ATP 4-90

Brigade Support Battalion

June 2020

This publication supersedes ATP 4-90, dated 02 April 2014.

Headquarters, Department of the Army

Change 1
Army Techniques Publication
No. 4-90

Headquarters
Department of the Army
Washington, D.C., 09 November 2021

Brigade Support Battalion

1. A plus sign (+) marks new material.

2. ATP 4-90, 18 June 2020, is changed as follow.

Remove Old Pages	Insert New Pages
pages i through ii	pages i through ii
pages 5-1 through 5-8	pages 5-1 through 5-8
References-1 through References-2	References-1 through References-2

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

This page intentionally left blank.

ATP 4-90, C1

09 November 2021

By Order of the Secretary of the Army:

JAMES C. MCCONVILLE
General, United States Army
Chief of Staff

Official:

MARK F. AVERILL
Acting Administrative Assistant
to the Secretary of the Army
2130804

DISTRIBUTION:
Active Army, Army National Guard, and United States Army Reserve. Distributed in electronic media only(EMO).

PIN: 104022-001

This page intentionally left blank.

*ATP 4-90, C1

Army Techniques Publication
No. 4-90

Headquarters
Department of the Army
Washington, DC, 18 June 2020

Brigade Support Battalion

Contents

*This publication supersedes ATP 4-90, dated 02 April 2014.

Figures

Tables

This page intentionally left blank.

Preface

ATP 4-90, *Brigade Support Battalion*, provides doctrinal guidance for the employment of support battalions in brigade combat teams and multifunctional support brigades providing sustainment support to large-scale combat operations. It describes the role, characteristics, core competencies, and functions of these battalions, which normally includes a headquarters and headquarters company, distribution company, field maintenance company, brigade support medical company, and forward support companies.

The principal audience for ATP 4-90 is commanders and staffs assigned to brigade support battalions, brigade combat teams, and multifunctional support brigades. It is applicable to other operational and sustainment organizations in tactical and operational environments. Trainers and educators throughout the Army will also use this publication.

Commanders, staffs, and subordinates ensure their decisions and actions comply with applicable United States, international, and, in some cases, host nation laws and regulations. Commanders at all levels ensure that their Soldiers operate in accordance with the law of war and the rules of engagement. (See FM 6-27, *The Commander's Handbook on the Law of Land Warfare*.)

ATP 4-90 uses joint terms where applicable. Select 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 and name of the proponent publication follows the definition. This publication is not the proponent for any new Army terms.

ATP 4-90 applies to the Active Army, Army National Guard/Army National Guard of the United States, and the United States Army Reserve unless otherwise noted.

The proponent of ATP 4-90 is the United States Army Combined Arms Support Command. The preparing agency is the G-3/5/7 Doctrine Division, Army Branch, United States Army Combined Arms Support Command. The approval authority is CG CAC, Ft. Leavenworth, Kansas. Send comments and recommendations on a Department of the Army (DA) Form 2028 (*Recommended Changes to Publications and Blank Forms*) to Commander, United States Army Combined Arms Support Command, ATTN: ATCL-TS (ATP 4-90), 2221 Adams Ave, Bldg. 5020, Fort Lee, VA, 23801-1809; or submit an electronic DA Form 2028 by e-mail to: usarmy.lee.tradoc.mbx.leee-cascom-doctrine@mail.mil.

This page intentionally left blank.

Introduction

ATP 4-90 describes the brigade support battalion (BSB) role, characteristics, core competencies, functions, organization, and operations in a brigade combat team (BCT) or multifunctional support brigade. This publication is a revision of ATP 4-90, Change 1, *Brigade Support Battalion*, last published in 2014.

This Army techniques publication (ATP) was written for commanders, staffs, and Soldiers assigned to a BSB, BCT, or other functional and multifunctional support brigades. It provides relevant information on the capabilities of the BSB and BSB employment considerations.

ATP 4-90 clarifies existing BSB doctrine. The ATP chapters are structured in line with the BSB's functions as opposed to its task organization. The updates to ATP 4-90 expands on the employment of a brigade support battalion. It provides detailed information on command and control including the operations process, sustainment support concept development, BSB in brigade support area operations, echeloning of BSB support capability in the BCT area of operation (AO), discussion on the two levels of maintenance, and other topics. Organization graphics are updated with organizational changes. This publication modifies the definitions of area support and echelon support.

ATP 4-90 contains eight chapters and three appendices: an appendix on the BSB's mission essential task list with key collective tasks, security force assistance brigade (SFAB) appendix, and an appendix containing sustainment planning factors.

ATP 4-90 chapters are:

Chapter 1 includes the characteristics, core competencies, capabilities, functions, organization, and operations of the BSB to BCT and multifunctional support brigade. The chapter discusses how the BSB supports BCT execution of decisive action. Additionally, the chapter describes how the BSB supports the BCT's decisive action tasks during large-scale ground combat operations.

Chapter 2 describes how the BSB commander and staff execute mission command by applying command and control. It describes how the command post is organized with functional and integrating cells. It describes the responsibilities of the commander and staff conducting the operations process and considerations for staff roles in the cells of the command post.

Chapter 3 provides an overview of the BSB's support operations section. The chapter also includes information on creating and using a sustainment concept of support, staff running estimates, logistics synchronization matrix, sustainment overlay, and other key logistics planning tools. It also describes materiel management and its functions.

Chapter 4 provides an overview of support areas at different levels and describes the fundamentals, operations, and considerations at the BCT level for the establishment, operation, protection, and displacement of the brigade support area.

Chapter 5 provides an overview of how the BSB arrays forces and echelons sustainment across the battlefield to the brigade through the use of field, combat, and company trains. The chapter also discusses the use of a forward logistics element and echelon above brigade sustainment units that support the BCT.

Chapter 6 provides an overview of distribution fundamentals at the BCT level and describes the role, organization, and operations of the BSB's distribution company, forward support companies, and other units that provide distribution support to the BCT.

Chapter 7 provides an overview of maintenance fundamentals at the BCT level as well as describes the role, organization, and operations of the BSB's field maintenance company and forward support companies.

Chapter 8 provides an overview of medical support at the BCT level as wells as describes the role, organization, employment, and operations of the brigade support medical company.

The introductory table below outlines modifications in doctrinal terminology reflected in ATP 4-90.

Introductory table-1. Modified Army terms

Term	*Remarks*
area support	modified term
echeloned sustainment	modified term

Chapter 1
Brigade Support Battalion and the Operational Environment

The brigade support battalion (BSB) provides logistics and medical support to a brigade combat team (BCT) and multifunctional support brigades. Brigade combat teams are the primary combined arms force that provide combat power to execute close combat during large-scale combat operations. The BSB is capable of employment across the range of military operations and in any environment. This chapter provides an overview of the BSB's role and describes how the BSB provides support to brigade combat teams and multifunctional support brigades. It is imperative for BSB commanders and staff to understand the BSB role and responsibilities within the overall combined arms approach to operations.

ROLE, CORE COMPETENCIES, AND FUNCTIONS

1-1. The BSB is the most important sustainment organization in the Army. It supports the brigade combat team and the other brigade formations that constitute the majority of close combat capability in the Army. The BCT area of operations is expansive and its missions diverse. The BSB and its subordinate companies normally operate within the close area of the operational construct closer to the forward line of troops than any other battalion-sized sustainment organization. This places the BSB in operational environments that are highly lethal, rapidly changing, and extremely demanding. This operational environment (OE) requires frequent movement, strong protection, and perseverance. In all, success relies on disciplined leadership founded on mission command, well-trained troops that display strong resilience, and closely synchronized staff operations.

1-2. Brigade combat teams provide the division commander close combat capabilities to execute missions to achieve military objectives during engagements, battles, and campaigns. There are three standard types of BCTs – the armored brigade combat teams (ABCT), the infantry brigade combat team (IBCT), and the Stryker brigade combat team (SBCT). All six warfighting functions – command and control, movement and maneuver, intelligence, fires, sustainment, and protection – are organic to a BCT. Multifunctional support brigades reinforce brigade combat teams by providing capabilities that enable them to fight as formations: sustainment, field artillery, maneuver support, protection, and aviation.

1-3. The role of a BSB is to provide sustainment support (logistics and medical support) to a BCT.

1-4. The BSB core competencies are planning, synchronization, and execution of sustainment to support BCT operations.

1-5. The BSB performs the following functions: distribution management and operations, transportation, supply support, field maintenance, and Role 2 medical care.

Brigade Support Battalion

- **Role:** The BSB provides logistics and medical support to a brigade combat team.
- **Capability:** The BSB is an expeditionary, multifunctional logistics battalion with integrated medical support capable of operating at the tactical level in an assigned area of operations (AO) in support of a BCT.
- **Parent:** Brigade combat team.
- **Command relationship:** Organic to a BCT.
- **Span of operations:** BCT area of operations.

CHARACTERISTICS AND CAPABILITIES

1-6. The BSB is a multifunctional logistics battalion capable of operating at the tactical level to support a BCT. The BSB organic design and core competencies allow it to provide multi-class supply, field maintenance, and medical support. The BSB has a very broad span of control with ten subordinate companies, six of which operate in the other battalions' areas. The BSB has organic medical support capability, medical logistics, and medical operations personnel in the support operations (SPO) staff. It is dependent on the division sustainment support battalion (DSSB) for non-mobile class III(B) storage, light infantry troop transportation, and water treatment. These capabilities, when required, must be coordinated with the division sustainment brigade (DSB).

1-7. The BSB is organic to and is employed by the BCT. It operates in conjunction with other BCT battalions. The BSB commander executes command and control (C2) of BSB units based on mission orders issued by the BCT commander. BSB operations are based on and nested with the BCT concept of operations. Although the BSB collaborates closely with the DSB it does not receive mission orders from the DSB. The DSB may influence BSB activities in support of division priorities through the operations process but in all cases the BSB receives its orders from the BCT or other brigade it supports. The BSB commander maintains continuous dialog through command and staff channels with higher sustainment echelons (DSB, DSSB) in order to provide situational awareness and facilitate anticipation of future requirements.

1-8. The BSB is an expeditionary formation and deploys with the BCT unless otherwise directed by higher headquarters. The BSB in IBCTs is designed to deploy forces on short notice to austere locations and perform sustainment operations immediately upon arrival. Airborne BSBs participate in parachute assault operations. The BSB integrates joint, inter-organizational, and multinational capabilities as needed. The battalion is capable of sustaining the BCT across the range of military operations.

1-9. The BSB operates from a base or base cluster in the brigade support area (BSA). From this location the BSB executes C2 over its organic companies conducting sustainment support. The BSB distribution company, field maintenance company, and medical company operate in the BSA. These companies may be collocated with the BSB command post (CP), but during large-scale combat operations are tactically dispersed within the BSA in a way that facilitates sustainment operations, mutual support, and protection. The forward support companies (FSC) collocate with the combat trains command post and operate in close proximity with the supported battalions in the BCT close area. The FSC position capabilities in the BSA as part of field trains to expedite distribution support to the maneuver battalions.

1-10. The BSB is responsible for protecting the BSA from level I and II threats using organic equipment. Additional details on BSB protection and area security are covered in chapter 4.

1-11. The BSB provides area support to units, not organic to the BCT, when tasked by the brigade commander. ***Area support*** **is a task assigned to a sustainment unit directing it to support units in or passing through a specified location**.

BSB OPERATIONS IN THE ARMY STRATEGIC ROLES

1-12. The BSB has responsibilities and activities during all strategic roles: shape the OE, prevent conflict, prevail in large-scale ground combat, and consolidate gains. The BSB's primary task is to support the BCT during large-scale combat operations. Large-scale combat operations are major operations and campaigns aimed at defeating an enemy's armed forces and military capabilities in support of national objectives.

THE OPERATIONAL ENVIRONMENT

1-13. An OE 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 OE encompasses physical areas of the air, land, maritime, and space. It also includes the cyberspace domain and the electromagnetic spectrum. Threats are an inherent part of the OE. Commanders and staffs must understand how current and potential threats organize, equip, train, employ, and control their forces.

1-14. Understanding the OE is essential to effective decision making. Uncertainty and limited time preclude achieving complete understanding before deciding and acting. In addition to operational variables, there are

several tools that enable commanders and staffs with understanding, visualizing and describing an OE. These tools include—

- Running estimates, which are described in FM 6-0, *Commander and Staff Organizations and Operations* and chapter 3 of this publication.
- The military decision-making process (MDMP).
- Intelligence preparation of the battlefield.
- Sustainment preparation of the OE.

1-15. Sustainment preparation of the OE is the analysis to determine infrastructure, physical environment, and resources in the OE that will favorably or adversely impact friendly forces means for supporting and sustaining the commander's operations plan. 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 a commander's operations plan.

BSB Support of Operations to Shape The Operational Environment

1-16. Operations to shape are those that establish conditions for the decisive operation through effects on the enemy, other theater actors, and the terrain. The primary purpose of these operations are to promote and protect U.S. national interests and influence in the theater. Operations to shape also include unit home station activities including maintaining operational readiness, training, and contingency planning.

1-17. BCTs may be deployed into a theater to perform operations to shape the OE and perform multiple tasks. As such, BCTs may need to support theater security cooperation activities that include security force assistance, supporting joint and multinational exercises, civil-military operations, and support to special operations forces. The BCT may need to perform activities to support setting the theater.

1-18. Throughout operations to shape the OE, the BSB plans, synchronizes, and executes sustainment support to the BCT to enable it to perform its shaping mission. The support the BSB provides is similar to other operations. However, support to shaping operations may require the BSB to coordinate for sustainment support with theater-level organizations or outside the theater itself.

1-19. The BSB may be the only sustainment organization deployed to a specific geographical area in support of operations to shape. As such, the BSB may need to support units that are not organic to the BCT such as Army special operations forces or elements of a security force assistance brigade. The BSB may also be directed to gather in formation in support of theater plans and setting the theater. This includes assessing in-theater sustainment capability—such as commercial support capability, local infrastructure, port location and capacity, and road networks.

BSB Support of Operations to Prevent Conflict

1-20. Operations to prevent conflict are intended to deter adversary actions contrary to U.S. interests. During operations to prevent, the BCT may be deployed as a component of a flexible deterrent option or flexible response option to perform a variety of tasks. The primary intent is to enable the joint force to gain positions of relative advantage if future combat operations materialize. Operations to prevent conflict may include actions to protect friendly forces and other activities that indicate the intent to execute subsequent, more intensive phases of a planned operation.

1-21. Army activities to set the theater will continue during operations to prevent conflict and may expand to include additional warfighting functions. The BCT may need to support communications, intelligence, fires, and air and missile defense units. The BSB commander and staff continue to develop running estimates and refine plans to ensure effective support. Since BCT operations may be more expansive, the BSB commander and staff should expect increased sustainment requirements and operational pace.

1-22. During operations to prevent, additional U.S. forces will be deployed to the theater. The BSB may need to support these forces. The BSB executes support to non-organic BCT units at the direction of the BCT commander. The BSB may also support any ongoing theater opening, reception, staging, onward movement, and integration (RSOI). It may also begin establishing the initial distribution network in the theater.

BSB Support of Operations to Prevail in Large-Scale Combat Operations

1-23. During large-scale combat operations, brigade combat teams execute decisive action to defeat and destroy enemy ground forces as part of the joint team. Offensive and defensive tasks are the primary focus: BCTS conduct the minimal level of stability-related tasks to comply with the law of armed conflict. The sustainment component of those tasks should be addressed during mission analysis. During large-scale combat operations, the BCT commander uses all available elements of combat power to exploit the initiative, deny enemy objectives, destroy, dislocate, disintegrate, or isolate enemy forces. This typically requires rapid movement through close or complex terrain, including urban areas, during periods of limited visibility. BCT subordinate units move in a dispersed manner to avoid presenting themselves as a lucrative target to enemy fires that adds to the complexity of sustaining them. A BCT may participate in joint forcible entry operations conducted by means of amphibious or airborne assault or a combination of the two.

1-24. Large-scale combat operations introduce levels of complexity, lethality, ambiguity, and speed to military activities unlike other operations. Large-scale combat operations require the execution of multiple tasks synchronized and converged across multiple domains. Success at the tactical level requires an understanding of how the tactical fight supports the overall strategic objectives and an appreciation that every battle during large-scale combat operations is an extended, multi-domain battle. This understanding informs the BSB concept of support, which largely determines the endurance and tactical reach of the BCT.

1-25. Large-scale combat operations present the greatest challenge to the BCT. It also presents challenges to the BSB's ability to support. The operational tempo and lethality, which create significantly higher supply consumption and maintenance requirements, place extreme demands on sustainment organizations. The BCT will move rapidly over extended distances, especially during offensive operations. The BSA will displace frequently and must keep pace with the BCT while simultaneously executing required sustainment support. In operations where the BCT is conducting joint forcible entry, the BSB executes the forcible entry operations in support of the BCT.

1-26. There is no sanctuary area within the BCT or division area of operations. The enemy can target the BSA and sustainment units throughout the depth of the AO with direct and indirect fires as a means to cause BCTs to culminate. BSBs should assume they are under observation and plan to displace, disperse, and react to all of the eight forms of contact during operations. Anticipating the likely OE facilitates proactive planning. Effectively reacting to contact requires drills understood in each of the BSB's subordinate elements.

BSB Support of Operations to Consolidate Gains

1-27. Operations to consolidate gains are the activities to make permanent any temporary operational success and establish the conditions for a sustainable, stable OE allowing for a transition of control to legitimate authorities (ADP 3-0). Consolidation of gains is continuous throughout operations and is conducted by BCTs through decisive action. Consolidation of gains generally occurs simultaneously with large-scale combat, beginning in a BCT AO with similar characteristics as an AO in the close area. Operations in the consolidation area likely involve close combat operations against bypassed enemy forces and remnants of defeated units. BCT sustainment requirements initially remain similar to what they were in LSCO until the focus of operations transitions primarily to stability. The BSB anticipates the differing sustainment requirements associated with the transition to a stability focus.

1-28. BCTs deliberately plan, prepare for, and execute consolidating gains to capitalize on successes attained during an operation. Tasks may include establishing area security, reorganizing subordinate units as necessary to maintain combat power, ensuring all units are in the proper tactical position, reestablishing communications with all units, performing personnel recovery as required, and executing minimum essential stability tasks. The BCT task organization may change to include horizontal and vertical engineering, civil affairs, and communications units as well as protection assets and other critical stability-related capabilities. The BCT considers these task organization changes when requesting or deploying follow-on sustainment forces and supplies.

1-29. The BSB executes or coordinates execution of all the sustainment functions for the BCT during operations to consolidate gains. The BSB commander and staff also execute consolidation of gains activities to ensure any sustainment successes are solidified. During this time, the BSB commander and staff also plan and prepare for upcoming missions and ensures subordinate unit are prepared to execute required support.

This includes ensuring all commodities are replenished in preparation for upcoming operations, all sustainment units are positioned properly, units are reorganized for effectiveness, casualties are treated and evacuated, replacement personnel are integrated into units, and maintenance is conducted.

BSB ORGANIZATION IN BRIGADE COMBAT TEAMS

1-30. The BSB is organic to and provides sustainment support to a BCT. BSBs in IBCT, SBCT, and ABCT differ in terms of specific equipment and manning, reflecting the characteristics of the BCTs they support. Figure 1-1 depicts a typical BSB organization.

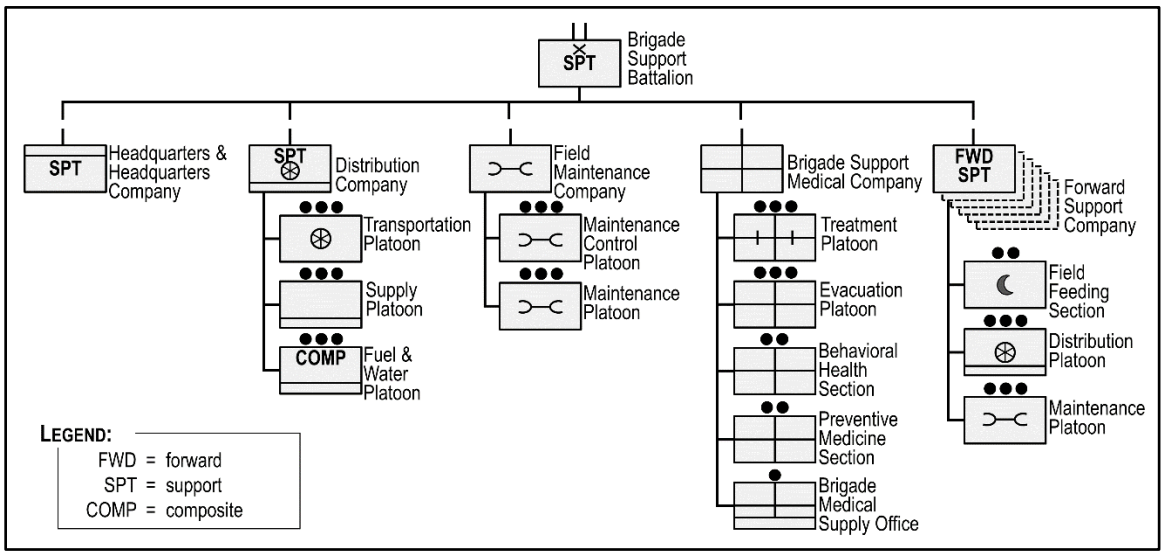

Figure 1-1. Brigade support battalion task organization

1-31. BSBs have the capability to operate a supply support activity (SSA), operate a modular ammunition transfer point (MATP), perform field-level maintenance support and distribution operations, as well as providing medical support. BSBs that contain a medical company provide Role 2 medical care to all units in the brigade. FSCs provide distribution, field feeding, and field-level maintenance support to their supported battalions. Other capabilities that BSBs provide include:

- Field-level maintenance support to the BSB and the brigade headquarters.
- Field feeding support to the BSB headquarters company, distribution company, field maintenance company, and medical company.

1-32. The DSB assigned to a division can provide logistics capability not organic to the BSB or provide additional capacity to support the BSB. The DSB has an organic DSSB comprised of organic companies: a headquarters company, a composite supply company, a composite truck company, and a support maintenance company. The DSSB provides water treatment and storage, non-mobile petroleum storage, and troop transportation support to the BCT.

HEADQUARTERS AND HEADQUARTERS COMPANY

1-33. The BSB headquarters and headquarters company (HHC) consists of the command group, coordinating staff, and headquarters company. The BSB provides C2, administrative, and logistics support for all organic, assigned, and attached units. The staff executes planning and synchronization for all assigned and attached units in the BSB. The BSB can also provide C2 for all units that occupy the BSB base for security. It also provides support for non-BSB elements in the BSA.

Command Group and Personal Staff

1-34. The brigade support battalion's command group consists of the commander, command sergeant major, executive officer (XO), and unit ministry team (UMT).

Commander

1-35. The BSB commander is the senior logistician in a BCT and is responsible for commanding and controlling every aspect of the BSB to ensure it effectively supports the brigade commander's mission and intent. The BSB commander will encounter a variety of situations that will require creative thinking to determine the best options to support the maneuver commanders. The commander drives the BSB operations process through understanding, visualizing, describing, directing, leading, and assessing operations. The commander understands the brigade's mission as well as the brigade commander's intent and desired end state. The commander also understands the current OE, capabilities, limitations, and problems the BSB may face during execution. The commander helps the staff and subordinate commanders visualize how the BSB will employ its capability to support the brigade's mission to achieve the end state. This includes solutions to anticipated problems developed in terms of restated mission, intent, and desired end state.

1-36. The BSB commander is not a brigade planner but does advise the brigade command and staff about sustainment. The commander provides information on BSB capability to the brigade commander, brigade logistics staff officer (S-4), brigade XO, and the brigade operations officer (S-3) so the BCT staff can develop a viable sustainment plan to achieve the brigade commander's intent. The BSB commander is responsible for logistics synchronization and execution based upon the plan developed by the BCT staff. The BSB commander, supported by the staff, uses the operations process to drive the conceptual and detailed planning necessary to understand, visualize, and describe their OE, make and articulate decisions, and direct, lead, and assess military operations.

1-37. As the senior logistician in the BCT, BSB commanders coach both the BSB and BCT staffs on the importance of synchronized logistics and of integrating medical support into the BCT operations concept. BSB commanders act as both a senior mentor and an advocate for logisticians and the sustainment warfighting function in the BCT.

1-38. The BSB commander employs BSB capability to surge, mass, and reallocate logistics capabilities in accordance with the BCT commander's intent, the concept and priorities of support, as well as the operational and mission variables. The BSB commander and staff must be thoroughly familiar with Army command and support relationships and be able to apply the relationships to different sets of conditions.

Command Sergeant Major

1-39. The BSB command sergeant major is the senior enlisted member of the BSB and a member of the commander's personal staff. The command sergeant major provides knowledge, experience, and judgment. The command sergeant major communicates with supported units' sergeants major to verify the quality of support and to resolve issues for BSB Soldiers supporting other battalions in the BCT. The command sergeant major provides technical and tactical advice to the commander and staff on the planning, training, preparation, and execution of all BSB missions. The command sergeant major's duties and responsibilities vary according to the commander's desires or needs but include enlisted personnel management and base defense oversight. The command sergeant major is located wherever the duties require.

Executive Officer

1-40. The BSB XO is second-in-command of the battalion responsible for providing oversight to current operations in the command post (CP). The XO directs, coordinates, supervises, trains, and synchronizes the work of the staff and ensures effective and prompt staff actions. The XO implements the commander's intent and ensures the BSB staff develops a viable plan to implement it. The XO establishes and monitors the headquarters battle rhythm for effective planning support, decision-making, and other critical functions. The BSB XO provides the commander with the tools to visualize, describe, direct, and assess operations. The XO monitors the status of all subordinate units and updates the BSB commander.

1-41. The BSB XO facilitates decision making for the commander by managing commander's critical information requirements (CCIR), synchronizing the BSB staff during the MDMP, and establishing and maintaining staff fusion throughout the planning, preparation, and execution phases. The XO supervises the liaison officers within the BCT headquarters.

1-42. The BSB XO is responsible for the overall readiness of the BSB's organic, attached, and assigned units. The XO advises the BSB commanders of any unit or capability that is not mission capable. The XO interfaces with the SPO officer as needed to resolve conflicts between the battalion coordinating staff and the SPO personnel. Other executive officer duties can include supervising the creation and approval of the logistics status report, establishing the BSB CP and its operations, and positioning units in the BSB base/base cluster in conjunction with the BSB operations officer.

Unit Ministry Team

1-43. The BSB UMT consists of a chaplain and the religious affairs specialist. The role of the BSB UMT is to provide and perform unit religious support to Soldiers and authorized civilians as directed by the BSB commander. The chaplain advises the commander on all religious, moral, ethical, and morale issues with potential impact on operations and the impact of indigenous religions on military operations. The UMT provides area and denominational religious support per the brigade religious support plan under the technical supervision of the BCT chaplain.

1-44. Developing and executing a battlefield circulation plan allows the UMT to synchronize religious support visits with BSB activity external to the BSB headquarters. For detailed information on the duties and responsibilities of the UMT, refer to FM 1-05, *Religious Support*.

Coordinating Staff

1-45. The coordinating staff is a key enabler of the C2 warfighting function within the BSB. 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 BSB operations. The BSB staff establishes and maintains coordination with the DSSB, DSB, and adjacent units. If an additional combat sustainment support battalion (CSSB) is attached to the DSB for support, the BSB staff establishes coordination with it as well. The staff also keeps BSB units well informed of current and future operations.

1-46. The BSB staff includes the S1, S2, S3, S4, support operations, Sustainment Automation Support Management Office (SASMO), and S6 sections. Figure 1-2 depicts the BSB headquarters and staff.

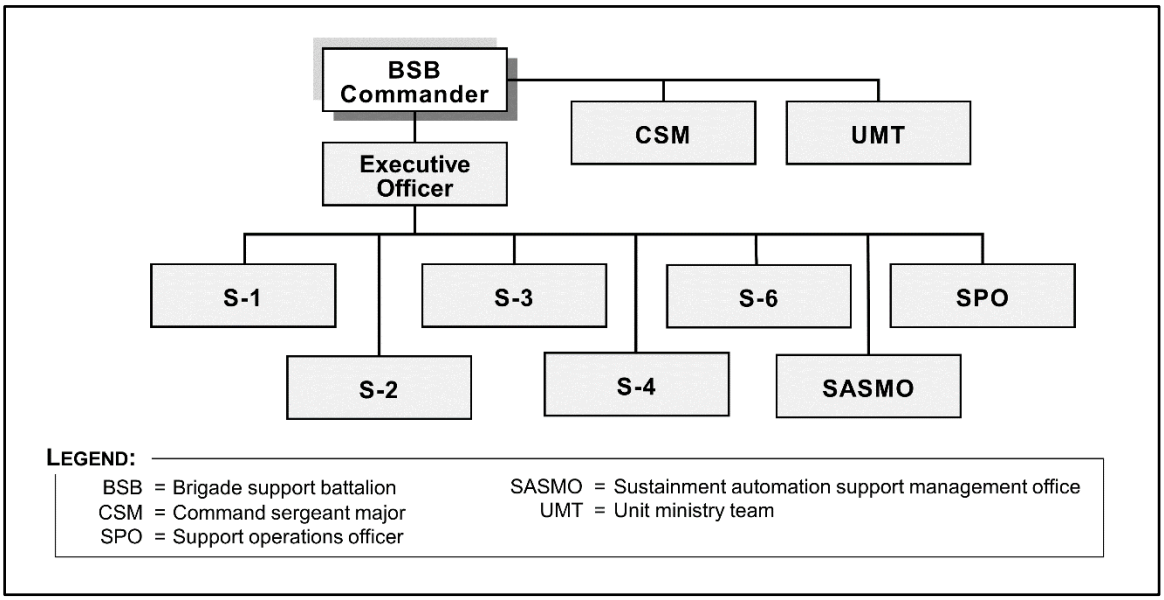

Figure 1-2. Brigade support battalion headquarters and staff

S-1 Section

1-47. The S-1 serves as the BSB's principal staff officer for human resources and financial management support and other issues affecting the health, morale, and welfare of BSB Soldiers. S-1 responsibilities include personnel manning, casualty operations, personnel services, and personnel support.

1-48. The S-1 is responsible for key personnel manning functions: personnel readiness management of the BSB, personnel accountability, personnel strength reporting, personnel retention, and personnel information management. Personnel accountability is a chain of command responsibility. It is the by-name management of the location and duty status of every person organic, assigned, or attached to the BSB. This information is reported to the S1. It is critical for determining the BSB personnel readiness status. Based on the accountability, the S-1 identifies personnel shortages, reports strength, and requisitions personnel replacements through the BCT S-1. The S-1 advises the BSB commander on personnel readiness status and informs the BSB commander if personnel status affects the BSB's ability to execute sustainment missions. If heavy personnel casualties dictate a BSB reorganization, the S-1 coordinates with the S-3 to develop a plan to cross-level personnel within the BSB to meet mission requirements.

1-49. Personnel services includes personnel action requests such as leaves and passes, personal emergency data or life insurance elections, pay-related actions, awards and decorations, promotions, grade reductions, and bars to reenlistment.

1-50. Casualty operations include recording, reporting, verifying, estimating, and processing casualty information from the company level to the BCT S-1. It also includes providing necessary information to the mortuary affairs operations centers as appropriate. During large-scale combat operations, high casualty rates may require augmentation to the S1 casualty operations section.

1-51. Personnel support functions include morale, welfare, and recreation activities and command interest programs, and legal services. The brigade S-1 supports the BSB S-1 by providing or coordinating human resource support beyond the capabilities of the BSB S-1.

1-52. The S-1 is responsible for developing the BSB personnel support plan to ensure the support is adequate to accomplish the assigned mission. The S-1 develops paragraph 4.b, Personnel, for the BSB operation order. The S-1 prepares annex F, appendix 2 for the operations order including all tabs for attachment as required.

S-4 Section

1-53. The BSB S-4 coordinates for internal BSB logistics readiness including equipment on hand and equipment serviceability. The S-4 is responsible for coordinating transportation to support BSB mobility and movement.

1-54. The S-4 advises the BSB commander on logistics (equipment on-hand and equipment serviceability) readiness status and informs the BSB commander if the logistics status affects the BSB's ability to execute sustainment missions. The BSB S-4 reports logistics readiness to the BCT S-4. If heavy supply and equipment losses dictate a BSB reorganization, the S-4 coordinates with the S-3 to develop a plan to cross-level supplies and equipment within the BSB to meet mission requirements.

1-55. The S-4 coordinates the strategic and operational deployment of the BSB. Additionally, the S-4 maintains unit equipment lists and assists in developing in-theater unit movement plans for the BSB.

1-56. Internally, the S-4 monitors the field feeding, property book activities, maintenance operations, unit basic loads, equipment operational status, and the status of requisitions for equipment and supplies for the battalion. The BSB S-4 also manages the battalion's budget, including the funding approval portion of execution management under Global Combat Support System-Army (GCSS-Army), acquires and assigns facilities, and develops the internal battalion logistics status report (LOGSTAT) report.

1-57. The S-4 is responsible for developing paragraph 4 and 4a of the BSB operation order. The S-4 prepares annex F, appendix 1, including all tabs and exhibits, for attachment to the operation order as required.

S-6 Section

1-58. The S-6 is responsible for communications and electromagnetic spectrum operations and networks in the BSB. The S-6 section establishes and maintains systems and software security for tactical automation, network management, and communication links with higher, adjacent, and subordinate units. The S-6 integrates automated information systems, manages the network, performs information assurance, and coordinates spectrum management operations for the battalion. The S-6 ensures the commander can communicate to facilitate effective C2 of their respective units. They determine the supportability and feasibility of the signal plan supporting each course of action the staff considers during the MDMP.

1-59. The S-6 also ensures that planners reflect the SASMO functions in the brigade electronic warfare plan to ensure the security and use of the VSAT and wireless CAISIC network. Signal specialists install, operate, and maintain the battalion's communications equipment and ensure communication links with higher, adjacent, subordinate, and supported units. The S-6 develops paragraph 5c of the operation order. The S-6 prepares annex H for attachment to the operation order as required.

S-2 Section

1-60. The S-2 is responsible for providing intelligence to support current and future operations and plans. This officer gathers and analyzes information on the factors of enemy, terrain, weather, and civil considerations for the commander. Examples of the critical S-2 input to operations includes how weather or changes of enemy tactics affect execution on convoys, supply routes, BSB base operations, and logistics release points (LRPs).

1-61. The S-2 evaluates information gathered from support missions and share it with higher, lower, and adjacent units. The S-2 collects, analyzes, and disseminates information from battalion personnel returning from convoy operations and other support missions. Collection includes information from any contractors or civilian personnel who participated in the support mission. The section evaluates all information to determine its value, ability to answer the commanders' priority intelligence requirements, or to update intelligence annexes to operations orders, daily intelligence summary for subordinate units, and intelligence estimates.

1-62. The S-2 develops a reconnaissance and surveillance plan for the BSB base or base cluster. The reconnaissance and surveillance plan includes dispatching small reconnaissance and surveillance teams in areas around the base/bases at random times to detect enemy presence or activity. The S-2 coordinates the reconnaissance and surveillance plan with the BCT S-3 and the unit responsible for controlling the BCT support area.

1-63. The S-2 is responsible for preparing paragraph 1, 1a, 1b, 1b(1), 1b(2), 1c, and 1f of the BSB operation order. The S-2 prepares annex B, including all appendices, for attachment to the operation order as required.

S-3 Section

1-64. The S-3 is the principal staff officer responsible for movement and maneuver of the BSB including development of plans and operations. The S-3 synchronizes and integrates BSB current operations, including support operations, with the other warfighting functions in time, space and purpose. This is executed across the planning horizons of the integrating cells in accordance with the commander's intent. The S-3 coordinates with all other staff officers and section during the development of plans and orders to ensure synchronization. See chapter 2 for more information on integrating cells, warfighting functions, and planning horizons.

1-65. The S-3 section translates external support requirements established by the SPO into missions for the BSB units. The S-3 accomplishes this by preparing, publishing and distributing written orders (warning, operations, and fragmentary) to subordinate units for execution. The S-3, with the information provided by the SPO, develops key paragraphs of the operation order; references, time zone, task organization, paragraphs 1, 1a, 1b, 1d, 1e, paragraph 2, paragraph 3, and paragraph 5. The S-3 prepares annex A (task organization), C (operations), D (fires), E (protection), and other annexes for attachment to the operation order as required.

1-66. The S-3 develops running estimates to ensure operations are achieving the desired effect and makes adjustments to the operation as necessary. The S-3 develops the unit task organization to support operations, plans and executes operations security. The S-3 section also maintains situational awareness and tracks the BCT's operations as well as maintains the battalion's common operational picture. The S-3 section plans tactical troop movements and is responsible for determining route selection, priority of movement, timing, security, quartering, staging, and preparing movement orders.

1-67. After the BCT terrain manager provides the BSB with a brigade support area, the BSB S-3 recommends a specific location within it for the BSB and its subordinate elements in coordination with the BSB XO and SPO. In accordance with the BSB commander's guidance, the BSB S-3 develops the BSA defensive plan.

Support Operations

1-68. The BSB SPO is the principal staff officer responsible for planning and synchronizing all BSB sustainment operations to support units assigned or attached to the BCT. *Support operations* is the staff function of planning, coordinating, and synchronizing sustainment in support of units conducting decisive action in an area of operations (ATP 4-93). This includes supply, distribution, maintenance, and medical support. Although the SPO section is separate from the battalion S-3, the SPO section is fundamentally part of BSB operations. The SPO collaborates closely with the S-3 staff during the operations process to support the MDMP and orders development. The SPO also collaborates with the BSB S-3 to ensure the operations to sustain the BCT are integrated across all warfighting functions and with the BCT concept of operations. The SPO and his staff develop significant portions of the BSB operation, warning, and fragmentary orders. The SPO provides information to support development of the BSBs mission and execution paragraphs to include commander's intent, concept of operations, and scheme of movement, and tasks to subordinate units. This includes plans to execute supply support activities, supply distribution, maintenance and recovery support allocation, medical operations, and medical logistics distribution. The SPO also describes sustainment information systems support.

1-69. The BSB SPO planning horizons include mid-range future operations and short range planning and execution. The SPO develops a sustainment plan by understanding and applying BSB sustainment capabilities against brigade's sustainment requirements. The brigade S-1, S-4 and brigade surgeon communicate sustainment requirements using various methods. The primary method is through development of paragraph 4, Sustainment, and annex F of the BCT operation order. The BCT S-4 is responsible for developing these portions of the order. Other methods of communicating sustainment requirements include daily logistic status reports, running estimates, mission analysis, and verbal reports. Sustainment requirements determination covers all elements of sustainment: logistics, Army health system, human resources, and financial management/comptroller operations. This information is consolidated by the BCT S-4 and passed to the BSB SPO. The BSB SPO advises the BSB commander on support requirements, assets available, shortfalls, and mitigation strategies. The SPO incorporates all combat unit requirements, unit

historical data, current/future logistics posture, mobility data, logistics information systems, and commander's guidance into the development of the sustainment plan.

1-70. The BSB SPO is responsible for executing the distribution management process to ensure timely and accurate distribution of supplies, to include class VIII, and replacement personnel to supported units. The distribution management process includes materiel management, distribution integration, and transportation operations. The SPO designates personnel in the SPO to perform the functions associated with distribution management. Detailed information on the distribution management process is found in chapter 4.

1-71. The SPO normally develops a sustainment synchronization matrix to graphically display which support functions are executed when and where during a mission. A typical synchronization matrix displays support functions along the x-axis with time of support displayed along the y-axis. Within the matrix, each block contains unit identification and unit eight-digit map grid coordinate to correspond with a function and a time. This matrix ensures all sustainment functions to be executed and units to be supported (including time and location) during a mission are accounted for. It identifies support conflicts if they exist. The synchronization may be provided to the BCT S-4 for inclusion in annex F of the BCT operation order. The BSB S-3 includes the synchronization matric as a tab to annex C, Operations, of the BSB operation order. The BSB SPO section uses the logistic status reports and running estimates to update the synchronization matrix for future operations.

1-72. The BSB SPO is the key interface between supported units and the division sustainment brigade. The SPO is responsible for coordinating additional BCT support requirements identified by the BCT S-4 with the division sustainment brigade SPO. While the BCT S-3 and S-4 request support through the division, the SPO sections of the BSB, DSSB, and DSB perform lateral coordination to plan, prepare, and synchronize additional support requirements. Additionally, the SPO interfaces and coordinates with the supporting brigade logistics support element for technical equipment and supply assistance. The SPO section performs sustainment preparation of the OE. The section provides the status of tracked systems and *materiel* as required to update the BSB logistics status report and running estimates. *Materiel* includes all items necessary to equip, operate, maintain, and support military activities without distinction as to its application for administrative or combat purposes (JP 4-0).

1-73. The BSB SPO convenes brigade logistics synchronization meetings when mission variables allow. Attendees include, at a minimum, the BCT XO, BCT S-4, FSC commanders, BSB SPO section, medical planners, battalion physician assistants, support and maneuver battalion S-4s, and representatives from the Army field support battalion as well as any supporting sustainment echelon above brigade coordinating staff. Attendees consider calendars, unit battle rhythms, current orders, logistics reports, sustainment synchronization matrix, commander's guidance, and other pertinent information. Meeting products include warning orders, SPO guidance, and updated calendars, synchronization matrices, and logistics posture and status.

Sustainment Automation Support Management Office

1-74. The SASMO has the primary responsibility of providing logisticians the ability to perform automated logistics tasks on both the tactical sustainment information systems network by configuring the Combat Service Support – VSAT and Combat Service Support Automated Information System Interface (CAISI). The SASMO performs sustainment information systems network configuration and communication support that includes, but is not limited to, supervising tactical local area network and enforcement of network security services. The Combat Service Support - VSAT, CAISI, and client workstations are organic assets of the unit.

1-75. The section is the of network administrator of the tactical VSAT and wireless CAISI network. The SASMO reviews and recommends placement of CAISI and Combat Service Support - VSAT systems throughout the brigade to ensure both man-made and terrain obstacles do not interfere with the CAISI line of sight connectivity. The placement of CAISI systems to extend the logistics network is similar to the placement of radio retransition stations to extend the radio network. The SASMO will configure the network as mission variables dictate.

1-76. The SASMO plans, prepares, executes, and sustains the tactical sustainment information systems network to meet the challenges in all environments. The SASMO is not responsible for equipment inventory,

physical security, equipment setup, disassembly, and movement of supported units' tactical sustainment information systems network. This is the responsibility of the unit.

1-77. The brigade SASMO warrant officer coordinates with the BSB and brigade S-6 sections to integrate into the brigade communications and electronic warfare plan to ensure security and use of its vital functions. As the network administrator, the SASMO will manage network configuration and supervise access operations related to supported units. The SASMO monitors and inputs information automation status to the logistics status report as required. For more information about the SASMO duties and certifications, refer to ATP 4-0.6, *Techniques for Sustainment Information System Support*.

DISTRIBUTION COMPANY

1-78. The role of the BSB distribution company is to plan, direct, and supervise supply support operations and supply distribution to the brigade combat team or multifunctional brigade units.

1-79. The BSB distribution company is a multi-functional distribution and supply company operating as directed by the BSB commander. The BSB employs the distribution company in the BSA and its subordinate units operate throughout the supported brigade area of operations. The company executes a supply support activity that includes managing the daily receipt, storage, and issue of supply class I, II, III, IV, V and IX. The company also executes distribution, distribution integration, and transportation operations to ensure timely supply support to the BCT.

BSB Distribution Company

- **Role:** The BSB distribution company plans, directs, and supervises supply support and distribution in support of a brigade combat team or multifunctional brigade.
- **Capability:** The distribution company manages the stockage of supplies for the brigade and provides distribution capability for all classes of supply.
- **Parent:** Brigade support battalion.
- **Command relationship:** Organic to a brigade support battalion.
- **Support relationship:** General support to BSB and brigade units.
- **Span of operations:** Brigade combat team area of operations.

1-80. The distribution company commander, supported by subordinate leaders, uses troop-leading procedures to plan, prepare, and execute the BSB commander's intent. The company commander also uses the procedures to assess the effectiveness of the company plan and adjusts the plan as required.

1-81. A BSB distribution company has three platoons: a transportation platoon, a supply platoon, and a fuel and water platoon. The distribution company leadership (commander, executive officer, and first sergeant) is responsible for company support operations. These personnel ensure the distribution management tasks are executed effectively. The company commander may designate responsibility for the distribution management tasks between the executive officer and the first sergeant as necessary.

1-82. The platoon leaders and platoon sergeants of the supply and fuel and water platoons execute a portion of the 14 materiel management functions as required to ensure supply stocks are available and ready for distribution. The materiel management functions are described in chapter 3 and chapter 6. The transportation platoon leader(s) and platoon sergeant(s) execute both distribution integration and transportation operations functions as required to ensure supplies are assigned a transportation mode, route, and movement time. These functions are also discussed in chapters 3 and 6. Chapter 6 further describes distribution operations and other units involved in the distribution process to support the BCT.

FIELD MAINTENANCE COMPANY

1-83. The role of a field maintenance company is to provide field-level maintenance support to the BSB and BCT. The field maintenance company provides repair capability for automotive, ground support, communications and electronics, land combat missile systems, and armament systems. The company provides services including welding and machine shop support and recovery support. The field maintenance company also provides limited field-level maintenance reinforcement support to the FSCs for low-density commodities such as—communications, electronics, and armament equipment. The BSB typically employs the field maintenance company in the BSA.

BSB Field Maintenance Company

- **Role:** The BSB field maintenance company provides field-level maintenance support to the BSB and brigade combat team.
- **Capability:** The field maintenance company performs field-level maintenance on or near the unserviceable piece of equipment or weapon system utilizing line replaceable units or modules and component replacement or repair.
- **Parent:** Brigade support battalion.
- **Command relationship:** Organic to a brigade support battalion.
- **Support relationship:** General support to the BSB companies and brigade headquarters.
- **Span of operations:** Brigade combat team area of operations, typically located in the BSA.

1-84. The field maintenance company performs field-level maintenance on or near equipment or weapon systems utilizing line replaceable units or modules and component replacement or repair. Field-level maintenance is not limited to the removal and replacement of components but also allows for the repair of components or end items on or near the system. Field-level maintenance also includes adjustment, alignment, services, applying approved field-level modification work orders as directed, fault/failure diagnoses, battle damage assessment, repair, and recovery. Field-level maintenance is always repaired and returned to the user and includes maintenance actions performed by operators.

1-85. Large-scale combat operations demands a maintenance support focused on returning systems to operational status quickly and as close as possible to the point of failure or damage. This requires that maintenance be conducted forward in the brigade and battalion areas. Maintenance assets move as far forward as the tactical situation permits to return inoperable and damaged equipment to the battle as quickly as possible. Offensive operations may require that inoperable equipment be collected in central points for later repair, since damaged or inoperable equipment would encumber a supported unit if hauled forward.

1-86. The field maintenance company commander, supported by subordinate leaders, uses troop-leading procedures to plan, prepare, and execute the BSB commander's intent. The company commander also uses the procedures to assess the effectiveness of the company plan and adjusts the plan as required.

1-87. Chapter 7 further describes maintenance operations in decisive action, the operations of the BSB's field maintenance company, and other units involved in the maintenance operations to support the BCT.

BRIGADE SUPPORT MEDICAL COMPANY

1-88. The role of a brigade support medical company (BSMC) is to provide medical support to a BCT. The BSMC provides medical area support to all BCT units that do not have organic medical assets.

1-89. The BSMC consists of a company headquarters, preventive medicine section, mental health section, medical treatment platoon, medical evacuation platoon, and a brigade medical supply office. The BSMC commander leads and supervises its organic and attached medical augmentation elements. Planners may augment the BSMC with a forward surgical capability when required based upon mission requirements or mission variables.

1-90. The BSMC locates and establishes its company headquarters and a brigade Role 2 medical treatment facility in the BSA. It typically collocates with the BSB headquarters on the BSB base since the BSMC has limited protection capability. Refer to ATP 4-02.3, *Army Health System Support to Maneuver Forces* for more information.

Brigade Support Medical Company

- **Role:** The brigade support medical company provides medical support to a brigade combat team.
- **Capability:** The BSMC provides Role 1 and Role 2 in support of a brigade combat team and medical support on an area basis to all BCT units that do not have organic medical assets.
- **Parent:** Brigade support battalion.
- **Command relationship:** Organic to a brigade support battalion.
- **Support relationship:** General support to the BSB and BCT; general support to others on a limited basis by exception.
- **Span of operations:** Brigade combat team AO, typically located in the BSA.

1-91. The company headquarters provides C2 for the company and attached units. The brigade support medical company commander, supported by subordinate leaders, uses troop-leading procedures to plan, prepare, and execute the BSB commander's intent. The company commander also uses the procedures to assess the effectiveness of the company plan and adjusts the plan as required.

1-92. It provides unit-level administration, general supply, and chemical, biological, radiological, and nuclear (CBRN) defense support. The company headquarters has a command element, a supply element, and CBRN operations element.

1-93. The medical treatment platoon receives, triages, treats, and determines the disposition of patients in the brigade AO. The platoon provides for advanced trauma management, tactical combat casualty care, general medicine, general dentistry, and physical therapy. In addition, the medical treatment platoon has limited radiology, medical laboratory, and patient holding capabilities. The medical treatment platoon is organized with a headquarters, a medical treatment squad, a medical treatment squad (area), and patient holding squad.

1-94. The evacuation platoon performs ground evacuation and enroute patient care for supported units. The platoon employs ten evacuation teams, utilizing wheeled or tracked ambulances. The evacuation platoon provides ground medical evacuation support from the Role 1 battalion aid stations of the maneuver battalions of the BCTs to the Role II care of the BSMC. In addition, it provides ground medical evacuation support to units receiving area medical support from the BSMC. The BCT surgeon cell coordinates medical evacuation to higher roles of care (Role 3), including ground and air ambulance.

1-95. The preventive medicine section provides advice and consultation in the area of health threat assessment, force health protection, environmental sanitation, epidemiology, sanitary engineering, and pest management. Through routine surveillance, inspection of potable water supplies, inspection of field feeding facilities, and the application of pest management practices, they identify actual and potential health hazards, recommend corrective measures, and help in training BCT Soldiers in disease and non-battle injury prevention programs. The preventative medicine section provides unit field sanitation team training.

1-96. The behavioral health section supports commanders in the prevention and control of combat and operational stress reaction through the brigade's behavioral health activities by the provision of advice and assistance in the areas of behavioral health and combat and operational stress control. The section collects and records social and psychological data and counsels personnel with personal, behavioral, or psychological problems.

1-97. The BSMC's medical supply element provides class VIII support to the BSMC and battalion aid stations. Chapter 8 further describes the operations of the brigade support medical company, medical operations in decisive action, the operations of the BSMC, and other medical units involved in the medical operations to support the BCT.

FORWARD SUPPORT COMPANY

1-98. The role of the FSC is to provide logistics in direct support to maneuver, fires, and engineer battalions. The FSC provides the supported commander with dedicated logistics assets organized to meet the battalion's requirements. An FSC provides field feeding, bulk fuel, general supply, ammunition, and field-level maintenance to the maneuver battalion.

1-99. The FSCs provide the brigade, battalion, and BSB commanders flexibility for providing logistics support. FSCs provide the BSB commander the ability to task organize and prioritize the logistics effort to support large-scale combat operations.

1-100. The FSCs are organic to the BCT's BSB and may be attached to or under operational control (OPCON) to the supported battalion for a limited duration; a mission or phase of an operation. The decision to establish these types of command relationships is made by the brigade commander upon the advice of the BSB commander after thorough mission analysis. FSCs are also located in aviation support battalions and special forces group support battalions.

Forward Support Company

- **Role:** The forward support companies (FSC) provides logistics in direct support to its specific supported battalion.
- **Capability:** The FSC provides field feeding, bulk fuel, general supply, ammunition, and field-level maintenance in direct support of a supported battalion.
- **Parent:** Brigade support battalion.
- **Command relationship:** Organic to a brigade support battalion; may be attached or OPCON to its supported battalion for a limited duration.
- **Support relationship:** Direct support to its specific maneuver battalion; general support to other units in the BCT; general support to others on a limited basis by exception.
- **Span of operations:** Brigade combat team area of operations from the BSA to the forward line of troops.

1-101. The FSC commander, supported by subordinate leaders, uses troop-leading procedures to plan, prepare, and execute the BSB commander's intent. The company commander also uses the procedures to assess the effectiveness of the company plan and adjusts the plan as required. The FSC command relationship determines the organization that issues orders to the FSC. If the FSC is attached to the maneuver battalion, that battalion will issue the order. If the FSC is not attached, the BSB issues the order.

1-102. The FSCs in the various BCTs are structured similarly with the most significant differences being maintenance capabilities and bulk class III distribution capability. The FSC depends upon the brigade support battalion or its supported battalion if attached or OPCON for the support areas. In addition to those already highlighted the field maintenance and distribution companies provide training and senior warrant officer/noncommissioned officer (NCO) mentorship for low-density military occupational specialties in the FSC. As the FSC's command relationship or support relationship shifts from the BSB to the supported battalion, planners address, agree upon, and formalize these dependencies at the brigade level.

- Human resources support.
- Religious support.
- Common operational picture, also known as COP, input.
- Combat information and intelligence.
- Roles 1 and 2 medical support.
- Water distribution.
- Reporting requirements.

1-103. The FSCs have a headquarters section, a distribution platoon, and a maintenance platoon. The headquarters' food service section provides class I support, food service, and food preparation for the

company and its supported battalion. The food service section prepares, serves and distributes the full range of operational rations.

1-104. The distribution platoon consists of a platoon headquarters and four squads that can be task organized to distribute classes II, III, IV, V, and VII. The distribution platoon leader and platoon sergeant execute all or a portion of the 14 materiel management functions as required to ensure supply stocks are available and ready for distribution. These personnel also execute both distribution integration and transportation operations functions, as required, to ensure supplies are assigned a transportation mode, route, and movement time.

1-105. FSC maintenance platoons vary based upon the equipment and major weapon systems of the supported battalion. Generally, the maintenance platoon of an FSC consists of a platoon headquarters, maintenance control section, field maintenance section, service and recovery section, and field maintenance teams. Chapters 6 and 7 describe the distribution and maintenance operations of forward support companies as well as other units conducting these operations to support the BCT.

SUPPORT BATTALIONS OF MULTI-FUNCTIONAL BRIGADES

1-106. A mix of multifunctional brigades support theater army, corps, and divisions. These supporting brigades include the field artillery brigade, maneuver enhancement brigade (MEB), combat aviation brigade (CAB), and sustainment brigade. Additionally, functional support brigades can include engineer, medical, military intelligence, and military police brigades. A mix of these functional and multi-functional brigades are task organized under corps and division control, enabling them to conduct LSCO.

1-107. Most support brigades are not fixed organizations with a set list of organic subordinate units. Each support brigade, except the CAB, is designed around a small base of organic elements to which a mix of units and additional capabilities are added based on mission variables. The brigade headquarters includes the necessary expertise to provide C2 of many different functional and multifunctional battalions and companies each with specific capabilities. Each type of brigade includes organic signal and sustainment capabilities.

1-108. Multifunctional brigades are organized to support divisions and BCTs and carry out tasks to support the division. These brigades add capabilities (such as attack and reconnaissance aviation and fire support) that complement the maneuver BCTs and enable the division to fight as a combined arms formation.

1-109. Multifunctional brigade support battalions are designed for the type of brigade supported. Each multifunctional brigade support battalion has a slightly different composition with distinct capabilities.

FIELD ARTILLERY BRIGADE

1-110. A field artillery brigade's primary task is to provide fires and precision strike by employing joint and organic fires capability. The field artillery brigade is comprised of a combination of rocket and cannon artillery systems to support a corps, division or brigade combat teams. The field artillery brigade is not organic to any Army organization or echelon but often has a habitual relationship with a specific division or corps.

1-111. A field artillery brigade's organic assets include one or more field artillery battalions, a BSB, a headquarters and headquarters battery, a signal network support company, and one or more forward support companies. The forward support companies are structured to support the types of field artillery battalions organic to the fires brigade; cannon or rocket artillery. Refer to ATP 3-09.24, *Techniques for the Fires Brigade* for more information about the field artillery brigade.

Field Artillery Brigade Support Battalion

1-112. The field artillery brigade's BSB is the primary logistics organization that provides its support. It plans, coordinates, synchronizes, and executes logistics support for the field artillery brigade and support to field artillery battalions, the brigade HHB, and network signal company. The BSB plans and coordinates replenishment of classes I, II, III(B), IV, V, IX, and water for the field artillery brigade units. The BSB performs field maintenance and recovery, and operates an ammunition transfer holding point. The BSB also plans and coordinates for mortuary affairs support. Additional sustainment capability may be attached to the

field artillery brigade BSB an may include modular supply companies, transportation companies, and ammunition companies. Company-sized medical units will normally not be attached to a field artillery brigade BSB, though a smaller medical detachment may be attached as the mission requires.

Headquarters and Service Company

1-113. The field artillery brigade BSB has an organic headquarters and service company (HSC) which consists of two platoons: the headquarters platoon and a support platoon. The HSC includes a SPO section responsible for planning and coordinating support requirements for subordinate field artillery organizations. The SPO communicates support requirements to the brigade S4 who, in turn, passes the requirements to the corps G4 for planning. The SPO coordinates replenishment for the field artillery brigade through a supporting sustainment brigade identified as providing general support to the field artillery brigade in the corps operation order. If additional supply and distribution capability is attached to the BSB, the BSB S3 and SPO execute distribution for the field artillery brigade. The S3 and SPO collaborate to develop and synchronize a distribution plan as previously described in this chapter and chapter 3 of this ATP.

1-114. The HSC support platoon has a distribution section, an ammunition transfer and holding point (ATHP) section, a maintenance control section, a field maintenance section, and a service and recovery section. The HSC is capable of supporting itself, the brigade HHB, and signal company but is not designed to support the firing battalions or FSCs. Distribution to the FSCs is via a corps CSSB either through unit distribution or supply point distribution.

Forward Support Companies

1-115. There is one forward support company for each field artillery battalion in the field artillery brigade. The forward support companies are assigned to the field artillery brigade. The brigade commander, with advice from the BSB and firing battalion commanders, will determine the appropriate command relationship for the FSCs. Mission and operational variables are considered when determining the command relationship. Normally, the FSCs are attached to the field artillery battalions because they operate in dispersed fashion and regularly displace their firing batteries during combat. The FSCs may be attached to the BSB if the situation dictates. The FSC commander is responsible for executing the sustainment plan for the fires battalion in accordance with the supported fires battalion commander's guidance.

1-116. The FSCs have a headquarters section, distribution platoon, and a maintenance platoon. The distribution platoon consists of battalion and battery support squads. The maintenance platoon consists of a platoon headquarters, maintenance control section, maintenance section, service and recovery section, and the field maintenance teams.

MANEUVER ENHANCEMENT BRIGADE

1-117. The MEB is a multifunctional mission command headquarters that provides task organized forces to support Army division, echelon above division, joint, interagency, or multinational headquarters. Task organization is based on mission requirements for the echelon that it is supporting. The MEB operates across the range of military operations, reinforce, or complement decisive action.

1-118. The MEB is designed as a headquarters capable of performing command and control warfighting function tasks with a multifunctional brigade staff organized to execute maneuver support operations. The MEB is not a maneuver brigade although it can be assigned an AO and control terrain. The MEB receives and commands forces to conduct operations. MEBs provide capabilities to enhance freedom of movement and maneuver for operational and tactical commanders. For more information on MEB, refer to FM 3-81, *Maneuver Enhancement Brigade*.

1-119. Beyond its three organic units – HHC, network support company, and BSB – the MEB has no fixed structure. The MEB requires force tailoring or task organization for every mission it performs. The organization is tailored to respond to different mission variables. A MEB usually includes a mix of several types of battalions and separate companies, which may include civil affairs, CBRN, engineer, explosive ordnance disposal, and military police units. It may also contain military intelligence assets, a tactical combat force, and air and missile defense units.

MEB Brigade Support Battalion

1-120. The MEB BSB is the primary logistics organization supporting the MEB. It is designed to synchronize logistics support for the MEB task organized with a combination of military police and engineer battalions, and CBRN companies and detachments, brigade HHC, and Network Signal Company. The BSB plans and coordinates distribution of classes I, II, III (B), IV, V, IX, and water. The BSB performs limited field maintenance and recovery, and operates a modular ammunition transfer point (MATP). The MEB has no organic battalions and is tailored with units to support mission requirements. Command and support relationships vary widely based on mission requirements presenting a unique challenge for the MEB support battalion in planning, coordinating and synchronizing logistics support.

1-121. Army National Guard and Army Reserve forces MEBs without assigned BSBs employ a supporting CSSB to directly replenish units attached to the MEB using either unit or supply point distribution or a combination of the two methods. The CSSB will normally have a general support relationship with the MEB, with priorities of support determined by the CSSB's parent sustainment brigade. Normally, units attached to the MEB will report logistics status and requirements to the MEB S-4, who then coordinate support from the CSSB SPO.

MEB Brigade Support Battalion Task Organization

1-122. Where present, the MEB BSB has an organic HHC, distribution company, and maintenance company. Unlike other BSBs, the MEB BSB does not have an assigned medical company or forward support companies. Without forward support companies, the MEB BSB is challenged to support subordinate elements.

1-123. The MEB BSB supports the MEB by providing and/or coordinating classes I, II, III, IV, V, VII, and IX supplies, field-level maintenance, and transportation support. The BSB also coordinates for additional transportation requirements the brigade identifies. The MEB BSB receives Role 2, Army Health System support from medical units who provide area support of the AO.

Headquarters and Headquarters Company

1-124. The HHC provides C2, staff planning, and supervision for all elements of the MEB BSB, while directing sustainment operations for the supported units. The SPO section coordinates support requirements for the battalions attached to the MEB. The SPO section has staff supervision of the multiclass SSA, MATP, and field maintenance company. The company headquarters performs administrative tasks, unit supply, and oversight of field feeding. The field feeding section provides support to all units assigned or attached to the BSB.

Distribution Company

1-125. The distribution company supervises, directs, and manages the receipt, storage, and issue of classes I, II, III, IV V, VI, IX, water to supported units. The fuel and water platoon provides fuel storage and distribution, water purification and distribution. The supply platoon operates the supply support activity (SSA) and operates the MATP.

Field Maintenance Company

1-126. The field maintenance company provides field-level maintenance support to the headquarters and attached units. Although not allocated a brigade logistics support element, the MEB can request brigade logistics support element capabilities from the supporting Army field support brigade.

SPECIAL FORCES GROUP

1-127. The group support battalion (GSB) is the primary logistics provider in the special forces group. Its role is to plan, coordinate, synchronize, and execute logistics operations to support the special forces group. When an Army Service component command’s logistics support is unavailable or not established in the joint operations area, the GSB will be the primary common user logistics provider. The GSB commander is the senior logistician in the group and advises the group commander in logistics management and execution.

1-128. The GSB is a joint and multinational-capable organization in that it can accept, integrate, and employ the augmentation of assets from other Services and nations. In a joint special operations task force, the GSB commander may assume the role of deputy commander for support in addition to commanding the battalion. As the deputy commander for support, the GSB commander develops the sustainment concept of support for the joint special operations task force, including elements from the Marine Corps Special Operations Command, Naval Special Warfare Command, and Air Force Special Operations Command.

Group Support Battalion Capabilities

1-129. The GSB provides rapidly deployable multifunctional logistics and medical support. In developed theaters of operations, the GSB synchronizes its support with conventional forces. Due to the dispersion of supported units, the GSB coordinates with conventional force sustainment brigades, the expeditionary sustainment command, and the theater sustainment command as needed. This support enables area support to each special operations task force, advanced operations base, and special forces operational detachment. Area support enables special operations forces elements in the vicinity of conventional force bases to receive sustainment support. The special operations sustainment brigade provides a key link to conventional forces by embedding Army special operations forces liaison elements and Army special operations forces support operations teams in tactical and operational conventional force sustainment structures.

1-130. The GSB and FSCs may require Army logistics augmentation to provide logistics support during sustained operations or for a capability not organic to the special forces group. The augmentation may be necessary when the special operations task forces are set up in undeveloped theaters, when they do not establish special operations task force bases at fixed facilities, or when a high percentage of special forces operational detachments are committed simultaneously. The GSB is often required to execute split-based operations outside the continental United States.

Group Support Battalion Task Organization

1-131. The GSB controls consolidated logistical facilities at the joint special operations task force and projects sustainment operations by ground and air assets. Group support battalions have an HHC, sustainment and distribution company, maintenance company, one technical and information support company, advance skills company, signal detachment, military intelligence company, and a tactical unmanned aircraft system platoon. Medical units providing area support and a special operations medical detachment in the special operations sustainment brigade provide medical coverage to a GSB. FSCs are assigned to special forces battalions.

Headquarters and Headquarters Company

1-132. The HHC of the GSB provides organic battalion-level administrative and supply support for all assigned and attached personnel and coordinates external support for the special forces battalions through the SPO section.

1-133. The SPO section in the GSB is the hub of multifunctional logistic operations to support the special forces group. It performs continuous sustainment preparation of the OE, develops and synchronizes the overall sustainment support concept, plans and coordinates for ground/air resupply, plans for landing zones in the vicinity of the special operations task force, and develops logistics synchronization matrices. The SPO section plans the allocation of resources in conjunction with the supported chain of command.

1-134. The SPO staff is made up of operations, intelligence, movement, electronic warfare, procurement, petroleum, ammunition, supply, maintenance, food service, and mobility (including strategic air and ground) experts. The SPO section of the GSB provides centralized, integrated, and automated command, control, and planning for logistical management operations in the special forces group.

Sustainment and Distribution Company

1-135. The sustainment and distribution company is a multifunctional logistics company consisting of supply, service, distribution, and airdrop support platoons. The company provides maintenance, classes I through IX supplies, water production, base support, aerial delivery, ammunition holding, medical support, and transportation. The sustainment and distribution company is independently deployable and capable of

providing common user logistics support to a force package of approximately 2,200 personnel when combined with the logistics support capabilities resident in the special forces battalions. For support to progressively larger and widely dispersed special operations force packages, the GSB depends upon augmentation from the theater Army's theater sustainment command.

Maintenance Company

1-136. The maintenance company consists of the following sections: headquarters, maintenance control, ground maintenance, electronic maintenance, armament maintenance, and base support. It provides base operations support and field-level maintenance for Army-common and select specific special operations forces automotive, power generation, armament, construction, quartermaster, communication, electronic, and ground support equipment. The maintenance control section provides maintenance information management to the SPO section by transmission of data Combat Service Support Automated Information System Interface (CAISI), Very Small Aperture Terminal (VSAT), GCSS-Army, and other communications systems.

Forward Support Company

1-137. Each special forces battalion has an organic FSC. The FSCs are designed to provide support to the special forces battalions. The FSC consists of sustainment, distribution, and maintenance platoons. It is a multifunctional logistics company providing maintenance, limited classes I through IX supplies, fuel and water production, ammunition holding, and transportation. The FSC is independently deployable and capable of providing support to an entire special forces battalion and its attached elements. When the special forces battalion establishes a special operations task force, the FSC commander may coordinate and supervise the support center logistics activities. The FSC—

- Provides continuous battle tracking of special forces battalion units.
- Assists the battalion S-4 with developing the sustainment concept of support for the battalion.
- Executes tactical and logistical coordination with higher, adjacent, and supported units, as appropriate.
- Oversees the development of the daily logistics packages by the service detachment supply section and the company supply sergeants.

COMBAT AVIATION BRIGADE

1-138. 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; position personnel, supplies, and equipment; evacuate casualties and perform personnel recovery; and enable C2 to support the combined arms team. A combat aviation brigade is organized to synchronize operations of multiple aviation squadrons/battalions, ground maneuver battalions, or companies and joint aviation units task organized to provide reconnaissance, security, hasty and deliberate attacks, interdiction, air assault, and air movement operations to support ground forces under the headquarters to which it is assigned. The CAB is tailored for the mission, containing both manned and unmanned systems, and can support multiple brigade combat teams.

1-139. The theater aviation brigade is a deployable operational level organization that usually reinforces other aviation commands with subordinate battalions and companies or provides theater support autonomously. The theater aviation brigade may also be task organized with other aviation units to accomplish other traditional CAB missions and core competencies but requires C2, staff and maintenance augmentation.

Aviation Support Battalion Capabilities

1-140. The aviation support battalion (ASB) is organic to the CAB, the expeditionary CAB, and the theater aviation brigade. It consists of a HSC, a distribution company, an aviation support company, and a brigade signal company. The ASB provides aviation and ground field maintenance, ground and aviation recovery, network communications, resupply, and Role 1 medical support for the CAB. The ASB provides maintenance augmentation to aviation battalions when required The ASB supports the CAB's forward support companies/troops, aviation maintenance companies/troops, the brigade's HHC, and the unmanned aircraft

systems, if applicable. The ASB provides distribution of classes I, II, III (B), IV, V, and IX. It provides water storage and operates both MATP and supply support activity.

Aviation Support Battalion Task Organization

1-141. The ASB consists of four companies: headquarters and support company, distribution company, aviation support company (ASC), and a brigade signal company. The ASB is configured differently from other BSBs; the ASB does not have an assigned medical company but has a medical platoon that provides Role 1 medical care to the ASB and its units. Additionally, the forward support companies and aviation maintenance companies are organic to aviation brigade's battalions and not the ASB.

Headquarters and Support Company

1-142. The HSC provides C2 for all elements of the ASB and plans sustainment for the brigade's operations. The maintenance platoon supports the ASB's assigned companies and aviation brigade headquarters. The maintenance platoon oversees the field maintenance activities throughout the company, performs the maintenance management and production control functions, and maintains the class IX stockage levels. The field maintenance section executes ground recovery operations for the ASB and brigade HHC and provides maintenance evacuation and small arms repair for the entire brigade.

1-143. The medical platoon of the HSC provides medical support with a Role 1 medical treatment facility for the CAB. The platoon is organized into headquarters, treatment, and evacuation sections. The ASB treatment squad can provide limited augmentation to the medical sections in the brigade HHC and flight battalions who retain their own organic flight surgeons and medics in their organic medical treatment team. The medical platoon provides the following capabilities for the ASB.

- Tactical combat casualty care and acute trauma management for wounded and disease and non-battle injury patients.
- Sick call services.
- Ground ambulance evacuation from supported units.
- Mass casualty triage and management.
- Limited patient decontamination.

ASB Distribution Company

1-144. The distribution company supervises, directs, and manages the receipt, storage, and delivery of supply classes I, II, III, IV V, VI, IX, and water to the forward support companies and other brigade units. The distribution company provides retail aircraft and ground refueling. It establishes and operates a forward arming and refueling point (FARP). The petroleum and water platoon has a two-person quartermaster petroleum team assigned to provide aircraft petroleum quality assurance testing and technical assistance for handling, storing, sampling, identifying, and performing quality evaluation of petroleum products and their containers.

1-145. The distribution company operates the SSA warehouse for class IX air and ground parts. It manages the demand supported authorized stockage list (ASL) and availability of aircraft repair parts. The distribution company receives inoperable equipment and coordinates transportation for the recovery and retrograde of ground and aviation equipment.

Aviation Support Company

1-146. The aviation support company (ASC) provides aviation field-level maintenance support for manned and unmanned aircraft systems. The ASC is structured to support aviation battalions that do not have an organic maintenance capability. The ASC performs battle damage assessment and repair and maintenance augmentation to aviation battalions when needed. The aviation support company's structure provides it with the capabilities and capacity to perform component repairs not available to the CAB. However, neither the ASC nor any other organization in the CAB can perform sustainment-level maintenance. Sustainment-level maintenance personnel handle damaged or inoperable aircraft requiring time-consuming repair actions. See chapter 7 for more information on field-level and sustainment-level maintenance.

1-147. The ASC is organized to support specific types of aircraft. It also has a production control section that develops a maintenance execution plan to support mission requirements as determined by the commander. The ASC has a quality control section that provides technical oversight and safety on all associated maintenance actions, task performance, and inspections.

ASB Brigade Signal Company

1-148. The brigade signal company provides command, control, communication, computer, intelligence, surveillance, and reconnaissance signal systems networks to the supported combat aviation brigade. The brigade signal company's support includes deploying, installing, operating, and maintaining these systems. The company contains two small command post support teams responsible for the establishment of primary CP voice and video capabilities for the brigade. It also contains multiple retransmission teams to provide extended range to brigade-level radio networks.

Aviation Forward Support Companies

1-149. An FSC is organic to each operational aviation battalion/squadron and consists of a headquarters platoon, distribution platoon, and ground maintenance platoon. The FSC provides enhanced aircraft logistics and ground maintenance capabilities. The FSC is also capable of establishing and operating a FARP to reduce the distance aircraft must move to rearm and refuel, allowing them to maximize flying time on station for their missions. The FSC coordinates with the ASB for additional logistics as required.

1-150. The ASB executes replenishment operations for the forward support companies and the aviation maintenance companies. The FSC works closely with the brigade aviation maintenance officer and SPO section in the procurement of class IX parts and acts as the direct link to sustainment maintenance program representatives.

Chapter 2
Mission Command

Mission command is the Army's approach to command and control that enables unified land operations. Mission command and C2 are different and distinct aspects of how commanders exercise direction control over subordinate units to achieve desired objectives. BSB commanders understand the differences in the two and how to exercise both for the most effective outcomes. This chapter provides overviews of the Army's mission command philosophy which is applicable at all levels of command in the BSB.

MISSION COMMAND

2-1. *Mission command* is the Army's approach to C2 that empowers subordinate decision making and decentralized execution appropriate to the situation. All types of war, including large-scale combat operations, are inherently chaotic and uncertain. The BSB commanders and staff understand that plans change frequently and rapidly, it is difficult to account for every possible scenario. No single person, not even the commander, is sufficiently informed to keep up with the number of critical decision required to keep pace with combat. Subordinate commanders and leaders often have greater understanding of the situation and are, therefore, better suited to make decision to achieve the original intent. Commanders empower subordinate leaders to decide and act accordingly. This approach allows commanders to capitalize on subordinate initiative and decision making when the situation when the situation changes, or elements of current orders are overcome by events and no longer relevant to the desired end state.

2-2. BSB commanders foster an environment of mutual trust and disciplined initiative. The conditions in which the BSB operates and the span of control, especially the number of widely dispersed FSCs, make such an environment imperative. BSB commanders should not attempt to impose perfect order but instead adopt the approach that places trust in subordinates' initiative and accepts uncertainty and unpredictability. Overly detailed directives to subordinates can hinder achievement of the desired end state when subordinates spend more time adhering to the plan than focusing on the outcome, particularly when the situation changes. This is counterproductive. Commanders provide adequate information and authority for subordinates to operate. Subordinates have the audacity and courage to make decisions without waiting for the BSB commander to issue orders.

2-3. The BSB commander, staff, and company commanders require open, candid communication. BSB commanders recognize well-intended, disciplined effort of company commanders and junior leaders. The BSB commander allows for and accepts honest mistakes during training. Positive counseling, coaching, and mentorship allow the BSB commander to correct behavior in a manner that instills both knowledge and confidence on the part of subordinates. This cultivates competence, confidence, and courage subordinates need to perform in the dangerous and unpredictable environments encountered during large-scale combat operations.

2-4. The mission command approach to C2 applies to all ranks and duty positions in the BSB. Subordinate leaders, particularly staff officers and non-commissioned officers, play important roles in mission accomplishment. All have specific tasks and may often operate independently. Subordinate leaders understand the higher headquarters' mission, commander's intent, guidelines, and authority. When faced with uncertain circumstances and in absence of orders, these junior leaders employ initiative and act decisively to accomplish critical tasks.

PRINCIPLES OF MISSION COMMAND

2-5. BSB and company commanders achieve effective mission command by fostering competent subordinate units and leaders through rigorous training and education. Commanders develop an environment of mutual trust and shared understanding between company commanders and the BSB staff. This takes time and is only accomplished through deliberate effort by everyone involved. Commanders issue mission orders that focus on the purpose and desired end state of a mission instead of focusing on how subordinate companies perform assigned tasks. This allows subordinate commanders the latitude to make decisions to accomplish tasks according to the current situation. BSB commanders also ensure that subordinate commanders have sufficient resources to accomplish all assigned tasks. Successful mission command is enabled by the following principles.

COMPETENCE

2-6. Effective mission command and a unit's ability to exercise it relies on tactically and technically competent commanders, Soldiers, and teams. BSB commanders, company commanders, and leaders achieve competence through repetitive, realistic, and challenging training, education, experience, and professional development. These events not only build competence but also individual confidence, teamwork, and trust at all levels.

MUTUAL TRUST

2-7. Mutual trust is shared confidence between the BSB commander, the staff, company commanders, and junior leaders that all can be relied upon and are competent in their positions. This trust can only be achieved over time based on common experience. Mutual trust is an essential element of mission command. The BSB commander directs the company commanders to accomplish important tasks. The commander will delegate greater authority to do so. Company commanders trust the BSB commander will accept and support the outcome of their decisions. In this way, company commanders will exercise greater initiative.

SHARED UNDERSTANDING

2-8. Shared understanding is essential to decentralized execution under mission command. The BSB commander and the staff create shared understanding throughout the operations process. This method frames the OE in a way that can be understood by subordinates. A clear mission, critical tasks to be accomplished by each unit, problems affecting mission accomplishment, and potential solutions are parts of information required. Throughout the process, everyone involved shares and questions information to understand the situation and to support decisions. Furthermore, information is shared down to the lowest level.

COMMANDER'S INTENT

2-9. A clear commander's intent is vitally important to shared understanding and effective subordinate actions. The BSB commander's intent is a clear and concise statement that describes what constitutes success for the operation. It also describes the purpose of the operation, the desired end state, and may include key tasks. Commanders deliberately develop their intent. Since the commander's intent provides the basis on which the staff and company commanders develop plans it does not have unnecessary, grandiose, or confusing verbiage. It is clearly nested with and supportive of the BCT mission. By understanding the commander's intent, company commanders and junior leaders know what must be accomplished for a successful mission. They can take the initiative and act appropriately without additional orders when the situation changes or when the operation does not unfold as planned.

MISSION ORDERS

2-10. Mission orders are directives that emphasize to subordinates the results to be attained, not how they are to achieve them. The BSB commander issues orders (verbal, written or signaled) with this intent in mind. Commanders provide adequate information to allow subordinates to understand the mission, intent, level of subordinate authority, guidelines, and critical tasks. Mission orders are not be so detailed as to stifle initiative or so general that they create confusion. The mission orders do not dictate how subordinates accomplish a

task. Instead, the orders provide the necessary information so company commanders and junior leaders can decide how to accomplish their assigned tasks to achieve the commander's intent.

DISCIPLINED INITIATIVE

2-11. Disciplined initiative applies to all commanders and leaders in the BSB from the battalion commander to the platoon leaders. It is the understanding that commanders and leaders have a responsibility to follow orders and adhere to the original plan until such time they realize the orders and plan are not suitable for the current conditions and circumstances. When this situation presents itself, commanders and leaders take initiative to adjust to the current conditions to achieve the commander's intent. They must, as soon as possible, report to the higher headquarters of the change in conditions and the new operational approach.

RISK ACCEPTANCE

2-12. Risk is inherent and unavoidable in large-scale combat operations. BSB commanders cannot conduct operations without exposing significant portions of unit personnel and equipment to extreme risk. It is unrealistic and detrimental to the mission to attempt to avoid all risk. Commanders and leaders analyze the risk, apply judgement, and determine if the risk is worth the perceived benefit in terms of mission accomplishment and potential capability loss. Commanders and leaders understand the greatest opportunity may come from the course of action with the most risk. Commanders use all information available in determining the amount of risk to accept understanding that there is never perfect or complete information or intelligence.

COMMAND AND CONTROL

2-13. C2 is the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. C2 is more important than any other operational activity because it synchronizes and integrates all warfighting functions.. Effective C2 ensures activities are coordinated and synchronized toward a common objective to achieve maximum effect. The BSB commander is the focal point of C2 and provides the purpose, direction, and motivation to subordinates that enables BSB mission success. The operations process is the Army's framework for executing C2. The BSB commander and staff employ the operations process to drive detailed planning necessary to direct, lead, and assess operations.

2-14. C2 are interrelated and both are necessary for the BSB commander to direct, coordinate, and synchronize actions of subordinate commanders and leaders. C2 is dependent on multi-directional flow of information and feedback from all echelons to achieve shared understanding and to be able to adjust to rapidly changing circumstances.

2-15. *Command* is the authority that a commander in the armed forces lawfully exercises over subordinates by virtue of rank or assignment. Command includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating, and controlling military forces for the accomplishment of assigned missions. It also includes responsibility for health, welfare, morale, and discipline of assigned personnel (JP 1).

2-16. The art of command is the creative and skillful exercise of authority through timely decision making and leadership. As an art, command requires the use of judgment. The BSB commander must constantly use judgment for such things as delegating authority, making decisions, determining the appropriate degree of control, and allocating resources. Facts like troop-to-task ratios may influence a commander but they do not account for the human aspects of command. A commander's experience and training also influence their decision making. Proficiency in the art of command stems from schooling, self-development, and operational and training experiences.

2-17. Control is the regulation of forces and warfighting functions to accomplish the mission in accordance with the commander's intent. Aided by staffs, commanders exercise control over assigned forces in their area of operations. Staffs coordinate, synchronize, and integrate actions, inform the commander, and exercise control for the commander. Commanders impose enough control to mass the effect of combat power at the decisive point in time while allowing subordinates the maximum freedom of action to accomplish assigned tasks.

2-18. The science of control consists of systems and procedures used to improve the commander's understanding and support accomplishing missions. The science of control supports the art of command. In contrast to the art of command, the science of control is based on objectivity, facts, empirical methods, and analysis. Commanders and staffs use the science of control to overcome the physical and procedural constraints under which units operate. Units are bound by such factors as movement rates, fuel consumption, weapons effects, rules of engagement, and legal considerations. Commanders and staffs strive to understand aspects of operations they can analyze and measure, including the physical capabilities and limitations of friendly and enemy organizations. Control requires a realistic appreciation for time and distance factors, including the time required to initiate certain actions.

THE COMMAND AND CONTROL WARFIGHTING FUNCTION

2-19. The C2 warfighting function is the related tasks and systems that enables commanders to synchronize and converge all elements of combat power (movement and maneuver, intelligence, fires, sustainment, protection, information and leadership). This warfighting function assists the BSB commander in achieving objectives and accomplishing missions. Additional information on the C2 warfighting function is available in ADP 6-0, *Mission Command: Command and Control of Army Forces*.

2-20. There are four C2 warfighting function tasks the BSB commander must execute to accomplish missions:

- Command forces.
- Control operations.
- Drive the operations process.
- Establish the C2 system.

COMMAND AND CONTROL SYSTEM

2-21. The BSB must establish an information system to effectively exercise C2. The system consists of the arrangement of people, processes, networks, and command posts that enable the commander to conduct operations. The C2 system enables subordinate BSB units to work toward a common purpose. The system supports the commander's decision making, allows the commander to disseminate orders, and allows the commander to control forces.

UNITY OF EFFORT

2-22. The BSB commander ensures the battalion's plans and operations contribute to and support the BCT mission, commander's intent, and concept of operations of higher headquarters. Continuous coordination, cooperation, and collaboration with the BCT ensures all operations are fully synchronized and integrated.

2-23. There are various mechanisms available to the BSB commander to enable unity of effort. Mechanisms can be physical activities or processes commanders understand to use them effectively: the operations process including the MDMP, command post operations, battle rhythm, and liaison.

THE OPERATIONS PROCESS

2-24. The BSB commander and staff use the operations process to understand, visualize, and describe both the OE and the operation's end state. The commander uses this information to make decisions on how to best support the BCT and then issues orders to articulate those decisions, direct, lead and assess BSB operations.

2-25. The operations process provides commanders and staff a deliberate method of developing executable plans despite time constraints faced during large-scale combat operations. Commanders and staffs understand the process well and know which elements of it can be compressed or eliminated to save time but still develop an executable plan.

2-26. The BSB commander and staff use the operations process to integrate and synchronize the warfighting functions with BSB unit operations to accomplish the mission. The process allows commanders to understand how each of the warfighting functions enables or limits sustainment operations. Examples include:

- C2: Are command and support relationships established and understood? Does the plan have effective communications established?
- Movement and maneuver: How does the BCT scheme of maneuver impact distribution? Are planned distribution routes clear of obstacles, mines, IEDs? Does the BCT have priority of movement on the main supply route (MSR)?
- Intelligence: Does current enemy activity limit access to routes or areas?
- Fires: Does the BCT fires plan limit sustainment by making routes or areas impassable?
- Protection: Does enemy presence require additional protection on convoys? Do base protection requirements limit sustainment support?
- Sustainment: Do BSB units have required operational readiness and logistics capability to execute missions?

2-27. The BSB commander drives the operations process and is the most important participant. The BSB staff performs essential functions of the process but the commander drives the process through understanding, visualizing, describing, leading, and assessing operations. The commander, with the assistance of the staff, analyzes the OE in terms of the operational and mission variables. Operational variables consist of political, military, economic, social, information, infrastructure, physical environment, and time. Mission variables consist of mission, enemy, terrain and weather, troops and support available, time available, and civil considerations. How these variables interact in a specific situation, domain (land, maritime, air, space, or cyberspace), area of operations, or area of interest describes a commander's OE, but it does not limit it. Commanders, applying understanding of operational variables in relation to the mission variables, must visualize the OE, describe their intent, and direct staff and subordinates through plans and orders to execute the mission. Additional information on the operations process is found in ADP 6-0.

Plan

2-28. Planning helps commanders create and communicate a common vision of how to execute sustainment between their staff and subordinate commanders. Planning results in an operational approach and orders that synchronize the action of the BSB in time, space, and purpose to achieve BCT objectives and accomplish the BCT missions.

2-29. BSB planning is both a continuous and a cyclical part of the operations process. While planning may start an iteration of the operations process, planning does not stop with the production of an order. During preparation and execution, the plan is continuously refined as the situation changes. Through continual assessment, subordinates and others provide feedback as to what is working, what is not working, and how the unit can do things better.

2-30. BSB commanders issue plans and orders to subordinates to communicate their understanding of the situation and their visualization of an operation. The measure of a good plan is not whether execution transpires as planned, but whether the plan facilitates effective action to achieve the desired end state in the face of unforeseen events. Good plans and orders foster initiative. Planning helps leaders:

- Understand and develop solutions to problems. An operational problem is the issue or set of issues that impede commanders from achieving their desired end state.
- Anticipate events and adapt to changing circumstances. Planning keeps the force oriented on future objectives despite the requirements of current operations.
- Task-organize the force and prioritize efforts.

2-31. The staff's role is to help commanders understand situations, make and implement decisions, control operations, and assess progress. FM 6-0, *Commander and Staff Organization and Operations*, includes key components of a plan or order as well as descriptions and formats for mission orders and appropriate appendixes.

Planning Considerations by Warfighting Function

2-32. Throughout operations, the BSB commander, subordinate commanders, and the BSB staff face various problems, requiring distinct and creative solutions. Planning provides an informed forecast of how future events may unfold. Planning is thinking critically and creatively; it entails identifying and evaluating potential

decisions and actions in advance including thinking through consequences of certain actions. Planning involves thinking about ways to influence the future as well as how to respond to potential events.

2-33. Planning considerations are those things that BSB sustainment planners take into account during large-scale ground combat operations for each of the warfighting functions. They help BSB planners identify specific support or operational requirements based upon available information. Considerations will vary for individual operations.

2-34. C2 planning considerations include, but are not limited to, the following:

- Enemy attacks on space and cyberspace domains, including the electromagnetic spectrum that could degrade communications and digital information transmission.
- Adverse impacts on satellite communications, use of digital information and C2 systems, positioning, navigation, timing, information collection, internet operations, and radio communications.
- Development and rehearsal of primary, alternate, contingency, and emergency communications plans is critical.
- Terrain may limit/degrade line-of-sight communications and force the need for retransmission stations.
- Frequent assessment of sustainment task organization to ensure it is adequate and positioned properly to support the sustainment mission.

2-35. Movement and maneuver planning considerations include the following:

- Expect sustainment resupply and support elements to operate outside the BCT boundaries and beyond the forward line of troops while supporting covering, guard, screening forces, counter and spoiling attack forces.
- Understand and anticipate how terrain, defense obstacles, control measures, fire support coordination measures, movement restrictions, and terrain will affect the methods of supply distribution and resupply.
- Ensure distribution managers coordinate with the BSB S-3 to ensure distribution is synchronized with BCT movement requirements and restrictions.
- Identify main and alternate movement routes.
- Anticipate and plan for support to special operations forces that may include special ammunition, specialty fuels, and non-standard equipment maintenance.
- Plan to support attack helicopter operations, including aviation-grade fuel, maintenance, munitions, and placement of forward arming and refueling points.
- Coordinate for the emplacement and movement of ground sustainment assets, as well as the deconfliction of Army aerial delivery and MEDEVAC requirements.
- Understand the BSB role in the deception operation if deception is part of the overall BCT operational concept. Deception means immediately available to the BSB commanders are operations security, also called OPSEC, cover and concealment, and presence, posture and profile.
- Ensure BCT mobility requirements (such as displacing command posts) will not compete with supply distribution transportation requirements. Understand BCT mobility requirements and develop an executable support plan that still allows maximum supply distribution.
- Understand class III(B) support requirements will increase greatly during large-scale combat operations and may exceed the BSB petroleum distribution capability. The BSB commander and SPO must coordinate with the DSB and DSSB, as required, for reinforcing class III(B) distribution support.

2-36. Intelligence planning considerations include the following:

- Understand enemy threat capability and enemy probable courses of action as well as how these factors specifically impact sustainment operations.
- Understand the OE through analysis of all operational and mission variables including analysis on how each variable may impact sustainment operations.

2-37. Fires planning considerations:

- Offensive and defensive fires greatly increase consumption of long range, obscuration, and precision munitions.
- The FSC supporting the fires battalion anticipate frequent and rapid relocation of the battalion and its batteries as the units conduct survivability displacements or shift their support.
- Ensure adequate ammunition transportation assets are properly positioned to support ammunition distribution for fires operations.
- For fires brigade BSBs, the lack of lift/distribution assets to perform class V resupply (especially when dealing with rocket pods). A unit basic load (UBL), for 2x8 High Mobility Artillery Rocket System, BN is 96 pods; the BSB can haul 44 pods on 5.5 systems (if not moving any other supplies) (0.45 UBL). The FSC can haul 128 pods on 16 systems (1.3 UBL).
- Class III(B) - estimate 1,756 gal/field artillery BN/day. However, this doesn't take dispersion of Corps high mobility artillery rocket system force into consideration.

2-38. Protection planning considerations include:

- Understand the enemy threats that exist in the BCT area of operations.
- Expect direct enemy attack by small unit/special operations ground forces, attack aircraft, and long-range artillery. Ensure that base defense measures are adequate to detect and defeat small unit ground operations.
- Consider the need for unit dispersion, cover and concealment to prevent detection and mitigate the risk of detection and effects of long-range fires and attack aircraft.
- Consider covering all reflective surfaces on vehicles (such as mirrors, windshields, and windows) as reflected light from these surfaces can be seen for great distances and from aircraft.
- Consider employment of a base cluster operation consisting of multiple small, dispersed bases versus a single large base.
- Plan for CBRN conditions.
- Plan for adequate convoy security. This may be from internal sources or from coordinated external sources.

2-39. Sustainment planning considerations include the following:

- Plan for execution of all sustainment elements; personnel services, medical, financial management, and logistics.
- Understand the concept of operations to ensure adequate support to the main effort including cross leveling sustainment/logistics assets within the brigade.
- Increased consumption of supplies water; defensive operations require increased amounts and caches of class V and increased amounts of some class V. Offensive operations require increased class III(B), class IX, and class V, particularly conventional artillery and obscuration munitions.
- Increased maintenance requirements, including recovery, as well as changes to how and where maintenance and recovery assets are echeloned.
- MEDEVAC and CASEVAC routes, casualty collection points, and non-standard haul capacity for casualties.
- Evacuation and processing of human remains.
- Reception and distribution of individual replacements.
- Transportation to support brigade mobility requirements.
- Shortfalls in tactical class III(B) distribution capability in the BCT and at echelons above the brigade.

Military Decisionmaking Process

2-40. The BSB staff uses the MDMP to develop a course of action and produce an operation order for the battalion. The MDMP is an iterative planning methodology to understand the situation and mission, develop a course of action, and produce an operation plan or order. The MDMP integrates the activities of the commander, staff, and subordinate headquarters to understand the situation and mission; develop and compare courses of action; decide on a course of action that best accomplishes the mission; and produce an operation plan or order for execution. The MDMP helps leaders apply thoroughness, clarity, sound judgment,

logic, and professional knowledge to understand situations, develop options to solve problems, and reach decisions. This process helps commanders, staffs, and others think critically and creatively while planning. The MDMP results in an improved understanding of the situation and a plan or order that guides the force through preparation and execution.

2-41. The rapid decision-making and synchronization process (RDSP) is a decision-making and synchronization technique that commanders and staffs commonly use during execution. Commanders and staffs develop this capability through training and practice. RDSP includes five steps. Units perform the first two steps in any order, including concurrently. Units preform the last three iteratively until commanders identify an acceptable course of action. The five steps of RDSP are—

- Compare the current situation to the order.
- Determine that a decision, and what type, is required.
- Develop a course of action.
- Refine and validate the course of action.
- Implement.

2-42. BSBs supporting large-scale combat operations often lack the time to effectively execute the MDMP. RDSP provides a time compressed solution to commanders in a dynamic environment. While the MDMP seeks the optimal solution, RDSP seeks a timely and effective solution within the commander's intent, mission, and concept of operations. Using RDSP lets leaders avoid the time-consuming requirements of developing decision criteria and comparing courses of action. Operational and mission variables continually change during execution. The change often invalidates or weakens courses of action and decision criteria before leaders can make a decision. Under RDSP, leaders combine their experience and intuition to obtain situational understanding. Based on this, they develop and refine workable courses of action.

Operational Art

2-43. Operational art is the use of personal skill, knowledge, experience, creativity, and judgment to understand the desired end state, the unit objective, mission and operational variables, and capability. With this, the commander can task organize and array subordinate companies in the most effective way to accomplish the mission. Through operational art, commanders and staffs combine the art of command and the science of control to develop plans and orders that describe how (ways) the force employs its capabilities (means) to achieve the desired end state (ends) while considering risk.

2-44. Commanders use the elements of operational art to understand the OE and develop a concept of operations. These elements can be used selectively in any operation as required and not all apply at all levels of warfare. The elements of operational art are:

- End state.
- Conditions.
- Center of gravity.
- Decisive points.
- Lines of operation.
- Lines of effort.
- Tempo.
- Phasing.
- Transitions.
- Culmination.
- Operational reach.
- Basing.
- Risk.

2-45. BSB planners synchronize and integrate sustainment with the other warfighting functions by determining what sustainment capability is required and where it must be located to achieve the desired end state. They also establish desired conditions including required quantities of supplies or operational readiness rate.

2-46. Planners should assume sustainment is a center of gravity during large-scale combat operations. They identify critical components of the sustainment support structure (such as supply storage and distribution) that could cause failure if destroyed and apportion protection to the sustainment assets as required.

2-47. Additionally, planners analyze the effects of sustainment in allowing a commander to reach decisive points. An example might consist of analyzing the class III (bulk), class V status to include controlled supply rates for critical munitions, or maintenance status in determining if the status is adequate to reach the decisive point.

2-48. Commanders and staffs determine how sustainment affects both lines of operation and lines of effort. Will sustainment affect the ability to reach and control a geographic objective? Planners use these considerations for all lines of effort. Commanders analyze how sustainment affects fires, protection, and movement and maneuver. Furthermore, commanders determine if sustainment support is a line of effort required to establish the desired end state. Sustainment always influences physical lines of operation in terms of operational tempo and operational reach.

2-49. Commanders analyze how sustainment will affect the desired tempo of the operation and if sustainment will allow maneuver forces to maintain a higher tempo than the enemy. Understanding the status of class III (B) is critical to controlling the tempo since fuel directly impacts movement and maneuver, especially for ABCT and SBCT formations. Commanders also ensure that maneuver tempo does not outpace the sustainment support.

2-50. Planners analyze the effect sustainment has on completing the current phase of an operation and transitioning to the next phase. The commander and staff use sustainment estimates to determine if the concept of support is achieving the desired results in terms of the operational objectives. They also use sustainment estimates to identify the changes to the plan and the specific support required to complete the phase.

2-51. Commanders must know the point at which the operation will culminate due to sustainment limitations or inadequate sustainment support. Lack of class III(B), as an example, might cause the operation to culminate sooner than planned and be unable to complete the assigned mission. Sustainment commanders and staffs determine the culmination point during planning and subsequent updates and communicate it to the maneuver commander for consideration. Maneuver planners can use this information to plan a deliberate transition from offense to defense.

2-52. Operational reach is closely tied to culmination since the culmination point is normally the limit of a unit's operational reach. Supply, maintenance, personnel replacements, and medical support directly affect endurance and the ability to employ combat power for extended periods.

2-53. Commanders consider what types of basing (such as an intermediate staging base or temporary base camps) are required to execute sustainment support. Basing can also include proper positioning, dispersion, protection, and C2 required to oversee the bases.

2-54. Both maneuver and sustainment commanders determine the amount of risk to accept when committing sustainment forces during planning. Commanders balance the risk with the potential favorable outcome. As an example, a commander might commit all available tactical fuel vehicles to reach a decisive point in the operation but must accept the fact that doing so jeopardizes future operations if the fuel assets are destroyed by enemy action.

Prepare

2-55. Preparation includes those activities performed by units to improve their ability to execute an operation. The MDMP drives preparation. Preparation usually begins upon receipt of a warning order from the higher headquarters. The battalion staff performs a timely analysis early in the planning process that helps them determine what actions they need to take and when to begin those actions to ensure forces are ready and in position before execution. The plan may require the commander to direct subordinates to start necessary movements, make task-organization changes, and execute other preparation activities before completing the plan.

2-56. Parallel planning for BSB staffs is critical to ensure timely planning and execution of sustainment operations in conjunction with maneuver forces. Parallel planning is multiple echelons planning for the same

operation sharing information sequentially through warning orders from the higher headquarters before the operation plan or operation order. Since several echelons develop their plans simultaneously, parallel planning significantly shortens planning time.

2-57. The higher headquarters continuously shares information concerning future operations with subordinate units through warning orders and commander dialogue to facilitate parallel planning. Frequent communication between commanders and staffs to share information (such as intelligence preparation of the battlefield products) help subordinate headquarters plan. Parallel planning requires significant interaction among echelons. During parallel planning, subordinate units do not wait for their higher headquarters to publish an order to begin developing their own plans and orders. Parallel planning is critical for the BSB and its sustainment concept of support development.

2-58. Other preparation activities include confirmation briefs, training, and information collection. During preparation, the responsibility for developing and maintaining the plan shifts from the plans (or future operations) cell to the current operations integration cell. The plans-to operations transition ensures members of the S-3 current operations integration cell fully understand the plan before execution. This transition is the point at which the current operations cell becomes responsible for controlling the execution of the operation order. The transition includes answering requests for information concerning the order and maintaining the order through fragmentary orders. The plans to operations transition enables the plans cell to focus its planning efforts on sequels, branches, and other planning requirements directed by the commander. The S-3 is responsible for managing the handoff of a plan from future operations to current operations.

Rehearsals

2-59. The BCT performs rehearsals to prepare for upcoming operations. A rehearsal is a session in which the commander and staff or unit practices expected actions to improve performance during execution. Four primary types of rehearsals are the back brief, combined arms rehearsal, sustainment rehearsal, and battle drill or standard operating procedure rehearsal. Methods for performing rehearsals are limited only by the commander's imagination and available resources. The commanders use rehearsals as a tool to ensure staffs and subordinates understand the concept of operations and commander's intent.

2-60. Sustainment rehearsals help synchronize each warfighting function with the BCT's overall operation. Throughout preparation, the BCT executes support rehearsals that typically involve coordination and procedure drills for sustainment, aviation, fires, engineer support, and medical and casualty evacuation. Support rehearsals and combined arms rehearsals complement preparations for the operation. Units may perform rehearsals separately and then combine them into full-dress rehearsals. Although these rehearsals differ slightly by warfighting function, they achieve the same result.

Sustainment Rehearsal

2-61. The BCT sustainment rehearsal ensures the synchronization of sustainment efforts before, during, and after operations. The sustainment rehearsal validates the logistics synchronization matrix and BSB's concept of the operation. The rehearsal focuses on the supported and supporting unit with respect to sustainment operations across time and space as well as the method of support for specific actions during the operation. The sustainment rehearsal normally occurs after the combined arms rehearsal.

2-62. The BSB commander hosts the rehearsal for the BCT commander and XO. The SPO facilitates the rehearsal to ensure rehearsal of critical sustainment events. BCT attendees include the BCT XO, brigade S-1, surgeon, chaplain, S-2 representatives, S-3 representatives, S-4 representatives, and S-6 representatives. Subordinate battalion representatives include the BSB commander, BSB CSM, SPO, the brigade support medical company commander, and each maneuver battalion XO, S-1, S-4, and medical platoon leader, as well as the FSC commanders, mobility warrants, and distribution company commander. The primary document used at the sustainment rehearsal is the logistics synchronization matrix.

Combined Arms Rehearsal

2-63. The BCT combined arms rehearsal ensures that subordinate units' plans synchronize with those of other units, and that subordinate commanders understand the intent of the higher headquarters. Usually, the BCT commander, XO, primary staff, and subordinate battalion commanders and their battalion S-3s attend

the combined arms rehearsal. Based upon the type of operation, the commander can modify the audience including additional participants such as—BCT attachments.

2-64. The execution matrix, decision support template, and operation order typically outline the rehearsal agenda. These tools, especially the execution matrix, drive and focus the rehearsal. The commander and staff use them to control the operation's execution. Any templates, matrixes, or tools developed within each of the warfighting functions (such as the logistics synchronization matrix) tie directly to the supported unit's execution matrix and decision support template.

Confirmation Briefs

2-65. A confirmation brief is one subordinate leaders give to the higher commander immediately after receiving an operation order. It demonstrates understanding of the commander's intent, specific tasks, and the relationship between the mission and the other units in the operation. Commanders often issue orders to subordinates verbally in situations requiring quick reactions. At battalion and higher levels, written fragmentary orders confirm verbal orders to ensure synchronization, integration, and notification of all parts of the force. If time permits, leaders verify that subordinates understand critical tasks. Commanders schedule confirmation briefs between themselves and within staff elements to ensure mutual understanding.

Execute

2-66. During execution, commanders focus their activities on directing, assessing, and leading while improving their understanding and modifying their visualization. Initially, commanders direct the transition from planning to execution when the battalion issues the order. The responsibility for integration passes from the plans cell or future operations cell to the current operations integration cell.

2-67. The S-3 current operations cell and the SPO solve problems and make decisions throughout execution. The SPO section uses a synchronization matrix as a visual and sequential representation of critical tasks and responsible organizations. The S-3 focuses on defining command and support relationships and geographical placement of units while generating and synchronizing staff support to the tactical units executing the mission. These efforts include the assignment of responsibilities among staff sections and command post cells to perform analysis and decision making. The S-3 has the primary responsibility to ensure success of the operation during execution. The SPO assesses the operation during execution to determine impacts on the planning of follow-on operations.

Assess

2-68. Assessment allows the BSB commanders and leaders to gain the situational understanding. Assessment provides commanders, staffs, and leaders with the necessary information to determine sustainment support requirements. Assessment allows commanders and staffs to diagnose problems to determine whether the battalion is executing the plan effectively, whether the plan needs to change, or whether additional sustainment is required to support the current plan. It also provides commanders and staffs with information on how sustainment operations are progressing and identifies problem areas where commanders can expect friction or conflict.

2-69. While assessment is listed as the last operations process task, it is continuous. Broadly, assessment consists of, but is not limited to, the following activities:

- Monitoring the current situation to collect information.
- Evaluating progress toward attaining end state conditions, achieving objectives, and performing tasks.
- Recommending or directing action for improvement.
- Reviewing assumptions and cumulative risk associated with previous decisions.

2-70. Throughout execution, the BSB staff uses running estimates to assess if support operations are occurring as planned and are achieving the desired results.

Assess Status of Organic, Assigned, and Attached Units

2-71. The BSB commander, company commanders, and leaders at all echelons assess the sustainment status of organic, assigned, and attached units. This includes but is not limited to status of personnel strength, equipment readiness, critical equipment on hand, critical supplies on hand by class, casualty status, organic medical capability if applicable, and battle losses. This information is used to determine support requirements by sustainment function. It identifies problem areas such as combat ineffective units and shortages of critical supplies.

Assess Status of Supported Units

2-72. The BSB commander and the SPO staff determine the sustainment status of the BCT units. SPO planners use this information to develop specific sustainment requirements to develop the support concept.

Assess the Status of BSB Support Capacity

2-73. The BSB commander and staff assess the status of support capability of the BSB companies. This is necessary to determine if the support assets available have the required capability to support the BCT.

2-74. This assessment determines if the sustainment task organization is adequate to support the BCT mission and identify shortfalls in terms of sustainment functionality. The assessment also determines if the location of units in the BCT area of operations is suitable for responsive sustainment support. Assessing the adequacy of the task organization supports requests for forces to higher headquarters.

2-75. Assessment also determines specific sustainment functional capability. It includes but is not limited to the following:

- Status of required supplies by class of supply including class VIII. This is in terms of quantities on hand to allow planners to balance on-hand quantities with required quantities. Planners also assess supply positioning to ensure supplies are positioned properly to support the defense and priority efforts.
- Status of field maintenance capacity to ensure it is adequate to repair damaged equipment to meet the BCT readiness requirements and timetables. The assessment includes status of recovery and critical maintenance test equipment.
- Status of transportation capacity to ensure it is adequate for the BSB distribution plan, BSB mobility and BCT mobility. Especially critical is status of petroleum transportation capability.
- Status of medical capacity and capability including treatment, holding, surgical, evacuation, and dental. Planners assess the positioning of medical units to ensure they support the BCT mission.
- Status of sustainment information systems including supporting CAISI and VSAT systems.

Assess the Operational Environment

2-76. BSB commanders assess the OE to identify aspects that will present problems or cause difficulty to the support concept execution. Commanders and staff estimate the extent each mission or operational variable will impact the operation and adjust the plan as necessary. Even when available preparation time may seem adequate, a rapid change in mission might drastically shorten the time available to plan and execute support. Difficult terrain, extreme distances, operating beyond the forward line of own troops, and severe weather may impact the support effort.

2-77. Enemy threat assessment and understanding probable enemy courses of action are critical to planning and protection. Regional peer enemies present multiple, highly destructive threats such as long-range artillery, attack aircraft, and infiltrating small unit or special operations forces. The enemy considers sustainment units and the locations from which they operate as high-value targets and will engage them repeatedly or even constantly. These attacks, the resulting personnel and equipment losses, high levels of local security required, and the need to disperse represent constant challenges.

COMMAND AND SUPPORT RELATIONSHIPS

2-78. Command and support relationships establish clear responsibilities and authorities between higher headquarters, subordinate, supported, and supporting units. Commanders advocate for the command and

support relationships most likely to be effective with the forces and capabilities available. Doctrine sets general guidelines for command and support relationships, but mission orders determine the details of the relationships. For each operation, the BCT and BSB commander develop and issue orders that clearly identify command and support relationships between BSB units and the BCT units they sustain. Changes in command relationships do not necessarily require changes in support relationships, especially if the nature of the support does not change.

COMMAND RELATIONSHIPS

2-79. Command relationships define responsibility and authority of a command over a subordinate unit. Army command relationships are organic, assigned, attached, OPCON, and tactical control (TACON). Command relationships create unity of effort and enable commanders to organize, direct, and employ subordinate forces with maximum effect. The type of command relationship relates to the expected longevity of the relationship between the headquarters involved and can shift throughout phases of an operation. The relationship identifies the inherent responsibilities of gaining and losing Army commanders. BCT command relationship decisions effect BSB sustainment support and task organization decisions.

2-80. Three command relationships include administrative control over a unit: organic, assigned, and attached. Organic forces are those assigned to and forming an essential part of a military organization as listed in its table of organization and equipment. Assigned is the relatively permanent placement of units or personnel in an organization. Attached is the relatively temporary placement of units or personnel in an organization. OPCON 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. TACON is the authority over forces limited to the detailed direction and control of movements or maneuvers in the area of operations necessary to accomplish missions or tasks assigned. TACON is inherent in the OPCON command relationship.

2-81. Command relationships provide the authority for a higher headquarters to control the unit mission and change task organization. For example, if an FSC is attached to a maneuver battalion, that battalion includes the FSC in its operations process. The battalion has the authority to issue orders to the FSC, establish priorities, change the task organization, of the FSC, assign a position or AO, and impose further command or support relationships.

SUPPORT RELATIONSHIPS

2-82. 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.

2-83. The BSB is organic to the BCT and, therefore, no support relationship is necessary between the two units. The BSB's A, B, and C companies are in general support to the FSCs and other BCT units. The FSCs are in direct support of a maneuver battalion. General support reinforcing and reinforcing relationships are applicable to sustainment units but are not normally used. These relationships may be appropriate in certain circumstances. Each support relationship directed in unit orders reinforces the commander's priority of

support. Higher headquarters designates the support relationships through appropriate orders to specify the details of the support relationship.

2-84. The BSB may be tasked to provide area support, in its capability, for units traversing the BCT AO. Area support applies to units with which the BSB companies have no designated support relationship. The BSB companies provide requested area support unless the support jeopardizes BCT operations.

BSB COMMAND POSTS

2-85. A command post (CP) is a unit headquarters where the commander and staff perform their activities. CPs help commanders in understanding, visualizing, describing, directing, leading, and assessing operations. CP staff and equipment are arranged to facilitate coordination, information exchange, and rapid decision making. Commanders use battle rhythm, standard operating procedures (SOPs), and meetings for effective CP operations. If a headquarters performs split-based operations, each section of the headquarters operates a CP regardless of whether the commander is present. When necessary, commanders control operations from other locations away from the CP. Commanders organize mission command systems (personnel, networks, information systems, processes and procedures, facilities and equipment) into CPs to enable them in the exercise of C2.

2-86. The BSB commander establishes a main CP where the majority of the BSB staff control current operations, perform detailed analysis, and plan future operations. The main CP is the primary location for plans, analysis, sustainment coordination, and assessment. It includes representatives of all staff sections and a full suite of information systems to plan, prepare, execute, and assess operations. The BSB executive officer provides staff supervision of the main CP. Functions of the main CP include but are not limited to—

- Controlling and synchronizing current battalion internal operations.
- Controlling and synchronizing sustainment support operations.
- Monitoring and assessing current operations for their impact on future operations.
- Assessing the overall progress and effectiveness of operations.
- Preparing reports required by higher headquarters and receiving reports from subordinate units.
- Maintaining running estimates.
- Planning and controlling operations.
- Developing and disseminating orders.
- Coordinating with higher, lower, and adjacent units.
- Executing knowledge management and information management.
- Performing network operations.
- Maintaining the common operational picture.
- Performing CP administration (examples include sleep plans, security, and feeding schedules).
- Supporting the commander's decision-making process.

2-87. When organizing the CP, commanders balance effectiveness and survivability. An effective CP enables effective C2 and rapid repositioning for effective support and survivability. Survivability is vital to mission success because the capabilities and personnel in the CP cannot be fully replaced if lost. Five factors that contribute to CP effectiveness are: design and layout, standardization, continuity, deployability, and capacity and range. For survivability, commanders consider dispersion, size, redundancy and mobility. See FM 6-0, *Commander and Staff Organization and Operations*, chapter 1 for additional information on CP effectiveness and survivability.

2-88. While not a separate section of the unit’s modified table of organization and equipment (MTOE), commanders can establish an early entry CP to help them control operations during the deployment phase of operations. An early entry CP is a lead element of a headquarters designed to control operations until the remaining portions of the headquarters deploy and are operational (FM 6-0). The early entry CP consists of personnel and equipment to perform the functions of the CP until those the entire BSB is deployed and operational.

2-89. The BSB commander assumes risk when establishing and employing multiple CPs. Personnel and equipment that comprise an early entry CP or tactical CP must be sourced internally and may impact the ability to operate the main CP.

2-90. The FSCs may provide personnel in a maneuver battalion's field trains CP and combat trains CP. For more information on field trains and combat trains CPs, see chapter 5.

COMMAND POST OPERATIONS

2-91. The XO is in charge of and supervises the staff in the main CP. As the key staff integrator, the XO frees the commander from routine details of staff operations and the management of the CP. The XO ensures efficient and effective CP operations. The XO duties include but are not limited to—

- Coordinating and directing the work of the staff.
- Establishing and monitoring the CP battle rhythm and nesting with higher and subordinate headquarters' battle rhythms for effective planning support, decision making, and other critical functions.
- Formulating and disseminating staff policies.
- Ensuring effective liaison exchanges with higher, lower, and adjacent units and other organizations as required.
- Supervising the sustainment of the CP and activities of the headquarters and headquarters battalion or company.
- Supervising staff training for CP operations.
- Coordination with the SPO officer to ensure BSB staff and SPO staff are synchronized.
- Coordination with the SPO officer on BSB task organization.

2-92. The XO establishes CP operations to perform 24-hour operations with multiple shifts. Each shift has an officer or senior non-commissioned officer who acts as the battle captain. The battle captain assists the commander by being the focal point in the CP for communications, coordination, and information management. The battle captain maintains awareness of the situation two echelons down at all times and the activities of adjacent units. The battle captain must have a working knowledge of all elements in the CP, understand the unit's SOPs, and ensure that the CP staff uses them. The battle captain knows the current plan and task organization of the unit and understands the commander's intent.

2-93. The battle captain maintains and continuously updates the common operating picture in the CP. The battle captain analyzes new information as it enters the CP and passes it to staff officers or the commander as appropriate. The battle captain leader understands the commander's critical information requirements as well as the criteria and triggers for the commander's decision points. The battle captain understands both the BCT scheme of maneuver and how the warfighting functions integrate into operations. The battle captain assists the XO in synchronizing the CP staff and current operations.

2-94. The BSB's SOP complements the supported brigade's SOP. Some areas addressed in an SOP are standard CP layout, battle drills, battle rhythm, communications, reporting procedures, report formats, and base layout templates (with and without the presence of FSCs and BCT units' field trains command posts). Successful units follow and revise SOPs throughout training and mission execution.

2-95. Effective CP operations require frequent training that includes establishing and practicing staff battle drills. The number and sophistication of BSB staff battle drills vary by organization. The battalion trains and practices battle drills in a variety of situations.

2-96. The commander considers the size, location, and mobility requirements of the CP and then configures the CP based on unit standard operating procedures. Figure 2-1 on page 2-16 depicts an example BSB CP layout with multiple work areas and uses equipment authorized by MTOE or common table of allowances. This figure is merely an example; commanders may organize and collocate the CP staff cells in any fashion based on the commander's desires and operational requirements. The commander may also add or remove equipment depending on mission variables.

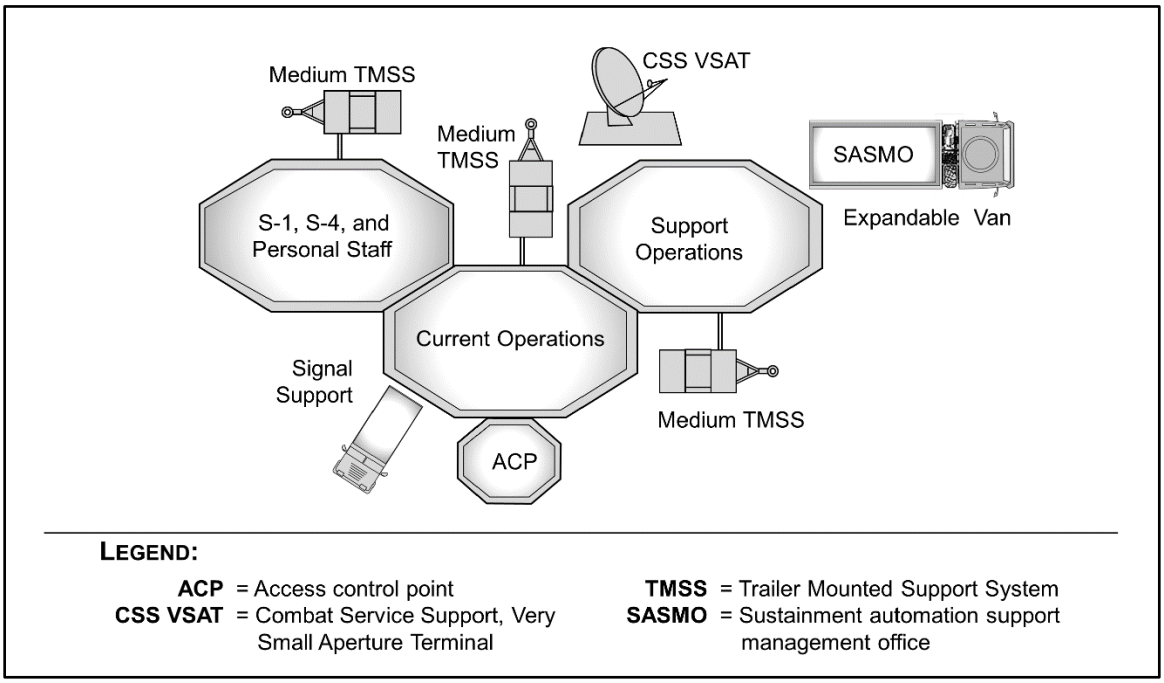

Figure 2-1. Example brigade support battalion main command post

2-97. Commanders cross-functionally organize their staffs into CP cells and staff sections to enable them to exercise mission command. This is accomplished by organizing CPs with functional and integrating cells. Functional cells group personnel and equipment by warfighting function. Integrating cells group personnel and equipment by planning horizon.

2-98. To promote coordination and synchronization, commanders cross-functionally organize elements of staff sections in CPs and cells. The BSB staff is designed to be cross functional between the staff sections. Within a CP, the battalion arranges the location of CP cells and staff elements to facilitate internal communication and coordination. This arrangement may change over the course of operations as the situation changes. Figure 2-2 depicts the combination of functional and integrating cells across staff sections.

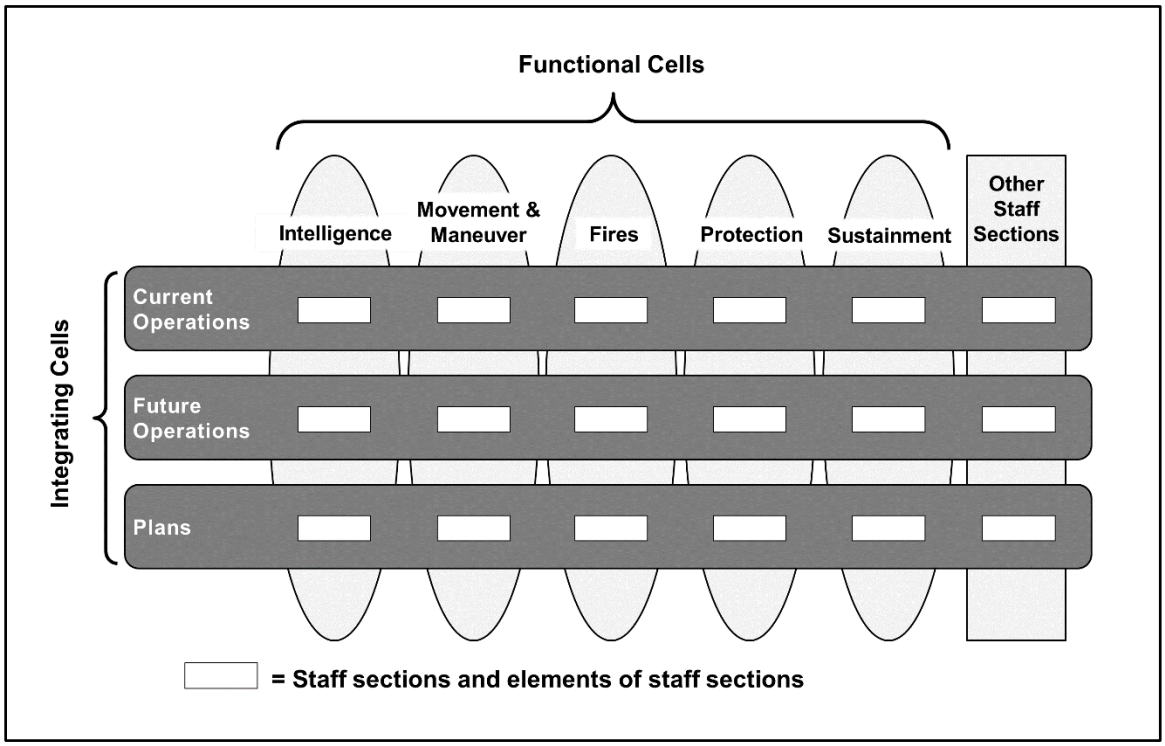

Figure 2-2. Functional and integrating cells

WARFIGHTING FUNCTIONS CELLS

2-99. Functional cells coordinate and synchronize forces and activities by warfighting function. The functional cells provide a standardized method of integrating closely related tasks. The BSB's organizational design does not permit the commander to staff all functional cells. The BSB coordinates with higher or adjacent units for subject matter expertise in the fires and protection functional cells.

2-100. The BSB staff and command post as a whole, including the commander, XO, and command sergeant major, represent the command and control warfighting function. The functional cells in the BSB CP include intelligence, movement and maneuver, fires, protection, and sustainment.

Intelligence Cell

2-101. The BSB CP intelligence cell includes the battalion S-2 and intelligence analysts. The intelligence cell coordinates activities and systems that help commanders understand the enemy, 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, intelligence preparation of the battlefield, the MDMP, information collection, and targeting.

Movement and Maneuver Cell

2-102. The BSB CP movement and maneuver cell focuses primarily on BSB operations. The cell includes the battalion S-3 operations section and the battalion SPO section. Combined, the staff sections develop operation plans and orders to execute support to the BCT. The battalion S-3 maintains focus on current operations and covers near-term future operations as necessary. The SPO section focuses on future operations and plans. These sections coordinate and synchronize activities and systems to support mission requirements. The battalion S-3 and SPO section collaborate to maintain running estimates, develop the synchronization matrix, and the decision support template to effectively arrange C2 activities across time, space, purpose, and warfighting functions to accomplish the mission. The SPO staff provides logistics information to the movement and maneuver cell based on logistics status reports, logistics synchronization meetings,

transitioning missions from future operations to current operations, and updates to the brigade's concept of support.

Fires Cell

2-103. The BSB has no fire coordination personnel organic to the staff. The BSB fires cell is limited to identifying artillery targets and preparing a fires overlay as part of the BSA defense plan. Personnel in this role must be familiar with call for fire procedures and coordinate, as required, with the supporting fires unit. At a minimum, the BSB fires cell must understand their higher headquarters' fires annex and have the fires overlay for their area and the areas subordinate units traverse.

Protection Cell

2-104. The BSB command post protection cell coordinates tasks and systems that preserve the force to enable commanders to apply maximum combat power to accomplish the mission. Protection is the preservation of the effectiveness and survivability of mission-related military and nonmilitary personnel, equipment, facilities, information, and infrastructure deployed or located in or outside the boundaries of a given area of operations. The protection cell is responsible for ensuring the integration of protection considerations throughout the operation process via integration processes, continuing activities, the MDMP, working groups, planning session and coordination across the S-3.

2-105. The BSB protection cell is usually comprised of portions of the battalion's S-3 section, CBRN, and preventive medicine personnel. It is responsible for the synchronization and integration of the 12 primary protection tasks and four additional protection considerations as listed in ADP 3-37, *Protection*. Primary protection tasks are:

- Conduct survivability operations.
- Provide force health protection.
- Conduct CBRN operations.
- Provide explosive ordnance disposal support.
- Conduct personnel recovery.
- Conduct detention operations.
- Conduct risk management.
- Implement physical security measures.
- Apply antiterrorism measures.
- Conduct police operations.
- Conduct populace and resource control.

2-106. The four additional considerations are the integration and synchronization of area and local security activities, operations security, cyberspace operations, and electronic warfare operations.

Sustainment Cell

2-107. The BSB CP has two sustainment cells. The BSB S-1, BSB S-4, and UMT sections form the Sustainment I cell. This cell is responsible for coordinating activities and systems that provide personnel management, logistics support, and financial management for BSB units.

INTEGRATING CELLS

2-108. Horizontal integration occurs in three integrating cells that synchronize across three planning horizons (or by the phases of the operation). A planning horizon is a point in time commanders use to focus the organization's planning efforts to shape future events. The integrating cells are current operations cell, future operations cell, and plans cell. 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 brigade is different from a company. The BSB normally has 24, 48, and 72-hour planning horizons.

Current Operations Integration Cell

2-109. The BSB CPs current operations integration cell is the focal point for operations execution. Current operations involves assessing the existing situation while regulating forces and warfighting functions in accordance with the mission, commander's intent, and concept of operations. The current operations integration 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.

2-110. The battalion S-3 section forms the core of the current operations integration cell. Elements or watch officers from each staff section and liaison officers from subordinate and adjacent units form the remainder of the cell. The current operations integration cell has representation from all staff sections, either permanently or on call. The S-3 performs many of the tasks associated with short range planning and execution (current operations), but not all. Representatives from the functional cells and personal staff help with short range planning and execution as required. The representatives from the other integrating cells help the S-3 with integrating all warfighting functions into the planning process and with maintaining the common operational picture.

Future Operations Cell

2-111. The future operations cell is responsible for planning operations in the mid-range planning horizon. The future operations cell serves as a fusion cell between the plans and current operations integration cells. It monitors current operations and determines implications for operations within the mid-range planning horizon. In coordination with the current operations integration cell, the future operations cell assesses whether the battalion must modify ongoing operations to achieve the current phase's objectives.

2-112. Integrated members from the SPO and S-3, along with other battalion staff representatives as required, create the mid-range planning (future operations) cell. While each unit has different standard operating procedures for the composition of its future operations cell, most future operations cells include a combination of the BSB's S-3 operations and SPO sections. The S-3 operations section along with elements inside the future operations cell updates and adds details to branch and sequel plans foreseen in the current operation and prepares any orders necessary to implement a branch or sequel to the current operation. The current operations integration cell develops the fragmentary order necessary to implement the change. The SPO develops the BSB concept of operations based on the brigade's sustainment concept of support before transitioning the plan to the BSB S-3 for orders production and execution.

Plans Cell

2-113. The BSB CP plans cell is responsible for planning operations for the long-range planning horizons. It prepares for operations beyond the scope of the current order by developing plans and orders including branch plans and sequels. The majority of the BSB staff balance their efforts between the current operations and the future operations cells. Additionally, personnel from the S-3 section may find themselves also integrating with members of the SPO section for mid-range (future operations) planning. The SPO may provide the BSB S-4 with information to support long range planning. Figure 2-3 found on page 2-20 depicts an example of BSB integrating cells.

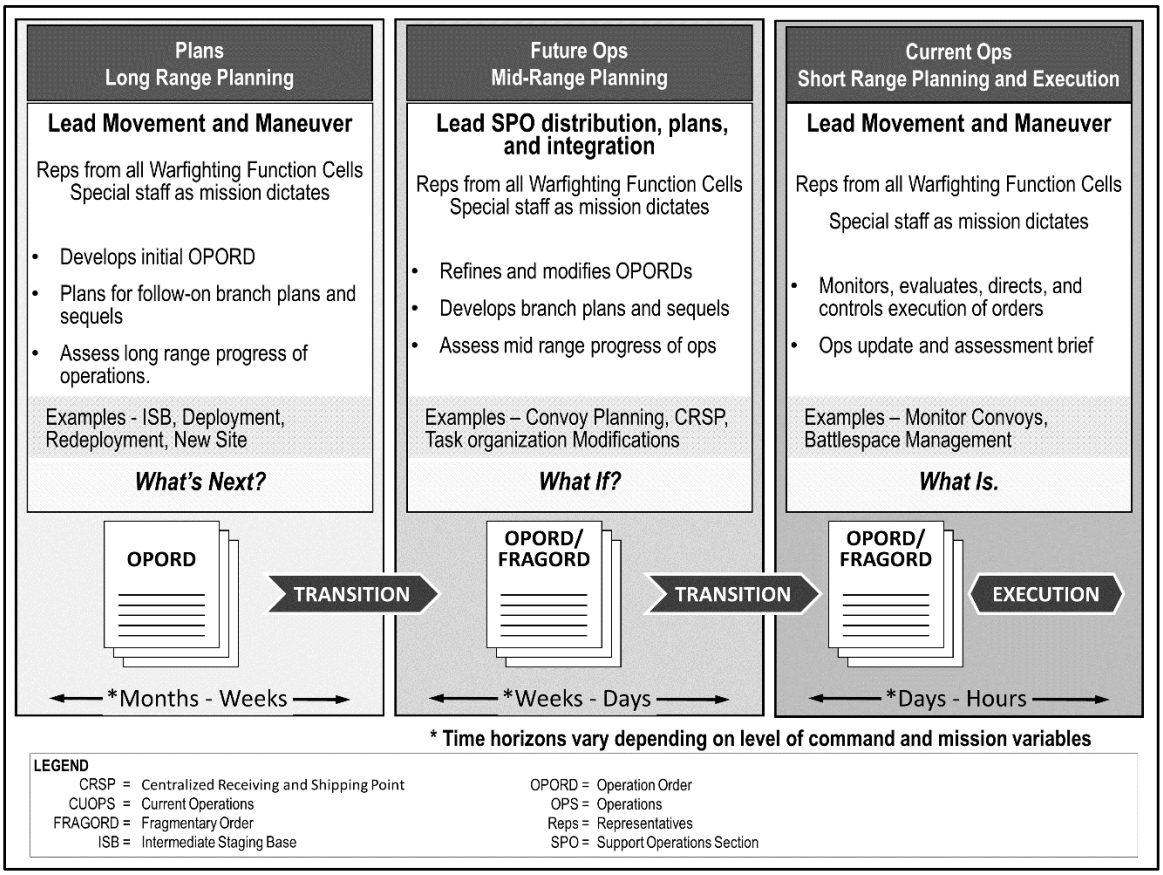

Figure 2-3. Example of BSB integrating cells

LOGISTICS REPORTING

2-114. The logistic status report (LOGSTAT) is critical to sustainment support planning, decision making, and execution. The LOGSTAT report is used throughout the brigade to provide a real-time status of supply and equipment readiness. LOGSTATs provide visibility on critical shortages, allow commanders and staff to forecast future support requirements, project mission capability, plan and decide on sustainment courses of action, and inform the common operational picture.

2-115. In some instances, the LOGSTAT may be the only means available to request resupply from higher headquarters or supporting organizations. Accurately reporting the logistics and medical support status is essential for keeping units combat ready. Over-or under-estimating reports and inaccuracies mask actual unit readiness and has negative effects on sustainment support.

2-116. Report formats vary by type of unit or by mission. The format and the information provided are tailored to the commander's critical information requirements and support decision making for a specific mission or phase of an operation. The information reported is that needed to ensure readiness and operational success. Logistic status reports include the unit's on hand stockage levels and projections over the next 72 hours. The reports format balances the need for detail against the risk of burdensome reporting requirements. Reporting too many items makes reporting burdensome and may dilute actual readiness posture. LOGSTATs are normally submitted in two distinct channels; organic operations channels and sustainment channels.

2-117. All units, from the lowest level, submit LOGSTATs on organic supplies and equipment readiness needed to ensure unit operations. This information allows commanders to determine if the unit has adequate supply and equipment readiness to accomplish the mission. This report is submitted, compiled, and resubmitted at the company headquarters, battalions S-4, brigade S-4 and then to the division G-4.

2-118. Typical information provided in LOGSTATs include status on all classes of supplies and equipment readiness. Some possible details to include in a logistics report are gallons of fuel on hand and projected usage, changes to anticipated expenditure rates, and any incident having significant impact on the logistical posture of a tactical unit. Capturing the status of weapons systems and critical equipment is also necessary. The battalion must clearly define the reported metric criteria (such as percentages or colors) and define them in unit SOP. Typical reporting metrics include cases, number of items, gallons, liters, and other specific metrics. The BSB may include information such as—logistics information systems' connectivity status, route and transportation node status, and distribution platform capabilities.

2-119. The actual report will be formatted to meet commander requirements. Examples of reported items include, but are not limited to, the following:

- Class I and water.
- Critical class II includes critical clothing or common table of allowances, better known as CTA, 50 items for Soldiers.
- Class III bulk and packaged. This includes quantities in organic vehicle fuel tanks and organic fuel tankers.
- Class IV barrier materiel.
- Critical class V. Focus on class V that supports main weapon systems including: main battle tank ammunition, attack aircraft missiles, long-range or precision artillery ammunition, air defense ammunition, and anti-tank ground missiles.
- Critical class VII shortages. This reports critical class VII battle losses such as—main battle tanks, helicopters, and artillery systems. It reports all on-hand critical class VII items non-mission capable for maintenance and/or lack of repair parts.
- Critical class VIIIA and class VIIIB items.
- Critical class IX. Focus on items that are required to return critical weapon systems to mission capable status.

2-120. Sustainment unit LOGSTAT reports are similar but are used by supporting organizations to report status of on-hand stocks used to resupply supported units. The LOGSTAT is integral to the materiel management asset visibility and asset reporting functions. As with the organic LOGSTAT, sustainment reports support sustainment planning, decision making, and execution. Therefore, accuracy and timeliness are critical. BSB companies submit sustainment channel LOGSTAT reports to the SPO office. SPO staff use the information to understand current capability and to plan resupply from higher headquarters.

2-121. For sustainment LOGSTAT reporting, supporting companies only report the classes of supply the company supports. Examples are, the distribution and forward support companies report classes I, II, III, IV, V, and IX. The brigade support medical company reports class VIII. The field maintenance company reports class IX and class III packaged. The field maintenance company may also report the status of critical weapon systems on-hand for repair.

TIMELY AND ACCURATE REPORTING

2-122. Planners base the logistics status report data collection on operational and mission variables and do not overwhelm subordinate units with submission requirements. A report that requires status on too many unnecessary types of supplies or information will overwhelm staffs by requiring inordinate amounts of time to complete and by providing information unnecessary for decision making. While this publication provides a standardized example for logistics status reports, formats vary as required by the commander. The brigade S-4 establishes organic operations logistics status report format for BCT organic and attached units. This format and reporting times are included in Annex F of the BCT operation order. The BSB SPO officer establishes the format for the sustainment LOGSTAT. This format and reporting times is included on Annex F of the BSB operation order.

2-123. The frequency of a logistics status report varies. Units often complete a logistics status report twice daily but during periods of increased intensity, the commander may require status updates more frequently. As long as automation is available, logistic status reports relayed via near real time automation provide the commander with the most up-to-date data.

2-124. The organization's battle rhythm is critical when considering report cut off times, as of times, and reporting times. Automated feeds will offer near real time, but if a unit is consolidating information manually, they will have to determine cut off and reporting times to synchronize with the rest of the brigade. If logistics updates are part of the brigade commander's daily battle rhythm or part of an update briefing, the brigade designates logistics reporting times as current as possible for these events to provide the commander with the best status. It is also important to allow enough time to analyze the data to provide the commander with a considered recommendation on future courses of action.

LOGISTICS STATUS REPORT FLOW

2-125. Logistics status reporting begins at the lowest level and flows through operational and sustainment channels simultaneously and in parallel. This ensures a common operational picture with all units. Once the logistics status report reaches the maneuver battalion level, it is passed to the brigade S-4 and the supporting FSC. The FSC analyzes the information to understand the maneuver battalion support requirements for planning. The FSC then forwards the report to the BSB SPO.

2-126. The brigade S-4 receives the logistics status report from all subordinate maneuver units. The brigade S-4, with the brigade XO's concurrence, provides the BSB SPO with a brigade consolidated logistics status report. The brigade S-4 also communicates unit and supply class priority to the BSB SPO. The BSB SPO executes the distribution management process to distribute supplies in accordance with the brigade's priorities.

2-127. Leaders at all levels analyze the logistics status report and forecast requirements based on current balances and upcoming mission requirements. Once logistics information is gathered, a leader may cross-level materiel within the organization. For example, a unit first sergeant would cross-level supplies within a company, and the battalion S-4 cross-levels supplies within the battalion. The battalion S-4 submits a consolidated logistics status report to the brigade S-4.

Chapter 3

Support Operations

Support operations applies the sustainment capabilities against supported unit requirements. The SPO section performs mid-range planning and develops the BSB concept of operations to support the BCT. The SPO section of the BSB serves as the interface between the supported units and the supporting units including the division support brigade. The SPO officer is assigned to the BSB and is not part of the BCT staff. However, the SPO officer serves as the principal staff officer responsible for synchronizing BSB sustainment operations for all units assigned or attached to the BCT.

SUPPORT OPERATIONS STAFF

3-1. *Support operations* is the staff function of planning, coordinating, and synchronizing sustainment to support units conducting decisive action in an area of operations (ATP 4-93). The SPO section provides centralized and integrated planning for the BSB. Although the section's structure varies slightly by type of BSB, SPO functions generally include transportation, maintenance, ammunition, medical support (except field artillery and MEB), supply and field services, and distribution operations.

3-2. The SPO section coordinates and provides technical supervision for sustainment support provided to the BCT. The SPO straddles mid-range (future operations) to short range planning and execution. Figure 3-1 depicts the BSB SPO staff section.

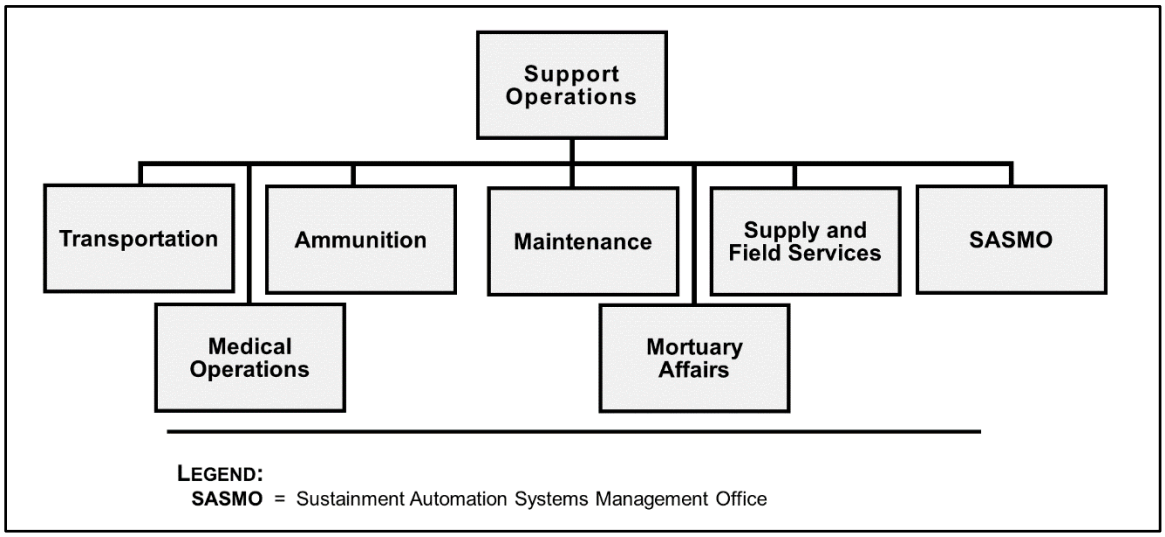

Figure 3-1. BSB support operations section

THE DISTRIBUTION MANAGEMENT PROCESS

3-3. Distribution management is the component of the overall operations process used to develop an executable plan to position units and distribute supplies from the strategic support area throughout a supported theater of operations. The distribution management processes apply to all commodities, at each

echelon. Distribution management is a process that includes materiel management and transportation management functions. The process begins with identifying tactical unit requirements and ends when the requirements are met. Materiel managers determine and validate materiel requirements for distribution to supported units, obtain materiel to be distributed by appropriate commodity and quantity, and coordinate its distribution according to command priorities. 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. 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 materiel to be distributed and available transportation. This information is communicated to the unit S-3 for inclusion in the operation order concept of operations.

3-4. The distribution management plan 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 un-executable distribution plan that is not realized until the operation begins.

3-5. The process described in this ATP provides fundamental materiel management, distribution integration, and transportation operations functions executable at the BSB level. The process may be supported by any automated sustainment information system but is not system dependent; it may be executed in absence of automation. This is advantageous during periods of degraded communications.

3-6. Distribution management synchronizes transportation, its networks, and materiel management with the warfighting functions to move personnel and materiel from origins to point of need accordance with the supported commander's priorities as efficiently as possible. The distribution management process is critical to execute BSB support operations. Distribution management integrates the management of materiel and its transportation. It requires that distribution managers understand the supported commander's priorities and requirements to plan, prepare, integrate, and distribute within the OE. The effectiveness of the overall distribution system is diminished by inefficiency in any of the BSB companies.

3-7. The BSB SPO is responsible for the overall BSB distribution management process. The SPO staff has personnel responsible for management of transportation and materiel. These personnel must also perform the distribution integration function. The number of these personnel is quite limited and they must coordinate and collaborate constantly for successful support operations.

3-8. The BSB distribution company, medical company, and forward support companies have distribution management responsibilities as well. The distribution company and the FSCs manage and distribute general supplies, class III(B) and class V. The medical company manages and distributes class VIII. The company commanders, company XOs, and platoon leaders have roles in the distribution management process.

MATERIEL MANAGEMENT

3-9. Materiel management is the continuous situational understanding, planning, and execution of supply and maintenance 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. Materiel management determines the materiel requirements of the BCT by class of supply, determines availability of the materiel from either on-hand or higher source-of-supply stocks, obtains the materiel, and coordinates the movement of the distribution of the materiel with distribution integration personnel. It identifies the commodity to be distributed, the quantity of that commodity to be distributed, and priority of distribution by unit.

3-10. Material management addresses all internal and external logistical processes, information, and functions necessary to satisfy an operational supply requirement. Effective materiel management enables the commander greater situational awareness informing decision making and enhancing control and flexibility.

3-11. The BSB SPO, distribution company supply platoon, medical company (class VIII only) and the FSC distribution platoons execute materiel management functions as indicated in paragraph 3-12. They perform materiel management simultaneously and continuously, with or without automation, during all decisive action tasks. The BSB can also integrate supply capability provided by joint services, allied partners, and host nations to the fullest extent possible within mission and operational variables.

3-12. Units execute materiel management through the following functions. These functions may be executed all or in part based on operational and mission variables.

- Supply planning (SPO).
- Requirements determination (SPO, medical company, FSC).
- Requirements validation (SPO, medical company, and FSC).
- Resupply (Distribution company, medical company, and FSC).
- Funds management (SPO).
- Storage (Distribution company, medical company, and FSC).
- Stock control (Distribution company, medical company, and FSC).
- Supply (Distribution company, medical company, and FSC).
- Maintenance.
- Asset visibility (SPO, distribution company, medical company, and FSC).
- Asset reporting (SPO, distribution company, medical company, and FSC).
- Retrograde of materiel (Distribution company, medical company, and FSC).
- Disposal (Distribution company, medical company, and FSC).

3-13. Supply planning is the forecasting and establishing of 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. Units plan to ensure that adequate supplies and transportation assets are available.

3-14. Requirements determination is understanding a supply requirement to support an operating force. It aids materiel managers in defining priorities of support. Units base requirements determination on needs communicated from units and forecasted by sustainment organizations supporting these forces. The BSB SPO performs requirements determination by comparing the forecasted supply requirements to the supply requests received from the maneuver battalions.

3-15. Requirements validation is the prioritizing of 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 it is determined on–hand assets are insufficient to meet the requirement. Requirements validation also includes establishing controlled rates of supply if necessary.

3-16. Resupply is the obtaining of supplies to meet operational requirements. It includes the requisition process, cross leveling, and local purchase. In the context of materiel management, the BSB performs limited procurement (such as local purchasing based on the situation and operational requirements).

3-17. Funds management is the supervision over the obligation of funds to support supply operations. Contracting officers with warrant authority and finance officers, manage the obligation of funds to support supply operations. The BSB S-4 manages the battalion's budget. The brigade financial management staff officer, S-8, manages the brigade budget.

3-18. Storage is the organizing, sorting, and safeguarding of materiel. Warehousing includes warehouse management, receiving, storing, issuing, securing, inventory management, and accounting for materiel. It does not apply solely to the use of fixed facilities. Units perform warehousing in tents, containers, or an open area. Warehousing tasks are performed at the SSA in the BSB's distribution company.

3-19. Stock control is the maintaining of proper location and identification of materiel. Materiel managers need correct identification and location of materiel stored in warehouses to ensure they can issue the proper item of supply to meet requirements. Unidentified, improperly cataloged items result in materiel managers ordering and stocking excess items. The SSA in the distribution company executes stock control.

3-20. Supply is the providing of 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 supply required to execute a unit's assigned mission.

3-21. Maintenance is all actions necessary for retaining an item in or restoring it to a specified condition to support the supply system. These activities occur in the field maintenance company and the forward support companies of the BSB. The BSB SPO oversees maintenance management.

3-22. Asset visibility provides materiel managers with the capability to determine location, movement, status, and identity of assets by class of supply, nomenclature, and unit enabling improved decision-making on sources of support and prioritization. Within the BSB, asset visibility is the responsibility of the SPO. Other sections that have GCSS-Army also have an asset visibility capability if necessary.

3-23. Asset reporting is the vertical and horizontal reporting of asset status. It is a critical component of asset visibility, requirements determination, and requirements validation. Asset reporting occurs at all echelons, and the command determines the frequency and commodities to report.

3-24. Retrograde of materiel is the returning of 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. Materiel managers may use the retrograde process to redirect supplies and equipment to different locations to fill shortages and meet other operational requirements across the Army. The sustainment brigade is responsible for planning retrograde.

3-25. Disposal is the systematic removal of materiel uneconomically repairable or obsolete. Units dispose of items through transferring, donating, selling, abandoning, or destroying materiel. Program management channels direct disposal of materiel, but it may also be a command decision if the OE dictates. Units accomplish disposal at the SSA. The SPO ensures units execute disposal in accordance with higher headquarters' orders.

3-26. Coordination with higher echelon supporting organizations is ensuring these organizations are aware of BSB support and resupply requirements. For the BSB this coordination is normally with the supporting DSSB SPO and DSB SPO.

TRANSPORTATION OPERATIONS

3-27. Transportation is a logistics function that includes movement control and associated activities to incorporate military, commercial, and multinational motor, rail, air and water mode assets in the movement of units, personnel, equipment, and supplies in support of the concept of operations. Transportation operations are executed by the BSB SPO transportation personnel, distribution company distribution platoon, the medical company (class VIII only), and the FSC distribution platoon as shown in paragraph 3-28. Transportation allocates specific modes for specific commodities and coordinates distribution and routing to meet command priorities.

3-28. The transportation operations functions are:

- BCT distribution (Distribution company, medical company, and FSC).
- Transportation planning (SPO).
- In-transit visibility (SPO).
- Movement of BCT units (Distribution company).
- Intermodal operations (SPO as required).
- Mode operations (Distribution company, medical company, and FSC).
- Movement control (SPO).
- Allocation of transportation assets (Distribution company, medical company, and FSC).
- Coordination (Distribution company, medical company, and FSC).
- Routing (SPO).

3-29. Transportation planning ensures the proper allocation of transportation assets to fulfill mission requirements based on command priorities and mitigate shortfalls. When planning motor transportation operations, managers compare capabilities versus requirements, which will identify excesses or shortfalls. When excess or shortfalls exist, planners can mitigate these by changing vehicle types to effectively utilize carrying capacity.

3-30. In-transit visibility is the ability to track the identity, status, and location of materiel, equipment, personnel, and forces from origin to either consignee or destination. This includes force tracking and visibility of convoys, unit cargo/equipment, containers/pallets, and transportation assets. In-transit visibility provides transportation planners and executors with the capability to anticipate and manage transportation flow over lines of communication.

3-31. Movement of BCT units is the operational movement of dismounted infantry units and command posts within the BCT. Transport units move units in operational area as far forward as mission and operational variables permit.

3-32. Mode operations is the execution of movements using various conveyances (truck, lighterage, railcar, aircraft) to transport materiel, equipment, personnel and forces.

3-33. Movement control is the dual process of committing allocated transportation assets and regulating movements according to command priorities to synchronize the distribution flow over lines of communications to sustain land forces.

3-34. Allocation is the identification and commitment of specific transportation modes to meet a specific distribution requirement based on commodity and priority.

3-35. Coordination is the interface with other components of the distribution management process to ensure the commodities, modes, routes, and times are brought together to ensure effective and timely distribution.

3-36. Routing: The planning, routing, and scheduling of movements on supply routes that provides order, prevents congestion, and enforces movement priorities in the operational area. BSB does this in coordination with the BCT S4 IAW the BCT concept of the operation.

DISTRIBUTION INTEGRATION

3-37. Distribution integration is the process of aligning personnel, equipment, and materiel that requires distribution with adequate transportation capabilities to synchronize distribution to support the concept of operations. The SPO transportation personnel execute distribution integration. It is also executed by the distribution company distribution platoon, the medical company (class VIII only) and the FSC distribution platoons as shown in paragraph 3-38. This function queues the materiel to be moved in accordance of priority and ensures transportation modes with adequate haul capacity are allocated to distribute the materiel. Distribution integration efforts provide the transportation personnel with commodity, quantity, priority, and recommended mode.

3-38. Distribution integration functions are:

- Distribution planning (SPO).
- Transportation feasibility (SPO, distribution company, FSC).
- Prioritization (SPO).
- Mitigation of transportation shortfalls (SPO, distribution company, FSC).
- Synchronization (SPO).
- Distribution (Distribution company, medical company, and FSC).
- Redistribution (Distribution company, medical company, and FSC).
- Visibility (SPO).
- Coordination with S-3 (SPO).

3-39. Distribution planning ensures the proper allocation of transportation assets to fulfill mission requirements based on command priorities and to identify and mitigate shortfalls. When planning motor transportation operations, managers compare capabilities versus requirements, which will identify excesses or shortfalls. When excess or shortfalls exist, planners can mitigate these by changing vehicle types to effectively utilize carrying capacity.

3-40. Transportation feasibility determines if the capability exists to move forces, equipment, and supplies from the point of origin to the final destination in the time required. If transportation is not feasible, this fact is reported from the distribution integration branch/personnel to the materiel management branch.

3-41. Prioritization 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. Priorities are stated in the BCT OPORD, in terms of priorities of support and priorities of movement, informed by the decisive operation and main effort during phases of an operation.

3-42. Mitigation of shortfalls links materiel management to transportation in terms of commodity, quantity, and priority. It ensures that adequate transportation assets are identified and obtained against the requirement deficiency.

3-43. Synchronization ensures distribution is synchronized with transportation operation cycles to ensure modes with sufficient capacity are available when commodities are positioned for movement. It also synchronizes distribution with operational tasks, phases, and objectives.

3-44. Distribution 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.

3-45. Visibility provides the materiel managers visibility of commodities, available, queued, and prioritized. This allows distribution managers to allocate adequate transportation for movement.

3-46. Distribution integration personnel coordinate with the S-3/G3 when they have developed a distribution plan. This plan must be coordinated with the S-3/G3 for inclusion in the BSB operations process and operation order.

DISTRIBUTION MANAGEMENT AND OPERATIONS PROCESS INTEGRATION

3-47. The BSB commanders and staff 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. The commander and staff realize that support operations offices and the plans developed therein are fundamentally an integral part of BSB operations. Although the S3 and SPO are separate offices, they are inextricably linked during the operations process and MDMP. The BSB S3 and SPO collaborate continuously through the phases of planning, preparation, execution and assessment.

Planning

3-48. Planning may be highly structured or less structured depending on mission and operational variables, especially the variable of available time. During planning the BSB S3 and SPOs execute the military decision making process appropriate for the planning horizon; the more time available, the more detailed the planning becomes. For the BSB, future operations are normally fall within a span of days and hours. The BSB SPO focuses on future operations while the BSB S3 focuses on current operations. Regardless of the horizon, the outcome of a plan is an executable operation order. The order synchronizes the BSB company actions in time, space, and purpose to achieve objectives and accomplish the mission. Understanding the distribution management process to include all subordinate functions that are executed facilitates this 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 companies, and provides essential coordinating instructions. The order may be in FRAGORD form issued as needed to change or modify an OPORD during execution.

3-49. The BSB commander and staff apply the philosophy of mission command when planning, understanding that no one has complete knowledge of the situation. 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 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.

3-50. Planning allows sustainment commanders and staffs to stay focused on the future in spite of requirements for current operations. During planning the BSB commander and staff anticipate enemy action and problems and develop distribution 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 the commander and staff expect to make a ley decision on a course of action. A decision point is tied to the

commander's critical information requirements, enemy, and friendly action. At such points, based on assessment, commanders may decide to alter the initial operations concept and execute preplanned branches or sequels. 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. During planning, sustainment commanders and staffs develop branches and sequels as part of the order.

3-51. During planning the S3 and SPO collaborate throughout MDMP from receipt of mission until the operation order is published and disseminated. Both staffs have roles in developing a distribution plan that is later included in the unit order as part of the operations concept. All plans account for friction and uncertainty. Every plan should have enough redundancy and time allotted to enable success should it not be perfectly executed. The plan prioritizes effectiveness over efficiency. Combat operations are inherently wasteful and uncertain. Plans that depend upon intricate timing and assume no wastage are unlikely to meet the commander's intent. Figure 3-2 below depicts one way in which the S3 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.

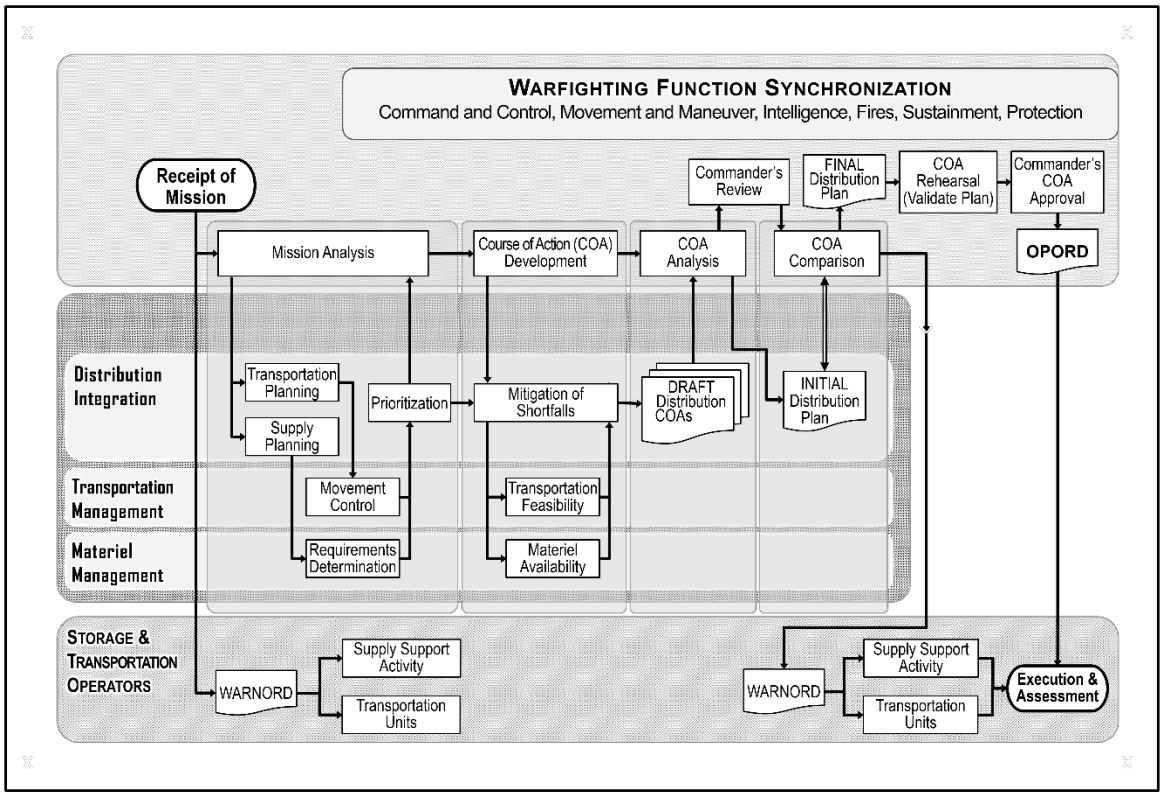

Figure 3-2. Distribution management and operations process integration

Preparation

3-52. Preparation includes activities performed by BSB units and Soldiers to improve their ability to execute an operation. Preparation creates conditions that improve BSB opportunities for success and include activities such as rehearsals, training, and inspections. It requires BSB 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 allows commanders to properly position supply and distribution 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, the BSB commander drives preparation activities with a focus on leading and assessing. The functions of preparation include the following:

- Improve situational understanding. This is through intelligence channels, analysis of logistics status reports, and information management,
- Develop a common understanding of the plan. This includes a thorough understanding of the higher headquarters and supported commander operation order, detailed operation order briefings and confirmation back briefs.
- Train and become proficient on critical tasks. Normally a home station event, training continues when deployed. Understanding all required distribution management functions and their desired outcome is critical.
- Task-organize and integrate the force. Establish appropriate command and support relationship and describe them clearly in the operation order. Every supply and transportation unit needs to understand the units with whom they have a support relationship and vice versa.
- Ensure forces and resources are positioned. All supply and transportation capability is positioned to provide the most responsive support to the maneuver commander. All units have the maximum supplies and transportation assets on hand to support the operation.

Execution

3-53. Execution is the act of putting a distribution plan into action by applying supply and distribution capability to accomplish the mission and adjusting operations based on changes in the situation. The BSB commander, staff, 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 occurs, it remains a starting point for operations and does not to be followed exactly if circumstances dictate otherwise. Subordinate commanders need maximum latitude to take advantage of situations and meet the BCT 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. The BSB commander develops situational understanding that prompts them to adjust plans provides to exploit opportunities or counter threats. Major activities of execution include assessment, decision making, and directing action.

3-54. Assessment allows the BSB commander and staff to determine if the distribution plan is achieving the desired end state and commander's intent. If it is not, assessment allows the commander and staff to make prudent adjustments to the distribution plan to ensure success. Assessment may indicate that the plan may be executed more effectively than expected if the plan is altered. Conversely, assessment may indicate the distribution organizations are at threat of enemy destruction if the plan is not altered. The situation and type of operations affect the characteristics of assessment. During large-scale combat, assessment is rapid, focused on the effectiveness of distributions operations and the logistics status of the friendly force. 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, and performing tasks, and recommending or directing changes to the plan.

3-55. Decision making is required when the BSB commander determines the situation requires an alteration to 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 supply or transportation assets, of the need to execute a branch. The current operations integration cell oversees the synchronization and integration needed to implement execution decisions. Adjustment decision 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.

3-56. During execution the BSB commanders and staff may use the RDSP. Unlike the MDMP, the RDSP does not seek optimal solutions. Instead, the RDSP seeks a timely and effective solution within the commander's intent, mission, and concept of operations. When using the RDSP the BSB commander and staff 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.

SUPPLY AND FIELD SERVICES

3-57. The BSB SPO is responsible for supporting all BCT supply requirements. The brigade S-4 determines and prioritizes supply requirements for the BCT and communicates this information to the SPO. SPO supply personnel, including petroleum and ammunition sections, perform supply materiel management functions to ensure adequate supply stocks are available to meet BCT requirements. The SPO supply personnel perform the following materiel management functions: supply planning, requirements validation, asset visibility, asset reporting, resupply, stock control, warehousing, supply and retrograde of munitions. The supply personnel also coordinate with the transportation personnel in the SPO for distribution of supplies to the FSCs.

3-58. Supporting the BCT class III(B) requirements, especially an ABCT, requires disciplined management of the limited BSB class III(B) distribution assets. This includes maintaining visibility of FSC class III(B) assets and having the authority to cross level or redirect the FSC assets if required. Close coordination with the BCT S-4 and FSC commander is imperative. The BCT S-4 must have a complete understanding of the BCT support requirements and priorities. Accurate and timely class III(B) LOGSTAT reporting from using units and FSCs, is also critical to understand actual requirements. The SPO must communicate forecasted class III(B) requirements to the DSB to ensure the DSB has adequate class III(B) stocks on hand to support BCT requirements. The SPO also coordinates with the DSB for class III(B) distribution reinforcement, if required.

3-59. The SPO coordinates field service support for the brigade as required. This includes shower, laundry, water purification, aerial delivery, and mortuary affairs. Based upon BCT requirements, the SPO coordinates with the DSB for support. The SPO, based on guidance from the BCT S-3 and S-4, identifies locations for field service site establishment.

SPO MORTUARY AFFAIRS

3-60. The SPO staff also includes a mortuary affairs NCO who is responsible for planning, coordinating and synchronizing mortuary affairs support for the brigade. The SPO mortuary affairs NCO advises the commander on mortuary affairs, develops detailed operational mortuary affairs plans, develops mortuary affairs estimates, enforces the brigade's mortuary affairs policy, and trains and advises subordinate BCT units on unit level battlefield recovery tasks. Unit level recovery tasks include search and recovery, tentative identification, preserving human remains, and safeguarding of the personal effects. The mortuary affairs NCO also coordinates with the DSB and mortuary affairs units in the area to synchronize the evacuation of the brigade's remains and integrate BCT operations with the theater mortuary affairs concept of operations.

3-61. The SPO mortuary affairs NCO section does not establish and run a mortuary affairs collection point for the BCT. Mortuary affairs collection teams from a quartermaster company (mortuary affairs) typically establish a mortuary affairs collection point at sustainment brigade or higher level based on quartermaster platoon allocations to the division. The mortuary affairs NCO acts as a liaison to a supporting mortuary affairs company and mortuary affairs collection points. The search and recovery teams from the BCT's maneuver units (formerly called clear teams) establish and operate the transit collection point, usually in the BSA. For more information on mortuary affairs operations, see ATP 4-46.

AMMUNITION

3-62. The BSB SPO is responsible for planning and coordinating ammunition support to the BCT. The BCT S-4 consolidates and prioritizes ammunition requirements for the brigade and communicates this information to the BSB SPO. Based upon this information the SPO performs munitions materiel management functions to ensure adequate munitions stocks are available to support BCT munitions requirements. The SPO ammunition staff perform the following materiel management functions: supply planning, requirements validation, asset visibility, asset reporting, resupply, stock control, storage, supply and retrograde of munitions. The BSB SPO provides staff supervision to the distribution company's MATP.

3-63. The ammunition officer in the SPO provides oversight of the SPO munitions materiel management and support functions. The SPO ammunition officer also maintains direct liaison with the brigade S-3 and S-4 in limits defined by the BSB commander or SPO. More information regarding brigade ammunition officer responsibilities are in ATP 4-35, *Munitions Operations and Distribution Techniques*.

SPO MAINTENANCE

3-64. The SPO is responsible for planning, coordinating and synchronizing maintenance operations, including repair parts management, to support BCT operations. The BCT S-4 identifies maintenance priorities and communicates this information to the SPO. Based on this information, the SPO maintenance personnel perform the following maintenance management activities: forecasting, scheduling, technical assistance, resourcing repair parts, work loading/cross-leveling workload. The maintenance management personnel also plan and forecast recovery and battle damage assessment and repair (BDAR) requirements to support the BCT.

3-65. Maintenance management in the BCT requires coordination and collaboration between the SPO, FSC, and the field maintenance company's maintenance control officer (MCO). The SPO maintenance personnel must have a complete understanding of the BCT maintenance capability and shortfalls. Based on this, the personnel make recommendations to the SPO and BSB commander on placement and cross leveling of maintenance capability to meet mission requirements.

MEDICAL OPERATIONS

3-66. The SPO medical planner is the primary staff officer on the BSB staff who helps the SPO officer with planning and synchronizing medical support operations and coordinating with the brigade staff. The SPO medical logistician is the primary staff officer on the BSB staff who helps the SPO officer with materiel management of medical supplies, medical equipment maintenance and coordinating with the brigade staff.

3-67. The medical operations officer, the medical logistics officer, and medical operations sergeant, in coordination with the BSB SPO, provide planning and oversight of medical support tasks. The medical operations officer must consider placement of all medical support assets in the brigade. They also coordinate the ordering, receipt, and distribution of class VIII and blood products in the BCT. This cell coordinates with the brigade surgeon cell and, as appropriate, division surgeon sections for all medical support issues affecting the brigade. The medical operations officer is directly responsible for providing medical operations guidance and status to the BSB commander. See chapter 8 for the employment of medical support in decisive action.

BCT SUSTAINMENT PLANNING AND EXECUTION

3-68. BCT sustainment planning and execution is a collaborative process between the BSB and the BCT that requires direct involvement of commanders and staffs. Both headquarters have distinct roles in the planning and execution of sustainment support. The BCT staff develops a concept of sustainment that clearly identifies the BCT support requirements by organization. Based on this information the BSB staff develops a concept of operations to execute support to meet the BCT sustainment requirements.

3-69. The BCT concept of sustainment is developed by the BCT S-1 and S-4. It is a written and/or graphical representation of how the BCT will employ sustainment assets to support the BCT concept of operations. The BSB SPO may help the BCT staff to develop the sustainment concept but is not responsible for it.

3-70. The BCT concept of sustainment identifies sustainment requirements and priorities of support by unit and sustainment element for all phases of an operation or mission. It includes times, based on the initial plan, as to when the BSB will push logistics packages (LOGPACs) to the maneuver units. It also includes information on BCT mobility requirements. The concept of sustainment is captured in paragraph 4 and annex F of the BCT operation order. Paragraph 4 includes sub-paragraphs identifying requirements and priorities for each sustainment element: logistics, medical, personnel services, and financial management. If additional information is required, it is included in annex F. Annex F describes in further detail mission specifics including: maintenance, recovery, transportation, supply, field services, distribution, contract support integration, mortuary affairs, human resources support, financial management, legal support, religious support, band operations, and medical support. The concept of sustainment is disseminated to the BSB in the BCT operation order.

3-71. The BSB receives the BCT operation order and begins the operations process. The BSB commander and staff use the MDMP to develop a concept of operations to execute sustainment support to meet the BCT requirements described in the BCT order. The BSB commander and staff perform mission analysis to develop

a thorough understanding of the BCT commander's intent, the BCT mission, and desired end state. The BSB commander restates the BSB mission including his intent, guidance and desired end state.

3-72. The SPO and the BSB S-3 ensure that sustainment planning is synchronized with the BCT operations concept and across all warfighting functions. This is critical to ensure the concept of sustainment tasks will not conflict with, hinder, or be hindered by BCT operations or control measures. Continuous coordination and communication between the SPO and BCT S-4 throughout the planning process are necessary to maintain awareness of changes in the BCT operations concept.

3-73. The BSB order uses the standard five-paragraph format with paragraph 3, execution, and associated annexes providing the details of the concept of operations. This describes the manner in which subordinate units cooperate to accomplish the sustainment mission and establishes the sequence of actions the BSB units will use to achieve the end state. It identifies the tasks to be executed, (supply, distribution, medical, maintenance, and recovery), a time and location for execution, and the subordinate units responsible for each task.

3-74. The BSB SPO and S-3 must be cognizant of BCT task organization changes to make recommendations to the BCT commander on shifting logistics capability from one FSC to another. This is especially critical in supporting the main effort. It may be necessary to move capability (such as field maintenance and recovery) from one FSC to another to support the main effort battalion.

3-75. During the planning process the BSB SPO identifies sustainment capability gaps and shortfalls and coordinates with the DSB for mitigation. Coordination may include the need for field services, bulk fuel storage and distribution, water purification, bulk water storage and distribution, general supply, transportation, and mortuary affairs support. The concept of operations also includes requirements to coordinate with the DSB or DSSB for supply replenishment. Ideally, it identifies times when and where the DSSB is expected to deliver supplies. Additional order products supporting the concept of operations (such as operation overlays, execution matrices, movement control tables, and traffic control overlays) may be included in annex C as appendices or tabs.

3-76. The BSB S-3 publishes the operation order that tasks subordinate units to execute the concept of operations. Once execution begins, the BSB S-3 monitors and controls the current operations. The SPO focuses on future operations extending 24 – 48 hours to ensure the BSB is postured to execute sustainment operations to maintain the BCT momentum. Fires brigade BSBs may need to plan as far as 72 - 96 hours out.

LOGISTICS SYNCHRONIZATION MATRIX

3-77. The SPO normally develops a sustainment synchronization matrix to graphically display which support functions are executed when and where during a mission. A typical synchronization matrix displays support functions along the x-axis with time of support displayed along the y-axis. Within the matrix, each block contains unit identification and unit eight-digit map grid coordinates to correspond with a function and a time. This matrix ensures all sustainment functions to be executed and units to be supported (including time and location) during a mission are accounted for. It also ensures there are no conflicts in support. The synchronization may be provided to the BCT S-4 for inclusion in annex F of the BCT operation order. The BSB S-3 includes the synchronization matrix as a tab to annex C, operations, of the BSB operation order. The BSB SPO section uses the logistic status reports and running estimates to update the synchronization matrix for future operations.

SUSTAINMENT OVERLAY

3-78. A sustainment overlay is a graphic representation of the locations of sustainment units, support areas, MSRs, alternate supply routes, transportation facilities, unit boundaries, control measures, supply points, maintenance collection points (MCPs), mortuary affairs collection points, ambulance exchange points, and others. A sustainment overlay accompanies an operations order and be distributed throughout the BCT. The logistics planners of the BSB and BCT must synchronize the sustainment overlay with the operations overlays from the other warfighting functions to build a complete common operational picture for the BCT. The BSB sustainment overlay is captured in annex C appendix 2 of the operation order.

STAFF RUNNING ESTIMATES

3-79. 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 events are supportable. Each staff section develops a base running estimate that addresses the information specific to the functional area. The base estimate serves as the initial assessment of the unit's current readiness and indicates how factors considered in the estimate affect the staff's ability to accomplish the mission. Once a plan is completed, the staff sections continuously update the base functional estimate. A comprehensive running estimate addresses all aspects of operations and contains both facts and assumptions based on the staff's experience in a specific area of expertise. In their running estimates, each staff section continuously considers the effect of new information and updates the following—

- Facts and assumptions.
- Sustainment equipment, vehicles, and their capabilities.
- Shortfalls and recommended mitigation.
- Friendly force status.
- Enemy activities and capabilities.
- Civil considerations.
- Risk and mitigation.

3-80. The BSB has to understand the BCT commander's objectives, intent and desired end state. Staffs develop running estimates from historical consumption data, Operational Logistics Planner, also known as OPLOG Planner, Quick Logistics Estimation Tool, also known as QLET, GCSS-Army, and the MDMP.

3-81. The running estimate helps the staff to track and record pertinent information and provide recommendations to commanders. Running estimates represent the analysis and expert opinion of each staff element by functional area. Staffs maintain running estimates throughout the operations process to help commanders in the exercise of C2. An estimate may be needed at any time, so running estimates are developed, revised, updated, and maintained continuously.

3-82. Creating a running estimate starts with the receipt of a mission and is continually refined throughout MDMP and during the operation. The BSB S-3 and S-4 focus their staff section's running estimate on the BSB's internal operations. The SPO section's logistics running estimate is broader and more encompassing. The SPO section's running estimate incorporates external sustainment factors as it relates the requirements, capabilities, and shortfalls of the sustainment for the BCT.

3-83. Sustainment planners, the BSB SPO, and the S-3 use logistics running estimates to recommend changes to the current operation when it is obvious the operation is not unfolding according to plan. Planners analyze potential branches and sequels to current plans.

OPERATIONAL CONTRACT SUPPORT

3-84. Due to force structure limitations, operational contract support may need to fill organic unit shortcomings. Operational contract support is the process of planning for and obtaining supplies, services, and construction from commercial sources to support military operations. The BSB commander, BSB SPO and BCT S-4 understand the risks involved with employing operational contract support. The criticality of the support requirement must be weighed against contractor reliability and availability. During LSCO contracted support is not expected to occur forward of the corps rear boundary. Contractor reliability and operations security are factors contributing to this. Exception to this may be contacted system support specialists.

Chapter 4
Brigade Support Area

This chapter provides an overview of the brigade support area and describes the fundamentals, operations, and considerations for the establishment, operation, security, and displacement of bases in the brigade support area. The brigade support area is a designated area of operations in which sustainment elements locate to provide logistics and medical support to the BCT.

SUPPORT AND CONSOLIDATION AREA OPERATIONS

4-1. The BCT commanders designate close, deep, support, and consolidation areas to describe the physical arrangement of forces in time and space. The commander must designate a close area and a support area for every decisive action operation. They designate a deep area and consolidation area as required.

4-2. A support area is the portion of the BCT commander's AO designated to facilitate the positioning, employment, and protection of sustainment assets required to sustain, enable, and control operations. BCTs assign a BSA to the BSB.

4-3. The consolidation area is the portion of the commander's area of operations designated to facilitate the security and stability tasks necessary for freedom of action in the close area and to support the continuous consolidation of gains. If the BCT AO is designated a division consolidation area the BSB still operates from a BSA. The focus of sustainment support over time is likely to shift from offensive and defensive operations to stability operations as enemy forces are defeated and the security situation improves.

BSA OPERATIONS

4-4. The BSA is a designated area in which sustainment elements locate to provide support to a brigade. The BSA typically encompasses a unit base or base cluster, landing/pickup zones, and field trains elements.

4-5. The BCT subordinate units that normally occupy a BSA are the BSB and the brigade engineer battalion. The brigade commander must determine which of these subordinate units is responsible for controlling the BSA. BSA control requires performing area security and stability tasks, employing and clearing fires, and controlling airspace. The unit designated to control the BSA will require BCT staff augmentation to control fires and airspace.

SITE SELECTION

4-6. Many factors govern BSA site selection and all should be considered when establishing the BSA. The BSA is normally near or in close proximity to an MSR. It is large enough to allow adequate space for unit occupation and to execute 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.

4-7. Commanders evaluate the worthiness of a site with respect to mission accomplishment and then consider camouflage, concealment, and survivability. Ideally, the BSA is out of the range of the enemy's medium artillery. BSB planners consider trafficability and soil composition when selecting a BSA location.

4-8. Dispersion requirements often dictate the size of a site. A site has limited usefulness if it will not permit enough dispersion for survivability and effective operations. Support assets from a DSSB should be able to maneuver through the traffic pattern without causing unnecessary massing of vehicles.

ESTABLISHMENT AND OCCUPATION

4-9. The establishment and occupation of a BSA is deliberately planned and executed. During initial planning, the BCT staff and the BSB staff perform a map reconnaissance of the proposed BCT AO. During this reconnaissance, the staffs identify the area for the initial BSA, planned base location(s) in the BSA, and unit occupation of the base(s). All units that will occupy the BSA, to plan initial establishment and occupation of the BSA, use this information. Similar actions occur for BCT movement and subsequent BSA establishment and occupation.

4-10. Upon arrival at the BCT AO, the BSB uses quartering party operations for initial occupation. The quartering party is key to the initial establishment of the BSA. The purpose of the quartering party is to verify the site selection of the BSA and make limited preparations for receiving units that occupy the BSA. It consists of representatives from the BSB's 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. Depending on units to be located in the BSA, the quartering party may also contain elements of the BCT CP, each maneuver battalion's field trains, and attached units located in the BSA. If a single base is used to contain all units in the BSA, 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 make adjustments to the BSA layout and defenses as necessary.

4-11. On arrival at the BSA site, the quartering party begins its priorities of work. Priority of work is a set method of determining the precedence of tasks when establishing a new location and conducting a defense of a location such as—the BSA. A unit's SOP will dictate the exact steps in that specific BSB's priorities of work. The commander may change priorities based on the situation and mission variables. Although listed in sequence, the BSB may perform several tasks in their priorities of work at the same time. An example priority of work sequence is—

- 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, for example CPs.
- Designate final protective fires.
- Clear fields of fire and prepare range cards and sector sketches.
- Prepare fighting positions.
- Emplace obstacles.
- Identify artillery target and direct fire control measures (day/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.

4-12. The quartering party establishes initial communications to begin the transfer of C2 from a tactical assembly area, intermediate staging base, or previous BSA to the new BSA location. The quartering party establishes a tactical CP. A tactical command post is a facility containing a tailored portion of a unit headquarters designed to control portions of an operation for a limited time (FM 6-0). Commanders employ the tactical CP as an extension of the main CP. The functions of a tactical CP typically include the following—

- Controlling the overall unit's 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 BSA, 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.
- Controlling decisive operations or specific shaping operations.
- Performing short-range planning.
- Contributes to future operations planning.

4-13. The tactical CP also continues to plan the positioning of units in the BSA and begins to outline the base perimeter in more detail than original plans. Representatives of maneuver battalion field trains and other units begin preparations for occupation, which include selecting sites for crew-served weapons. The tactical CP reports to the BSB CP when it is prepared to begin operations. It also relays any information the commander will need to change movement plans.

4-14. After the quartering party, the commander divides the other elements of the BSA into serials to perform a tactical road march to the new site. The battalion 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 operations order issued by the BSB main CP and the unit's tactical SOP. The BSB S-3 plans the movement of the BSA's main body echelons by serial. The BSB planners should not include an entire BSB subordinate company's sustainment capability in a single serial since loss of a serial would eliminate all of the BSB's capability in a functional area. In addition, if an entire company is moving at the same time, it will have difficulty maintaining continuity of support. Instead, each BSB company moves by echelon.

BSA Layout

4-15. The BSB commander, brigade engineer battalion commander, and the BCT S-3 collaborate to determine if all elements in the BSA occupy a single large 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 areas suitable to execute sustainment operations as well as being defensible. A key factor to consider is whether operations will disturb the terrain pattern enough to make it discernable to enemy surveillance. The goal is not to disturb the terrain pattern at all. The BSB and brigade engineer battalion commander will develop an informed recommendation and the commander designated to control the BSA will present the recommendation to the brigade commander who ultimately decides on the best option to support operations.

Single Base Operations

4-16. If a single large base is used, the unit designated to control the BSA will control the base. That unit commander will determine unit placement within the base. The BSB HHC and BSB A, B, and C companies occupy the base with the brigade engineer battalion and its subordinate elements. In addition, elements from the BCT staff, the brigade alternate CP, signal assets, field trains, and sustainment units from higher headquarters may occupy the base. Depending on mission variables, there could also be elements from Army Materiel Command present. Units occupying the BSA will change in accordance with the BCT mission and task organization. The brigade commander may place attached elements in the BSA during certain phases of an operation or for its duration.

4-17. A single base is advantageous in terms of simplified C2 and perimeter security. However, a single base containing the number of units that reside in the BSA will be very large and easily detected by enemy reconnaissance. A single base simplifies targeting and attack by enemy artillery, attack aircraft, and ground forces. It also puts a significant portion of the BCT sustainment and support structure at risk from a single attack.

4-18. Locations of elements in the base will vary depending on mission variables. The BSB commander and S-3 use their best judgment in positioning BSB units and assigning sectors for security of the BSB portion of the base. Troop safety guidelines also influence unit placement. The MATP is often outside the base due to net explosive weight distance factors.

4-19. In addition to staff elements and units, there are multiple supply points associated with the base. The distribution company has an SSA, a fuel point, class I breakbulk point, and an MATP in addition to a convoy staging area. The field maintenance company may establish a MCP, and the BSMC establishes its Role 2 medical treatment facilities. If the sustainment brigade provides transportation or water purification support, those units will also need space for a water point and truck parking in or adjacent to the BSA.

4-20. Some considerations to locating units and commodities within the base—

- 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 likely target areas (such as the MATP, 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 MATP near, but off the MSR, so that resupply vehicles bringing ammunition into the area do not block the MSR. The MATP requires sufficient area to perform transload operations without interfering with traffic.
- Establish separated 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 (such as the maintenance company) along the most threatening avenues of approach.

4-21. Figure 4-1 depicts an example of a notional BSA layout with a single base with company sectors to support a BCT.

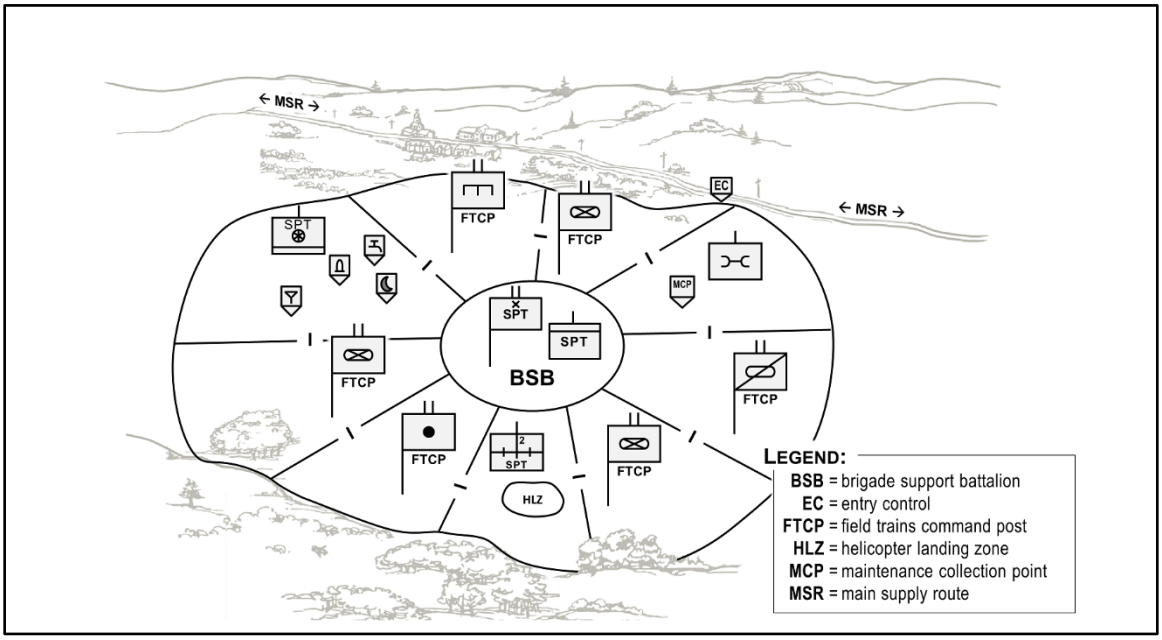

Figure 4-1. Example of a notional brigade support area (BSA) layout

4-22. BSB commanders and S-3 sections shift security responsibilities as tenant units enter and leave the base. The BSB command post standard operating procedures cover the overall base layout with and without the presence of FSC personnel and the BCT's battalion field trains command posts.

Base Cluster Operations

4-23. If a base cluster is used, the commander designated with the control of the BSA executes terrain management to locate a base for each element in the BSA and designates a unit responsible for controlling

each base. The commander controlling the BSA does so from the battalion main CP. Security, communications capability, proximity to road network, and other factors influence base placement.

4-24. 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. This is accomplished while minimizing the likelihood of striking an adjacent base with small arms fire.

4-25. Base cluster considerations are—

- Coordinating with tenant and transient units/organizations, subordinate base clusters, adjacent base camps, and higher headquarters.
- 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 in the bases and between base camps as part of a base cluster as part of base camp functions, services, and support.

4-26. 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 with a single base. Figure 4-2 depicts an example layout of a notional BSA using base clusters to support a BCT instead of a large single-base footprint.

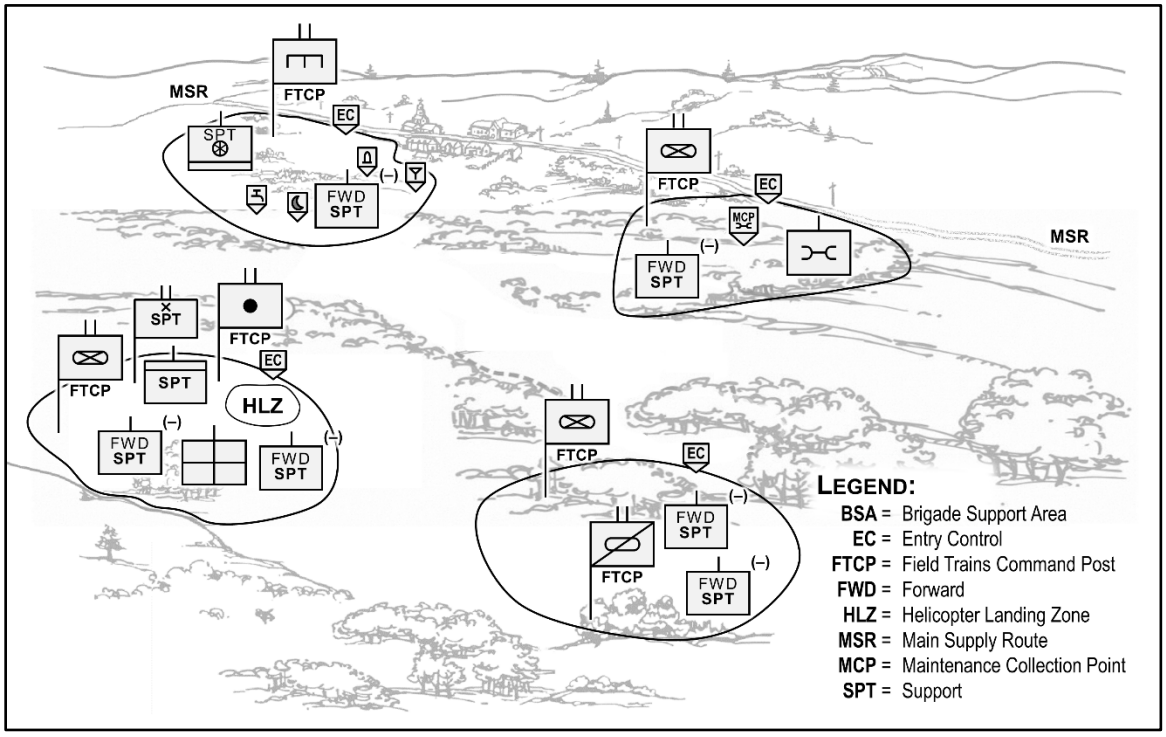

Figure 4-2. Example of a notional brigade support area (BSA) layout using a base cluster

BRIGADE SUPPORT AREA SECURITY

4-27. Security operations undertaken by a commander 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 the BSA, units execute local and area security.

4-28. Area security neutralizes or defeats enemy operations in a specified area. It includes counter-reconnaissance and security of personnel, airfields/landing zones, facilities, MSRs, lines of communication, equipment, and critical points.

4-29. The BSB is responsible for its own local security against level I and II threats. The BCT may provide a tactical combat force to augment the BSB for defense against level III threats. When the BEB is collocated with the BSB in the BSA both units coordinate defense responsibilities under the lead of the overall designated commander of the BSA

4-30. 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.

BSB Security

4-31. The BSB commander is responsible for securing the base (or bases if a base cluster is used) to which it 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 MATP or FARP operations. Continuous mission accomplishment is critical despite security operations.

4-32. As the threat increases, the BSB commander may stop sustainment support to adequately protect personnel and equipment. Failure to provide adequate protection may cause personnel and equipment losses to be so significant that they prevent sustainment support to the BCT. The BCT commander and the BSB commander must have previously discussed what risks are reasonable to accept and what risk mitigation measures to implement based on requirements and priorities.

4-33. The BSB 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.

4-34. 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. Level II threats; interdict friendly lines of communications. A level II threat may have a measurable effect on sustainment accomplishment.

4-35. 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, command post facilities, airfields, aviation assembly areas, arming and refueling points, and interdicting lines of communications and major supply routes. A level III threat is capable of causing sustainment mission failure.

4-36. 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 BSB Security

4-37. The BSB commander and S3 analyze the terrain in detail from all perspectives 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 on preparing and concealing positions, routes, obstacles, logistical support, and C2 facilities and networks. The BSB commander plans, coordinates, and uses rehearsals to ensure subordinates understand the base defense concept of operations. . To be effective, a BSA defensive plan must include four components:

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

Protect the Base

4-38. The BSA requires continuous protection from occupation until displacement. Properly designed perimeter security is the base's first line of defense. Perimeter security is designed to incorporate layered defense in depth and integrate security elements including: cleared fields of fire, interlocking fires, a final protective line, barriers, surveillance, and access control.

4-39. Units organize a perimeter defense to accomplish a specific mission (such as protecting a base or providing immediate self-protection). Except for very small, dense BSAs no true perimeter defense is possible. The BSB depends upon 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.
- Direct fire weapons use flanking fire to protect the perimeter.
- Units utilize indirect fire assets.
- Communications are secure, and redundant systems are in place.
- Units employ obstacles.
- Units establish a final protective line.

4-40. When the BSB controls the base, the BSB S-3 assigns a perimeter area to each unit collocated on the base. The S-3 ensures each unit's area of fire mutually supports the adjacent unit's area, when feasible. The S-3 coordinates with unit commanders and confirms that units in the base have coordinated their boundaries of fire with adjacent units. See Figure 4-2 on page 4-5 for an example of base perimeter area assignments. 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 establishing and defending 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.

4-41. All companies and tenants on the base provide sector sketches to the BSB S-3. Figure 4-3 on page 4-8 depicts an example of a completed company sector sketch. BSB companies and all units in the base draw sector sketches as close to scale as possible. The BSB S-3 combines each sector sketch from the BSB's 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 principle direction of fire.
- Type of weapon in each position.
- Reference points.
- Observation post locations.
- Dead space.
- Obstacles.
- Indirect fire targets.
- Engagement areas if applicable.

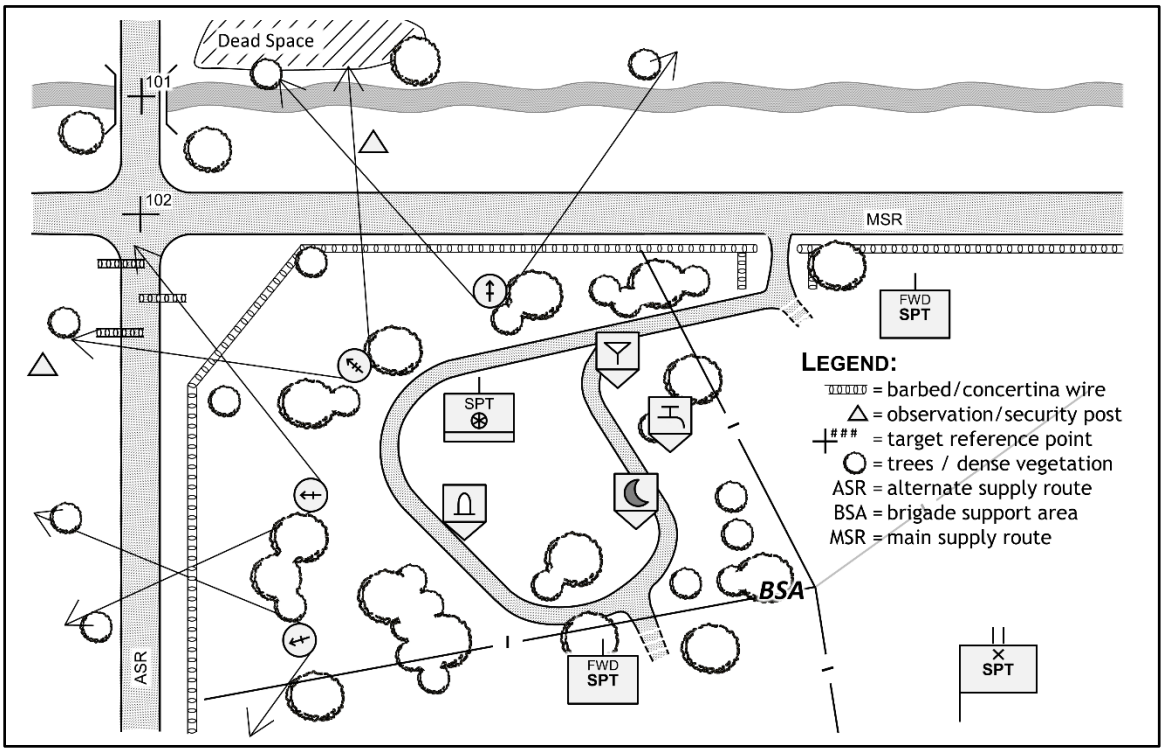

Figure 4-3. Example of a completed company sector sketch

4-42. 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 BSB S3 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.

4-43. Fighting positions for both crew served weapons and individual weapon positions develop range cards, to standard, which in turn aid in developing situational understanding of the base terrain. The company compiles range cards from fighting positions using DA Form 5517 (*Standard Range Card*) to build sector sketches up to a complete company sector sketch. Figure 4-4 depicts an example of a completed range card using DA Form 5517.

4-44. The BSB develops 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 BSB 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 BSB'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.

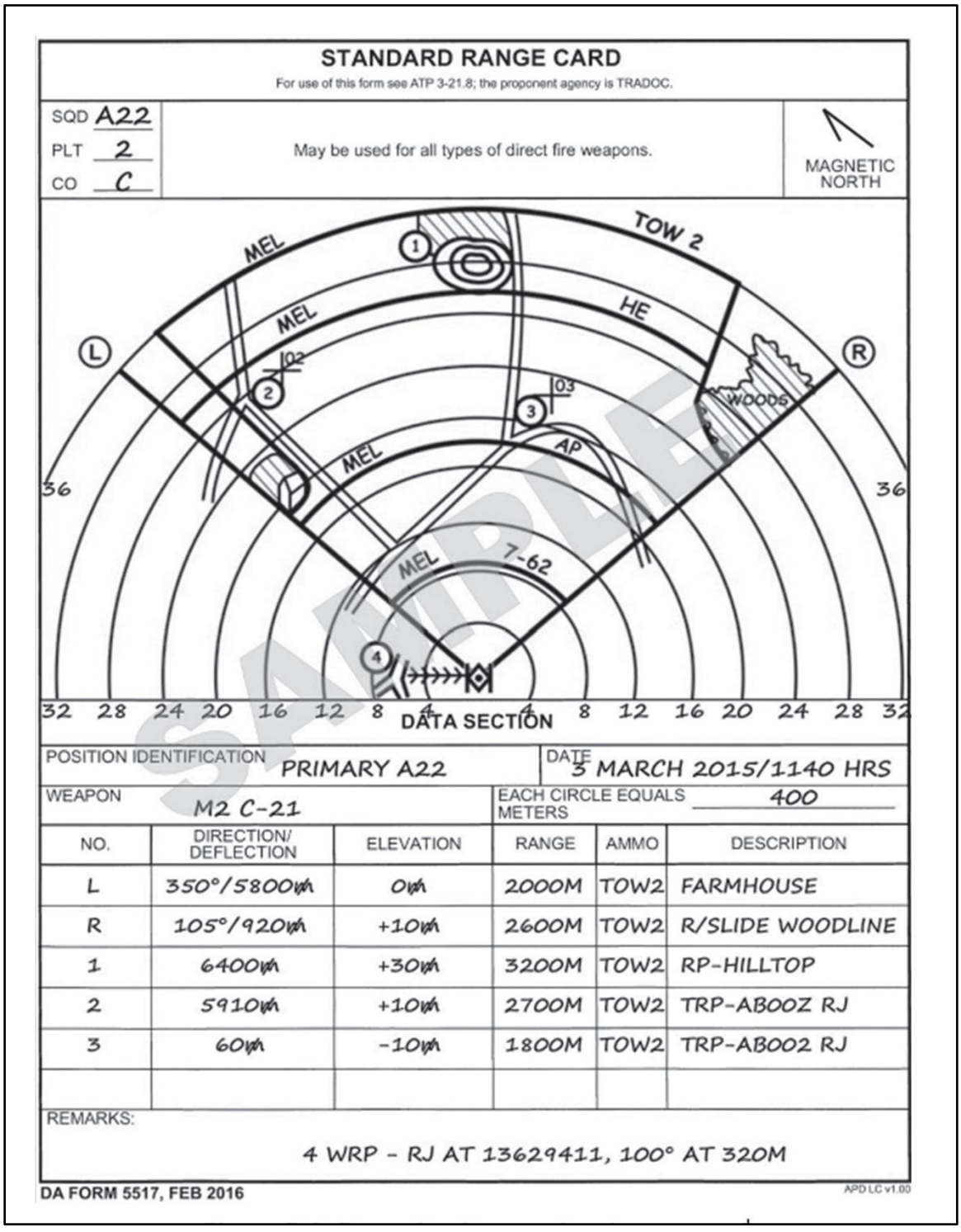

Figure 4-4. Example of a completed range card

4-45. The BSB develops engagement areas during base defensive planning and operations. For more information on engagement area development, see ATP 3-90.1, A*rmor and Mechanized Infantry Company Team*. 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 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.

4-46. While the BSB S-3 is overall responsible for developing the BSA security plan, the BSB S-2 assists by developing the information collection plan to support security operations in and around the BSB base. The S-2 also provides intelligence updates from the BCT especially during periods of heightened threat activity.

4-47. 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 more threatened 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 force, military police response forces, or tactical combat forces.

4-48. 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.

4-49. The BSB leverages all available enablers and BCT assets to defend the BSA. This includes brigade and maneuver battalions' indirect fires. The BSB planners develop the BSB's fires plan with the brigade fire support element and integrate it into the brigade's overarching fires plan. The BSB S-3 synchronizes direct and indirect fires to mitigate levels I, II, and III threats' use of avenues of approach and infiltration lanes. The S-3 must consider the number of crew-served weapons in the BSB and balance them between perimeter security and convoy protection. The brigade fires cell, located in the brigade S-3 section, is the central planning cell that integrates all required information for fire support planning in the BCT. The BSB S-3 should have radio contact with the fire support cells for nearby battalion mortar sections, brigade fire support element, and the field artillery battalion to contact them for fire support if needed. From the field trains command post (FTCP) from the battalions, particularly if they have vehicles evacuated for repair, can emplace non-mission capable combat vehicles oriented along their own perimeter toward enemy avenues of approach to that the crew served weapons can be employed as part of the defense.

4-50. Artillery targets are easily recognizable points on the ground, either natural or man-made, used to control indirect fires through grid coordinates or target numbers. Units should identify targets where the BSB S-3 section anticipates enemy contact. Targets allow for units easily call for fire to suppress an enemy attack on the BSA. Once identified, the BSB S-3 must coordinate any targets with the BCT fires cell and field artillery battalion for fire support.

4-51. The BSB S-3 maintains the brigade fires overlay, fire support task matrix, and fire support execution matrix displayed in the CP. If a base cluster is used, all base CPs must have the same fire support information.

The BSB incorporates these fires planning documents into its common operational picture. The brigade fires overlay serves as the primary means for BSB 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 area of operations. The fire support task matrix provides all the fires support tasks in the brigade's area of operation. It provides the planner with the location of fire support assets within the brigade. It also provides the location of each specific targets, observation responsibility, types of indirect fire systems available, attack criteria, and communication requirements. The fire support execution matrix shows how the brigade fires plan supports its scheme of maneuver. It details the timing of indirect fires and close air support and how the brigade prioritizes and plans to employ them throughout the entire operation. These products are also useful for the planning of enablers during a convoy operation.

4-52. The S-3 may also consider using weapon systems that are in the maintenance shop for repair if qualified operators are available. If the firing system is operable on a vehicle, the BSB can include these weapons in the base defensive plan. Mechanics continue working on the vehicles in the fighting positions. Since night vision devices are not always available, the BSB S-3 includes illumination plans in the overall BSA security plan.

4-53. The BSB integrates the base defense plan into the security plan for the entire brigade area of operation. This requires the BSB staff to coordinate with the brigade S-3 for the overall plan. This coordination includes the brigade engineer to ensure integration of engineer support and class IV materiel to harden positions and reduce the effectiveness of enemy weapon systems.

4-54. If a base cluster is used the BSB staff coordinates directly with units in bases adjacent to or close to the BSB to plan mutually supporting fires and to prevent fratricide. The BSB also considers the defensive perimeter planning for logistics elements that operate or move outside of the BSB's base.

4-55. 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.

4-56. 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 prevents detection from the air, ground, and radars. To effectively camouflage and conceal activities, Soldiers constantly consider an enemy's point of view. Placing a low priority on camouflage and concealment activities because of time constraints, minimal resources, or inconvenience could result in mission failure and unnecessary casualties. 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.

4-57. 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.

4-58. 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, *Survivability Operations*.

4-59. Units should avoid patterns in its 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.

4-60. The BSB base or base cluster defense plan adjusts to meet changing AO conditions. The BSB S-3 communicates all defense adjustments throughout the formation to ensure shared understanding.

Detect the Enemy

4-61. Detection includes discovery of enemy forces in the immediate vicinity and knowing as much about their positions and intentions as possible.

4-62. Detection is critical in achieving timely response to an enemy threat and disrupting the threat quickly before it affects sustainment operations.

4-63. Units on the BSB base employ early warning systems, trip flares, and listening posts/observation posts in sufficient quantities to provide adequate coverage of the base perimeter. The BSB assigns areas around the base for random reconnaissance patrols. Active patrolling, unit standard operating procedures, and continuous reconnaissance are active measures that help provide detection. The BSB also employs its chemical detection equipment as part of its detection and base defense plan.

4-64. Units detecting enemy activity immediately notify the base CP or base defense operations center of the enemy and provide as much information as possible about the enemy. Report the time of detection with information on the enemy element size, activity, location, uniforms, and equipment/weapons. The base CP or base defense operations center immediately relays the report to the brigade CP.

4-65. The BSB has 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. The alert signals the base reinforcements to mobilize and move to the site of detection.

Disrupt the Enemy

4-66. The BSB defensive plan is structured to disrupt an attacking enemy's progress after detection and 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.

4-67. 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

4-68. Once the 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 indirect 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.

4-69. If the BSB cannot destroy the threat with its internal capabilities and quick reaction force, the BSB coordinates with the BCT for external support. If the threat exceeds the available BSA defensive assets, the BSB's preplanned defensive measures must delay the enemy force until reinforcements from the BCT can destroy the enemy.

DISPLACEMENT OF THE BSA

4-70. The BSB commander must position BSB units close enough to its supported brigade to maintain responsive sustainment. As such, the BSB will have to displace its operating base or base cluster frequently. This is particularly true during execution of large-scale combat. The forward movement of the BCT battalions and BCT commander's movement of the BCT rear boundary will largely dictate when the BSB must displace. The BSB commander may move the base within the BSA boundaries even if the BCT rear boundary or BSA boundaries do not move. This keeps an effective proximity with the BCT units and increases survivability by minimizing time in a single location. The BSB plans base displacement immediately after occupying a new site. Units follow the displacing procedures in their unit's tactical SOP.

4-71. Considerations as to why a BSB would displace and reestablish the BSA—

- Lines of communication stretched where FSCs could no longer support their maneuver battalions with a local haul.
- Lack of ability to execute planned and emergency LOGPAC from BSA to combat trains and return in one trip.
- Distance away from its supporting DSSB where DSSB could not support the BSB with a local haul LOGPAC.
- Inability for the BSB to provide uninterrupted support to the BCT and changing operational requirements.
- Persistent chemical threat to the BSA.
- Continued degradation of logistics capability due to enemy indirect fire.
- Inability of the field maintenance company to provide additional field-level maintenance and recovery support to the FSCs.
- Degradation of FSC combat power, necessitating additional throughput from the BSB distribution company.
- Ground lines of communication make ambulance exchange point operations difficult to execute in a timely fashion.

4-72. The BSB commander, with close coordination from the BCT commander and BCT S-3, determines when to displace the BSA. Both commanders and staff understand how the displacement of the base will disrupt BCT support operations and medical care. The disruption may be in terms of time, capability, or a combination of both.

4-73. The BSB S-3 ensures the displacement of the BSB is coordinated with all supported units, subordinate units, and supporting units. The BSB SPO may coordinate for the DSSB to provide reinforcing support to BCT units during the BSB displacement. The BSB makes all units, and most importantly the supported BCT, aware of when support operations will cease at the existing BSB base location, the location of the new BSB base, when operations will begin at the new BSB base site, and location of a forward logistics element (FLE) supporting the displacement.

4-74. 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.** When displacing the BSB, an FLE enables the BSB to continue uninterrupted support to the BCT while relocating. See chapter 5 for more information about FLE operations. When establishing an FLE commanders should consider security requirements for the element. Considerations include the number of personnel, types of weapon systems required for security, and the impact this has on BSB operational area security. Another FLE consideration is the impact its vehicle/transportation composition has on BSB convoy operations.

4-75. The BSB CP is responsible for ensuring the shift to the new support base is coordinated with the sustainment brigade and all supported units. The BSB must direct resupply operations to the new BSA at the right time, and units must know where the new BSA and resupply points are and when to begin using them.

4-76. Supported units must recognize that the BSB's support operations degrade while the elements of the BSB move to a new location. To minimize support disruption, BSB elements move in echelons. The echeloning of sustainment capabilities is especially critical for Role 2 coverage, which the BSMC typically moves with the BSB while displacing. An echelon approach to medical coverage helps to ensure there is a limited reduction of medical support to the brigade during the displacement. Brigade planners should ensure careful consideration to the timing of the displacement of the BSA, employment of an FLE, Role 2 capability and coverage, and composition of the FLE to ensure the BSB maintains adequate support throughout the transition.

4-77. The BSB does not have sufficient organic transportation assets to move 100% of its personnel and organic equipment in one lift. Other elements located in the BSA also lack sufficient transportation. This lack of organic BSB transportation may necessitate the further echeloning of sustainment capabilities during displacement. Additionally, downloaded supplies at BSB supply points and disabled equipment at the field maintenance company's MCP place additional demands on transportation. Disabled equipment the field maintenance company cannot repair immediately may need to wait for evacuation to the new BSB site. The

BSB maintains supplies uploaded for rapid mobility. For all transportation requirements beyond the BSB's capability, the SPO requests additional support from the sustainment brigade.

4-78. Upon receipt of the warning order, BSB units initiate action in preparation to displace. Units load equipment according to their unit SOP and internal load plans. The BSB units also begin reducing perimeter concertina wire and defenses. The BSMC evacuates patients in the holding area instead of moving those patients forward on the battlefield with the displaced Role 2 medical treatment facility. The field maintenance company may also increase evacuation of non-mission capable equipment. Field trains assets should arrange to resupply units with fuel, water, food, ammunition, and repair parts as much as possible before BSB units close supply points.

4-79. Field trains usually move after the main body of the BSB displaces. The remaining elements of the BSB will cease any support operation not already stopped after the departure of the maneuver battalions' field trains. The BSB will upload remaining materiel and move to the new BSB location with permission of the CP. The BSB's main CP then transfers control to the tactical CP at the new BSB location, breaks down its equipment, and displaces.

4-80. The trail party closes out any remaining operations, ensures the old BSA site is clear of anything of intelligence value to the enemy, and moves to the new BSB site. The trail party includes maintenance elements to repair or recover disabled vehicles from the rest of the BSB and BCT elements moving to the new location. The trail party may also need to pick up guides or markers along the route.

Chapter 5

Echeloned Sustainment

Supporting the BCT is a carefully planned and executed process. The BSB must plan for and synchronize echelon support. ***Echeloned sustainment*** **is an array of capabilities placed at critical locations to link and facilitate support between echelons in an area of operation.** At the lowest level, echeloned sustainment is executed at the company and battalion level. This chapter provides an overview of how the BSB arrays forces and echelons sustainment across the battlefield to support the brigade through the use of field, combat, and unit trains.

BRIGADE ECHELON

5-1. BSB unit positioning, including those integrated into maneuver battalions, is critical to timely sustainment support. Using echeloned sustainment is a technique to ensure sustainment support is executed effectively. The purpose is to ensure a clear line of communication between echelons and that adequate support is positioned to allow timely support. Sustainment planners echelon assets to weight the effort supporting mission requirements. Echeloned sustainment provides relatively seamless support, extends operational reach, and allows commanders to maintain momentum.

5-2. Echeloned sustainment is a deliberate, collaborative effort of the BCT headquarters and its battalions based upon thorough mission analysis. The leadership and staffs at the brigade, battalion, and company levels determine how to echelon the forces. It is not a unilateral decision by a single commander since the decision will affect the effectiveness of support across the entire brigade operation. Leaders at all levels thoroughly understand the capabilities of each support organization and element. This is necessary to ensure utilization and placement of each. Commanders of all brigade organizations understand the manner in which support is echeloned will vary widely based upon mission variables. It may even vary for each battalion during a single operation based on the commander's priority and mission variables.

5-3. The BSB is organized to facilitate echeloned support with the FSCs serving as a key element. The FSC is specifically designed and dedicated to link the BSB support to the maneuver battalion and have the requisite capability to execute the support. The FSC eliminates the need for the BSB to develop ad hoc support elements or arrangements. The FSCs are an integral part of the BCT trains.

+ TRAINS

5-4. The BCT uses the trains approach to establish an echeloned sustainment support structure; field trains, combat trains, and company/troop trains. Trains are a grouping of personnel, vehicles, and equipment that provide sustainment to the battalions and subordinate companies of the BCT. The trains are arrayed across the area of operations and link supported units to the BSB and EAB units for support. The BCT S-4, BSB and maneuver battalion commanders and staff, FSC and maneuver company commanders and XOs collaborate to determine the best method of trains employment appropriate for the BCT's sustainment concept of support and to meet the brigade commander's intent. The commanders and staffs allocate personnel to each train and command posts within the trains. Echeloning of support can include elements of the battalion or squadron aid station, S-1 section, S-4 section, and the FSC. Field trains are positioned and controlled by the BCT, combat trains are positioned and controlled by the battalion or squadron, and company/troop trains are positioned and controlled by the company/troop. The field and combat trains normally establish a command post that controls the sustainment activities at their respective echelon and that act as an alternate battalion and/or BCT command post if required. Each command post should have a commander responsible for it.

5-5. Figure 5-1 depicts an example of echeloned sustainment using field, combat, and company trains including templated distances between locations. The distances in the diagram are not prescribed distances but are depicted to display a typical range of distances commanders may expect and are for planning purposes only. Distances will vary from operation to operation and units must be located for maximum effectiveness. Sustainment and BCT planners and leaders consider operational and mission variables when locating units and the impact the distances have on sustainment support. Distribution platform capability and convoy security are considerations when determining distances.

5-6. The planning factor for line haul operations is two trips per day (one trip per shift) at approximately 144 kilometers each way per shift. The planning factor for local haul operations is four trips per day (two trips per shift) at approximately 34 kilometers each way per shift. For more detailed information on sustainment planning factors, see appendix C.

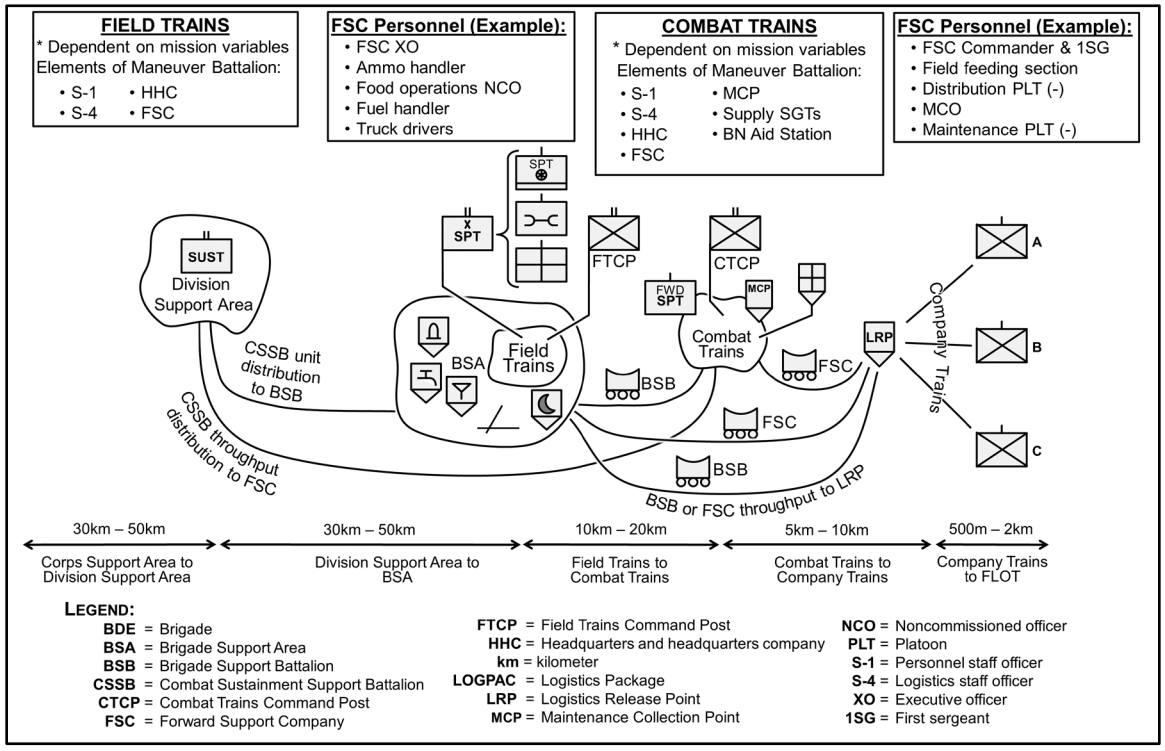

Figure 5-1. Example of echeloned sustainment using field, combat, and company trains

+ The maneuver battalion HHC commander and the BSB FSC commander alternate presence at the field trains command post (FTCP) and the combat trains command post (CTCP) based on mission variables.

+FIELD TRAINS

+ 5-7. Each maneuver battalion/squadron normally task organizes a field trains element to provide a centralized location for controlling battalion sustainment support. The field trains consists of a field trains command post (FTCP), battalion sustainment personnel, battalion sustainment vehicles, and supporting FSC personnel located near the BSB headquarters. The FTCP serves as the battalion or squadron commander's primary direct coordination element with the supporting BSB in the BSA. The supporting FSC commander resides in the FTCP to provide command presence. FTCP may also contain a maneuver battalion/squadron S-4 representative, a maneuver battalion/squadron S-1 representative, and maneuver battalion/squadron supply sergeant or representative. Field trains provide direct coordination between the maneuver battalion

and the BSB. The field trains are positioned based on mission variable considerations but are normally collocated on the BSB base.

+ 5-8. The FSC places personnel in the field trains that can facilitate the distribution integration functions to ensure timely distribution of all supply classes to the supported battalion. Only a small number of FSC personnel work in the FTCP. Too many FSC personnel in the FTCP detracts from the FSC capability. Other FSC personnel may consist of the FSC XO and/or first sergeant, and supply personnel. Their primary function is to communicate maneuver battalion support requirements to the BSB SPO officer and to coordinate for transportation to distribute supplies. The majority of the FSC support capability should remain in the combat trains, closer to the supported battalion when possible. The FTCP serves the following functions:

- Synchronizes and integrates the BCT sustainment concept of support.
- Coordinates logistics requirements with the BSB SPO section.
- Configures LOGPACs tailored to support requirements.
- Coordinates with the BCT for personnel services and replacement operations.
- Forecasts and coordinates future sustainment requirements.
- Coordinates retrograde of equipment.
- Coordinates retrograde of personnel including casualty evacuation, personnel movement, and human remains.

+COMBAT TRAINS

+ 5-9. Each maneuver battalion task organizes a combat trains element in the maneuver battalion operations area. The combat trains provide a centralized location for battalion and FSC sustainment personnel. Combat trains consist of a CTCP, the battalion or squadron's HHC commander, HHC first sergeant, S-1, S-4, battalion aid station, MCP, company supply sergeants or representatives. The FSC typically positions its commander, first sergeant, field feeding section, the distribution platoon, MCO, and the maintenance platoon in the combat trains. Units consider the mission variables when locating combat trains for the battalion or squadron.

5-10. The CTCP plans and coordinates sustainment operations to support tactical operations. The CTCP coordinates and executes sustainment operations between the FTCP and company trains. The CTCP serves as the focal point for all administrative and logistical functions for the battalion or squadron. The CTCP may serve as an alternate command post for the battalion or squadron main command post when necessary. The battalion or squadron S-4 usually serves as the CTCP officer in charge, and the MCO usually serves as the MCP officer in charge. The CTCP serves the following functions:

- Tracks the current battle.
- Controls sustainment support to the current operation.
- Provides sustainment representation to the main command post for planning and integration.
- Monitors supply routes and controls the sustainment flow of materiel and personnel.
- Coordinates evacuation of casualties, equipment, and detainees.

+ 5-11. This discussion is rescinded.

5-12. The FSC positions the MCP in the combat trains where recovery vehicles have access to easy ingress and egress routes and a large enough area for maintenance operations. The combat trains remains mobile enough to support frequent changes in location to maintain pace with the maneuver battalion/squadron. The CTCP may also change location, time and terrain permitting, when heavy use or traffic in the area may cause detection or security is compromised.

+ 5-13. The maneuver battalion HHC commander considers dispersion when arraying forces and capabilities in the combat trains. The HHC commander considers the additional security and communication requirements that dispersion requires in the combat trains. Elements located outside the CTCP base require adequate protection and security capability. Figure 5-2 depicts an example of a layout for combat trains on a battlefield.

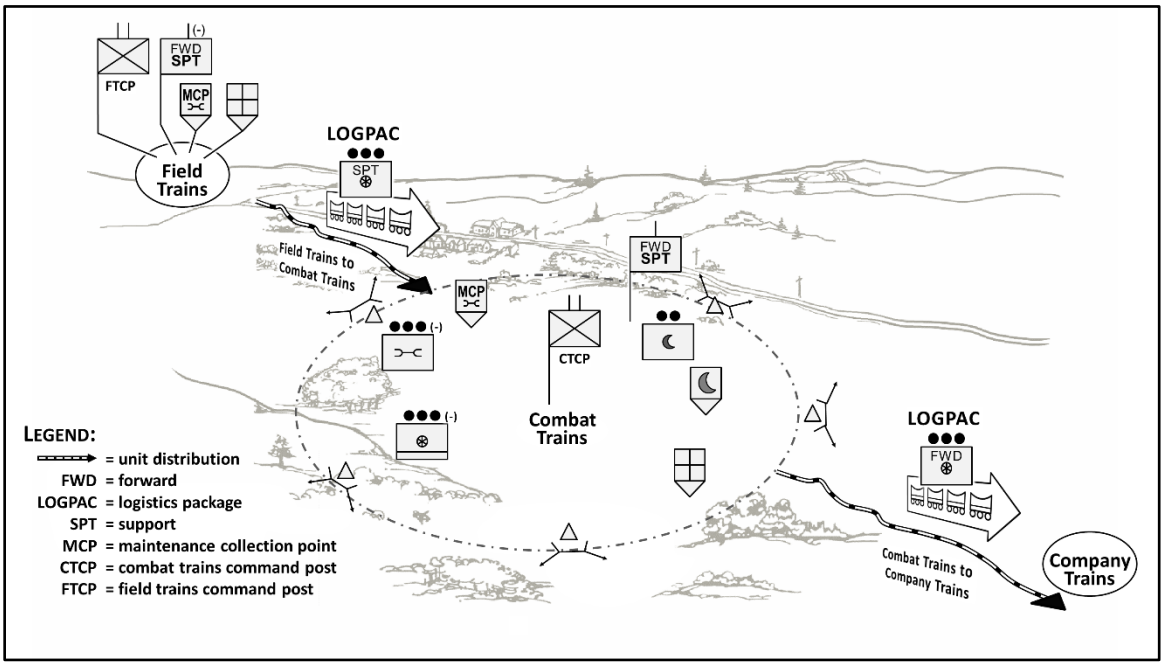

Figure 5-2. Example layout for combat trains

+ The maneuver battalion HHC commander and the BSB FSC commander alternate presence at the FTCP and the CTCP based on mission variables.

COMPANY, BATTERY, AND TROOP TRAINS

5-14. Maneuver companies, batteries, and troops establish trains that, for simplicity in the remaining sections, will be referred to as company trains. As with field and combat trains, company trains consolidate support personnel in a single location to facilitate unit resupply and medical support. The commander determines the composition of the company trains that may include the first sergeant, supply sergeant, unit medic, and assorted vehicles. The FSC commanders may also include FSC field maintenance teams (FMTs) and field feeding teams in the company trains. BCT companies have very limited transportation assets for supply distribution. Companies, batteries, and troops have limited transportation assets, usually a single 5 -ton truck. They rely upon the FSC for bulk distribution of class III and class V.

+FORWARD SUPPORT COMPANY EMPLOYMENT

5-15. The role of an FSC is described in chapter 2. An FSC supports each of the BCT's battalions. The FSC is a critical component in echeloned sustainment and allows the BSB and BCT commanders to weight the logistics effort for the BCT. This section provides additional considerations for FSC employment.

5-16. The BSB commander retains the ability to surge, mass, and reallocate logistics capabilities in accordance with the BCT commander's intent and the mission variables. The primary asset that allows the BSB commander to accomplish this is the FSC. FSCs are organic to the BSB. However, the FSC may be attached to their respective supported battalion for limited duration missions or phases. The BSB commander advises the brigade commander on establishment of these types of command relationships after thorough mission analysis. The attachment of FSC to maneuver battalions limits the BSB commander's flexibility and affects the entire BCT's operations. Regardless of the command relationship, the FSC is positioned where it provides responsive support to the maneuver battalion.

5-17. BSB and BCT commanders and staffs must also consider the FSCs' force structure when weighting BCT's operations. For example, in the absence of a maintenance surge team, all specialized mechanics for

the M1 Abrams, M2/M3 Bradley, Stryker vehicles, and M109A6 Paladin reside solely in the FSCs. If a maintenance surge team is attached to the BSB, M1, M2/M3, and Stryker maintenance is available outside the FSC. If a maintenance surge team is attached to the BSB, it can be used to reinforce the FSC to weight the main effort. M109A6 Paladin maintenance capability still solely resides in the FSC even with a maintenance surge team attached. No maintenance capability for these systems resides in the field maintenance company or at echelons above the BCT. The maintenance surge team may be positioned within the BSA or at any of the trains CP locations as required. If a maintenance surge team is not available, the brigade and BSB commander consider placing FSC mechanics to repair main weapon systems with long repair times.

5-18. If a maintenance surge team is not available, BSB and BCT staffs may cross-level FSC M1, M2/3, M109A6, and Stryker mechanics from one FSC to another to weight the main effort and to ensure adequate maintenance support for task-organized units where additional main weapon systems are attached.

5-19. The FSC position a MCP in the combat trains. Although the FSC can establish a temporary MCP near the company trains to provide a quick consolidation point for damaged equipment, hasty repairs, or to perform BDAR, the FMT will evacuate non-mission capable equipment to the FSC's MCP in the combat trains. Elements of the FSC typically also remain in the field trains to coordinate logistics requirements with the BSB and configure logistical packages for the maneuver battalion.

5-20. The FSC commander assists the supported battalion S-4 and XO in developing logistics plans for the maneuver battalion. However, the FSC commander is not responsible for developing the battalion sustainment concept of support or operation order. The S-4, as the primary logistics planner for the battalion, is responsible for determining support requirements and creating the battalion's sustainment concept of support based on commander's intent, mission analysis, and the battalion's MDMP. The battalion S-4 ensures it nests with the brigade's concept of support. The FSC commander and the FSC are the executors of the S-4's plan. Therefore, the FSC commander and company leaders have a vested interest in ensuring the battalion's concept of support created by the S-4 is feasible, suitable, follows the principles of sustainment, and adheres to logistics capabilities and doctrine.

+5-21. The FSC commander is located in the field trains. The commander understands the capabilities and limitations of the company's personnel and equipment. The FSC commander must adapt to changing operational and mission variables. The commander thoroughly understands the different types of Army command and support relationships and how they affect the company. This knowledge, coupled with logistic expertise, enables the FSC commander to make credible recommendations to both the supported maneuver commander and the BSB commander on the employment of the FSC. See chapter 2 for a further discussion on command and support relationships.

5-22. The maneuver battalion commander and staff, the BSB commander and staff, and the FSC commander collaborate to determine the best method of employment for the FSC appropriate with the brigade's concept of support. FSC employment considerations include:

- FSC location in relation to the supported battalion.
- Decision to separate elements of the FSC by platoon or other sub-elements into multiple locations.
- C2 as well as decision-making necessity by location.
- Benefits and drawbacks of locating FSC elements in the BSA.
- Benefits of collocating battalion staff sections with the FSC.
- Benefits of collocating battalion medical elements with the FSC.
- Security of the FSC locations.
- Establishment and location of a MCP.

+5-23. This discussion is rescinded.

FORWARD LOGISTICS ELEMENT

5-24. The BSB CDR task organizes a FLE to support high tempo operations that exceed the capacity of existing echelonment of sustainment operation, or to temporarily support the brigade when the BSB displaces to a new location. The intent for employing an FLE is to minimize tactical pauses to the plan and enable the

commander's momentum by shortening the lines of communication. The FLE operates out of a forward logistics base or support area and is typically commanded and controlled by the BSB SPO and assistant S-3.

5-25. The BSB establishes an FLE based on tactical requirements. The BSB is the lowest echelon unit that can establish an FLE. The FLE's composition is tailored to the supported unit's composition and task. While mission variables dictate an FLE's composition, the BSB often establishes an FLE with fuel assets, ammunition assets, water and class I supplies, recovery assets, and medical personnel. FSC maintenance elements continue normal operations so, typically, there is limited requirement for maintenance capability in an FLE while the BSA displaces. The FSCs continue to provide direct support to their assigned battalions. Due to its fixed location and extended period of operation, security if a significant concern for the FLE and requires a greater degree of security planning.

5-26. . When displacing the BSA, an FLE enables the BSB mitigate disruptions in support to the BCT. The BSB's capability to support the brigade is diminished while moving. Brigade planners should carefully consider the timing of BSB displacement, employment of an FLE, Role 2 capability and coverage, and composition of the FLE to ensure adequate support is maintained throughout the transition. During fires brigade displacement, the majority of support to fires brigade units will come from CSSB throughput.

5-27. The BSB commander may need to coordinate with echelons above brigade sustainment units to provide augmentation to the FLE. This includes identifying and the positioning of EAB sustainment assets in close proximity to geographically dispersed forces to extend operational reach and prolong endurance.

ECHELONS ABOVE BRIGADE

5-28. Support organizations at EAB that provide support to a BCT normally consist of the DSB, DSSB, brigade logistics support element, and area medical support organizations. Sustainment brigades and CSSBs may reinforce the DSB and the DSSB. Each of these units contribute to the echeloning of sustainment to a BCT. Identifying, planning for, and requesting support from the DSB, DSSB, and medical support organizations (such as the medical brigade or multifunctional medical battalion) is critical before the start of an operation for the efficient echeloning of sustainment. Planners coordinate with echelons above brigade units in order to establish a support relationship if no command relationship exists.

SUSTAINMENT BRIGADE

5-29. Sustainment brigades are normally attached to a corps expeditionary sustainment command, known as an ESC, or theater sustainment command. The sustainment brigade attached to a corps expeditionary sustainment command commands and controls all assigned and attached units in an area of operations as directed by the corps commander providing logistics, finance and comptroller, and personnel services to forces operating in the corps AO. The corps commander determines the task organization for the sustainment brigade attached to a corps expeditionary sustainment command. A task-organized sustainment brigade attached to a corps expeditionary sustainment command normally includes attached CSSBs, a petroleum battalion, and a motor transportation battalion to support tactical-level sustainment operations. The sustainment brigade coordinates and synchronizes tactical-level sustainment operations to meet the current and future operations. See ATP 4-93, *Sustainment Brigade* for more information on the sustainment brigade.

COMBAT SUSTAINMENT SUPPORT BATTALION

5-30. The CSSB can be attached to sustainment brigades supporting a corps. The CSSB commands and controls all assigned and attached units in an area of operations as directed by the sustainment brigade commander. The unit performs maintenance, transportation, supply, field services, and distribution. The corps commander determines the task organization for the CSSBs. Task-organized CSSBs, normally include a composite supply company, support maintenance company, modular ammunition company, palletized load system truck company, inland cargo transfer company and a field feeding company. The CSSB synchronizes and executes logistics support to functional brigades and multifunctional support brigades attached to the corps. See ATP 4-93.1, *Combat Sustainment Support Battalion* for more information on the unit.

DIVISION SUSTAINMENT BRIGADE

5-31. The DSB is assigned to a division. The commander is responsible for the integration, synchronization, and execution of sustainment operations. The DSB employs sustainment capabilities to create desired effects in the support of the division commander's objectives.

5-32. Depending upon operational and mission variables, the DSB can command up to seven battalions. The DSB and its subordinate units provide support to all assigned and attached units in an area of operations as directed by the division commander. The DSB provides logistics, personnel services, and finance and comptroller support to forces operating in the division AO. A DSB assigned to a division includes an organic division sustainment troops battalion (DSTB) and an organic DSSB to support the BSBs. The DSB coordinates and synchronizes tactical-level sustainment operations to meet current and future operations. The DSB is dependent on the division staff for long-range planning capability. The DSB and its subordinate units must be able to move and displace to maintain pace with the division headquarters. Additional modular CSSBs and companies may be attached to the DSB to sustain large-scale combat operations.

DIVISION SUSTAINMENT TROOPS BATTALION

5-33. The DSTB is organic to DSBs. The battalion's role is to exercise C2 for all units assigned, attached, and OPCON to the DSB headquarters. The battalion plans, prepares, executes, and assesses the internal support requirements for the DSB headquarters. Its core competencies are to establish a battalion command post, execute the operations process, and synchronize internal support operations to support mission requirements.

5-34. The DSTB consists of a command group, UMB, and coordinating staff. It serves as a battalion headquarters organized to provide administrative support, life support, and communications for the DSB headquarters. Capable of operating at the tactical level throughout an area of operations, it can command up to seven organizations.

5-35. Organic to the DSTB is a headquarters company that includes a maintenance section, medical treatment team, and medical evacuation team. Assigned to the DSTB are a signal company, human resources company, field feeding company, and a financial management support unit, also known as an FMSU. These units all support the DSTB, DSB headquarters, and all the organic, assigned and attached units.

DIVISION SUSTAINMENT SUPPORT BATTALION

5-36. The DSSB is organic to DSBs. The DSSB and its subordinate units move and displace to maintain pace with the DSB and division headquarters. The DSSB commands and controls all organic, assigned, and attached units. As directed by the DSB commander, the DSSB performs maintenance, transportation, supply, and distribution. DSSBs have an organic composite supply company, composite truck company, and support maintenance company. Other capabilities are task organized by the division commander based on support requirements. The DSSB synchronizes and executes logistics support to BCTs and multifunctional support brigades attached to the division and non-divisional units operating in the division AO.

MEDICAL COMPANY (AREA SUPPORT)

5-37. The medical company (area support) provides Role 1 and Role 2 medical support to units supporting operations. The medical company (area support) is attached to a multifunctional medical battalion and executes area medical support operations in an area identified in the operation order issued by the multifunctional medical battalion commander. The medical company (area support) can task-organize and is tailorable to the OE and mission requirements dictated by defensive operations.

5-38. Sustainment units and maneuver forces evacuate casualties from the point of injury to the next appropriate higher role of care. The brigade support medical company may medically evacuate patients to a Role 3 medical treatment facility or to another Role 2 medical treatment facility until further evacuation to a combat support hospital or Role 4 medical treatment facility is available. The evacuation of casualties or patients and the role of a medical company (area support) and Role 4 medical treatment facilities are discussed further in chapter 8.FM

AREA SUPPORT

5-39. Area support is not a support relationship and it is not synonymous with general support. Area support is necessary to support units which are not in the original support concept and for which the order has not established a support relationship. Area support is provided as capabilities allow and is secondary to the priority effort and existing support relationships. Normally, BSB units provide area support to units upon request unless supporting that unit will jeopardize the priority effort. If requested support is beyond supporting unit's capability or not authorized by supporting unit's headquarters, the requesting unit will coordinate with its parent unit for support.

5-40. The BCT may task the BSB to provide area support to division or corps units in, around, and traversing the BCT's area of operations. The BSB may need to provide area support for small, units such as—a special forces operational detachment A, air defense batteries, or civil affairs.

5-41. BSB commanders will determine procedures for supporting units with no established support relationship. Alternatively, the BCT commander may require units to verify authority to support and priority for all unplanned units. In that instance, the supporting unit would notify the BSB SPO, who would contact the brigade S-4 and XO for guidance. When providing area support to a unit, the BSB SPO coordinates with the supported unit's commander, XO, or S-4, to integrate their requirements into the sustainment concept of support and to synchronize support operations.

Chapter 6
Distribution Operations

Distribution is a critical aspect of sustainment whose main purpose is to ensure the adequate resupply of maneuver forces at all times. It builds and maintains combat power and provides the Army its operational reach. Distribution is the integration of the logistics functions of transportation and supply. This chapter provides an overview of distribution fundamentals at the BCT level and describes the role, organization, and operations of the BSB's distribution company, forward support companies, and other units that provide distribution support to the BCT.

DISTRIBUTION MANAGEMENT PROCESS

6-1. Distribution management is a process that includes materiel management, distribution integration, and transportation operations functions. The BSB SPO section executes all three of these functions to ensure timely and effective distribution. The process begins with supply planning and ends when an item is issued to a user. BSB materiel management personnel determine and validate BCT supply requirements, (by commodity, quantity and priority) obtain supplies, and coordinate distribution according to command priorities. BSB transportation operations managers maintain status of the BCT transportation routes and available transportation assets in the distribution company and forward support companies. BSB distribution integrators use this information to integrate transportation assets available with the forecasted supply requirements to develop the distribution plan for the BCT. The BSB SPO section coordinates the distribution plan with the BSB S-3 for execution.

- The materiel management component of the distribution process is executed by these subordinate elements of the BSB:
  - The BSB SPO section personnel, SPO officer, medical logistics officer, ammunition officer, supply management officer, ammunitions logistics sergeant, and petroleum supply sergeant.
  - The distribution company, though not specifically a materiel management organization, executes materiel management functions necessary to allow timely distribution of supplies. The personnel in the distribution company that execute materiel management functions include the company operations officer, the supply platoon leader, supply platoon systems technician, supply platoon materiel control and accounting personnel, general supply and class V section personnel, MTHP section personnel, fuel and water platoon leader and platoon sergeant, the fuel and water platoon class II and water section personnel.
  - The field maintenance company's maintenance control section personnel.
  - The medical company brigade medical supply section personnel.
  - The forward support company headquarters and distribution platoon personnel.
- Within the BSB, the transportation operations and distribution integration functions are combined and executed by transportation personnel in the SPO section. The BSB SPO section does not have branches or specific personnel dedicated to execute each function. In addition, the number of personnel in the distribution and forward support companies that execute transportation and integration functions is limited. The transportation operations and distribution integration functions are executed by these subordinate elements of the BSB:
  - The BSB SPO section personnel; SPO officer, transportation officer, movements supervisor, and the transportation management NCO.
  - The distribution company operations officer, transportation platoon leaders, transportation platoon sergeants, and transportation platoon dispatchers.

- The forward support company headquarters and distribution platoon personnel.

6-2. Distribution is a continuous, complex operation that requires thorough planning and continual refinement throughout the operation. BSBs execute distribution operations based on supply requirements communicated by brigade units. The BCT and maneuver forces communicate their requirements through logistics status reports and other means, from battalion S-4 and brigade S-4 through the BSB SPO, to the BSB. The maneuver battalions communicate directly with the supporting FSC. See chapter 2 for more information on logistics status reports.

6-3. The BSB bases distribution decisions on supported units' priorities and commodity priorities specified by the BSB and BCT commanders as described in the operations order and BCT sustainment concept of support. Logistics units always support the BCT's priority maneuver force with priority commodities first.

METHODS OF DISTRIBUTION

6-4. In the BCT, distribution builds and maintains combat power through the delivery of supplies, personnel, and equipment to extend the operational reach of maneuver forces, maintain freedom of action, and prolong endurance.

6-5. Sustainment units select a distribution method appropriate to the mission, tactical situation, the supported unit's priority of support, time/distance, and other factors of mission and operational variables. There are two methods of distribution:

- Unit distribution.
- Supply point distribution.

Unit Distribution

6-6. Unit distribution is the routine distribution method the BSB uses to support the BCT. *Unit distribution* is a method of distributing supplies by which the receiving unit is issued supplies in its own area, with transportation furnished by the issuing agency (FM 4-40). In unit distribution, logisticians organize supplies in configured loads and deliver supplies to one or more central locations. Supply personnel can create unit load configurations to resupply specific battalion, company, or platoon-sized elements depending on the level of distribution needed and mission variables. Unit distribution maximizes the use of the BCT lift capacity of its transportation assets and minimizes the delivery and turnaround time.

Supply Point Distribution

6-7. *Supply point distribution* is a method of distributing supplies to the receiving unit at a supply point. The receiving unit then moves the supplies to its own area using its own transportation (FM 4-40). Supply point distribution requires unit representatives to move to a supply point to pick up their supplies. Units most commonly execute supply point distribution by means of a LRP.

6-8. In each method of distribution, there are multiple techniques for the distribution of supplies, personnel, and equipment. Examples of techniques for supply point distribution used by units are—

- Refuel on the move (ROM).
- Pre-positioned supplies.
- Cache.

Throughput Distribution

6-9. *Throughput distribution* is a method of distribution that bypasses one or more intermediate supply echelons in the supply system to avoid multiple handling (ATP 4-11). The BSB or a DSSB may execute throughput distribution in the BCT's area of operations when needed. An example of throughput distribution would be the BSB's distribution company bypasses the FSC to distribute supplies directly to maneuver units. Additionally, a DSSB may distribute supplies from an echelon above brigade SSA to a forward support company, bypassing the BSB. Mission variables are the major considerations for logisticians when deciding whether to utilize throughput distribution.

6-10. In each method of distribution, there are multiple techniques for the distribution of supplies, personnel, and equipment. Logistics units use several techniques for unit distribution (such as LRPs and aerial delivery). It is important to note that many of these techniques can use a combination of unit and supply point distribution and, in some cases, each technique can combine the two distribution methods in the same resupply mission.

METHODS OF RESUPPLY

6-11. BSB supply and distribution planners understand that unpredictable events including: weather, terrain, enemy contact, and other mission and operational variables disrupt planned resupply schedules. This unpredictability requires constant assessment of the situation and rapid adjustments of the distribution plan. Resupply operations require continuous and close coordination between the supporting and supported units. There are only two methods of resupply: planned and emergency resupply.

Planned Resupply

6-12. Planned resupply is the preferred method of resupply. The sustainment concept of support, synchronization matrix, logistics status reports, and running estimates establish the requirement, timing, and frequency for routine planned resupply.

6-13. The BSB SPO officer is the principal staff officer responsible for synchronizing BSB distribution or LOGPAC operations that accomplish resupply for all units assigned or attached to the BCT. The BSB office is responsible for applying the BSB capabilities against the BCT's requirements. The BCT S-4 identifies requirements through daily logistic status reports, running estimates, and mission analysis. Planned resupply operations cover all classes of supply, water, mail, and any other items usually requested. Whenever possible, the BSB should execute planned or routine resupply on a regular basis, ideally during hours of limited visibility.

6-14. In each method of supply, there are multiple techniques for the resupply of supplies, personnel, and equipment. Examples of techniques for planned resupply are—

- LOGPAC.
- Pre-positioned supplies.
- Cache.
- Modular system exchange.

Emergency Resupply

6-15. Emergency resupply is the least preferred method of supply. Requests for emergency resupply often indicates a breakdown in coordination and collaboration between sustainment and maneuver forces. Accurate reporting through logistic status reports are critical to reduce the number of required emergency resupply operations. Poor logistics reporting from units places a burden on the sustainment system by needlessly putting personnel and equipment at risk through additional resupply operations and degrades the efficient distribution of supplies across the BCT. Emergency resupply can lead to excess materiel and needless LOGPAC operations. Emergency resupply requests that are beyond BSB capabilities require prompt coordination with the DSB for support.

6-16. When a unit has an emergency resupply need the forward support company or distribution company from the BSB executes an emergency resupply using one or more of the techniques listed.

TECHNIQUES OF RESUPPLY

6-17. In each method of resupply, there are multiple techniques. Logisticians can use several techniques for resupply during both planned and emergency resupply operations. Units can utilize different techniques to perform supply point and unit distribution operations. In many cases, units perform both supply point and unit distribution operations during the same resupply technique.

Logistics Release Point

6-18. A logistics release point is a pre-coordinated ground location where the maneuver companies and FSCs meet to initiate resupply to the companies. The FSC commander and battalion S-4 plan the location, timing, and establishment of LRPs for the maneuver battalion. Planners must consider mission variables and security considerations when determining the LRP's location. The LRP is located to afford the best protection possible from observation and direct fire. Units use LRPs to maximize distribution efficiency and reduce the time and distance the supported unit travels to receive supplies. Resupply at an LRP is a planned, coordinated, and synchronized operation. The LRP is located between the combat trains and the maneuver battalion's company trains. An LRP is normally established and secure for only a limited duration. The FSC pushes configured LOGPACs to the LRP to resupply maneuver companies. Alternatively, the FSC may coordinate for the BSB distribution company to throughput the supplies directly to the LRP.

6-19. Company first sergeants typically arrive at LRP 30 minutes prior to the LOGPAC arrival to conduct coordination with the BN CSM and each other. They remount their vehicles five minutes before LOGPAC arrives and ideally lead their company's LOGPAC vehicles directly back to their company positions immediately upon their arrival at the LRP location. During LSCO LRP should be conducted during periods of limited visibility whenever possible. LOGPAC duration is METT-TC dependent, largely informed by distance and terrain between the LRP location and the company areas. Two hours is a good planning factor. CO 1SG lead their LOGPAC vehicles to and from their company positions, and enforce timelines for distribution to ensure that LOGPAC vehicles arrive back at LRP simultaneously with those from the other companies. Figure 6-1 depicts an example of a LRP on a battlefield.

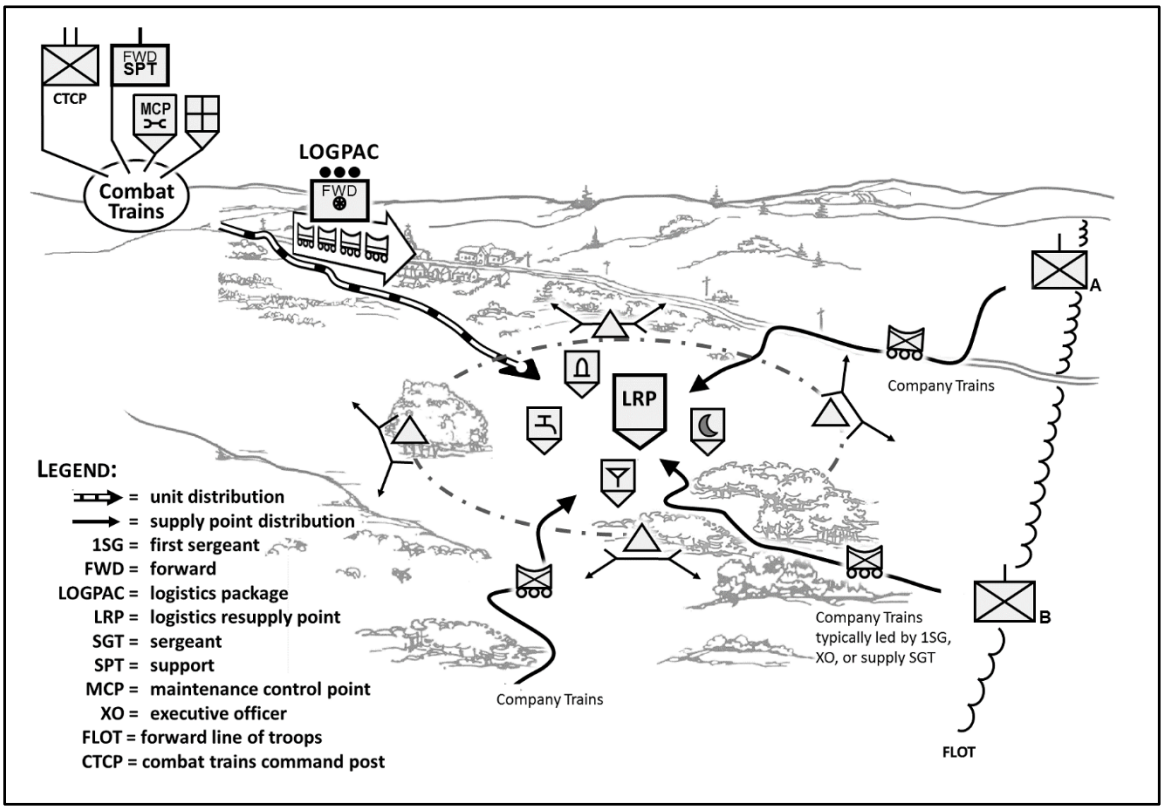

Figure 6-1. Example of a logistics release point

Aerial Delivery (Fixed-Wing and Rotary Wing)

6-20. Aerial delivery provides an effective means of executing unit distribution operations. In order for aerial delivery to be effective, friendly forces must control airspace throughout the AO and have neutralized enemy ground-based air defenses. Logistics units can use aerial delivery for both routine and emergency resupply

to units with limited access by ground transportation assets. Aerial delivery allows bypassing enemy activities and reduces the need for security operations along ground lines of communications.

6-21. A sling load is an external load carried beneath a utility or cargo helicopter held in place by a sling, bag, or net. As in airdrop, weather conditions, mission requirements, threat environment, and equipment units deliver determine the equipment and type of aircraft used for the delivery. Army aviation performs most sling load operations supporting Army units.

6-22. The FSC may be prepared to both receive and package bulk supplies for sling load operations. To execute these operations, sling load trained personnel are required in the FSC's distribution platoon. The mission may require the FSC to designate and operate a pickup zone. Keep in mind the following criteria when selecting pickup zones:

- Shielded from enemy observation.
- Approach and exit routes based on the availability of good masking features.
- Located near storage or supply points and a good road network.
- Size of pickup zone, depending on the number and type of helicopter expected.
- Tactical dispersion based on the threat.
- Potential obstacles and loose debris.
- Level landing area.
- Flight paths into and exiting from the pickup zone.

6-23. The receiving unit, which may be the FSC, selects a landing zone or drop zone to receive aerial resupply. They are also responsible for the receiving and derigging of the loads. The receiving unit immediately transports the delivered supplies away from the landing zone/drop zone and returns the sling or air delivery equipment including — slings, cargo nets, and cargo bags, to its owning unit if the tactical situation permits. They may also have retrograde supplies and equipment the unit will prepare and load on the returning aircraft. For additional information about aerial delivery operations refer to ATP 4-48, *Aerial Delivery*.

Refuel On The Move

6-24. A ROM is a deliberately planned operation requiring augmentation for the BSB to conduct. ROMs are usually planned as part of offensive operations or long movements to facilitate transitions, like forward passage of lines. A ROM provides adequate fuel to extend the endurance of the supported unit. Planners do not intend a ROM to completely refuel the combat vehicles. It is used when complete refueling operations are either impractical or unneeded.

6-25. When vehicles enter a ROM site for refueling, fuel trucks issue a predetermined amount of fuel (usually timed) and vehicles return to their convoy or formation. The rapid refueling executed during a ROM distinguishes it from routine convoy refueling operations.

6-26. Supported unit S-3 and S-4 staffs coordinate with the BCT S-4 and BSB SPO to set the time and place to perform the ROM operations according to march tables and scheme of maneuver and establish the amount of fuel the BSB or FSC will provide for each vehicle. Ideally, ROM operations utilize fuel assets from the DSSB or BSB's distribution company that allow the FSC petroleum fuelers to maintain full mobile storage capacity. ATP 4-43, *Petroleum Supply Operations,* contains more information about ROM operations.

Forward Arming and Refueling Point

6-27. A FARP is a temporary facility organized, equipped, and deployed as far forward and widely dispersed, as tactically feasible to provide fuel and ammunition necessary to sustain combat aviation units. Establishing a FARP allows commanders to extend the range of their aircraft or significantly increase time on station by eliminating the need for aircraft to return to the aviation unit's central base of operations to refuel and rearm. FARPs may be task organized to provide maintenance support as well as air traffic control services, if required.

6-28. A FARP is an example of supply point distribution. The Army employs FARPs to support aviation operations, generally by the distribution company of an aviation support battalion, when the distance covered

or endurance requirements exceed normal capabilities of the aircraft. They may also use FARPs during rapid advances, when aviation field trains cannot keep pace. See ATP 4-43 for more information about FARP operations.

Logistics Package

6-29. A *logistics package* is the grouping of multiple classes of supply and supply vehicles under the control of a single convoy commander (FM 3-90-1). The LOGPAC technique is a simple and efficient way to accomplish routine, planned resupply. LOGPACs support how the combat and field trains echelon sustainment across the brigade AO. Before a LOGPAC, the BSB's distribution company develops combat configured loads for resupply to maneuver battalions in the BCT. Combat configured loads are developed based on the type of supported unit and mission of the supported unit. They consist of packages of water, class I, class III(B), class IV, class V, class VIII, and class IX appropriate to the supported unit. Depending on mission variables, the distribution company from the BSB or the FSC supporting a maneuver battalion execute a LOGPAC from the BSA. Scheduled LOGPACs contain a standardized allocation of supplies based on the sustainment concept of support, synchronization matrix, and consumption rates of the supported force. The BSB can dispatch a special or emergency LOGPAC as needed.

6-30. Once received at the CTCP, the FSC reconfigures the loads according to the maneuver company requirements. The FSC's distribution platoon leader, accompanied by maneuver company supply sergeants, leads the LOGPAC. The maneuver company XO or first sergeant meets the LOGPAC at the LRP and escorts the convoy to the maneuver company's positions. A DSSB supporting the BCT or the brigade's BSB can also perform throughput to the maneuver forces by LOGPAC if the mission dictates.

6-31. When planning resupply from either DSSB or the BSB distribution company, FSCs ensure they have resupplied the combat trains to allow capacity to receive as much supply as possible. Failure to push supplies to an LRP before receiving resupply desynchronizes resupply and leads to inefficient and reactionary sustainment. Figure 6-2 depicts an example of a LOGPAC operation.

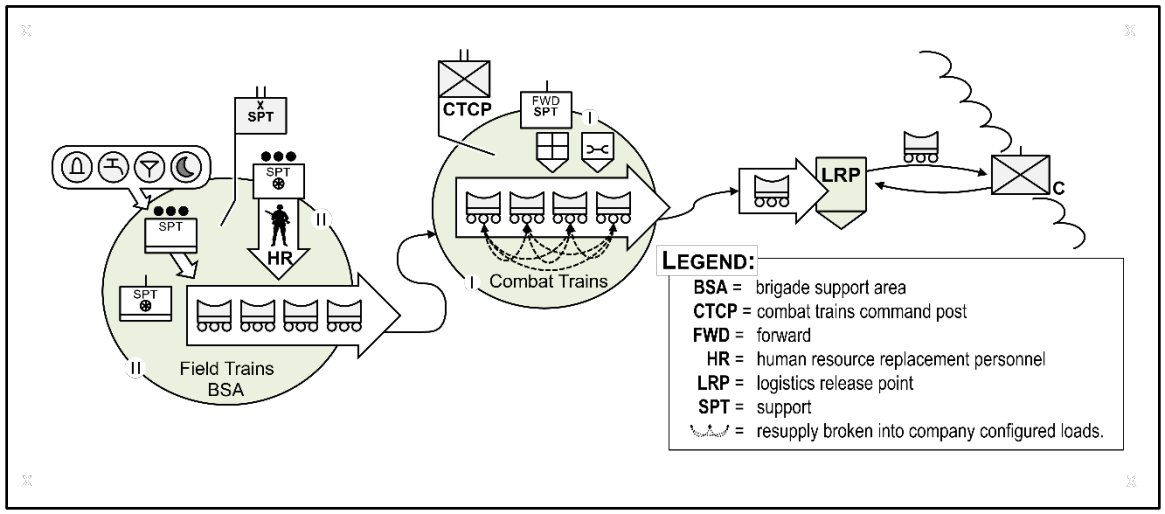

Figure 6-2. Example of a logistics package

Pre-positioned Supplies

6-32. The pre-positioning of supplies is a preplanned resupply technique that reduces reliance on traditional convoys and other resupply operations. Pre-positioned supplies build a stockage level on the battlefield of high demand, consumable supplies, for example — water and ammunition. Pre-positioned supplies should be prepared as combat configures loads if possible. Sustainment units and maneuver forces carefully plan the pre-positioning of supplies on the battlefield. Leaders must know the exact locations of pre-positioned supply sites, which units must verify during reconnaissance and rehearsals. Maneuver forces take measures to ensure survivability of the supplies including digging in pre-positioned supplies and selecting covered and concealed

positions. Units must also have a plan to remove or destroy pre-positioned supplies, if required. There are several drawbacks to pre-positioned supplies including—

- Large stockpiles of supplies on the battlefield.
- Likelihood of enemy or local national discovery and pilferage.
- Lack of maneuverability of supplies once on the ground.

6-33. Logisticians and maneuver forces may want to consider using pre-positioned supplies along a planned axis of advance of the BCT. Alternately, based on the sustainment concept of support and the BCT's concept of the operation, pre-positioned supplies may be a good choice for retrograding maneuver forces or forces that have extended their lines of communication beyond a local haul resupply.

Cache

6-34. A cache is a pre-positioned and concealed supply point. Caches are different from standard pre-positioned supplies because the supported or supporting units conceal the supplies from the enemy whereas units might not conceal other pre-positioned supplies. Caches can reduce Soldiers' loads, and units can establish caches for a specific mission or as a contingency measure. Units may conceal cache sites above or below ground. Above ground caches are easier to access but are more vulnerable to discovery by the enemy, civilians, or animals.

Modular System Exchange Operations

6-35. Continually exchanging configured loads of supplies on BSB's distribution company flatracks, water tank racks, modular fuel system, and multi-temperature refrigerated container systems (MTRCS) and retrograding empty FSC flatracks is a resupply technique logisticians use when echeloning sustainment capability on the battlefield. Logisticians can apply this method of exchange to any modular system for commodities. Modular system exchange increases distribution throughput capability, extends operational reach, and prolongs the endurance of maneuver forces. The use of flatrack distribution and exchange forward in the brigade area increases the supported maneuver commander's tactical flexibility and decreases the sustainment transportation asset's time on station when resupplying. A DSSB can also execute modular system exchange operations with the BSB or FSC. When logistics units perform exchange operations during large-scale combat operations, serial number accountability of flatracks, MTRCS, modular fuel system, and modular water tank racks is not a consideration or limiting factor. Units should maintain accountability of like items and not by serial number.

6-36. The heavy expandable mobility tactical truck, also known as HEMTT, load-handling system (LHS) and heavy expandable mobility tactical truck palletized load-handling system (PLS) improves cargo handling by reducing container and materiel handling equipment requirements forward on the battlefield. It enhances the mobility of sustainment units by allowing supplies and equipment to remain uploaded for immediate displacement if required. Sustainment units can perform exchange operations with the family of modular systems including: flatracks, modular fuel system, MTRCS, and LHS and PLS compatible water tank racks, more commonly known as hippos.

6-37. An example of using the modular system exchange resupply technique for the delivery of three combat configured loads between a DSSB, BSB, and FSC usually looks like—

- The DSSB transports the first configured load of MTRCS, water tank racks, and flatracks is from the CSSB and delivers it to the BSB.
- The BSB's distribution company transports and delivers the first configured load to the FSC's field feeding section.
- The DSSB transports the second configured load and delivers it to the BSB at the BSA.
- The BSB's distribution company transports and delivers the second configured load to the FSC.
- The BSB's distribution company retrieves the empty or partially filled MTRCS, water tank racks, and flatracks from the first configured load and returns to the BSA.
- The DSSB retrieves the empty or partially filled MTRCS, water tank racks, and flatracks from the first configured load during the delivery of the third configured load.

- The BSB's distribution company transports and delivers the third configured load to the FSC and retrieves the empty or partially filled MTRCS and flatrack from the second configured load and returns to the BSA.
- The flatrack, water tank racks, and MTRCS exchange operations continue as needed.

6-38. Initially, the composite supply company from the DSSB may not retrieve empty or partially filled flatracks, MTRCS, or water tank racks from the BSB until the third configured load delivery because there are no empty or partially filled water tank racks, MTRCS, or flatrack to retrieve. The same may be true for the BSB until empty modular systems are available for retrograde from the FSCs. ATP 4-41, *Army Field Feeding and Class I Operations* contains more information about MTRCS and flatrack exchange operations. Figure 6-3 depicts an example of modular system exchange operations for commodities using flatracks, MTRCS, modular fuel systems, or water tank racks.

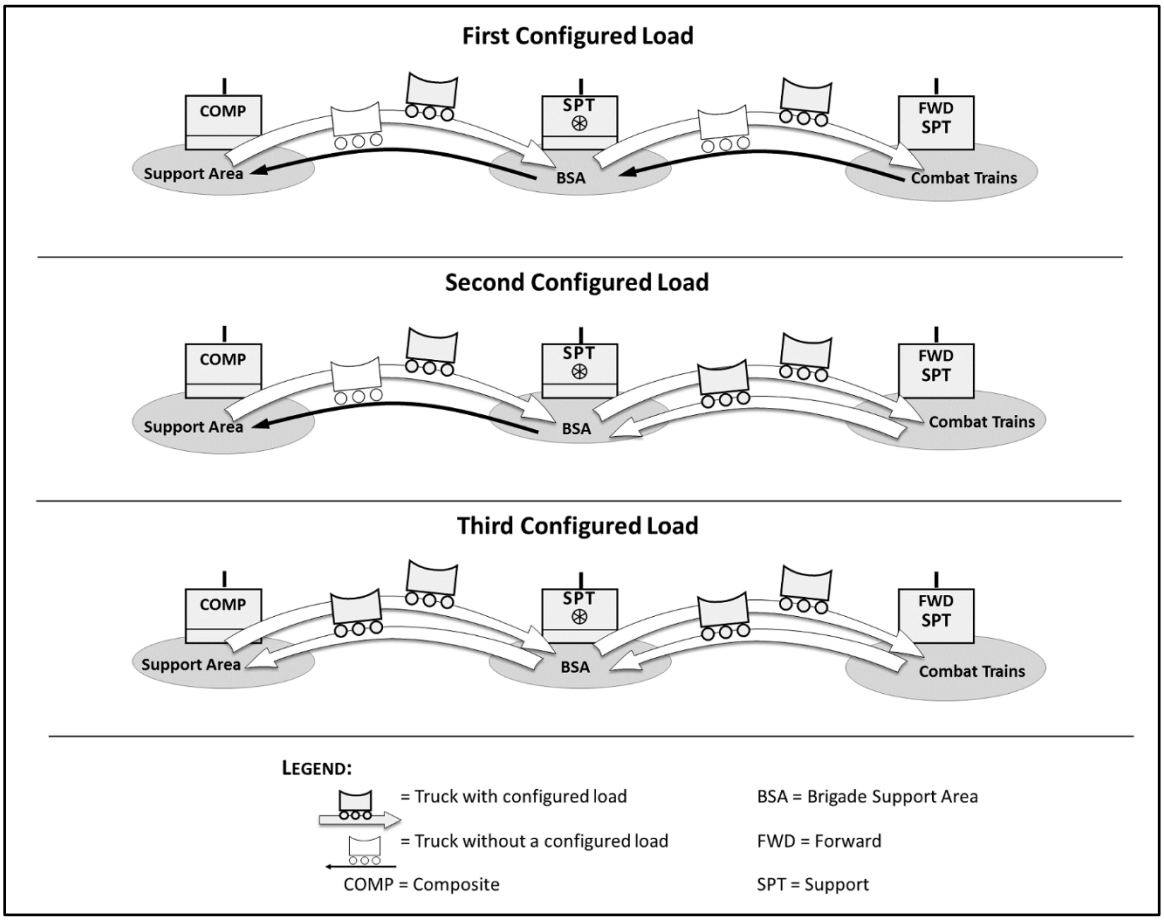

Figure 6-3. Commodity exchange operations

6-39. The Army is currently fielding the modular fuel system . The modular fuel system provides the ability to rapidly establish a fuel distribution and storage capability without a bulk fuel storage requirement from a distribution bag farm or engineering support. Distribution units can use the system at any location without the availability of construction and materials handling equipment. Units may use the modular fuel system for FARP operations as well.

6-40. The modular fuel system consists of fourteen 9,464 liter/2,500 gallon modular tank racks and two pump filtration modules. The modular fuel system increases mobility, capacity, and speed for fuel distribution, while decreasing deployment and recovery time. The modular fuel system is compatible with the heavy expandable mobility tactical truck, LHS, and PLS truck and trailer. Distribution units can use the modular fuel system tank racks for line haul of bulk petroleum throughout the area of operations. By using

two tank racks, one on the truck and one on the trailer, the PLS and LHS can transload up to 18,927 liters/5,000 gallons of bulk petroleum per trip.

DISTRIBUTION UNITS AND ORGANIZATIONS

6-41. Army distribution units are highly flexible groups of organizations that range from the strategic to the tactical levels of war. At the BCT level, several Army distribution organizations provide a wide range of supply and transportation support to meet operational requirements of the brigade. Echelon above brigade supply and transportation units also provide distribution and supply functions, in the limits of their capability, to elements of the BCT when needed and mission variables dictate their support.

6-42. The BSB SPO manages the BSB's distribution operations to support the BCT. The BSB SPO coordinates all classes of supply with the BCT S-4 for materiel requirements. The SPO allocates resources, mitigates shortfalls in the required capabilities, and oversees the distribution operations of the BSB to support the BCT.

BSB DISTRIBUTION COMPANY

6-43. As described earlier, the BSB distribution company is the primary supply and transportation hub of the BCT. It manages the distribution of supplies and personnel to the brigade and provides distribution capability for classes I, II, III, IV, V, and IX. The company may distribute class VIII, if required. The BSB distribution company has a limited capacity to provide troop transportation and personnel movement to the BCT. The DSSB provides personnel movement, water treatment, and non-mobile class III(B) storage. The BSB SPO will coordinate with the DSB SPO this support.

6-44. A BSB distribution company has three platoons: a transportation platoon, supply platoon, and fuel and water platoon. The distribution company performs distribution management functions required to support adequate supply storage and timely distribution to the FSCs. (See chapter 3 for additional information.) The distribution company executes resupply in two ways; supply point distribution in which the FSC comes to the SSA to pick up supplies and unit distribution, or LOGPAC, where the distribution company delivers to the FSCs. The distribution company receives supplies from the supporting DSSB.

Company Headquarters

6-45. The company commander executes C2 for all company operations. The commander executes planned distribution tasks as directed by the BSB operation order. The company commander adjusts task organization and employment of all distribution assets as necessary based on mission variables.

6-46. The first sergeant is the company's senior NCO and is normally its most experienced Soldier. The first sergeant is the commander's primary logistics and tactical advisor and collaborates with the commander and operations officer to plan, coordinate, and supervise all logistics activities that support the company mission. The first sergeant goes wherever duties require.

6-47. The company operations officer is the company second in command and functions as the company XO. The operations officer is the primary internal logistics planner and coordinator. The operations officer is responsible for ensuring distribution management functions are executed effectively. The operations officer and the company headquarters section operate the company CP. Their duties include tactical and logistics coordination with higher, adjacent, and supported units. The operations officer may also serve as officer in charge for the quartering party or company movement officer.

Transportation Platoon

6-48. The transportation platoon provides transportation support to BSB distribution management process. The transportation platoon leader and platoon sergeant are responsible for providing C2 to execute the functions. The transportation platoon headquarters provides leadership, supervision and technical guidance to tactical truck squads performing motor transport operations. The transportation platoon executes missions as directed by the BSB operation order or as directed by the company commander. ATP 4-11, *Army Motor Transport Operations* has more detailed information on transportation operations.

6-49. The transportation platoon executes the following transportation functions:

- Transportation mode operations.
- In-transit visibility.
- Allocation of transportation assets.
- Coordination.

6-50. The transportation platoon executes the following distribution integration functions:

- Transportation feasibility.
- Prioritization.
- Mitigation of shortfalls.
- Distribution.
- Redistribution.
- Visibility.

Supply Platoon

6-51. The supply platoon operates the multiclass SSA and the MATP. The supply platoon provides class I, packaged water, II, IV, V, VII, and IX support to the BCT. The platoon manages the SSA for supported commodities and coordinates with BSB SPO section for resupply and turn-ins for maintenance and/or disposal. This includes performing warehouse and inventory management activities.

Multiclass Supply Support Activity

6-52. The general supply section receives stores, and issues supplies. The supply section designs and establishes the SSA. The supply point layout must be organized and well designed. A well-planned layout improves efficiency, security and safety. An SSA sketch shows sites for receiving, shipping, bulk storage, open yard storage, and administrative space. Consider the following when planning the SSA layout:

- A way to secure the site and establish safe and efficient traffic flow. This includes entrance and exit control points, and parking areas.
- Storage for all commodities including: storage areas for large equipment (such as generators and vehicles), pilferable items, and items requiring controlled climate.
- Potential to integrate existing structures into SSA design.
- Thoroughly review the terrain. Identify swampy or wet areas, potential flood sites, presence of animal or insect infestations, and ability to expand the site.

6-53. The SSA performs the following materiel management functions:

- Resupply.
- Storage.
- Stock control.
- Supply.
- Asset visibility.
- Asset reporting.
- Retrograde.
- Disposal.

6-54. Retrograde is the process for the movement of non-unit equipment and materiel from a forward location to a reset (replenishment, repair, or recapitalization) program or to another directed area of operations to replenish unit stocks, or to satisfy stock requirements. The SSA is responsible to accept, document, package, and coordinate shipment for retrograde items. Retrograde is the return of new, reparable, or salvageable materiel from the owning/using unit back through the distribution system to the source of supply. The supplies are then directed to a shipment location and/or point of disposal. For more information about SSA operations, see ATP 4-42.2, *Supply Support Activity Operations*.

Modular Ammunition Transfer Point Section

6-55. The MATP section provides ammunition support to the brigade and receives, temporarily holds, issues, inspects, and performs limited munitions maintenance to support the BCT. The section also provides limited load configuration based on operational requirements or suspension notices. The MATP section provides the BSB with a scalable ammunition transfer point and replaces the ATHP section. The MATP section has an ammunition section chief but it is divided into optimized ammunition teams consisting of a team chief, ammunition handlers and their associated equipment. There are two types of ammunition teams — the standard and the heavy lift section. The number of organic ammunition teams assigned to the MATP section is directly related to the ammunition requirements of the type of BCT supported, and can be augmented with teams from other modular ammunition units. The MATP transloads munitions to BSB transportation assets and positions battalion ammunition configurations. The MATP holds ammunition for supported units and provides this ammunition to the supported battalion FSCs.

6-56. The MATP performs the following materiel management functions:

- Resupply.
- Storage (on a limited basis).
- Stock control.
- Maintenance.
- Asset visibility.
- Asset reporting.
- Retrograde.

Fuel And Water Platoon

6-57. The fuel and water platoon executes fuel and water distribution. The fuel section receives, temporarily stores, and issues bulk petroleum to the BCT. The section has no non-mobile fuel storage capability, which allows it to easily displace whenever necessary. The platoon's water section stores and distributes bulk water to the brigade.

FORWARD SUPPORT COMPANY

6-58. The distribution platoon of the FSC executes LOGPAC operations and manages the distribution of supplies passing through the FSC to support its maneuver battalion. The distribution platoon performs replenishment operations and provides classes I, II, III, IV, V, and IX to its supported battalion. The platoon leader and platoon sergeant execute transportation and distribution integration functions as shown.

6-59. The FSC distribution platoon executes the following transportation functions:

- Transportation mode operations.
- In-transit visibility.
- Allocation of transportation assets.
- Coordination.

6-60. The FSC distribution platoon executes the following distribution integration functions:

- Transportation feasibility.
- Prioritization.
- Mitigation of shortfalls.
- Distribution.
- Redistribution.
- Visibility.

ECHELON ABOVE BRIGADE DISTRIBUTION AND SUPPLY UNITS

6-61. There are several different transportation and supply units that primarily provide distribution above the brigade level. Composite truck companies and composite supply companies organic to the DSSB under a division sustainment brigade performs supply, distribution, and transportation functions at echelons above

the BCT and typically provide additional capability to the BSB when planned and requested. A DSSB may have additional types of transportation companies attached to it depending on the mission and task organization.

Composite Truck Companies

6-62. The composite truck company (light) (division) provides transportation and convoy security support to sustainment brigade operations for a light division or corps headquarters. The composite truck company (light) has two platoons with PLS trucks and two platoons with medium tactical vehicles. The DSSB employs the company in the brigade and division area of operations.

6-63. The composite truck company (light) (division) is capable of performing both line haul and local haul missions to support decisive action operations. It provides organic convoy security and can perform escort mission for contracted trucks integrated into the unit's convoys. The company's primary role is to distribute dry and refrigerated containerized cargo, general non-containerized cargo, ammunition, bottled water, and bulk water (when equipped with water tank racks). It also performs unit moves and transports personnel when requested.

6-64. The composite truck company (heavy) (division) provides transportation and convoy security support to sustainment brigade operations for a heavy division. The company has a platoon with heavy equipment transport system trucks, two platoons with PLS trucks, and a platoon with medium tactical vehicles. The company is employed in the support areas of a brigade or division. The company is organic to a DSSB supporting division operations. The composite truck company (heavy) (division) is capable of executing both line haul and local haul in all threat environments. It can perform escort mission for contracted trucks integrated into unit convoys. Its primary role is to distribute ammunition, containers, unit equipment, dry cargo, and water. It also performs unit moves and transports personnel.

Composite Supply Company

6-65. A composite supply company's primary mission is to provide general supply, class I, perishable and semi perishable supply, petroleum supply, water supply support, and shower & laundry services (Reserve Component only). It is organic to a DSSB supporting division operations. A composite supply company is employed in the brigade and division area of operations. The supply platoon receives, stores, and configures class I stocks for distribution and receives, stores, and issues class II, III package, IV, VII, and IX in the composite supply company's SSA.

6-66. The composite supply company's petroleum platoon receives, stores, and issues class III. The platoon also includes a quality surveillance and control capability. The water platoon supports water treatment, storage, and mobile storage of bulk water. The composite supply company's water platoon also has the capability to provide a shower and laundry services on a limited basis. The composite supply company has three platoons and is intended to be deployed as a complete unit.

Chapter 7

Maintenance Operations

The modern battlefield demands a maintenance system that is flexible, responsive, and focused on returning systems to operational status quickly and as near as possible to the point of failure or damage. This requires a forward presence of maintenance in brigade areas. During large-scale combat operations this requires the echeloning of maintenance capabilities throughout the depth of the BCT AO. This chapter provides an overview of maintenance fundamentals at the BCT level and describes the role, organization, and operations of the BSB's field maintenance company and FSCs to support the BCT.

MAINTENANCE OVERVIEW

7-1. The primary purpose of maintenance is to ensure equipment operational readiness. The goal for every unit is to have all of its equipment fully operational for its intended purpose. The second purpose of maintenance is to generate combat power by repairing damaged equipment as quickly and as close to the point of failure as possible. Repairs should return the damaged equipment to fully mission capable status or to a state that allows mission accomplishment.

7-2. Once units enter combat operations, maintenance is critical to maintain combat power and momentum. Replacement systems are seldom immediately available. This is especially true during the early stages of an operation and when units suffer heavy combat losses. Units maintain existing systems to ensure it is mission capable for the duration of the operation or until the system is clearly damaged beyond field-level maintenance repair capability.

7-3. The Army's maintenance structure in the BCT is highly adaptable and flexible. BCTs have the capability to repair all brigade systems with BSB organic maintenance units, crews and operators. As such, there is no need to evacuate BCT equipment that requires field-level maintenance to another organization or echelon of support. Furthermore, in the absence of a maintenance surge team, there is no repair capability outside of the BCT for the main battle tank, infantry fighting vehicles, or Stryker systems. A maintenance surge team provides maintenance capability for these primary weapon systems when maintenance requirements exceed the capability of the BSB to support. The BCT will evacuate equipment that requires sustainment-level maintenance.

7-4. Maintenance and recovery planning is integrated into all aspects of the MDMP to ensure synchronization and unity of effort. Planning includes identifying requirements, reviewing available assets, preparing a maintenance estimate, comparing requirements to capabilities, and making adjustments to maintenance priorities to meet the mission requirement. Maintenance planning is included in the overall sustainment concept of support. Maintenance planners understand the overall mission and concept of operations for maneuver forces in order to prioritize and weight maintenance support to the main effort. Maintenance planners recommend to the BSB commander, BCT XO, and BCT commander how to task organize for optimal maintenance capability. They recommend the cross leveling of system maintainers to ensure adequate maintenance capability is available to support the main effort. This is a dynamic process that requires daily adaptation to existing circumstances.

7-5. The BCT S-4 and SPO collaborate to determine how many key systems identified are mission ready and then work with the FSCs to prioritize the maintenance effort. The staffs war game the operation during the MDMP and prepare an estimate from projected system losses and gains during each stage of the operation. It is imperative that maintenance planners understand that in the absence of a maintenance surge team there

is no repair capability outside of the BCT for the main battle tank, infantry fighting vehicles, or Stryker systems.

LEVELS OF MAINTENANCE

7-6. The Army utilizes a two-level maintenance system comprised of field and sustainment-level maintenance. The goal of the maintenance system is to reduce repair times by repairing or replacing components, modules, and assemblies as far forward as possible.

FIELD-LEVEL MAINTENANCE

7-7. Field-level maintenance is on or near system maintenance focusing on the repair and return to the user. It includes maintenance actions performed by operators, crews, and maintainers. All maintenance units in the BSB perform field-level maintenance. It is executed as far forward as possible utilizing line replaceable units or modules and component replacement or repair. The owning or support unit performs field-level maintenance by using tools and test equipment found in the unit. Field-level maintenance is not limited to simply removing and replacing parts.

7-8. Field-level maintenance allows for repair of components or end items when the maintainers possess the requisite skills, proper tools, proper repair parts, references, and adequate time. Field maintenance includes preventive maintenance checks and services, adjustment, alignment, service, applying approved field-level modification work orders, fault and failure diagnosis, battle damage assessment and repair, and recovery. Field-level maintenance is always repair and return to the user.

7-9. The maneuver unit equipment operators and vehicle crews have the responsibility to perform maintenance on their assigned equipment. Equipment operators and vehicle crews receive formal training from their proponent branch through advanced individual training and new equipment training on a specific piece of equipment or weapon system. Operators and crew tasks consist of preventive maintenance checks and services, lubricating, adjusting, and replacing minor components or assemblies using basic issue items and onboard spares in accordance with the equipment technical manual. After operators have exhausted their maintenance capabilities, they rely on BSB maintainers to complete the repair of on the item.

SUSTAINMENT-LEVEL MAINTENANCE

7-10. Sustainment-level maintenance is not conducted by the BSB or within the BCT AO. Sustainment-level maintenance is conducted by U.S. Army Materiel Command personnel to return equipment to a national standard, providing a consistent and measureable level of reliability. The repaired equipment is returned to the national supply system. Only in rare exceptions will sustainment-level maintenance personnel return an item back to the owning unit. One example is during reset. If a BCT weapon system is damaged to the extent it requires sustainment-level maintenance it is evacuated out of the BCT AO based on instruction from the division G-4.

MAINTENANCE IN LARGE-SCALE COMBAT OPERATIONS

7-11. Planning BSB maintenance support for large-scale combat operations requires thorough mission analysis, careful identification of the force supported, and a thorough understanding of the commander's intent.

MAINTENANCE DURING OFFENSIVE OPERATIONS

7-12. BCTs and subordinate maneuver battalions conduct, or participate in offensive operations that include movements to contact, attacks, exploitations, and pursuits. Offensive operations involve greater movement and maneuver than other operations, which puts greater mechanical stress on vehicles and increases their exposure to enemy action, both of which lead to greater numbers of non-mission capable systems. Maintenance becomes more challenging as unit areas of operation extend forward, creating distance between where a vehicle or piece of equipment becomes inoperable and where it is required to contribute to the fight. Moving NMC vehicles or equipment forward into the fight encumbers the maneuver commander and further reduces combat power. Maintenance planning should anticipate that requirements would be echeloned by the

nature of events that unfold during the operation. The change from one form of attack to another (such as from an attack to a pursuit), does not require a major shift in logistics plans and procedures. However, the priorities and requirements for maintenance support may change.

7-13. Offensive operations increase equipment maintenance requirements and impact sustainment information system connectivity. Maintenance planning is complicated by the fast pace of and communication limitations common to offensive operations. Maintenance planning tasks in the offense include—

- Plan for extended lines of communication and the impact on class IX distribution and recovery.
- Plan for maintenance collection points in depth to facilitate fixing forward while minimizing demands upon recovery assets.
- Plan to shift maintenance priorities in support of the decisive operation and main effort by phases of the operation, which requires anticipating requirements 24-72 hours prior to need.

7-14. An important task for maintenance planners during offensive operations is to identify MCPs. Planners develop intent graphics, generally agreed to between the BCT S4 and SPO, that show MCPs throughout the depth of the different axes of advance. During offensive operations, the MCP is located as far forward as possible. The forward support company may collocate the MCP with the company trains or combat trains to share defensive tasks. Units should disperse within the MCP for greater protection from artillery, aviation, intelligence, surveillance, and reconnaissance.

7-15. The BSB commander considers cross-leveling FSC maintenance capability to weight the decisive operation or main effort. Although the collective use of FSC maintenance capability is the most effective way to support brigade maintenance requirements other courses of action might be necessary. Regardless, weighting the main effort or decisive operation requires actually shifting capabilities. Doing so requires careful considerations about whether doing so:

- Is worth the risk of losing the capability for the time it takes to physically move to a new location and become familiar with the maintenance tasks required, in the dark, over unfamiliar terrain, with guides?
- Can shifting the maintenance assets - given above consideration - generate better OR rates in the time frame required to support the operation?

7-16. The FMT can establish a temporary MCP in the company trains to provide a quick consolidation point for damaged equipment, hasty repairs, or to perform BDAR. FMT typically evacuates non-mission capable equipment to the FSC's MCP in the combat trains. The FSC will only move non-mission capable equipment to the field trains and BSA for extensive repairs. The BSB commander typically has the authority to determine whether to utilize BDAR and may delegate that responsibility to subordinate commanders. The commander may also approve the use of controlled exchange or cannibalization when class IX resupply is delayed.

7-17. Evacuating non-mission capable equipment from the MCP at the combat trains to the field trains creates challenges for the FSC and the BCT. Considerations for the evacuation of equipment are—

- Identification of equipment that can be repaired quickly vice evacuation.
- The expanding distance during offensive operations requires recovery relays.
- Evacuation requires HET and flatbed transportation support from the DSB.

7-18. The FSC and maintenance planners remain aware of time limits and manage workflow accordingly in the MCP when determining whether to begin maintenance actions. Being aware of the maneuver force's operations, tempo, and time constraints ensures that maintainers do not initiate repairs on equipment that they cannot complete before a required move. Offensive operations generally require multiple displacements of maintenance assets to support, since the supported units are moving away from their initial positions. Elements of the FSC typically accompany the maneuver forces and must be ready to cease operations at the MCP to allow sufficient time to prepare for movement. An accurate maintenance assessment of incoming equipment determines priorities of work. Options for equipment not accepted include—

- The maneuver unit can self-recover the non-mission capable equipment during the move.
- The FSC can recover the equipment.
- The maneuver unit can utilize BDAR to allow the equipment to move under its own power.
- The units can cannibalize if authorized or abandon the equipment.

7-19. Brigade planners should specify in orders and unit standard operating procedures criteria for evacuating equipment to a maintenance surge team, sustainment-level maintenance, cannibalization, and temporarily abandoning equipment on the battlefield.

MAINTENANCE DURING DEFENSIVE OPERATIONS

7-20. During the preparation of the defense, priority of maintenance goes to those units preparing positions and obstacles. Once the positions are prepared, priority shifts to support to the reserve, BSA, trains, and command post locations. Maintenance considerations for defensive operations include—

- Maintenance support to friendly forces in the security area.
- Maintenance support to friendly forces in the main battle area.
- Operational readiness rates of low density engineer systems, many of which are provided by division or higher echelons and require class IX and mechanics not organic to the BSB.

7-21. MCPs in defensive operations are normally positioned behind the main battle area as far as possible to protect against detection by enemy reconnaissance and fires. Dispersal in the MCP is even more important than in offensive operations as the location is static and in operation a longer time, which makes it easier for enemy forces to locate it. The same considerations for collocating with the trains apply during the defense. Collocating the MCP and other maintenance assets with the trains eases the burden for defensive tasks enabling more maintainers to concentrate on repair operations.

7-22. Consideration must be given to moving equipment to an MCP for repair. Moving equipment rearward exposes it and mechanics to enemy fire, so should be done during periods of low visibility in a methodical manner. This requires a plan that encompasses guides, routes, and timings. If conditions warrant, consider field maintenance team repair of support vehicle and equipment within the MBA and unit battle positions. Maintainers are prepared to transition from the defense to offensive operations with little or no notice.

MAINTENANCE SURGE TEAM

7-23. The maintenance surge team is a maintenance reinforcement capability. It is normally attached to a support maintenance company in a DSSB or combat sustainment support battalion (CSSB). Once attached to the DSSB or CSSB, the gaining headquarters includes the maintenance surge team in 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 or CSSB will designate a different maintenance surge team support relationship based on priorities directed by higher headquarters if required. A direct, general, or reinforcing support relationship may be designated by order.

7-24. Based on the corps or division commander's priorities, the maintenance surge team may be attached to a field maintenance company in the BSB. In this configuration, the maintenance surge team operates in the BCT support or close area.

7-25. 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 in an area of operations. The maintenance surge team generally augments unit/battalion maintenance capability. The maintenance surge team provides a surge maintenance capability that can be task organized to reinforce maintenance support to M1, M2/3, and Stryker weapon systems. When attached to the DSSB or the BSB, the maintenance surge team enhances the division's ability to increase combat power by providing maintenance depth and flexibility at critical points of need. The maintenance surge team represents a temporary capability to accelerate repairs.

Note: The maintenance surge team is not a third level or echelon of maintenance. The maintenance surge team serves as a reinforcement element for two-level maintenance.

7-26. The maintenance surge team functions include field maintenance support for the M1, M2/3, and Stryker weapon systems. The platoon headquarters and section NCOICs provide C2 and maintenance management for the surge teams.

7-27. Characteristics of the maintenance surge team include the ability to operate at any echelon or location in an area of operations. It is capable of supporting any mission that requires field maintenance support for the M1, M2/3, and Stryker weapon systems.

7-28. 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 SRCs 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.

7-29. The unit to which the maintenance surge team is attached assumes administrative control over the team and is responsible for all team life support, protection, logistics, field feeding, and health service support. The maintenance surge team has no organic maintenance automation or personnel to operate automation. When supporting a unit, the team uses the supported organization's maintenance automation to accomplish its mission. The maintenance surge team also relies on its parent unit or supporting SMC for wheeled vehicle, small arms, and communications maintenance.

7-30. The maintenance surge team is typically employed at division level to support the commander's decisive operation or main effort when the maintenance requirements of one or more of its BCT exceed their organic capacity. Additionally, these teams have the capability to mitigate risk based on geographical dispersion. Planning considerations for maintenance surge teams attached at the corps or division include—

- Positioning of teams to best support the friendly course of action for maneuver.
- Movement (routes, timing, security) and integration of the teams into a BSB.
- Decision points for commitment of the teams in support of a division or BCT.

RECOVERY OPERATIONS AND PLANNING

7-31. Recovery is actions taken to extricate damaged or disabled equipment for return to friendly control or repair at another location. To effectively support battlefield recovery operations, maintenance planners should echelon dedicated recovery assets throughout the BSA, field, combat, and company trains.

7-32. Recovery planning emphasizes the use of self and like-vehicle recovery methods to the maximum possible extent in order to allow for the most effective use of scarce recovery vehicles. These practices minimize the use of dedicated recovery assets for routine recovery missions. Recovery managers and supervisors must ensure maneuver forces and logistics units use recovery vehicles only when absolutely necessary. The FSC commander, maintenance warrant officer, and supported battalion S-4 coordinate recovery operations supporting the commander's priorities by balancing the overall repair effort, available resources, and the tactical situation.

7-33. The FSC has recovery assets located in the recovery section and FMTs in the field maintenance platoon. The FSC commander along with the maintenance warrant officer, or Maintenance NCOIC, and the battalion S-4 track and manage recovery operations. The field maintenance company is responsible for recovering the BSB's organic equipment and providing limited backup support with wheeled or tracked recovery vehicles when requirements exceed a supported unit's capability. They provide area support for recovery on a limited basis to units without a recovery capability.

7-34. Maintenance planners must establish recovery priorities since recovery assets are limited. These depend on the commander's need for an item and the tactical situation. The type of maintenance or repair required affects the priority when the FSC or field maintenance company must recover two or more like items.

7-35. The battalion S-4, the maintenance warrant officer, and the FSC commander are responsible for developing the maneuver battalion's recovery plan. The plan identifies the positioning or cross-leveling of recovery assets to support the main effort. The maintenance plan includes battle damage assessment, priority for support, tactical situation, forecasted workload, and availability of recovery personnel.

MAINTENANCE UNITS AND ORGANIZATIONS

7-36. At the BCT level, several Army maintenance organizations are structured to provide maintenance management, capabilities, and support to meet operational requirements of the brigade.

BSB FIELD MAINTENANCE COMPANY

7-37. The role of the field maintenance company is to provide field-level maintenance support to the BCT and others transitioning through the BCT's area of operations on a limited basis. It also provides reinforcing field-level maintenance support to the FSCs for low-density commodities including: communications, electronics, and armament equipment. The BSB usually employs the field maintenance company in the BSA.

7-38. Field maintenance companies have equipment and personnel specific to maintaining BCT equipment. The field maintenance company is composed of a company headquarters and two platoons: a maintenance platoon and a platoon headquarters that includes the maintenance control section

7-39. The field maintenance company can send limited support forward to support the FSC's MCP. The field maintenance company also provides limited recovery and machine shop support to the battalion FSCs. Details of specific maintenance functions are found in ATP 4-33, *Maintenance Operations*.

Company Headquarters

7-40. The company commander provides C2 to all personnel assigned or attached to the company. The company commander manages task organization and employment of all maintenance and recovery assets. The commander is normally located in the BSA but will always be in a position to best command Soldiers and execute the mission. The commander provides information and advice concerning maintenance operations throughout the BSA to the BSB commander, SPO staff, and the brigade headquarters.

7-41. The first sergeant is the company's senior NCO and normally its most experienced Soldier. The first sergeant is the commander's primary logistics and tactical advisor. The first sergeant collaborates with the commander and XO to plan, coordinate, and supervise all internal logistics activities that support the company's mission. The first sergeant is located wherever the duties require. The XO is the primary internal logistics planner and coordinator. The XO and the company headquarters section operate the company CP. The XO's duties include operational and internal logistics coordination with higher, adjacent, and supported units.

Maintenance Platoon

7-42. The field maintenance company's maintenance platoon provides shop and on-site contact field-level maintenance support for the companies of the BSB, additional field-level maintenance support to the FSCs, and when able, general support to units traversing the BCT area of operations. The maintenance platoon typically provides reinforcing support to the FSCs for low-density equipment and support to the FMTs as needed. The field maintenance company's maintenance platoon is comprised of a field maintenance section, ground support equipment repair section, communications and ground repair section, missile and electronic repair section, and an armament repair section.

7-43. The platoon has a ground support equipment repair section that provides field-level maintenance on power generation, construction, quartermaster, and utilities equipment. The missile and electronic repair section provides field-level maintenance for radio, surveillance radars, special electronic devices, tube-launched, optically tracked, wireless-guided missile systems, wire system equipment, and thermal night sights. The armament repair section provides field-level maintenance for small arms, combat vehicle fire control systems, and turret-mounted weapons and mechanisms. The field maintenance section provides maintenance for automotive and track vehicles for the BSB's internal vehicles.

Maintenance Control Section and Platoon Headquarters

7-44. The platoon is comprised of a headquarters section, maintenance control section, and a recovery section. Under the direction of the maintenance control officer, the maintenance control section directs, controls, and supervises the unit's field-level maintenance mission and activities. The section maintains shop

stock and bench stock for shop operations. The maintenance control section also performs maintenance management and production control functions for units operating in the BSA. The maintenance control section is best located near the distribution company's multi-class SSA. The maintenance control section is the manager for all field-level maintenance and recovery mission actions in the BSA.

7-45. Maintenance management in the BCT requires coordination and collaboration between the SPO section, FSCs, and the maintenance control officer. The field maintenance company's control officer provides control, coordination, overall management of maintenance assets, and collection for maintenance and readiness data. The SPO maintenance section provides guidance to the maintenance control officer based on BSB and brigade commanders' guidance. The SPO maintenance section manages field-level maintenance for all equipment assigned to the brigade and provides maintenance oversight of the field maintenance company and FSC's maintenance sections.

7-46. The maintenance control section operates automated maintenance systems to support the BCT. It also serves as the main collection point for all maintenance records before sending them to the BSB SPO staff. The field maintenance company or shops' SOPs outline procedures established by the BCT to provide accountability of equipment in for repair. For more details about the Army maintenance system, refer to DA Pam 750-8, *The Army Maintenance Management System*. The maintenance control section maintains combat spares and uses controlled component substitution and cannibalized spares obtained from non-repairable vehicles as authorized by the chain of command.

7-47. The field maintenance company and the recovery section of the maintenance control platoon also provide welding and lift capabilities for the repair shops, recovery of organic equipment, and recovery support to BSB units and brigade elements in the BSA. They also can provide limited assistance to the FSCs for the evacuation of non-mission capable equipment. Units should have detailed recovery policies in the battalion and brigade's standard operating procedures and mission orders. Additionally, field maintenance companies often assume area support vehicle recovery responsibility for all units operating in the BCT's area of operations.

FORWARD SUPPORT COMPANY

7-48. The maintenance platoon of the FSC performs field-level maintenance, maintenance management functions, dispatching, and scheduled maintenance operations for their supported maneuver battalion and FSC vehicles and equipment. The platoon consists of the platoon headquarters section, maintenance control section, maintenance section, service and recovery section, and the field maintenance teams. The FSC maintenance platoon coordinates all maintenance requirements with the FSC commander.

7-49. The supported maneuver battalion's chain of command determines the FSC maintenance priorities, with recommendations from the FSC commander, maintenance warrant officer, and the maintenance control officer. The maintenance platoon's first priority is to reinforce the FMT's mission. Maintenance platoon leaders are responsible for leading the platoon, controlling, and directing the accomplishment of the platoon's mission. They are responsible to the maintenance control officer for ensuring the completion of maintenance duties and adhering to priority of support as provided. ATP 4-33 provides details of maintenance functions. BDAR procedures are found in ATP 4-31, *Recovery and Battle Damage Assessment and Repair*.

7-50. The field maintenance company provides reinforcement to the FSC for low-density items, armament, line replaceable units, and specialty equipment. All specialized mechanics for the M1 Abrams, M2/3 Bradley, M109A6 Paladin, and Stryker vehicles reside solely in the FSCs' organizations and not in the BSB's field maintenance company.

7-51. The FSCs contain a large percentage of the BSB's overall maintenance capability. FSCs are designed to support specific maneuver battalions and resourced with all mechanics and tools necessary to support those battalion's equipment. In most instances, an FSC will provide dedicated support to a single maneuver battalion and operate independently in this manner. Mission requirements may require consolidation of the FSC maintenance capability to provide the most effective support to the BCTs operation.

7-52. The FSC is organic to the BSB. Maintaining this command relationship is desirable to enable the BSB commander to task organize and consolidate FSC maintenance capability as required to effectively support the BCT mission. BSB planners must develop a viable course of action for maintenance support that includes

FSC task organization. The planning includes placement of the FSCs in the brigade area of operations and may include shifting FSC mechanics, particularly mechanics for primary weapon system, from one FSC to another to weight the main effort. This course of action configures the FSC maintenance assets in a way most advantageous to the overall brigade mission even though it might appear to be less advantageous to one or more maneuver battalions. Because of the challenges in shifting mechanics and their equipment while in contact with the enemy, it is generally best to determine changes to task organization before operations commence. This course of action is included in the BCT operation order support concept and annex F. It is briefed to and approved by the brigade commander during the orders process.

Maintenance Control Section

7-53. The maintenance control section of the FSC is the management center for all maintenance actions in the FSC and supported battalion. The maintenance control section performs maintenance management functions, dispatching operations, and tracks scheduled maintenance for the maneuver battalion and FSC's vehicles and equipment. The maintenance control section has a small supply section that provides class IX support including shop stock and bench stock for shop operations. Shop stocks are demand-supported repair parts and consumable items that units stock based on the MTOE, table of distribution and allowances, or joint table of allowances maintenance organization. Bench stock consists of low-cost consumables, repair parts, and supplies used by maintenance shop personnel at an unpredictable rate. The maintenance control section also provides exchange of reparable items.

7-54. The maintenance control officer and the FSC's automation systems are collocated in the maintenance control section. The maintenance control officer uses GCSS-Army to produce the readiness reports and to analyze and assess maintenance status. The maintenance control officer is responsible for preparing maintenance reports for the maneuver commander. The maintenance control section tracks the calls for support and logistics task orders generated through GCSS-Army as well as manually through Joint Battle Command – Platform - Logistics, commonly called JRC-Log, communications.

7-55. The maintenance control officer serves as the maintenance officer for the supported battalion and FSC. The maintenance control officer is the senior maintenance representative in the MCP and is responsible for managing the maintenance control section, maintenance section, service and recovery section, and the field maintenance teams. The recovery section provides recovery support to elements of the FSC and provides limited reinforcing recovery support to FMTs.

7-56. The maintenance control section controls and assigns work to the MCP. The FSC commander may modify the task organization of the MCP's maintenance operations based on the maintenance control officer's analysis of maintenance requirements and the tactical situation. The FSC and field maintenance company evacuate equipment that requires sustainment-level maintenance to a national level provider. This requires coordination between the FSC maintenance control section, brigade staff, and the SPO staff.

Field Maintenance Teams

7-57. The supported battalion's first level of maintenance support comes from the field maintenance teams of the FSC, which provide field-level maintenance and BDAR for all combat platforms in the supported unit's maneuver companies. Typically, all or part of an FMT travels with the company teams near the forward line of troops. ABCTs and SBCTs have FMTs in their MTOE. The FSCs in IBCTs utilizes small internal contact teams to facilitate maintenance. These contact teams may only comprise of two personnel.

7-58. The supported company commander and the maintenance control section set the FMT's priorities in accordance with the battalion commander's guidance. The FMT operates under the OPCON of the maneuver company. Maneuver companies' operational plans must fully integrate FMTs into their operations.

7-59. FMTs perform repairs as far forward as possible to return equipment to the battle quickly. Forward repairs are generally in the company trains that are located out of direct fire contact behind one or more terrain features. During combat, FMTs perform BDAR, diagnostics, and on-system replacement of line replaceable units. If the tactical situation permits, FMTs focus on completing duties on-site. FMTs carry a limited amount of on board combat spares to facilitate repairs forward. On-board spares are repair parts carried on a platform or a unit's organic equipment. The technical manual or the commander authorizes units to carry on board spares. The operator or crew manage on board spares, which supply personnel consider

consumed for property accountability purposes. The FSC's maintenance platoon provides reinforcing maintenance to the FMTs.

This page intentionally left blank.

Chapter 8
Medical Support

Medical support to maneuver forces is provided by both organic medical assets and echelons above brigade assets providing direct or general support to the BCT. The focus of the medical effort at the BCT-level and below is to rapidly locate, acquire, treat, stabilize, and evacuate patients. The brigade support medical company provides Role 1 and Role 2 medical support to all BCT units operating in the brigade AO. The company also provides Roles 1 and 2 medical support on a coordinated and synchronized area basis to units operating in or traversing through its AO that do not have organic medical assets. This chapter provides an overview of medical support at the BCT level and describes the role, organization, employment, and operations of the BSMC as well as other medical units that a BCT may interact with on the battlefield.

BCT MEDICAL SUPPORT IN DECISIVE ACTION

8-1. Medical support includes all services performed, provided, or arranged to promote, improve, conserve, or restore the mental or physical wellbeing of personnel, which include preventive and curative health measures, evacuation of wounded, injured, or sick; selection of the medically fit and disposition of the medically unfit; blood management; medical supply, equipment, and maintenance thereof; combat and operational stress control; medical, dental, veterinary, laboratory, optometry, nutrition therapy, and medical intelligence services.

ROLE 1 MEDICAL CARE

8-2. Role 1 is the first medical care a Soldier receives. Role 1 care includes immediate lifesaving measures, disease and non-battle injury prevention, combat and operational stress prevention measures, patient location and collection, medical evacuation from supported units to a supporting medical treatment facility, and treatment by designated combat medics or treatment squads. Medical personnel place emphasis on measures (such as maintaining the airway, stopping bleeding, preventing shock, protecting wounds, and immobilizing fractures) necessary to stabilize or allow for the evacuation of the patient to the next role of care. Role 1 also provides routine medical treatment for minor injuries and illnesses that allow a Soldier to return to duty. Combat medics, physicians, physician assistants, or the medical specialists in the battalion aid station provide Role 1 medical treatment.

ROLE 2 MEDICAL CARE

8-3. The Role 2 medical treatment facility provides a greater capability and capacity to resuscitate trauma patients than is available at a Role 1 medical treatment facility. The mission of the patient holding squad is to provide nursing care for patients awaiting evacuation or for patients who are expected to return to duty within 72 hours. Patients who are non-transportable due to their medical condition may require resuscitative surgical care from a forward resuscitative and surgical team collocated with a medical company. Role 2 healthcare provides medical evacuation from Role 1 medical treatment facilities and provides Role 1 area support medical treatment on limited basis for units without organic Role 1 resources. It is imperative that supported units coordinate and synchronize their requirements, locations, and other information so the BSMC can appropriately plan, provide, and execute medical support.

8-4. BSMC and area support medical companies provide Role 2 medical care. The BSMC is organized to provide C2, establish and conduct operations, maintain, supply, and provide evacuation to the medical treatment facility from Role 1 elements and to determine the disposition of patients back to their unit or to

higher roles of care. At a Role 2, medical personnel examine and evaluate the patient to determine treatment and evacuation precedence. Medical personnel at Role 2 provide advanced trauma management and tactical combat casualty care and/or emergency medical treatment, but they do not go beyond the measures dictated by immediate necessities. The Role 2 medical treatment facility has the capability to provide packed red blood cells (liquid), limited x-ray, clinical laboratory, dental support, combat and operational stress control, and preventive medicine.

Offensive Operations

8-5. In offensive operations, the major casualty areas are usually located along the battalion movement corridors in the vicinity of the enemy's main defensive positions. BCT Role 1, battalion aid stations, are located as far forward as tactical conditions permit. The BSMC establishes the Role 2 for the BCT in the BSA by occupying the BSB base. Establishing medical treatment facilities as far forward as possible allows for the proximity of medical care and the efficient use of medical and casualty evacuation routes along lines of communication. The use of echelons provides a progressive line of medical care. However, in some cases, planners may arrange medical treatment facilities in nonlinear fashion based on mission variables. Medical planners establish Role 1 and Role 2 facilities using echelon trains to maximum use of these facilities before the lengthening of evacuation routes force the displacement of medical facilities forward.

8-6. The heaviest patient workloads in offensive operations occur during disruption of enemy main defenses, at natural or emplaced obstacles, during the assault on final objectives, and during enemy counterattacks. As Role 1 and Role 2 facilities displace and reestablish forward, they may acquire additional casualties. This reduces the time elapsed between wounding and treatment. In offensive operations, medical units supporting maneuver forces are prepared to—

- Maintain contact with the supported unit.
- Maintain readiness to move Role 1 and Role 2 forward as maneuver forces extend the lines of communication.

8-7. During offensive operations, the BSMC and attached forward resuscitative and surgical team must remain prepared to displace the Role 2 medical facility and move forward to new locations closer to the forward line of troops. The movement and reestablishment of the BCT's Role 2 medical facility often occurs simultaneously with the displacement of the BSA as it moves forward.

Defensive Operations

8-8. Medical support is often difficult to provide to maneuver forces in the defense. The patient load reflects lower casualty rates, but enemy actions and the defensive array of maneuver forces complicates forward area patient evacuation to a Role 2 or higher. Maneuver forces may be a considerable distance from the BSA and the Role 2 medical treatment facility.

8-9. During defensive operations, medical evacuation personnel generally must negotiate extended lines of communications to reach the patient, complete vital tactical combat casualty care, and evacuate the Soldier from the point of injury. Increased casualties due to exposed medical personnel further reduce the medical treatment and evacuation capabilities. BCT and medical planners can expect the heaviest patient workloads during the preparation or initial phase of the enemy attack and in the counterattack during the defense due to enemy artillery and CBRN weapons.

8-10. A defensive posture by maneuver forces and an enemy attack or counterattack may disrupt ground and air routes and delay evacuation of patients to and from treatment elements. The depth and dispersion of the defense create significant time and distance issues for the evacuation of wounded. The effective integration of air assets into the evacuation plan is essential. The BCT and BSMC must coordinate and synchronize the use of air ambulances with the supporting general support aviation battalion to ensure the synchronized execution of evacuation operations.

MEDICAL EVACUATION

8-11. The brigade surgeon and BSB SPO medical operations officer consider placement of all medical support assets in the brigade and develop the medical evacuation plan for the BCT. The planning considerations and requirements for medical evacuation operations may vary widely depending upon the

tactical plan, the enemy situation, operational pace, and other mission variables. Medical personnel treat and stabilize all patients, some of whom can return to duty within 72 hours. Medical personnel stabilize patients requiring a higher level of care to withstand evacuation to a higher-level medical treatment facility. Medical evacuation is the responsibility of the higher role of care. For example, The BCT organic Role 1 medics evacuate casualties from the point of injury, casualty collection point, or patient collection point to the battalion aid station. The Role 2 medical treatment facility from the BSMC provides medical evacuation from the battalion aid station to the BSMC. Planners may array medical units in the area of operations in various combinations and configurations based on mission and operational variables. Medical planners may coordinate and synchronize evacuation to various medical treatment facilities within their respective roles of care in an area of operations if needed.

8-12. The Role 3 medical treatment facility is responsible for coordinating medical evacuation from Role 2 even when it lacks organic evacuation assets. The supporting multifunctional medical battalion or medical brigade coordinates for an echelon above brigade ground ambulance company. A ground ambulance company may be attached or assigned to the multifunctional medical battalion for support in the BCT area of operations. The ground ambulance company provides medical evacuation support to Role 3 medical treatment facility. See ATP 4-02.2, *Medical Evacuation* for medical evacuation/casualty evacuation information.

8-13. When considering the evacuation plan to support offensive tasks, the BSB SPO medical planner must consider the disposition of friendly forces and the enemy's capabilities that will influence the patient workload, evacuation time, and distance factors. The analysis of the forecasted patient workload and other mission variables determine the allocation of medical resources and the location or relocation of medical treatment facilities. As operations achieve success, the areas of casualty density move away from the supporting facilities. This causes the routes of medical evacuation to lengthen.

8-14. The SPO medical operations officer anticipates casualties to exceed organic medical evacuation capability. As such, the medical evacuation plan includes the use of non-standard evacuation platforms to meet the medical evacuation capacity. Considerations for medical evacuation operations include the following:

- Location of BSMC assets in the BSA and forward.
- Terrain and location of maneuver battalion aid stations.
- Air medical evacuation corridors (including ADA threat identification) and ambulance exchange points.
- Triage of patients and patient load.
- Transportation assets, either casualty evacuation or medical evacuation, available.
- Requirement for security during movement.
- Time and means available to remove patients from the battlefield.
- Integration of evacuation routes and obstacle plans.
- Medical evacuation routes congestion due to movement of troops and materiel.
- Coordinating movements of maneuver force especially during offensive operations.
- Movements at night or during periods of limited visibility.
- C2 as well as communications disruptions.
- Including ambulances on the priority list for movement.
- Refugee movement that may impede medical evacuation missions.
- Maintaining readiness of aircraft and ground ambulances.
- Shortfalls in evacuation capabilities across the BCT.

8-15. Medical evacuation plans at each battalion include placing medics and ground evacuation assets with company trains and locating casualty collection points at the company level. The BCT surgeon and BSB medical planners consider must assume the primary means of both MEDEVAC and CASEVAC is via ground modes. The BCT and maneuver battalion S4 assist the BSB SPO plan CASEVAC to deal with mass casualty events. While air evacuation is the preferred method of evacuating critical injuries, planners cannot consider it the primary method. Doing so may limit the planning for more likely ground casualty evacuation and ground medical evacuation by tracked or wheeled vehicles. Air evacuation may be limited based on the

number of aircraft available, time to return to base and return to the forward area, distance, load time, and available security. A ground evacuation plan supplements the air evacuation plan and creates a cohesive, encompassing evacuation plan for the BCT.

AMBULANCE EXCHANGE POINTS

8-16. An ambulance exchange point (AXP) is an effective and efficient way to expedite medical evacuation along the lines of communication between the roles of medical care and the point of injury on the battlefield. It expedites medical evacuation, especially when transferring from tracked to wheeled ambulance or from ground to air evacuation platforms. An AXP is a predetermined location where a patient is transferred from one ambulance to another enroute to a medical treatment facility. This may be an established point in an ambulance shuttle system or units may designate AXPs independently. However, units may perform casualty evacuation through nonstandard evacuation platforms and vehicles. Medical planners in the BCT must template the locations of AXPs on the battlefield before and during operations as the situation changes. Brigade planners must be include AXPs in the BCT's sustainment concept of support, map graphics, and rehearsals. The BCT may need to frequently change the locations of AXPs based on mission variables as the operation progresses.

8-17. As with all evacuations, the higher role of care evacuates patients from the lower role of care. The BSMC evacuation platoon establishes AXPs in order to keep up with maneuver elements. Battalion aid stations usually do not establish AXPs. In an ABCT, tracked ambulances or vehicles carry patients from the battalion aid station to an AXP where the brigade wheeled ambulances take over for the relatively longer trip to the rear.

8-18. Ambulance exchange points are not limited to ground evacuation assets. Threat air defense artillery capability may limit air ambulances' ability to fly as far forward as the battalion aid stations. In such a case, the BSMC can establish an AXP as far forward as possible and the BCT's tracked or wheeled ambulances then transfer the patients to the air assets, facilitating the rapid evacuation of patients.

8-19. The use of AXPs allows evacuation assets to return to their unit more rapidly. Crews with a habitual support relationship with maneuver units are familiar with the road network and the supported unit's tactical situation. Medical planners consider the requirement for AXPs and evacuation routes security and request security from the BCT as required. When possible, once tasked, AXP or evacuation route security should be these maneuver forces' primary task.

ROLES OF MEDICAL PLANNERS IN THE BCT

8-20. In order for medical support to be successful for the BCT, several medical planners across the brigade must synchronize and oversee the organization, employment, and operations of medical units across the BCT's AO. The roles and responsibilities of the brigade surgeon section, BSB SPO medical planners, BSMC commander, and task force surgeons and medical platoon leaders are identified in the following paragraphs.

Brigade Surgeon

8-21. The brigade surgeon is responsible for the medical support for the BCT. The surgeon is a brigade-level special staff officer that coordinates medical support activities with the brigade S-1, SPO, and other headquarters elements that affect medical support in the brigade. The brigade surgeon is responsible for the technical supervision of all medical activities in the command. The brigade surgeon is part of the brigade commander's special staff, and as such, provides advice to the brigade commander on all medical or related issues. The brigade surgeon keeps the brigade commander informed on the status of medical support for the brigade and the health of the command.

8-22. The brigade surgeon section is responsible for determining the patient estimate for operations and identifying the requirements needed to meet the BCT's commander's intent. The BCT S-1 is responsible for producing a casualty estimate for operations. The brigade surgeon section uses tools (such as the Medical Course of Action Tool, Medical and Casualty Estimator, Logistics Estimate Worksheet, and OPLOG Planner) to estimate patient estimates and workload for medical elements. The brigade surgeon's staff is comprised of a medical operations officer and a health care noncommissioned officer.

BCT Medical Operations Officer

8-23. The BCT medical operations officer, is on the brigade surgeon's staff. The BCT medical operations officer is responsible for establishing priorities of medical support across the BCT and the BCT-level mass casualty plan. Additionally, the BCT medical planner is responsible for maintaining a running estimate to assess the medical plan, Role 1, 2, and 3 medical treatment facilities, and medical equipment maintenance plan in coordination with the brigade support medical office.

SPO Medical Operations

8-24. The SPO medical planner is the primary staff officer on the BSB staff who helps the SPO officer with planning and synchronizing medical support operations, integrating medical enablers, and coordinating with the brigade staff. The SPO medical logistics officer is the primary staff officer on the BSB staff who helps the SPO officer with materiel management of medical supplies, medical equipment maintenance and coordinating with the brigade staff.

8-25. The medical operations officer, the medical logistics officer, and medical operations sergeant, in coordination with the BSB SPO, provide planning and oversight of medical support tasks. The medical operations officer in the SPO section is responsible for the finalizing, synchronizing, and resourcing of the medical plan created by the brigade surgeon section. The medical operations officer must consider placement of all medical support assets in the brigade and develop the medical evacuation plan for the BCT. They also coordinate the ordering, receipt, and distribution of class VIII products in the BCT. The section coordinates with the brigade surgeon cell and, as appropriate, division surgeon sections for all medical support issues affecting the brigade. The medical operations officer is directly responsible for providing medical operations guidance and status to the BSB Commander.

Battalion Field Medical Assistant

8-26. The field medical assistant, is the primary medical planner for the medical platoon of a maneuver battalion. The medical platoon, under the direction of the battalion surgeon, provides class VIII resupply of the battalion. The field medical assistant operates the platoon headquarters. The battalion surgeon is responsible for both of the operational and clinical activities conducted by the medical platoon, battalion aid station Role 1 operations, and advises the commander on issues concerning the health of the command.

8-27. While the MTOE assigns the battalion surgeon as the medical platoon leader, the field medical assistant may function as the platoon leader in their stead and is the principal medical planner for the battalion to enable the battalion surgeon to focus on patient care and treatment. The field medical assistant works with the BCT medical planners to synchronize and integrate the battalion's medical coverage, evacuation plan, and other medical operations with the BCT's overall medical operations and plans. The field medical assistant coordinates the battalion's medical plan with the SPO section and brigade surgeon section to identify shortfalls and generate a common operational picture for medical assets, ambulance exchange points and casualty collection points, treatment facility locations, and other medical assets for the BCT.

MEDICAL UNITS AND ORGANIZATIONS

8-28. The focus of the medical effort at the BCT level and below is to rapidly locate, acquire, treat, stabilize, and evacuate patients. Medical personnel treat and stabilize patients for medical evacuation to a medical treatment facility staffed and equipped to provide the required medical treatment or returned to duty within 72 hours. Roles 1 and 2 medical assets also support force health protection measures to avoid or mitigate the adverse effects of disease and non-battle injuries and promote the health of deployed forces.

BRIGADE SUPPORT MEDICAL COMPANY

8-29. The role of the BSMC is to provide coordinated and synchronized medical support to all units operating in the BSA. The BMSC provides Role 2 medical area support to the BCT. It supports other units operating in or traversing through the BCT AO that do not have organic medical assets. Units operating or traversing through the BSA must coordinate with the BSMC in order for the company to plan for the additional personnel requiring support.

8-30. The BSMC oversees its organic elements and maintains OPCON of medical augmentation elements. A forward resuscitative and surgical team may augment the BSMC with a forward surgical capability when required based upon mission requirements or mission variables.

8-31. The BSMCs organic to the IBCT, ABCT, and SBCT consist of a company headquarters, preventive medicine section, behavioral health section, medical treatment platoon, medical evacuation platoon, and a brigade support medical office. The BSMC receives, triages, treats, and determines the disposition of patients based upon their medical condition. Role 2 care includes all of the capabilities and functions of Role 1 care. The BSMC provides Role 2 medical care for the BCT with an increased medical capability above Role 1 with the addition of x-ray, laboratory, combat operational stress control, and dental services. The company has 20 cots for holding patients up to 72 hours.

Company Headquarters

8-32. The company headquarters section provides unit-level administration, general supply, and CBRN operations support. The company also provides and coordinates medical equipment maintenance for the medical platoons and medical sections in the BCT.

8-33. The BSMC commander advises the BSB commander on medical aspects of battalion operations and on the health of supported personnel. The medical company commander ensures that the medical annex of the operations order includes procedures to process and treat CBRN contaminated casualties and provisions for CBRN collective protective shelter systems and decontamination augmentation. The annex should list provisions for supporting air and ground ambulances, augmentation of medical support assets for contingency operations, detainee operations, customer assistance on obtaining class VIII, and for medical representation on casualty damage assessment sections.

8-34. The first sergeant is the company's senior NCO and normally its most experienced Soldier. The first sergeant is the commander's primary logistics and tactical advisor. The first sergeant collaborates with the commander and XO to plan, coordinate, and supervise all internal logistics activities that support the company mission. The first sergeant is located wherever the duties require.

8-35. The company XO is the principal assistant to the company commander on internal company logistics and the tactical employment of the company. The considerations which influence the employment of medical assets in the brigade are dependent on the brigade commander's plan, the anticipated patient load, expected areas of casualty density, and the medical treatment and evacuation resources available.

Brigade Medical Supply Office

8-36. The brigade medical supply office (BMSO) is responsible for materiel management and distribution of medical supplies, maintenance of medical equipment, and coordinating and synchronizing medical support operations for the BCT. The BMSO performs the following activities: supply planning, requirements validation, asset visibility, medical equipment maintenance, distribution, redistribution and retrograde of class VIII. The BMSO must integrate class VIII distribution into the BSB distribution plan. The BMSO must determine the types, quantity, and priority of class VIII to be distributed and communicate this to the BSB SPO materiel management and distribution integration personnel. In some instances, the BMSO may distribute class VIII via ambulances.

8-37. The BMSO can be collocated with the BSB's SSA or serve independently as part of the BSMC as a forward distribution point to dispense class VIII medical supplies. The BMSO also synchronizes medical logistic support for medical equipment and its maintenance in the BCT. The office deploys with a three day basic load and preplans resupply sets for the next seven days. The BMSO will bring in and maintain resupply sets of class VIII for the BCT as required.

8-38. The BMSO also has limited critical line items of ASL to support the brigade support medical company's Role 2 medical elements and maneuver battalion's Role 1 medical platoon and battalion aid station requirements. The ASL is a basic load of class VIII supply for the BCT managed as a safety stockage level and released to support the brigade when routine replenishment fails to meet mission requirements or wait times. Upon arrival in theater, a medical logistics company or higher echelon unit will resupply the BMSO through push-packages until line item requisitioning is available. The BMSO routes these medical

supplies to the lowest level supporting SSA, normally the BSB's distribution company for further unit distribution by the forward support companies to the maneuver battalions. For more information on medical logistics see FM 4-02, *Army Health System*.

8-39. The BMSO fills critical line items from the authorized stockage maintained by the BMSO when the customer wait time exceeds mission requirements and emergency resupply to the unit is required. Routine ordering procedures will resume upon arrival in theater as soon as unclassified internet connectivity is established. Upon receipt of a requisition, the supporting SSA will fill and package the items for distribution to the requesting unit. The BMSO receives and accounts for materiel upon arrival to the BSA. The BMSO integrates materiel marked for maneuver Role 1 medical treatment facilities or battalion aid stations with other critical class VIII supplies and nonmedical items for the BSB to distribute to the battalions through LOGPAC or other methods of resupply.

Preventive Medicine Section

8-40. Commanders are responsible for protecting their Soldiers from disease non-battle injury and must emphasize and enforce high standards of field sanitation and personal hygiene. The BCT and the BSMC have preventive medicine support throughout the battlefield. Preemptive actions are crucial for effective preventive medicine operations. Delay in implementing preemptive field sanitation and personal hygiene actions can significantly impact the deployed force's ability to accomplish its assigned mission.

8-41. The preventive medicine section is primarily responsible for identifying health threats, force health protection, sanitary engineering, pest management, and occupational/environmental health hazards, assessing associated health risk and recommending protective measures. Under the oversight of the brigade surgeon, the preventive medicine section monitors and guides implementation of the brigade preventive medicine program. They also provide training to BCT Soldiers in disease non-battle injury prevention programs. The preventive medicine section develops and coordinates a preventive medicine circulation plan throughout the brigade's area of operations to monitor supported battalions.

Behavioral Health Section

8-42. The behavioral health section and combat and operational stress control team help commanders to control combat and operational stress through prevention programs. The combat operational stress control team operates under the direction of the BSMC commander and provides brigade-wide behavioral health and combat operational stress control services. Combat operational stress control activities include continual Soldier assessment and consultation with medical and other personnel. It assists and counsels personnel with personal, behavioral, or psychological problems and participates in the early identification of mild traumatic brain injury. The behavioral health section does not treat ongoing cases. See ATP 4-02.8, *Force Health Protection* for more details.

8-43. The company behavioral health section normally collocates with the BSMC Role 2 medical treatment facility as the center for its operations but is mobile throughout the brigade's area. The section's priority functions are to promote positive stress behaviors, prevent unnecessary evacuations, and coordinate return of Soldiers to duty. The section keeps abreast of the tactical situation and plans and forecasts requirements for combat operational stress control support through the company commander and evacuation platoon leaders. The company behavioral health section routinely provides combat operational stress control support when planners pull units back for reconsolidation.

Medical Treatment Platoon

8-44. The medical treatment platoon operates the Role 2 medical treatment facility in the BSA. It also provides limited assets to reinforce supported unit medical sections and battalion aid stations as required. The platoon receives, triages, treats, and determines disposition of patients. The treatment platoon also serves as the alternate CP for the BSMC.

8-45. The medical treatment platoon leader directs, coordinates, and supervises platoon operations based on the BCT medical support plan. The platoon leader also directs the activities of the BSMC Role 2 medical treatment facility and monitors class VIII supplies, blood usage, and inventory levels. The platoon leader keeps the commander informed of critical class VIII and blood requirements and shortages. The medical

treatment platoon's headquarters section is responsible for overseeing platoon operations, patient accountability and statistical reporting functions, and coordination with the BSB SPO section, BCT surgeon, and other elements for patient evacuation.

8-46. The medical treatment squad, the area support squad, and the patient-holding squad are required elements needed to establish the BSMC Role 2 medical treatment facility. Without these squads operating together in a coordinated fashion, the BSMC may see a degradation in services and capability. When patients are able to return to duty after treatment, the BSMC Role 2 medical treatment facility coordinates through the BSB S-1 and BCT S-1, who in turn contacts the unit to pick up the Soldier or follows established procedures from the brigade SOP. The BSMC and BSB may return maneuver Soldiers to duty after treatment through LOGPAC or other methods of resupply similar to any other materiel or commodity.

Medical Treatment Section

8-47. The medical treatment section provides emergency and routine sick call treatment to the BSB's organic Soldiers or others assigned or attached to supported units. When positioned with the BSMC, the treatment section personnel work in the Role 2 medical treatment facility. The medical treatment squads include two treatment teams to provide Role 1 medical treatment and augmentation support to BCT maneuver battalions, as required.

8-48. The forward medical treatment squad is capable of operating independently for limited periods to provide advanced trauma management and sick call, as required. The operations may call for the forward medical treatment squad to move forward on short notice.

8-49. The area medical treatment squad is the base medical treatment section of the BSMC Role 2 medical treatment facility and does not typically move forward of the BSA. The area medical treatment squad is identical in composition to the medical treatment squad and will often include personnel that are more experienced.

Area Support Squad

8-50. There are four different sections in the area support squad – the dental, physical therapy, laboratory, and radiology sections. The dental section provides operational dental care, which consists of emergency dental care and essential dental care intended to intercept dental emergencies. Dental care also includes dental consultation and x-ray services. Operational dental care is the medical treatment given for the relief of pain, elimination of acute infection, and the control of life-threatening oral conditions such as—hemorrhage or respiratory difficulty. Essential care includes dental treatment necessary for prevention of lost duty time and preservation of unit readiness. The BSMC and Army Medical Department consider the treatment of trauma to teeth, jaws, and associated facial structures as emergency care.

8-51. The physical therapy section plans and supervises physical therapy programs through patient self-referral or referral from a medical officer or physician assistant. The section provides guidance in the areas of physical fitness, physical training, and injury prevention. The physical therapy staff primarily evaluates and treats disorders of human motion using physical/chemical therapeutic means.

8-52. The laboratory section performs clinical laboratory and blood banking procedures consistent with Role 2 treatment capabilities to aid physicians and physician's assistants in the diagnosis, treatment, and prevention of diseases. Laboratory functions include performing laboratory procedures in the diagnosis and treatment of patients. Role 2 medical laboratory has limited capabilities.

8-53. The radiology section operates x-ray equipment required for Role 2 treatment capabilities. The section performs routine clinical radiological procedures to aid physicians and physician assistants in the diagnosis and treatment of patients.

Patient-Holding Squad

8-54. The patient-holding squad operates the patient-holding facility of the BSMC Role 2 medical treatment facility. The facility's role is to hold patients awaiting evacuation and those that medical personnel expect to return to duty within 72 hours. The patient-holding squad is capable of providing care for up to 20 patients. Role 2 facilities do not have an admission capability. Therefore, patients at this facility are not considered

hospital admissions. In addition, the patient-holding facility serves as a patient-overflow recovery area for a forward resuscitative surgical team.

Evacuation Platoon

8-55. The BSMC's evacuation platoon performs ground evacuation and enroute patient care for the supported units. The evacuation platoon consists of a platoon headquarters, an area support evacuation section, and a forward evacuation section. Platoon assets are located where they can best respond to requirements. The evacuation platoon leader directs ground evacuation of patients. The platoon provides ground ambulance evacuation support for the maneuver battalions and to other units receiving area medical support from the BSMC.

8-56. The platoon establishes and maintains contact with supported units and forward deployed treatment squads/teams of the BSMC. They perform route reconnaissance and develop and issue all necessary evacuation routes, navigational information, and graphic control measures. The platoon receives evacuation requests from supported units, coordinates, and establishes ambulance exchange points for both air and ground ambulances. The evacuation squads provide ground ambulance evacuation of patients from forward areas to the BSMC Role 2 medical treatment facility. Evacuation squad personnel perform emergency medical treatment, evacuate patients, and provide for their continued care enroute. They maintain supply levels for the ambulance medical equipment sets and ensure that appropriate property exchanges of medical items (such as litters and blankets) are made at sending and receiving Role 2 medical treatment facilities.

MANEUVER BATTALION MEDICAL PLATOON AND BATTALION AID STATION

8-57. The medical platoon is organic to the maneuver battalion. The mission of the medical platoon is to provide Role 1 medical support to the maneuver element. Medical platoons in BCTs have a headquarters section, medical treatment squad, ambulance squad, and combat medic section. The medical platoon has different quantity and types of vehicles, configuration of medical equipment sets, and number of personnel assigned depending on the type of BCT (armored, infantry, or Stryker). The medical platoon is dependent upon the maneuver elements to which it is assigned for all logistic support with the exception of class VIII supplies. The BSB distributes class VIII, medical supplies, by means of LOGPAC or other methods of resupply through the combat trains to the maneuver battalions' medical platoons and its company combat medics, medical treatment team, and medical evacuation squad.

8-58. Other functional and multi-functional brigades, including the field artillery brigade, the MEB, and the combat aviation brigades' organic medical platoons, have the same Role 1 mission and are similar in design of the medical platoons in the BCTs. However, the medical platoons of the maneuver forces in functional and multi-functional brigades are configured to meet the requirements of the specific design of the supported brigades, and each platoon is slightly different. Additionally, the functional and multi-functional brigades outside of the BCT do not have an organic Role 2 capability. These brigades rely on a medical company (area support) or higher medical unit to provide Role 2 medical treatment facility and capability. See ATP 4-02.3 for specific medical capabilities organic to functional and multi-functional brigades outside of the BCT.

8-59. Non-medical personnel performing first aid procedures help the combat medic. First aid is administered by an individual either as self-aid or buddy aid. A combat lifesaver provides enhanced first aid. Unit-level medical care provided at Role 1, battalion aid station, is the first medical care a Soldier receives. Role 1 care includes immediate lifesaving measures, disease and non-battle injury prevention, combat and operational stress control preventive measures, and patient location and acquisition. Role 1 also includes medical evacuation from supported units or at the point of injury and treatment provided by designated combat medics or treatment squads. Treatment at Role 1 military treatment facilities are those measures necessary for the patient to return to duty or to stabilize the patient and allow for evacuation to the next role of care. These measures include maintaining the airway, stopping bleeding, preventing shock, protecting wounds, immobilizing fractures, and other emergency measures.

8-60. The battalion aid station is under TACON of the battalion S-4. To reduce ambulance turnaround time in providing advanced trauma management to patients, the battalion aid station may place its treatment teams as close to maneuvering companies as tactically feasible. The battalion S-4 closely coordinates locations for the forward positioning of medical treatment elements with the battalion S-3. This coordination ensures their

location is known to maneuver units, they do not disrupt friendly movement, and they are protected from enemy fire and maneuver. Treatment teams situated in close proximity to maneuvering companies in contact must be prepared to withdraw to preplanned, alternate positions on short notice.

8-61. When maneuver companies anticipate large numbers of casualties, the battalion S-4 and medical platoon leader coordinate with the brigade S-4 and brigade surgeon cell to receive OPCON of one or more treatment teams from the BSMC. The medical platoon leader or battalion surgeon employs one treatment team in the combat trains and the others in close support of maneuver companies.

8-62. Maneuver battalion planners and staff do not place medical treatment facilities (such as the battalion aid station) near distribution points or other targets of the opposing force. Considerations for the placement of the battalion aid station should include—

- Tactical situation/commander's plan.
- Expected areas of high casualty density.
- Security.
- Protection afforded by defilade or engineer dig support.
- Evacuation time, distance, and accessible routes.
- Solid ground with good drainage.
- Near an area suitable for helicopter landing.
- Available communications.
- Additional space for a potential patient decontamination site if required.

MEDICAL COMPANY (AREA SUPPORT)

8-63. Distinct medical support elements, (such as Role 3 hospitals, forward resuscitative and surgical teams, medical company (dental services), and other hospital augmentation teams) operate to support BCT and other organizations' operations. However, these medical units usually remain under the C2 of a medical brigade.

8-64. The medical company (area support) provides Role 1 and Role 2 medical support to units located in its AO and organizations without organic Role 1 medical support. The medical company (area support) provides Role 2 medical support on an area support basis. The medical company (area support) can task-organize and is tailorable to the OE and mission requirements to support decisive action operations. The medical company (area support) is assigned to a multifunctional medical battalion.

8-65. The company provides treatment of patients with disease and non-battle injury, combat and operational stress reaction, triage of mass casualties, emergency medical treatment, advanced trauma management, initial resuscitation and stabilization, and prepares the further evacuation of patients incapable of returning to duty within 72 hours. The area support medical company's treatment squads are capable of dividing into two treatment teams that can operate independently of the medical company (area support) for a limited time. The company's medical evacuation (ground) section evacuates patients to the treatment squads of the company from units in the company's assigned area of operations.

8-66. The structure of a medical company (area support) has a number of significant differences in capability when compared to the BSB's BSMC. The company does not have organic preventive medicine, physical therapy, or medical equipment maintenance and repair capabilities. The company has a limited behavioral health capability and CBRN defensive capability. A medical company (area support) has a smaller medical evacuation capability than a BSMC with fewer ambulances and assigned crews. The medical logistics staff of the company forms the brigade medical supply office. There is also only one medical supply sergeant in the headquarters of the medical company (area support).

FORWARD RESUSCITATIVE AND SURGICAL TEAM

8-67. A forward resuscitative and surgical team may augment the BSMC to provide the brigade with forward surgical support. The role of the forward resuscitative and surgical team is to initiate surgical support forward for a BCT or at echelons above brigade unit. Patients who are not transportable due to their medical condition may require resuscitative surgical care from a team, which may be collocated with a BSMC or medical company (area support). They provide forward resuscitation to stabilize non-transportable patients for

evacuation to a Role 3 hospital. The forward resuscitative and surgical team only performs resuscitative surgery or damage control surgery. However, the breadth of procedures that the forward resuscitative and surgical team can accomplish is also limited by time and the availability of medical specialists and specialized medical equipment.

8-68. The forward resuscitative and surgical team has limited postoperative intensive care capacity and no organic patient holding capability. A collocated medical company or combat support hospital must provide patient hold for the team. The team provides emergency treatment to receive, triage, and prepare incoming patients for surgery; performs surgery; and continues postoperative care for up to 30 critically wounded/injured patients over a period of 72 hours with its organic medical equipment sets.

8-69. Medical planners employ forward resuscitative and surgical teams in brigade combat teams based on one per maneuver brigade. They are normally attached to a combat support hospital for general support. When operationally employed, forward surgical teams are attached to medical companies. The forward surgical team may also be a part of a medical task force to support special operations forces missions.

ROLE 3 HOSPITAL

8-70. There are two types of Role 3 medical treatment facilities in the inventory. The combat support hospital and the field hospital. Role 3 hospitals (combat support and field) provide essential care in the theater to return the patient to duty and/or stabilize the patient for evacuation to a definitive care facility outside the AO. The hospital's assigned medical personnel, facilities, equipment, and materiel provide the requisite capabilities to render significant preventive and curative healthcare.

8-71. Role 3 hospitals will normally be assigned to a medical brigade (support) but may be assigned to a medical command (deployment support) or a multinational task force. The Role 3 hospitals provide hospitalization for up to 248 patients and treatment for all classes of patients. The hospital's surgical capacity is six operating room tables staffed for 96 operating table hours per day. Surgical capabilities include general, orthopedic, thoracic, urological, gynecological, and oral maxillofacial. See ATP 4-02.5, *Casualty Care* for additional information on the Role 3 medical treatment facilities.

This page intentionally left blank.

Appendix A

Standard Mission-Essential Task List

Company-sized and above Army units develop a mission-essential task list (METL) which enables commanders to assess training readiness. Army units organized with a table of equipment and organization have a proponent-developed standard METL. A unit's standard METL represents the doctrinal framework of fundamental collective tasks for which the Army designed the unit to perform decisive action tasks. The standard METL consists of mission essential tasks and supporting collective tasks. This appendix provides background information about the standard METL and lists the brigade support battalion standard mission essential tasks. The most current mission essential tasks and supporting collective tasks are available at the Army Training Network.

UNIT TRAINING

A-1. The Army trains to provide forces ready to conduct unified land operations. The Army does this by executing tough, realistic, and challenging training. Unit and individual training occurs all the time at: home station, combat training centers, and while deployed. Training is the cornerstone of readiness. To achieve a high degree of readiness, the Army trains in the most efficient and effective manner possible. Realistic training with limited time and resources demands that commanders focus their unit training efforts to maximize training proficiency.

A-2. Units measure proficiency in individual, leader, and collective tasks against published standards. The Army recognizes proficiency as complete task proficiency, advanced task proficiency, basic task proficiency, limited task proficiency, or cannot perform the task. All unit leaders are responsible for quality training.

A-3. A battle-focused unit trains selectively. It cannot train to standard on every task at once, whether due to time or other resource constraints. Focusing on the tasks to train, based on the higher commander's guidance, and taking into account time and resources are limited, is battle-focused training.

A-4. There is rarely enough time or resources to complete all the tasks a BSB might have to complete. The commander has to determine what is essential and then assign responsibility for its accomplishment. The concept of mission essential tasks provides the commander a process to provide the unit its battle focus. A *mission-essential task* is a collective task on which an organization trains to be proficient in its designed capabilities or assigned mission (FM 7-0). A mission-essential task list is a tailored group of mission-essential tasks, and each aligns with the collective tasks that support it.

A-5. The unit task list is a list of collective tasks the unit is designed to perform based on the unit's role, mission, functions, capabilities, personnel, equipment, and employment. Commanders identify which tasks the unit is unable to train to proficiency due to resources, manpower, time constraints, or higher headquarters' priorities. The commander then identifies the risks associated with lack of training to the higher headquarters commander.

MISSION-ESSENTIAL TASKS

A-6. Units organized with a table of organization and equipment have an approved and standard METL based on the type of unit by echelon. The BSB and its subordinate companies have a standard mission-essential task list. For logistics units, the Combined Arms Support Command develops the unit METL. The Combined Arms Support Command then staffs the standard mission-essential task list and collective tasks with the Army commands and Army Service component commands. Headquarters

Department of the Army then approves and publishes the standard mission-essential task list and collective tasks. The Army bases a unit's standard METL on its echelon and design capabilities. Standard METLs can be found on the Army Training Network, the Digital Training Management System, and the Combined Arms Training Strategy.

BSB MISSION ESSENTIAL TASK LIST

A-7. The most current standard METLs may be found on the Army Training Network. The current BSB (armored/infantry/Stryker) standard mission essential tasks are listed.

- 55-BN-4800 – Conduct Expeditionary Deployment Operations at the Battalion.
- 63-BN-4028 – Conduct Sustainment Operations.
- 63-BN-4033 – Coordinate Distribution Support.
- 63-BN-4019 – Direct Establishment of Subordinate Units and Headquarters Elements.
- 63-BN-4885 – Conduct Actions Associated with Area Defense.

Appendix B

Security Force Assistance Brigade

This appendix provides background information about the security force assistance brigade (SFAB), its role, and characteristics. It describes how the SFAB provides training and mentorship to partnered security forces through security cooperation activities. Its BSB has a dual role to provide direct support to the brigade for logistics and to train and mentor logistics forces of partnered armed forces.

B-1. Security force assistance has always played a vital role in the Army's history. The background nature of security force assistance operations relegates them to obscurity behind the large conventional military battles throughout history. SFABs develop the capability and capacity of partnered security forces through security cooperation activities to strengthen a host government's ability to defend itself from external and internal threats. These brigades are primarily a shaping force to build capacity in foreign security forces through training and mentoring and provide partners access to multinational capabilities. SFABs allow BCTs to focus on combined arms maneuver and prevents the breaking up of brigade combat teams to execute security cooperation activities.

B-2. The Army SFAB is the Army's dedicated conventional organization for executing SFA around the world. While each SFAB has a regional focus, its distinct capabilities enable it to perform wherever needed with minimal cultural and regional orientation.

B-3. The SFAB deploys to develop foreign security force capabilities to prevent conflicts, as a deterrent to shape the environment, and when necessary, to bolster foreign security forces, also known as FSF, to a level that it can win and establish a secure environment. The SFAB is designed to be employed as individual teams with the brigade headquarters exercising C2 from home station, with larger echelons deploying and controlling operations in country, or by deploying the entire brigade into a theater.

B-4. SFABs develop the capability and capacity of partnered security forces through security cooperation activities to strengthen a host government's ability to defend itself. These brigades build capacity in foreign security forces through training and mentoring and provide partners access to multinational capabilities.

B-5. A SFAB executes operations in support of combatant commander's objectives to advise and assist foreign security forces by teaching, coaching, mentoring, and providing direct access to multinational capabilities. These capabilities include fires and fire support coordination, sustainment, communications, intelligence, and close air support. The SFAB must be prepared to conduct combat operations to facilitate partnered military and/or security force missions to support host nation and/or United States' objectives. For more information about SFABs, see ATP 3-96.1, *Security Force Assistance Brigade*.

SECURITY FORCE ASSISTANCE BRIGADE TASK ORGANIZATION

B-6. Each SFAB, both armored and infantry variants, has two maneuver battalions, a cavalry squadron, a field artillery battalion, an engineer battalion, a military intelligence company, a signal company, a support battalion, and an HHC.

B-7. Each maneuver battalion and cavalry squadron has an HHC or troop and three maneuver companies or troops. The field artillery battalion has a headquarters and headquarters battery and two field artillery batteries. The engineer battalion has one HHC and two engineer companies. They also have a military intelligence company and a signal company. The support battalion has a HSC, which includes a small distribution, maintenance, and medical treatment section. It also has two logistics advisor companies.

B-8. The armor maneuver battalions have two armor companies and one infantry company. For the infantry SFAB, both ground maneuver battalions are light-infantry based with three light infantry companies. The

battalions also serve as the core leadership in the event the Army needs to reconstitute the brigade to a full BCT. Figure B-1 depicts an infantry SFAB task organization. Figure B-2 depicts an armored SFAB task organization.

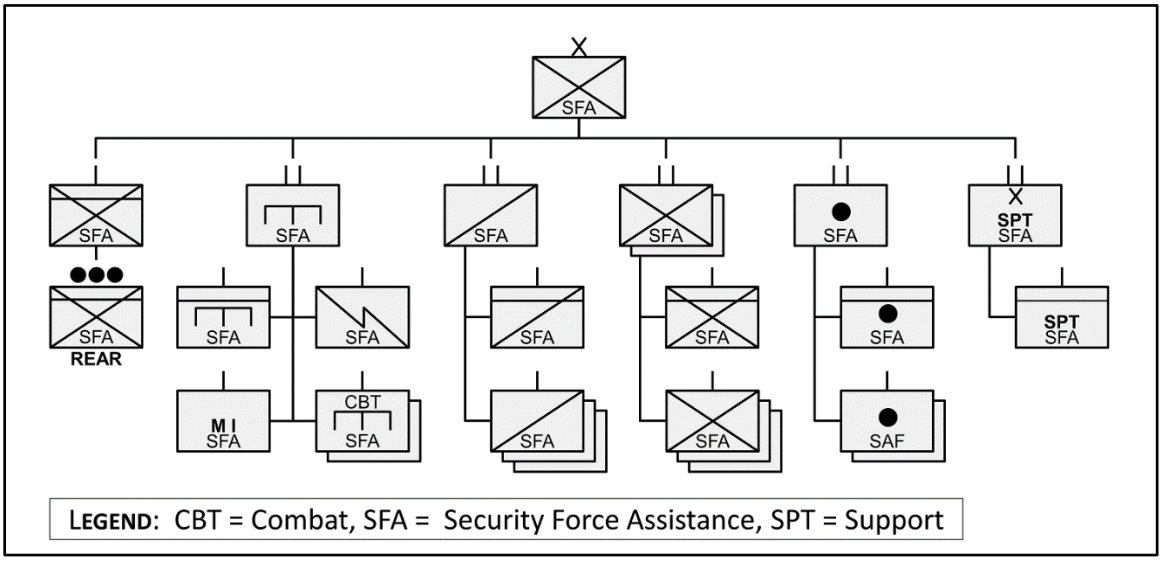

Figure B-1. Infantry security force assistance brigade task organization

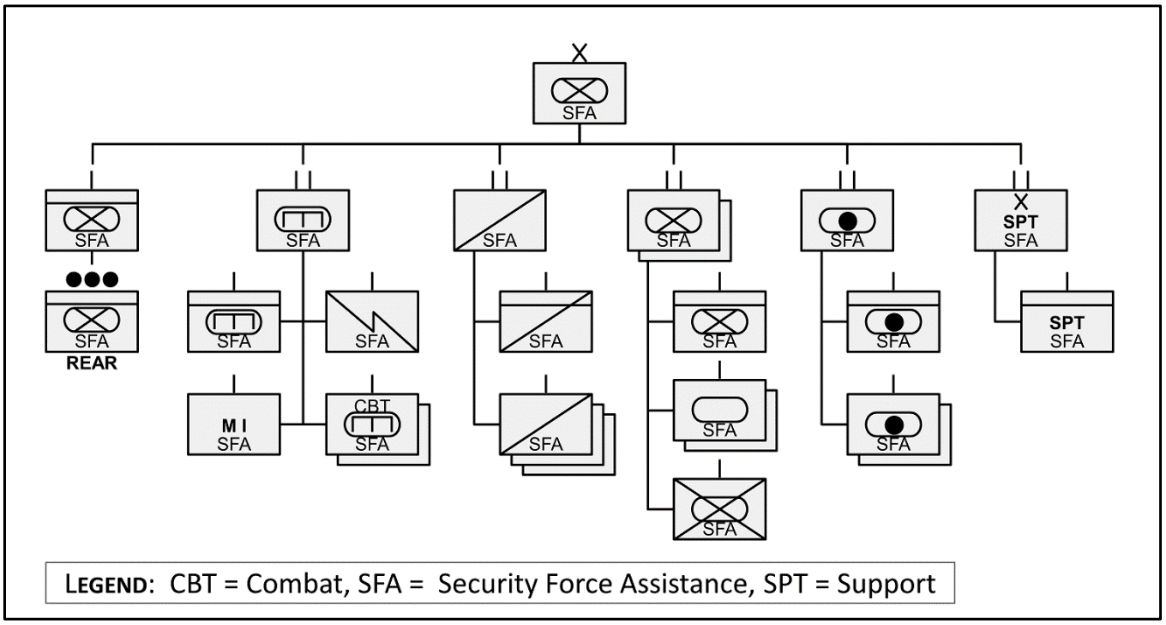

Figure B-2. Armored security force assistance brigade task organization

ROLE, CORE COMPETENCIES, AND FUNCTIONS

B-9. The core mission of the SFAB is to assess, train, advise, and assist foreign security forces in coordination with joint, interagency, and multinational forces to improve partner capability and capacity and to facilitate achievement of U.S. strategic objectives. This mission set is developed from the organize, train, equip, rebuild and build, advise and assist, and assess concept described in FM 3-22, *Army Support to Security Cooperation*. Emphasis is placed on the tasks most appropriate for the SFAB to conduct. While the SFAB influences the tasks of organize, equip, rebuild and build, generally, external organizations lead these tasks.

B-10. The SFAB primarily operates forward deployed in theater partnered with equivalent or higher echelon (including ministerial) foreign security forces. Additionally, the SFAB can be directed to perform distributed, task organized, cross-functional security cooperation activities to support a combatant commander theater security cooperation plan. Finally, since the leadership structure of the organization is modeled after a BCT, with augmentation (personnel and equipment), the SFAB can organize as a fully functional IBCT or armored brigade combat team to support large-scale combat operations when necessary. Expansion of an SFAB is a deliberate operation requiring sufficient lead-time to fully man, equip, and train before employment.

B-11. The SFAB can detach cross-functional advising teams to increase the area and number of partnered training and operational activities and events. These task-organized formations can support extended duration operations in theater by providing a rotational capability internal to the SFAB.

SECURITY FORCE ASSISTANCE BRIGADE SUPPORT BATTALION

B-12. The SFAB BSB provides C2 of the support battalion's HSC and logistics advisor companies. The BSB advises and assists foreign security forces on logistics and health service support. The BSB design contains minimal organic ability for internal sustainment. The SFAB is dependent upon host nation, operational contract support, the service component command, American Embassy Country Team, and area support from a BSB, DSSB, or CSSB for its sustainment support. Figure B-3 depicts an SFAB BSB task organization.

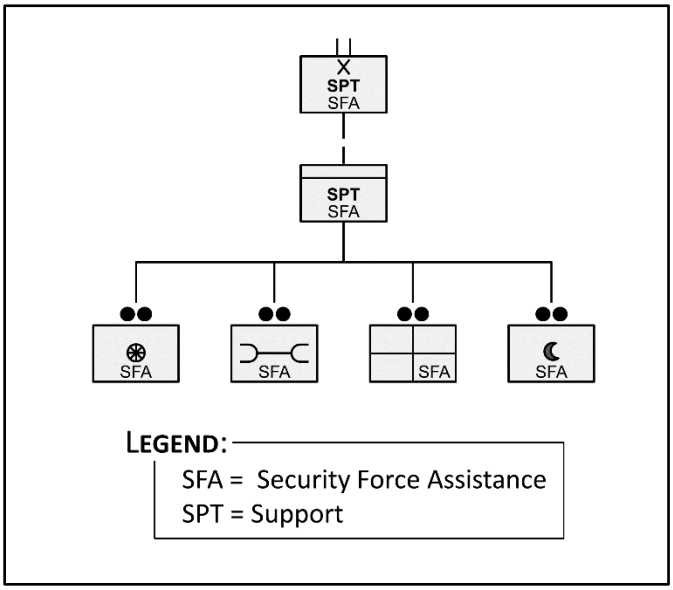

Figure B-3. Brigade support battalion task organization

B-13. When an SFAB operates inside a geographic combatant commander's designated joint operations area, the brigade nests with established sustainment structures. Inside a joint operations area, the expeditionary sustainment command performs and oversees the distribution management, transportation operations, material management, personnel services, and operational contract support. The BSB can coordinate sustainment support needed through an expeditionary sustainment command and typically receives sustainment support from a BCT's BSB, DSSB, or CSSB in the joint operations area through their area support mission and responsibilities. Operating inside a joint operations area allows the BSB to utilize pre-established traditional Army sustainment systems and distribution networks.

B-14. When an SFAB operates outside a geographic combatant commander's designated joint operations area or when there is no joint operations area established, the brigade may not have traditional Army sustainment systems and distribution networks to rely on for resupply, distribution, maintenance, transportation, and medical support operations. With no other conventional forces in the joint operations area, the BSB must coordinate sustainment support through the Army Service component command, host-nation support agency if an agreement is in place, directly with the Defense Logistics Agency, or American Embassy. These entities support administrative, sustainment, and life support functions. The BSB must

coordinate with one of these entities for the resupply of all classes of supply, medical evacuation, maintenance support, field feeding, finance, postal, and any other type of support needed.

B-15. The role of the SFAB BSB is to train, advise, and assist foreign security forces in sustainment operations and provide limited logistics and medical support to an SFAB depending on theater assets available. The SFAB BSB has two core competencies. The first is to provide foreign security forces' sustainment units with training on individual, unit and leader tasks, and advice and assistance in operations planning, synchronization, and execution. The second is sustainment planning, synchronization, and execution to support SFAB operations.

B-16. The BSB performs the following functions: distribution operations, field-level maintenance, and enhanced role 1 medical care for the SFAB. The BSB is an expeditionary, multifunctional logistics battalion with integrated medical support that can operate at the tactical level in a potentially dispersed area of operations to support a brigade advising and assisting foreign security forces. The BSB and its organic units may be tasked to operate in limited capabilities in smaller sections, decentralized, and under the OPCON of other government entities including the American Embassy chief of mission or the Army Service component command.

B-17. There is limited capability in the BSB to meet the SFAB's sustainment requirements. The BSB provides a limited distribution capability from a transportation squad along with a limited maintenance capability provided by a field maintenance team. The BSB also provides a surgeon to evaluate the supported foreign security forces' medical officer, medical care, and evacuation capabilities.

Appendix C
Sustainment Planning Factors

This information is contained in current staff planning manuals, FMSWeb, OPLOG Planner, and other Combined Arms Sustainment 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 specific conditions associated with a given operation or area of operations.

C-1. This information is contained in Department of Logistics and Resource Operations, U.S. Command and General Staff College Student Text 4-1, *Sustainment*: *Doctrinal Extracts and New Concepts*; Student Text 4-2, *Sustainment: Application Methods, Planning Factors, and Tools*; current staff planning manuals; FMSWeb (registration is required); and OPLOG Planner. Although the data in this annex is based on current operational planning factors, planners should understand there are many variables that affect the data and there are no fixed inputs. Planners must analyze the 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 C-1 provides general supply planning data for each class of supply specifically in regards to the weight of each commodity and its packaging configuration.

Table C-1. General supply planning data

Class of Supply	***Planning Factors***
Class I (MRE)	1.75 lbs per meal M-M-M = 5.50 pounds per person/per day (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 .336 PPD Tropic/Arid = 3.74 PPD Arctic = 1.78 PPD
Class IX	NA – Calculated in tonnage
Mail	Average =.974 PPD
Legend: MRE = meals ready to eat PPD = pounds per person per day U = unitized group ration	lbs = pounds M = meals ready to eat

CLASS I RATIONS PLANNING FACTORS

C-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 multinational forces that should be included in the feeding plan.

C-3. Planners may also need to consider other categories of personnel in the class I planning factors and headcount. These headcounts include DA civilians, Army and Air Force Exchange Service (AAFES) personnel, Morale Welfare and Recreation, Red Cross, non-government organizations, contractors, and local-hire personnel. Finally, planners must also consider detainees. A detainee is any person captured, detained, or otherwise under the control of Department of Defense personnel. An enemy prisoner of war is a sub-set of the term detainee. Table C-2 provides planning factors for weights by ration type.

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

Ration Package	*Items, Weight, and/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”

C-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.

C-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 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.

C-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. The meals are made up of meals ready to eat, also known as MRE and identified by an M, or unitized group rations, also called UGR, identified by a U. The combination may include M-M-M or U-M-U. Further guidance on which type of unitized group ration either heat and serve, known as H&S, or Option A that integrated commercially available items. The operational commander approves the ration cycle that all supported units will follow. For more information about class I planning factors, see ATP 4-41.

C-7. Additionally, it is important for planners to understand the lift capacity and number of pallet positions for supply vehicles in the Army inventory. Table C-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 meals ready to eat.

Table C-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
M1085 FMTV, 5-Ton	4	2,304
PLS Flatrack	10	5,760
463L Pallet	8	4,608
20-foot ISO Container	16	9,216
40-foot ISO Container	36	20,736
Legend: M = military HEMTT = heavy expanded mobility tactical truck LMTV = light medium tactical vehicles		ISO = International Organization for Standardization FMTV = family of medium tactical vehicles PLS = palletized load system

C-8. Class I planners can use the ration planning to help determine 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 C-4 shows the ration pallet planning factors for different types of rations.

Table C-4. Ration pallet planning factors

Ration/Item	*Unit of issue*	*Servings per item*	*U/I 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	9[1]	48	432[2]	1098	56.1	43x52x44
UGR-H&S	mod	50	8	400	1036[3]	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					1960		48x40x48
FF&V					1500		48x40x48
Bottled Water (24x 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

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 the menus only. Each menu weighs a different amount based on the menu number.
6. Pallet weight planning factors for bagged ice and FF&V are estimates only.

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

C-9. Table C-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 C-5. Class I transportation planning factors for unitized group rations – heat and serve

Ration Package	***Weight***
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”

C-10. Table C-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 C-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
M1085 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
Legend: M = military HEMTT = heavy expanded mobility tactical truck LMTV = light medium tactical vehicles ISO = International Organization for Standardization		FMTV = family of medium tactical vehicles PLS = palletized load system

WATER PRODUCTION AND CONSUMPTION FACTORS

C-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 chemical, biological, radiological, and nuclear capabilities, and size of the force.

C-12. These water-planning factors enable sustainment planners to identify requirements, 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 be concerned with the quantity and quality of water.

C-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 suitability for laundry, engineer construction, aircraft maintenance, vehicle maintenance, vehicle and cargo washing, firefighting, dust and pest control, and certain types of CBRN decontamination operations.

C-14. The following tables depict water production assets, allocation of water assets, and consumption factors. Table C-7 lists the current equipment in the Army inventory that produces water and its capacity to produce or hold water.

Table C-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. - 3,000 gallons (30-feet) on an M871. - 5,000 gallons (40-feet) M872 trailer.
Lightweight Water Purifier System (LWPS)	- Light vehicle transportable. - Maximum production: 125 GPH (freshwater)/ 75 GPH (saltwater)
Reverse Osmosis Water Purification Unit (ROWPU) 3,000 Mounted on an M871 TLR	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

C-15. The type of environment where operations occur will significantly affect water consumption planning factors. The four types of environments tropical, arid, temperate, and cold each present different planning considerations. The planning factor in table C-8 on page C-6 accounts 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.

C-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.

C-17. Water requirement planning is necessary regardless of their theater location. The numbers in the following tables are in gallons per Soldier per day. Sustainment planners should start with these planning factors and then adjust them based on considerations including the unit’s particular circumstances, task organization, historical usage factors, and mission variables. Table C-8 on page C-6 provides planning factors for water consumption based on the type of operation and climate for operations.

Table C-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 I and II Medical Treatment	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Role III and IV 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.
Legend: Sust = Sustaining Min = Minimum

FUEL PLANNING FACTORS FOR CLASS III BULK

C-18. Table C-9 shows the fuel consumption rate for vehicles in the Army inventory for one hour of operation. The table provides fuel historic averages for fuel consumption while the particular vehicle sits idle with the engine running, driving cross-country over uneven terrain, and on hard paved roadway surfaces.

Table C-9. Vehicle fuel consumption by gallons per hour

Vehicle	***Idle***	***Cross-Country***	***Road***
M1	17.3	56.6	44.6
M2 or M3	1.4	18.0	8.6
M113	1.0	10.5	8.9
M88	2.0	42.0	31.0
M9 ACE	1.4	12.6	9.3
M109A6	2.2	16.0	11.8
MLRS	1.3	15.0	8.6

C-19. The following tables show consumption planning factors from the Combined Arms Sustainment Command's Planning Data Branch. For more up-to-date class III (bulk) planning factors, consider OPLOG Planner and unit historical data for more current estimates. Table C-10 shows the estimated daily maximum and average fuel consumptions for specific units and is shown to help in initial planning efforts.

Table C-10. Estimated daily fuel consumption planning factors

Unit Type	*Personnel*	*Maximum Fuel*	*Average Fuel*
Combat Aviation BDE (Medium)	2,719	134,338	93,929
Combat Aviation BDE (Heavy)	2,754	142,591	102,424
Aviation Attack/Recon BN (AH-64)	403	18,822	14,224
BDE Engineer BN (BEB) (ABCT)	443	12,513	11,909
BDE Engineer BN (BEB) (IBCT)	422	5,826	5,517
BDE Engineer BN (BEB) (SBCT)	468	6,500	5,954
FA BN, Comp (3x6) (IBCT)	553	3,554	3,533
FA BN 155T (SBCT) (3x6)	373	2,661	2,661
FA BN, 155SP (ABCT)	315	4,759	4,759
FA BN, HIMARS	240	1,756	1,756
FA BN, MLRS	232	2,309	2,309
Infantry BN (IBCT)	699	2,550	1,905
Infantry BN (IBCT) (AIRBORNE)	699	2,144	1,580
Infantry BN (SBCT)	698	4,303	2,726
Combined Arms BN (ABCT) (2 Mech/2 Armor)	632	26,310	14,880
Cavalry Squadron (SBCT)	418	5,382	2,518
Cavalry Squadron (ABCT)	428	8,970	3,735
Cavalry Squadron (IBCT)	372	4,811	2,241
BSB (SBCT)	953	11,859	9,088
BSB (ABCT)	1,371	25,463	21,255
BSB (IBCT)	882	10,458	8,320
SBCT	4,497	39,208	29,964
IBCT	3,458	25,839	21,380
ABCT	3,800	100,384	65,039

Legend:
ABCT – armored brigade combat team
BDE – brigade
BN – battalion
BSB – brigade support battalion
FA – field artillery
HIMARS – high-mobility artillery rocket system
IBCT – infantry brigade combat team
MLRS – multiple launch rocket system
SBCT – Stryker brigade combat team
SP – self-propelled

AMMUNITION PLANNING FACTORS

C-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 ASAs, thereby avoiding stockpiling in forward locations while efficiently rearming the force.

C-21. A stockage objective is the quantity of munitions required to ensure that 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.

C-22. Planning factors required for determining ammunition consumption include the ammunition basic load, daily estimated expenditure rate or required supply rate, and resupply capability or controlled supply rate in the context of the proposed or ongoing operation and operational timeframe.

C-23. The estimated daily expenditure rate for the operation (the required supply rate) is subtracted from the projected resupply capability expressed as a controlled supply rate. The on-hand balance is added to the result to determine the projected balance. This calculation is utilized to determine if the controlled supply rate can meet the required supply rate. Any delta to this result that cannot be met will require resolution before the start of operations. Balance + (Resupply [controlled supply rate] – Expenditure [required supply rate]) = Projected Balance.

C-24. The required supply rate 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 a required supply rate. The required supply rate 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 required supply rate is expressed as rounds per weapon (on-hand) per day, a bulk allotment per day, or per unit mission. Units route the required supply rate computations and through unit operations sections, and unit S-4 sections help in the process.

C-25. Maneuver commanders develop required supply rates and submit them to their next higher headquarters. Each level reviews, adjusts, and consolidates required supply rate information. The Army Service component commander determines the controlled supply rate 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 including: mission objectives, priorities, the projected threat, and ammunition availability. Army Service component commander establishes the controlled supply rate, which is based on the amount of munitions available for issue. When a munitions item is in short supply, the controlled supply rate is low. The commander determines who receives the ammunition. A controlled supply rate is expressed when the requirements (required supply rate) exceed the capability of the logistics system. The controlled supply rate is driven by logistics constraints, but it is still an operational consideration.

C-26. 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

C-27. Typically, a BSB can easily execute two LOGPAC convoys per day through planned resupply operations. However, the BSB can add additional emergency LOGPAC convoys based on mission variables as needed. 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. Fires brigade BSBs can expect to execute only one LOGPAC operation per day and maintain security.

LINE HAUL AND LOCAL HAUL OPERATIONS

C-28. The current capability of the Army's family of medium tactical vehicles, heavy expandable mobility tactical truck series (such as the LHS and PLS versions, M915 tractor trucks) are capable of both local and line haul operations. These systems can execute longer missions than are currently performed by sustainment units utilizing these systems.

C-29. The distance of a line haul leg is based on a 10-hour shift per driver and 1 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.

C-30. The planning factors for line haul operations are—

- Two trips per day (one trip per shift).
- Approximately 144 kilometers (or 90 miles) each way per shift.

C-31. The planning factors for local haul operations are—

- Four trips per day (two trips per shift).
- Approximately 34 kilometers (or 20 miles) each way per shift.

C-32. 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

C-33. Transportation planning factors are basic to planning and organizing convoys. These factors and consideration provide the formulas and information necessary to plan highway movements and develop movement tables.

C-34. 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 longer halts. For example, halts utilized for consuming meals or for overnight stops. March rate is expressed in kilometers in the hour or miles in the hour.

C-35. Combining these tonnage and distance data, logistic/transportation planners assemble a workload model, or diagram as shown in figure C-1. Such a requirements sketch, along with the supporting data estimates, aids planners in determining and assembling the units and other necessary resources. Planners can compare workload the material and transportation requirements against the designed capabilities of logistical units by type.

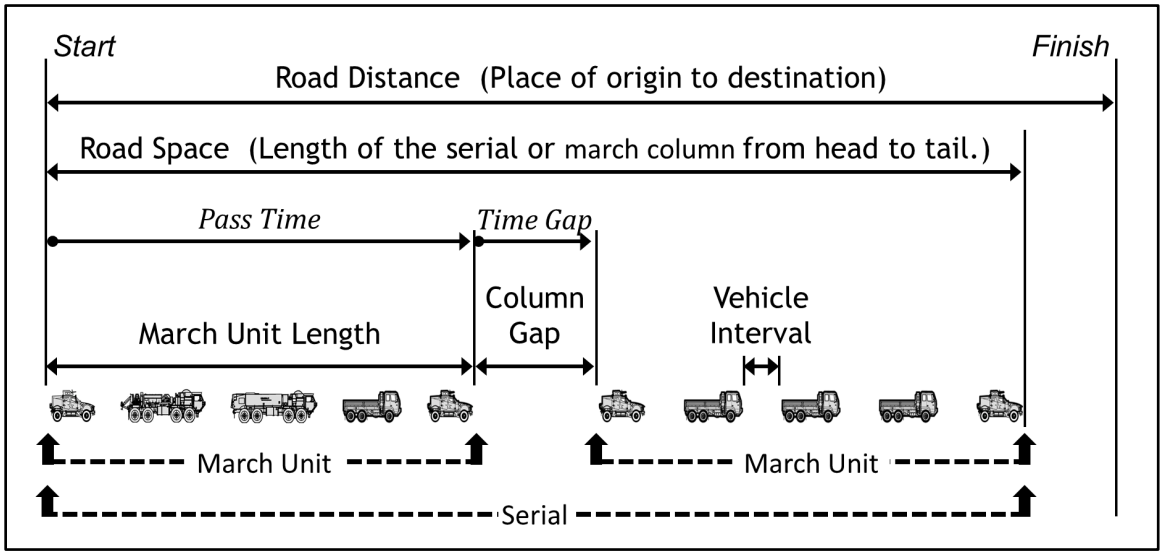

Figure C-1. Movement planning factor diagram

C-36. Effective staffs at BCT through corps must understand the complexity involved in moving large formations, how much road space such formations require, their rates of fuel consumption, and other considerations for such movements under varying conditions and circumstances.

C-37. The fighting power and tactical flexibility of heavy/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 brigade combat teams 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.

C-38. 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 KPH, even without march units and serial gaps, would be more than 4 days. Executing 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 C-2 on page C-10 shows an example of convoy serials, march unit, and march columns.

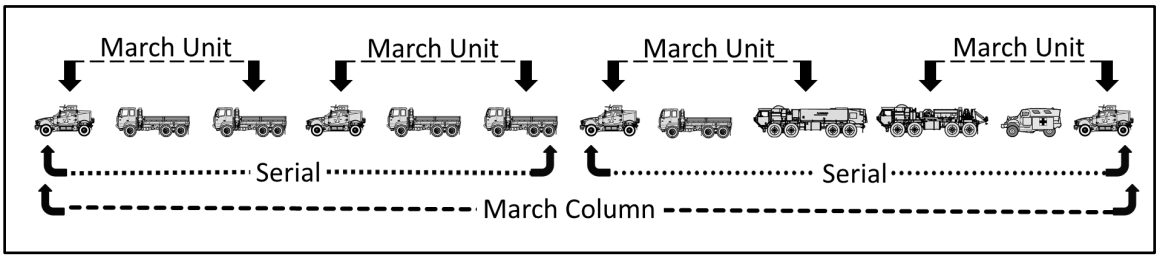

Figure C-2. Example of serials, march unit, and march columns

CLASS VI PLANNING FACTORS

C-39. 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 headcounts provided for field feeding. Health and comfort packs provide everyday necessities when the Army and Air Force Exchange Service is not available. Table C-11 provides some planning factors for class VI, health and comfort packages.

Table C-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

C-40. The planning factor for mail is 2.0 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, *Human Resource Support*.

BRIGADE COMBAT TEAM PLANNING FACTORS

C-41. The following table shows consumption planning factors from the Quick Logistics Automation Tool. Table C-12 depicts the consumption estimate for each class of supply and commodities to support an ABCT for one day. This table is a snapshot example of consumption planning factors from the Quick Logistics Automation Tool of a specific instance and environment. Logistics leaders and planners should use the tools and resources available to compute data for their specific OE, location, mission, and operational variables.

Table C-12. Armored brigade combat team daily consumption estimate

		Rate	Gallons	LBS	STONS	Warehouse Pallets	Platforms
Class I		8.55		36,893	18.45	42	5.3
Class II		1.555		6,710	3.35	17	2.2
Class III	Bulk	AVG	76,898				
	Package	AVG		17,192	8.60	21	2.7
Class IV	Barrier/Fortification	2.34		10,097	5.05	11	1.4
	Construction	3.32		14,326	7.16	15	1.9
Class V	NOTE: MIN, MAX, AVG are only applicable to MCO	AVG		51,204	25.60	31	3.9
Class VI	Basic	0.336		1,450	0.72	3	0.4
	Additional	0		0	0.00	0	0.0
Class VII				32,916	16.46	84	10.5
Class VIII	(Soldier Based Only)	0.19		820	0.41	2	0.3
Class IX				10,619	5.31	18	2.3
Water	Bulk Drinking - Potable	3.40	7,336				
	PKG Drinking - Potable	50.0%		61,178	30.59	77	9.7
	Other - Potable	0.00	0				
	Non-Potable	2.45	10,572				
Ice	2.00			8,630	4.32	5	0.7
Mail	Prograde	0.75		3,228	1.61	6	0.8

This page intentionally left blank.

Glossary

SECTION I – ACRONYMS AND ABBREVIATIONS

ABCT	armored brigade combat team
ADP	Army doctrine publication
AHS	Army Health System
AO	area of operations
ASB	aviation support battalion
ASC	aviation support company
ASL	authorized stockage list
ATP	Army techniques publication
AXP	ambulance exchange point
BCT	brigade combat team
BDAR	battle damage assessment and repair
BMSO	brigade medical supply office
BSA	brigade support area
BSB	brigade support battalion
BSMC	brigade support medical company
C2	command and control
CAB	combat aviation brigade
CAISI	Combat Service Support Automated Information System Interface
CBRN	chemical, biological, radiological, and nuclear
CP	command post
CSSB	combat sustainment support battalion
CTCP	combat trains command post
DA	Department of the Army
DOD	Department of Defense
DSB	division sustainment brigade
DSSB	divison sustainment support battalion
DSTB	division sustainment troops battalion
FARP	forward arming and refueling point
FLE	forward logistics element
FM	field manual
FMT	field maintenance team
FSC	forward support company
FTCP	field trains command post
GCSS-Army	Global Combat Support System – Army
GSB	group support battalion

HHC	headquarters and headquarters company
HSC	headquarters support company
IBCT	infantry brigade combat team
JP	joint publication
LHS	load-handling system
LOGPAC	logistics package
LOGSTAT	logistics status report
LRP	logistics release point
MATP	modular ammunition transfer point
MCO	maintenance control officer
MCP	maintenance collection point
MDMP	military decision-making process
MEB	maneuver enhancement brigade
METL	mission essential task list
MSR	main supply route
MTOE	modified table of organization and equipment
MTRCS	multi-temperature refrigerated container system
NCO	noncommissioned officer
OE	operational environment
OPCON	operational control
PLS	palletized load-handling system
RDSP	rapid decision-making and synchronization process
ROM	refuel on the move
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
SBCT	Stryker brigade combat team
SFAB	security force assistance brigade
SOP	standard operating procedures
SPO	support operations
SSA	supply support activity
TACON	tactical control
UMT	unit ministry team
U.S.	United States
VSAT	Very Small Aperture Terminal
XO	executive officer

SECTION II – TERMS

***area support**

a task assigned to a sustainment unit directing it to support units in or passing through a specified location.

***echeloned sustainment**

is an array of capabilities placed at critical locations to link and facilitate support between echelons in an area of operation.

***forward logistics element**

(Army) Comprised of task-organized multifunctional logistics assets designed to support fast-moving offensive operations in the early phases of decisive action. Also called FLE.

logistics package

(Army) A grouping of multiple classes of supply and supply vehicles under the control of a single convoy commander. (FM 3-90-1)

materiel

(DOD) All items necessary to equip, operate, maintain, and support military activities without distinction as to its application for administrative or combat purposes. (JP 4-0)

supply point distribution

A method of distributing supplies to the receiving unit at a supply point. The receiving unit then moves the supplies to its own area using its own transportation. (FM 4-40)

support operations

The staff function of planning, coordinating, and synchronizing sustainment in support of units conducting decisive action in an area of operations. (ATP 4-93)

throughput distribution

A method of distribution which bypasses one or more intermediate supply echelons in the supply system to avoid multiple handling. (ATP 4-11)

unit distribution

A method of distributing supplies by which the receiving unit is issued supplies in its own area, with transportation furnished by the issuing agency. (FM 4-40)

This page intentionally left blank.

+References

All URLs accessed on 15 September 2021.

REQUIRED PUBLICATIONS

These documents must be available to intended users of this publication.

+*DOD Dictionary of Military and Associated Terms*. August 2021.

+FM 1-02.1, *Operational Terms.* 9 March 2021.

RELATED PUBLICATIONS

These documents contain relevant supplemental information.

JOINT PUBLICATIONS

Most joint publications are available online: https://www.jcs.mil/Doctrine/

JP 1, *Doctrine for the Armed Forces of the United States Services (INCL C1)*. 25 March 2013.

JP 3-0, *Joint Operations*. 17 January 2017.

JP 4-0, *Joint Logistics*. 4 February 2019, (INCL C1), 8 May 2019.

ARMY PUBLICATIONS

Most Army doctrinal publications are available online: https://armypubs.army.mil/

ADP 3-0, *Operations*. 31 July 2019.

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

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

ATP 3-09.24, *Techniques for the Fires Brigade*. 21 November 2012.

ATP 3-37.34/MCTP 3-34C, *Survivability Operations*. 16 April 2018.

ATP 3-90.1, *Armor and Mechanized Infantry Company Team*. 27 January 2016.

ATP 3-96.1, *Security Force Assistance Brigade*, 2 September 2020.

ATP 4-0.6, *Techniques for Sustainment Information Systems Support*. 5 April 2013.

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

ATP 4-02.3, *Army Health System Support to Maneuver Forces*. 9 June 2014.

ATP 4-02.5, *Casualty Care*. 10 May 2013.

ATP 4-02.8, *Force Health Protection*. 9 March 2016.

+ATP 4-11, *Army Motor Transport Operations*. 14 August 2020.

+ATP 4-31, *Recovery and Battle Damage Assessment and Repair (BDAR)*. 18 November 2020.

ATP 4-33, *Maintenance Operations*. 9 July 2019.

ATP 4-35, *Munitions Operations and Distribution Techniques*. 5 September 2014.

ATP 4-41, *Army Field Feeding and Class I Operations*. 31 December 2015.

ATP 4-42.2, *Supply Support Activity Operations*. 9 June 2014.

ATP 4-43, *Petroleum Supply Operations*. 6 August 2015.

ATP 4-46, *Contingency Fatality Operations*. 17 December 2014.

ATP 4-48, *Aerial Delivery*. 21 December 2016.

ATP 4-93, *Sustainment Brigade*. 11 April 2016.

ATP 4-93.1, *Combat Sustainment Support Battalion*. 19 June 2017.

DA PAM 750-8, *The Army Maintenance Management System (TAMMS) Users' Manual*. 22 August 2005.

+FM 1-0, *Human Resources Support*. 25 August 2021.

FM 1-05, *Religious Support*. 21 January 2019.

FM 3-0, *Operations (INCL C1)*. 6 October 2017.

FM 3-22, *Army Support to Security Cooperation*. 22 January 2013.

FM 3-81, *Maneuver Enhancement Brigade*. 21 April 2014.

FM 3-90-1, *Offense and Defense, Volume 1*. 22 March 2013.

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

FM 4-40, *Quartermaster Operations*. 22 October 2013.

FM 6-0, *Commander and Staff Organizations and Operations (INCL C1 and C2)*. 05 May 2014.

FM 6-27/MCTP 11-10C, *The Commander's Handbook on the Law of Land Warfare (INCL C1)*. 7 August 2019.

+FM 7-0, *Training*. 14 June 2021.

WEBSITES

GCSS-Army Home Page available at: https://www.gcss.army.mil/?AspxAutoDetectCookieSupport=1

PRESCRIBED FORMS

This section contains no entries.

REFERENCED FORMS

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate (APD) website: https://armypubs.army.mil/.

DA Form 2028, *Recommended Changes to Publications and Blank Forms*.

DA Form 5517, *Standard Range Card*.

Index

Entries are by paragraph number.

1

This page intentionally left blank.

ATP 4-90
18 June 2020

By Order of the Secretary of the Army:

JAMES C. MCCONVILLE
General, United States Army
Chief of Staff

Official:

KATHLEEN S. MILLER
Administrative Assistant to the
Secretary of the Army
2016406

DISTRIBUTION:
Active Army, Army National Guard, and United States Army Reserve. Distributed in electronic media only(EMO).