



# ADRP 3-09 FIRES

**AUGUST 2012**

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## Fires

1. This change replaces the discussion of air-ground integration to align with Doctrine 2015 standards.
2. ADRP 3-09, 31 August 2012, is changed as follows:

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**ADRP 3-09, C1**  
**8 February 2013**

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# Fires

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## Preface

The principal audience for Army doctrine reference publication (ADRP) 3-09 is commanders, leaders, and staff of the fires warfighting function. Commanders and staff who must employ fires within their operations should also use this doctrinal manual. This ADRP is not only based on the Army's capstone doctrine, Army doctrine publication (ADP) 3-0 and ADRP 3-0, but is also grounded in joint doctrine such as found in Joint Publication (JP) 3-0, JP 3-01, JP 3-09, and JP 3-60. Trainers and educators throughout the Army will also use this manual. The scope of this publication is broad in its focus in order to deal with fires as a complete entity. It gives equal treatment to the diverse assets that are designated as fires resources. The successful employment of fires depends on the integration and synchronization of all forms of fires within all the warfighting functions. This manual forms the foundation for training and Army education curricula on fires. This publication describes the fires warfighting function in terms of its major components, functions, and required products, and describes how fires are employed in terms of the operations process.

Commanders, staffs, and subordinates ensure their decisions and actions comply with applicable United States (U.S.), international, and, in some cases, host-nation laws and regulations. Commanders at all levels ensure their Soldiers operate in accordance with the law of war and the rules of engagement. (See field manual [FM] 27-10.)

ADRP 3-09 uses joint terms where applicable. Selected joint and Army terms and definitions appear in the glossary and the text. Terms for which ADRP 3-09 is the proponent publication (the authority) are marked with an asterisk (\*) in the glossary. Definitions for which ADRP 3-09 is the proponent publication are boldfaced in the text. For other definitions shown in the text, the term is italicized and the number of the proponent publication follows the definition.

ADRP 3-09 applies to the Active Army, Army National Guard/Army National Guard of the United States, and U.S. Army Reserve unless otherwise stated.

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

# Introduction

Army Doctrine Reference Publication (ADRP) 3-09, *Fires*, is one of the ADRPs released under Doctrine 2015. ADRP 3-09 expands on the foundations and principles found in ADP 3-09. This Army doctrine for fires builds on the collective knowledge and experience gained through recent operations and numerous exercises. It is rooted in time-tested principles and fundamentals, while accommodating new technologies.

ADRP 3-09 makes numerous changes from Field Manuals (FM) 3-01 and 3-09. The most significant change is that air and missile defense (AMD) is moved from the protection warfighting function into the fires warfighting function. AMD contributes to the area air defense plan (AADP) by assisting the protection cell with the planning and development of the defended assets list (DAL). Execution of tasks related to fires which are part of the DAL will be performed by the fires warfighting function.

Additional changes in ADRP 3-09, from FM 3-01 and FM 3-09, include the field artillery (FA) mission statement is updated to read: The mission of the Field Artillery is to destroy, defeat, or disrupt the enemy with integrated fires to enable maneuver commanders to dominate in unified land operations.

ADRP 3-09 remains generally consistent with FM 3-01 and FM 3-09, on key topics while adopting updated terminology and concepts as necessary. These topics include the discussion of fires in support of unified land operations, decisive action and the operational framework.

ADRP 3-09 contains three chapters:

**Chapter 1** describes the fires warfighting function while incorporating the roles, core competencies, critical capabilities, characteristics, and principals of fires, as well as fires in support of unified land operations, and decisive action. Additionally the chapter discusses fires in relation to other warfighting functions, joint interdependency, and the employment of fires.

**Chapter 2** describes the various fires organizations, and lists key fires personnel with their duties and responsibilities.

**Chapter 3** describes the fires process in greater detail, describes its interaction with the operations process, through targeting and fires planning.

Based on current doctrinal changes, certain terms have been added, modified, or rescinded for purposes of this manual. The glossary contains acronyms and defined terms.

# Chapter 1

## Fires in Support of Unified Land Operations

This chapter addresses the definitions and foundational elements of fires. It provides definitions for fires in support of unified land operations through decisive action. It also addresses the fires warfighting function; the purpose and role of fires; and the fundamental principles of fires.

### FIRES DEFINITIONS

- 1-1. *Fires* are the use of weapons systems to create a specific lethal or nonlethal effect on a target (Joint Publication [JP] 3-09).
- 1-2. *Joint fires* are fires delivered during the employment of forces from two or more components in coordinated action to produce desired effects in support of a common objective (JP 3-0).
- 1-3. ***Air Defense Artillery is defensive measures designed to destroy attacking enemy aircraft or missiles in the atmosphere, or to nullify or reduce the effectiveness of such attack either through surveillance actions or active engagements of aerial threat.***
- 1-4. *Active air defense* is direct defensive action taken to destroy, nullify, or reduce the effectiveness of hostile air and missile threats against friendly forces and assets. It includes the use of aircraft, air defense weapons, electronic warfare, and other available weapons (JP 3-01).
- 1-5. *Passive air defense* is all measures other than active air defense, taken to minimize the effectiveness of hostile air and missile threats against friendly forces and assets. The measures include camouflage, concealment, deception, dispersion, reconstitution, redundancy, detection and warning systems, and the use of protective construction (JP 3-01).
- 1-6. ***Air and missile defense is the direct defensive actions taken to protect friendly forces by destroying or reducing the effectiveness of hostile air and ballistic missile threats against friendly forces and assets in support of joint force commander's objectives.***
- 1-7. *Fire support* is fires that directly support land, maritime, amphibious, and special operations forces to engage enemy forces, combat formations, and facilities in pursuit of tactical and operational objectives (JP 3-09).
- 1-8. ***Field Artillery is the equipment, supplies, ammunition, and personnel involved in the use of indirect fire cannon, rocket, or surface-to-surface missile launchers.***
- 1-9. *Joint fire support* is 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).

### FIRES WARFIGHTING FUNCTION

- 1-10. A *warfighting function* is a group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions (ADRP 3-0). See ADRP 3-0 for further discussion of the warfighting functions and the elements of combat power.
- 1-11. The *fires warfighting function* is the related tasks and systems that provide collective and coordinated use of Army indirect fires, air and missile defense (AMD), and joint fires through the targeting process (ADRP 3-0). Army fires systems deliver fires in support of offensive and defensive tasks to create specific lethal and nonlethal effects on a target. The fires warfighting function includes the following tasks:
  - Deliver fires.

- Integrate all forms of Army, joint and multinational fires.
- Conduct targeting.

1-12. The fires warfighting function includes tasks associated with, integrating, and synchronizing the effects of Army indirect fires, AMD, and joint fires with the effects of other warfighting functions. It includes planning for targeting; providing fire support; countering air, ballistic missile, cruise missile, rocket, artillery, mortars, and unmanned aircraft systems threats; and integrating joint and multinational fires. This represents the tasks the fires function must accomplish to complement and reinforce the other warfighting functions.

1-13. Fires organizations require deliberate and dynamic targeting to achieve lethal and nonlethal effects against ground and aerial targets. For ground threats, fires leaders use the Army's targeting methodology to plan, prepare, execute, and assess effects on the ground. For aerial threats, fires leaders use air defense planning to determine air defense priorities and the tailoring of air defense artillery capabilities to defeat aerial threats.

1-14. As a warfighting function, fires address requirements associated with offensive and defensive tasks supporting the concept of operations and integrated into the scheme of maneuver. A wide range of precision to conventional scalable capabilities provides the means for the employment of fires in unified land operations.

## **DELIVER FIRES**

1-15. Today's operational environments require the integration of Army indirect fires in support of offensive, defensive, and stability tasks. Fires combine the use of air and ground artillery with the capabilities of other Army warfighting functions, special operations forces (SOF), joint forces, and unified action partners to enable the supported commander to seize the initiative. Army forces plan for, integrate, coordinate and synchronize the fires capabilities (sensors and weapon systems) of unified action partners into the concept of operations to achieve synergy, develop a common operational picture (COP), and enable joint interdependencies from the tactical to strategic levels. Additionally, complementary and reinforcing joint and multinational capabilities provide redundancy to mitigate environmental and operational restrictions, resource shortfalls, as well as gaps in coverage from a particular asset.

## **INTEGRATE ALL FORMS OF ARMY, JOINT AND MULTINATIONAL FIRES**

1-16. Fires must be integrated with the capabilities of other Army warfighting functions, special operation forces, joint forces and multinational forces. Integration of fires creates an optimal environment that mitigates risks, resource shortfalls and covers gaps within the areas of operations (AO). Ground and air fires must be integrated with decisive action and unified land operations. Fires in unified land operations from air-to-surface, surface-to-air and surface-to-surface assets must be coordinated and cleared on the ground and through the airspace to enable the rapid and timely delivery of fires and to prevent fratricide. Network-enabled mission command systems facilitate access, integration, coordination, and clearances maintaining a relevant common operational picture. Interoperability will also be key, as well as the ability to attack targets and threats identified and located by organic and nonorganic sensors. This interoperability includes the ability to successfully hand targets off to other organizations throughout the AO.

1-17. Air Defense Artillery (ADA) commanders plan their operations to support the accomplishment of the supported commander's strategic, operational or tactical objectives by providing fires, early warning, and situational understanding to protect critical assets and forces from air and missile attack and aerial surveillance. The primary objectives for AMD are similar at all levels of war.

1-18. ADA commanders, supported by air defense artillery fire control officer elements, tactical directors, fire control officers, and air defense airspace management cells and airspace control cells at the appropriate Army echelon, will integrate joint, unified action partners and Army AMD for the supported commanders and the area air defense commander (AADC). These leaders will perform the integration function for the supported commanders, providing AMD access and contributing to situational understanding, and airspace management. AMD fires, while under the control of the AADC will be allocated accordingly to the defended asset list (DAL) priority and will be integrated with the joint force commander's and supported

commander's concept of operations. AMD fires will be coordinated and cleared enabling rapid and timely engagement of threats while mitigating fratricide.

1-19. FA commanders, assisted by fire support personnel and organizations at all echelons integrate joint, Army, interagency and multinational fires capabilities during the operations and targeting processes. These leaders will perform the integration function for the maneuver commanders, including electronic attack and SOF, providing access to joint, Army, interagency, and multinational capabilities. Synchronized fire support requires the coordinated interaction of all of the elements of the fire support system, thorough continuous planning, aggressive coordination, and vigorous execution. The fire support system includes the target acquisition, mission command, and attack/delivery systems that must function collectively to ensure effective fires are delivered where and when the commander requires them.

## **CONDUCT TARGETING**

1-20. *Targeting* is the process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities (JP 3-0). Targeting is continuously refined and adjusted between the commander and staff as the operation unfolds. A *Target* is an entity or object considered for possible engagement or other action (JP 3-60). Targets also include the wide array of mobile and stationary forces, equipment, capabilities, and functions that an enemy commander can use to conduct operations. The identification and subsequent development of targets, the attack of the targets, and combat assessment provide the commander with vital feedback on the progress toward reaching the desired end state. Combat assessment can provide crucial and timely information to allow analysis of the success of the plan or to initiate revision of the plan.

1-21. Targeting is a fundamental task of the fires function that encompasses many disciplines and requires participation from many joint force staff elements and components along with numerous nonmilitary agencies. The purpose of targeting is to integrate and synchronize fires into unified land operations. Army targeting uses the functions decide, detect, deliver, and assess (D3A) as its methodology. Its functions complement the development, planning, execution, and assessment of the effectiveness of targeting and weapons employment.

1-22. The fires warfighting function must maintain three critical capabilities in order to deliver and integrate fires: target acquisition, target discrimination, and target engagement—

- Target Acquisition. *Target acquisition* is the detection, identification, and location of a target in sufficient detail to permit the effective employment of weapons (JP 1-02).
- Target Discrimination. Target discrimination is the process of applying a system, action, or function to identify or engage any one target when multiple targets are present.
- Target Engagement. Target engagement is the process of applying a weapon system, capability, action, or function against a target to achieve a desired lethal or nonlethal effect in support of the commander's objectives.

## **ROLES**

1-23. The role of fires is to enable Army forces to seize and retain the initiative, prevent and deter conflict, defeat adaptive threats and succeed in a wide range of contingencies. Fires in decisive action create effects and set conditions to enable commanders to prevail in unified land operations. Fires are surface-to-surface, surface-to-air, and joint fires including electronic attack.

## **CORE COMPETENCIES**

### **AIR DEFENSE ARTILLERY**

1-24. Army ADA forces, fight interdependently with other elements of unified action partners at strategic, operational, and tactical levels. Army ADA provides AMD and contributes to the situational understanding, airspace management, early warning, and operational force protection. Army ADA forces deter or defeat enemy aerial threats, protect the force and high value assets. This mission is normally executed within a

joint theater and requires integration and close coordination between Army ADA forces and other counterair forces.

**The mission of Air Defense Artillery is to provide fires to protect the force and selected geopolitical assets from aerial attack, missile attack, and surveillance.**

1-25. ADA forces accomplish their mission by developing procedures and deploying air and missile defense systems to protect forward deployed elements of the U.S. armed forces, and multinational partners. This mission employs multi-tier (lower-tier and upper-tier), that are interoperable, and provide a layered and defense in-depth capability against air breathing threats, ballistic and cruise missiles, and unmanned aircraft systems. The distinction between the upper- and lower-tier systems and capabilities depend on the ranges and altitude of the threat.

1-26. Lower-tier systems defeat air breathing threats, short range ballistic missiles, cruise missiles, unmanned aircraft systems, and enemy indirect fire. For example, the lower-tier systems provide air defense of ground combat forces and high value assets against high performance air-breathing threats fixed-wing, rotary-wing and unmanned aircraft, cruise missiles, and ballistic missile threats.

1-27. Upper-tier systems defend larger areas and defeat medium and intermediate range ballistic missiles, and increase the theater commanders' effectiveness against weapons of mass destruction.

## FIELD ARTILLERY

1-28. FA operations are actually two distinct functions; FA, and fire support. The FA provides the nucleus for effective fires coordination through staff personnel, fires agencies, and attack resources. The integration of fires is a critical factor in the success of operations. The commander is responsible for the integration of fires within their operational area. The chief of fires (COF), the fire support coordinator (FSCOORD), and brigade fire support officer (FSO) advise the commander on the allocation and use of available fires resources.

**The mission of the Field Artillery is to destroy, defeat, or disrupt the enemy with integrated fires to enable maneuver commanders to dominate in unified land operations.**

1-29. FA cannon, rocket, missile, and sensor systems provide continuously available fires under all weather conditions and in all types of terrain. FA can shift and mass fires rapidly without having to displace. Should a maneuver or other supported force displace, FA units should be as mobile as the units they support. FA forces man the fires cells, act as forward observers, and are employed as fire support teams (FIST) and combat observation and lasing teams (COLT) to integrate all means of fire support for the commander and synchronize fire support with the concept of operations.

1-30. FA destroys, disrupts, denies, degrades, neutralizes, interdicts, or suppresses enemy forces, and protects and enables friendly forces in support of the maneuver commander requirements and objectives. A variety of FA munitions provide the commander with tremendous flexibility when attacking targets with fires.

1-31. FA forces synchronize and integrate Army, joint and multinational fires assets for use at the designated place and time. Fires are critical to accomplishing offensive and defensive operations. However, nonlethal effects are also important contributors to decisive action, regardless of which element dominates. Accomplishing the mission by achieving an appropriate mix of lethal and nonlethal effects remains an important consideration for every commander.

## FIRES IN SUPPORT OF UNIFIED LAND OPERATIONS

1-32. The Army operational concept is unified land operations (see ADP 3-0 and ADRP 3-0). Army fires support this operational concept with fire support operations through the application of FA and ADA. Fires align with the tenets of unified land operations in ADP 3-0 which are flexibility, integration, lethality,

adaptability, depth, and synchronization. Fires execution supports these tenets and the supported force in seizing and maintaining the initiative.

## **FLEXIBILITY**

1-33. To achieve tactical, operational, and strategic success, commanders seek to demonstrate flexibility in the employment of fires. Fires utilize a versatile mix of capabilities, formations, and equipment for conducting operations. Flexible fires planning help units adapt quickly to changing circumstances in operations. Decentralizing fires execution to the lowest level possible gives commanders' flexibility during operations.

## **INTEGRATION**

1-34. Army forces rely on joint inter-dependence as a part of a larger joint, interagency, intergovernmental, and multinational effort. Integration of joint, interagency, intergovernmental, and multinational capabilities improves collectivity, efficiency, and effectiveness. Fires commanders, staffs, and Soldiers leverage and combine these capabilities, sensors and weapons systems to quickly adapt to changing conditions in various operational environments. Fires utilize mission command to facilitate the integration of these capabilities at all levels of war in support of unified land operations and decisive action. Commanders extend their operational reach through the integration of joint fires.

## **LETHALITY**

1-35. The capacity for physical destruction is fundamental to all other military capabilities and the most basic building block for military operations (ADP 3-0). Lethality is a foundation for effective decisive action. Fires contribute to the Army's lethality through the application of scalable capabilities to create lethal effects by destroying, neutralizing, or suppressing the enemy.

## **ADAPTABILITY**

1-36. Army leaders accept that no prefabricated solutions for fires exist. Commanders and staffs must adapt their way of thinking and the manner in which they employ fires to the specific situation they face. Fires leaders achieve adaptability by understanding the operational environment, the abilities of their Soldiers and the capabilities of fires systems.

## **DEPTH**

1-37. Depth is the extension of operations in space, time, or purpose. Commanders and staffs provide depth through the successful planning and execution of joint fires. Fires provide the commander depth and breadth to the battlefield through long-range acquisition and early engagement of targets. Fires utilize the employment of various long and short range weapons to facilitate multiple engagements as required.

## **SYNCHRONIZATION**

1-38. *Synchronization* is the arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time (JP 2-0). Synchronization of fires, in conjunction with other warfighting functions, goes beyond integration, optimizes the elements of combat power, including Army indirect fire, AMD, joint fires and unified action partner capabilities to fully maximize their complementary effects through the operation and targeting processes.

## **FIRES IN SUPPORT OF DECISIVE ACTION**

1-39. *Decisive action* is the continuous, simultaneous combination of offensive, defensive, and stability or defense support of civil authorities tasks (ADRP 3-0).

1-40. Fires organizations and leaders support decisive action through the purposeful and simultaneous execution of the Army's core tasks to achieve the commander's intent and end state. In unified land operations, fires facilitate commanders' ability to seize, retain, and exploit the initiative while

synchronizing their actions to achieve the best effects possible. Decisive action may require simultaneous combinations of offensive, defensive, and stability tasks, or defense support of civil authorities. Fires organizations and commanders support all the primary tasks and the numerous subordinate tasks associated with decisive action. These tasks, when combined with; the who (unit), when (time), where (location), and why (purpose), may become the essential tasks, or mission statement, for fires organizations.

## SCALABLE CAPABILITIES

1-41. Scalable capabilities provide a range of nonlethal to lethal actions commensurate with the commander's intent. Scalable capabilities can create desired effects while reducing collateral damage. Scalable capabilities allow the commander to find the right balance between effects and collateral damage. These capabilities assist in protecting joint, Army, and multinational partners and populations residing in the AO. Scalable capabilities can be addressed in the selection of the appropriate weapon system, number and type of munitions fired and the method used to engage a target through mission command nodes and networked sensors. Nonlethal effects typically neutralize or incapacitate a target or modify adversarial behavior without causing permanent injury, death, or gross physical destruction.

## FIRES IN SUPPORT OF OFFENSIVE TASKS

1-42. An *offensive task* is a task conducted to defeat and destroy enemy forces and seize terrain, resources, and population centers (ADRP 3-0). Fires in support of offensive tasks that preempt enemy actions include preparation fire, close support fires, interdiction, electronic attack, early warning, early engagement, and counterfire. These actions protect and enable friendly forces to seize the initiative, support the scheme of maneuver, and follow on operations.

## CONSIDERATIONS FOR FIRES IN SUPPORT OF OFFENSIVE TASKS

1-43. Supporting the concept of operations during the offense involves acquiring, discriminating, and engaging targets throughout the AO with massed and precision fires to include joint and electronic warfare assets. Considerations for supporting the scheme of maneuver during the offense include:

- Weight the main effort.
- Consider positioning fires assets to exploit weapons ranges and preclude untimely displacement when fires are needed the most.
- Provide counterfire.
- Provide early warning and dissemination.
- Provide wide area surveillance.
- Provide fires to protect forces preparing for and assets critical to offensive actions.
- Disrupt enemy counterattacks.
- Plan fires to support breaching operations.
- Plan fires to deny enemy observation or screen friendly movements.
- Allocate responsive fires to support the decisive operation.
- Allocate fires for the neutralization of bypassed enemy combat forces.
- Plan for target acquisition and sensors to provide coverage of named areas of interest, target areas of interest and critical assets.

1-44. The critical characteristics of offensive action are surprise, concentration, tempo, and audacity. These characteristics support the central theme of offensive tasks, which is the need to gain and maintain the initiative. Fires execution must support these characteristics to enable the force in seizing and maintaining the initiative for fires in support of defensive tasks. See FM 3-90 for additional information on the characteristics of the offense.

## FIRES IN SUPPORT OF DEFENSIVE TASKS

1-45. A *defensive task* is a task conducted to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability tasks (ADRP 3-0). Successful defenses are

aggressive, and they maximize protection and maneuver to defeat enemy forces and regain the initiative. Fires in support of defensive tasks are fires that protect friendly forces, populations, and critical infrastructure to enable maneuver forces to transition to offensive tasks. See FM 3-90 for additional information on the characteristics of the defense.

### **CONSIDERATIONS FOR FIRES IN SUPPORT OF DEFENSIVE TASKS**

1-46. Supporting the concept of operations during the defense involves attacking/engaging targets throughout the AO with massed or precision indirect fires, AMD fires, defensive counterair, air support, and electronic warfare assets. In the defense, general fires support considerations for supporting the concept of operations include:

- Weight the main effort.
- Provide 360 degree AMD coverage.
- Provide and disseminate early warning.
- Contribute targeting information.
- Engage critical enemy assets with fires before the attack.
- Plan counterfire against enemy indirect fire systems attacking critical friendly elements.
- Use both lethal and nonlethal attack means to apply constant pressure to the enemy's command and control structure.
- Provide fires in support of defensive counterair (DCA) operations to defeat enemy aerial attacks.
- Plan the acquisition and attack of high payoff targets (HPT) throughout the area of operation.
- Provide integrated fires in synchronization with maneuver and electronic warfare countermeasures in the conduct of decisive and shaping operations.
- Retain maximum feasible centralized control of fires resources in order to concentrate fires at the decisive place and time.
- Provide fires to support counterattacks.
- Plan fires in support of the barrier and/or obstacle plan.
- Provide fires in support of decisive, shaping and sustaining operations.
- Plan for target acquisition and sensors to provide coverage of named areas of interest, target areas of interest and critical assets.

### **FIRES IN SUPPORT OF STABILITY TASKS**

1-47. Stability tasks are tasks and activities conducted outside the United States to maintain or reestablish a safe and secure environment and to provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief.

1-48. Fires considerations in support of stability tasks include the considerations identified for offensive and defensive tasks. Commanders must analyze each mission and adapt to the mission variables that fit the situation. Characteristics of stability tasks include:

- They are often conducted in noncontiguous AOs. This can complicate the use of airspace coordinating measures (ACM), fire support coordination measures (FSCM), the ability to mass and shift fires, and clearance of fires procedures.
- What constitutes key terrain may be based more on political, cultural, and/or social considerations than physical features of the landscape. Fires may be used more frequently to defend key geopolitical sites.
- Rules of engagement (ROE) are often more restrictive when conducting stability tasks. Commander's guidance for fires requires careful consideration during development of ROE and wide dissemination to all levels. Increasing the proportion of target guided munitions (TGM) used in fires and/or employment of nonlethal capabilities may be necessary to limit collateral damage.
- Improper application of fires can have a long-term adverse impact on achievement of the desired end state.

- Use of fires to demonstrate capabilities, show of force, or area denial.
- Use of targeting to synchronize non-lethal effects and to conduct engagement planning.
- Provide force protection through counterfire and counterair operations.

## PRINCIPLES

1-49. **Precision.** Providing a coordinated effect on a specific target characterized by having a high degree of accuracy using guidance control and correctable ballistics.

1-50. **Scalable.** Fires capabilities that are adaptable, versatile, and capable to a degree that allows intended effects to be achieved through nonlethal to lethal capabilities.

1-51. **Synchronized.** Fires arranged in time, space and purpose in order to produce the desired effect at a decisive place and time; in fires context, the application of sources and methods in concert with the operation plan to ensure lethal and non-lethal effects are executed in time to support the commander's objectives.

1-52. **Responsive.** Employment of fires capabilities in an expedient manner meeting the needs of the supported forces.

1-53. **Networked.** Interconnected weapon systems and sensors that enable mission command and provide rapid target acquisition, target discrimination, and target engagement in accordance with the commander's intent.

## CHARACTERISTICS

1-54. **All Weather.** Fires capabilities are not weather restrictive, and can be sustained and maintained in any or all weather conditions.

1-55. **Precision/Near Precision Fires.** Precision capabilities have a circular error probable of less than 10 meters. Near Precision fires typically have a circular error probable of between 10 and 50 meters. Air Defense fires have a probability of kill percentage associated with their effects.

1-56. **Mass Area Fires.** Fires retain the responsibility and capability of providing 360 degree coverage and early warning to preserve friendly forces and their assets. Fires mass in space and time on a single or multiple targets. Battalion sized firing units down to two weapon systems deliver area fires and their effects. The ability for smaller firing elements to mass is enabled by system range capabilities, weapons platform capabilities, extended range communication and the mission command network.

1-57. **Air and Space Integration.** Fires leaders have the responsibility to integrate air and space control measures to ensure all commanders have the maximum freedom to achieve their objectives and have maximum flexibility to use assets (organic, supporting and joint) within that airspace. Fires requires responsive integrated network connectivity meshed with joint air and space management systems in order to synchronize and deliver timely air and ground fires and early warning in support of unified land operations. Fires enable all users of airspace to synchronize, plan, and execute a cohesive air deconfliction resolution. Fires personnel coordinate airspace integration to ensure that conflicts between ground fires and air operations are minimized using FSCMs and ACMs. This unified action mitigates the possibility of fratricide and duplication of effort.

1-58. **Inherently Joint.** All forms of fires are joint by nature through their association with the development, coordination, and integration of the joint integrated prioritized target list and the critical asset list (CAL) into the DAL development. The joint fires element develops joint targeting guidance, objectives, and priorities. Fires organizations such as the Army air and missile defense command (AAMDC) and the battlefield coordination detachment (BCD) routinely perform joint coordination functions with the joint force commander (JFC) and the joint force air component commander (JFACC).

## FIRES AND JOINT PRINCIPLES

1-59. The nine principles of joint operations that provide guidelines for combining the elements of combat power and for employing fires are listed below.

### OBJECTIVE

1-60. The purpose of specifying the objective is to direct every military operation toward a clearly defined, decisive, and achievable goal (JP 3-0). Objective means ensuring all fires actions contribute to the supported commander's mission. The fire support plan and AADP must have clearly defined objectives that support the commander's intent. Objectives allow commanders to focus combat power on the most important tasks and to protect critical assets in their area of operations.

### OFFENSIVE

1-61. The purpose of an offensive action is to seize, retain, and exploit the initiative (JP 3-0). Fires must always be conducted in the spirit of the offense. Effective fires must maintain responsiveness and fire superiority to allow the supported force to seize and retain the initiative.

1-62. Regardless of whether the force is engaged in the offense or is in a defensive posture, fires are used offensively to strike HPT and in offensive counterair operations. Optimally, fires are preemptive, with the ability for rapid reaction to unforeseen requirements. The aggressive application of fires can keep an enemy off balance and in a reactive state. Disrupting his operations throughout the AO with synchronized fires can prevent the enemy from establishing his desired tempo of operations and concentration of forces. Additionally AMD fires allow a commander to maintain momentum and operational tempo of the offense. The use of clearly stated essential tasks for fires, concise fire support plans, area air defense plans (AADP) and decentralized control of fires assets are ways to facilitate increased initiative.

### MASS

1-63. The purpose of mass is to concentrate the effects of combat power at the most advantageous place and time to produce decisive results (JP 3-0). Fires weapons and units are normally not physically massed, but they must be able to provide maximum massed fires when and where they are required. The actual methods of achieving massed fires vary with each attack resource. Commanders select the method that best fits the circumstances. Army forces can mass fires quickly and across large distances. Commanders can use fires to achieve mass by—

- Allocating fires assets to add weight to the main effort. This includes attack and target acquisition (TA) assets and sensors, and ammunition.
- Assigning priorities of fires and quickfire channels.
- Focusing target acquisition, sensors, and information collection assets.
- Concentrating fires assets on one aspect of fires such as fires in support of close combat.

### MANEUVER

1-64. The purpose of maneuver is to place the enemy in a position of disadvantage through the flexible application of combat power (JP 3-0). Fire support plans and air defense plan (ADP) must have the flexibility to include altered missions, command and support relationships, and priorities. Fires units must also displace rapidly, keep pace with the supported force in the current operation, and position as needed to support future operations. Combating a hybrid threat may demand different fire unit positioning considerations within the same AO. Mission variables may require some fires units to be employed as widely separated elements to achieve the necessary fires range to enable decisive action in one portion of the AO.

### ECONOMY OF FORCE

1-65. The purpose of economy of force is to expend minimum essential combat power on secondary efforts in order to allocate the maximum possible combat power on primary efforts (JP 3-0). A unit might be

required to conduct operations with minimum essential fires and accept risk. Economy of force also implies that the effort allocated to a given unit shall not exceed the effort necessary to produce the commander's desired effects.

## UNITY OF COMMAND

1-66. The purpose of unity of command is to ensure unity of effort under one responsible commander for every objective (JP 3-0). Fires must be synchronized with the supported commander's concept of operation based on his intent and guidance for fires. For Air Defense, unity of command is exercised through the tactical control of ADA fires utilizing positive and procedural controls in support of the AADC. While at corps and below, the maneuver commander normally delegates to his COF/FSCoord/FSO/ air defense airspace management/brigade aviation element (ADAM/BAE) the requisite authority to direct and coordinate all joint and Army fires on his behalf.

## SECURITY

1-67. The purpose of security is to prevent the enemy from acquiring an unexpected advantage (JP 3-0). There are two aspects of security in relation to fires. The first aspect concerns general security, which fires helps provide for the supported force. The second aspect is the continued survivability of trained fires personnel, fires command networks and control facilities, target acquisition and sensors, and fires weapons systems.

## SURPRISE

1-68. The purpose of surprise is to strike at a time or place or in a manner for which the enemy is unprepared (JP 3-0). Fires enable the commander to achieve surprise with the delivery of a high volume of fire or precision munitions on the enemy without warning. Commanders can use fires to achieve surprise by—

- Rapidly and discreetly repositioning fires assets and/or shifting and massing fires.
- Using short, intense programs of fires, such as those for suppression of enemy air defenses and counterfire, against key enemy functions at critical times.
- Using TGMs to strike a target.
- Deceiving the enemy as to the types, numbers, locations, and capabilities of friendly fires assets.
- Conducting offensive counterair to destroy or negate enemy aerial platforms and sensors.

## RESTRAINT

1-69. The purpose of restraint is to limit collateral damage and prevent the unnecessary use of force (JP 3-0). Fires restraint typically concerns the munitions employed and the targets engaged to achieve lethal effects. Having the ability to employ a weapon does not mean it should be employed. In addition to collateral damage considerations, the employment of some weapons—bombs, missiles, rockets, artillery, and mortars—could have negative psychological impacts that create or reinforce instability or security concerns. Collateral damage could adversely affect efforts to gain or maintain legitimacy and impede the attainment of both short-term and long-term goals. Restraint increases the legitimacy of the organization that uses it while potentially damaging the legitimacy of an opponent.

1-70. The actions of military personnel are framed by the disciplined application of force, including specific ROE. *Rules of engagement* are directives issued by competent military authority that delineate the circumstances and limitations under which U.S. forces will initiate and/or continue combat engagement with other forces encountered (JP 1-04). Successful employment of fires requires a common understanding by commanders and their fires personnel. Commanders must limit collateral damage and apply force precisely to accomplish the mission without causing unnecessary loss of life, suffering, or damage to infrastructure. Fires units and fires personnel must be properly trained in the ROE and quickly informed of any changes. ROE may vary, but should always be consistent with the inherent right of self-defense. See chapter 3 for a discussion of the commander's guidance for fires.

## FIRES IN RELATION TO OTHER WARFIGHTING FUNCTIONS

### MISSION COMMAND FOR FIRES

1-71. The *mission command warfighting function* develops and integrates those activities enabling a commander to balance the art of command and the science of control (ADRP 3-0). Mission command for fires organizations is enhanced by an arrangement of personnel, network enabled intelligence, communications, and automation systems that facilitate the efficient application of fires, facilities, and procedures employed by a commander and his fires personnel to plan, prepare, execute, and assess fires relationships or missions and tasks.

1-72. The mission command system is the arrangement of personnel, networks, information systems, processes and procedures, and facilities and equipment that enable the commander to conduct operations. The integration of airspace control is a component of mission command that is also essential to the fires warfighting function. For more on the Mission Command warfighting function see ADRP 3-0.

### MOVEMENT AND MANEUVER

1-73. The *movement and maneuver warfighting function* is the related tasks and systems that move forces to achieve a position of advantage over the enemy and other threats (ADRP 3-0).

1-74. Effective maneuver requires close coordination with fires. Maneuver and fires are inseparable and complementary dynamics of combat. Each can create conditions that enhance the effective application of the other throughout the operational environment. Fires are a major destructive element of combat power and play a significant role in a unit's ability to destroy the enemy's combat capabilities and his will to fight. Without the ability of friendly forces to gain and maintain air superiority, movement and maneuver is severely restricted. Fires deceive, degrade, delay, deny, destroy, disrupt, divert, neutralize, and suppress enemy forces, combat functions, and facilities. Fires and engineers, create obstacle effects that focus fire planning and obstacle effort to disrupt, turn, block, or fix the enemy's ability to counter friendly actions; thereby setting the stage for successful maneuver operations. Units can use maneuver to force enemy units into kill zones or concentrated formations where fires can achieve maximum effectiveness and efficiency. One without the other lessens the chances of success. Combined, they make destroying larger enemy forces feasible and enhance protection of friendly forces. Fires set the conditions for successful maneuver by preserving combat power this allows for momentum and operational tempo. For more on the movement and maneuver warfighting function see ADRP 3-0 and FM 3-90.

### INTELLIGENCE

1-75. The *intelligence warfighting function* is the related tasks and systems that facilitate understanding of the enemy, terrain, and civil considerations (ADRP 3-0). The intelligence and fires warfighting functions have a dynamic relationship. In order for the commander to apply the required fires, he must have a reliable picture of the disposition of his adversary or enemy. Intelligence is more than just collection. It is a continuous process that involves analyzing information from all sources and conducting operations to develop the situation. The commander obtains this intelligence picture through intelligence preparation of the battlefield (IPB), execution of the intelligence collection plan and reach-back support from national resources.

1-76. The intelligence warfighting function supports the fires warfighting function by providing accurate, current intelligence and information and ensuring the information collection plan supports the finalized targeting plan. Provide intelligence support to targeting includes two tasks—provide intelligence support to target development and provide intelligence support to target detection. For more on the intelligence warfighting function see ADRP 2-0. See also FM 2-01.3 and FMI 2-01.301 for information on intelligence preparation of the battlefield.

### SUSTAINMENT

1-77. The *sustainment warfighting function* is the related tasks and systems that provide support and services to ensure freedom of action, extend operational reach, and prolong endurance (ADRP 3-0).

1-78. The sustainment and fires warfighting functions have a symbiotic relationship. Fires can be applied to create effects on enemy forces, combat functions, and facilities that threaten sustainment operations. Fires are important to sustainment in that they facilitate sustainment operational reach, freedom of action, and ensure endurance. Sustainment is equally important to supporting fires as sustainment leaders must provide all elements of sustainment, (logistics, personnel services and health service support) enabling the fires commander to accomplish assigned missions. Sustainment commanders must anticipate fires requirements and provide sustainment in the right quantities and quality in a timely manner to enable fires commanders to maintain initiative. For expanded details on the sustainment warfighting function, see ADRP 4-0.

## **PROTECTION**

1-79. The *protection warfighting function* is the related tasks and systems that preserve the force so the commander can apply maximum combat power to accomplish the mission (ADRP 3-0). Areas of the fires warfighting function, such as counterfire and AMD also contribute to the protection warfighting function.

1-80. *Counterfire* is fire intended to destroy or neutralize enemy weapons. Includes counterbattery and countermortar fire (JP 3-09). Counterfire contributes to the protection warfighting function by providing reactive or proactive fires against enemy indirect fire systems. It protects friendly forces, combat functions, and facilities from enemy indirect fires by disrupting, neutralizing, or destroying enemy indirect fire weapons systems.

1-81. The AMD task of the fires warfighting function contributes to the protection warfighting function by defeating aerial attack, missile attack, and surveillance and by detecting and destroying incoming enemy rockets, cruise missiles, and artillery and mortar projectiles while in flight. Indirect fire protection capability (IFPC) systems are designed to detect and destroy incoming enemy unmanned aircraft systems, cruise missile, rocket, artillery, and mortar. IFPC maintains friendly protection by providing sense and warn capabilities and engaging incoming threats.

1-82. For more in-depth information regarding the protection warfighting function refer to ADP 3-37.

## **FIRES AND THE OPERATIONAL FRAMEWORK**

1-83. Fires provide a collective and coordinated use of Army indirect fires, AMD, and joint fires in support of operations no matter how the unit defines and describes the operational framework.

## **DECISIVE-SHAPING-SUSTAINING FRAMEWORK**

1-84. Fires contribute to the overall effect of maneuver in which commanders use them separately in decisive, shaping, and sustaining operations to directly influence the mission objectives.

### **Fires in Support of Decisive Operation**

1-85. Decisive operations lead directly to the accomplishment of a commander's purpose (ADP 3-0). Fires supporting decisive operations include preparation fires, close support fires, interdiction, Army support to offensive counterair (OCA)/DCA, AMD, final protective fires, electronic attack, and counterfire. Fires in the decisive operation integrate and synchronize weapon systems and sensors to achieve lethal and nonlethal effects in support of the scheme of maneuver.

### **Fires in Support of Shaping Operations**

1-86. Shaping operations create and preserve conditions for the success of the decisive operation (ADP 3-0). Fires in support of shaping operations disrupt or destroy the enemy's attacking echelons and fire support, mission command, and logistic infrastructure. Fires may be used to limit the enemy's ability to shift forces to meet attacking friendly maneuver forces and to sustain the momentum of the attack. Fires in support of shaping operations employ the same types of fires as during the decisive operation.

## Fires in Support of Sustaining Operations

1-87. Fires in sustaining operations protect and enable friendly forces to retain freedom of action. Fires must be responsive and positioned to attack and disable enemy forces or any potential threat.

## DEEP-CLOSE-SECURITY FRAMEWORK

1-88. The Deep-Close-Security framework has historically been associated with a terrain orientation but can be applied to temporal and organizational orientations as well.

## Fires in Support of Deep Operations

1-89. Deep operations involve efforts to disrupt uncommitted enemy forces (ADP 3-0). These types of operations frequently tie to events in time or space. Fires in support of deep operations disrupt enemy movement, command and control, sustainment and fires assets. Fires used in deep operations include interdiction, counterair, and electronic attack.

## Fires in Support of Close Operations

1-90. Close operations involve efforts to have immediate effects with committed friendly forces-potentially in direct contact with enemy forces-to include enemy reserves available for immediate commitment (ADP 3-0). Fires in support of close operations include counterfire, indirect fire protection capabilities, combined arms for air defense, close air support (CAS), and final protective fires. When employing fires in support of close operations, commanders must mitigate risk of fratricide by selecting the most appropriate fires capability and implementing ACMs and FSCMs.

## Fires in Support of Security

1-91. Security operations involve efforts to provide early and accurate warning of enemy operations, provide the force with time, and maneuver space within which to react to the enemy, protect the force from surprise, and develop the situation so the commander can effectively use the force (ADP 3-0). Fires in support of security operations include AMD, sensor early warning, indirect fires, and CAS.

## EMPLOYMENT OF FIRES

1-92. To *employ fires* is to use available weapons and other systems to create a specific lethal or nonlethal effect on a target (JP 3-0). Planning and assessment contribute to the execution of fire support and AMD in the successful employment of fires to achieve the commander's intent. This contribution employs principles of planning, coordination, and execution as a guide. In advising the supported commander on the application of fires, the fires planner also reviews fires requirements against several basic fires considerations that guide planning in the development of the fire support plan and AADP. This function encompasses the fires associated with a number of tasks, missions, and processes, including:

## AIR AND MISSILE DEFENSE EMPLOYMENT

1-93. Employment principles, guidelines, and priorities provide the basis for the employment of Air Defense weapons systems and sensors for maximum coverage of the defended assets.

1-94. **Employment Principles.** ADA employment principles enable air defense forces to successfully perform combat missions and support overall force objectives. The four principles are:

- **Mass.** Mass is the concentration of air defense combat power. Mass may also be interpreted to include the launching of more than one interceptor against a target.
- **Mix.** Mix is the employment of a combination of weapon and sensor systems to protect the force and assets from the threat. Mix offsets the limitations of one system with the capabilities of another.
- **Mobility.** Mobility is defined as a quality or capability of military forces, which permits them to move from place to place while retaining the ability to fulfill their primary mission.

- Integration. Integration is the combination of the forces, systems, functions, processes and information acquisition and distribution required to efficiently and effectively perform the mission. Integration combines separate systems, capabilities, functions, etc. in such a way that those individual elements can operate independently or in concert without adversely affecting other elements.

1-95. **Employment Guidelines**. Planning during defense design and positioning ADA units involves applying six employment guidelines. Optimum protection of the items on the JFC's CAL must be the goal. The guidelines are:

- Mutual Support. Weapons are positioned so that the fires of one weapon can engage targets within the dead zone of the adjacent weapon systems.
- Overlapping Fires. Weapons are positioned so that their engagement envelopes overlap. Because of the many altitudes from which the enemy can attack or conduct surveillance operations, defense planners must apply mutual supporting and overlapping fires vertically and horizontally.
- Balanced Fires. Weapons are positioned to deliver an equal volume of fires in all directions.
- Weighted Coverage. Combining and concentrating weapons coverage toward the most likely enemy air avenues of approach or direction of attack achieve weighted coverage.
- Early Engagement. Early engagement is achieved by positioning sensors and weapons so they can engage the enemy before aircraft ordnance release or friendly target acquisition by the enemy.
- Defense in Depth. Defense in depth is achieved by positioning weapons and sensors so the enemy is exposed to a continuously increasing volume of fire as it approaches the friendly protected asset or force.

## FIELD ARTILLERY EMPLOYMENT

1-96. When planning for the integration, synchronization and coordination of FA employment, commanders and staffs should consider the steps listed below:

- Adequate fire support for the committed units. Organic fire units are most responsive to maneuver elements. The minimum adequate support for committed units is considered to be one organic FA battalion for each committed brigade. In no instance can there be more than one fires unit in direct support of a maneuver unit.
- Weight the main effort. Support relationships of reinforcing or general support reinforcing (GSR) can be assigned to provide additional responsive fires to an organic FA battalion or a FA battalion with a direct support relationship.
- Immediate responsive fires. The force commander should place some artillery on call with which they can immediately influence unified land operations.
- Facilitate future operations. This fundamental is essential to ensure success in the face of unforeseen events and to ensure smooth transition from one phase of an operation to another. The fundamental can be implemented through the assignment of a support relationship, positioning of fires elements, and allocation of ammunition. The assignment of an on-order mission facilitates a future mission. Another way to facilitate future operations is to modify the current command or support relationship in accordance with anticipated requirements.
- Maximize feasible centralized control. Fires are most effective when control is centralized at the highest level consistent with the fire support capabilities and requirements of the overall mission. Centralized control of fires permits flexibility in their employment and facilitates effective support to each subordinate element of the command and to the force as a whole. Command and support relationships represent varying degrees of centralized control and responsiveness to committed units. The optimum degree of centralized control varies with each tactical situation. Decisive action will require more careful planning because of the limited resources available to attack targets and the need for carefully coordinated employment of acquisition, attack, and assessment means. A high degree of centralized control is desired in a defensive situation. Since the enemy has the initiative, it is difficult to accurately predict where and when he will strike. A lesser degree of centralized control is required in an offensive situation, because the supported force has the initiative.

## Chapter 2

# Fires Organizations and Key Personnel

The fires warfighting function uses a diverse group of systems, personnel, and materiel—most of which operate in various ways to provide different capabilities. This chapter discusses the organizations and key personnel of the fires warfighting function from the strategic level to the tactical level (see table 2-1). Table 2-1 provides an overview of all fires organizations and key personnel down to the battalion and battery level. This chapter will only cover organizations and key personnel down to brigade. For further breakdown of organizations and key personnel refer to FM 3-09 and FM 3-01.

Table 2-1. Fires organizations and key personnel

<b>Strategic Level Fires Organizations</b>	
<b>Air Defense</b>	<b>Field Artillery</b>
<ul style="list-style-type: none"> <li>• Joint Functional Component Command-Integrated Missile Defense (JFCC-IMD)</li> <li>• Army Space and Missile Defense Command (SMDC)/Army Strategic Command (ARSTRAT)</li> </ul>	<ul style="list-style-type: none"> <li>• Joint Land Component/Joint Task Force Fires Cell</li> <li>• Battlefield Coordination Detachment</li> </ul>
<b>Operational Level Fires Organizations</b>	
<b>Air Defense</b>	<b>Field Artillery</b>
<ul style="list-style-type: none"> <li>• Army Air and Missile Defense Command (AAMDC) <ul style="list-style-type: none"> <li>▪ Theater Air and Missile Defense Coordinator (TAMCOORD)</li> <li>▪ Deputy Area Air Defense Coordinator (DAADC—when designated)</li> </ul> </li> <li>• Corps Air and Missile Defense (AMD) Element</li> </ul>	<ul style="list-style-type: none"> <li>• Corps and Theater Fires Cell</li> <li>• Expeditionary Air Support Operations Group</li> <li>• Ground Liaison Detachment</li> </ul>
<b>Tactical Level Fires Organizations</b>	
<b>Air Defense</b>	<b>Field Artillery</b>
<ul style="list-style-type: none"> <li>• Air Defense Artillery Brigade <ul style="list-style-type: none"> <li>▪ Air Defense Fire Control Officer (ADAFCO)</li> <li>▪ Air Defense Artillery Battalion</li> <li>▪ Patriot Battalion</li> <li>▪ Air and Missile Defense Battalion</li> <li>▪ Indirect Fires Protection Capability (IFPC) Battalion</li> <li>▪ Terminal High-Altitude Area Defense (THAAD) Battery</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Division Fires Cell <ul style="list-style-type: none"> <li>▪ Division Chief of Fires</li> </ul> </li> <li>• Air Liaison Officer</li> <li>• Fires Brigade <ul style="list-style-type: none"> <li>▪ Fire Support Officer</li> <li>▪ Field Artillery Battalions <ul style="list-style-type: none"> <li>○ Multiple Launch Rocket System (MLRS)</li> <li>○ High-Mobility Artillery Rocket System (HIMARS)</li> <li>○ M109-series Paladin</li> <li>○ M777-series</li> <li>○ M119-series</li> </ul> </li> </ul> </li> </ul>
<b>Fires Cell (Division/Brigade Combat Team)</b>	
<ul style="list-style-type: none"> <li>• AMD Element at Division</li> <li>• Air Defense Airspace Management/Brigade Aviation Element (ADAM/BAE)</li> </ul>	<ul style="list-style-type: none"> <li>• Fires Element</li> <li>• Air Support Operations Center/Air Liaison Officer (ASOC/ALO)</li> </ul>

## FIRES ORGANIZATIONS AND PERSONNEL AT THE STRATEGIC LEVEL

### JOINT FUNCTIONAL COMPONENT COMMAND-INTEGRATED MISSILE DEFENSE (JFCC-IMD)

2-1. The JFCC-IMD mission is to support U.S. strategic command's mission by synchronizing sea, land, air and space based assets in support of global missile defense operations and missile defense. U.S. strategic command through the JFCC-IMD is the proponent responsible for identifying and recommending missile defense assets in response to the ground combatant commander (FM 3-27).

## **ARMY SPACE AND MISSILE DEFENSE COMMAND (SMDC) AND ARMY STRATEGIC COMMAND (ARSTRAT)**

2-2. SMDC/ARSTRAT conduct space and missile defense operations and provide planning, integration, control, and coordination of Army forces and capabilities in support of U.S. strategic command missions of deterrence, integration of missile defense and space operations. SMDC is also the proponent for integration and force modernization for space, high altitude, and global missile defense.

## **JOINT FORCE LAND COMPONENT/JOINT TASK FORCE FIRES CELL**

2-3. When designated by the JFC a theater Army, corps, or division commander serves as the commander of the joint force land component or a joint task force (JTF). The corresponding fires cell function at the designated headquarters (HQ) include:

- Advise on the application of fires to achieve the desired effect.
- Identify requirements for the supported commander's desired effects from fires provided by other components (air interdiction/naval surface fires).
- Review and comment on the JFACC's apportionment recommendation.
- Recommend joint forces land component commander (JFLCC) assets for JFC allocation.
- Advise on fires asset distribution (priority) to land forces.
- Recommend JFLCC priorities, timing, and effects for air interdiction within the JFLCC AO.
- Recommend JFLCC targeting guidance and priorities to include information from space-based assets that will aid in targeting.
- Recommend JFLCC command target lists and FSCMs.
- Lead the joint targeting coordination working group; participate in the Joint Targeting Coordination Board.

## **BATTLEFIELD COORDINATION DETACHMENT**

2-4. The BCD is an Army coordination element that provides selected operational functions between the Army and the air component commander (ACC). The BCD mission is to provide Army forces liaison at the joint air operations center/combined air and space operations center. The BCD provides the critical and continuous coordination between the air and land commanders. The BCD staff clearly articulates the Army forces commander's or Land Component Commander's requests for air operations support for the ground operations to complement the joint forces commander's end state. For additional information on the BCD, see ATP 3-09.13. The BCD performs its mission by—

- Exchanging operational and intelligence data between the joint forces ACC and Army forces.
- Relaying and clarifying the actions of the land battle for the ACC.
- Managing information to render a comprehensive common operational picture.
- Processing the Army forces prioritized air operations requests.
- Submitting the commander's air interdiction targets and advocating for their support.
- Coordinating requirements for ACMs, FSCMs, and theater airlift.

## **FIRES ORGANIZATIONS AND PERSONNEL AT THE OPERATIONAL LEVEL**

### **ARMY AIR AND MISSILE DEFENSE COMMAND (AAMDC)**

2-5. The area air defense commander (AADC) is normally the JFACC with the authority to plan, coordinate and integrate overall joint force air operations. The JFC and AADC will determine whether a deputy area air defense commander (DAADC) for air and missile defense (AMD) is designated. If so designated, the AAMDC commander assumes the role of the DAADC (AMD). This designation formalizes the relationship between the land-based air defense artillery (ADA) assets dedicated to theater level missions and the AADC

and also ensures fully integrated and synchronized counterair and Army forces AMD operations. The AAMDC coordinates with joint and multinational partners to develop procedures for combined AMD operations, interoperability, and training. The AAMDC plans, coordinates, integrates, and executes AMD for the combatant commander/Army forces or the combined/joint force land component commander. The AAMDC commander is the senior Army ADA commander, and coordinator. This organization is the communications system, and intelligence headquarters for ADA forces. AMD operations include the following:

- Sharing AMD IPB information with the BCD.
- Providing AMD target nominations to the theater Army fires cell for immediate targeting of time sensitive targets.
- Providing liaison officers to accomplish the essential coordination needed to prosecute the AMD fight.
- Providing the air defense artillery fire control officer (ADAFCO) to the air operations center or regional air defense commander (RADC) to support fire/engagement coordination with ADA task force elements.
- Coordinating AMD capabilities and defense designs to ensure they are integrated and synchronized with the AADP.

### **DEPUTY AREA AIR DEFENSE COMMANDER (DAADC)**

2-6. If so designated, the AAMDC commander assumes the role of the DAADC (AMD). This designation formalizes the relationship between the land-based ADA assets dedicated to theater level missions and the AADC and also ensures fully integrated and synchronized counterair and Army forces AMD operations. The duties of the DAADC (AMD) include the following:

- Integrates land-based active defense and ADA forces with the defensive counterair (DCA) plan.
- Advises the AADC regarding weapons control procedures and recommended or implemented airspace coordinating measures (ACM), air defense warnings, weapon control status, and emissions control measures.
- Assists the AADC with AADP development.
- Advises the AADC on matters regarding land-based active defense operations and ensures effective integration of Army assets into the AADP.
- Advises the AADC about Army air defense weapons capabilities.

### **THEATER AIR AND MISSILE DEFENSE COORDINATION OFFICER**

2-7. The theater army air and missile defense coordinator (TAAMDCOORD) is the commander of the highest echelon Army ADA command in the theater. When the AAMDC is in theater, the commander will be designated the TAAMDCOORD. The TAAMDCOORD is the Army AMD coordinator for the Army forces commander, and the combined forces land component commander (CFLCC), JFLCC (if designated). The TAAMDCOORD ensures that the Army is an integral part of joint counterair and active missile defense operations and planning at the theater level. The TAAMDCOORD, as a special staff officer to the Army forces commander and JFLCC, participates in the operations directorate of a joint staff (J-3)/plans directorate of a joint staff (J-5) cells and assists in developing Army OCA and DCA input to the air operations plan. The TAAMDCOORD ensures that corps AMD requirements are integrated into joint counterair and Army AMD planning.

### **GROUND LIAISON DETACHMENT**

2-8. The ground liaison detachment advises Air Force commanders primarily on Army organization, operations, tactics, and equipment and assists them by coordinating Army units during joint operations. The detachment supports Air Force tactical fighter, tactical air control and airlift units. The detachment functions include:

- Serving as an information conduit between the Army and supporting CAS units.

- Provides Air Force Wing flight crews with scheme of ground component maneuver, ground fires integration considerations, special munitions instructions and ground component desired effects.
- Provides situational understanding and battle damage assessment to the BCD ensuring information flow between the BCD and the Air Force Wing.

## FIRES CELLS—CORPS AND THEATER

2-9. The corps and theater fires cell (FC) plans, coordinates, integrates, and synchronizes the employment and assessment of fires in support of current and future theater wide operations. The FC recommends targeting guidance to the commander and develops high-payoff targets and selects targets for attack. The cell coordinates, integrates, and assigns joint, interagency and multinational firepower to targets/target systems. It synchronizes firepower to include Army, joint, interagency, and multinational component air assets, special operations forces, naval surface fire support, cyber/electromagnetic activities, and Army missiles.

2-10. The FC participates in combat assessments (battle damage, munitions effectiveness, reattack recommendations); develops planning guidance; provides target intelligence for planning and execution and coordinates with the BCD collocated with the respective air operations center. Fires cell general functions at this level include:

- Plan, integrate, coordinate, and synchronize through targeting, Army and joint fires and, when directed by the maneuver commander, other nonlethal effects.
- Provide access to joint fires for interagency and multinational forces.
- Interface with BCD, joint or combined air operations center, and lower and adjacent fires cells.
- Integrate and synchronize airspace coordination functions with Army and joint air capabilities and provide input to the ATO, airspace control plan, and air operations center which includes FSCMs and ACMs.
- Review target nominations into the joint integrated prioritized target list.
- Provide input to the JFACC's apportionment recommendation.
- Conduct target management including recommendations, receipt, and distribution to subordinate fires units for:
  - Rules of engagement.
  - HPT list/time sensitive targets.
  - Restricted target list/no-strike list.
- Lead the targeting working group and participate in the targeting board.
- Conduct airspace coordination.
- Provide input to the collection plan to synchronize surveillance and reconnaissance assets with named areas of interest and designated targets in coordination with the analysis and control element.
- Conduct sensor management and synchronization (JFLCC/Corps) if a fires brigade (FIB) or FA battalion is task-organized to the corps.
- Request and coordinate CAS and air interdiction.
- Coordinate position areas for fires units under corps control with maneuver and airspace control agencies.

## CHIEF OF FIRES

2-11. **The *chief of fires* is the senior fires officer at division and higher headquarters who is responsible for advising the commander on the best use of available fire support resources, providing input to necessary orders, and developing and implementing the fire support plan.** These duties and responsibilities should be fully delineated by the commander. The COF may be given authority by the commander to:

- Provide for consolidated and focused fire support specific training, readiness, and authority (personnel management, equipment issue, and training).
- Facilitate establishing standard operating procedures across the force.
- Ensure efficiently resourced training packages.

- Plan for the allocation of fires assets.

2-12. The fires personnel organic to the force assist the COF in these duties, particularly in staff functions. The COF should be authorized to conduct fire support specific training and recommend to the commander the certification for the various elements of the force's entire fire support system, preferably after live fire exercise.

2-13. The COF plans and coordinates the Army indirect fires, and joint fires portion of the fires warfighting function to include integration of electronic attack. He works closely with the Chief of Staff/Executive Officer and G-3 to ensure mutual understanding of all aspects of planning, preparation, execution, and assessment of fires for operations. The COF's responsibilities include, but are not limited to:

- Planning, preparing, executing, and assessing all fires tasks in support of offensive, defensive and stability tasks and provides inputs to preparation of the operations plan and operations order.
- Developing, with the commander and G-3 a scheme of fires to support the operation.
- Developing a proposed HPT list, target selection standards, and an attack guidance matrix.
- Identifying named and target areas of interest, HPTs, and additional events that may influence the positioning of fires assets.
- Coordinating positioning of fires assets.
- Providing information on the status of fires systems, target acquisition assets, and munitions.
- Recommending FSCMs to support current and future operations and managing changes to them.
- Recommending and implementing the commander's counterfire and target engagement priorities.
- Recommending to the commander the establishment, responsibilities, authorities, and duties of a force FA headquarters as necessary.
- Conducting the tasks associated with integrating and synchronizing joint fires, and multinational fires with the other warfighting functions.
- Training fires cell personnel to perform all of their functions.
- Advising the commander and staff of available fires capabilities and limitations.
- Leading the targeting working group.
- Working with the chief of staff/executive officer, and G-3 to integrate all types of fires into the commander's concept of operation.
- Accompanying the commander in the command group during execution of tactical operations (when directed).

2-14. The COF translates objectives into specific targeting and attack guidance that he/she recommends to the commander. This guidance includes instructions for attacking predetermined HPTs.

### **CORPS AIR DEFENSE/AIRSPACE MANAGEMENT CELL**

2-15. The corps HQ has an AMD Element that integrates with the FC when deployed. The cell is fielded with the air missile defense planning and control system components. AMD Element functions include:

- Conduct AMD augmentation planning and coordination.
- Conduct aviation augmentation planning and coordination.
- Conduct composite risk management to minimize the potential for fratricide (air/ground positive/procedural identification) for the brigade combat team (BCT).
- Provide early warning of enemy aerial attack.
- Develop, display, and disseminate the COP/single integrated air picture to provide and facilitate situational understanding.
- Contribute to airspace control planning and execution.
- Contribute to joint/local airspace deconfliction including clearance of fires.
- Contribute to operational protection.
- Advise and update the commander on adjacent ADA unit location, plans, and intent.
- Conduct continuous assessment of AMD augmentation requirements.

- Integrate operations using assigned Army Battle Command System equipment with units/organizations.
- Request, maintain, and disseminate ACMs or restrictions.

## **FIRE SUPPORT OFFICER**

2-16. The *fire support officer* is a FA officer from the operational to tactical level responsible for advising the supported commander and assisting the senior fires officer of the organization on fires functions and fire support.

## **UNITED STATES AIR FORCE (USAF) ELEMENTS AT THE CORPS**

2-17. The corps air liaison officer (ALO), when designated the Expeditionary Air Support Operations Group Commander, commands all Air Force personnel within the corps and is the air component commander's direct liaison to the corps commander. The corps main command post tactical air control party (TACP), Air Force weather, and the air mobility liaison officer locate in or adjacent to the current operations, future operations, plans, fires and intelligence cells. Air Force personnel at the corps command posts provide planning expertise to integrate and use air, space, and cyberspace. This is in addition to the space integration support provided by Army space forces assigned and attached to the corps.

2-18. The air support operations center (ASOC) is the principal air control agency of the theater air control system responsible for the direction and control of air operations directly supporting the ground forces. It processes and coordinates requests for immediate air support and coordinates air, space, and cyberspace missions requiring integration with other supporting arms and ground forces. The ASOC normally collocates with the Army senior tactical headquarters, normally at corps or division level. When employed, the ASOC and TACP merge to form one combat organization, under the command of a single leader, but they remain equipped and manned to perform distinct functions in support of BCTs.

## **FIRES ORGANIZATIONS AND PERSONNEL AT THE TACTICAL LEVEL**

### **FIRES CELLS—DIVISION AND BCT**

2-19. The FC plans, prepares, executes and assesses fires in support of current and future operations. The FC back briefs targeting guidance to the commander in accordance with the commander's intent for fires and maneuver, develops HPTs and prioritizes targets for attack, matched to a wide range of targeting and delivering systems.

2-20. Functions of the fires cell include:

- Plan, integrate, coordinate, and synchronize through targeting, Army and joint fires and, when directed by the maneuver commander, other nonlethal effects.
- Coordinate target acquisition, target dissemination and target engagement.
- Integrate and synchronize airspace coordination requirements with Army and joint air capabilities and provide input to the ATO, airspace control plan, and airspace control order which includes FSCMs and ACMs.
- Produce and execute the fire support plan.
- Manage target nominations and track the life cycle of the nomination.
- Interface with all boards/cells.
- Provide input to the collection plan.
- Conduct fires, assess, and recommend reattack.
- Coordinate position areas for fires units with maneuver and airspace control agencies
- Recommend FSCMs and ACMs.
- Request and coordinate CAS and air interdiction.

2-21. The collocation of the appropriate personnel from the Fires cell, the Army aviation element, airspace control element, TACP and the ASOC in the current operations integration cell will achieve joint air and ground integration.

2-22. Additional augmentation to the fires cell includes:

- Naval surface fire support (NSFS) Liaison Officer. The NSFS liaison officer supervises a NSFS team that may be attached to the BCT fires cell to advise the commander and staff on the planning, preparation, execution, and assessment of naval surface fires.
- Marine Corps Liaison Officer. A U.S. Marine Corps liaison officer or a liaison team may augment the fires cell based on mission, enemy, terrain and weather, troops and support available, time available, civil considerations to coordinate naval and/or U.S. Marine Corps air support to the BCT. The fires cell processes requests for naval/U.S. Marine Corps air support through this liaison officer and/or team. A firepower control team may be attached to the maneuver battalions and/or reconnaissance squadron to perform terminal control of naval/U.S. Marine Corps air support. In the absence of an observer from the firepower control team, the company/troop FIST, joint fires observer (JFO), or the Air Force JTAC may control naval and/or U.S. Marine Corps air.
- Army Space Support Teams. Army space operations personnel provide space-related tactical planning and support, expertise, advice, and liaison regarding available space capabilities. Space operations personnel are available to:
  - Determine space support requirements and request, plan, and integrate space capabilities into operations (See JP 3-14, Joint Doctrine for Space Operations, for possible space support resources).
  - Coordinate space support with national, service, joint, and theater resources.
  - Prepare the space support plan.
  - Provide space products to support planning.
  - Provide estimates on the status, capabilities, and limitations of space-based intelligence, surveillance, and reconnaissance, weather, navigation and timing, and communication satellites for friendly, threat, and commercial systems.

## FORCE FIELD ARTILLERY HEADQUARTERS

2-23. **The *force field artillery headquarters*, if designated by the supported maneuver commander, is normally the senior field artillery headquarters organic, assigned, attached, or placed under the operational control of that command. The supported maneuver commander specifies the commensurate responsibilities of the force field artillery headquarters and the duration of those responsibilities.** These responsibilities are based on the mission variables and may range from simple mentoring and technical oversight to established command relationships with all FA units organic, assigned, attached, or placed under the operational control (OPCON) of that command.

2-24. The force FA commander is the commander of the assigned force FA headquarters. He recommends a command or support relationship for the U.S. Army FA units. U.S. Marine Corps or North Atlantic Treaty Organization (NATO) FA units that are attached or OPCON are given FA tactical missions and responsibilities in accordance with NATO standardization agreement (STANAG) 2484, which guides those units. Other multinational FA units that are attached or OPCON are given tactical missions and responsibilities in accordance with their national guidance. A FIB assigned, attached, or placed OPCON to a division, corps, JFLCC, joint task force (JTF) or other command may serve as that command's force FA HQ. The BCT's organic FA battalion, when directed to do so by the BCT commander, may serve as the BCT's force FA HQ of any additional FA assets attached or placed OPCON to the BCT. The force FA HQ functions include:

- Serving as the single point of contact for recommending the fires organization for combat and positioning all units organic to, assigned to and supporting the maneuver force commander.
- Executing fires for close support of engaged forces, and in support of counterfire, decisive and shaping operations.
- Providing critical centralized mission command and integration for the full complement of Army and joint fires capabilities, provided in support of the command (division, corps, JFLCC).
- Establishing common survey, meteorological, and radar TA plans for the command.

- Coordinating and synchronizing fires in support of all operations.
- Training FA units that are assigned, attached, or placed under the OPCON of the command and mentoring of the commanders and leaders of these FA units. The extent of oversight/assessment duties and responsibilities specified by the maneuver commander.
- Providing mission command for FA units organic, assigned, attached, or placed under the OPCON or tactical control of the command (thus providing unity of FA command). This is especially useful to the commander in circumstances where major combat operations are likely and when deconfliction of fires across multiple contiguous AOs is required. Centralized mission command of supporting Army and joint fires is useful when unconventional forces are operating either independently or as the only force integrated within indigenous forces and require dedicated all-weather fires and fire support coordination.
- Assisting the fires cell in producing Annex D (Fires) for the operations order.
- Advising the supported commander on FA related new equipment fielding and software updates within FA units.
- Working with the command's assistant chief of staff, operations (G-3) and fires cell in planning, coordinating, and executing fires tasks assigned to the command by its higher HQ. This can include assisting in the development of fire support 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 fires for non-organic artillery units and the command's subordinate units.
- Facilitating and participating in the commander's targeting process.

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*Note:* Whether an FA battalion or FIB is organic, assigned, attached, or OPCON, it can only be the force FA HQ when the supported commander specifically designates it. See ATP 3-09.24 for a discussion of the force FA HQ for a supported command.

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## LIAISON

2-25. Coordination/liaison at division with other organizations essential to effective fires includes the Air-Naval Gunfire Liaison Company (ANGLICO). The division coordinates naval fire support through the division air-naval gunfire section of the ANGLICO. This U.S. Marine Corps organization also collocates with the division airspace control element and the fires cell. The ANGLICO commander serves as the divisional naval gunfire officer. Because of the design of the ANGLICO, the division is normally the highest echelon that establishes liaison with naval fire support assets.

## ADA BRIGADE

2-26. ADA brigades mainly support theater-level operations through the use of terminal high altitude area defense (THAAD), and Patriot assets, but also can provide forces which include IFPC and short range air defense capabilities. AMD operations and ADA task forces provide support from theater to division levels to enable the scheme of maneuver. ADA forces at the brigade level include both non-divisional and maneuver base systems. These systems are employed to protect operational forces and assets from air and missile attack and provide global missile defense. The ADA brigade commander advises the AAMDC commander on overall counterair and AMD integration, synchronization, and employment.

## AIR DEFENSE ARTILLERY FIRE CONTROL OFFICER (ADAFCO)

2-27. The ADAFCO is responsible to the commander for coordinating air defense of designated facilities and areas, as well as coordinating and monitoring the command, air picture, and fire unit exchange between the control reporting center/airborne warning and control system/Aegis/tactical air operations center and the Patriot information coordination central or the ADA battalion fire control/direction center.

2-28. An ADAFCO is required in any regional/sector air defense command in which an Army air/missile defense capability is employed. The ADAFCO has the expertise to advise the RADC/sector air defense commander (SADC) on what course of action Army AD units would likely follow during non-standard

situations, especially with degraded communications, what limitations ROE can have on autonomous Army ADA units, what tactics may be more effective, etc. ADAFCO elements should be part of/liaison to any of the Service air/missile defense operations centers that may have control of or support from Army ADA assets. Typically, an ADAFCO element deploys to the appropriate air defense region/sector location and is responsible to the RADC/SADC for integrating Army ADA capabilities into that part of the integrated air defense system.

2-29. The ADAFCO must have access to dedicated AD communications links (for example, dedicated AD voice circuit) and with Army AD communications nodes when conducting active air defense operations. Unless very unusual circumstances dictate, an ADAFCO should not be placed on an airborne warning and control/airborne command and control aircraft that are not a full-time SADC directing ground-based AD in conjunction with active air intercepts. Those aircraft normally lack a dedicated seat position and communications for the ADAFCO, and they do not have as reliable situational awareness available as does a RADC/SADC with a tactical data link and a common tactical picture or a COP.

## **FIRES BRIGADE**

2-30. A FIB's primary task is conducting strike operations. The FIB has an organic multiple launch rocket system (MLRS)/ high mobility artillery rocket system (HIMARS) battalion, and target acquisition battery, however, the FIB can be task organized with additional fires delivery, sensor systems, and IFPC to support the maneuver commander's mission requirements. The FIB is the only Army FA organization above the BCT and can be directed to execute tasks for any joint, Service, or functional headquarters. The FIB is neither organic to any Army organization or echelon, nor is it focused on any specific region or geographic combatant commander's area of responsibility. A division, corps, joint force land component command, JTF or other force may have a FIB assigned, attached or placed under OPCON; however, the FIB is normally attached to a division HQ. FIBs are task-organized to accomplish assigned tasks. The FIB's higher HQ usually assigns missions in terms of target sets to engage, target priorities, or effects to achieve. The situation may also require the FIB to control joint fires assets.

## **FIRE SUPPORT COORDINATOR**

2-31. **The *fire support coordinator* is the BCTs organic field artillery battalion commander; if a fires brigade is designated as the division force field artillery headquarters, the fires brigade commander is the division's fire support coordinator and is assisted by the chief of fires who then serves as the deputy fire support coordinator during the period the force field artillery headquarters is in effect.** The fire support coordinator is the primary advisor on the planning for and employment of fires. The responsibilities and authority given to the FSCOORD should be fully delineated by the supported commander. The FSCOORD may be given authority by the commander to—

- Provide for consolidated and focused fire support-specific training certification, readiness, and oversight (personnel management, equipment issues, and training).
- Facilitate establishing standard operating procedures across the brigade (to save time and ensure a single standard).
- Ensure efficiently resourced training packages (limit requirements for unit tasking and reduce coordination requirements between units).
- Oversee the professional development of the 13-series career management field Soldiers assigned to the BCT.
- Mentor, train, and educate junior fires leaders and maintain a habitual supervisory role for the brigade and battalion FSOs.

## **FIRE SUPPORT OFFICER**

2-32. The FSO is the senior FA staff officer responsible for all fires planning and execution. The brigade FSO's duties and responsibilities are similar to those of the COF.

## JOINT FIRES OBSERVER

2-33. A *joint fires observer* (JFO) is a trained and certified Service member who can request, adjust, and control surface-to-surface fires, provide targeting information in support of Type 2 and 3 close air support terminal attack controls, and perform autonomous terminal guidance operations (FM 3-09.32). The JFO is not an additional Soldier in his Army fire support organization, but rather an individual who has received the necessary training and certification to receive the JFO's additional skill identifier. JTACs cannot be in a position to see every target on the battlefield. Trained JFOs, in conjunction with JTACs, will assist maneuver commanders with the timely planning, synchronization, and responsive execution of all joint fires. JFOs provide the capability to exploit opportunities that exist in the AO to efficiently assist air delivered fires and facilitate targeting for the JTAC. The goal is to have a JFO-trained and certified Service member with each armor company and each infantry platoon.

## BCT COMBAT OBSERVATION AND LASING TEAM (COLT)

2-34. A *combat observation and lasing team* is a field artillery team controlled at the brigade level that is capable of day and night target acquisition and has both laser range finding and laser-designating capabilities. Each BCT typically has organic COLTs under brigade HQ control. The responsibility for COLT training, certification, and recommendation for employment falls underneath the brigade combat team's organic FA battalion commander. The BCT fires cell supervises the planning and execution of COLT employment and ensures the integration of the COLTs into the BCT reconnaissance and surveillance plan. The BCT often employs COLTs as independent observers to weight the decisive operation or key or vulnerable areas. The COLT's self-location and precise target location capabilities can facilitate first round fire for effect and the employment of precision-guided munitions.

## AIR FORCE TACTICAL AIR CONTROL PARTY

2-35. An Air Force TACP is under the direction of the brigade FSO and ALO. The TACP is assigned to the maneuver battalion. The ALO leads the TACP and is the principal advisor to the brigade commander and staff on air support. He leverages the expertise of his TACP with linkages to the division and corps TACPs to plan, prepares, execute, and assess air support for brigade operations. He also maintains situational understanding of the total air support picture.

## FIRE SUPPORT TEAM

2-36. A *fire support team* is a field artillery team organic to each maneuver battalion and selected units to plan and coordinate all available company supporting fires, including mortars, field artillery, naval surface fire support, and close air support integration. The battalion commander can direct that FISTs be task-organized within the battalion and employed according to the observation plan. FISTs employed at company level can provide the maneuver companies and reconnaissance troops with fires coordination, targeting, and assessment capabilities. Each fire support team vehicle possesses a target acquisition/communications suite with the capability to designate for laser-guided munitions. A FIST member may conduct target coordinate mensuration if he is trained and certified, and the target acquisition/communications suite is updated with the necessary equipment and software.

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## Chapter 3

# Fires in the Operations Process

Fires are an integral part of the *operations process*—the major mission command activities performed during operations: planning, preparing, executing, and continuously assessing the operation (ADP 5-0). The commander drives the operations process.

### THE OPERATIONAL PROCESS

3-1. Planning, preparing, executing, and continuously assessing the operation serve as a template for coordinating other actions associated with an operation including integrating processes, continuing activities, and actions specific to each operations process activity. Both integrating processes and continuing activities occur throughout an operation. Table 3-1 illustrates how the integrating processes and continuing activities last throughout the operations process. Commanders synchronize them with each other and integrate them into all operations process activities.

**Table 3-1. Operations and integrating processes**

<i>Plan</i>	<i>Prepare</i>	<i>Execute</i>
<b>Assess</b>		
Integrating Processes <span style="float: right;">→</span> <ul style="list-style-type: none"> <li>• Intelligence preparation of the battlefield</li> <li>• Targeting</li> <li>• Risk management</li> </ul>		
Continuing Activities <span style="float: right;">→</span> <ul style="list-style-type: none"> <li>• Information collection</li> <li>• Security operations</li> <li>• Protection</li> <li>• Liaison and coordination</li> <li>• Terrain management</li> <li>• Airspace control</li> </ul>		

### FIRES AND TARGETING

3-2. Army targeting uses the functions decide, detect, deliver, and assess (D3A) as its methodology. Its functions complement the planning, preparing, executing, and assessing stages of the operations process. See table 3-2. Army targeting addresses two targeting categories—deliberate and dynamic. Deliberate targeting prosecutes planned targets. Dynamic targeting prosecutes targets of opportunity and changes to planned targets or objectives.

Table 3-2. Operations process and targeting relationship

Operations Process		D3A	Targeting Task
Continuous Assessment	Planning	Decide	<ul style="list-style-type: none"> <li>● Perform target value analysis to develop fire support, high-value targets, and critical asset list.</li> <li>● Provide fires running estimates and information/influence to the commander's targeting guidance and desired effects.</li> </ul>
			<ul style="list-style-type: none"> <li>● Designate potential high-payoff targets.</li> <li>● Deconflict and coordinate potential high-payoff targets.</li> <li>● Develop high-payoff target list/defended asset list.</li> <li>● Establish target selection standards and identification matrix (air and missile defense).</li> <li>● Develop attack guidance matrix, fire support, and cyber/electromagnetic activities tasks.</li> <li>● Develop associated measures of performance and measures of effectiveness.</li> </ul>
			<ul style="list-style-type: none"> <li>● Refine high-payoff target list.</li> <li>● Refine target selection standards.</li> <li>● Refine attack guidance matrix and surface-to-air-missile tactical order.</li> <li>● Refine fire support tasks.</li> <li>● Refine associated measures of performance and measures of effectiveness.</li> <li>● Develop the target synchronization matrix.</li> <li>● Draft airspace control means requests.</li> </ul>
			<ul style="list-style-type: none"> <li>● Finalize the high-payoff target list.</li> <li>● Finalize target selection standards.</li> <li>● Finalize the attack guidance matrix.</li> <li>● Finalize the targeting synchronization matrix.</li> <li>● Finalize fire support tasks.</li> <li>● Finalize associated measures of performance and measures of effectiveness.</li> <li>● Submit information requirements to staff and subordinate units.</li> </ul>
	Preparation	Detect	<ul style="list-style-type: none"> <li>● Collect information (surveillance, reconnaissance).</li> <li>● Report and disseminate information.</li> <li>● Update information requirements as they are answered.</li> <li>● Focus sensors, locate, identify, maintain track, and determine time available.</li> <li>● Update the high-payoff target list, attack guidance matrix, targeting synchronization matrix, identification matrix (air and missile defense), and surface-to-air-missile tactical order as necessary.</li> <li>● Update fire support tasks.</li> <li>● Update associated measures of performance and measures of effectiveness.</li> <li>● Target validated, deconfliction and target area clearance resolved, target execution/engagement approval.</li> </ul>
Execution	Deliver	<ul style="list-style-type: none"> <li>● Order engagement.</li> <li>● Execute fires in accordance with the attack guidance matrix, the targeting synchronization matrix, identification matrix (air and missile defense), and surface-to-air-missile tactical order.</li> <li>● Monitor/manage engagement.</li> </ul>	
Assess	Assess	<ul style="list-style-type: none"> <li>● Assess task accomplishment (as determined by measures of performance).</li> <li>● Assess effects (as determined by measures of effectiveness).</li> <li>● Reporting results.</li> <li>● Reattack/reengagement recommendations.</li> </ul>	

Legend: D3A – decide, detect, deliver, and assess

## DECIDE

3-3. Decide is the first function in targeting and occurs during the planning portion of the operations process. The “decide” function continues throughout the operation. The staff develops “decide” information to address:

- What targets should be acquired and attacked/engaged?

- When and where are the targets likely to be found?
- How do the rules of engagement impact target selection?
- How long will the target remain once acquired?
- Who or what can locate/track the targets?
- What accuracy of target location will be required to attack/engage the target?
- What are the priorities for reconnaissance, surveillance, target acquisition, sensor allocation, and employment?
- What intelligence requirements are essential to the targeting effort and how and by when must the information be collected, processed, and disseminated?
- When, where, how, and in what priority should the targets be attacked/engaged?
- What are the measures of performance and measure of effectiveness that determine whether the target has been successfully attacked/engaged and whether the commander's desired effects have been generated by doing so?
- Who or what can attack/engage the targets, and how should the attack/engagement be conducted (for example, number/type of attack/engagement assets, ammunition to be used) to generate desired effects and what are the required assets/resources based on commander's guidance?
- What or who will obtain assessment or other information required for determining the success or failure of each attack/engagement? Who must receive and process that information, how rapidly, and in what format?
- Who has the decisionmaking authority to determine success or failure, and how rapidly must the decision be made and disseminated?
- What actions will be required if an attack/engagement is unsuccessful and who has the authority to direct those actions?

## DETECT

3-4. Detect is the second function in targeting and occurs primarily during the prepare portion of the operations process. A key resource for fires planning and targeting is the intelligence generated through reconnaissance, surveillance, and intelligence operations to answer the targeting information requirements. Requirements for target detection and action are expressed as PIR and information requirements. Their priority depends on the importance of the target to the friendly course of action and tracking requirements. PIR and information requirements that support detection of HPTs are incorporated into the overall unit information collection plan. Named areas of interest and target areas of interest are focal points particularly for this effort and are integrated into the information collection plan.

3-5. The detect function continues during the execution of the operations order (OPORD). Target acquisition assets gather information and report their findings back to their controlling headquarters, which in turn pass pertinent information to the tasking agency. Some collection assets provide actual targets, while other assets must have their information processed to produce valid targets. The target priorities developed in the decide function are used to expedite the processing of targets. Situations arise where the attack, upon location and identification, of a target is either impossible (for example out of range) or undesirable (outside of but moving toward an advantageous location for the attack). Critical targets that we cannot or choose not to attack in accordance with the attack guidance must be tracked to ensure they are not lost. Tracking suspected targets expedites execution of the attack guidance. Tracking suspected targets keeps them in view while they are validated. Planners and executors must keep in mind that assets used for target tracking may be unavailable for target acquisition. As targets are developed, appropriate weapon systems are tasked in accordance with the attack guidance and location requirements of the system.

## DELIVER

3-6. Deliver is the third function in targeting and occurs primarily during the execution stage of the operations process. The main objective is to attack/engage targets in accordance with the commander's guidance. See chapter 1. The selection of a weapon system or a combination of weapons systems leads to a technical solution for the selected weapon.

## ASSESS

3-7. Assess is the fourth function of targeting and occurs throughout the operations process. The commander and staff assess the results of mission execution. The following are key considerations in assessment:

- Assess the Results. Assess the results of mission execution. If assessment reveals that the commander's guidance has not been met, the targeting must continue to focus on the target(s) involved. This feedback may result in changes to original decisions made during the target selection. These changes may influence the continued execution of the plan.
- Continuous Assessment. The assessment process is continuous and directly tied to the commander's decisions throughout planning, preparation, and execution of operations. Staffs help the commander by monitoring the numerous aspects that can influence the outcome of operations and provide the commander timely information needed for decisions. Planning for the assessment process helps staffs by identifying key aspects of the operation that the commander is interested in closely monitoring and where the commander wants to make decisions.
- Assess at all Levels. Assessment occurs at all levels and across the spectrum of conflict. Even in operations that do not include combat, assessment of progress is just as important and can be more complex than traditional combat assessment. As a rule, the level at which a specific operation, task, or action is directed should be the level at which such activity is assessed.
- Combat Assessment. Combat assessment is the determination of the effectiveness of force employment during military operations. Combat assessment is composed of three elements:
  - Battle damage assessment.
  - Munitions effectiveness assessment.
  - Reattack recommendation.

3-8. These functions are continuous and crucial to the synchronization of combat power. The identification and subsequent development of targets, the engagement of the targets, and the combat assessment provide the commander with vital feedback on the progress toward reaching the desired end state. For more on Army targeting, see FMs 3-01, 3-09 and 3-60.

## DYNAMIC TARGETING

3-9. Dynamic targeting has six distinct steps: find, fix, track, target, engage, and assess. Targets of opportunity have been the traditional focus of dynamic targeting because decisions on whether and how to engage must be made quickly. Planned targets are also covered during dynamic targeting but the steps simply confirm, verify, and validate previous decisions (in some cases requiring changes or cancellation). The find, fix, and track steps tend to be information intensive, while the target and engage steps are typically labor force and decisionmaking intensive. The final phase of dynamic targeting is assessment. See JP 3-60.

## FIND, FIX, FINISH, EXPLOIT, ANALYZE AND DISSEMINATE

3-10. Find, fix, finish, exploit, analyze, and disseminate (F3EAD) provides maneuver leaders at all levels with a methodology that enables them to organize resources and array forces. While the targeting aspect of F3EAD is consistent with D3A methodology, F3EAD provides the maneuver commander an additional tool to address certain targeting challenges, particularly those found in a counterinsurgency environment. F3EAD is not a replacement for D3A nor is it exclusive to targeting; rather it is an example of tactics, techniques, and procedures that works best at the battalion/tactical level for leaders to understand their operational environment and visualize the effects they want to achieve. See FM 3-09 and FM 3-60 for more details.

## FIRES PLANNING

3-11. The commander's ability to orchestrate and employ all available fires related resources as a system and to integrate and synchronize fires with his concept of operations results from an established process known as fires planning. The objective of fires planning is to optimize combat power. It is performed as

part of the operations process. Fires planning coordinates, integrates and synchronizes scalable Army indirect fires, AMD fires, joint fires (including electronic attack), and multinational fires with the other warfighting functions into the commander's concept of operations. Fires planners work closely with other elements of the warfighting functions to achieve lethal and nonlethal effects through targeting. Fires planning typically results in the development of the AADP and the fire support plan. For more information see FM 3-01 and FM 3-09.

## OVERVIEW

3-12. Fires planning and coordination is central to the effectiveness of fires. It requires continually coordinating plans and managing the fires assets that are available to a supported force. Formal coordination binds fires resources together in a common effort so that the employment of each fires asset is synchronized with the commander's intent and concept of operations. Effective coordination during both planning and execution is required to ensure that a suitable weapon system(s) adequately attacks/engages the desired targets at the correct time and place. Cooperation among the various organizations is necessary for the effective delivery of fires. The action of preparing an integrated fire support plan and area air defense plan (AADP) coordinates and integrates with the other warfighting functions to maximize the results of each attack in generating desired effects.

## COMMANDER'S INTENT

3-13. Fires personnel must thoroughly understand the commander's intent and end state in order to design a plan that best supports the commander's concept of operations and, as circumstances change, to rapidly and effectively make the necessary adjustments to the plan. Understanding the commander's intent also makes it easier for fires personnel to advise the commander and his staff on how to best employ fires to support all phases of the operation and to achieve the desired end state.

## COMMANDER'S GUIDANCE FOR FIRES

3-14. The purpose of commander's guidance is to provide his intent and end state to focus staff activities in planning the operation. The commander's guidance for fires provides the staff, and fires personnel, and subordinate units with the general guidelines and restrictions for the employment of fires and their desired effects. The guidance emphasizes in broad terms when, where, and how the commander intends to synchronize the effects of fires with the other elements of combat power to accomplish the mission. Commander's guidance should include priorities and how he envisions that fires will support his concept of operations.

**3-15. Priority of fires is the commander's guidance to his staff, subordinate commanders, fires planners, and supporting agencies to employ fires in accordance with the relative importance of a unit's mission.**

3-16. The JFC may prohibit or restrict attacks/engagements on specific targets or objects without specific approval based on military risk, the law of war, ROE, or other civil-military considerations. Targeting restrictions are typically identified on two lists:

- No-Strike List. A *no-strike list* is a list of objects or entities characterized as protected from the effects of military operations under international law and/or the rules of engagement. Attacking these may violate the law of armed conflict or interfere with friendly relations with indigenous personnel or governments (JP 3-60). The no-strike list is independent of and in parallel to the candidate target list. It is important to note, however, that entities from the candidate target list may be moved to the no-strike list if, as a result of additional target development, it is determined that attacking them may violate the Law of Armed Conflict. Conversely, targets placed on a no-strike list may be removed from that list and become subject to military action if their status as a protected object or entity has changed. For example, a church that functions as a weapons storage facility or a barracks may lose its protected status and could legally be attacked.
- Restricted Target List. A *restricted target* is a valid target that has specific restrictions placed on the actions authorized against it due to operational considerations (JP 3-60). A *restricted target list* is a list of restricted targets nominated by elements of the joint force and approved by the

joint force commander. This list also includes restricted targets directed by higher authorities (JP 3-60). Actions that exceed specified restrictions are prohibited until coordinated and approved by the establishing headquarters. Attacking restricted targets may interfere with projected friendly operations. Targets may have certain specific restrictions associated with them that should be clearly documented in the restricted target list (for example, do not strike during daytime, strike only with a certain weapon). Some targets may require special precautions (for example, chemical, biological, or nuclear facilities, or proximity to no-strike facilities) due to possible collateral effects of using fires on the target. When targets are restricted from lethal attacks, commanders should consider nonlethal capabilities as a means to achieve or support the commander's desired objectives. For more on no-strike and restricted targets and legal considerations for targeting see JP 3-60.

## AIR DEFENSE PLANNING

3-17. Air Defense Artillery has overall responsibility for planning Army AMD in support of the joint force commander. Air defense planning will integrate AMD capabilities and airspace requirements to include air and missile warning/cueing information, combat identification procedures and engagement authority as required.

3-18. AMD planning involves consideration of joint and multinational Army units including the JFC, service, functional component commands, AAMDC, ADA brigades, ADA battalions, and their integrated capabilities such as IFPC. AMD planning is performed concurrently at all echelons of command in a process known as "parallel planning". This planning process begins with the receipt of a mission from higher headquarters and culminates in the issuance of an operations plan that provides subordinate commands planning direction. An operations plan (OPLAN) may be put into effect at a prescribed time, or on signal, and becomes the OPORD.

3-19. Based on this planning, the AAMDC task organizes the subordinate ADA brigade(s) and assigns missions to the brigade(s). If the AAMDC is not present within a designated AOR, the responsibility for this planning falls to the designated ADA brigade. To ensure the overall Army AMD effort within the area of operations is coordinated and synchronized, the AAMDC staff or designated brigade must coordinate planning to ensure the commander's effort is integrated and synchronized with the AMD effort.

3-20. After reviewing the initial defended assets list (DAL), AMD planners must ensure that sufficient resources are available and allocated to provide adequate protection. Subordinate commanders and their staffs may nominate additional assets for inclusion into a re-prioritized DAL which becomes the basis for AMD planning and defense design.

3-21. Additional critical planning guidance provided by JFC includes the Air Tasking Order (ATO) and the Airspace Control Order (ACO). The ATO provides the rules of engagement (ROE) for all ADA units. The ATO also provides specific instructions for tasking forces/capabilities/sorties to specific missions and targets. The ACO is developed to support the ATO and implements the airspace control plan and provides the details of the approved request for airspace coordinating measures (ACM). All components of the ACO/ATO, and the IPB should be included in the planning process to give commanders and staff a complete understanding of the defense design.

## DEFENDED ASSET DEVELOPMENT

3-22. The JFC provides his guidance and prioritization of key assets he wants defended. Two prioritized lists of assets are developed and approved from his guidance. The two lists are:

- Critical Asset List. A *critical asset list* is defined as a prioritized list of assets, normally identified by phase of the operation, and approved by the joint force commander that should be defended against air and missile threats (JP 3-01). This list is developed by the J3/J5 with input from the components of the joint forces. They identify candidate assets to protect from attack. The JFC or combatant commander approves the critical asset list (CAL) listing and it is included in the OPLAN and AADP. The CAL development process evaluates critical assets based on criticality, vulnerability and threat, AMD resources, possible defense designs and the element of risk to develop the DAL. This process originates in the Protection cell.

- Defended Asset List. A *defended asset list*, in defensive counterair operations, is a listing of those assets from the critical asset list prioritized by the joint force commander to be defended with the resources available (JP 3-01). This list is included in the OPLAN and the AADP. The DAL specifies required levels of protection for each asset. The DAL may be developed by the AADC with component input but normally the AADC delegate the DAL process to the DAADC. The DAADC DAL recommendation (with component commanders input) is submitted through the AADC to the JFC for approval. This process originates in the Protection cell. For more information about the CAL and DAL see ADRP 3-37 or FM 3-01.

## **FA FIRE SUPPORT PLANNING**

3-23. Fire support planning is accomplished using targeting and the running estimate. *Fire support coordination* is the planning and executing of fire so that targets are adequately covered by a suitable weapon or group of weapons (JP 3-09). The FA provides the nucleus for effective fire planning and coordination through staff personnel, fires agencies, and attack resources. The commander at all levels is responsible for the effective integration of fires with his whole operation. Initiated during mission analysis and continuing through post-execution assessment, fire support planning includes the end state and the commander's objectives; target development and prioritization; capabilities analysis; commander's decision and force assignment; mission planning and force execution; and assessment. Commanders use a common doctrinal language to visualize and describe their operational approach. The operational approach describes a framework that relates tactical tasks to the desired end state through a unifying purpose to focus all operations. This approach includes the scheme of fires, which enables commanders to shape the operational environment with fires to support the maneuver commander's requirements and objectives.

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# Glossary

## SECTION I – ACRONYMS & ABBREVIATIONS

<b>AADC</b>	area air defense commander
<b>AADP</b>	area air defense plan
<b>AAMDC</b>	Army air and missile defense command
<b>ACM</b>	airspace coordinating measure
<b>ADA</b>	air defense artillery
<b>ADAFCO</b>	air defense artillery fire control officer
<b>ADAM</b>	air defense airspace management
<b>ADP</b>	Army doctrine publication
<b>ADRP</b>	Army doctrine reference publication
<b>ALO</b>	air liaison officer
<b>AMD</b>	air and missile defense
<b>ANGLICO</b>	air-naval gunfire liaison company
<b>AO</b>	areas of operations
<b>ARSTRAT</b>	Army strategic command
<b>ASOC</b>	air support operations center
<b>BAE</b>	brigade aviation element
<b>BCD</b>	battlefield coordination detachment
<b>BCT</b>	brigade combat team
<b>CAL</b>	critical asset list
<b>CAS</b>	close air support
<b>COF</b>	chief of fires
<b>COLT</b>	combat observation and lasing team
<b>COP</b>	common operational picture
<b>D3A</b>	decide, detect, deliver, and assess
<b>DAADC</b>	deputy area air defense commander
<b>DCA</b>	defensive counterair
<b>DAL</b>	defended assets list
<b>F3EAD</b>	find, fix, finish, exploit, analyze, and disseminate
<b>FA</b>	field artillery
<b>FC</b>	fires cell
<b>FIB</b>	fires brigade
<b>FIST</b>	fire support team
<b>FM</b>	field manual
<b>FSCM</b>	fire support coordination measure
<b>FSCoord</b>	fire support coordinator
<b>FSO</b>	fire support officer
<b>HIMARS</b>	high mobility artillery rocket system
<b>HPT</b>	high-payoff target
<b>HQ</b>	headquarters
<b>IFPC</b>	indirect fire protection capability
<b>IPB</b>	intelligence preparation of the battlefield
<b>JFC</b>	joint force commander
<b>JFCC-IMD</b>	joint functional component command-integrated missile defense

<b>JFLCC</b>	joint force land component commander
<b>JFO</b>	joint fires observer
<b>JP</b>	joint publication
<b>JTF</b>	joint task force
<b>MLRS</b>	multiple launch rocket system
<b>NATO</b>	North Atlantic Treaty Organization
<b>NSFS</b>	naval surface fire support
<b>OCA</b>	offensive counterair
<b>OPCON</b>	operational control
<b>OPLAN</b>	operation plan
<b>OPORD</b>	operation order
<b>RADC</b>	regional air defense commander
<b>ROE</b>	rules of engagement
<b>SADC</b>	sector air defense commander
<b>SMDC</b>	space and missile defense command
<b>SOF</b>	special operations force
<b>STANAG</b>	standardization agreement
<b>TA</b>	target acquisition
<b>TAAMDCOORD</b>	theater army air and missile defense coordinator
<b>TACP</b>	tactical air control party
<b>TGM</b>	terminally guided munition
<b>THAAD</b>	terminal high altitude area defense
<b>U.S.</b>	United States

## SECTION II – TERMS

### **active air defense**

The direct defensive action taken to destroy, nullify, or reduce the effectiveness of hostile air and missile threats against friendly forces and assets. It includes the use of aircraft, air defense weapons, electronic warfare, and other available weapons. (JP 3-01)

### **\*air and missile defense**

The direct defensive actions taken to protect friendly forces by destroying or reducing the effectiveness of hostile air and ballistic missile threats against friendly forces and assets in support of joint force commander's objectives.

### **\*air defense artillery**

The defensive measures designed to destroy attacking enemy aircraft or missiles in the atmosphere, or to nullify or reduce the effectiveness of such attack either through surveillance actions or active engagements of aerial threat.

### **\*chief of fires**

The chief of fires is the senior fires officer at division and higher headquarters level who is responsible for advising the commander on the best use of available fire support resources, providing input to necessary orders, and developing and implementing the fire support plan.

### **\*combat observation and lasing team**

A field artillery team controlled at the brigade level that is capable of day and night target acquisition and has both laser range finding and laser-designating capabilities.

### **counterfire**

The fire intended to destroy or neutralize enemy weapons. Includes counterbattery and countermortar fire. (JP 3-09)

**critical asset list**

A prioritized list of assets, normally identified by phase of the operation, and approved by the joint force commander that should be defended against air and missile threats. (JP 3-01)

**defended asset list**

In defensive counterair operations, is a listing of those assets from the critical asset list prioritized by the joint force commander to be defended with the resources available. (JP 3-01)

**decisive action**

The continuous, simultaneous combinations of offensive, defensive, and stability or defense support of civil authorities' tasks. (ADRP 3-0)

**defensive tasks**

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

**employ fires**

The use available weapons and other systems to create a specific lethal or nonlethal effect on a target. (JP 3-0)

**\*field artillery**

The equipment, supplies, ammunition, and personnel involved in the use of indirect fire cannon, rocket, or surface-to-surface missile launchers.

**fire support**

The fires that directly support land, maritime, amphibious, and special operations forces to engage enemy forces, combat formations, and facilities in pursuit of tactical and operational objectives. (JP 3-09)

**fire support coordination**

The planning and executing of fire so that targets are adequately covered by a suitable weapon or group of weapons. (JP 3-09)

**\*fire support coordinator**

The BCTs organic field artillery battalion commander; if a FIB is designated as the division force FA headquarters, the FIB commander is the division's fire support coordinator and is assisted by the chief of fires who then serves as the deputy fire support coordinator during the period the force FA headquarters is in effect. (Proponency for this term is changed from FM 3-09 to ADRP 3-09)

**\*fire support officer**

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

**\*fire support team**

A field artillery team organic to each maneuver battalion and selected units to plan and coordinate all available company supporting fires, including mortars, field artillery, naval surface fire support and close air support integration.

**fires**

The use of weapons systems to create a specific lethal or nonlethal effect on a target. (JP 3-0)

**fires warfighting function**

The related tasks and systems that provide collective and coordinated use of Army indirect fires, air and missile defense (AMD), and joint fires through the targeting process. (ADRP 3-0)

**\*force field artillery headquarters**

If designated by the supported commander, is normally the senior field artillery headquarters organic, assigned, attached, or placed under the operational control of that command. The supported commander specifies the commensurate responsibilities of the force field artillery headquarters and the duration of those responsibilities.

### **intelligence warfighting function**

The related tasks and systems that facilitate understanding of the enemy, terrain, and civil considerations. (ADRP 3-0)

### **joint fire support**

The 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 fires**

Fires delivered during the employment of forces from two or more components in coordinated action to produce desired effects in support of a common objective. (JP 3-0)

### **joint fires observer**

A trained and certified Servicemember who can request, adjust, and control surface-to-surface fires, provide targeting information in support of Type 2 and 3 close air support terminal attack controls, and perform autonomous terminal guidance operations. (FM 3-09.32)

### **mission command warfighting function**

Develops and integrates those activities enabling a commander to balance the art of command and the science of control. (ADRP 3-0)

### **movement and maneuver warfighting function**

The related tasks and systems that move forces to achieve a position of advantage in relation to the enemy. (ADRP 3-0)

### **no-strike list**

A list of objects or entities characterized as protected from the effects of military operations under international law and/or the rules of engagement. Attacking these may violate the law of armed conflict or interfere with friendly relations with indigenous personnel or governments. (JP 3-60)

### **offensive task**

A task conducted to defeat and destroy enemy forces and seize terrain, resources, and population centers. (ADRP 3-0) (ADP 3-0)

### **operations process**

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

### **passive air defense**

All the measures other than active air defense, taken to minimize the effectiveness of hostile air and missile threats against friendly forces and assets. The measures include camouflage, concealment, deception, dispersion, reconstitution, redundancy, detection and warning systems, and the use of protective construction. (JP 3-01)

### **\*priority of fires**

The commander's guidance to his staff, subordinate commanders, fires planners, and supporting agencies to employ fires in accordance with the relative importance of a unit's mission.

### **protection warfighting function**

The related tasks and systems that preserve the force so the commander can apply maximum combat power. (ADRP 3-0)

### **restricted target**

A valid target that has specific restrictions placed on the actions authorized against it due to operational considerations. (JP 3-60)

### **restricted target list**

A list of restricted targets nominated by elements of the joint force and approved by the joint force commander. This list also includes restricted targets directed by higher authorities. (JP 3-60)

**rules of engagement**

The directives issued by competent military authority that delineate the circumstances and limitations under which U.S. forces will initiate and/or continue combat engagement with other forces encountered. (JP 1-04)

**sustainment warfighting function**

The related tasks and systems that provide support and services to ensure freedom of action, extend operational reach, and prolong endurance. (ADRP 3-0)

**synchronization**

The arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time. (JP 2-0)

**target**

An entity or object considered for possible engagement or other action. (JP 3-60).

**target acquisition**

The detection, identification, and location of a target in sufficient detail to permit the effective employment of weapons. (JP 1-02)

**targeting**

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

**warfighting function**

A group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions. (ADP 3-0)

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