Role 3 when it is not deployed to supported units. When deployed, the FRSD is collocated with a Role 2 and receives medical maintenance support through that company and the MLC covering that supported area. The Role 3 provides limited field maintenance for special and augmentation medical equipment on an area basis. Medical elements assigned or attached to the Role 3 may include head and neck teams (computed tomography scan), ambulance squads, and treatment teams. The Role 3 also maintains automated maintenance records on assigned medical equipment and supported medical units or elements in the approved medical maintenance management system. The MLC provides augmentation support for sustainment maintenance and biomedical equipment specialists at the Role 3.

B-152. Figure B-10 depicts the medical maintenance system embedded within the division echelon from identifying medical non-mission capable equipment to submitting the maintenance support request and the equipment flow as it works through the system.



BAS	battalion aid station	FA	field artillery
BMSO	brigade medical supply office	FRSD	forward resuscitative and surgical detachment
BSA	brigade support area	FSC	forward support company
BSB SPO MED	brigade support battalion, support operations (medical)	INF	infantry
		MAINTSPTREQ	maintenance support request
BSMC	brigade support medical company	MCAS	medical company (area support)
CAV	cavalry	MEDBDE (SPT)	medical brigade (support)
CLP	combat logistics patrol	MF	multifunctional
CRT	contact repair team	MLC	medical company (logistics)
CSA	corps support area	MMB	medical battalion (multifunctional)
DSA	division support area	NMC	non-mission capable
DSSB	division support sustainment battalion	RCP	rear command post
ENG	engineer	SUST	sustainment

Figure B-10. The medical maintenance function within the division

MEDICAL LOGISTICS COMPANY

B-153. The MLC is responsible for maintaining medical maintenance regeneration enablers and patient movement items, deploying contact repair teams, and providing field and limited sustainment maintenance to units within the BCT and EAB areas, including blood support detachments and units operating within the area without organic biomedical equipment specialists. Equipment is evacuated through supply channels to the MLC if repairs exceed the field and sustainment maintenance level in accordance with the maintenance allocation chart or as defined in AR 750-1 or AR 40-61. Parts are requisitioned through MEDLOG channels.

MEDICAL MATERIEL MANAGEMENT SUPPORT ELEMENTS

B-154. The MMB and MEBBDE (SPT) provide medical materiel management support.

Medical Battalion (Multifunctional)

B-155. The MMB provides MEDLOG oversight and medical mission command to include—

- Providing transportation.
- Facilitating in-transit visibility of class VIII repair parts and equipment.
- Providing medical contact repair team missions.
- Ensuring medical equipment quality control for units task-organized under the MMB.
- Establishing medical maintenance priorities for equipment repair or exchange.
- Monitoring maintenance distribution flow for supported units' medical equipment maintenance.
- Coordinating electronics, calibration, and automotive maintenance operations.
- Directing the cross-leveling of medical assets (parts or equipment).
- Contracting medical maintenance support and integrating host-nation support as required.
- Assisting in medical equipment readiness sustainment and reporting.
- Ensuring viable medical equipment maintenance.
- Ensuring that biomedical equipment specialist training programs are in place.

Medical Brigade (Support)

B-156. The medical equipment maintenance personnel in the MEDBDE (SPT)—

- Conduct planning and provide direction and guidance for medical equipment maintenance and unit maintenance programs for the MEDBDE (SPT).
- Develop and evaluate brigade maintenance policies, training, and maintenance support resources in support of the theater mission plan.
- Manage repair parts and maintenance for all medical equipment within the MEDBDE (SPT).
- Compile operational status reports and direct the disposition of unserviceable medical equipment.

Appendix C

Tactical Sustainment Steps and Procedures During MDMP

Sustainment planning in large-scale combat operations requires working with imperfect data to rapidly get to a decision that is feasible, acceptable, and executable. Tactical sustainment steps and procedures during MDMP provide a practical application of all the tenants of mission command and the proven Army process of MDMP.

GENERAL

C-1. Tactical sustainment steps and procedures during MDMP provide a tailored approach to iterative MDMP planning methodology for sustainers to understand the situation and mission, develop a concept of support (course of action), and produce or assist in producing an operation plan or order. Tactical sustainment steps and procedures during MDMP were developed for sustainment planners to rapidly identify sustainment constraints or factors during mission analysis that inform course of action development to ensure feasibility. Rapid and early identification of sustainment constraints or factors enables early resource coordination with higher sustainment echelons, which reduces sustainment planning timelines.

C-2. In planning and preparation phases of operations, the command and staff consider various factors that ultimately determine the concept of the operation and scheme of maneuver for friendly forces. It is critical that sustainment planners are linked into the planning early with clear outputs for each step of MDMP that support command and staff planning efforts.

C-3. Sustainment planners must know the taxonomy of Army tactics and understand the sustainment requirements of tactical tasks. Understanding Army tactics provides the sustainment planner with a baseline of understanding concerning the maneuver requirements during mission analysis to anticipate the requirements that will be developed during course of action development (see table C-1 on page C-2).

Table C-1. Taxonomy of Army Tactics

<table>
<tr><th colspan="5">Elements of Decisive Action</th></tr>
<tr>
<td>Offensive operations
Movement to Contact
• Search and Attack
• Cordon and Search
Attack
• Ambush
• Counterattack
• Demonstration
• Feint
• Raid
• Spoiling attack
Exploitation
Pursuit
• Frontal
• Combination</td>
<td>Defensive operations
Area Defense
Mobile Defense
Retrograde
• Delay
• Withdraw
• Retirement</td>
<td>Stability operations tasks
Establish civil security
Support to civil control
Restore essential services
Support to governance
Support to economic and infrastructure development
Conduct security cooperation</td>
<td colspan="2">Defensive support of civil authorities tasks
Provide support for domestic disasters
Provide support for domestic chemical, biological, radiological, and nuclear incidents
Provide support for domestic civilian law enforcement agencies
Provide other designated domestic support</td>
</tr>
<tr><th colspan="5">Enabling operations</th></tr>
<tr>
<td>Reconnaissance
Area
Reconnaissance in force
Route
Special
Zone</td>
<td>Passage of lines
Forward
Rearward
Troop movement
Administrative movement
Approach march
Tactical road march</td>
<td>Relief in place
Sequential
Simultaneous
Staggered</td>
<td colspan="2">Security
Screen
Guard
Cover
Area</td>
</tr>
<tr><th colspan="5">Tactical Mission Tasks</th></tr>
<tr>
<td>• Ambush
• Attack by fire
• Block
• Breach
• Bypass
• Canalize</td>
<td>• Clear
• Contain
• Control
• Counter reconnaissance
• Destroy
• Defeat</td>
<td>• Disengagement
• Disrupt
• Exfiltration
• Fix
• Follow and assume
• Follow and support</td>
<td>• Interdict
• Isolate
• Neutralize
• Occupy
• Reduce
• Retain</td>
<td>• Secure
• Seize
• Support by fire
• Suppress
• Turn</td>
</tr>
<tr><th colspan="5">Forms of Maneuver and Forms of the Defense</th></tr>
<tr>
<td colspan="2">• Envelopment
• Frontal assault
• Infiltration
• Penetration
• Turning movement</td>
<td colspan="3">• Defense of a linear obstacle
• Perimeter defense
• Reverse slope defense</td>
</tr>
</table>

C-4. The tactical sustainment steps and procedures during the MDMP process are listed below:

- Step #1 – Receipt of Mission.
- Step #2 – Mission Analysis.
- Step #3 – Develop the Sustainment Concept of Support and Annex F.

- Step #4 – Initiate Sustainment Preparation Activities.

C-5. Each step has inputs, sub-steps, and outputs. The outputs lead to an increased understanding of the situation and facilitate the next step of the process.

STEP 1: RECEIPT OF MISSION

C-6. During step 1 of the tactical sustainment steps and procedures during MDMP, sustainment planners rapidly conduct the initial assessment of the mission with a specific focus on current sustainment stocks, their operational limitations, and assigned maneuver mission and tactical tasks. This analysis enables the sustainment planner and effectively and efficiently identify the unit capabilities, limitations, maneuver unit assigned missions, and a rough estimate of sustainment requirements. See figure C-1.

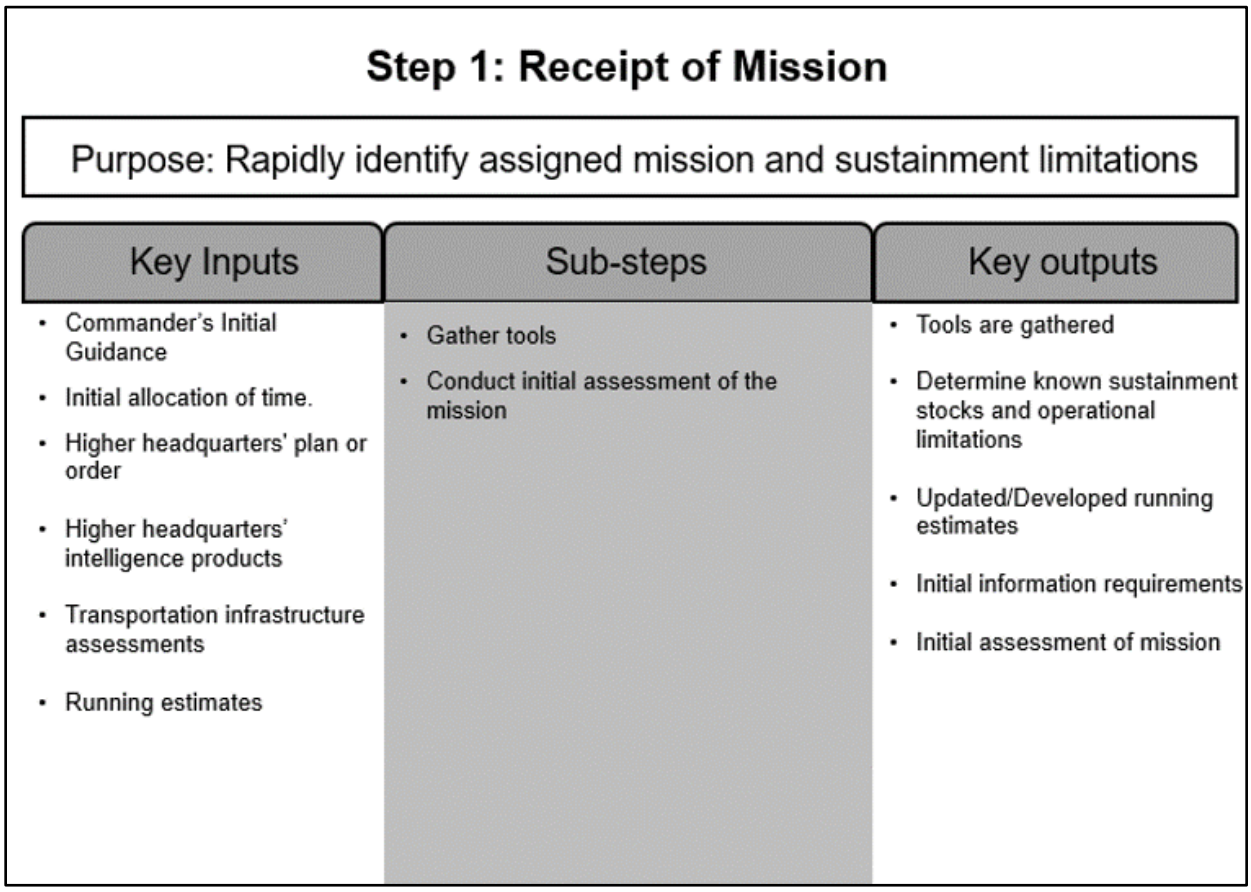


Figure C-1. Receipt of mission

STEP 2: MISSION ANALYSIS

C-7. During step 2 of the tactical sustainment steps and procedures during MDMP, sustainment planners analyze relevant aspects of the mission and OE and limitations. The sustainment planner must describe the rough order of magnitude of sustainment requirements for maneuver units, a more detailed assessment of sustainment capabilities and limitations, assumptions developed for information gaps, sustainment shortfalls, and risks to the mission, personnel, and equipment. Sustainment planners will determine associated risk management, information requirements (commander's critical information requirements, essential elements of friendly information, friendly force information requirements, requests for information), key commander information (priority of supply, CSRs, and critical sustainment shortfalls not mitigatable by the sustainment warfighting function), and the sustainment criteria for course of action development. The results of the

analysis enable the sustainment planner to effectively and efficiently communicate the physical limitations of what the sustainment unit can support to the commander and other planners. See figure C-2.

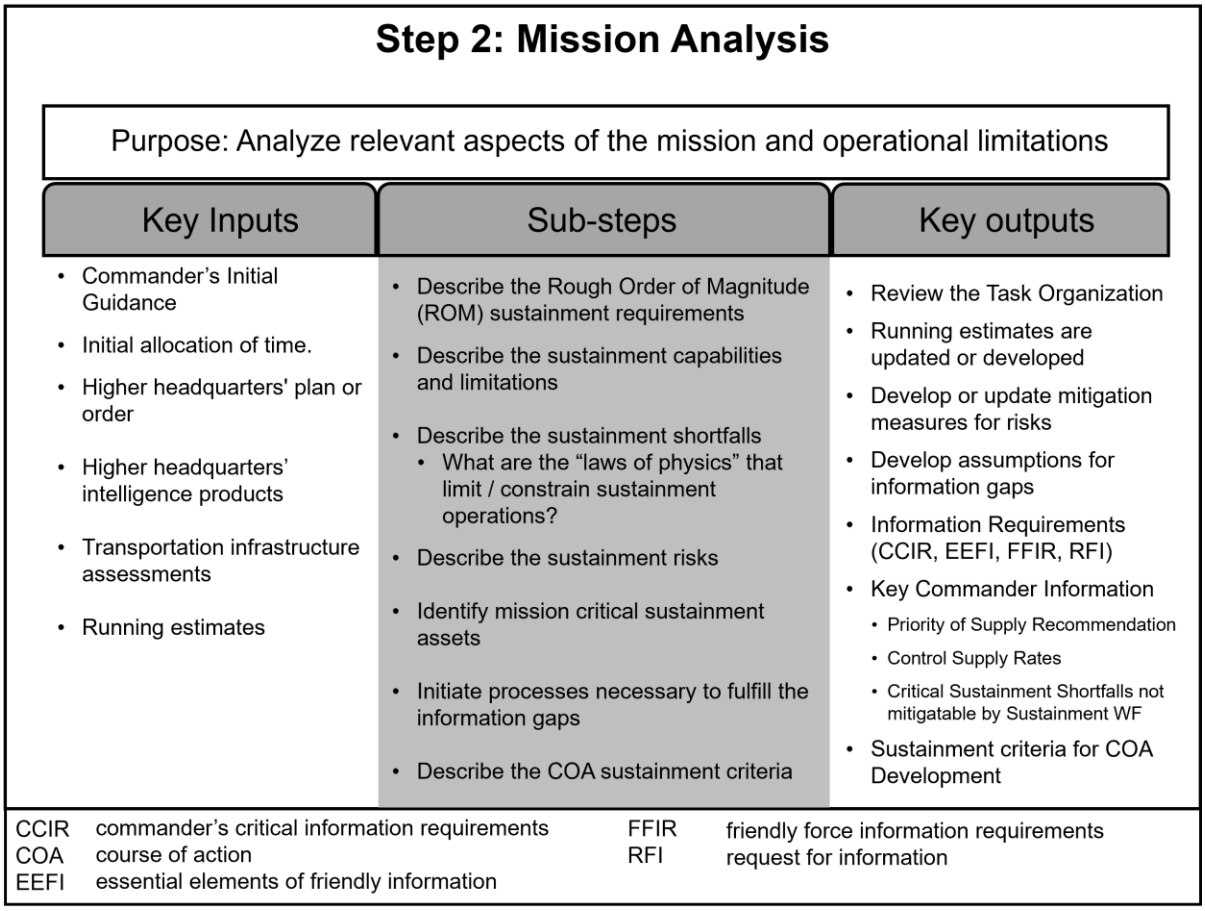


***Figure C-2. Mission analysis**

STEP 3: DEVELOP THE SUSTAINMENT CONCEPT OF SUPPORT AND ANNEX

C-8. During step 3 of the tactical sustainment steps and procedures during MDMP, the sustainment planner sketches and describes the sustainment OE and requirements. This sketch is linked to the maneuver courses of action that are developed. The sustainment planner can generally provide a single sustainment concept sketch that is able to support multiple maneuver courses of action; but this may not always be true in every situation and could require the sustainment planner to provide alternate sustainment concept sketches to support unique maneuver plans. The concept sketch should be detailed enough to provide the commanders an understanding of how sustainment will be provided during the mission while avoiding the planning trap of extremely detailed planning.

C-9. The staff should be able to quickly convert the concept sketch into a concept of support and paragraph 4 for the warning order and OPORD based on the chosen maneuver course of action. Once the course of action is decided, the sustainment planner must be able to produce the sustainment battle rhythm, a movement plan, time and distance matrix, logistics synchronization matrix, decision support matrix, and the logistics inputs to the common operational picture. As the unit transitions from planning to preparation activities, the sustainment planner must understand that some activities require a long lead time to execute and may require coordination or preparation before a course of action has been decided. See figure C-3.

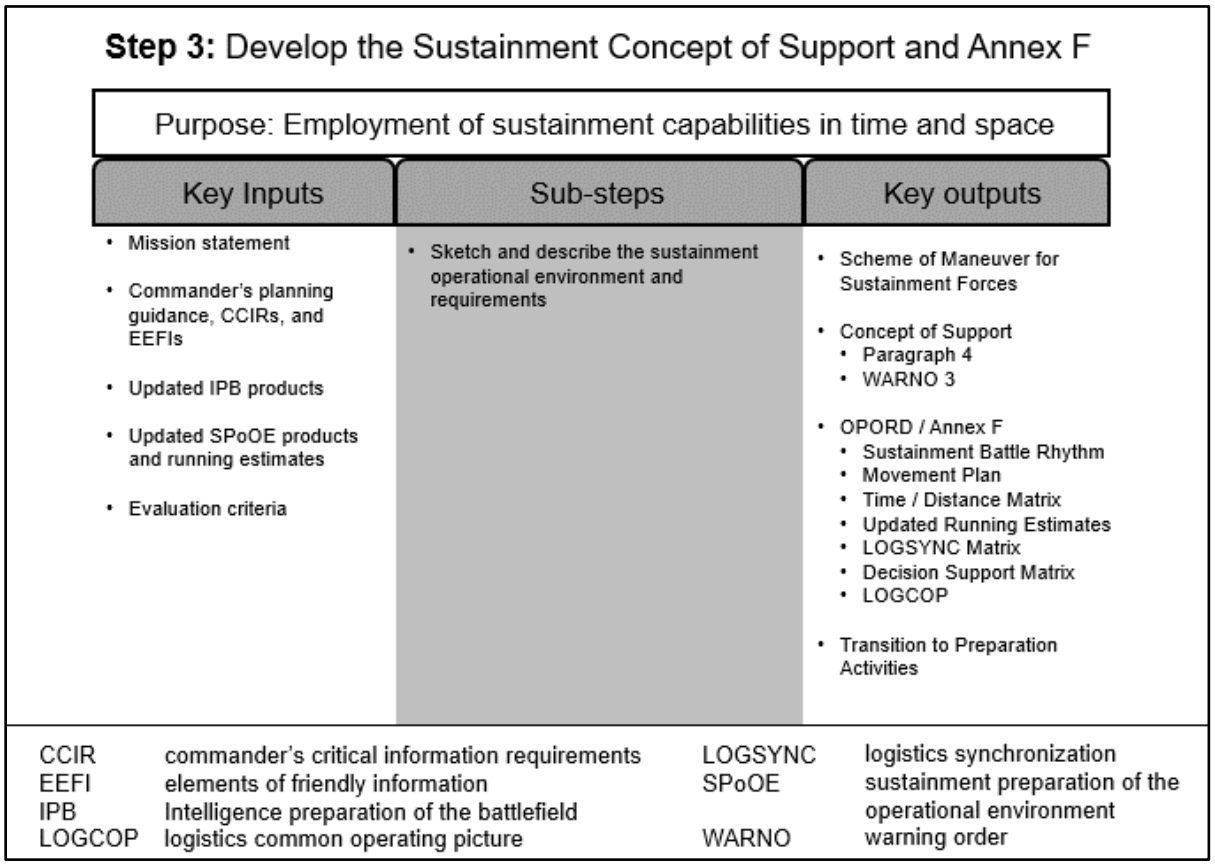


Figure C-3. Develop the sustainment concept of annex F

STEP 4: INITIATE SUSTAINMENT PREPARATION ACTIVITIES

C-10. During step 4 of the tactical sustainment steps and procedures during MDMP, the commander and staff must ensure the sustainment unit is postured and prepared to support the maneuver unit. The operations process is the mechanism to execute sustainment preparation activity through a clear commander's intent, shared understanding, and operational preparations. The results of the preparation activities are confirmation briefs, the sustainment rehearsal, unit rehearsals, plan refinements, a fragmentary order (as required), new Soldier and unit integration, plans to operations transitions, sustainment preparation, terrain preparation, and network preparation. Some of these tasks can be executed while the unit is still conducting mission analysis and concept of support development. See figure C-4 on page C-6.

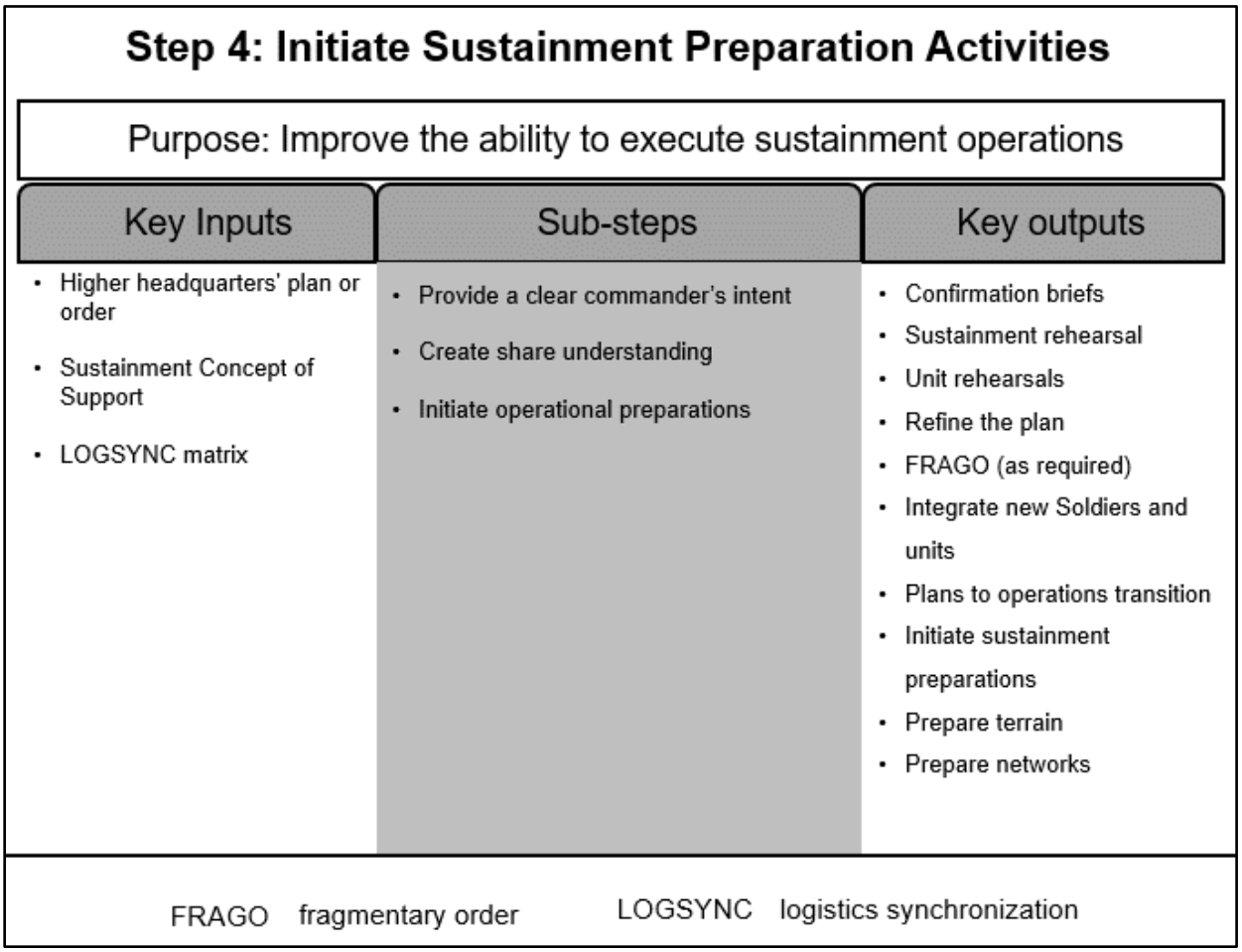


Figure C-4. Initiate sustainment preparation activities

Glossary

The glossary lists acronyms and terms with Army or joint definitions. Where Army and joint definitions differ, (Army) precedes the definition. The glossary lists terms for which ATP 4-91 is the proponent with an asterisk (*) before the term. For other terms, it lists the proponent publication in parentheses after the definition.

SECTION I – ACRONYMS AND ABBREVIATIONS

ADP	Army doctrine publication
AHS	Army Health System
AO	area of operations
AR-COP	Army readiness common operating picture
ASP	ammunition supply point
ATHP	ammunition transfer holding point
ATP	Army techniques publication
BCT	brigade combat team
BMSO	brigade medical supply office
BSB	brigade support battalion
BSMC	medical company (brigade support)
C2	command and control
CAB	combat aviation brigade
CBRN	chemical, biological, radiological, and nuclear
CCL	combat configured load
COSC	combat and operational stress control
CP	command post
CSB	contracting support brigade
CSM	command sergeant major
CSR	controlled supply rate
CSSB	combat sustainment support battalion
DA	Department of the Army
DSA	division support area
DSB	division sustainment brigade
DSMC	division support maintenance company
DSSB	division sustainment support battalion
DSTB	division sustainment troops battalion
EAB	echelons above brigade
ESC	expeditionary sustainment command
FHP	force health protection
FLE	forward logistics element

FM	field manual
FRSD	forward resuscitative and surgical detachment
G-1	assistant chief of staff, personnel
G-2	assistant chief of staff, intelligence
G-3	assistant chief of staff, operations
G-4	assistant chief of staff, logistics
G-6	assistant chief of staff, signal
G-8	assistant chief of staff, financial management
GCSS-Army	Global Combat Support System-Army
HET	heavy equipment transport
HHC	headquarters and headquarters company
HIPPO	load handling system compatible water tank racks
HR	human resources
HSS	health service support
IPB	intelligence preparation of the battlefield
JFLCC	joint force land component commander
JP	joint publication
JTF	joint task force
LOC	line of communications
LOGSTAT	logistics status
MATP	modular ammunition transfer point
MCAS	medical company (area support)
MCT	movement control team
MDMP	military decision-making process
MEB	maneuver enhancement brigade
MEDBDE (SPT)	medical brigade (support)
MEDCOM (DS)	medical command (deployment support)
MEDEVAC	medical evacuation
MEDLOG	medical logistics
MLC	medical logistics company
MMB	medical battalion (multifunctional)
MSR	main supply route
MTF	medical treatment facility
MTV	medium tactical vehicles
OCS	operational contract support
OE	operational environment
OPCON	operational control
OPORD	operation order
PLS	palletized load system
RSR	required supply rate
S-1	battalion or brigade manpower and personnel staff officer

S-2	battalion or brigade intelligence staff officer
S-3	battalion or brigade operations staff officer
S-4	battalion or brigade logistics staff officer
S-6	battalion or brigade signal staff officer
S-8	battalion or brigade financial management staff officer
SASMO	Sustainment Automation Support Management Office
SOP	standard operating procedure
SPO	support operations
SSA	supply support activity
U.S.	United States

SECTION II – TERMS

area defense

A type of defensive operation that concentrates on denying enemy forces access to designated terrain for a specific time rather than destroying the enemy outright. (ADP 3-90)

area security

A type of security operation conducted to protect friendly forces, line of communications installation routes, and actions within a specific area. (ADP 3-90)

ARFOR

The Army component and senior Army headquarters of all Army forces assigned or attached to a combatant command, subordinate joint force command, joint functional command, or multinational command. (FM 3-94)

assign

To place units or personnel in an organization where such placement is relatively permanent, and/or where such organization controls and administers the units or personnel for the primary function, or greater portion of the functions, of the unit or personnel. (JP 3-0)

attach

The placement of units or personnel in an organization where such placement is relatively temporary. (JP 3-0)

attack

A type of offensive operation that destroys or defeats enemy forces, seizes and secures terrain, or both. (ADP 3-90)

base cluster

A collection of bases, geographically grouped for mutual protection and ease of command and control. (JP 3-10)

battle rhythm

(Army) A deliberate cycle of command, staff, and unit activities intended to synchronize current and future operations. (FM 6-0)

characteristic

A feature or quality that marks an organization or function as distinctive or is representative of that organization or function. (ADP 1-01)

close area

The portion of the commander's area of operations where the majority of subordinate maneuver forces conduct close combat. (ADP 3-0)

combat power

The total means of destructive and disruptive force that a military unit/formation can apply against an enemy at a given time (JP 3-0)

command and control

The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Also called C2. (JP 1, Volume 2)

command post

A unit headquarters where the commander and staff perform their activities. Also called CP. (FM 6-0)

contiguous area of operations

An area of operations where all of a commander's subordinate forces' areas of operations share one or more common boundary. (FM 3-90-1)

core competency

An essential and enduring capability that a branch or an organization provides to Army operations. (ADP 1-01)

deep area

Where the commander sets conditions for future success in close combat. (ADP 3-0)

defensive operation

An operation to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability operations. (ADP 3-0)

direct support

(Army) A support relationship requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance. (FM 3-0)

early-entry command post

A lead element of a headquarters designed to control operations until the remaining portions of the headquarters are deployed and operational. (FM 6-0)

essential care

(Army) Medical care and treatment within the theater of operations and which is mission, enemy, terrain and weather, troops and support available, time available, and civil considerations-dependent. It includes first responder care, initial resuscitation and stabilization as well as treatment and hospitalization. Forward care may include stabilizing surgery to ensure the patient can tolerate further evacuation as well as en route care during evacuation. The objective is to either return the patient to duty within the theater evacuation policy, or to begin initial treatment required for optimization of outcome. (FM 4-02)

exploitation

(Army) A type of offensive operation that usually follows a successful attack and is designed to disorganize the enemy in depth. (ADP 3-90)

forward logistics element

Comprised of task-organized multifunctional logistics assets designed to support fast-moving offensive operations in the early phases of decisive action. Also called FLE. (ATP 4-90)

function

The broad, general, and enduring role for which an organization is designed, equipped, and trained. (JP 1, Volume 1)

general support

Support given to the supported force as a whole and not to any particular subdivision thereof. Also called GS. (JP 3-09.3)

general support-reinforcing

(Army) A support relationship assigned to a unit to support the force as a whole and to reinforce another similar-type unit. (FM 3-0)

health service support

(Army) Health service support encompasses all support and services performed, provided, and arranged by the Army Medical Department to promote, improve, conserve, or restore the mental and physical well-being of personnel in the Army. Additionally, as directed, provide support in other Services, agencies, and organizations. This includes casualty care (encompassing a number of Army Medical Department functions—organic and area medical support, hospitalization, the treatment aspects of dental care and behavioral/neuropsychiatric treatment, clinical laboratory services, and treatment of chemical, biological, radiological, and nuclear patients), medical evacuation, and medical logistics. (FM 4-02)

information collection

An activity that synchronizes and integrates the planning and employment of sensors and assets as well as the processing, exploitation, and dissemination systems in direct support of current and future operations. (FM 3-55)

inpatient

A person admitted to and treated within a Role 3 and 4 hospital and who cannot be returned to duty within the same calendar day. (ATP 4-02.10)

intelligence preparation of the battlefield

The systematic process of analyzing the mission variables of enemy, terrain, weather, and civil considerations in an area of interest to determine their effect on operations. Also called IPB. (ATP 2-01.3)

local security

The low-level security activities conducted near a unit to prevent surprise by the enemy. (ADP 3-90)

main command post

A facility containing the majority of the staff designed to control current operations, conduct detailed analysis, and plan future operations. (FM 6-0)

main effort

A designated subordinate unit whose mission at a given point in time is most critical to overall mission success. (ADP 3-0)

medical evacuation

The timely and effective movement of the wounded, injured, or ill to and between medical treatment facilities on dedicated and properly marked medical platforms with en route care provided by medical personnel. Also called MEDEVAC. (ATP 4-02.2)

medical regulating

The actions and coordination necessary to arrange for the movement of patients through the roles of care and to match patients with a medical treatment facility that has the necessary health service support capabilities and available bed space. (JP 4-02)

medical treatment facility

(Army) Any facility established for the purpose of providing medical treatment. This includes battalion aid stations, Role 2 facilities, dispensaries, clinics, and hospitals. (FM 4-02)

mobile defense

A type of defensive operation that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force. (ADP 3-90)

movement to contact

(Army) A type of offensive operation designed to develop the situation and establish or regain contact. (ADP 3-90)

noncontiguous area of operations

Where one or more of the commander's subordinate forces' areas of operation do not share a common boundary. (FM 3-90-1)

offensive operation

An operation to defeat or destroy enemy forces and gain control of terrain, resources, and population centers. (ADP 3-0)

operational control

The authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Also called OPCON. (JP 1, Volume 2)

operational environment

The aggregate of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander. Also called OE. (JP 3-0)

operational framework

A cognitive tool used to assist commanders and staffs in clearly visualizing and describing the application of combat power in time, space, purpose, and resources in the concept of operations. (ADP 1-01)

organic

Assigned to and forming an essential part of a military organization as listed in its table of organization for the Army, Air Force, and Marine Corps and are assigned to the operating forces for the Navy. (JP 1, Volume 2)

outpatient

A person receiving medical/dental examination and/or treatment from medical personnel and in a status other than being admitted to a hospital. Included in this category is the person who is treated and retained (held) in a medical treatment facility (such as a Role 2 facility) other than a hospital. (ATP 4-02.10)

planning

The art and science of understanding a situation, envisioning a desired future, and determining effective ways to bring that future about. (ADP 5-0)

planning horizon

A point in time commanders use to focus the organization's planning efforts to shape future events. (ADP 5-0)

protection

Preservation of the effectiveness and survivability of mission-related military and nonmilitary personnel, equipment, facilities, information, and infrastructure deployed or located within or outside the boundaries of a given operational area. (JP 3-0)

pursuit

A type of offensive operation designed to catch or cut off a hostile force attempting to escape, with the aim of destroying it. (ADP 3-90)

reinforcing

A support relationship requiring a force to support another supporting unit. (FM 3-0)

retrograde

(Army) A type of defensive operation that involves organized movement away from the enemy. (ADP 3-90)

return to duty

A patient disposition which, after medical evaluation and treatment when necessary, returns a Soldier for duty in his unit. (FM 4-02)

role

The broad and enduring purpose for which the organization or branch was established. (ADP 1-01)

security operations

Those operations performed by commanders to provide early and accurate warning of enemy operations, to provide the forces being protected with time and maneuver space within which to react to the enemy, and to develop the situation to allow commanders to effectively use their protected forces. (ADP 3-90)

support area

The portion of the commander's area of operations that is designated to facilitate the positioning, employment, and protection of base sustainment assets required to sustain, enable, and control operations. (ADP 3-0)

supporting effort

A designated subordinate unit with a mission that supports the success of the main effort. (ADP 3-0)

sustainment preparation of the operational environment

The analysis to determine infrastructure, physical environment, and resources in the operational environment that will optimize or adversely impact friendly forces means for supporting and sustaining the commander's operations plan. (ADP 4-0)

tactical command post

A portion of a unit headquarters designed to command and control operations as directed. (FM 6-0)

tactical control

The authority over forces that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned. (JP 1, Volume 2)

threat

Any combination of actors, entities, or forces that have the capability and intent to harm United States forces, United States national interests, or the homeland. (ADP 3-0)

triage

The process of sorting casualties based on need for treatment, evacuation, and available resources. (FM 4-02)

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08 November 2022

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JAMES C. MCCONVILLE
General, United States Army
Chief of Staff

Official:

MARK F. AVERILL
Administrative Assistant
to the Secretary of the Army
2230705

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