
The Field Artillery Brigade

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Contents

| | Page |
|--|------------|
| PREFACE | iii |
| INTRODUCTION | v |
| Chapter 1 ORGANIZATIONAL FRAMEWORK | 1-1 |
| Role of the Field Artillery Brigade..... | 1-1 |
| The Field Artillery Brigade as a Force Field Artillery Headquarters | 1-2 |
| The Principles of Fire Support Execution Applied to Field Artillery Organization for Combat | 1-3 |
| Principles of Fire Support Planning, Coordination, and Execution | 1-4 |
| Field Artillery Inherent Responsibilities in Army Command Relationships | 1-5 |
| The Field Artillery Brigade In a Reinforcing Role | 1-7 |
| The Field Artillery Brigade as a Counterfire Headquarters | 1-8 |
| Organization of the Field Artillery Brigade..... | 1-9 |
| Field Artillery Brigade Command group | 1-13 |
| Field Artillery Brigade Staff | 1-15 |
| Chapter 2 COMMAND AND CONTROL | 2-1 |
| Command Posts | 2-1 |
| Command Post Functional Elements, and Sections | 2-4 |
| Chapter 3 OPERATIONS AND INTERGRATING PROCESSES | 3-1 |
| Mission Orders for the Field Artillery Brigade..... | 3-1 |
| The Field Artillery Brigade Operations Process | 3-1 |
| Targeting..... | 3-9 |
| Clearance of Fires | 3-11 |
| Airspace Control | 3-12 |
| Suppression of Enemy Air Defenses..... | 3-12 |
| Joint Suppression of Enemy Air Defenses | 3-14 |
| Chapter 4 EMPLOYMENT: HOW THE FIELD ARTILLERY BRIGADE FIGHTS | 4-1 |
| Defining the Operational Environment | 4-1 |
| Field Artillery Brigade Strike and Counterfire | 4-3 |
| The Field Artillery Brigade in Support of Corps Operations | 4-4 |
| Consolidate Gains | 4-8 |
| Chapter 5 SUSTAINMENT OPERATIONS | 5-1 |
| The Field Artillery Brigade Sustainment Staff..... | 5-1 |
| Brigade Support Battalion..... | 5-2 |
| Sustainment Functions | 5-4 |

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| | | |
|-------------------|--|---------------------|
| | Brigade Support Area | 5-10 |
| Appendix A | EXAMPLE FIELD ARTILLERY SUPPORT PLAN..... | A-1 |
| | GLOSSARY | Glossary-1 |
| | REFERENCES..... | References-1 |
| | INDEX | Index-1 |

Figures

| | |
|---|------|
| Figure 1-1. Field Artillery Brigade Organization (example)..... | 1-10 |
| Figure 1-2. MLRS/HIMARS Battalion organization (firing battery configurations)..... | 1-13 |
| Figure A-1. Example Field Artillery Support Plan | A-1 |

Tables

| | |
|---|-----|
| Introduction Table 1. New, modified, and rescinded terms | v |
| Table 1-1. Field artillery inherent responsibilities in Army support relationships..... | 1-7 |
| Table 3-1. Long Range Planning | 3-3 |
| Table 3-2. Planning for the Immediate Battle | 3-3 |
| Table 3-3. Execution Planning | 3-4 |
| Table 3-4. Provide Battle Tracking | 3-4 |

Preface

ATP 3-09.24, *The Field Artillery Brigade* provides doctrinal guidance for the employment of the field artillery brigade in support of Unified Land Operations and large-scale combat operations.

The principal audience for ATP 3-09.24 is all members of the profession of arms; however the primary users of this publication are field artillery brigade commanders, staffs, and leaders. This manual provides guidance for division and corps leaders and staffs for training and employment of the field artillery brigade. Trainers and educators throughout the Army will also use this publication.

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

ATP 3-09.24 uses joint terms where applicable. Selected joint and Army terms and definitions appear in both the glossary and the text. For other definitions shown in the text, the term is italicized and the number of the proponent publication follows the definition. This publication is not the proponent for any Army terms.

ATP 3-09.24 applies to the Active Army, Army National Guard/Army National Guard of the United States, and the United States Army Reserve, unless otherwise stated.

The proponent for this publication is the Commandant, United States Army Field Artillery School, and Chief of the Field Artillery. The preparing agency is the United States Army Fires Center of Excellence, Directorate of Training and Doctrine. Send written comments and recommendations on a Department of the Army (DA) Form 2028 (*Recommended Changes to Publications and Blank Forms*) to the Directorate of Training and Doctrine, 700 McNair Avenue, Suite 128, ATTN: ATSF-DD, Fort Sill, OK 73503; by e-mail to: usarmy.sill.fcoe.mbx.dotd-doctrine@mail.mil; or submit an electronic DA Form 2028.

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Introduction

ATP 3-09.24 expands on the foundations and tenets found in Army Doctrine Publication (ADP) 3-19, and Field Manuals 3-0 and 3-09. The publication of ADP 3-0 expands the Army's operational concept of unified land operations by retaining lessons learned from past combat operations, while also looking to a future where large-scale combat operations against peer threats is a distinct possibility.

While the U.S. Army must be manned, equipped, and trained to operate across the range of military operations while conducting unified land operations, large-scale ground combat against a peer threat represents the most significant readiness requirement.

ATP 3-09.24 describes the field artillery brigade in support of division, corps, joint force land component command, or joint task force in unified land operations. ATP 3-09.24 updates terminology and concepts consistent with FM 3-0 and FM 3-09.

ATP 3-09.24 contains five chapters and one appendix.

Chapter 1 describes the organizational framework for the field artillery brigade including:

- The role of the field artillery brigade, including the support of a tactical division, corps, or joint task force. It also includes the field artillery brigade as the force field artillery headquarters, or the counterfire headquarters.
- The field artillery brigade organization (subordinate units, command, and staff) with a discussion of key personnel duties and responsibilities.

Chapter 2 describes the field artillery brigade command and control, command posts and command post operations including:

- The command group and the main, tactical, and early-entry command posts.
- A description of the field artillery brigade command post elements, to include sections and their duties and responsibilities.

Chapter 3 Describes the field artillery brigade operations and integrating processes including:

- A summary of the operations process—plan, prepare, execute and assess.
- A summary of the field artillery brigade targeting and intelligence gained from information collection assets.
- A summary of key continuing activities, including clearance of fires and airspace control.
- A summary of special considerations for the field artillery brigade including suppression of enemy air defenses.

Chapter 4 Describes the field artillery brigade employment via a summary discussion of the key factors influencing the field artillery brigade's operational environment and operational framework.

Chapter 5 Provides a summary discussion of sustainment of the field artillery brigade.

Appendix A Provides an example of a Field Artillery Support Plan.

Based on current doctrinal changes, certain terms for which ATP 3-09.24 is the proponent may have been added, modified, or rescinded. A listing of any term changes is presented in introduction table 1.

Introduction Table 1. New, modified, and rescinded terms

| <i>Term</i> | <i>Remarks</i> |
|-------------|----------------|
| fire plan | Rescinded |

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Chapter 1

Organizational Framework

This chapter discusses the field artillery brigade's basic roles, capabilities, organization, and command and staff functions and responsibilities. The role of the field artillery brigade, including the support of a tactical division, corps, or joint task force. It also includes the field artillery brigade as the force field artillery headquarters, or the counterfire headquarters. The field artillery brigade organization (subordinate units, command, and staff) with a discussion of key personnel duties and responsibilities.

ROLE OF THE FIELD ARTILLERY BRIGADE

1-1. A field artillery brigade (FAB) conducts corps-level strike operations and augments division level shaping operations. *Strike* is an attack to damage or destroy an objective or a capability (JP 3-0). *Attack* is a type of offensive operation that destroys or defeats enemy forces, seizes, and secures terrain, or both (ADP 3-90). The FAB provides the corps with the capability to mass effects during shaping operations in the conduct of large-scale ground combat operations.

1-2. The FAB can be task organized with delivery and sensor systems to support mission requirements. A division, corps, joint task force (JTF) or other force may have a FAB or its units attached or placed under operational control (OPCON). *Attach* is the placement of units or personnel in an organization where such placement is relatively temporary (JP 3-0).

1-3. The FABs battalions (BN) are fully capable of providing direct support (DS) to joint, special operations forces and other joint units. *Direct support* is a support relationship requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance (FM 3-0).

1-4. When operating under the control of the joint force commander or another Service, the Army service component command or Army Forces commander exercises administrative control over the FAB. The FAB, when designated by the joint force commander or corps commander, can serve as a counterfire headquarters or be assigned a counterfire mission. See ATP 3-92 for more information on corps' role as a tactical echelon in large-scale combat operations. *Large-scale combat operations* is extensive joint combat operations in terms of scope and size of forces committed, conducted as a campaign aimed at achieving operational and strategic objectives (ADP 3-0).

1-5. A FAB can serve as the force field artillery headquarters (FFA HQ) for a Corps or JTF, or the counterfire headquarters (HQ) for a JTF, corps, or division. Army National Guard FABs have a dual role, serving as both the Army National Guard division commander's FFA HQ and as a FAB when required. The division artillery (DIVARTY) is the FFA HQ and the DIVARTY commander is the fire support coordinator (FSCOORD) for the division. The DIVARTY is assigned to each division and focuses primarily on providing fire support (FS) to the division. *Fire support* is a rapid and continuous integration of surface to surface indirect fires, target acquisition, armed aircraft, and other lethal and nonlethal attack/delivery systems that converge against targets across all domains in support of the maneuver commander's concept of operations (FM 3-09).

1-6. The FABs assigned to the corps are task organized with multiple launch rocket system (MLRS) and high mobility artillery rocket system (HIMARS) BNs. The Army National Guard FABs may have cannon BNs, as well as MLRS/HIMARS BNs.

1-7. The FAB gives the higher or supported commander a HQ to plan, synchronize, and execute strike, counterfire, and fires in support of decisive and shaping operations throughout the command's area of

operations (AO). An *area of operations* is an operational area defined by a commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces (JP 3-0). The FAB is trained, manned, organized, and equipped to provide for the coordinated use of Army indirect fires, joint and multinational fires, and control for its own or a higher or supported HQ operations.

1-8. The corps commander can designate a FAB commander as the FSCOORD. The *fire support coordinator* is the senior field artillery commander for the theater, corps, division, brigade combat team who is the maneuver commander's primary advisor to plan, coordinate, and integrate field artillery and fire support in the execution of assigned tasks (FM 3-09). The FSCOORD and the deputy FSCOORD from the corps fire support element (FSE) leads the FAB FSE in conducting the targeting process. The corps commander may designate a FAB as a FFA HQ.

THE FIELD ARTILLERY BRIGADE AS A FORCE FIELD ARTILLERY HEADQUARTERS

1-9. The *force field artillery headquarters* is a battalion size or higher unit designated by the supported commander who specifies its duration, duties, and responsibilities (FM 3-09). The higher commander specifies the commensurate responsibilities of the FFA HQ and the duration of those responsibilities. These responsibilities are based on mission variables such as mission, enemy, terrain and weather, troops and support available, time available, civil considerations (METT-TC) and may range from simple mentoring and technical oversight to OPCON of all field artillery (FA) units organic, assigned, and attached to the higher command.

1-10. When designated as the FFA HQ by a higher commander, the FAB commander may assume the responsibility as FSCOORD for the corps. The senior FA officer at the corps FSE serves as the deputy FSCOORD and takes direction and guidance from the FSCOORD. As the FFA HQ, the FAB's functions include:

- Recommends FA organization for combat to the commander.
- Provides control of FA units organic, assigned, attached, or OPCON or tactical control of the command (thus providing unity of FA command).
- Supports the FSE in producing Annex D (Fires) for the operations plan or order.
- Provides training, technical oversight, and assessment of the FA units that are subordinate to the higher command and mentors the subordinate unit FA commanders and leaders. The extent of oversight duties and responsibilities must be specified by the establishing commander to ensure full cooperation and compliance. For more information on FA training requirements see FM 3-09 and TC 3-09.8.
- Establishes weapons locating radar (WLR) plans for the command.
- Plans, prepares, and executes FS for close support of engaged forces, and in support of strike, counterfire, and decisive and shaping operations.
- Provides centralized control for the full complement of Army indirect fires, joint fires, and multinational FS provided in support of the command. This is especially useful to the commander in large-scale combat operations when deconfliction of FS across multiple contiguous AOs is required. Centralized control of supporting Army and joint FS is also useful when unconventional forces require dedicated all-weather fires and FS coordination.
- Works with the command's assistant chief of staff, operations (G-3) and FSE in planning, coordinating, and executing FS tasks assigned to the command by its higher HQ. This can include assisting in the development of FS plans; accepting or passing control of fires during passage of lines operations; facilitating single point of contact for outside agency coordination for strike and counterfire; and coordinating sustainment of FS for nonorganic FA units and the command's subordinate units.
- Participating in the commander's targeting process.
- Suppression of enemy air defenses (SEAD) to support joint and Army attack aviation operations.
- Support of special operations forces.

1-11. By designating a FFA HQ the commander improves centralized control of FS of the force by facilitating the massing of FA fires where needed. It facilitates planning and rapid shifting of FS assets as needed to weight the decisive operation or the main effort. It provides timely coordination and sustainment of subordinate FA assets.

THE PRINCIPLES OF FIRE SUPPORT EXECUTION APPLIED TO FIELD ARTILLERY ORGANIZATION FOR COMBAT

1-12. Commanders and staffs must consider the principles of FS execution referred to as the memory aid, “AWIFM-N,” adequate FS for the committed units, weight to the main effort or the decisive operation, immediately available FS for the commander to influence the operation, immediately available FS for the commander to influence the operation, facilitate future operations, maximum feasible centralized control, never place artillery in reserve. AWIFM-N principles are discussed in more detail below:

- A – Adequate fire support for the committed units.
 - In large-scale combat operations the recommended minimum FAB commitment is considered to be one FAB for each senior tactical echelon. Commanders never place artillery in reserve. Commander's utilize command and support relationships to weight the main effort.
- W – Weight to the main effort or the decisive operation.
 - Reinforcing (R) or general support-reinforcing (GSR) support relationships can be assigned to provide additional responsive fires to the maneuver forces in contact.
 - FA units can be positioned and assigned directions of fire to concentrate their fires in the appropriate AO. In this manner, units in a general support (GS) support relationship can add weight to the main attack or strength to the most vulnerable area.
 - FA ammunition may be allocated to provide for more support in a specific area.
 - Priority of FA fires given to the main effort or the decisive operation.
 - Support relationships from DS to GS provide increased responsiveness to the main effort's commander. Minimal essential FS can be allocated to shaping operations.
- I – Immediately available FS for the commander to influence the operation.
 - The corps commander should establish command or support relationships for available FABs or subordinate FA BNs with which the commander can immediately influence the operation. The practice of establishing FA support relationships of GS and GSR enhances flexibility and facilitates ability to provide immediately responsive fires for the force as a whole.
 - The artillery commander maintains the capability to shift fires rapidly and add weight when enemy vulnerabilities are detected or the force is threatened. As the engagement unfolds, the maneuver commander may shift the priority of fires to exploit opportunities as they are presented.
- F – Facilitate future operations.
 - Future operations can be facilitated by the assignment of a command or support relationship, the positioning of FAB units, and the allocation and positioning of ammunition (to include combat configured loads and ammunition issued for immediate consumption).
 - The assignment of GS and GSR support relationships, as well as on-order command or support relationships enables the transition to a future mission. Another way to facilitate future operations is to modify the current command or support relationship in accordance with anticipated requirements. Commanders can apply controlled supply rate (CSR) to FA units to ensure planned future operations are adequately supported.

- M – Maximum feasible centralized control.
 - The optimum degree of centralized control varies with each operational and tactical situation. A high degree of centralized control is preferred in a defensive situation. Since the enemy has the initiative, it is difficult to accurately predict where and when the enemy will attack.
 - The commander cannot afford to dissipate fires capabilities on secondary priorities before determining the enemy's main effort. A lesser degree of centralized control is essential in an offensive situation, because the supported force has the initiative and unforeseen opportunities require responsive fires to exploit.
- N – Never place artillery in reserve.
 - Commanders should not place artillery in reserve but may direct a change to their support relationship ensuring artillery is provided to the main effort. These changes in support relationships can be identified by an on-order mission.

1-13. In addition to never leaving FA in reserve and the FS execution principles of AWIFM-N, FA commanders and FS personnel also consider mission, ammunition, and positioning when planning for FA system employment. Considerations are:

- Mission. Appropriate FA unit command support relationships assigned based on the commander's intent and the overall situation.
- Ammunition. Allocate ammunition to provide more support for the main effort. Ensure adequate ammunition for future operations through positioning, ammunition restrictions, or CSR parameters during execution and planning.
- Positioning. Continually re-position FA units, ammunition, target acquisition (TA) resources, command posts (CPs), and assets to best support the plan as it is being executed. Assign direction of fire to mass fires in the appropriate AO.

PRINCIPLES OF FIRE SUPPORT PLANNING, COORDINATION, AND EXECUTION

1-14. The key to effective FS is the maneuver commander's ability to bring assets to bear on the enemy in an integrated and coordinated manner that is synchronized with the scheme of maneuver. How well this occurs depends on how well FSCOORDs and staff understand and operate the FS coordination and execution processes. *Execution* is the act of putting a plan into action by applying combat power to accomplish the mission and adjusting operations based on changes in the situation (ADP 5-0). The principles of FS planning, coordination, and execution are listed below, and will be further described in chapter 3. A *principle* is a comprehensive and fundamental rule or an assumption of central importance that guides how an organization approaches and thinks about the conduct of operations (ADP 1-01).

1-15. The principles of FS planning and coordination listed below facilitate integration into the Army's operations process:

- Plan early and continuously.
- Ensure the continuous flow of target information.
- Consider the use of all capabilities.
- Use the lowest echelon capable of furnishing effective support.
- Furnish the support requested.
- Use the most effective FS means.
- Avoid unnecessary duplication.
- Consider airspace coordination.
- Provide adequate support.
- Provide for rapid coordination.
- Provide for flexibility.
- Use fire support coordination measures (FSCMs).

FIELD ARTILLERY INHERENT RESPONSIBILITIES IN ARMY COMMAND RELATIONSHIPS

1-16. FA cannon, rocket, and missile systems that are organic, assigned, attached to, or under the OPCON of FABs, DIVARTY, and brigade combat teams (BCTs) provide commanders with continuously available, adjustable, and tailored fires under all weather conditions and in all types of terrain. These organizations can be task-organized with maneuver to provide the right combination of indirect fires capabilities for a given situation. These situations include:

- Command relationships provide the basis for ensuring unity of command and unity of effort in operations. Command relationships are used in Army force generation, force tailoring, and task-organizing. Command relationships define superior and subordinate relationships between unit commanders. By specifying a chain of command, command relationships unify effort and enable commanders to use subordinate forces with maximum flexibility. Army command relationships identify the degree of control of the gaining commander. The type of command relationship often relates to the expected longevity of the relationship between the HQ involved and quickly identifies the degree of support that the gaining and losing Army commanders provide:
 - *Organic* is assigned to and forming an essential part of a military organization as listed in its table of organization for the Army, Air Force, and Marine Corps, and are assigned to the operating forces for the Navy. (JP 1).
 - *Assign* is to place units or personnel in an organization where such placement is relatively permanent, and/or where such organization controls and administers the units or personnel for the primary function, or greater portion of the functions, of the unit or personnel (JP 3-0).
 - *Attach* is the placement of units or personnel in an organization where such placement is relatively temporary (JP 3-0).
 - *Operational control* is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission (JP 1).
 - *Tactical control* is the authority over forces that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned (JP 1).

ARMY SUPPORT RELATIONSHIPS

1-17. In the past, DS, R, GSR, and GS were referred to as FA tactical missions. These tactical missions are now referred to as support relationships and are used by the rest of the Army to task-organize forces.

1-18. Army support relationships are not a command authority and are more specific than the joint support relationships. Commanders establish support relationships when subordination of one unit to another is inappropriate. Commanders assign support relationships 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; or the supporting unit supports several units simultaneously (ADP 5-0). *Assign* is to place units or personnel in an organization where such placement is relatively permanent, and/or where such organization controls and administers the units or personnel for the primary function, or greater portion of the functions, of the unit or personnel (JP 3-0). Subordinate FA BNs can be assigned a support relationship by the FFA HQ.

1-19. In large-scale combat operations, the corps and division senior tactical echelon commanders are responsible for counterfire throughout the depth of their AO. The corps or division commander can assign the role of counterfire HQ to a FAB, DIVARTY, or a separate FA BN. The counterfire HQ must be allocated the necessary assets to conduct the counterfire fight. During large-scale combat operations a corps should be allocated two FABs, one to serve as the counterfire HQ and one to serve as the FFA HQ. The counterfire HQ will coordinate with the higher HQ assistant chief of staff, intelligence (G-2) for sensor tasking authority and additional intelligence capabilities to integrate all available assets into the counterfire fight in a proactive manner. The counterfire HQ duties include:

- Plan and coordinate sensor management.
- Conduct pattern analysis of enemy indirect fire systems.
- Establish counterfire, target area of interest (TAI).
- Based off pattern analysis conduct WLR zone management in support of the counterfire fight.
- Recommend positioning of counterfire delivery systems.
- Write the target acquisition tab to Annex D.
- Recommend counterfire techniques to facilitate permissive fires.
- Participate in the joint targeting cycle.

1-20. Establish counterfire mission digital and voice procedures and communications architecture using Advanced Field Artillery Tactical Data System (AFATDS) and the joint automated deep operations coordination system (referred to as JADOCS).

1-21. The FA inherent responsibilities (see table 1-1, page 1-7) supplement the inherent responsibilities of an Army support relationship. See FM 3-0 for a detailed description of command and support relationships.

DIRECT SUPPORT

1-22. *Direct support* is a support relationship requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance (FM 3-0). A FA unit in DS of a maneuver unit is concerned primarily with the FS needs of only that unit. The FSE of the supported maneuver unit plans and coordinates fires to support the maneuver commander's intent. For example:

- The commander of a unit in DS recommends position areas and coordinates for movement clearances where his unit can best support the maneuver commander's concept of the operation.
- When FA units are able to habitually support the same maneuver force, coordination and training are enhanced. DS is the most decentralized support relationship.

REINFORCING

1-23. *Reinforcing* is a support relationship requiring a force to support another supporting unit (FM 3-0). Only like units (for example artillery to artillery) can be given an R support relationship. An R support relationship requires one FA unit to augment the fires of another FA unit. For example:

- When an organic or DS FA BN requires more fires to meet maneuver force requirements, another FA BN may be directed to reinforce it. An organic or DS FA BN may be supported by up to 2 R BNs.
- A FA unit assigned an R support relationship retains its command relationship with its parent unit, but is positioned by the reinforced FA unit and has priorities of support established by the reinforced FA unit, then the parent unit.

GENERAL SUPPORT-REINFORCING

1-24. *General support-reinforcing* is a support relationship assigned to a unit to support the force as a whole and to reinforce another similar-type unit (FM 3-0). The first priority of a FA unit assigned a GSR support relationship is to furnish artillery fires for the maneuver force as a whole; the second priority is to reinforce the fires of another FA unit. For example:

- A GSR unit remains under the control of the supported maneuver commander or their FFA HQ.
- The GSR support relationship offers the commander the flexibility to meet the requirements of a variety of tactical mission tasks.

GENERAL SUPPORT

1-25. *General support* is support given to the supported force as a whole and not to any particular subdivision thereof (JP 3-09.3). A FA unit assigned in GS of a force has all of its fires under the immediate control of the supported commander or his designated FFA HQ. For example:

- Among Army support relationships, GS provides the highest degree of centralized control of fires.
- General support provides the commander flexibility to facilitate ongoing operations.

Table 1-1. Field artillery inherent responsibilities in Army support relationships

| Army support relationship | Answers calls for fire in priority from: | Has as its zone of fire: | Furnishes fire support team (FIST): | Furnish liaison officer: | Establishes COMM with: | Is Positioned by: | Has its fires planned by: |
|--|--|---|---|--|--------------------------------------|---|---|
| Direct Support | 1. Supported unit 2. Own observer ¹ 3. FA HQ ² | AO of supported unit. | Limited temporary REP for casualty losses as required | No Requirement | Supported HQ and FSO as required | Supported unit or FFAHQ | Supported unit or FFA HQ |
| Reinforcing | 1. Reinforced FA 2. Own observers ¹ 3. FA HQ ² | Zone of fire of Reinforced FA. | No Requirement | To reinforced FA unit HQ or as required. | Reinforced FA unit HQ or as required | Reinforced FA unit HQ. | Reinforced FA unit HQ |
| General Support Reinforcing | 1. Supported unit. 2. FA HQ. ² 3. Reinforced unit. 4. Own observers ¹ | AO of supported unit to include zone of fire of reinforced FA unit. | No Requirement | To reinforced FA unit HQ or as required. | Reinforced FA unit HQ or as required | 1. Support unit. 2. FFA HQ. ² | 1. Support unit. 2. FFA HQ. ² |
| General Support | 1. Supported unit 2. FFA HQ ² 3. Own Observers | AO of Supported unit. | No Requirement | No Requirement | No Requirement | 1. Support unit. 2. FFA HQ. ² | 1. Support unit. 2. FFA HQ. ² |
| Note: (1). Includes all target acquisition means not deployed with the supported unit. In NATO, the gaining unit may not task-organize. Note: (2). If designated by the support commander. | | | | | | | |
| AO – area of operation, COMM – communications, FA – field artillery, FFA – force field artillery, FIST– fire support team, FSO – fire support officer, HQ – headquarters | | | | | | | |

THE FIELD ARTILLERY BRIGADE IN A REINFORCING ROLE

1-26. A FAB could be tasked to reinforce another FAB, if the FAB being reinforced is operating as a force field artillery HQ, or a FAB could be tasked to reinforce a DIVARTY. In this role, a FAB would be tasked to reinforce another FA HQ in order to provide additional fires capabilities for the supported command. When reinforcing a DIVARTY, this role enables the FAB to provide fires assets not found organically in a division to include long-range fires for division counterfire and shaping operations, reinforcing fires for BCTs, and the communications and logistical control assets a DIVARTY lacks. National Guard FABs are ideally configured for this role because of their combination of both rocket and cannon battalions, brigade support battalion (BSB) and signal company.

1-27. The reinforcing FAB could also assume the role of the counterfire HQ for the reinforced FAB or DIVARTY. The FAB would assume control of the reinforced unit's WLRs operations if operating under centralized control.

THE FIELD ARTILLERY BRIGADE AS A COUNTERFIRE HEADQUARTERS

1-28. *Counterfire* is fire intended to destroy or neutralize enemy weapons (JP 3-09). This includes counterbattery and counter-mortar fire. *Battle* consists of a set of related engagements that lasts longer and involves larger forces than an engagement (ADP 3-90). Counterfire contributes by providing fires against the enemy indirect fire system; it protects friendly forces, combat functions, and facilities from enemy indirect fires by suppressing, neutralizing, or destroying enemy indirect fire weapons systems. It is also used against the enemy's command and control (C2), ammunition, logistics, and TA capabilities. Counterfire is an integrated aspect of the overall combined arms approach to achieve fire superiority.

1-29. In large-scale combat operations, the senior tactical echelon commanders are responsible for counterfire throughout the depth of their AO. The corps or division commander can assign the role of counterfire HQ to a FAB, DIVARTY, or a separate FA BN. The counterfire HQ must be allocated the necessary assets to conduct the counterfire fight. During large-scale combat operations a corps should be allocated two FABs, one to serve as the counterfire HQ and one to serve as the FFA HQ. The counterfire HQ will coordinate with the higher headquarters G-2 to integrate counterfire information requirements into the information collection plan and ensures that it includes who need the information and the latest time the information is of value to integrate all available assets into the counterfire fight in a proactive manner. The counterfire HQ duties include:

- Plan and coordinate sensor management.
- May require augmentation by Army information collection assets to locate and accurately target the enemy indirect fire systems.
- Establish counterfire TAIs.
- Based off pattern analysis conduct WLR zone management in support of the counterfire fight.
- Recommend positioning of counterfire delivery systems.
- Write the target acquisition tab to Annex D.
- Recommend counterfire techniques to facilitate permissive fires.
- Participate in the targeting process through the division or corps FSE.
- Establish counterfire mission digital and voice procedures and communications architecture using AFATDS and the Joint Automated Deep Operations Coordination System (referred to as JADOCS).

1-30. The FAB conducts proactive counterfire by targeting specific enemy indirect fire systems including their C2, sensors, platforms, and logistics before they engage friendly forces. The proactive measures consist of zone management, air space management, site analysis, and position survivability considerations. Proactive counterfire process begins with targeting and continues throughout the operation. The G-2 and the targeting officer develop named area of interest (NAIs) and TAIs where the enemy indirect fire assets are expected. A *named area of interest* is a geospatial area or systems node or link against which information that will satisfy a specific information requirement can be collected, usually to capture indications of adversary courses of action (JP 2-01.3). A *target area of interest* is the geographical area where high-value targets can be acquired and engaged by friendly forces (JP 2-01.3)

1-31. The objective of proactive counterfire is to identify, locate, and attack to eliminate the enemy's strike capability before it can impact friendly operations. FS personnel utilize FSCMs to rapidly coordinate and engage counterfire targets. A *fire support coordination measure* is a measure employed by commanders to facilitate the rapid engagement of targets and simultaneously provide safeguards for friendly forces (JP 3-0).

1-32. FAB and air interdiction (AI) delivery platforms are normally leveraged to strike the bulk of proactive counterfire using available TA assets to acquire and disable attack components of the enemy's strike capability. Examples of target sets include: cannon, rocket, and missile delivery units, prepared launch sites, artillery ammunition storage facilities, fire direction centers, counter-battery radars, forward observers, fixed

or rotary wing airfields, and FS communication infrastructure. Information collection assets must be synchronized and integrated to accurately locate targets and adjust fire for attack and delivery assets dedicated against the threat's total FS system. Considerations for conducting proactive counterfire include:

- Ensuring all available artillery units participate.
- Integrating all available joint FS attack/delivery systems.
- Coordinating augmentation by Army and joint information collection assets to locate and accurately target the enemy indirect fire systems.
- Establishing digital interface between the MLRS/HIMARS and cannon FA BN intelligence section.
- Making maximum use of permissive FSCMs to facilitate the clearance of fires; for example, in defense the coordinated fire line may be positioned close to friendly troops to facilitate quick engagements.
- Managing no-fire areas that protect special operations forces, long-range surveillance detachments, reconnaissance troops, and scouts is critical.
- Maximizing use of the effects management tool to clear fires.
- Establishing radar call for fire zone (referred to as CFFZ).

1-33. Reactive counterfire provides immediate indirect and joint fires to neutralize, destroy, and suppress enemy indirect fire weapons systems once acquired. The FS system responds primarily to enemy rocket and artillery fires during or immediately following enemy engagement of friendly forces. Reactive counterfire usually requires quick response capabilities for optimum effectiveness and can benefit from the establishment of quick fire channels.

1-34. To gain the increased freedom of action and protection for supported maneuver commanders, counterfire must destroy or neutralize enemy weapons, WLRs, and supporting C2, communications, transportation, and logistic facilities. To accomplish this, units must employ all suitable counterfire capabilities available to the combined arms team. Included are thorough planning and coordination of intelligence and target acquisition assets to locate enemy FS assets quickly and accurately.

ORGANIZATION OF THE FIELD ARTILLERY BRIGADE

1-35. Organic FAB assets include a BSB, a signal network support company, a target acquisition platoon (TAP) documented in the headquarters and headquarters battery (HHB), and the HHB. The FAB and each of the subordinate elements can be augmented (task-organized) as required. This usually includes a combination of one to five FA BNs, as well as other enablers, such as WLRs, maneuver forces, surveillance capabilities, or electromagnetic warfare (EW) assets. *Electromagnetic warfare* is military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy (JP 3-85). It is critical to ensure that the FAB information requirements are fully integrated into the supported unit's information collection plan. Figure 1-1 on page 1-10 depicts an example FAB organization.

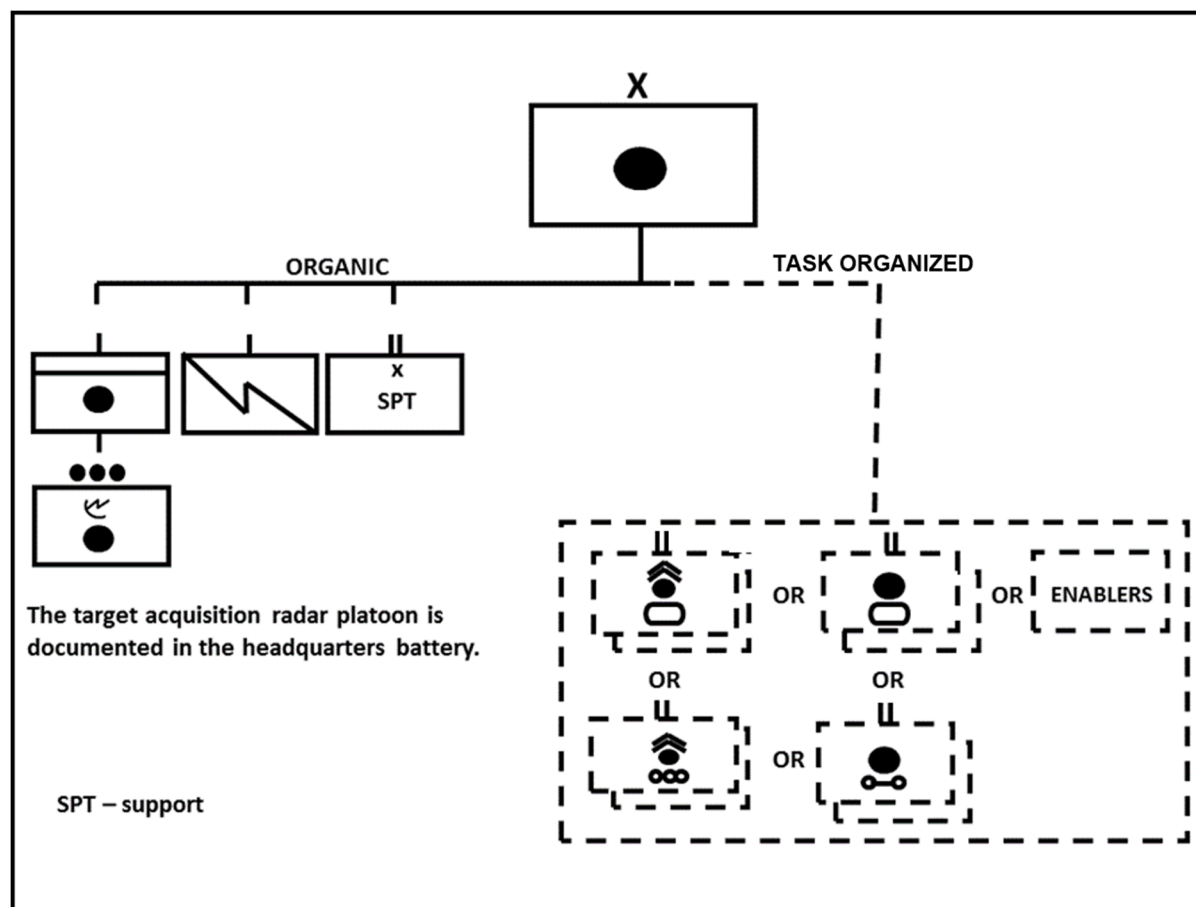


Figure 1-1. Field Artillery Brigade Organization (example)

TARGET ACQUISITION PLATOON

1-36. The TAP provides continuous WLR support in support of the commander's counterfire operations and gather information on enemy indirect fires systems. In addition, the FAB WLRs can provide coverage for the BCTs organic WLRs when moving, performing maintenance, or repair. The FAB TAP is comprised of a platoon HQ, WLR sections, and target processing section. Duties of the TAP include:

- Provide WLR support to detect, locate, classify, report, and communicate the point of origin, point of impact, radar cross section, and velocity of indirect fire systems for the counterfire fight.
 - Provide GS WLR coverage for units operating within the area of search.
 - Provide WLR maintenance support.
 - Confirm the actual burst or impact location of friendly fires.
- Survey support if not provided by other available assets to:
 - Ensure common survey for the supported command.
 - Establish declination stations.
- Target processing support to:
 - Recommend and coordinate sectors of search within the supported HQ AO and adjust coverage of WLRs as the situation develops.
 - Develop and recommend WLR zones.
 - Monitor the operation of organic and supporting WLRs.
 - Develop targets and suspect targets and refine target locations.
 - Pass targets to the FSE or fire control element for action.

- Maintain the target production map and the artillery target intelligence file in automated targeting systems.
- Request battle damage assessment on targets produced and passed to the fire control element for action.

Weapons Locating Radar Sections and Survey Teams

1-37. The FAB TAPs contain two AN/TPQ-53 sections and two AN/TPQ-50 WLR teams. The assigned radar personnel are trained to conduct radar operations on all WLRs. A *weapons locating radar* is a continuous target acquisition counterbattery system that detects in-flight projectiles, and communicates point of origin and point of impact locations (FM 3-09).

1-38. The use of survey provides FA assets with a common grid that will permit the massing of fires. Survey is also used as a secondary method to establish survey control points for the WLR. The survey capabilities consist of an improved position and azimuth determining system-global positioning system (referred to as IPADS-G) which is located within the TAP.

Target Processing Section

1-39. The FAB target processing sections consists of six FA personnel. The target processing sections consists of an assistant counterfire officer, a counterfire noncommissioned officer, a targeting noncommissioned officer, and two target processing specialists.

1-40. The section is responsible for locating enemy indirect fires systems, sensor management of the WLRs, and maintaining the current maintenance status of the WLRs during operations. The target processing section assists with integrating and synchronizing the WLR assets in accordance with the commander's intent and concept of operations

NETWORK SUPPORT COMPANY

1-41. The network support company is organic to the FAB and provides the primary communications support to the brigade including:

- Connectivity through the supported HQ.
- Range extension of the FAB's communications services.
- Network management.
- Establishing primary CP voice and video capabilities.
- Performing limited signal electronic maintenance.

1-42. The signal network support company deploys, installs, operates, and maintains the information systems networks that support FAB operations and integrate with the division, corps, or theater networks. Key operational elements of the company include the network operations section, joint network node platoon, and network extension platoon. These elements enable FAB communications by providing line-of-sight and beyond-line-of-sight connectivity for unclassified and classified information voice and data, tactical network coverage, and CP support.

1-43. The joint network node platoon is normally located at the FAB main CP and the network extension platoon at the tactical command post (if formed), but depending on METT-TC, can be located where they can best support FAB operations. A command post is a unit headquarters where the commander and staff perform their activities (FM 6-0).

BRIGADE SUPPORT BATTALION

1-44. The BSB consists of a headquarters and service company (HSC) organized to coordinate classes I (rations), II (clothing and individual equipment), III (petroleum, oils, and lubricants), IV (construction), V (ammunition), VII (major end items), and IX (repair parts) supplies, field maintenance, and limited transportation support. The BSB is a fixed HQ unit that derives its support capability through the attachment of various units selected to support the mission. For a BSB to fully support the FAB it must have a support relationship with a combat sustainment support BN of the corps expeditionary sustainment command. The

HSC provides battalion-level oversight and coordination over mission-specific attachments. The Forward Support Company (FSC) is not organic to the BSB. The FSCs are normally attached to the firing BNs but may be attached to the BSB as required.

1-45. The BSB does not contain a medical section and depends upon the brigade medical platoon for Role 1 treatment and area support from an area support medical company attached to a multifunctional medical BN for Role 2. Role 3 care is provided by the supporting combat support hospital or field hospital. For more on the BSB see ATP 4-90 and Chapter 5 of this ATP.

MLRS/HIMARS BATTALIONS

1-46. MLRS and HIMARS BNs in FABs provide precision long-range fires in support of the division, corps, JTF, or other higher HQ, decisive, and shaping operations, and for conducting counterfire. Rocket BNs are task organized in support of these specific mission requirements, often down to the battery or even platoon level. Rocket BNs can also provide supporting fires to subordinate elements (divisions or BCTs) as required in a support relationship of DS, GS, or GSR. See figure 1-2 for the task organization of MLRS/HIMARS BN firing battery configurations. For more information on MLRS/HIMARS BNs see ATP 3-09.60.

1-47. A *precision munition* is a munition that corrects for ballistic conditions using guidance and control up to the aimpoint or submunitions dispense with terminal accuracy less than the lethal radius of effects (FM 3-09). MLRS/HIMARS precision munitions include:

- The guided-multiple launch rocket system (referred to as GMLRS) provides commanders with increased accuracy and much greater range. The extended range GMLRS will double the range of the current capability. Their extremely high altitude of delivery (apex of missile trajectory, maximum ordinate) requires close coordination with air planners and liaisons to ensure aircraft are not in the vicinity during launches and descents.
- The Army Tactical Missile System (referred to as ATACMS) provides long-range, FS. The missiles are fired from an MLRS/HIMARS platform and may consist of antipersonnel/antimaterial submunitions or a unitary high-explosive warhead.
- The Precision Strike Missile is a surface-to-surface long range missile fired from MLRS/HIMARS systems with greater range and lethality. This missile will be able to attack targets on the ground or at sea and will be a key capability used to penetrate and disintegrate adversary anti-access/area denial capabilities.

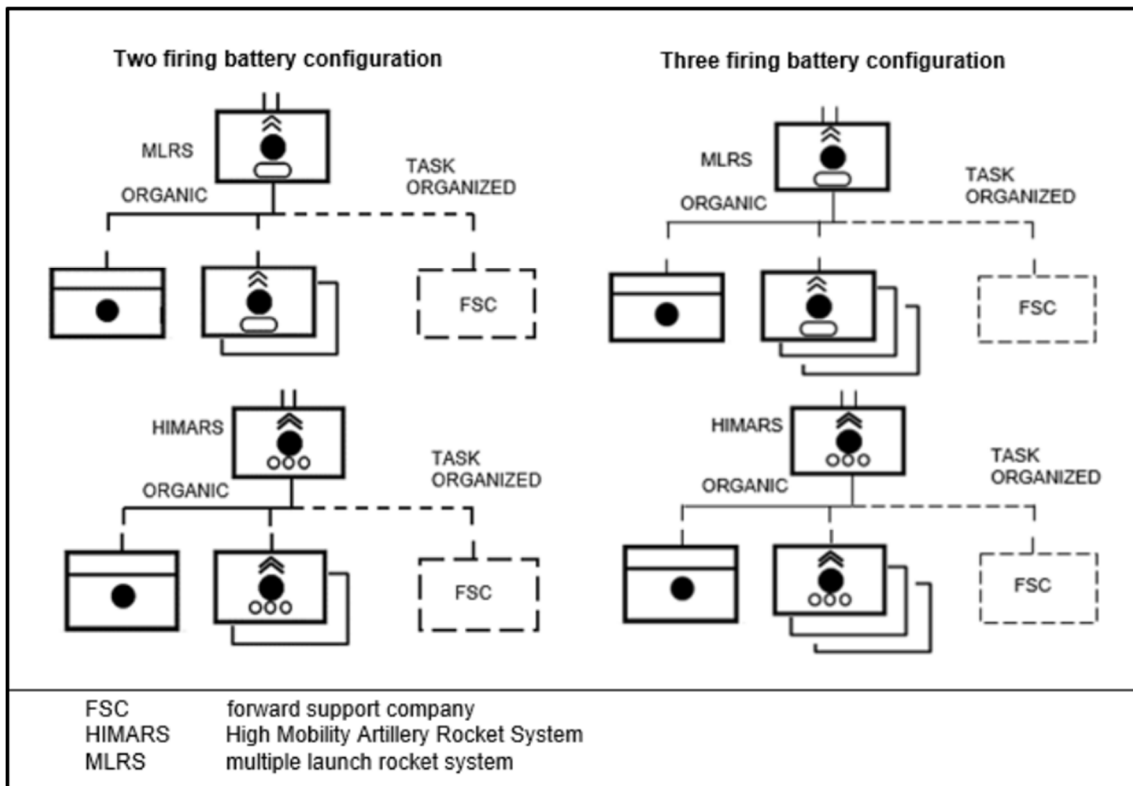


Figure 1-2. MLRS/HIMARS Battalion organization (firing battery configurations)

FIELD ARTILLERY BRIGADE COMMAND GROUP

1-48. FAB command group includes the commander, executive officer (XO), and command sergeant major. The *command group* consists of the commander and selected staff members who assist the commander in controlling operations away from a command post (FM 6-0). The command group includes:

- Commander.
- Executive officer.
- Command Sergeant Major.

COMMANDER

1-49. The FAB commander is responsible for planning, integrating, coordinating, synchronizing, and implementing FAB operations in support of division, corps, or other higher HQ operations. The commander provides guidance in the form of missions, tasks, and a clear statement of priorities and commander's critical information requirements to the FAB staff and subordinate unit commanders.

1-50. If assigned as the FSCOORD, the FAB commander will spend most of his time either with the maneuver commander or in the respective FSE. Both staffs must understand their responsibilities and assist the FSCOORD in facilitating FS tasks.

1-51. The FSCOORD commands their respective FA organization and advises the maneuver commander on all aspects of FS. As the FSCOORD, the FA commander will spend most of his time either with the maneuver commander or in the respective FSE. Both staffs must understand their responsibilities and assist the FSCOORD in facilitating FS tasks.

1-52. Duties and responsibilities of the FAB commander/FSCOORD include:

- Execute missions assigned to the FAB by higher HQ.
- Determine specified and implied tasks for the FAB based on the higher HQ concept of operations, scheme of FS, and other guidance in the operation plan (OPLAN) or operation order (OPORD).
- Plan and recommend FAB employment in support of higher HQ operations.
- Recommend the allocation of fires, assignment of command and support relationships, and positioning of target acquisition, attack, and sustainment assets.
- Ensure FAB subordinate units are properly task organized and deployed to execute fires for the higher or supported command operations.
- Oversee FAB participation in the higher or supported HQ targeting, to include joint targeting when commanded by or supporting a joint HQ.
- Assess combat readiness of FAB subordinate organic, assigned, and attached units.
- Direct mission preparations to include rehearsals.
- Issue commander's critical information requirements.
- Approve FAB plans and orders.

EXECUTIVE OFFICER

1-53. The XO serves as the second-in-command. The XO's responsibilities and authority vary based on the commander's desires, the FAB's mission, and the scope and complexity of operations. The FAB commander delegates responsibility to the XO for specific areas or functions.

1-54. By giving the XO the authority needed to control these areas and functions, the FAB commander extends the span of control. Key XO considerations include:

- Chairs key boards, and working groups.
- Sustainment readiness and recommends to the commander required changes to sustainment support.
- Serves as the commander's representative for negotiations, media activities, and designated key leader engagements.
- Enables the brigade operations staff officer to focus on the overall integration and synchronization of current operations. The XO can do this by providing increased senior leader involvement in the planning of future operations.
- Serves as necessary as a temporary liaison officer to unified action agencies and multinational staff or command groups when and where METT-TC conditions dictate.
- Manages the commander's critical information requirements.
- Ensures FAB actions are horizontally and vertically integrated among the FAB CP, higher HQ, and subordinate, supported, and supporting elements.
- Determines liaison requirements and supervises liaison officers.
- Ensures quality of work from staff officers and sections, cells, or elements, and ensure cross talk throughout assess, plan, prepare, and execute phases.
- Synchronizes the FAB staff during the military decision-making process (MDMP).
- Establishes and maintains staff planning timelines.
- Integrates target acquisition, fires and synchronizes information operations within targeting and with the MDMP.
- Integrates attached units in accordance with the higher HQ and FAB plan.
- Disseminate the commander's guidance and directives.
- Ensures staff members communicate with counterparts at higher, subordinate, supported, supporting, and adjacent elements.
- Manages the flow of information within the FAB.
- Assess combat readiness of subordinate units after mission completion.
- Oversee maintaining running staff estimates from the brigade staff.

COMMAND SERGEANT MAJOR

1-55. The FAB command sergeant major is the senior enlisted advisor to the commander. The command sergeant major is both a specialist and a generalist who must have technical competence as a FA Soldier while being broadly knowledgeable in all functional areas such as operations, administration, and sustainment. The command sergeant major best serves as an extension of the commander's eyes and as the primary troubleshooter.

1-56. The command sergeant major works closely with each of the brigade staff sections based on the needs of the unit and the direction of the commander. In order to operate independently of the commander at a critical location where the commander needs additional supervision, oversight or observation, the command sergeant major is authorized a vehicle, radio, and driver. The command sergeant major responsibilities may include:

- Assist the commander in maintaining effective communication with senior and subordinate leaders and staffs.
- Validate that the commander's directions and intent are being properly communicated through the leadership chain to the front line Soldiers and that their feedback and concerns are reaching the commander.
- Advise the commander and staff on matters pertaining to enlisted Soldiers.
- Assist in planning, coordinating, and supervising collective and individual training to include certification requirements.
- Mentor noncommissioned officers in the brigade.
- Direct professional development.
- Develop future leaders from within the enlisted ranks.

FIELD ARTILLERY BRIGADE STAFF

1-57. The FAB staff assists the commander in exercising the commander's authority and making decisions. The staff must share information vertically and horizontally with each other and among higher and lower HQ counterparts. For more on staff roles and functions see FM 6-0. The FAB staff includes the:

- **Personal Staff.** The FAB commander's personal staff consists of the brigade judge advocate, chaplain, brigade surgeon, and public affairs officer. They assist the commander in their areas of expertise and generally are under the direct supervision of the commander.
- **Coordinating Staff.** The FAB coordinating staff consists of the battalion or brigade personnel staff officer (S-1), battalion or brigade intelligence staff officer (S-2), battalion or brigade operations staff officer (S-3), battalion or brigade logistics staff officer (S-4), and battalion or brigade signal staff officer (S-6). The coordinating staff develops options and recommendations to ensure the FAB commander has access to critical and timely information to assess continually, and to plan, prepare, and execute.
- **Special Staff.** In the FAB, many special staff members, including the fire support officer (FSO), the air defense airspace management officer, and others, are supervisors of staff sections, cells, or elements located in the FAB's main CP.

FIELD ARTILLERY BRIGADE PERSONAL STAFF

1-58. Portions of each coordinating, special, and personal staff section are distributed among three FAB organizations: the command group, main CP and the tactical command post (TAC) (if formed). The FAB main CP and TAC CP are organized into warfighting functional and integrating cells (described in chapter 2).

1-59. Portions of each staff section may be assigned to the FAB main CP or TAC CP and to cells and elements within the main CP and TAC CP as desired by the FAB commander. The personal staff includes the brigade judge advocate, chaplain, brigade surgeon, and public affairs officer.

Brigade Judge Advocate

1-60. The brigade judge advocate supervises, trains, and mentors subordinate judge advocates and paralegals assigned to the brigade. The brigade judge advocate is the primary legal advisor to the brigade commander. As a member of both the brigade commander's personal staff and special staff, the brigade judge advocate occupies a unique role on the staff.

1-61. As a personal staff officer, the brigade judge advocate requires a direct line of communication with the brigade commander on matters relating to the administration of military justice. When performing special staff functions not related to the administration of military justice, such as participating in the MDMP, the brigade judge advocate may be supervised by the brigade XO. The brigade judge advocate deploys as a member of the brigade staff and serves as the officer-in charge of the brigade legal section. As a member of the brigade staff, the brigade judge advocate normally attends the meetings that the brigade staff primaries attend. See AR 27-1, FM 1-04, and FM 6-0 for additional information on the duties of the staff judge advocate. The brigade judge advocate's primary duties and responsibilities include:

- Supervising, training, and mentoring all judge advocates and paralegals assigned to the brigade.
- Advising the commander and staff on national security law, military justice, administrative law, contract and fiscal law, and other areas of the law as required.
- Ensuring the timely delivery of legal services to the brigade across all legal functions.
- Participating in operations planning and targeting processes; including plans and orders, training concepts, and other key actions for legal sufficiency.
- Planning, coordinating, and overseeing Soldier and family legal services, and preventive law programs for the brigade.

Chaplain

1-62. The brigade chaplain is responsible for providing religious support and advisement to the command on matters of morals, ethics, and religion. The chaplain provides the FAB staff with advisement on the impact of religion upon operations, assigned personnel, and the local population.

1-63. The chaplain participates in targeting providing advisement which is limited to moral, ethical, and religious matters. The chaplain must retain their status as a noncombatant throughout the targeting process, not identifying potential targets. See FM 1-05 and AR 165-1 for additional information on the duties of the chaplain.

Brigade Surgeon

1-64. The brigade surgeon is responsible for coordinating Army health system support and operations within the command. The FAB surgeon provides and oversees medical care to Soldiers, civilians, and enemy prisoners of war. See FM 4-02 for additional information on the brigade surgeon. Surgeon responsibilities include, but are not limited to:

- Advising the commander on the health of the command.
- Develops the Army health system concept of support for the FAB OPORD.
- Providing health education and training.
- Coordinating medical evacuation, including Army dedicated medical evacuation platforms (air and ground).
- Supervising and preparing health-related reports and statistics.
- Advising on the effects of the medical threat on personnel, rations, and water.
- Advising how operations affect the public health of personnel and the indigenous populations.

Public Affairs Officer

1-65. The public affairs officer understands and coordinates the flow of information to Soldiers in the brigade, the Army community, and the public. See FM 3-61 for additional information on the public affairs officer. Public affairs officer responsibilities include:

- Planning and supervising the command public affairs program.

- Advising and informing the commander of the public affairs impact and implications of planned or current operations.
- Preparing themes and messages for the commander for public communications.
- Serving as the command representative for all communications with external media.
- Assessing the information requirements and expectations of the brigade and the public, monitoring media and public opinion, and evaluating the effectiveness of public affairs plans and operations.
- Developing and educating the command on policies and procedures for protecting against the release of information detrimental to the mission, national security, and personal privacy.
- Recommending news, entertainment, and information for Soldiers and home station audiences.

FIELD ARTILLERY BRIGADE COORDINATING STAFF

1-66. The FAB coordinating staff includes the S-1, S-2, S-3, S-4, and the S-6 staff officers and their corresponding staff sections.

Personnel Officer

1-67. The FAB S-1 is the coordinating staff officer responsible for all matters concerning human resources support (military and civilian). The FAB S-1 provides technical direction to FAB units in the areas of personnel readiness management, personnel accounting and strength reporting, personal information management, casualty operations (including casualty estimates), postal operations, essential personnel services, reception, replacement, return-to-duty, rest and recuperation, and redeployment, human resources planning and staff operations, and morale, welfare, and recreation operations.

1-68. The FAB S-1 shares responsibility with the FAB S-4 for manning the sustainment cell and conducting its operations. A more complete description of S-1 duties is found in FMs 1-0 and 6-0.

Intelligence Officer

1-69. The FAB S-2 is the commander's principal staff officer responsible for all matters concerning the threat, environmental effects on friendly and threat the environment as it affects the threat, intelligence, and counterintelligence. The S-2 is responsible for intelligence readiness, intelligence tasks, intelligence synchronization, other intelligence support, counterintelligence, and support to security programs.

1-70. The S-2 provides the FAB commander with information and intelligence for targeting the threat's forces, systems, and facilities. The S-2 provides the commander with an enemy artillery order of battle and scheme of maneuver. The S-2 is directly responsible for developing and coordinating the intelligence annex and providing input to Appendix 4 (Field Artillery Support) to Annex D (Fires) to FAB plans and orders. A more complete description of the S-2 and S-2 section duties are found in FM 2-0 and FM 6-0.

Operations Officer

1-71. The FAB S-3 is the FAB commander's principal staff officer responsible for preparing FAB plans and orders, exercising control of subordinate formations, and delivering timely and effective FS. In addition, the FAB S-3 exercises coordinating staff supervision over a number of closely related functions to include TA, meteorology, and chemical, biological, radiological, and nuclear. A more complete listing of S-3 duties is found in ADPs 5-0 and 6-0, and FM 6-0.

Logistics Officer

1-72. The FAB S-4 is responsible for staff oversight of FAB sustainment operations. The S-4 is the lead sustainment planner in the sustainment cell. The FAB S-4 coordinates with and relies heavily upon the BSB support operations officer (SPO) (duties and responsibilities of the BSB SPO are described in Chapter 5) and the BSB staff to provide information to develop sustainment plans and requirements for FAB operations. The S-4 provides input and staff oversight to the FAB in the areas of supply, maintenance, transportation, medical, and field services.

1-73. The FAB S-4, in conjunction with the BSB SPO, acts as the staff integrator for the BSB, which executes sustainment operations for the FAB. The FAB S-4 is also the staff point of contact for administrative unit movements and deployments. The S-4 is the primary staff officer responsible for establishing and maintaining an awareness of the brigade's sustainment capabilities and limitations. A more complete listing of S-4 duties is found in FM 6-0.

Signal Operations Officer

1-74. The FAB S-6 is the coordinating staff officer responsible for all matters concerning command, control, communications, and computer operations. The S-6 provides technical oversight of FAB units in the areas of network operations information dissemination, and information assurance to include electromagnetic spectrum coordination.

1-75. The S-6 is also the FAB staff integrator for the signal network support company. A more complete listing of S-6 duties is found in FM 6-02.

FIELD ARTILLERY BRIGADE SPECIAL STAFF

1-76. The FAB special staff includes the FSO, the space operations officer, and the air defense airspace management officer.

Fire Support Officer

1-77. A *fire support officer* is the operational to tactical level FA officer responsible for advising the supported commander or assisting the senior fires officer on fires functions and fire support (FM 3-09). The FSO works closely with the S-3 to ensure mutual understanding of all aspects of FS assessment, planning, preparation, and coordination for FAB operations.

1-78. The FSO assists the FSCoord as needed in insuring plans transition smoothly into execution. The duties and responsibilities of the FAB FSO include:

- Plan, coordinate, and synchronize Army FS, and Joint FS for FAB operations. This includes synchronizing attack against enemy command or control systems.
- Supervise the fires and targeting elements.
- Advise the FAB commander and staff of the capabilities and limitations of available FS means including Army indirect fires, joint fires, and multinational fires.
- Provide input to FAB plans and orders. Directly responsible to develop and coordinate portions of FAB plans and orders that describe the scheme of fires for FAB operations including Annex D (Fires) to FAB plans and orders.

Space Operations Officer

1-79. The Space Operations Officer is assigned to the FAB S-3 Section. Advises the commander and staff on the capabilities, limitations, considerations, and effects of space operations specific to the commander's intent, concept of operations, FAB mission, and space threat. Ensures space operations are integrated into all relevant staff processes and possible effects of a denied, degraded, and disrupted space operational environment (referred to as D3SOE) are integrated into mission planning described below.

- Ensures shared understanding of a D3SOE and its effects on FAB operations.
 - Develops, understands, and presents representation of satellite communications and global positioning system environment to support precision guided munitions, fire mission processing AFATDS, and friendly force tracking throughout course of combat operations.
- Supports the S2:
 - Understanding of adversary space and counter-space capabilities and limitations
 - Liaison between National, United States Space Force, and United States Space Command offices, systems, and products to FAB S2 for intelligence gathering and target development
- Supports the S6:

- Conducts defensive space control; identification of critical C2 satellite communication links and feeds and provides information to United States Space Force systems for identification and geolocation of adversary jamming systems.
- Conducts environmental monitoring of space and terrestrial weather events and their effects on communications, radars, and global positioning systems.
- Coordination with missile warning assets to develop understanding of adversary ballistic missile, integrated air defense systems (referred to as IADS), and rocket systems and potential threats to FAB in combat operations;
- Coordination with offensive space control assets to employ deceptive, disruptive, denied, degraded, or destructive effects on adversary space and counter-space systems.

AIR DEFENSE AIRSPACE MANAGEMENT OFFICER

1-80. The Air Defense Airspace Management Officer is assigned to the FABs air defense airspace management/brigade aviation element (ADAM/BAE). Advises the commander and staff on air and missile threats, air defense artillery force capabilities, locations, and activities. They plan and coordinate air and missile defense (AMD) operations with supporting air defense artillery units.

1-81. Supervises the employment of the Airspace Management capabilities of the brigade, incorporates the unit's airspace requirements into the supported maneuver unit's airspace plan. Coordinates the airspace clearance of fires during operations for organic and assigned artillery and air defense units during operations.

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Chapter 2

Command and Control

This chapter describes FAB C2. The chapter begins with an overview of FAB command post operations. The chapter describes FAB command post cells and elements and concludes with the FAB's role within the FSE.

COMMAND POSTS

- 2-1. FM 6-0 defines main command post (CP), tactical CP, and early entry CP as:
- The *main command post* is a facility containing the majority of the staff designed to control current operations, conduct detailed analysis, and plan future operations. (FM 6-0).
 - The *tactical command post* 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).
 - The *early-entry command post* is a lead element of a headquarters designed to control operations until the remaining portions of the headquarters are deployed and operational (FM 6-0).

ORGANIZATION

2-2. A *command post* is a unit headquarters HQ where the commander and staff perform their activities (FM 6-0). FAB CPs are organized and manned to provide support to the commander in accomplishing the mission. The FAB main CP is designed and equipped to perform long-range planning, analysis, sustainment, coordination, and other supporting functions in addition to the immediate control of current operations.

2-3. Specific FAB CP configurations to support 24-hour operations should be established by unit standard operating procedures, mission variables, commander's intent, and higher HQ directives. The CP facilities, personnel, and equipment authorized by the table of organization and equipment will be configured to support the commander's guidance.

MAIN COMMAND POST

2-4. The FAB main CP is the FAB's primary command facility. It primarily conducts future planning, analysis for current and future operations, sustainment coordination, and other staff functions. The staff at the main CP operates under the general supervision of the XO or S-3. The main CP serves as the primary planning and coordination CP for the FAB. The main CP plans, directs and monitors all FAB operations, coordinates with higher and adjacent units, and provides in-depth analysis of information and intelligence together with attendant recommendations to the FAB commander. The main CP assists the commander in controlling cannon, rocket, and missile delivery systems and other FS assets such as surveillance, reconnaissance, and target acquisition. CP functions are designed to monitor and track events, assist, and support commanders in mission planning, preparation, and successful management of operations across the range of military operations. Critical functions include:

- Maintain contact and coordinate with higher, adjacent, and subordinate units.
- Adjust current OPLANs and OPORDs for future operations.
- Receive, analyze, and disseminate tactical information (vertically and horizontally).
- Maintain situational awareness.
- Request and synchronize maneuver enhancement and sustainment.
- Coordinate resources and make recommendations to the commander.
- Coordinate FS.
- Conduct assessment.

- Submit planned FS airspace control requirements with higher HQ responsible for the needed volumes of airspace: including surveillance, reconnaissance, and TA assets.
- Receive and coordinate the use of liaison officers.
- Provide reach back capability to the TAC CP.

Command Post Cells

2-5. A *command post cell* is a grouping of personnel and equipment organized by warfighting function or by planning horizon to facilitate the exercise of mission command (FM 6-0). There are two types of CP cells -functional and integrating.

2-6. Functional cells group personnel and equipment by warfighting function. Integrating cells group personnel and equipment to integrate warfighting functional cell activities. Cell elements are generally manned by personnel of the FAB table of organization and equipment. Individual main CP elements (or combinations of elements) or selected personnel from these elements merge to form the FAB current operations cell and the plans integrating cell as required.

Functional Cells

2-7. Functional cells coordinate and synchronize forces and activities by warfighting function. The functional cells in the main CP are scalable to accommodate staff augmentation when required. The arrangement of warfighting functional cells within the main CP supports the temporary movement of staff between cells and elements within the main CP or between the tactical CP and the main CP. There may also be one or more coordinating, special and personal staff sections residing at the main CP that are not organized into cells or elements. The main CP includes the command group (when the command group is not forward with the tactical CP or conducting liaison with higher or supported HQ). See FM 6-0 for additional information on functional cells.

2-8. Integrating cells are organized by planning horizon. They coordinate and synchronize forces and warfighting functions within a specified planning horizon and include the plans, future operations, and current operations integration cells. The FAB is not resourced for a future operations cell.

Future Operations

2-9. Although not specifically resourced the commander may direct the formation of a future operations cell on an as-needed basis. The S-3, FSO, or other key staff officer designated by the commander may lead the plans or future operations cell. When activated, the plans or future operations cell is responsible for planning operations for the mid-range to long-range time horizons. It develops plans, orders, branches, and sequels based on orders from higher echelons, projected outcome of the current operation, and the FAB commander's guidance.

2-10. The plans or future operations cell normally consists of a designated core group of planners and analysts drawn from elements of the main CP's functional cells, which can be augmented based on mission planning requirements. All staff sections assist as needed. The XO or S-3 may assign tasks to other main CP cells and elements concerning requirements or their inputs and contributions necessary for the plans or future operations cell to accomplish its functions.

Current Operations

2-11. The main CP current operations cell monitors and controls operations throughout the FAB's higher or supported HQ AO. The current operations cell maintains the common operational picture, coordinates with higher, subordinate, and adjacent units, analyzes information, and provides recommendations to the FAB commander. The FAB S-3 leads the current operations cell. It is manned as required by staff personnel from warfighting functional cells as directed by the commander or S-3 based on mission variables. The XO or S-3 assigns tasks to other main CP cells and elements concerning requirements or their inputs and contributions necessary for the current operations cell to accomplish its functions.

2-12. The organization of the main CP facilitates work and security, smooths traffic flow, and takes advantage of cover and concealment. The main CP does not have the organic equipment to conduct command

or control on the move, so it must operate in a stationary mode. The main CP, as currently resourced, is 50-percent mobile and requires two lifts to displace with organic transportation assets. The detailed internal staff standard operating procedures (developed by each individual FAB) outline CP configurations and functions of individuals assigned. Both temporary and long-term configurations should be planned.

POSITIONING THE MAIN COMMAND POST

2-13. The primary considerations in positioning the FAB main CP are communications, maintaining control over subordinate and supporting units, survivability, accessibility, and proximity to the higher HQ. The FAB commander determines the best location for the main CP based on the noted considerations and any plan for use of the tactical CP. When deployed to an AO, the main CP is normally located in an area that reduces exposure to enemy surveillance and long-range indirect fires.

2-14. The main CP relies on its ability to communicate both voice and digitally to control its dispersed elements and receive reports. Its communications capability allows it to position anywhere in the higher or supported HQ AO and remain in contact with its subordinates and the higher or supported HQ. The FAB main CP will typically locate within digital range of higher command's CP. Since the FAB is typically not assigned an AO, the main CP's position must be coordinated for terrain management and security. Displacements should be planned so that the main CP is stationary during critical phases of the battle. In many cases, operations on an extended battlefield will cause serious communications challenges that must be factored into the positioning decision.

TACTICAL COMMAND POST

2-15. A tactical (TAC) CP for the FAB is not supported by its table of organization and equipment. Any personnel or equipment used to form a TAC CP must come from the FAB's organic assets. The FAB commander employs the TAC CP as an extension of the main CP to help control the execution of an operation or specific task. The TAC CP includes only the Soldiers and equipment essential to the tasks assigned. The TAC CP relies on the main CP for planning, detailed analysis, and coordination.

2-16. The TAC CP might be formed as an alternate CP when the main CP displaces, when the commander must be positioned away from the main CP, or when the mission requires a second CP to control operations. The TAC CP is usually configured as a lean, highly mobile, forward deployed CP. Usually the S-3 is responsible for the TAC CP. The TAC CP is normally manned by:

- The S-3.
- A current operations officer, normally the assistant S-3.
- An intelligence officer, normally the assistant S-2.
- Selected staff from the intelligence, fire control, operations and counterfire, targeting, fires, air support, information operations, and air defense airspace management element in the FAB main CP.
- Other staff area representatives from main CP elements as required for a particular operation (for example, selected staff from the sustainment element).

EARLY-ENTRY COMMAND POST

2-17. An early-entry command post normally includes members of the main CP and additional planners, intelligence analysts, liaison officers, and others as required. During contingency operations, the FAB may organize its own early-entry CP to provide temporary control over subordinate units until a fully functional main CP deploys into the AO. Normally austere, its specific design is driven by METT-TC and may vary from deployment to deployment. The early-entry CP controls all units committed to the current operation, and conducts those critical C2 functions required to conduct tactical operations as the FAB and its higher HQ deploy into an unsecured area.

2-18. The early-entry CP coordinates FS for the current higher or supported HQ operation and synchronizes the flow of follow-on FAB units into the AO and phases them into the higher or supported HQ fight. It also begins initial planning for the conduct of future operations (branches and sequels). It serves as the FAB's control link early in the deployment between FAB organic, assigned, and attached forces on the ground, and

at home station and the higher HQ. It continues this function until the remainder of the FAB C2 systems arrive. Normal doctrinal functions will be transferred to the main CP cells and elements as they arrive and are prepared to assume those functions. The FAB FSE or main CP can assume the duties of the corps main CP while the corps is moving.

COMMAND POST FUNCTIONAL ELEMENTS, AND SECTIONS

2-19. In operations, effective C2 requires continuous close coordination, synchronization, and information sharing across staff sections. To promote this, commanders cross-functionally organize elements of staff sections in CPs and CP cells.

HEADQUARTERS AND HEADQUARTERS BATTERY

2-20. Led by the Battery Commander, the HHB provides and plans for the movement, security, sustainment, and placement of the main CP. The HHB is focused on the health and welfare of the Soldiers within the main CP and assists with the employment and maintenance of the equipment and vehicles. Additional duties include:

- Provide local area defense plan and security for main CP and TAC CP.
- Provide logistical life support and maintenance for main CP and TAC CP.
- Coordinate movements with S-3, main CP, or TAC CP.
- Reconnoiter of main CP and TAC CP locations.
- Assist other CP sections with the establishment of systems.

INTELLIGENCE CELL

2-21. Led by the S-2, the intelligence cell contains an intelligence and targeting section, and a topographical information and services section. The intelligence and targeting section is focused on supervising intelligence and coordinating information collection support to targeting for FAB operations.

2-22. Information feeds from collection assets populates the intelligence database. These databases generate target nominations that are digitally transmitted to the AFATDS for mission processing. Assessment of fires on enemy forces, combat functions, and facilities generates additional intelligence.

Targeting Section

2-23. The targeting section assists in developing intelligence products (running estimates, annexes, appendices, and templates) and other intelligence input to all FAB plans and orders. A *running estimate* is the continuous assessment of the current situation used to determine if the current operation is proceeding according to the commander's intent and if planned future operations are supportable (ADP 5-0).

2-24. The targeting section is directly responsible for developing and coordinating Annex B (Intelligence); and providing input to Appendix 3 (Targeting) and Tab (Target Acquisition) to Appendix 4 (Field Artillery Support) to Annex D (Fires), to FAB plans and orders. This includes developing the radar deployment order, execution matrices, and ensuring the associated radar deployment order designates positions and establishes cueing procedures. Duties and responsibilities of the targeting section and its personnel include:

- Collect, analyze, and disseminate combat information. In hostile areas, the intelligence element requires continuous operations.
- Perform intelligence support to targeting.
- Conduct target value analysis to develop target selection standards, high value targets, and targeting data based on the FAB commander's high-payoff target list and attack guidance matrix.
- Provide input for development of a ground and air defense plan to the FAB S-3 and air defense airspace management element of the FSE.
- Facilitate the development of target selection standards by determining the accuracy of acquisition systems, associated target location error, and the expected dwell times of targets.
- Support the development of the commander's critical information requirements, specifically priority intelligence requirements.

Topographical Information and Services Section

2-25. Duties and responsibilities of the geospatial information and services section include:

- Support the FAB intelligence preparation of the battlefield (referred to as IPB) by producing the combined obstacle and related terrain analysis overlays.
 - Visible area infiltration routes.
 - Landing zones.
 - Drop zones.
 - Cover and concealment analyses.
- Support the FSE and targeting section with analysis.
 - Traffic routes.
 - Choke points.
 - Avenues of approach, and obstacles.
- Support the intelligence and targeting cell's intelligence and targeting sections by developing target folders.
- Provide terrain products to FAB subordinate and supporting units on request.

OPERATIONS AND COUNTERFIRE ELEMENT

2-26. Led by the S-3, the operations, and counterfire element controls the overall execution of the FAB current operation, including its counterfire operation if the FAB has been designated as the counterfire HQ. This element is sufficiently staffed so that selected personnel may be forward with the tactical CP when the tactical CP is deployed. As the S-3 may be located in the tactical CP, the operations officer must be postured to assume the lead role if the S-3 is not present in the main CP or if communications with the S-3 is lost.

2-27. The operations and counterfire element tracks and maintains situational understanding of all FAB assets. Duties and responsibilities of the operations and counterfire element include:

- Execute fires in support of a higher or supported HQ current operations (including special operations forces operating in that unit's AO).
- Plan, coordinate, and control FAB tactical movements.
- Act as the force field artillery HQ command net control station.
- Monitor the higher or supported HQ's tactical situation.
- Maintain the common operational picture for the brigade.
- Receive and disseminate rules of engagement, FSCMs, maneuver graphics, and other situational awareness information.
- Provide the other staff sections data on planned, current, pending, or changing missions.
- Coordinate survey and meteorological requirements.
- Recommend logistical support priorities to the commander.
- Integrate space assets to support the FAB mission (see FM 3-14).
- Position assigned and allocated WLRs, meteorological sections, and supporting FS-related units. This includes dissemination, using AFATDS, of the radar deployment order prepared by the FAB S-2. See ATP 3-09.12.
- Maintain and update subordinate and supported unit information and digital and voice status.
- Monitor the operation of organic and augmenting TA resources.
- Recommend and coordinate the sectors of search within the FAB (or controlling HQ AO) area for WLRs; recommend a critical friendly zone (referred to as CFZ) and call for fire zones (referred to as CFFZ).
- Ensure tactical fire control with subordinate and supporting FA and TA assets.
- Integrate digital fires, the networked fires architecture, and tactical standard operating procedures for all FAB organizations.
- Monitor processing of planned fires in the higher HQ FS plan.
- Coordinate clearance of all fires with units.

- Maintain and update the current active no-fire areas list.
- Maintaining digital link to FA and TA assets.
- Track and maintain situational understanding of close air support (CAS).
- Track and maintain situational understanding of naval surface fire support.
- Request assessment reports.
- Ensure mission-fired reports and artillery target intelligence reports are received and processed.
- Process fire plans in support of special operations task forces.

2-28. The operations and counterfire element is responsible for coordinating development, publication, and dissemination of all FAB standard operating procedures and plans and orders. The operations and counterfire element is directly responsible to the S-3 for developing and coordinating the following annexes to FAB plans and orders:

- Annex A (Task Organization).
- Annex C (Operations).
- Appendix 18 (Space Operations) to Annex C (Operations)
- Annex E (Protection) (if required).
- Annex G (Engineer).
- Annex K (Civil Affairs Operations).
- Annex L (Information Collection).

Fire Control Element

2-29. The FAB fire control element controls the delivery of tactical FA fires in support of current operations. It provides tactical fire control through automated C2 systems with manual backup.

2-30. Duties and responsibilities of the FAB FSE and fire control element include:

- Control the fires of allocated FA BNs controlled by the FAB.
- Request the attack of targets by other systems, as required.
- Maintain the digital fires architecture for all FS organizations in the FAB and maintain connectivity with those of the division, corps, or JTF.
- Monitor and operate fire direction and FS coordination nets in the FAB.
- Disseminate FA targets to subordinate or supporting firing units in accordance with the S-3's guidance.
- Use the commander's attack guidance to analyze targets for attack.
- Apply the higher or supported HQ and FAB commander's attack guidance to all fire mission requests. Ensure all brigade elements have the proper guidance and attack criteria entered into digital systems for both current and planned operations.
- Coordinate fire mission processing procedures with the FSEs of reinforced and reinforcing units, and information collection assets as appropriate. This includes digital fire mission routing and AFATDS intervention rules.
- Respond to immediate fire requests in the priority established by the FAB commander's attack criteria.
- Provide technical fire direction assistance to subordinate BN fire direction centers, as required.
- Coordinate for technical fire direction in case of catastrophic loss of the technical fire direction capability of BN fire direction centers.
- Ensure that all fire missions comply with current FSCMs.
- Assist the S-3 in monitoring ammunition expenditures.
- Recommend changes to attack criteria or other tactical fire direction guidance, as necessary.
- Ensure the FAB and subordinate BNs meet the five requirements for accurate fires including accurate target location and size; accurate firing unit locations; updated weapon and ammunition information; valid meteorological information; and accurate computational procedures.

Fire Support Element

2-31. The FSE supervises planning, coordinating, synchronizing, and integrating the use of Army indirect fires, joint fires, and nonlethal capabilities through targeting. This includes synchronizing (with the S-3) physical attack and information operations activities against enemy and adversary C2 nodes.

2-32. The FAB FSE may be located either at the main or TAC CP at the FAB or the corps in support of current operations. The FAB main CP provides the FSE with a stable environment from which to guide and monitor functioning of FS and interaction with all other CP elements. Collocating of the FSE with the commander can be vital for synchronized delivery of FS in support of FAB and higher HQ operations. If the command group is deployed, the FSE must maintain secure long-range voice and digital communications. Duties and responsibilities of the FSE:

- Execute FSO duties and responsibilities described in Chapter 1 of this ATP and FM 6-0.
- Assist the division, corps, or joint fires element in targeting to turn the supported commander's intent and desired effects into specific targets, surveillance, and TA tasks, and engagements. See ATP 3-60 for additional information.
- Work closely with FSE the information operations elements and the brigade judge advocate to ensure FAB operations are consistent with the rules of engagement and international law.

Brigade Chemical Biological Radiological Nuclear Section

2-33. The FAB chemical, biological, radiological, and nuclear (CBRN) section typically includes a CBRN officer and one CBRN noncommissioned officer. This staff section provides technical advice to the commander for the unit employment of capabilities in a CBRN environment and supervises the organizational CBRN readiness of the brigade.

2-34. The CBRN staff recommends the employment of attached or supporting CBRN units and advises the Commander during targeting in support of countering weapons of mass destruction (referred to as CWMD). This staff performs core CBRN functions, as applicable, with emphasis on the following key tasks:

- Advising the commander on CBRN threats and hazards.
- Advising the commander on the employment of CBRN capabilities.
- Advising the commander during targeting of adversary weapons of mass destruction (referred to WMD) capabilities and residual impacts to the operational environment.
- Planning CBRN unit employment.
- Planning CBRN protection, mitigation activities, and training in support of the commander's intent.
- Managing the brigade's chemical, biological, radiologic, and nuclear warning and reporting system.

Air Defense Airspace Management/Brigade Aviation Element

2-35. The FAB ADAM/BAE is designed to work with a division airspace element (when the FAB is operating within division assigned airspace) or with the corps' airspace element (when the FAB is operating in support of a corps). The ADAM/BAE also develops and disseminates the FAB's air defense plan and provides the air picture and early warning functions.

2-36. During the planning process the ADAM/BAE is the principle staff element that plans and coordinates airspace use by indirect surface-to-surface fires, AMD, and unmanned aircraft system (UAS) assets in support of FAB operations. The ADAM/BAE reviews the airspace control order to ensure synchronization and deconfliction with FAB operations. For more on airspace management see FM 3-52, ATP 3-52.2, and JP 3-52.

2-37. Duties and responsibilities of the ADAM/BAE include:

- Coordinate the airspace with aviation, FA, and other prime airspace user representatives.
- Deconflict airspace through the appropriate control authority.
- Plan and coordinate AMD operations with supporting air defense artillery units.
- Collaborate with the appropriate airspace control agency for immediate coordination of airspace for high altitude fires. Maintain the AMD and airspace management running estimates.

- Provide staff support for airspace management.
- Serve as the airspace management point-of-contact for FAB subordinate units.
- Provide FAB input to division, corps, airspace control order and air tasking order requirements.
- Coordinate sensor and tactical digital information link coverage.
- Advise the FAB commander and staff on all AMD-related issues.
- Monitor current enemy air and missile activities.
- Provide threat early warning.
- Track friendly AMD operations including unit positioning, status, coverage fans, sensor plans, changes in the air tasking order, high-priority target lists, airspace control procedures (including airspace coordinating measures [ACM]), rules of engagement, and number and type of air defense missiles available.
- Coordinate critical AMD information.
- Provide situational awareness of UAS.
- Plan and coordinate AMD augmentation.
- Develop input to FAB plans and orders. Directly responsible to the S-3 to develop and coordinate Appendix 7 (AMD) to Annex D (Fires) to FAB plans and orders.
- Develop Appendix 10 (Airspace Control) to Annex C (Operations) for FAB plans and orders.
- Coordinate the integration of joint messages relying on tactical data links into the mission command systems of the FAB CP via the air defense system integrator (referred to as ADSI) Shelter

Information Operations Element

2-38. *Information operations* is the integrated employment, during military operations, of information-related capabilities in concert with other lines of operation to influence, disrupt, corrupt, or usurp the decision making of adversaries and potential adversaries while protecting our own (JP 3-13). Although information operations (IO) primary focus is on influencing enemy decision making, it is also concerned with affecting the will and behavior of all actors and audiences that impinge on or are affected by military operations.

2-39. Under direction of the FSO, the information operations element synchronizes the planning of information related capabilities to achieve the commander's intent. Targets in the information environment benefit from deliberate selection, development, and delivery, as such, they are a part of the targeting process and get nominated to the targeting board for approval. Duties and responsibilities of the information operations element include:

- Develop the scheme of IO in support of the FAB concept of operations, IO objectives, and measures of performance and measures of effectiveness for FAB assessment. Through reach-back, access information necessary to enhance situational understanding to support FAB operations and, when necessary, make recommendations for augmentation. Augmentation broadens the range of these assets available to the FAB.
- Coordinate with the higher or supported HQ's information operations, military information support operations, and public affairs personnel to ensure FAB information operations is synchronized with that of the higher or supported HQ.
- Synchronize available information related capabilities with FAB operations to accomplish the mission and meet the commander's intent. If additional information related capabilities not-on-hand are required, the IO element requests support or augmentation from higher HQ.
- Assist the intelligence preparation of the battlefield effort by analyzing threat courses of action, identifying high value targets, and providing IO related input to the information collection plan.
- Conduct mission analysis, course of action (COA) development, and production of the information-related aspects of the FS running estimate.
- Develop input to FAB plans and orders. Directly responsible to the FSO and S-3 for developing and coordinating the information operations portion of FAB plans and orders.
- As staff focal point, coordinate FAB synchronization of messages and actions during operations to support higher HQ themes.

- Coordinate cyberspace electromagnetic activities to seize, retain, and exploit an advantage over adversaries and enemies in cyberspace and across the electromagnetic spectrum.
- Coordinate intelligence support to information environment analysis and assessment of IO.

Current Operations Cell

2-40. Under direction of the S-3 and the FSO, the current operations cell synchronizes the planning of FS including Army indirect fires and joint fires to achieve the commander's intent. The requirements for strike, counterfire, or fires in support of shaping operations will be given to the FAB in the form of mission orders.

2-41. For example, if the higher or supported HQ were conducting an attack to seize an objective or series of objectives, the FAB might receive essential FA task(s) to isolate and reduce objectives, or disrupt reinforcements. Duties and responsibilities of the FAB current operations cell include:

- Coordinate with the S-2, intelligence and targeting sections to integrate FS targeting requirements into the overall surveillance and collection plans for higher or supported HQ.
- Assist the intelligence and targeting sections in analyzing threat courses of action, identifying high value targets, and providing input to the intelligence plan.
- Coordinate the execution of essential FA task(s) assigned by the higher HQ.
- Conduct mission planning analysis, COA development, and coordinating production of the FS running estimate.
- Develop input to FAB plans and orders. The fires element is directly responsible to the FSO for developing and coordinating portions of FAB plans and orders that describe the scheme of fires for FAB operations including Annex D (Fires) to FAB plans and orders.
- Develop recommendations for FSCMs as part of the OPLAN or OPORD development.
- Translating the commander's intent into tasks to subordinate units and parameters for automation systems in support of FAB operations.
- Coordinate tactical airspace control with higher command FSEs.
- Plan for, request, coordinate, and execute joint fires for the supported commander.
- Integrate attached or cooperate unified action partners into FS operations for the brigade.

Liaison Section

2-42. Liaison sections are critical to ensuring the corps FSE, divisions FFA HQ, and adjacent coalition units, understand the capabilities and limitations that the FAB brings to the operation. Duties and responsibilities of the liaison section include:

- Establish liaison with higher, adjacent, and supported units (as required).
- Exchange data and coordinating FS across boundaries, when directed.

S-1 Section

2-43. Personnel services are those sustainment functions related to Soldiers' welfare, readiness, and quality of life. Personnel services complement logistics by planning for and coordinating efforts that provide and sustain personnel.

2-44. Personnel services include human resources support, financial management, legal support, religious support, and band support. Duties and responsibilities of the S-1 section include:

- Plan for and operate human resources activities.
- Monitor and report human resources-related friendly force information requirements and essential elements of friendly information.
- Coordinating with the human resources operations center of the sustainment brigade or theater sustainment command for external human resources support.
- Develop the personnel running estimate and assessing the supportability of various courses of action from a human resources perspective.
- Provide FAB staff supervision for personnel services, Army Health System (AHS) support, legal support, and religious support.

- Develop input to FAB plans and orders. Directly responsible for preparing, coordinating, or providing input to the personnel running estimate and human resources-related input to Appendix 2 (Personnel Services Support) to Annex F (Sustainment) and including appropriate input from other staff (for example, the brigade surgeon, staff judge advocate, and chaplain for AHS, legal and religious support portions) to FAB plans and orders.

S-4 Section

2-45. The FAB S-4 section's focus is coordinating logistics support for FAB operations. See FM 6-0 for more detailed information on the duties and responsibility of the S-4. For more on the relationship between the sustainment and fires warfighting functions see FM 3-09.

2-46. Duties and responsibilities of the S-4 section involve providing FAB staff oversight for execution of logistics tasks including:

- Maintenance.
- Transportation.
- Supply.
- Field services.
- Distribution management.
- Operational Contract Support.
- Explosive ordnance disposal.
- Related general engineering.

2-47. The S-4 section is also responsible for developing input to the logistics portion of FAB plans and orders. The S-4 section develops Appendix 1 (Logistics) to Annex F (sustainment) and assists the S-4 in coordinating paragraph 4: Sustainment and Annex F (Sustainment).

S-6 Section

2-48. The S-6 section's focus is on those tasks that facilitate FAB CP operations; communication with higher, subordinate and adjacent units, and information management. This includes tasks associated with acquiring friendly information, managing relevant information, and directing and leading subordinates. For more on the mission command warfighting function see FM 6-0.

2-49. The FAB C2 system is important to FAB operations. Information systems-including communications systems, intelligence support systems, and computer networks-form the backbone of the commander's C2 system. The C2 system supports the commander's ability to make informed decisions, delegate authority, and synchronize the warfighting functions. Moreover, the C2 system supports the commander's ability to adjust plans for future operations, even while focusing on the current fight.

2-50. The staff works within the commander's intent to direct subordinate units and control resource allocations. They also are alert for enemy or friendly situations that require command decisions and advise the commander concerning them. Through C2, the commander initiates and integrates all systems and warfighting functions toward mission accomplishment. The FAB S-4 and S-6 must coordinate to ensure there are no gaps in the maintenance system for communications security, computers, and other specialized C2 equipment. Duties and responsibilities of the signal section include:

- Develop the FAB's tactical information network and associated architecture.
- Advises the S-3 on CP locations based on communications capabilities.
- Assess FAB C2 vulnerability to threat actions.
- Recommend FAB network priorities and constraints needed to accommodate bandwidth limitations.
- Exercise staff coordination with the FAB signal network support company.
- Deploy assets allowing the FAB to connect its information systems to the Department of Defense Information Network-Army.
- Integrate the FAB's information systems with the warfighter information network-tactical.

- Plan and direct communications protocols and user interfaces between the global information grid and the FAB network.
- Provide electromagnetic spectrum coordination and manage radio frequency allocations and assignments to include multinational operations.
- Develop input to FAB plans and orders specifically developing Paragraph 5: (Command and Signal) and Annex H (Signal).
- Coordinate communications requirements with adjacent and higher HQ S-6, assistant chief of staff, signal (G-6) or communications system directorate of a joint staff.
- Integrate the FAB's information systems to create a common operational picture and disseminating the common operational picture.
- Store relevant information.
- Provide communications security support to the FAB and all attached organizations.
- Communicate with joint, interagency, intergovernmental, and multinational agencies.
- Maintain selected components of the FAB C2 system.
- Supervise signal-related maintenance.
- Plan and provide oversight for conducting defensive cyberspace operations response actions (referred to as DCO-RA).

Public Affairs Section

2-51. Duties and responsibilities of the public affairs section include:

- Plan, coordinate, integrate, and synchronize the employment of public affairs in FAB operations. See FM 3-61 for more information.
- Identify public affairs requirements, integrate public affairs into targeting, and assess the effectiveness of those activities. This includes coordinating and de-conflicting efforts of augmentation elements such as public affairs teams and media personnel.

Staff Judge Advocate Section

2-52. The brigade judge advocate leads the staff judge advocate section and provides the brigade commander and subordinate commanders with legal advice and support. This includes legal advice on military justice, administrative, national security, contract, and fiscal law. The staff judge advocate section assists the brigade and BN staffs with implementing the Department of Defense, Law of War program, and provides legal advice during targeting.

2-53. The section also provides the FAB staff and supported HQ with immediate access to operational law expertise to provide scalable fires for FAB operations. See FM 1-04 and FM 6-0 for additional information on the duties of the brigade legal section.

Medical Platoon

2-54. The FAB medical platoon coordinates support for both AHS support and force health protection. It coordinates AHS support operations with the division or other supported HQ surgeon section and with supporting medical units and elements, as required.

2-55. The FAB surgeon establishes medical treatment guidelines for FAB subordinate medical treatment elements. The medical platoon is found in the HHB; it provides Role 1 AHS support for the FAB. For additional details on its organization and capabilities, see ATP 4-02.3. The medical company area support provides Role 2 AHS support to the FAB. For additional details on its organization and capabilities, see ATP 4-02.3. The duties and responsibilities of the medical platoon include:

- Ensure timely planning, integration, and synchronization of AHS support with the FAB operations plan.
- Coordinate for health service support and force health protection augmentation as required, ensuring that all FAB AHS support requirements are met.

Unit Ministry Team

2-56. Duties and responsibilities of the unit ministry team include:

- Provide comprehensive religious support for all assigned, attached, or authorized personnel.
- Advise the command on issues of morals, ethics, and religion, including the religious needs of all personnel for whom the command is responsible.
- Plan, coordinate, and resource precise religious support per the mission variables.
- Advise the commander on religious aspects of the local environment and conduct Soldier and leader engagements at commander's direction in accordance with ATP 1-05.03.
- Provide supervision and training for attached or assigned BN unit ministry teams.

Chapter 3

Operations and Integrating Processes

This chapter describes the FAB operations and integrating processes. The chapter begins with a discussion of mission orders. Then precedes to describe the FAB operations process: including the functions of planning, preparing, executing, and assessing. The chapter then follows with a description of targeting, surveillance, reconnaissance, and TA. The chapter concludes with continuing activities to include clearance of fires, airspace management, and suppression of enemy air defenses considerations.

MISSION ORDERS FOR THE FIELD ARTILLERY BRIGADE

3-1. The FAB receives its tasks in the form of mission orders from the higher or supported HQ. *Mission orders* are directives that emphasize to subordinates the results to be attained, not how they are to achieve them (ADP 6-0). A mission order for a FAB includes the following:

- Higher or supported commander's intent and concept of operations.
- Commander's critical information requirements and other information requirements.
- FS tasks.
- Priorities for FS.
- FSCMs.
- Coordinating instructions.

3-2. The FAB staff performs mission planning, determines what assets can best fill the higher or supported command's FS requirements and tasks its subordinate units. The FAB FSE can provide augmentation to the corps FSE as necessary. If the corps commander assigns a FAB commander as the FSCOORD for the corps they must be fully integrated with the corps staff. The FSCOORD ensures that the corps FS system supports the corps commander's guidance for fires, meets joint force requirements, and reacts responsively to changing battlefield conditions. The FSE and FSCOORD accomplishes these actions by developing, recommending, and coordinating the scheme of fires.

3-3. The FAB can plan for and employ FS assets in accordance with the task organization. The FAB establishes support relationships as part of FA organization for combat and tasks to subordinate units in FAB plans and orders. Depending on the size of the higher or supported command's AO, the FAB may not have the resources to provide FS in all areas simultaneously. The FAB focuses its assets in the corps, JTF, division, or other supported command's areas based on the FS requirements and priorities established by the supported commander.

THE FIELD ARTILLERY BRIGADE OPERATIONS PROCESS

3-4. The *operations process* is the major command and control activities performed during operations planning, preparing, executing, and continuously assessing the operation (ADP 5-0). The process serves as a template for coordinating other actions associated with an operation.

PLANNING

3-5. *Planning* is the art and science of understanding a situation, envisioning a desired future, and laying out effective ways of bringing that future about (ADP 5-0). Planning involves envisioning a desired end state and describing the conditions and most effective methods to achieve it. It includes formulating one or more

courses of action for accomplishing the mission. The FAB commander and staff consider the consequences and implications of each COA. Planning continues throughout an operation. At minimum, the FAB staff refines plans for branches and sequels throughout an operation.

3-6. Plans forecast but do not predict. A plan is a continuous, evolving framework of anticipated actions that guides subordinates through each phase of the operation. Any plan is a framework from which to adapt, not an exact blueprint. The measure of a good plan is not whether execution transpires as planned, but whether the plan facilitates effective action in the face of unforeseen events. Good plans foster initiative, account for uncertainty and friction, and mitigate risk.

3-7. Scope, complexity, and length of planning horizons differ between operational and tactical planning. FAB planners integrate FAB capabilities with those of other support brigades, and with other organizations participating in unified action. Comprehensive, continuous, and adaptive planning characterizes successful operations at both the operational and tactical levels.

3-8. The FAB begins planning no later than receipt of a mission from its higher or supported HQ. Planning must be conducted concurrently and the staff must collaborate with the higher HQs. The primary focus of planning is to provide FS that meets the requirements and priorities of the higher HQ commander and staff. The FAB's higher HQ must ensure that it allocates the resources the FAB needs to accomplish its missions.

3-9. To develop plans to accomplish the assigned mission, FAB commanders and staff follow the MDMP. The *military decision-making process* is an iterative planning methodology to understand the situation and mission, develop a course of action, and produce an operation plan or order (ADP 5.0).

Modifications

3-10. There are several reasons the FAB commander may modify the MDMP. The following paragraphs present a few of these reasons:

- **Time-Constrained Environment.** In a time-constrained environment, the staff might not be able to conduct a detailed MDMP, and might choose to abbreviate the process as described in FM 6-0. The abbreviated process still uses all seven steps of the MDMP, but the steps are done in a shortened and less detailed manner.
- **Parallel Planning.** A change in the situation, anticipation of an order from the higher command or critical information requirements, can lead the commander to require that planning begin based on apparent changes. This is referred to as parallel planning. It is accomplished by issuing warning orders to subordinate units at various stages of the MDMP. These warning orders give subordinate units the information they need to conduct mission analysis.
- **Distributed Planning.** Digital communications and information systems enable members of the same staff to execute the MDMP without being collocated. Distributed planning saves time and increases the accuracy of available information by allowing for the rapid transmission of voice and data information that staffs can use over a wide geographical area.
- **Collaborative Planning.** The real time interaction among commanders and staffs at two or more echelons developing plans for a particular operation. The main benefits of collaborative planning come as much from engaging meaningfully in the process as it does from the product itself. While the plan may convey the decision, participating in collaborative planning conveys the context of the decision, as well as an understanding of the available options and the relationships among forces.

Fire Support Planning Guidelines

3-11. *Fire support planning* is the continuing process of analyzing, allocating, integrating, synchronizing, and scheduling fires to describe how the effects of fires are used to facilitate maneuver force actions (FM 3-09). Use checklists to aid FS planning.

3-12. Due to time constraints, it may not be possible to accomplish all the actions listed in tables 3-1 through 3-4. These guidelines should serve as a road map for FAB personnel.

Table 3-1. Long Range Planning

| Action | Responsibility |
|--|-----------------------|
| Obtain threat characteristics and develop situation template. | S-3, S-2 |
| Check the attack guidance matrix and update as necessary based on current enemy. | S-3, FSO |
| Develop field artillery ratios to be used in war gaming and planning. | S-3, S-2 |
| FSO – fire support officer, S-2 – battalion or brigade intelligence staff officer, S-3 – battalion or brigade operations staff officer | |

Table 3-2. Planning for the Immediate Battle

| Action | Responsibility |
|--|--|
| Receive higher headquarters operation order. | Staff, S-3, FSO, and FSEs |
| Conduct mission analysis. | Staff, S-3, FSO, and FSEs |
| Identify essential, specified, and implied tasks of FS. | S-3, FSO, and FSEs |
| Identify intent for maneuver and FS guidance, including priorities for support. | Commander |
| Course of action development, war game, and produce the decision support template. Attend initial targeting working group session to determine high-payoff targets and plan for attack. Ensure decision support template documents include responsibilities for observing named areas of interest, target areas of interest, and decision points. Recommendations for attack of target areas of interest by weapon system and the associated trigger point. Initial development of field artillery brigade target list and target overlay. Input for the initial field artillery brigade synchronization matrix. | S-2, S-3, FSO, Air Liaison Officer, Aviation Liaison Officer, and Brigade Judge Advocate |
| Formulate commander's attack guidance (based on field artillery attack matrix and target value analysis). | Commander, S-3, FSO, and FSEs |
| Compute number of field artillery targets available for allocation. Allocate field artillery targets for planning based on commander's priorities. | S-3, FSO and FSEs, FA battalion S-3s |
| Develop commander's attack criteria from FAB commander's attack guidance. | S-3, FSO, and FSE |
| Conduct rehearsals. Include as many members of the FS system as possible: subordinate FSEs, field artillery battalion S-3s, fire control officers, targeting officers, air liaison officers, aviation liaison officers, and others as necessary. If time does not allow for a face-to-face rehearsal, consider using alternate means (radio or CPOF) (dependent on the existing threat). At a minimum, war game the FS plan with the S-3, FSO, field artillery battalion S-3s, and fire control officers present. The rehearsal should cover: <ul style="list-style-type: none"> • Verification of target grids, numbers, and trigger points. • Positioning and movement of field artillery units. • Communication networks and variables. • FSCMs. • Airspace Control Order with ACMs. | Commander, S-3, FSO, FSE, and FA battalion S-3s |
| ACM - airspace coordinating measure, CPOF – command post of the future, FAB – field artillery brigade, FSE – fire support element, FSO – fire support officer, FSCM – fire support coordination measure, S-2 – battalion or brigade intelligence staff officer, S-3 – battalion or brigade operations staff officer | |

Table 3-3. Execution Planning

| Action | Responsibility |
|---|-----------------------|
| S-3, FSO, and selected FSE personnel position themselves where they can best execute the FS plan (not always with the FAB commander). | S-3, FSO, and FSE |
| Communicate with: <ul style="list-style-type: none"> Supported commander. Subordinate and higher FSEs. Subordinate battalion fire direction centers and other FS assets. | S-3, FSO, and FSE |
| FAB – field artillery brigade, FSE – fire support element, FSO – fire support officer, S-3 – battalion or brigade operations staff officer | |

Table 3-4. Provide Battle Tracking

| Action | Responsibility |
|---|-----------------------|
| S-3, FSO and FSEs planners should know the location of all maneuver elements down to brigade level (and their future plans for movement). The location of FS assets to include, at a minimum: supporting WLRs; field artillery battalions, and the ammunition status of these assets and the division, corps or JFE the location of all current and proposed FSCMs. | S-3, FSO, and FSE |
| Execute fires in accordance with the higher HQ FS execution matrix. | S-3, FSO, and FSE |
| FSCM – fire support coordination measure, FSE – fire support element, FSO – fire support officer, HQ – headquarters, JFE – joint fires element, S-3 – battalion or brigade operations staff officer, WLR – weapons locating radars | |

Risk Management

3-13. *Risk management* is the process of identifying, assessing, and controlling risks rising from operational factors and making decisions that balance risk cost with mission benefits (JP 3-0). Risk management is an integral part of planning, and must take place at all echelons of the FAB during each phase of every operation. Both tactical and accidental risks are always present in all operations.

3-14. An integral part of risk assessment and management is thinking through the ethical risks of each COA. Leaders should never approach risk management with "one size fits all" solutions to the risks that their unit faces. Commanders must manage risks to their forces to accomplish the mission and take care of Soldiers. For more on risk management see ATP 5-19.

PREPARING

3-15. *Preparation* is those activities performed by units and Soldiers to improve their ability to execute an operation (ADP 5-0). Preparation creates conditions that improve friendly forces' chances for success. It facilitates and sustains transitions, including those to branches and sequels.

3-16. Preparation requires staff, subordinate units, and Soldier actions. Mission success depends as much on preparation as on planning. Rehearsals help staffs, units, and individuals to better understand their specific role in upcoming operations, practice complicated tasks before execution, and ensure equipment and weapons are properly functioning. Key preparation activities include:

- Plan refinement.
- Surveillance and reconnaissance.
- Rehearsals to include subordinate confirmation briefs and back briefs.
- Task-organizing.
- Training.
- Troop movements.
- Pre-operations checks and inspections.
- Sustainment preparations.
- Integrating new Soldiers and units.

3-17. Several preparation activities begin during planning and continue throughout an operation. Uncommitted forces prepare for identified contingencies and look to the operation's next phase or branch. Committed units revert to preparation when they reach their objectives, occupy defensive positions, or pass into reserve.

Rehearsals

3-18. Rehearsals allow leaders and their Soldiers to practice key aspects of the concept of operations. These actions help Soldiers orient themselves to their environment and other units before executing the operation. Rehearsals help Soldiers build a lasting mental picture of the sequence of key actions within the operation. A rehearsal is an effective organizational tool in ensuring staffs and subordinates gain a tactical understanding of the commander's intent and the concept of operations, understanding, and fostering mutual trust within a commander's sphere of control. The commander and staff are able to visualize the terrain, and enemy and friendly units arranged by military action in time, space, and purpose. For more detailed information on rehearsals see FM 6-0.

3-19. Each rehearsal type achieves a different result and has a specific place in the preparation timeline. The four types of rehearsals are the:

- Backbrief.
- Combined arms rehearsal.
- Sustainment rehearsal.
- Battle drill or standard operating procedure (SOP) rehearsal.

3-20. FS personnel are involved in every type of rehearsal. Multiple rehearsals ensure that maximum integration and synchronization in supporting the scheme of maneuver with fires. When time is limited, the number and scope of rehearsals are reduced. In these cases, rehearsals may focus on FS tasks or particular aspects of the maneuver plan and the associated FS plan. The FS rehearsal, in coordination with the FA technical rehearsal, should be conducted prior to the combined arms rehearsal and if possible, include members of the operations and intelligence staff and other members of the targeting team.

3-21. Rehearsals are based on a warning order (referred to as a WARNORD) or OPORD. Units may rehearse a contingency plan to prepare for an anticipated deployment. The rehearsal is a coordination event, not an analysis. It does not replace war-gaming. Commanders avoid making major changes to OPORDs during rehearsals. They make only those changes essential to mission success and risk mitigation. Risk management is the process to identify, assess, and control risks and make decisions that balance risk cost with mission benefits (JP 3-0). For more information on risk management see ATP 5-19.

Backbrief

3-22. A *backbrief* is a briefing by subordinates to the commander to review how subordinates intend to accomplish their mission (FM 6-0). The backbrief allows the FSCOORD to clarify the commander's intent early in subordinate planning. Commanders use the backbrief to identify any problems in the concept of operations and to increase understanding and synchronization through the passage of information. At a minimum the FSCOORD should cover the following items during the backbrief:

- Commander's guidance for fires.
- Initial scheme of fires.
- Priorities of fires.
- High-payoff targets (HPT).
- Initial FSCM recommendations.
- Command and support relationship recommendations.

3-23. Backbriefs should not be confused with confirmation briefs that commanders use immediately after issuing a plan to determine how well a subordinate commander understands the mission, task, and/or directive. It differs from a confirmation brief in that leaders are given time to complete their plan rather than briefing the commander immediately following receipt of an order. Typically, the confirmation brief occurs at the conclusion of the orders or OPLAN brief when all subordinate commanders are available. The commander adjourns the session only when they are confident their subordinates understand their mission,

and assigned task and purpose, the commander's intent and the higher commander's intent, the concept of operation, scheme of maneuver, priorities, the time plan, and type and location of rehearsals.

Combined Arms Rehearsal

3-24. The FS plan must be integrated into the combined arms rehearsal. Key FS personnel representing or supporting the FS system must attend the combined arms rehearsal. The commander will decide who attends. For a detailed listing of who must attend the combined arms rehearsal see FM 3-09.

3-25. Usually, the combined arms rehearsal takes place after the joint targeting cycle and Army targeting process have commenced. Much of the FS plan for the operation will be refined based on the ongoing targeting cycle to include target nominations HPTs, TAIs, information collection plan and allocation, CAS allocations, priorities of fire, FSCMs, ACM, and overall scheme of fires.

3-26. For each phase or time period discussed at the combined arms rehearsal, the FSCOORD should ensure the following are integrated:

- Essential fire support tasks (referred to as EFSTs).
- HPTs and TAIs.
- Trigger points for each target and the target engagement criteria.
- Target Acquisition resources and allocation for each HPT and TAI.
- Communications plan for each TA resource.
- Attack guidance, such as unit(s) to fire, shell and fuze combination, and number of volleys, specified for each target.
- Time sensitive target lists, attack guidance matrices, and target selection standards
- Alternate method of attack when global positioning system enabled weapons are primary and the area becomes denied, degraded, and disrupted.
- FSCMs and ACMs including triggers for moving FSCMs.
- Priorities of fire.
- FS attack/delivery systems (lethal and nonlethal) available and allocated for each HPT and TAI.
- Consolidation Area FS plan.
- Geographic combatant commander CAS, and AI, apportionment guidance, joint force land component commander target nominations for AI, and requests for CAS.

Fire Support Rehearsal

3-27. The FS rehearsal is a support rehearsal. It should occur before the combined arms rehearsal and ensure the integration and synchronization of the FS effort with the information collection plan and the scheme of maneuver plan. As with the combined arms rehearsal, the FS rehearsal likely occurs after the initiation of the targeting process. FS rehearsals are more detailed than the combined arms rehearsal and serve to refine the FS plan and FS execution matrix with the maneuver and prove the feasibility of executing FS tasks. If it is held before the combined arms rehearsal, changes from the combined arms rehearsal may require a second FS rehearsal. A FS rehearsal may include all key maneuver and FS personnel involved in planning and executing the FS plan. For a detailed listing of personnel required to attend the FS rehearsal see FM 3-09. For more information on FS rehearsals see FM 6-0 and ATP 3-09.23, ATP 3-09.42, ATP 3-09.90.

3-28. The FSCOORD ensures the following are discussed during the FS rehearsal:

- A clear understanding of the maneuver commander's intent and guidance for FS.
- Establishment of TAIs, NAIs, and HPTs that allow for targeting against specific enemy formations in accordance with the commander's targeting guidance (intelligence collection plan).
- Allocated primary and alternate TA and FS attack and delivery capabilities for each TAI.
- A clear understanding of the scheme of fires.
- A clear understanding of the rules of engagement and procedures for clearing fires.
- Primary, alternate, contingency, and emergency communications plan.
- Alternate attack systems to be used in the engagement of specific targets.

- Positioning of munitions, observers, and weapon systems.
- Execution of FS tasks.
- FS execution matrix.
- Practicality, functionality, purpose, and triggers of FSCMs.
- Clear understanding of attack guidance matrix and target selection standards.
- Priority of fires.
- FS procedures in the consolidation area.
- Time sensitive target lists, attack guidance matrices, and target selection standards.

Field Artillery Tactical Rehearsals

3-29. FA tactical rehearsals are support rehearsals that ensure the FA unit OPLAN or OPORD properly plan and synchronize FA tactical fire control. An FA tactical rehearsal may include the FSCOORD/FA Commander, supporting and subordinate firing unit commanders (and staffs), FSOs, key firing unit staff to include the S-2, S-3, S-4, S-6, SJA, Fire Control and Fire Direction personnel, select observers, and the radar platoon leader.

3-30. These personnel must be thoroughly familiar with clearance of fires procedures, restrictive and permissive FSCMs, FA target lists and schedules, trigger points and events, movement and displacement plans, combat service support provisions, and C2, and communications handover requirements. The FA commander also ensures the following are discussed during the FA tactical rehearsal:

- Scheme of maneuver, friendly, and enemy actions that initiate each phase.
- Enemy situation.
- Concept of operations.
- Commander's guidance for fires.
- FS tasks.
- FA organization for combat and command and support relationships.
- Required supply rate (RSR) and CSR implications.
- Tactical execution of FA essential tasks, the FA support matrix, schedules of fires, and schedules of targets - primary and backup methods.
- Tactical fire control and mission routing procedures.
- Clearance of fires requirements and procedures.
- Commander's attack criteria and priority of fires considerations.
- Effectiveness of FA movement and positioning plans, primary and alternate, for firing, control, and sustainment elements.
- Targeting, counterfire, and SEAD operations.
- WLR positions and zones.
- Mutual support and continuity operations.
- Communications requirements - use and positioning of retransmission equipment, use of voice versus digital. Utilizing a primary, alternate, contingency, and emergency communications plan.
- Survey requirements.
- Timing and synchronization of FA efforts with maneuver and airspace control operations.
- Clear understanding of rules of engagement and procedures for clearing fires.
- Meteorological requirements.
- Resupply triggers, especially for low-density munitions.
- CBRN decontamination locations.
- Protection requirements for FA units (infantry, air defense artillery, engineer, military police).
- Ensure protection battle drills are developed and rehearsed to account for reaction to enemy air, ground, CBRN, indirect fire, jamming, or cyberspace electromagnetic activity attacks.
- Reconstitution procedures.

Field Artillery Technical Rehearsals

3-31. FA technical rehearsals are support rehearsals that ensure the supported higher HQ' FS plan will be executed by the FSEs, fire control elements, the joint air-ground integration center, and subordinate FA unit's OPLAN or OPORD properly addresses FA technical fire direction and exercise the technical fire direction process. It is a network rehearsal technique. FA technical rehearsals focus include:

- Technical execution of FA essential tasks and the FA support matrix - digital links and primary and backup methods. Integration of voice and digital operations. Rehearsal of backups includes evaluation of reactions to catastrophic loss of digital or voice capability.
- Integration of tactical and technical fire control processes and computation of firing solutions, to include the communication and interaction among the FSEs, fire direction, and firing elements.
- Identification of technical fire direction issues - site to crest, high-angle fire, minimum safe distance, target, ammunition, range, FSCM, and ACM conflicts.
- Digital database verification - setup, communications, positions, FSCMs, ACMs, target and attack guidance, mission routing and intervention points, target list, and scheduling data.
- Digital continuity of operations - actions for minor and catastrophic failure.
- Digital interface requirements -fire direction system, digital version differences, and any other digital systems, including Air Force, Navy, Marine, and multinational unified action partners.
- Technical rehearsal of the echelons above brigade TA capability sensor-to-shooter links.

3-32. Safeguards must be taken to prevent live rounds from being fired at technical rehearsal targets while maintaining the capability to react to real threats. Units must retain the ability to terminate or postpone rehearsals instantly when an actual fire mission needs to be processed

Fire Support Battle Drill Or Standard Operating Procedures Rehearsals

3-33. FS related battle drills or SOPs should be rehearsed either independent from the above rehearsals or preferably, integrated as vignettes into the combined arms rehearsal and FS Rehearsal. Examples include:

- Clearance of fires (air and ground).
- Cross boundary fires.
- Counterfire.
- FSCM movement triggers.
- Reconstitution operations.

EXECUTION

3-34. *Execution* is putting a plan into action by applying combat power to accomplish the mission (ADP 5-0). The commander uses situational understanding to assess progress and make execution and adjustment decisions. The FAB can conduct offensive, defensive, and stability operations simultaneously. The degree of emphasis placed on each will vary depending on the situation.

3-35. The force design of the FAB allows it to conduct the FS missions necessary to support within the higher HQ AO with its organic assets or with augmentation from the division, corps, or JTF. The employment of the FAB is described in Chapter 4.

Rapid Decision Making and Synchronization Process

3-36. The rapid decision making and synchronization process is a decision making and synchronization technique for commanders and staff to use during execution. Two significant differences between the rapid decision making and synchronization process and the MDMP are as follows:

- The rapid decision making and synchronization process is based on an existing order. Control mechanisms in the order (commander's intent, concept of operations, and commander's critical information requirements) identify the commander's priorities. Leaders use these priorities as criteria for making decisions.
- The rapid decision making and synchronization process seeks an acceptable solution, while the MDMP seeks the optimal (most desirable) one. Using the rapid decision making and

synchronization process lets FAB leaders avoid the time-consuming requirements of developing decision criteria and comparing courses of action. Under the rapid decision making and synchronization process, leaders combine their experience and intuition with situational awareness to quickly reach situational understanding. Based on this, they develop and refine workable courses of action.

3-37. The rapid decision making and synchronization process includes:

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

3-38. After the analysis is complete, staff members begin synchronization needed to implement the decision. This synchronization involves collaboration with other staff cells and subordinate staffs and among commanders. Once the decision on the COA is made, the FAB current operations cell issues a fragmentary order written or verbal directing the implementing actions. If time permits, another control mechanism is to verify if subordinates understand critical tasks. Methods for doing this include the confirmation brief and backbrief. This is done both between commanders and within staff elements to ensure mutual understanding.

ASSESSMENT

3-39. Assessment is the determination of the progress toward accomplishing a task, creating a condition, or achieving an objective (JP 3-0). Assessment helps the FAB commander and the staff to adjust operations and resources as required, determine when to execute branches and sequels, and make other critical decisions to ensure current and future operations remain with the mission and desired end state. Assessment criteria include:

- A *measure of effectiveness* is an indicator used to measure a current system state, with change indicated by comparing multiple observations over time. (JP 5-0). Measures of effectiveness are criteria that determine whether the FAB is doing the right things or are additional or alternative FAB actions required.
- A *measure of performance* is an indicator used to measure a friendly action that is tied to measuring task accomplishment (JP 5-0). Measures of performance are criteria that determine whether the FAB is doing things right—for instance a measure of performance might ask "were the FAB's weapons employed as intended on the planned target, and did the expected physical or functional damage occur?"

3-40. The FAB commander and staff determine measures of effectiveness and measures of performance during planning. They consider measures of effectiveness and measures of performance as early as mission analysis, and include them and related guidance in commander and running estimates. The FAB S-3 and S-2 have overall responsibility for conducting FAB assessment activities. For more on assessment see FM 3-09, ATP 3-60, JP 2-0, JP 3-0, JP 3-09, and JP 3-60.

TARGETING

3-41. *Targeting* is the process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities (JP 3-0). The FAB does not conduct a separate targeting process, it participates in the division, corps, or JTF targeting process. The targeting functions consist of decide, detect, deliver and assess. For more information on targeting see ATP 3-60.

INFORMATION COLLECTION OPERATIONS

3-42. The FAB lacks the capability to conduct either surveillance or reconnaissance activities and relies on information from the higher or supported HQ. If surveillance or reconnaissance assets are provided to and controlled by the FAB, the FAB employs those assets in accordance with doctrine found in publications such as ATP 2-19.4. The commander integrates surveillance and reconnaissance assets (if available) with WLR

assets to capitalize on their different capabilities. The commander synchronizes reconnaissance and surveillance capabilities with the FAB concept of operations and the FS plan of the higher HQ.

3-43. WLRs are the FABs primary means of collecting information used to produce intelligence. WLRs and TA assets focus primarily on collecting information about the enemy and the environment to satisfy the priority intelligence requirements.

TARGET ACQUISITION

3-44. *Target acquisition* is the detection, identification, and location of a target in sufficient detail to permit the effective employment of weapons (JP 3-60). The goal of the FAB TA effort is to provide timely and accurate information to enhance the attack of specified targets. TA systems and equipment perform the key tasks of target detection, location, tracking, identification, and classification for FS operations. Due to the lack of organic surveillance and reconnaissance assets, the FAB typically relies on external agencies for battlefield damage assessment.

3-45. TA assets are an active emitter on the battlefield which can be passively detected by enemy sensors. WLRs are a prime target for enemy indirect fires. MDMP must include the integration of specific risk reduction measures to ensure TA assets remain functional to support FAB operations.

3-46. The integration of specific risk reduction techniques during MDMP will allow the FAB S-3 to generate orders which increase the survivability of the TA assets to ensure a cognitive advantage to the FAB commander and staff. Specific electromagnetic protection risk reduction techniques include emissions control and the use of terrain masking to reduce exposure to enemy electromagnetic sensors.

Weapons Locating Radars

3-47. The TAP contains AN/TPQ-53 and AN/TPQ-50-series WLRs. The TAP provides target intelligence and information based on acquisitions from mortar, artillery, and rocket systems to facilitate protection measures and enable counterfire mission processing. This platoon can also register mortars and artillery. The TAP or individual radar sections may be augmented with additional assets to create a tailored force package based on the tactical situation. In a deployed status, the FAB normally will control the employment of the TAP and any additional supporting counterfire WLRs and systems supporting the FAB mission.

3-48. The primary mission of the AN/TPQ-53 radar is to detect and locate enemy mortars, artillery, and rockets quickly and accurately enough to permit immediate engagement. The Q-53 is capable of locating hostile mortar, artillery, and rocket fire in a clutter environment, and provides friendly artillery registration and adjustment. The system was designed to provide 90-degree coverage against mortars at ranges up to 20km, cannon at ranges up to 50km and rockets at ranges up to 60km. It can also provide 360-degree coverage against mortars at ranges up to 15km and cannon and rockets at ranges up to 20km.

3-49. The primary mission of the AN/TPQ-50-series radar is to detect, locate, and report enemy indirect mortar fires. The system provides 360-degree detection and location of firing weapons at ranges from 500 meters to 10 km. For more information on WLRs and their employment see ATP 3-09.12.

Weapons Locating Radar Employment

3-50. The FAB WLR assets must be integrated into FS planning, MDMP, and the targeting process of the supported HQ if WLR assets are to be effectively employed. WLR planning starts when the mission is received and continues throughout the entire targeting process. The targeting officer must be focused on the requirements for WLRs throughout this process.

3-51. The higher or supported command's FS planners, and the FAB commander recommend an organization for combat for the higher or supported command's WLR assets to meet the higher or supported commander's requirements and the FAB's mission.

3-52. There are three types of controls to consider for employment of the target acquisition systems. They are centralized, decentralized, and a combination of controls.

Centralized Control at the Field Artillery Brigade

3-53. WLRs may be held under the centralized control of the FAB, if it is designated as the FFA HQ and there's no other designated counterfire headquarters HQ. The FAB or designated counterfire HQ plans the entire WLR coverage plan for the corps, division, or JTF, specifically under the control of the FAB commander. Counterfire HQ at every echelon need to work in close coordination to maintain a counterfire common operating picture by integrating every available WLR in the AO while maintaining radar coverage over their supported HQs AO. Under FAB centralized control, the FAB's higher HQ provides the FAB with a command or support relationship (probably tactical control) over all of the WLRs in the formation. The FAB provides subordinate WLRs with:

- A designated general position area, sector of search, and zones for each of the radars.
- Established cueing guidance.
- Designated cueing agents.
- Control of WLR movement.
- Designates who receives WLR targets.

Decentralized Control

3-54. . During decentralized counterfire operations there is no single HQ orchestrating the commander's counterfire fight. Each subordinate unit is responsible for their own counterfire.

3-55. WLRs and firing units are positioned by their organic HQ instead of the FFA or counterfire HQ. The counterfire section or the FSE monitors, but does not control the WLR. Decentralized control streamlines the process of sensor to shooter response time, however, it is critical that procedures are in place for clearance of fires.

A Combination of Centralized and Decentralized Control

3-56. Any combination of centralized and decentralized control of WLRs may be used according to the situation. For example, one of the FAB's Q-53 WLRs may be task organized to a subordinate unit, while the remaining WLRs are kept under control of the FAB. Although the FAB has organic WLRs, the division or other higher HQ may task a BCT to cover division and corps target areas of interest within the BCT AO with BCT surveillance, reconnaissance and TA assets, including the BCT FA BN's WLRs.

CLEARANCE OF FIRES

3-57. *Clearance of fires* is the process by which the supported commander ensures that fires or their effects will have no unintended consequences on friendly units or the scheme of maneuver (FM 3-09). Clearance of fires ensures fires will attack enemy capabilities without resulting in casualties to friendly forces.

3-58. The supported ground commander is responsible for the clearance of fires in his area of operations, including the integration of fires with other airspace users. The commander establishes, or requests higher HQ establishment of control measures (such as graphic control measures, direct fire control measures, ACMs, and FSCMs) that serve as a means of separating units, synchronizing fires and maneuver, facilitating clearance of fires, and preventing fratricide. A graphic control measure is a symbol used on maps and displays to regulate forces and warfighting functions. The commander may not employ indirect fires across boundaries without receiving clearance from the unit into whose area of operations the fires will impact. Commanders may order direct fires be employed across boundaries, without clearance, at specific point targets that are clearly and positively identified as enemy. Commanders may consider early coordination to also grant clearance for indirect fires against targets that are clearly and positively identified as enemy. Airspace clearance remains necessary in any situation.

CLEARANCE OF FIRES DRILL

3-59. Clearance of fires typically occurs in the current operations cell of the main CP. A clearance of fires drill should be a part of all CP standard operating procedures. FS requests can come from many channels.

3-60. Positive clearance of fires is normally facilitated through prior planning, rehearsals, and careful placement of FSCMs. However, the clearance of targets of opportunity often presents challenges. Fires on targets of opportunity must be delivered on short notice without undue delay and without jeopardizing friendly force security. For positive clearance of fires, the following should be obtained:

- Best available method of target location.
- Positive identification of targets as enemy.
- Eyes on target, if at all possible.
- Clearances from appropriate external HQ.

AIRSPACE CONTROL

3-61. *Airspace control* are capabilities and procedures used to increase operational effectiveness by promoting the safe, efficient, and flexible use of airspace (JP 3-52). Airspace control increases operational effectiveness by promoting the safe, efficient, and flexible use of airspace while minimizing restraints on airspace users. Airspace control includes coordinating, integrating, and regulating airspace to increase operational effectiveness. See JP 3-52 for more discussion on airspace control.

3-62. The FAB does not control an AO. As such, in order to conduct operations throughout the corps AO, the FAB must work through their Army chain of command to have airspace control coordination done with the airspace control authority's various airspace control elements. The FAB coordinates airspace use with the divisions and brigades whose AO they will transit, when operating with the division assigned airspace. Airspace integration becomes more complex when operating outside division assigned airspace. When the FAB's strike munitions flight path extends outside division assigned airspace, thus into the airspace volume normally controlled by an Airborne Warning and Control System or control and reporting center, approval for the use of that airspace must first be obtained from the airspace control authority's designated airspace control element for that volume. The FAB's rockets and missiles normally operate above the coordinating altitude of the division's assigned airspace, and these types of missions are normally the preponderance of the missions which the FAB will conduct. To accomplish the FAB's mission, it is critical that the FAB understand their higher HQ established methods for obtaining the necessary airspace clearance for each strike.

3-63. The ADAM/BAE is the staff organization responsible for acquiring the common operational picture and integrating FAB airspace requirements with the appropriate airspace control agency. Other staff elements needed to plan and execute airspace management for the FAB commander include the intelligence and targeting cell, FSE, and the target processing section (all located in the FAB main CP). Further information on airspace control can be found in FM 3-52 and ATP 3-52.2.

SUPPRESSION OF ENEMY AIR DEFENSES

3-64. *Suppression of enemy air defenses* is activity that neutralizes, destroys, or temporarily degrades surface-based enemy air defenses by destructive and/or disruptive means (JP 3-01). The effective employment of air assets gives the supported commander a powerful source of fires. Army aviation and the air platforms of other services, particularly the Air Force, enable the supported commander to quickly influence operations and to add depth to the battlefield.

REQUIREMENT FOR SUPPRESSION OF ENEMY AIR DEFENSES

3-65. Enemy forces have the capability to field effective integrated air defense networks. These networks, consisting of weapon systems, radars, and control nodes, present a formidable all-altitude protection umbrella.

3-66. The most effective enemy air defense systems will be on the high-intensity battlefield. Enemy air defense capabilities in mid- and low-intensity environments also pose a significant threat to U.S. air assets. Friendly air assets must be able to survive to contribute their full combat potential. SEAD is a critical function that must be accomplished quickly and efficiently.

3-67. SEAD operations must be synchronized with elements of the FS system and with members of the joint and combined arms team to produce maximum combat power. Unity of effort is essential in this endeavor. Synchronization of FS resources requires detailed planning and coordination and precise timing.

INITIATING THE SUPPRESSION OF ENEMY AIR DEFENSES PROCESS

3-68. The SEAD process starts with the Army or Air Force unit that requests air operations. First consideration is given to those suppression means organic to or available to the requesting unit. When SEAD requirements exceed the availability or capability of those means, the theater air control system or Army air-ground system structure is used to request or coordinate joint support.

3-69. SEAD is an integral part of air or aviation mission planning. SEAD requests are processed through the appropriate Army FSE channels. The FSE at each echelon is configured to plan, coordinate, and execute responsibilities inherent in SEAD operations. Requests from subordinate Army echelons are consolidated, reviewed, prioritized, and scheduled for execution by available Army assets. Targets exceeding Army capabilities are nominated and forwarded through channels to the air component commander. For example, requests to the U.S. Air Force are sent through the supporting air support operations center. Once approved, the schedule and other pertinent information are returned through the same channels to the requesting Army echelon.

3-70. The Army also responds to Air Force-generated requests for Army SEAD to support air missions in accordance with established guidelines and priorities. As with Army-initiated SEAD requests, air component requests are processed through appropriate Army channels to the supporting units. The FSO and FSE at each echelon coordinates the mission and directs the SEAD effort. The FSO and FSE also assess the effectiveness of Army SEAD to ensure that results are forwarded to the requesting command.

SUPPRESSION OF ENEMY AIR DEFENSES PLANNING AND EXECUTION

3-71. The S-3 and FSO direct SEAD operations through the FAB FSE. SEAD operations require the coordination of all FS means, as well as EW capabilities. The S-2, in conjunction with the FAB's intelligence cell, gives the S-3, FSO, and FSE information on the projected enemy defense threat. The FSE integrates this data, plus airspace use information, into the SEAD plan.

3-72. SEAD is supported by the coordinated use of air and ground based acquisition platforms, which include rotary-wing and fixed-wing assets. The FAB should plan disruptive efforts to complement destructive efforts and include the full array of joint and Army EW capabilities. FAB planners must also use EW systems to degrade jammable threats and to neutralize enemy systems when destruction is not feasible. To prevent fratricide of friendly AMD radars, the FAB must provide friendly emitter and location information for inclusion in the airspace control order.

3-73. The higher or supported HQ plan and conduct localized suppression to protect aircraft that are required to penetrate the forward line of own troops. This entails the SEAD systems along the routes to (ingress) and from (egress) the attack objective as well as systems surrounding the objective when they are within range of Army attack means. A corridor may have to be established to protect helicopters participating in air assault operations.

SUPPRESSION OF ENEMY AIR DEFENSES TARGETING

3-74. Targeting for SEAD is the same as for any other target set. The targeting of enemy air defense weapons is conducted within the framework of the Army targeting methodology and battle management. The product of targeting (that is, the successful conduct of SEAD) must accomplish one or all of the following:

- Support air or aviation assets engaged in contact with the enemy air defense threat.
- Fulfill some aspect of the commander's plan.
- Be synchronized with the air operation.
- Be capable of sustaining its effort.

JOINT SUPPRESSION OF ENEMY AIR DEFENSES

3-75. Joint SEAD is a broad term that includes all SEAD activities provided by one component of the joint force in support of another, and requires joint interaction to suppress enemy surface-to-air defenses having influence at the operational and tactical levels. The greatest indirect fire suppression capability of ground and naval forces is against those threats that can be engaged by observed fire.

3-76. The FAB S-3, FSO, and FSE planners ensure that SEAD target queries are conducted for each AI and planned CAS request. Attack of SEAD targets must be synchronized with the planned airstrike. The sources for development of SEAD targets in decisive operations are primarily Army electromagnetic, imagery, or templating techniques. SEAD targets to be suppressed for AI missions are provided primarily by air support reconnaissance flight reports or other aircraft reports available from the intelligence section, cell, or element of the battlefield coordination detachment.

3-77. Attack SEAD targets either as acquired or as part of a scheduled SEAD program. The FAB S-3, FSO, and FS planners coordinate the synchronization of SEAD programs with the air liaison officer and the Army aviation liaison officer to the FAB (if provided).

3-78. SEAD targeting should cover aircraft ingress and egress routes. This information is available from the appropriate level air liaison officer or may be found in the air tasking order. Joint SEAD operations can be accomplished through destructive and disruptive means.

DESTRUCTIVE AND DISRUPTIVE MEANS

3-79. Destructive means seek the destruction of the target system or operating personnel. The effects are cumulative and increase aircraft survivability, but destructive means may place large demands on the available combat power of the higher or supported command.

3-80. Disruptive means temporarily deny, degrade, deceive, delay, or neutralize enemy air defense systems to increase aircraft survivability. Disruptive means are either active or passive:

- Active means include electromagnetic attack; expendables (chaff, flares, and decoys); tactics such as deception, avoidance, or evasive flight profiles; and UAS.
- Passive means include emission control, camouflage, infrared shielding, warning receivers, and material design features.

Chapter 4

Employment: How the Field Artillery Brigade Fights

This chapter describes FAB employment. The chapter begins by describing how the FAB defines its operational environment. Then describes the operational framework for the FAB by describing how the FAB executes strike and counterfire operations. It describes how the FAB provides support to the corps in defensive operations, offensive operations, and consolidation of gains. The chapter concludes with a brief description on consolidation of gains.

DEFINING THE OPERATIONAL ENVIRONMENT

4-1. The *operational environment* is a composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander (JP 3-0). The FAB commander considers more than the enemy's military forces and other combat capabilities; the FAB commander uses experience, professional knowledge, and understanding of the situation to visualize and change the operational environment as current operations transition to future operations.

OPERATIONAL VARIABLES

4-2. Operational variables are those aspects of an operational environment, both military and nonmilitary, that may differ from one operational area to another and affect operations. Operational variables describe not only the military aspects of an operational environment, but also the population's influence on it.

4-3. Using Army design methodology, planners analyze an operational environment in terms of eight interrelated operational variables: political, military, economic, social, information, infrastructure, physical environment, and time. These operational variables are referred to as, PMESII-PT.

MISSION VARIABLES

4-4. Upon receipt of an order, Army leaders filter information from operational variables into mission variables during mission analysis. They use the mission variables to refine their understanding of the situation.

4-5. The mission variables consist of METT-TC. Incorporating the analysis of the operational variables with METT-TC ensures that Army leaders consider the best available information about the mission.

THREATS AND HAZARDS

4-6. For every operation, threats are a fundamental part of the operational environment. A threat is any combination of actors, entities, or forces that have the capability and intent to harm United States forces, national interests, or the homeland. Threats may include individuals, groups of individuals (organized or not organized), paramilitary or military forces, nation-states, or national alliances. Commanders and staffs must understand how current and potential threats organize, equip, train, employ, and control their forces. They must identify, monitor, and assess threats as they adapt and change over time.

4-7. Hazards also exist as a condition of the operational environment with the potential to cause injury, illness, death, damage to or loss of equipment or property; or mission degradation. The FAB commander and the staff must understand how CBRN hazards could create adverse impacts on operations due to accidental or deliberate release.

COMPETITION BELOW ARMED CONFLICT

4-8. The theater army is the key organization that plans and organizes Army operations during competition. However, other Army organizations are crucial to the execution of Army operations during competition. Corps and subordinate echelons execute tasks and provide the forces employed for security cooperation.

4-9. Army forces may support security force assistance or foreign internal defense by participating in multinational exercises, conducting humanitarian and other civil-military operations, development assistance, and training exchanges. Army forces at corps echelons and below directly engage with partner forces, governmental and nongovernmental organizations, and civilian populations to accomplish their mission, build rapport, and improve conditions that promote stability.

4-10. During competition, the corps fills one of three roles during exercises to prepare for large-scale combat operations. The corps can be designated as tactical land headquarters employing multiple divisions, typically in an OPLAN or during exercises. When no organization is available to assume the role of a combined or joint task force headquarters or land component command headquarters during a contingency operation or training event, the corps can assume this role after it undergoes the necessary training and integration of other Service staff personnel. When the corps is the land component command headquarters, it also serves as the ARFOR. (See FM 3-94 and ATP 3-92 for 3947 more information on the corps).

UNIFIED LAND OPERATIONS

4-11. *Unified land operations* are the simultaneous execution of offense, defense, stability, and defense support of civil authorities across multiple domains to shape operational environments, prevent conflict, prevail in large-scale ground combat, and consolidate gains as part of unified action (ADP 3-0). The Army is the dominant U.S. fighting force in the land domain. Army forces both depend upon and enable the joint forces across multiple domains (air, land, maritime, space, and cyberspace).

4-12. This mutual interdependence creates powerful synergies and reflects that all operations have multi-domain components. The Army depends on the other Services for strategic and operational mobility, joint fires, and other key enabling capabilities. The Army supports other Services, combatant commands, and unified action partners with ground-based indirect fires and ballistic missile defense, defensive cyberspace operations, electromagnetic protection, communications, intelligence, rotary-wing aircraft, logistics, and engineering.

JOINT OPERATIONS

4-13. *Joint operations* are military actions conducted by joint forces and those Service forces employed in specified command relationships with each other, which of themselves, do not establish joint forces (JP 3-0). The FAB provides joint FS through the conduct of corps-level strike operations in conjunction with other joint capabilities and enablers. *Joint fire support* is joint fires that assist air, land, maritime, space, cyberspace, and special operations forces to move, maneuver, and control territory, airspace and key waters (JP 3-0).

4-14. A JTF integrates joint FS from all available capabilities, including air-to-surface, surface-to-surface, cyberspace operations, offensive space control, electronic attack, information related activities, and nonlethal capabilities. Joint FS supports forces in contact, supports the joint force commander's contingency operations, integrates and synchronizes joint FS, and sustains joint FS operations. Prior to execution, joint FS planning is part of the joint planning process. During execution, joint FS is planned as part of the joint targeting process.

MULTINATIONAL OPERATIONS

4-15. *Multinational operations* is a collective term to describe military actions conducted by forces of two or more nations, usually undertaken within the structure of a coalition or alliance (JP 3-16). While each nation has its own interests and often participates within the limitations of national caveats, all nations bring value to an operation. Each nation's force has unique capabilities, and each usually contributes to the operation's legitimacy in terms of international or local acceptability. Army forces should anticipate that most operations will be multinational operations and plan accordingly.

4-16. The FAB may be part of a multinational force and be either the supporting or the supported command. The FAB commander should be prepared to integrate and synchronize international partners in accordance with their national caveats, the sharing of intelligence, and theater sustainment functions. The FAB commander must also be prepared to analyze the mission's peculiar requirements and be prepared to exploit the advantages and compensate for the limitations of a multinational force. The FAB commander should be prepared to establish liaison with multinational forces that are task organized to the FAB and with FAB supported multinational forces. Exchanging liaison teams fosters common understanding of missions and tactics, facilitates transfer of information, and enhances mutual trust and confidence. For more on multinational operations see JP 3-16.

DESIGNATE, WEIGHT, AND SUSTAIN THE MAIN EFFORT

4-17. Commanders frequently face competing demands for limited combat power. They resolve these competing demands by establishing priorities. One way in which commanders establish priorities is by designating, weighting, and sustaining the main effort. The main effort is a designated subordinate unit whose mission at a given point in time is most critical to overall mission success (ADP 3-0). The main effort is weighted with the appropriate amount of combat power. Designating a main effort may include augmenting its task organization and temporarily giving that unit priority of support. The commander may also designate other priorities, including for air defense, close air support and other fires, ISR coverage, and mobility and counter-mobility support.

4-18. Commanders shift resources and priorities to the main effort as circumstances require. Commanders may shift the main effort several times during an operation. They may even shift priorities prior to designating a unit as the main effort in order to set conditions for the main effort success later during the operation.

FIELD ARTILLERY BRIGADE STRIKE AND COUNTERFIRE

4-19. A FAB's primary tasks are conducting corps-level strike operations and augmenting division level shaping operations. The FAB provides the corps with the capability to mass effects during shaping operations in the conduct of large-scale combat operations.

4-20. The corps or division commander can assign the role of counterfire HQ to a FAB, or a separate FA BN. The counterfire HQ must be allocated the necessary assets to conduct the counterfire fight. The counterfire HQ will coordinate with the G-2 to integrate all available units into the counterfire fight in a proactive manner.

STRIKE

4-21. The FAB conducts strikes as a component of offensive and defensive operations. The FAB's long range fires support strategic assurance and deterrence missions by providing a capability to strike ground targets at extended distances. These fires contribute to shaping operations and defeating or denying enemy capabilities that threaten deploying joint and multinational forces. Fires strike enemy capabilities before they come in contact with or are employed against U.S. forces, enabling commanders to seize, retain, and exploit the initiative. These fires present the enemy with multiple dilemmas, limit options, and destroy or degrade capabilities. Fires will support a broad range of operations, and will often require the integration of joint, interagency, intergovernmental, and multinational partners.

4-22. Strike is generally focused on a specific enemy formation and is a deliberate operation with a timeline of several hours to several days-it is not a fire mission against a target of opportunity. Strike may include rapid and aggressive maneuver of FAB assets well forward in the higher or supported HQ AO to achieve range on the identified target. This is accomplished either by assigning a mission to a maneuver element to support the FAB's maneuver forward, or by task-organizing maneuver or other security assets (for example, infantry, armor, military police, or air defense artillery) to the FAB. Strike capitalizes on the ability of Army forces to deliver effects of fires to the full depth and breadth of the division, corps, or JTF AO.

COUNTERFIRE

4-23. *Counterfire* is fire intended to destroy or neutralize enemy weapons (JP 3-09). Destruction of enemy capabilities for accurate long-range fires that could disrupt and hinder maneuver is critical to ensure freedom of action and high tempo operations for friendly forces.

4-24. Counterfire can neutralize or destroy all or portions of the enemy's FS capabilities including delivery systems, control nodes, support systems, and logistics or support areas. FAB contributions to the overall counterfire effort include:

- Implement the organization for combat of corps counterfire assets by retaining FA assets at corps level or allocating them to subordinate divisions in accordance with guidance issued by the corps HQ.
- Supervise the preparation and execution of counterfire responsibilities by subordinate corps elements within counterfire sectors of responsibility established concurrently with the designation of maneuver boundaries and AO for subordinate divisions. This includes targets within a division's or adjacent unit's AO, if requests for such support have been submitted and approved by corps. Within capability, corps may also respond to requests for additional fires from adjacent units.
- Detect multiple rocket launcher BNs, helicopter forward operating bases, and other counterfire targets with FA organic assets, reinforced by collectors from the corps' supporting, attached, or OPCON military intelligence units, and special operations forces.
- Attack threat FS systems with MLRS/HIMARS, Army aviation, Air Force sorties, and ground maneuver forces that may be available for target attack.
- Recommend the acquisition of additional sensor and attack assets from higher, the JTF commander, or other services.

THE FIELD ARTILLERY BRIGADE IN SUPPORT OF CORPS OPERATIONS

4-25. The FAB is the primary executor of Army long range, indirect fires within corps controlled areas. The FAB gives the corps the ability to plan, prepare, execute, and with proper augmentation, assess long-range, indirect fires. The FAB provides depth to the battlefield, augments the fires of the divisions, acts as a counterfire HQ, and performs corps-wide target acquisition functions. If the operation is phased, priority for fires can vary from phase to phase.

4-26. Support relationships assigned to the FAB are GS, reinforcing, and GSR. FA BNs of a FAB are routinely task organized in GS/GSR/R roles to a DIVARTY in support of the division or organized in non-standard ways to support the corps FS efforts.

THE FIELD ARTILLERY BRIGADE IN SUPPORT OF DEFENSIVE OPERATIONS

4-27. A *defensive operation* is an operation to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability operations (ADP 3-0). The corps conducts defensive operations when national interests are best served by limiting thrusts deep into enemy-held territory or when insufficient forces are available for transition to the offense. The counterattack is the means by which the fundamental of maximum use of offensive action is achieved in defensive operations. For more information on the types of defensive operations see ADP 3-90.

4-28. Strikes conducted throughout the enemy's depth can assist in defeating or deterring the enemy before the enemy reaches the main body of forces. Use fires in support of defensive operations to disrupt enemy artillery, separate enemy echelons, and delay or attrit maneuver elements as they move forward. Fires can be critical to offsetting a lack of maneuver assets for defense of large areas. For more information on providing FS is support of defensive operations see FM 3-09. The general considerations of the FAB in defensive operations:

- In mobile defense and area defense:
 - Execute strike to delay, disrupt, and attrit attacking enemy forces within the corps close and deep areas.

- Execute SEAD in support of joint and Army aviation attack operations.
- Acquire targets to facilitate strike operations in support of other corps shaping operations.
- In the retrograde:
 - Execute strike to delay, disrupt, and attrit attacking enemy forces to allow the supported command to conduct a retrograde.
 - Execute SEAD in support of joint and Army aviation attack operations in support of a retrograde.
- Provide fires in the corps deep area against approaching enemy forces.
- Proactively attack enemy long-range indirect fire systems prior to the enemy executing preparation fires.
- Employ both lethal and nonlethal assets at maximum range to disrupt enemy C2 and desynchronize the enemy's attack.
- Execute counterfire in order to prevent enemy indirect fires from reducing the supported commander's defense.
- Execute SEAD for joint and Army aviation attack operations.
- Provide redundant communications networks to ensure uninterrupted fires to the force.

4-29. The FAB is generally organized in the defense with more centralized control of FS. This allows the FAB commander maximum flexibility to mass fires and deliver support to the decisive operation when required. Specific FAB considerations include:

- Task-organizing a FAB artillery BN as GSR to a DIVARTY FA BN. A GSR relationship is appropriate where a higher degree of FAB centralized control is desired, while still providing a division with additional FS.
- Providing FS to the corps support and consolidation areas.

Positioning and Movement

4-30. FAB attack/delivery assets must be able to adequately range the corps security and deep areas. They may need to reposition laterally and in depth to ensure that they are out of the direct path of attacking enemy elements while staying within range of enemy formations. Primary and alternate routes, and supplementary positions, must be planned prior to movement. Specific FAB considerations include:

- Positioning sufficient assets forward to support the corps security force.
- Planning positions in a division AO.
- Planning positions that allow two thirds of the fires assets to be in place to fire at any one time.
- Positioning WLRs to provide coverage while DIVARTY WLRs are displacing.

4-31. FAB movement is typically limited to lateral repositioning for survivability, and maneuvering to range targets in the corps rear, close and deep areas. Specific FAB considerations include:

- Plan movement that allow two thirds of the FAB assets to be in place to fire at any one time.
- Echelon units to keep two thirds of FAB assets in position to enable the corps retrograde.
- Movement to positions that facilitate follow-on operations.

Target Acquisition

4-32. FAB WLRs are focused on identifying enemy indirect fire systems to support corps targeting and execution of defensive operations. Specific WLR considerations include:

- Position WLRs as far forward as possible to maximize range and acquire enemy systems capable of providing the enemy with long range preparation fires.
- Position WLRs as far forward as possible to provide coverage for the corps security force.
- The use of critical friendly zone (referred to as CFZ) to provide coverage for critical units, routes or positions.
- The use of call for fire zones (referred to as CFFZs) to provide coverage on suspected or known enemy indirect fire systems.

- Management of the overall WLRs positioning and movement plan.

THE FIELD ARTILLERY BRIGADE IN SUPPORT OF OFFENSIVE OPERATIONS

4-33. An *offensive operation* is an operation to defeat and destroy enemy forces and seize terrain, resources, and population centers (ADP 3-0). The corps conducts offensive operations in conjunction with operational considerations. Offensive operations seek to destroy the enemy. They are characterized by retention of the initiative, therefore, permitting the commander to impose the commander's will on the enemy at the time and place of the commander's choosing. Whereas the conduct of an offensive operation is traditionally associated with a favorable combat power ratio and a deteriorating enemy situation, these are not necessarily preconditions for offensive action. Mobility, surprise, and aggressive execution are the most effective means of success in the offense. Increased risk is involved with bold, hard-hitting tactics; however, greater gains often require greater risks. The initiative is gained and retained by a numerically inferior force capable of bold and aggressive action. Accordingly, a numerical superiority is not necessarily a precondition for offensive operations; rather, commanders continuously seek opportunities to seize the initiative through offensive action, even when the force as a whole is on the defensive. For more information on the types of offensive operations see ADP 3-90.

4-34. Fires in support of the offensive operation involve attacking targets throughout the AO with massed or precision indirect fires, air support, and EW assets to prevent enemy reinforcements, disengagement, or resupply. Fires in support of offensive operations are responsive and timely to support maneuver and help the higher or supported command achieve and sustain the initiative. Displacing firing units to maintain coverage of advancing maneuver formations. For more information on providing FS in support of offensive operations see FM 3-09. The general considerations of the FAB in offensive operations are to:

- Conduct intense and concentrated preparatory fires before and during the initial attack stages.
- Conduct suppressive fires to isolate the objective of the decisive operation or main effort and to help fix enemy forces during shaping operations and supporting attacks.
- Provide continuous suppression to allow attacking formations to close with the enemy.
- Conduct SEAD.
- Supplement subordinate unit counterfire to diminish or stop an enemy's ability to effectively employ artillery and rockets.
- Execute long range fires in concert with other corps assets.
- Execute fires in support of shaping operations against uncommitted enemy C2 nodes, fires and air defense networks, and surveillance, reconnaissance, and TA assets.
- Provide redundant communications networks to ensure uninterrupted fires.
- Attack bridges and other mobility corridors with strike and to limit enemy mobility options.
- Execute strike:
 - Against uncommitted enemy forces.
 - To attack enemy operational reserves and second echelon forces within corps AO.
 - To delay, disrupt, and attrit counter attacking enemy forces.
 - In support of other division, corps, or JTF shaping operations.
 - To slow and disorganize repositioning and withdrawing enemy forces.
 - In order to prevent the establishment of an organized defense through destruction of enemy C2 facilities and nodes.
- Counterfire in support of offensive operations to:
 - Neutralize enemy fires systems prior to the approach of the attacking maneuver formations.
 - Prevent enemy fires systems from slowing the FAB supported command's pursuit and allowing time for the enemy to establish a defense.

4-35. FAB fires in support of the four types of offensive operations movement to contact, attack, exploitation, and pursuit include:

- Specific considerations to support a movement to contact include:
 - Be prepared to rapidly change priorities of fire and establish FSCMs.

- Integrate FAB, joint fires, and WLR assets to assist in securing the unprotected flanks of vulnerable corps, division, or other supported command assets during advances.
- Attack bridges and other mobility corridors to limit enemy mobility options and facilitate shaping the meeting engagement.
- Position FAB delivery assets well forward to maximize range.
- Position the CP forward to facilitate control of FAB operations.
- Plan movement to maintain force momentum and provide adequate responsive support.
- Use UAS searching forward of advancing attack/delivery assets as an aid to reconnoiter routes and position areas-particularly to identify by-passed enemy forces.
- Transition FAB units from GS or GSR to R once the situation is developed and the division's assets begin to conduct follow-on offensive or defensive operations.
- Position WLRs, observers, and UAS to detect enemy forces forward and along the supported unit's flanks.
- Position WLRs to cover critical friendly assets that are vulnerable to enemy indirect fire from bypassed regular or irregular forces.
- Synchronize the positioning and movement of FAB with the tempo of the supported unit.
- Specific considerations to support an attack include:
 - Attack enemy operational reserves and second echelon forces outside the AO to isolate first echelon forces.
 - Conduct strikes to slow and disorganize repositioning and withdrawing enemy forces.
 - Attack enemy C2 facilities to prevent coordination of their defense.
 - Provide fires to support the penetration of enemy positions.
 - Plan FS for follow-on offensive operations (pursuit, exploitation); ensuring routes have sufficient mobility to move rapidly.
 - Plan for and provide preparation fires to facilitate attacks by the supported unit.
 - Mass effects of fires against HPTs to meet criteria established by the force commander to set conditions for crossing the line of departure.
 - Provide fires to disorganize and disrupt enemy reserve formations.
 - Mass fires against counterattacks.
 - Provide fires to support raids and spoiling attacks.
 - Ensure WLRs are in position in time to support the assault on the objective and subsequent consolidation.
 - Use echeloned movement to provide continuous WLR coverage to the supported force.
- Considerations for supporting an exploitation and pursuit include:
 - Conduct strikes on repositioning and withdrawing enemy forces to disrupt or slow the enemy's retreat.
 - Allocate as much CAS and attack aviation as possible.
 - Destroy enemy C2 facilities to disrupt the enemy's ability to consolidate and reorganize.
 - Use available aviation assets and joint fires to facilitate continuous fires on fleeing enemy forces while units are repositioned or moved with the exploiting or pursuing force.
 - Plan fires to support the flanks and rear of pursuing or exploiting forces.
 - Provide fires to destroy enemy hasty defenses and allow the continued pursuit of the enemy main body.
 - Request, monitor, and update FSCMs as the exploitation and pursuit continues.
 - Provide fires on obstacles and chokepoints to continue destruction of retreating enemy forces.
 - Plan for greater use of retransmission capabilities.
 - Plan for increased use of Class III (petroleum, oil, and lubricants) and Class V (ammunition of all types).

- Position WLRs to cover critical friendly assets that are vulnerable to indirect fire from bypassed regular or irregular forces.
- Monitor WLR acquisitions for indications of scatterable mine emplacement by the enemy.

Task Organization and Support Relationships

4-36. FS in the offense is generally more decentralized than in the defense in order to sustain momentum. Specific FAB considerations include:

- Task-organizing a FAB artillery BN as GSR to a DIVARTY FA BN. A GSR relationship provides a division with additional FS, while the FAB is able to retain positioning authority and control.
- Providing support to corps security forces.
- Providing support to air assault operations or artillery raids.

Positioning and Movement

4-37. Positioning of FAB units must allow execution of uninterrupted fires and WLR coverage to the corps. Specific FAB considerations include:

- Positioning of artillery BNs forward to maximize range and execution of strike and counterfire.
- Deconflict firing unit positions with airspace coordinating measures.
- Positioning WLRs to maintain radar coverage for the division as they continue to maneuver with their WLRs.
- Position the FAB CP forward (METT-TC dependent).
- Use echeloned movement to provide continuous coverage to the force.

4-38. Timely displacements are essential for successful offensive operations. Units positioned by the FAB may be in danger of being left behind unless repositioning is frequent and synchronized to support the forward progress of the corps. Displacements should maximize continuous delivery of fires and be completed as rapidly as possible.

Target Acquisition

4-39. FAB WLR assets are focused on identifying enemy indirect fire systems to support corps targeting and execution of offensive operations. The FAB may also support the divisions with WLR coverage to allow the DIVARTY WLRs to continue to maneuver with their division. As the situation develops FAB WLR assets will transition to support shaping and counterfire missions. Specific FAB WLR considerations include:

- Position WLRs as far forward as possible to maximize range and provide maximum flexibility as the supported command continues offensive operations.
- Coordinate WLR coverage to ensure there are no gaps in coverage.
- The use of critical friendly zone to provide coverage for critical units or positions.
- The use of call for fire zones to provide coverage on suspected or known enemy indirect fire systems.
- Management of the overall WLR positioning and movement plan.

CONSOLIDATE GAINS

4-40. Consolidation of gains activities consist of security and stability operations and will likely involve combat operations against bypassed enemy forces and remnants of defeated units. Therefore units may initially conduct only minimal essential stability operations and then transition into a more deliberate execution of stability operations as the primary mission as security improves. Operations to consolidate gains require combined arms capabilities and the ability to employ fires and manage airspace, but at a smaller scale than large-scale combat operations.

4-41. As large-scale combat operations conclude in a corps AO, the corps HQ reorganizes the AO into areas appropriate for the operational and mission variables to facilitate the most rapid consolidation of gains. The FAB must be able to support combat operations and operations to consolidate gains simultaneously. A

corps can simultaneously attack and consolidate gains during this transitional period. For more information on providing FS and consolidating gains, see FM 3-09 and FM 3-0.

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Chapter 5

Sustainment Operations

This chapter describes sustainment of the FAB. This chapter begins with a discussion of key sustainment staff that are part of the FAB. It continues with discussion of the BSB. This chapter also describes the key personnel and organization of the BSB which includes the FSC. It concludes with a discussion the sustainment functions provided by the BSB.

THE FIELD ARTILLERY BRIGADE SUSTAINMENT STAFF

5-1. *Sustainment* is the provision of logistics, financial management, personnel services, and health service support necessary to maintain operations until successful mission completion (ADP 4-0). Sustainment operations enable the decisive operation or shaping operation by generating and maintaining combat power. Sustainment is the related tasks and systems that provide operational reach, freedom of action, and endurance to the FAB.

5-2. Sustainment operations and fires have a dynamic relationship. Fires disrupt, neutralize, or destroy enemy forces, combat functions, and facilities that threaten sustainment operations. Supply of ammunition is among the largest and most time-sensitive of logistics operations. The planning consideration for FAB FS are listed below:

- Forecast increase consumption of long range and precision munitions.
- Anticipate frequent and rapid relocation of FA units to shift supporting units accordingly.
- Ensure quantity and positioning of ammunition units at echelons above of brigade are sufficient.
- Ensure that ammunition transportation assets are adequate and properly positioned.

S-4 SECTION

5-3. The S-4 section provides staff oversight for sustainment in the areas of supply, maintenance, transportation, financial management, medical, and field services. The S-4, acts as the staff sustainment integrator for the S-4 section develops the assists the BSB SPO in developing a sustainment plan for the FAB.

5-4. The S-4 section uses the sustainment system to provide the FAB commander sustainment common operational picture and oversight within the FAB. For more information see FM 6-0 and ATP 4-93.

S-1 SECTION

5-5. The S-1 section is responsible for maintaining and conducting unit strength and other human resources support. The section maintains a record of accountability of all personnel assigned and attached to the FAB. When the FAB receives attachments, the S-1 orients those units to processes that maintain personnel accountability and arranges for the necessary administrative support for those units. The S-1 manages the casualty reporting system, which includes Soldiers killed in action and wounded in action.

5-6. The personnel section uses automated human resources support system and coordinates financial management and medical support for the FAB. The S-1 also maintains close coordination with the human resources operations branch of the sustainment brigade. The S-1 is the staff point of contact for the inspector general and morale support activities. See FM 1-0 and FM 6-0 for additional information.

UNIT MINISTRY TEAM

5-7. Consists of a chaplain and a religious affairs specialist. The chaplain serves as a personal staff officer with direct access to the commander.

5-8. The FAB unit ministry team (UMT) provides religious support to all assigned or attached service members, family members, and authorized civilians. The UMT provides religious, moral, and ethical advisement to the command as they impact both individuals and the organization's mission. The UMT coordinates with higher, subordinate, and adjacent UMTs and chaplain sections for area and denominational coverage requirements. See FMs 1-05 and 6-0 for additional information.

BRIGADE SURGEON

5-9. The FAB surgeon is a special staff officer who is responsible for AHS operations in the FAB. The surgeon provides staff oversight and supervision for AHS operations in the FAB and coordinates with the FAB S-4 to integrate the FAB's medical concept of support into the overall concept of sustainment. The FAB surgeon exercises technical supervision and provides advice to the FAB commander on the health of the command. The FAB commander retains authority to make decisions which the FAB commander deems as critical. The surgeon provides staff oversight and supervision for AHS operations in the FAB and coordinates with the BSB SPO in developing the FAB's medical concept of support. The FAB surgeon keeps the commander informed of the health of the command.

5-10. The FAB brigade surgeon section ensures timely planning, integration, and synchronization of AHS operations with the FAB operations plan. Force health protection is a component of the AHS. While force health protection is under the protection warfighting function, both the force health protection mission and AHS are planned and executed by the same medical planning staffs and personnel led by the brigade surgeon. These missions would be addressed under separate annexes in operation plans and orders, health service support is addressed in the sustainment annex, and force health protection is addressed in the protection annex. See FM 1-0, FM 6-0, and the ATPs 4-02.3 and 4-02.8, for additional information.

BRIGADE SUPPORT BATTALION

5-11. The BSB is the FAB's organic sustainment unit. The BSB commander is the FAB commander's senior logistician and the primary advisor on the sustainment of all brigade operations. The BSB provides general supplies, fuel, and ammunition to the FAB. Fuel storage, water purification capability, and additional transportation assets required for FAB operations must be requested from external sources.

5-12. The BSB plans and coordinates deliberate, time-sensitive replenishment of classes I, II, III (B), IV, V, IX, and water for the FAB units. The BSB performs field maintenance and recovery, and operates an ammunition transfer holding point. The BSB plans and coordinates for mortuary affairs support. Additional sustainment capability may be attached to the FAB BSB and may include modular supply, transportation, and ammunition companies. Company-sized medical units will normally not be attached to a FAB BSB, though a smaller medical detachment may be attached as the mission requires. For more on the BSB see ATP 4-90.

BRIGADE SUPPORT BATTALION COMMANDER

5-13. FAB sustainment operations are generally of sufficient scope and complexity that command oversight is needed. The BSB commander performs this function for the FAB commander with duties and responsibilities to include:

- Advise the FAB commander on the sustainment of all brigade operations.
- Provide guidance to the BSB staff and the FAB's sustainment S-4 in order to effectively achieve the FAB commander's intent.
- Synchronize and execute logistics for the FAB.
- Drive the logistics planning necessary to understand, visualize, and describe the operational environment; make and articulate decisions; and direct, lead, and assess military operations.
- Track and control the logistics operations,

- Direct tactical logistical support and personnel support.
- Recommend and maintain status of priorities for logistical support.
- Coordinate location of BSB components.
- Direct FAB sustainment cell staff coordination with higher, subordinate, supported, supporting, and adjacent units.
- Provide the FAB commander and HQ periodic updates on logistics status.
- Assess logistical and personnel readiness of subordinate units after mission completion.

BRIGADE SUPPORT BATTALION SUPPORT OPERATIONS OFFICER

5-14. The BSB SPO is the principal staff officer for synchronizing BSB operations for all units assigned or attached to the FAB. The BSB SPO is responsible for applying the BSB capabilities against the FAB's requirements. The SPO provides planning, preparation, and oversight of the execution of all BSB sustainment operations for FAB operations. The SPO also provides technical supervision of all sustainment operations conducted by the BSB and is therefore the key interface between supported FA units and the sustainment brigade.

5-15. The SPO is responsible for communicating BSB sustainment requirements to the sustainment brigade, as these requirements become known. Requirements are determined in coordination with the FAB S-3, FAB S-1, FAB S-4, BSB S-2 and BSB S-3. The SPO performs sustainment preparation and advises the commander on the relationship of support requirements to support assets available. The SPO plans, monitors and makes necessary adjustments to ensure support requirements are met. The SPO also supervises the BSB logistics report. BSB SPO duties and responsibilities include:

- Develop logistics plans to support FAB operations.
- Advise higher HQ on external logistical support.
- Coordinate with supporting sustainment brigades on current and future support requirements and capabilities.
- Conduct intelligence preparation of the battlefield with sustainment and logistics considerations.
- Assist the FAB S-4 in maintaining the sustainment common operational picture.
- Coordinate for all classes of supply.
- Monitor, analyze, and evaluate maintenance trends and failures and recommending solutions for maintenance issues.
- Monitor, evaluate, and anticipate supply requirements.
- Plan transportation support for special requirements such as casualty evacuation or heavy equipment transport support.
- Coordinate for food preparation, water purification, mortuary affairs, ice delivery, shower, laundry, and clothing repair.
- Recommend sustainment priorities to the commander.
- Coordinate contracting support.
- Coordinate with Army Materiel Command/Defense Logistics Agency for field service representative support.
- Assisting with development of input to the sustainment portion of FAB plans and orders. The BSB SPO is responsible for assisting the FAB S-4 in developing and coordinating Paragraph 4, Sustainment and its supporting annexes including ANNEX F (Sustainment) (with the FAB S-1, staff judge advocate, surgeon, and chaplain) and Annex P (Host-Nation Support) to FAB plans and orders.

OPERATIONAL CONTRACT SUPPORT

5-16. Operational contract support is the process of planning for and obtaining supplies, services, and construction from commercial sources to support military operations. Operational contract support consists of three complementary functions: contract support integration, contracting support, and contractor

management. Operational contract support considers three types of contract support: theater support, external support, and systems support.

5-17. The BSB commander, BSB SPO and FAB 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 large-scale combat operations, operational contract support is expected to be limited forward of the corps rear boundary. Exception to this may be contacted system support specialists. For more information regarding operational contract support see ATP 4-10.

BRIGADE SUPPORT BATTALION ORGANIZATION

5-18. The BSB consists of a HSC. The HSC consists of three platoons: the HQ platoon, support platoon, and the maintenance platoon. The BSB is a fixed HQ unit that derives its support capability through the attachment of various units selected to support the mission. The HSC provides battalion-level oversight and coordination over mission-specific attachments. The FSC are not organic to the BSB, they are attached to the BSB as required.

5-19. The FSC provides the FA BN commander with dedicated logistics assets organized specifically to meet the BN's requirements. An FSC provides bulk fuel, general supply, ammunition, and field maintenance. The FSC commander receives technical logistics oversight and mentoring from the BSB commander. FSC commanders must have a continuous relationship with the BSB SPO. The BSB commander uses the SPO to ensure that all FSC commanders understand the BSB commander's brigade logistics support plan.

5-20. There is one FSC for each FA BN in the FAB. The FAB FSCs differ depending on the type of artillery they support but are designed to provide the same functions of any FSC. The FSC commander is responsible for executing the sustainment plan for the FAB's FA BNs in accordance with the supported FA BN commander's guidance.

5-21. The forward support company has a HQ section, distribution platoon, and a maintenance platoon. The distribution platoon and four squads that can be task organized to distribute class II (clothing and individual equipment), III, IV (construction materials), V, and VII (major end items). The maintenance platoon varies based upon the equipment and major weapon systems of the supported BN. Generally, the maintenance platoon consists of a platoon HQ, maintenance control section, field maintenance section, service and recovery section and the field maintenance teams.

SUSTAINMENT FUNCTIONS

5-22. The concept of sustainment for the FAB and subordinate units calls for the BSB to provide sustainment for the FAB and sustainment oversight of the FA BN FSCs. The BSB provides sustainment for FAB organic elements, units assigned and attached to the FAB.

5-23. Generally, all classes of supply (less Class VIII [medical]) will be throughput from the supporting sustainment brigade directly to the FSC. The sustainment brigade can provide logistics capability that is not organic to the BSB, such as water purification and bulk fuel, or provide additional capacity, such as additional transportation, to support the BSB.

CLASS I (RATIONS) AND WATER

5-24. FAB units deploy with a pre-determined amount of supplies on hand. Sustainment stocks continue to flow during the initial, early entry buildup. Support requirements change rapidly as does the operational environment. The BSB focus is on distribution operations, getting the right stuff to the right place at the right time in support of the FAB's operations.

CLASS II & III (PACKAGED)

5-25. Usually, the FAB deploys with 30 days of common consumable supplies. Battery supply sergeants should maintain the appropriate level of class II items, especially chemical, biological, radiological, and nuclear protective equipment (one to three sets). The unit ministry team of the FAB orders chaplain supplies (essential elements of religious support) as necessary utilizing appropriated unit funds. Vehicles could also

carry a small amount of commonly used packaged petroleum products for immediate use. Unit SOPs will dictate these loads.

5-26. Battery or company supply sergeants use global command support system Army to order and replenish supplies. Supplies are provided at the FAB distribution point (usually within the FAB sustainment area, see Section III of this chapter) to the supporting FSC for the appropriate battery or company. They are carried forward with the next logistics package, or immediately, if needed.

CLASS III (BULK)

5-27. The FAB usually deploys with half-full vehicle fuel tanks, purged fuel tankers, and empty fuel cans. Fuel is issued upon the FAB's arrival in the joint operations area.

5-28. BN S-4s forecast their units' requirements based on the current or upcoming mission. The FAB S-4 considers BN forecasts and reports, and then estimates the unit's resupply requirements. The FAB S-4 submits the forecast to the BSB SPO. The forecast depends on the unit SOP, but usually is for the 72-hour period beyond the next day, or out to 96 hours. The FSC uses heavy expanded mobility tactical truck load handling system fuel pods to conduct forward distribution to the batteries, CPs, and attachments.

CLASS IV

5-29. FAB units deploy with a limited amount of Class IV barrier materiel, primarily for protection of unit perimeters and key positions. This material is considered the unit's basic load and usually is carried on tactical vehicles.

5-30. Battery supply sergeants use global command support system-Army to order and replenish Class IV supplies from the BSB. Supplies are distributed to FAB units from the distribution point, or carried forward with the next logistics package or immediately if needed.

CLASS V

5-31. A *combat load* is the minimum mission-essential equipment and supplies as determined by the commander responsible for carrying out the mission, required for Soldiers to fight and survive immediate combat operations (FM 4-40). Troop-carried munitions to accompany troops are those issued before departure from the aerial port of embarkation.

5-32. BN S-4s determine the ammunition resupply requirements based on information provided in the batteries' logistics situation report, and guidance received from their commander and S-3. The FAB S-4 considers BN forecasts and reports, consults with FAB operational planners, and then makes the S-4 forecast for resupply. The forecast is submitted to the BSB SPO.

5-33. To conduct tactical operations, tactical planners determine their munitions requirements and develop a RSR. S-3s compute RSRs as rounds per weapon per day. S-4s determine the available and due in stocks (as well as redistribution requirements). Operational level planners consider the RSR, available and due in stocks, as well as the tactical situation to develop a CSR. The CSR limits the authorization and issue of munitions that are in short supply or have been designated as command controlled items. The commander (or designated representative) determines authorizations and priorities for ammunition if a CSR has been established. An identified RSR is sent up the operational chain of command for approval. An approved RSR or designated CSR will be sent down the operational chain of command. The RSR and CSR may be modified as it flows down the chain of command.

5-34. The BN S-4 prepares an electronic DA Form 581 (*Request for Issue and Turn-In of Ammunition*), using Standard Army Ammunition System, for their FSC delivered electronically to the servicing ammunition supply activity, ammunition supply point or ammunition transfer and holding point. Supplies are usually issued by the FAB ammunition transfer and holding point (normally within the FAB support area) to the FSC. They are carried forward with the next logistics package or immediately, as required. Ammunition and explosives are accounted for and provided proper physical security at all times.

CLASS VII

5-35. Units should deploy with all of their required equipment based on their modified table of organization and equipment. There might be additional equipment issued in the joint operations area. For example, units such as the TAP and the signal network support company could receive non-standard equipment while in the joint operations area. Battery and company commanders must ensure their supply sergeants establish accountability on new equipment by creating hand receipts from packing lists or inventory. New equipment must be reported through the BN S-4 and FAB S-4 to the appropriate property book officer.

5-36. Class VII replacement is based on losses reported through command channels to the FAB S-3 and S-4 per unit SOP. This enables the commander to remain apprised of the operational status of subordinate commands, and to direct the distribution of items to those units having the most critical need. Replacement Class VII equipment is delivered to the FAB in the support area. The FAB S-4 and BSB SPO should confirm whether replacement weapons systems (for example, M270A1 MLRS) will be delivered with basic issue items, additional authorized list, munitions, and crew.

5-37. Low density, specialized equipment in the FAB CPs, TAP, and signal network support company might require additional evaluation before classifying it as a loss. Care should be taken before returning this damaged equipment to the supply system.

CLASS VIII

5-38. Usually medical units deploy with a three to five day supply of consumable medical supplies, and all batteries and companies deploy with complete combat lifesaver bags. Initially, sustainment supplies are pushed to the medical company providing area support to the FAB and each FA BN medical platoon based on theater casualty estimates. Individual Soldiers should deploy with a 180-day supply of their prescribed medications. As they deploy, Soldiers must advise their supporting medical unit of their specific needs so the medical logistics system can sustain these prescriptions.

5-39. Resupply of medical supplies is through medical channels. The FA BN medical platoon personnel are responsible for maintaining their medical equipment sets. Combat lifesavers and battery or platoon medics receive replenishment for their aid bags from their unit medical platoons. To prevent unnecessary depletion of blankets, litters, splints, and other medical equipment, the receiving medical treatment facility (such as the area support medical company) exchanges similar properties with the BN medical platoon when it accompanies the patient.

CLASS IX

5-40. Each battery or company in the FAB stocks and deploys with combat spares for repair parts (such as weapons and radio maintenance). Combat spares are a combination of prescribed load list, shop stock, and bench stock. These stocks are based on demand history and usually prescribed to be a 30 days' supply. The battery or company's combat spares are not consolidated at the BN level, but kept at battery or company level. The FSC supporting FA BNs also have combat spares or shop stock to support maintenance of vehicles, generators, and other equipment.

5-41. The battery or company supply sergeant and maintenance personnel replenish their combat spares, and order other parts as needed through the BSB. Class IX repair part requisitions are prioritized based on the commander's priority of maintenance and need.

CLASS X (NONSTANDARD ITEMS)

5-42. Provision of material to meet the immediate humanitarian needs of the civilian population is a responsibility of the host nation. Supplementation is often provided by international or nongovernmental organizations and other agencies. Once the FAB main effort becomes stability operations, the FAB S-4 coordinates with the BSB SPO and civil affairs operations staff officer (if provided) to establish procedures to quantify the amount of supplies ordered (purchased) or donated. These resources are accounted for as Class X and utilized for humanitarian assistance and other programs for the restoration of services essential to local expectations of normalcy. The FAB can use military vehicles to transport this type of material.

TRANSPORTATION

5-43. The BSB is a fixed HQ unit that derives its support capability through the attachment of various units selected to support the mission. The sustainment brigade can provide logistics capability that is not organic to the BSB, such as transportation assets.

MAINTENANCE

5-44. Maintenance is all actions taken to retain materiel in a serviceable condition or to restore it to serviceability. The Army utilizes a tiered, two-level maintenance system composed of field and sustainment maintenance.

5-45. Command teams, maintenance personnel, and planners must have a complete understanding of two-level maintenance fundamentals in order to properly plan and execute their mission. Maintenance is necessary for endurance and performed at the tactical through strategic levels of war. See ATP 4-33 for more information.

Field Maintenance

5-46. *Field maintenance* is on or near system maintenance, repair, and return of equipment to the user including maintenance actions performed by operators (ATP 4-30). It often includes replaceable line units, components, battle damage assessment, repair, and recovery. Field maintenance is focused on returning a system to an operational status. Field level maintenance is not limited to remove and replace, but also provides adjustment, alignment, and fault/failure diagnoses. Field maintenance includes all actions performed at unit level to maintain equipment readiness.

5-47. Battery and company commanders ensure that vehicle crews and equipment operators perform preventive maintenance checks and services. To provide quick turnaround of maintenance problems, each battery or company has a field maintenance team from its supporting FSC dedicated to support them. These field maintenance teams have contact maintenance trucks and mechanics trained in the company's equipment.

5-48. Each FA BN has a supporting FSC to perform maintenance. The FSC has a maintenance platoon that repairs automotive, armament, ground support, electronic, and missile equipment. The FSC focuses on line replacement unit replacement, using combat spares from prescribed load list and shop stock. It has a service and recovery section and performs battle damage assessment and repair. The FSC's maintenance control section uses global command support system-Army to order repair parts and to manage combat spares. The FSC commander establishes maintenance collection points in coordination with the FA BN S-4.

5-49. Maintenance of low density, specialized equipment (as found in FAB CP and the signal network support company) usually requires maintenance by Army Civilians or contractors. Although the BSB SPO does not supervise contractors, the SPO ensures that specific management procedures are developed for contractor maintenance.

Battle Damage Assessment and Repair

5-50. Battle damage assessment and repair is the rapid return of disabled equipment to the force through field-expedient repair of components. This type of repair restores minimum essential combat capabilities to support the mission or to enable self-recovery.

5-51. Battle damage assessment and repair is accomplished by bypassing components or safety devices, relocating parts from like or lower priority equipment, fabricating repair parts, taking shortcuts to standard maintenance, and using substitute fluids, materials, or components. Depending on the repairs required and the amount of time available, repairs may or may not return the vehicle to a fully mission capable status. For more information, see ATP 4-33.

Recovery and Evacuation

5-52. FSCs are responsible for recovering damaged equipment of their own units and their supported units. If the vehicle is repairable, the battery or company recovers it and transports it to the maintenance collection

point or to the nearest main supply route, depending on what is specified in the FAB or unit standard operating procedures or the OPORD.

5-53. When the decision is made to repair the equipment at the FAB support area, recovery or evacuation, is used. If FSC recovery assets are overextended, recovery support can be coordinated with the brigade support area (BSA) to prevent excessive repair delays. Equipment that cannot be repaired at the BSA usually is evacuated to sustainment brigade units.

Controlled Exchange

5-54. Controlled exchange is the removal of serviceable components from unserviceable but economically repairable equipment. It is intended for immediate reuse in restoring another like item of equipment to combat serviceable condition.

5-55. The unserviceable component must be used to replace the serviceable component or retained with the end item that provided the serviceable component. Commanders at brigade level will set guidelines for controlled exchange.

Contracted Maintenance Support

5-56. The FAB often uses contractors and Army Civilians for maintenance support. The FAB S-4 usually plans for the protection and supervision of contractors and Army Civilians. System contractors' support deployed forces under pre-arranged contracts to provide specific support to selected systems throughout the equipment's life cycle, during both garrison and contingency operations.

5-57. Contractor personnel are managed by their contract company supervisors. Contractor management is accomplished in accordance with the terms of their contracts through contracting management channels. Most contractor supervisors and system support contracting officers are not physically located in the FAB. The FAB manages day-to-day operations of these support contractors via their designated contracting officer representative. The Army materiel command's Army field support BN provides materiel enterprise support on a GS basis to the FAB.

5-58. The logistics civil augmentation program and system support contracts are the most common external support contracts used to support FAB sustainment operations. Logistics civil augmentation program performs common supply, transportation, maintenance, general engineering, and base support services, and is accessed through the regionally aligned Army field support brigade or Army field support BN.

SUSTAINMENT MAINTENANCE

5-59. Sustainment maintenance is off-system component repair and end item repair and return to the supply system performed by national level maintenance providers. The intent of this level of maintenance is to perform off-system repairs on all supported items to a standard that provides a consistent and measurable level of reliability. The component is retrograded to a sustainment maintenance repair activity through the distribution system. Once the repair is completed, the component is returned to the distribution system as a serviceable asset.

5-60. Retrograde of unserviceable components is a part of maintenance. A "repairable" is an item that can be repaired cost-effectively. When a repairable such as a diesel engine or a turbine fuel control malfunctions, it can be replaced by a repaired or rebuilt component; it usually does not need to be replaced by a new item.

5-61. Each time mechanics in the FSC order recoverable parts, they must return the unserviceable parts to the supply support activity of the supply and distribution company. These unserviceable parts are then returned to a supply support activity in the sustainment brigade for repair by a forward repair activity capable of sustainment maintenance. Once repaired, the serviceable parts are placed back into the supply system, available for reissue.

FIELD SERVICES

5-62. Field services include field feeding, aerial delivery, and providing other services to Soldiers (laundry and shower support, mortuary affairs, food services, billeting, and sanitation) and force provider activity.

Field Feeding

5-63. Class I is provided by a field feeding company attached to a supporting combat sustainment support battalion. This company provides food service and food preparation for the BN and organic personnel. It distributes prepackaged or prepared food.

5-64. Mortuary affairs is the recovery and identification of deceased personnel and is the responsibility of each battery or company. Battery or company first sergeants supervise the preparation of incident statements. These documents accompany the remains during transport to a BN remains collection point. Usually, these remains collection points are near the combat trains, but not near medical support.

5-65. Once the necessary reports are complete, the remains are evacuated to the FAB unit remains collection point, usually in the FAB unit mortuary affairs collection point, usually in the FAB support area. From there, remains are evacuated to a mortuary affairs collection point established by the mortuary affairs company.

HUMAN RESOURCES SUPPORT

5-66. The FAB S-1 is the coordinating staff officer for all matters concerning human resources support (military and civilian). Organization, duties, and responsibilities of the FAB S-1 were described earlier in Chapter 1.

Casualty Operations

5-67. Brigade and BN S-1 sections are critical elements in the theater casualty operations network. The FAB S-1 develops the casualty estimate for each operation. The single most important S-1 function in casualty operations is ensuring the timely and accurate reporting of all casualties in the required format to ensure the accurate and expeditious notification of next-of-kin and management of changes in Soldier status.

5-68. Casualty reporting starts at the point of injury and reported through the chain of command and subsequently to the BN S-1 section by the most expedient method available. The BN S-1 receives and verifies the data before passing the casualty data to the brigade S-1 section. The FAB S-1 is the point of entry for casualty data into the Defense Casualty Information Processing System and forwards the report to the assistant chief of staff, personnel (G-1) of the FAB higher HQ. Field grade commanders or their designated field grade representative must authenticate casualty reports for accuracy and completeness.

5-69. Ultimately, all casualty reports are processed at the theater Casualty Assistance Center and are forwarded to the Casualty and Memorial Affairs Operations Center at Human Resources Command. The Defense Casualty Information Processing System reports prepared by the FAB S-1 will be reviewed by several levels of command. Accuracy and timeliness are critical. The FAB S-1 will prepare letters of condolence for the commander and will ensure that award of purple hearts; any other posthumous award and any posthumous promotions are properly prepared and executed. For more information on casualty operations see FM 1-0.

Personnel Readiness Management

5-70. Personnel readiness management is the process of distributing Soldiers based on documented requirements, authorizations, and predictive analysis to support the commanders' priorities. Strength management, strength distribution, replacement operations, and personnel readiness reporting, are all elements of personnel readiness management.

5-71. The FAB S-1 is responsible for making the allocation decisions within the brigade to fill documented shortages based on the priority of fill determined by the commander. Personnel readiness management is a continuous process, which is the end state of the personnel estimate, prepared by the FAB S-1.

RELIGIOUS SUPPORT

5-72. The FAB UMT is responsible for organizing efforts of UMTs that work for subordinate commands. The UMT must ensure religious support for all Soldiers in the FAB. Often, batteries, companies, or detachments are attached to the FAB without UMT support. Members of other services and authorized civilians may require area support. The FAB UMT prepares a religious support plan, often as an appendix to

an order, ensuring coordinated religious support for FAB Soldiers. The religious support plan should consider:

- Area support.
- Denominational coverage.
- Use of distinctive religious group leaders.
- Potential for mass casualties.
- Coordination with the Red Cross for family problems.
- Stress management after combat.
- Pastoral care and counseling to key leaders.

5-73. Chaplains advise their commanders on the moral, ethical, and religious nature of command policies, programs, and actions, as well as their impact on Soldiers. UMTs have a staff role as well as a religious role. As professional religious staff advisors, chaplains can research and interpret cultural and religious factors pertinent to a given operational area. They may work with Civil Affairs personnel in analyzing local religious organizations, customs and practices, doctrines, symbols, and the significance of shrines and holy places. Chaplains may conduct Soldier and leader engagements when appropriate and directed to do so by the commander.

LEGAL SUPPORT

5-74. The FAB staff judge advocate is usually located in the FAB main CP to advise the brigade commander and staff on national security law, military justice, administrative law, contract and fiscal law, and other areas of the law as required. The FAB legal section also provides support in all legal functions to subordinate commanders and staffs.

MEDICAL SUPPORT

5-75. FABs do not have an organic medical company. AHS support for the FAB is found in the HHB medical section. The HHB medical section consists of a medical treatment team and medical evacuation squad. For additional details, see ATP 4-02.3.

5-76. The medical company area support, from the supporting medical multifunctional BN, provides Role 2 AHS support for the FAB. In addition, it provides Role 2 support on an area support basis for all other assigned and attached organizations. For additional details, see ATP 4-02.3.

BRIGADE SUPPORT AREA

5-77. A support area is a designated area in which sustainment elements, some staff elements, and other supporting elements locate to support a unit. The sustainment area is an AO that is normally located in the FAB support area. A *brigade support area* is a designated area in which sustainment elements locate to provide support to a brigade (ATP 4-90).

5-78. Trains are a unit grouping of personnel, vehicles, and equipment to provide sustainment. It is the basic sustainment tactical organization. Field artillery BNs use trains to array their subordinate sustainment elements, including their FSC. Combat trains usually are under the control of the headquarters company commander. The BN S-4, and the BN S-1 are positioned in the combat trains. The composition and location of combat trains varies depending on the number of units attached to, or augmenting, the FA BN.

5-79. The BSA is the logistical, personnel, and administrative hub of the FAB. The area consists of the base or bases occupied by the BSB. It could also include those areas occupied by the FAB alternate CP (if formed), BN combat trains, FSCs, AMD assets, signal assets, and other sustainment units from higher HQ (division, corps, or JTF). The BSA may consist of one or more bases in a base cluster within its higher HQ support area. See ATP 3-37.10 for more information on establishing and securing bases. The FAB S-3, with the FAB S-4 and the BSB commander and SPO, determines the location of the BSA. The BSA should be located so that support to the FAB can be maintained, but does not interfere with the tactical movement of FAB units, or with units that must pass through the BSA. The size of the BSA varies with terrain. Usually the BSA is nearby a main supply route in the division, corps, or JTF support area, and ideally is out of the range of the

enemy's medium artillery. The BSA entry points should be positioned away from the enemy's likely avenues of approach.

5-80. The FAB commander can create an alternate CP for sustainment should the administrative and logistics presence in the FAB main CP become too large. The BSB CP may be able to host the FAB sustainment cell if communications links are adequate.

Locations For Support Areas

5-81. All support areas have many similarities, including:

- Cover and concealment (natural terrain or man-made structures).
- Room for dispersion.
- Level, firm ground to support vehicle traffic and sustainment operations.
- Suitable helicopter landing zone.
- Good road or trail networks. These include good routes in and out of the area (preferably separate routes going in and going out); access to lateral routes; routes positioned along or good access to the main supply route; and routes positioned away from likely enemy avenues of approach.

Security Of Support Areas

5-82. Sustainment elements must organize and prepare to defend themselves against ground or air attacks. Often, they occupy areas that have been secured by maneuver units. The best defense is to avoid detection. The following activities help to ensure trains security:

- Use movement and positioning discipline, as well as noise and light discipline to prevent detection.
- Establish a perimeter defense.
- Establish observation posts and patrols.
- Position weapons (small arms, machine guns, and antitank weapons) for self-defense.
- Plan mutually supporting positions to dominate likely avenues of approach.
- Prepare a fire plan and make sector sketches.
- Identify sectors of fires.
- Emplace target reference points to control fires, and for use of indirect fires.
- Integrate available combat vehicles within the trains (such as vehicles awaiting maintenance or personnel) into the plan, and adjust the plan when vehicles depart.
- Conduct rehearsals.
- Establish rest plans.
- Identify an alarm or warning system that would enable rapid execution of the defense plan without further guidance; the alarm, warning system, and defense plan are usually included in the unit standard operating procedures.
- Designate a reaction force. Ensure the force is equipped to perform its mission. The ready reaction force must be rehearsed or briefed on unit assembly, friendly and threat forces recognition, and actions of contact.

SUPPLY ROUTES

5-83. Main supply routes are routes designated which the bulk of sustainment traffic flows in support of operations. A main supply route is selected based on the terrain, friendly disposition, enemy situation, and scheme of maneuver. Alternate supply routes are planned in the event that a main supply route is interdicted by the enemy, or becomes too congested. In the event of operating in a CBRN environment.

5-84. The FAB CBRN officer or S-3 staff checks with their higher HQ to determine the location of clean and dirty routes to handle contaminated traffic. Alternate supply routes should meet the same criteria as the main supply route. Upon activation of a dirty route, all non-contaminated vehicles and personnel are encouraged to avoid this route. Contaminated vehicles will move to decontamination sites prior to rejoining non contaminated vehicles. Route considerations include:

- Location and planned scheme of maneuver for subordinate units.
- Route characteristics such as route classification, width, obstructions, steep slopes, sharp curves, and type of roadway surface.
- Two-way, all-weather trafficability.
- Classification of bridges and culverts.
- Requirements for traffic control such as at choke points, congested areas, confusing intersections, or along built-up areas.
- Number and locations of crossover routes from the main supply route to alternate supply routes.
- Requirements for repair, upgrade, or maintenance of the route, fording sites, and bridges.
- Route vulnerabilities that must be protected. This can include bridges, fords, built-up areas, and choke points.
- Enemy threats such as air attack, conventional and unconventional tactics, mines, ambushes, and chemical strikes.
- Known or likely locations of enemy penetrations, attacks, chemical strikes, or obstacles.
- Known or potential dislocated civilian movements that must be controlled or monitored.

Appendix A

Example Field Artillery Support Plan

Figure A1, provides an example of a field artillery support plan. The field artillery support plan follows the format of the five-paragraph OPLAN or OPORD and refers to both the OPLAN or OPORD and its fires annex. The field artillery support plan may reiterate critical items of information to ensure that all supporting commanders and staffs receive the information.

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| <p style="text-align: center;">[CLASSIFICATION]</p> <p>APPENDIX 4 (FIELD ARTILLERY SUPPORT) TO ANNEX D (FIRES) TO OPERATION PLAN/ORDER [number] [(code name)]-[issuing headquarters] [(classification of title)]</p> <p>d. (U) <u>Friendly Forces</u>. <i>Outline the higher headquarters' fires plan. List designation, location, and outline the plan of higher, adjacent, and other fires organizations and assets that support or impact the issuing headquarters or require coordination and additional support.</i></p> <p>e. (U) <u>Interagency, Intergovernmental, and Nongovernmental Organizations</u>. <i>Identify and describe other organizations in the area of operations that may impact the conduct of fires or implementation of fires-specific equipment and tactics. Refer to Annex V (Interagency Coordination) as required.</i></p> <p>f. (U) <u>Civil Considerations</u>. <i>(Describe the aspects of the civil situation that impact fires. Refer to Annex B (Intelligence) and Annex K (Civil Affairs Operations) as required.</i></p> <p>g. (U) <u>Attachments and Detachments</u>. <i>List fires resources attached or under operational control to the unit by higher headquarters and any units detached or under operational control to other headquarters. Refer to Annex A (Task Organization) as required.</i></p> <p>h. (U) <u>Assumptions</u>. <i>List any fires-specific assumptions that support the annex development.</i></p> <p>2. (U) <u>Mission</u>. <i>State the mission of fires in support of the base plan or order.</i></p> <p>3. (U) <u>Execution</u>.</p> <p>a. (U) <u>Scheme of Fires</u>. <i>Describe how fires support the commander's intent and concept of operations. Establish the priorities of fires to units for each phase of the operation. The scheme of fires must be concise but specific enough to clearly state what fires are to accomplish in the operation. The scheme of fires must answer the "who, what, when, where, and why" of the fires to be provided, but provide enough flexibility to allow subordinate commanders to determine the "how" to the maximum extent possible by ensuring necessary procedural and positive control. The scheme of fires may include a general narrative for the entire operation that should address the fire support task and purpose, allocation of assets, positioning guidance for fire support assets and observers, and attack guidance to include the entire scalable range of effects (lethal to nonlethal effects). Add subparagraphs addressing fire support tasks for each phase of the operation use the following format: task, purpose, execution, and assessment in matrix form. Refer to the base plan or order and Annex C (Operations) as required.</i></p> <p>b. (U) <u>Concept of Operations</u>. <i>The structure is the same as the fires annex scheme of fire paragraph, that is, it retains the same phases. State the purpose of the phase from the "scheme of fires" paragraph and then how the field artillery brigade will support that phase. Provide a narrative of how the field artillery brigade will support the operation from beginning to end.</i></p> <p>c. (U) <u>Organization for Combat</u>. <i>Provide direction for the proper organization for combat, including the unit designation, nomenclature, command and support relationship, and tactical task.</i></p> <p>d. (U) <u>Priority of Fires</u>. <i>State the priority of fires as it applies to the supported command. This is found in the scheme of fires annex or the fire support execution matrix.</i></p> <p>e. <u>Tasks to Subordinate Units</u>. <i>List fires tasks assigned to specific subordinate units not contained in the base order.</i></p> <p style="text-align: center;">[page number] [CLASSIFICATION]</p> |
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Figure A-1. Example Field Artillery Support Plan

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| [CLASSIFICATION] |
| <p>APPENDIX 4 (FIELD ARTILLERY SUPPORT) TO ANNEX D (FIRES) TO OPERATION</p> <p>PLAN/ORDER [number] [(code name)]-[issuing headquarters] [(classification of title)]</p> <p>k. (U) <u>Coordinating Instructions</u>. List only instructions applicable to two or more subordinate units not covered in the base plan or order. Provide subordinates and adjacent units the following information to coordinate fires:</p> <ol style="list-style-type: none"> (1) A clear definition of the boundary of the operational area if not specified in the basic plan. This area may be identified by phase if it is a phased operation. (2) Targeting products. (3) Fire support coordination measures. (4) The time of execution of program of fires relative to H-hour (counterfire, preparations or joint suppression of enemy air defenses), if needed. (5) Rules of engagement specific to fires. <p>4. (U) Sustainment. Identify sustainment priorities for fires key tasks and specify additional sustainment instructions as necessary. Describe critical or unusual sustainment actions that might occur before, during, and after the battle to support the commander's scheme of fires. Refer to Annex F (Sustainment) as required.</p> <ol style="list-style-type: none"> a. (U) <u>Logistics</u>. Use subparagraphs to identify priorities and specific instructions for fires logistics support. Refer to Annex F (Sustainment) and Annex P (Host-Nation Support) as required. b. (U) <u>Personnel</u>. Use subparagraphs to identify priorities and specific instructions for human resources support, financial management, legal support, and religious support. Refer to Annex F (Sustainment) as required. c. (U) <u>Health System Support</u>. Identify ground and air medical evacuation requirements and the availability, priorities, and instructions for medical care. Refer to Annex F (Sustainment) as required. <p>5. (U) Command and Signal.</p> <ol style="list-style-type: none"> a. (U) <u>Command</u>. State the location of the commander and key fires leaders. State the succession of command if not covered in the unit's SOPs. State the fires liaison requirements not covered in the base. b. (U) <u>Control</u>. Describe the employment fires-specific command posts, including the location of each command post and its time of opening and closing. List fires-specific reports not covered in standard operating instructions. Refer to Annex R (Reports) as required. c. (U) <u>Signal</u>. Address any fires-specific communications requirements. Identify the current standard operating instructions edition. Refer to Annex H (Signal) as required. <p style="text-align: right;">[Commander's last name] [Commander's rank]</p> <p>ACKNOWLEDGE. Include only if attachment is distributed separately from the base order.</p> <p style="text-align: center;">[page number] [CLASSIFICATION]</p> |

Figure A-1.Example Field Artillery Support Plan (continued)

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| <p style="text-align: center;">[CLASSIFICATION]</p> <p>APPENDIX 4 (FIELD ARTILLERY SUPPORT) TO ANNEX D (FIRES) TO OPERATION PLAN/ORDER [number] [(code name)]-[issuing headquarters] [(classification of title)]</p> <p>OFFICIAL. [Authenticator's name] [Authenticator's name]</p> <p>ATTACHMENTS. <i>List lower-level attachment (tabs, and exhibits).</i></p> <p>DISTRIBUTION. <i>Show only if distributed separately from the base order or higher-level attachments.</i></p> <p style="text-align: center;">[page number] [CLASSIFICATION]</p> |
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Figure A-1. Example Field Artillery Support Plan (continued)

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Glossary

SECTION I – ACRONYMS AND ABBREVIATIONS

| | |
|-----------------|--|
| ACM | airspace coordinating measures |
| ADAM/BAE | air defense airspace management/brigade aviation element |
| AFATDS | advanced field artillery tactical data system |
| AI | air interdiction |
| AHS | army health system |
| AO | area of operations |
| AMD | air and missile defense |
| BCT | brigade combat team |
| BN | battalion |
| BSB | brigade support battalion |
| C2 | command and control |
| CAS | close air support |
| CBRN | chemical, biological, radiological, and nuclear |
| COA | course of action |
| CP | command post |
| CSR | controlled supply rate |
| DIVARTY | division artillery |
| DS | direct support |
| EW | electromagnetic warfare |
| FA | field artillery |
| FAB | field artillery brigade |
| FFA HQ | force field artillery headquarters |
| FM | field manual |
| FS | fire support |
| FSC | forward support company |
| FSCOORD | fire support coordinator |
| FSCM | fire support coordination measure |
| FSE | fire support element |
| FSO | fire support officer |
| G-1 | assistant chief of staff, personnel |
| G-2 | assistant chief of staff, intelligence |
| G-3 | assistant chief of staff, operations |
| G-6 | assistant chief of staff, signal |

| | |
|----------------|---|
| GS | general support |
| GSR | general support-reinforcing |
| HHB | headquarters and headquarters battery |
| HIMARS | high mobility artillery rocket system |
| HPT | high-payoff target |
| HQ | headquarters |
| HSC | headquarters and service company |
| IO | information operations |
| JTF | joint task force |
| MDMP | military decision-making process |
| METT-TC | mission, enemy, terrain and weather, troops and support available, time available, civil considerations |
| MLRS | multiple launch rocket system |
| NAI | named area of interest |
| OPCON | operational control |
| OPLAN | operation plan |
| OPORD | operation order |
| RSR | required supply rate |
| S-1 | battalion or brigade 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 |
| SEAD | suppression of enemy air defenses |
| SOP | standard operating procedure |
| SPO | support operations officer |
| TA | target acquisition |
| TAC | tactical command post |
| TAI | target area of interest |
| TAP | target acquisition platoon |
| UAS | unmanned aircraft system |
| UMT | unit misitry team |
| XO | executive officer |
| WLR | weapons locating radar |

SECTION II – TERMS

airspace control

(DOD) Capabilities and procedures used to increase operational effectiveness by promoting the safe, efficient, and flexible use of airspace. (JP 3-52)

area of operations

(DOD) An operational area defined by a commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces. Also called AO (JP 3-0)

assign

(DOD) To place units or personnel in an organization where such placement is relatively permanent, and/or where such organization controls and administers the units or personnel for the primary function, or greater portion of the functions, of the unit or personnel. (JP 3-0)

attach

(DOD) The placement of units or personnel in an organization where such placement is relatively temporary. (JP 3-0)

attack

(Army) A type of offensive operation that destroys or defeats enemy forces, seizes and secures terrain, or both. (ADP 3-90)

brigade support area

(Army) A designated area in which sustainment elements locate to provide support to a brigade. (ATP 4-90).

clearance of fires

(Army) The process by which the supported commander ensures that fires or their effects will have no unintended consequences on friendly units or the scheme of maneuver. (FM 3-09)

combat load

(Army) The minimum mission-essential equipment and supplies as determined by the commander responsible for carrying out the mission, required for Soldiers to fight and survive immediate combat operations. (FM 4-40)

command group

(Army) The commander and selected staff members who assist the commander in controlling operations away from a command post. (FM 6-0)

command post

(Army) A unit headquarters where the commander and staff perform their activities. (FM 6-0)

command post cell

(Army) A grouping of personnel and equipment organized by warfighting function or by planning horizon to facilitate the exercise of mission command. (FM 6-0)

counterfire

(DOD) Fire intended to destroy or neutralize enemy weapons. (JP 3-09)

defensive operation

(Army) An operation to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability operations. (ADP 3-0)

direct support

(DOD) A mission requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance. Also called DS. (JP 3-09.3)

(Army) A support relationship requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance. (FM 3-0)

early-entry command post

(Army) A lead element of a headquarters designed to control operations until the remaining portions of the headquarters are deployed and operational. (FM 6-0)

electromagnetic warfare

(DOD) Military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. Also called EW. (JP 3-85)

execution

(Army) The act of putting a plan into action by applying combat power to accomplish the mission and adjust operations based on changes in the situation. (ADP 5-0)

field maintenance

(Army) On system maintenance, repair and return to the user including maintenance actions performed by operators. (FM 4-30)

fire support

(Army) A rapid and continuous integration of surface to surface indirect fires, target acquisition, armed aircraft, and other lethal and nonlethal attack/delivery systems that converge against targets across all domains in support of the maneuver commander's concept of operations. (FM 3-09)

fire support coordinator

(Army) The senior field artillery commander for the theater, corps, division, brigade combat team who is the maneuver commander's primary advisor to plan, coordinate, and integrate field artillery and fire support in the execution of assigned tasks. (FM 3-09)

fire support coordination measure

(DOD) A measure employed by commanders to facilitate the rapid engagement of targets and simultaneously provide safeguards for friendly forces. (JP 3-0)

fire support officer

(Army) The field artillery officer from the operational to tactical level responsible for advising the supported commander or assisting the senior fires officer of the organization on fires functions and fire support. (FM 3-09)

fire support planning

(Army) The continuing process of analyzing, allocating, integrating, synchronizing, and scheduling fires to describe how the effects of fires facilitate maneuver force actions. (FM 3-09)

force field artillery headquarters

(Army) A battalion size or higher unit designated by the supported commander who specifies its duration, duties, and responsibilities. (FM 3-09)

general support

(DOD) Support given to the supported force as a whole and not to any particular subdivision thereof. (JP 3-09.3)

general support-reinforcing

(Army) A support relationship assigned to a unit to support the force as a whole and to reinforce another similar-type unit. Also called GSR. (FM 3-0)

large-scale combat operations

(Army) Extensive joint combat operations in terms of scope and size of forces committed, conducted as a campaign aimed at achieving operational and strategic objectives. (ADP 3-0)

joint fire support

(DOD) Joint fires that assist air, land, maritime, and special operations forces to move, maneuver, and control territory, populations, airspace, and key waters. (JP 3-0)

joint operations

(DOD) Military actions conducted by joint forces and those Service forces employed in specified command relationships with each other, which of themselves, do not establish joint forces. (JP 3-0)

main command post

(Army) A facility containing the majority of the staff designed to control current operations, conduct detailed analysis, and plan future operations. (FM 6-0)

measure of effectiveness

(DOD) An indicator used to measure a current system state, with change indicated by comparing multiple observations over time. Also called MOE (JP 5-0)

measure of performance

(DOD) An indicator used to measure a friendly action that is tied to measuring task accomplishment. Also called MOP (JP 5-0)

military decision-making process

(Army) An iterative planning methodology to understand the situation and mission, develop a courses of action, and produce an operation plan or order. Also called MDMP. (ADP 5-0).

mission orders

(Army) Directives that emphasize to subordinates the results to be attained, not how they are to achieve them. (ADP 6-0)

multinational operations

(DOD) A collective term to describe military actions conducted by forces of two or more nations, usually undertaken within the structure of a coalition or alliance. (JP 3-16)

named area of interest

(DOD) A geospatial area or systems node or link against which information that will satisfy a specific information requirement can be collected, usually to capture indications of adversary courses of action. Also called NAI. (JP 2-01.3)

offensive operation

(Army) An operation to defeat and destroy enemy forces and seize terrain, resources, and population centers. (ADP 3-0)

operational control

(DOD) The authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. (JP 1)

operational environment

(DOD) A composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander. Also called OE. (JP 3-0)

operations process

(Army) The major command and control activities performed during operations planning, preparing, executing, and continuously assessing the operation (ADP 5-0)

organic

(DOD) Assigned to and forming an essential part of a military organization as listed in its table of organization for the Army, Air Force, and Marine Corps, and are assigned to the operating forces for the Navy. (JP 1).

planning

(Army) The art and science of understanding a situation, envisioning a desired future, and laying out effective ways of bringing that future about. (ADP 5-0)

preparation

(Army) Those activities performed by units and Soldiers to improve their ability to execute an operation. (ADP 5-0)

principle

(Army) Is a comprehensive and fundamental rule or an assumption of central importance that guides how an organization approaches and thinks about the conduct of operations. (ADP 1-01)

reinforcing

(Army) A support relationship requiring a force to support another supporting unit. (FM 3-0)

running estimate

(Army) The continuous assessment of the current situation used to determine if the current operation is proceeding according to the commander's intent and if planned future operations are supportable. (ADP 5-0)

strike

(DOD) An attack to damage or destroy an objective or a capability. (JP 3-0)

suppression of enemy air defenses

(DOD) Activity that neutralizes, destroys, or temporarily degrades surface-based enemy air defenses by destructive and/or disruptive means. (JP 3-01)

sustainment

(Army) The provision of logistics, financial management, personnel services, and health service support necessary to maintain operations until successful mission completion. (ADP 4-0)

tactical command post

(Army) A facility containing a tailored portion of a unit headquarters designed to control portions of an operation for a limited time. (FM 6-0)

tactical control

(DOD) The authority over forces that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned. (JP 1)

target acquisition

(DOD) The detection, identification, and location of a target in sufficient detail to permit the effective employment of weapons. Also called TA. (JP 3-60)

target area of interest

(DOD) The geographical area where high-value targets can be acquired and engaged by friendly forces. Also called TAI. See also high-value target; target. (JP 2-01.3)

targeting

(DOD) The process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities. (JP 3-0)

unified land operations

(Army) The simultaneous execution of offense, defense, stability, and defense support of civil authorities across multiple domains to shape operational environments, prevent conflict, prevail in large-scale ground combat, and consolidate gains as part of unified action. (ADP 3-0)

weapons locating radar

(Army) A continuous target acquisition counterbattery system that detects in-flight projectiles, and communicates point of origin and point of impact locations. (FM 3-09)

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Index

Entries are by paragraph number.

A

AFATDS, 1-30, 1-39, 1-77, 2-17, 2-22, 2-25, Glossary-1
airspace control 2-4, 2-29, 2-30, 2-35, 3-57, Table 3-2, 3-27, 3-57, 3-68, Glossary-2, References-1

B

backbrief 3-17, 3-20, 3-21, 3-24

C

command and control, 1-38, 1-40, 1-44, 1-77, 2-13, 2-14, 2-15, 2-24, 2-26, 2-43, 2-44, 3-27, 4-20, 4-26, 4-27, Glossary-1
clearance of fires, 1-42, 1-79, 3-27, 3-30, 3-51, 3-53, 3-55, 3-56, Glossary-3
command posts, 1-23, 1-52, 1-56, 1-64, 2-1, 2-2, 2-5, 2-11, 2-12, 2-13, 2-15, Table 3-2, Glossary-3
communications, 1-30, Table 1-1, 1-36, 1-39, 1-44, 1-50, 1-51, 1-68, 1-74, 1-77, 2-11, 2-21, 2-27, 2-43, 2-44, 3-10, 3-24, 3-26, 3-27, 3-28, 4-6, 4-20, 4-26, 5-79,
counterfire, 1-4, 1-5, 1-7, 1-10, 1-29, 1-30, 1-36, 1-37, 1-38, 1-39, 1-40, 1-41, 1-42, 1-43, 1-44, 1-46, 1-49, 1-54, 2-12, 2-21, 2-22, 2-23, 2-34, 3-27, 3-30, 3-43, 3-49, 3-50, 3-51, 4-11, 4-12, 4-15, 4-16, 4-17, 4-20, 4-26, 4-29, 4-31, Glossary-3

D

defensive operations, 4-13, 4-19, 4-20, 4-24, 4-27, Glossary-3

F

field artillery brigade 1-1, 1-9, 1-36, 1-38, 1-45, Figure 1-1, 1-56, 1-63, 1-64, 1-69, 1-75, 3-1, 3-4, Table 3-2, Table 3-3, 3-49, 4-11, 4-17, 4-19, 4-25, 5-1

command, 1-56, 1-57, 1-58, 1-59, 1-61, 1-62, 1-63, 1-64, 2-22, 2-25, 2-27, 3-1, 3-4, Table 3-2, Table 3-3, 3-16,

role, 1-1, 1-5, 1-29, 1-36, 1-37, 1-39, 1-63

role as a counterfire HQ, 1-5, 1-9, 1-39, 2-21, 3-49, 3-51, 4-12, 4-17

role as a force field artillery HQ, 1-7, 1-9, 1-10, 1-11, 1-28, 1-29, 1-34, 1-35, Figure 1-1, 1-39, 2-36, 3-49, Glossary-1

role in a reinforcing role, 1-14, 1-27, 1-33, Table 1-1, 1-36, 4-18, 4-27,

I

information operations, 1-61, 2-12, 2-26, 2-27, 2-31, 2-33, Glossary-2

M

mission command system, 2-30, advanced field artillery tactical data system (see AFATDS),
air and missile defense, 1-78, 2-29, 2-30, 3-68, 5-78, Glossary-1
mission orders, 2-34, 3-1, Glossary-5

O

offensive operation, 1-1, 4-25, 4-26, 4-27, 4-30, Glossary-5
operations process, 1-25, 3-4, Glossary-5

organization of the field artillery brigade, 1-5, 1-9, 1-10, 1-26, Table 1-1, 1-36

R

rehearsals, 1-60, Table 3-2, Table 3-2, 3-16, 3-17, 3-18, 3-19, 3-22, 3-23, 3-24, 3-25, 3-26, 3-27, 3-28, 3-29, 3-30, 3-56, 5-81
combined arms, 3-17, 3-22, 3-23, 3-24

fire support, 3-25, 3-26, 3-30
standard operating procedure, 3-17, 3-30
tactical, 3-27, 3-8
technical, 3-28,

S

stability operation, 3-31, 4-19, 4-32, 5-41, Glossary-3
strike, 1-1, 1-7, 1-10, 1-41, 1-42, 2-34, 3-58, 4-7, 4-11, 4-13, 4-20, 4-26, 4-27, 4-29, Glossary-6
suppression of enemy air defense, 1-10, 3-27, 3-62, 3-63, 3-64, 3-65, 3-66, 3-67, 3-68, 3-69, 3-70, 3-71, 3-72, 3-73, 3-74, 4-20, 4-26, Glossary-2, Glossary-6

T

target acquisition, 1-23, 1-29, Table 1-1, 1-39, 1-44, 1-45, 1-47, 1-60, 1-61, 2-4, 3-48, 4-17, Glossary-2, Glossary-3, Glossary-4, Glossary-6
targeting decide, 3-37
deliver, 3-37
detect, 1-46, 1-47, 3-37, 3-40, 3-44, 3-45, Glossary-6
assess, 2-19, 3-31, 3-37, 3-66, 4-17, 3-10
targeting working group, Table 3-2,
targeting board, 2-32

W

weapons locating radar, 1-10, 1-29, 2-22, Table 3-4, 3-38, 3-39, 3-41, 3-43, 3-46, 3-47, 3-49, 3-51, 3-52, 4-22, 4-24, 4-27, 4-29, 4-31, Glossary-2

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