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BSS6

SMARTBOOK

SIXTH EDITION

Operations Process (Plan, Prepare, Execute, Assess)

Understand, Visualize, Describe, Direct, Lead, Assess

Military Decisionmaking Process (MDMP & TLP)

Integrating Processes (IPB, Info Collection, Targeting, RM, KM)

Plans & Orders (WARNORDs, OPORDs, and FRAGORDs)

Mission Command (C2 Warfighting Function, Command Posts, Liaison)

Rehearsals & After Action Reviews (AARs)

Operational Terms and Military Symbols

the BATTLE STAFF

Plan, Prepare, Execute, & Assess Military Operations

The Lightning Press

Norman M. Wade

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(BSS6) The Battle Staff SMARTbook, 6th Ed.

Plan, Prepare, Execute, & Assess Military Operations

BSS6 is the sixth edition of The Battle Staff SMARTbook, completely updated for 2020. Updated material and references include the full scope of new material from ADP 5-0, The Operations Process (Jul '19); ADP 6-0, Mission Command (Jul '19); FM 3-0 (w/Change 1), Operations (Dec '17); FM 6-0 (w/change 2), Commander and Staff Organization and Operations (Apr '16); ATP 2-01.3, Intelligence Preparation of the Battlefield (Mar '19); ADP 3-19, Fires (Jul '19); ATP 3-60, Targeting (May '15); ATP 5-19 (w/change 1), Risk Management (Apr '14); and ADP 1-02, Terms and Military Symbols (Aug '19); and more.

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(BSS6) Notes to Reader

Plan, Prepare, Execute, & Assess Military Operations

The Army's framework for organizing and putting command and control into action is the **operations process**—the major command and control activities performed during operations: **planning, preparing, executing, and continuously assessing** the operation. Commanders use the operations process to drive the conceptual and detailed planning necessary to **understand** their operational environment (OE); **visualize and describe** the operation's end state and operational approach; make and articulate decisions; and **direct, lead, and assess** operations.

Planning is the art and science of understanding a situation, envisioning a desired future, and laying out effective ways of bringing that future about. **Preparation** consists of those activities performed by units and Soldiers to improve their ability to execute an operation. **Execution** is the act of putting a plan into action by applying combat power to accomplish the mission and adjusting operations based on changes in the situation. **Assessment** is a continuous activity that supports decision making by ascertaining progress of the operation for the purpose of developing and refining plans and for making operations more effective.

The **Battle Staff SMARTbook** covers the operations process (ADP 5-0); commander's activities; Army planning methodologies; the military decisionmaking process and troop leading procedures (FM 6-0 w/Chg 2: MDMP & TLP); integrating processes (IPB, information collection, targeting, risk management, and knowledge management); plans and orders (WARNORDs/FRAGORDs/OPORDs); mission command, C2 warfighting function tasks, command posts, liaison (ADP 6-0); rehearsals & after action reviews; and operational terms and military symbols (ADP 1-02).

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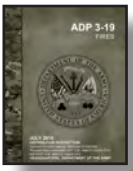
ADP 5-0

ADP 6-0

FM 3-0 (Chg 1)

FM 6-0 (Chg 2)

ATP 2-01.3



ADP 3-19

ADP 1-02

plus more!

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Chap 1: The Operations Process

The Army's framework for organizing and putting command and control into action is the **operations process**—the major command and control activities performed during operations: **planning, preparing, executing, and continuously assessing** the operation. Commanders use the operations process to drive the conceptual and detailed planning necessary to understand their operational environment (OE); visualize and describe the operation's end state and operational approach; make and articulate decisions; and direct, lead, and assess operations.

Commanders, staffs, and subordinate headquarters employ the operations process to organize efforts, integrate the warfighting functions across multiple domains, and synchronize forces to accomplish missions. This includes integrating numerous processes and activities such as information collection and targeting within the headquarters and with higher, subordinate, supporting, and supported units.

Commanders are the most important participants in the operations process. While staffs perform essential functions that amplify the effectiveness of operations, commanders drive the operations process through **understanding, visualizing, describing, directing, leading, and assessing** operations.

Chap 2: The Military Decisionmaking Process (MDMP & TLP)

The **military decisionmaking process (MDMP)** is an iterative planning methodology to understand the situation and mission develop a course of action, and produce an operation plan or order. The MDMP helps leaders apply thoroughness, clarity, sound judgment, logic, and professional knowledge to understand situations, develop options to solve problems, and reach decisions. This process, consisting of seven steps with inputs and outputs, helps commanders, staffs, and others think critically and creatively while planning.

Troop leading procedures extend the MDMP to the small-unit level. The MDMP and TLP are similar but not identical. They are both linked by the basic Army problem solving methodology explained. Commanders with a coordinating staff use the MDMP as their primary planning process. Company-level and smaller units lack formal staffs and use TLP to plan and prepare for operations. This places the responsibility for planning primarily on the commander or small-unit leader.

Chap 3: Integrating Processes

Commanders and staffs integrate the warfighting functions and synchronize the force to adapt to changing circumstances throughout the operations process. They use several **integrating processes** to do this. An integrating process consists of a series of steps that incorporate multiple disciplines to achieve a specific end. For example, during planning, the military decision-making process (MDMP) integrates the commander and staff in a series of steps to produce a plan or order. Key integrating processes that occur throughout the operations process include **intelligence preparation of the battlefield, information collection, targeting, risk management, and knowledge management**.

Chap 4: Plans & Orders

A product of planning is a **plan or order**—a directive for future action. Commanders issue plans and orders to subordinates to communicate their understanding of the situation and their visualization of an operation. Plans and orders direct, coordinate, and synchronize subordinate actions and inform those outside the unit how to cooperate and provide support.

Chap 5: Mission Command

Mission command is the Army's approach to command and control that empowers subordinate decision making and decentralized execution appropriate to the situation. Mission command supports the Army's operational concept of unified land operations and its emphasis on seizing, retaining, and exploiting the initiative. The **command and control warfighting function** is the related tasks and a system that enable commanders to synchronize and converge all elements of combat power. The primary purpose of the command and control warfighting function is to assist commanders in integrating the other elements of combat power to achieve objectives and accomplish missions.

Chap 6: Rehearsals & After Action Reviews (AARs)

Rehearsals allow leaders and their Soldiers to practice executing key aspects of the concept of operations. These actions help Soldiers orient themselves to their environment and other units before executing the operation. An **after action review (AAR)** is a guided analysis of an organization's performance, conducted at appropriate times during and at the conclusion of a training event or operation with the objective of improving future performance. The AAR provides valuable feedback essential to correcting training deficiencies. Feedback must be direct, on-the-spot and standards-based.

Chap 7: Operational Terms & Symbols

Terms and symbols provide a common language used to communicate during the conduct of operations. Terms are words defined in doctrinal publications specifically for Army use and codified in ADP 1-02 and the DOD Dictionary of Military and Associated Terms. Symbols are those graphics defined specifically for military use. They are codified in MIL-STD-2525D.

(BSS6) References

The following references were used to compile The Battle Staff SMARTbook. All references are considered public domain, available to the general public, and designated as "approved for public release; distribution is unlimited." The Battle Staff SMARTbook does not contain classified or sensitive material restricted from public release.

Army Doctrinal Publications (ADPs) and Army Doctrinal Reference Publications (ADRPs)

ADP 1-02*	Aug 2018	Terms and Military Symbols
ADP 2-0*	Jul 2019	Intelligence
ADP 3-19 *	Jul 2019	Fires
ADP 3-90*	Jul 2019	Offense and Defense
ADP 5-0*	Jul 2019	The Operations Process
ADP 6-0*	Jul 2019	Mission Command

Army Techniques Publications (ATPs) and Army Tactics, Techniques and Procedures (ATTPs)

ATP 2-01.3*	Mar 2019	Intelligence Preparation of the Battlefield
ATP 3-60	May 2015	Targeting
ATP 5-19	Apr 2014	Risk Management (w/change 1)

Field Manuals (FMs)

FM 3-09	Apr 2014	Field Artillery Operations and Fire Support
FM 3-90-1	Mar 2013	Offense and Defense (Volume I)
FM 3-90-2	Mar 2013	Reconnaissance, Security, And Tactical Enabling Tasks (Volume 2)
FM 6-0*	Apr 2016	Commander and Staff Organization and Operations (w/change 2*)
FM 6-01.1*	Jul 2012	Knowledge Management Operations

Joint Publications (JPs)

JP 3-0*	Oct 2018	Joint Operations (w/Change 1)
JP 5-0*	Jun 2017	Joint Planning

** New or updated reference publication since last edition.*

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Operational Terms, Acronyms & Symbols

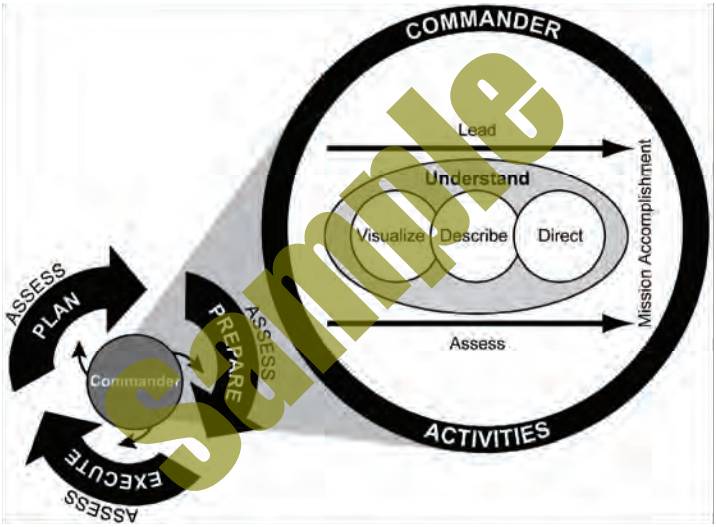
Chap 1

I. Fundamentals of the Operations Process

Ref: ADP 5-0, The Operations Process (Jul '19), chap. I.

The Army's framework for organizing and putting command and control into action is the operations process—the major command and control activities performed during operations: planning, preparing, executing, and continuously assessing the operation. Commanders use the operations process to drive the conceptual and detailed planning necessary to understand their operational environment (OE); visualize and describe the operation's end state and operational approach; make and articulate decisions; and direct, lead, and assess operations.

The Operations Process



Ref: ADP 5-0, The Operations Process, fig. 1-1, p. 1-4.

Commanders, staffs, and subordinate headquarters employ the operations process to organize efforts, integrate the warfighting functions across multiple domains, and synchronize forces to accomplish missions. This includes integrating numerous processes and activities such as information collection and targeting within the headquarters and with higher, subordinate, supporting, and supported units. The unit's battle rhythm helps to integrate and synchronize the various processes and activities that occur within the operations process.

A goal of the operations process is to make timely and effective decisions and to act faster than the enemy. A tempo advantageous to friendly forces can place the enemy under the pressures of uncertainty and time. Throughout the operations process, making and communicating decisions faster than the enemy can react produces a tempo with which the enemy cannot compete. These decisions include assigning tasks; prioritizing, allocating, and organizing forces and resources; and selecting the critical times and places to act. Decision making during execution includes knowing how and when to adjust previous decisions. The speed and accuracy of a commander's actions to address a changing situation is a key contributor to agility.

I. The Nature of Operations

Understanding the doctrine on mission command and the operations process requires an appreciation of the nature of operations and the Army's vision of war. It is upon this appreciation that mission command— an approach to the exercise of command and control—is built. The principles of mission command guide commanders and staffs in planning, preparing, executing, and assessing operations.

Military operations fall along a competition continuum that spans cooperation to war. Between these extremes, societies maintain relationships. These relationships include economic competition, political or ideological tension, and at times armed conflict. Violent power struggles in failed states, along with the emergence of major regional powers like Russia, China, Iran, and North Korea seeking to gain strategic positions of advantage, present challenges to the joint force. Army forces must be prepared to meet these challenges across the range of military operations during periods of competition and war.

The range of military operations is a fundamental construct that helps relate military activities and operations in scope and purpose within a backdrop of the competition continuum. The potential range of military operations extends from military engagement, security cooperation, and deterrence in periods of competition to large-scale combat operations in periods of war. Whether fighting terrorists as part of a limited contingency operation or defeating a peer threat in large-scale combat, the nature of operations is constant.

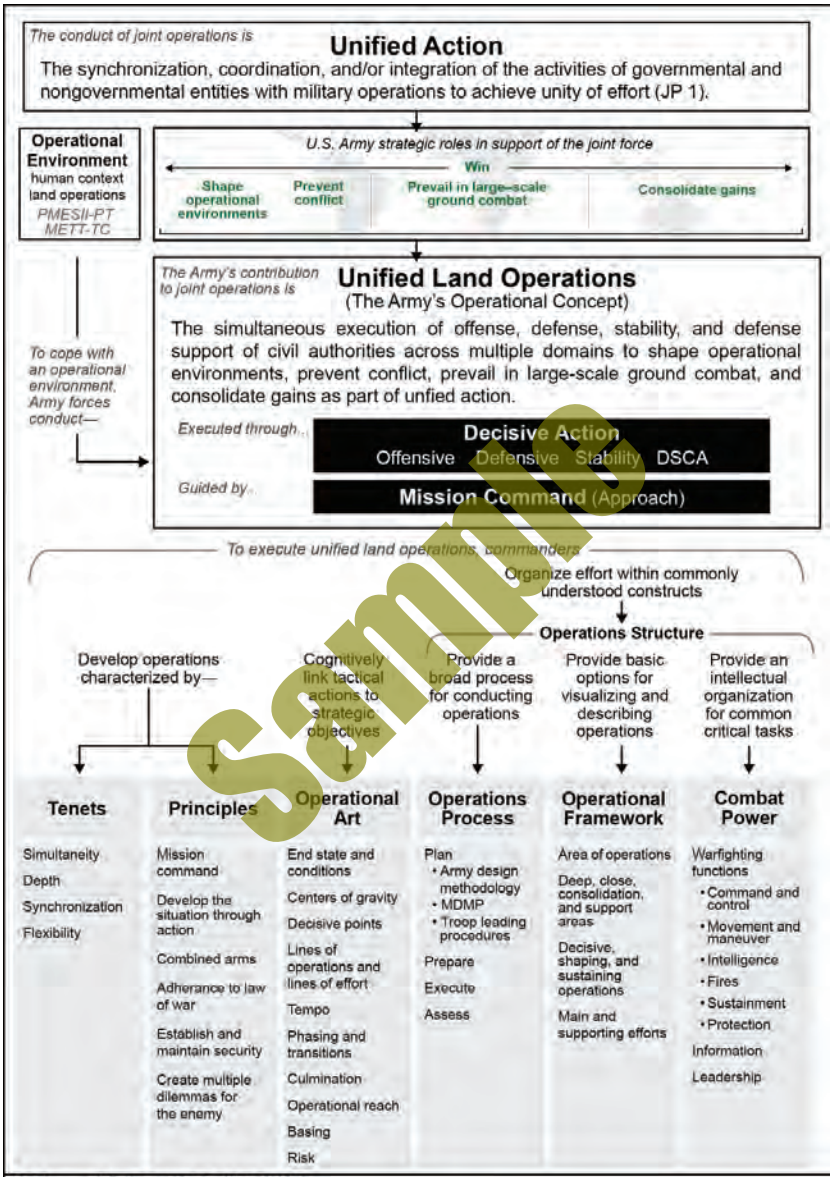
II. Unified Land Operations

The Army's operational concept—the central idea that guides the conduct of Army operations—is unified land operations. Unified land operations is the simultaneous execution of offense, defense, stability, and defense support of civil authorities across multiple domains to shape operational environments, prevent conflict, prevail in large-scale ground combat, and consolidate gains as part of unified action (ADP 3-0). Army forces do this with combined arms formations possessing the mobility, firepower, protection, and sustainment to defeat an enemy and establish control of areas, resources, and populations. Army forces depend on the capabilities of the other Services as the joint force depends on Army capabilities across multiple domains. The goal of unified land operations is to achieve the joint force commander's end state by applying land power as part of unified action. During the conduct of unified land operations, Army forces support the joint force through four strategic roles: shape operational environments (OEs), prevent conflict, prevail in large-scale ground combat, and consolidate gains.

Army forces assist in shaping an operational environment (OE) by providing trained and ready forces to geographic combatant commanders (GCCs) in support of their campaign plan. Shaping activities include security cooperation, military engagement, and forward presence to promote U.S. interests and assure allies. Army operations to prevent are designed to deter undesirable actions of an adversary through positioning of friendly capabilities and demonstrating the will to use them. Army forces may have a significant role in the execution of flexible deterrent options or flexible response options. Additionally, Army prevent activities may include mobilization, force tailoring, and other pre-deployment activities; initial deployment into a theater of operations; and development of intelligence, communications, sustainment, and protection infrastructure to support the joint force commander. During large-scale combat operations, Army forces focus on the defeat of enemy ground forces. Army forces close with and destroy enemy forces, exploit success, and break their opponent's will to resist. While Army forces consolidate gains throughout an operation, consolidating gains become the focus of operations after large-scale combat operations have concluded.

A. Operations (Unified Logic Chart)

Ref: ADP 3-0, Operations (Jul '19), Introductory figure. ADP 3-0 unified logic chart.



C. Elements of Decisive Action

Ref: ADP 3-0, Operations (Jul '19), pp. 3-3 to 3-4 and table 3-1, p. 3-2.

Decisive action requires simultaneous combinations of offense, defense, and stability or defense support of civil authorities tasks.

1. Offensive Operations

An offensive operation is an operation to defeat or destroy enemy forces and gain control of terrain, resources, and population centers. Offensive operations impose the commander's will on an enemy.

The offense is the most direct means of seizing, retaining, and exploiting the initiative to gain a physical and psychological advantage. In the offense, the decisive operation is a sudden action directed toward enemy weaknesses and capitalizing on speed, surprise, and shock. If that operation fails to destroy an enemy, operations continue until enemy forces are defeated. The offense compels an enemy to react, creating new or larger weaknesses the attacking force can exploit.

Refer to SUTS3: The Small Unit Tactics SMARTbook, 3rd Ed. (ADP 3-90)

Offense

Types of Offensive Operations

- Movement to contact
- Attack
- Exploitation
- Pursuit

Purposes

- Dislocate, isolate, disrupt and destroy enemy forces
- Seize key terrain
- Deprive the enemy of resources
- Refine intelligence
- Deceive and divert the enemy
- Provide a secure environment for stability operations

2. Defensive Operations

A defensive operation is an operation to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability operations. Normally the defense cannot achieve a decisive victory. However, it sets conditions for a counteroffensive or a counterattack that enables forces to regain the initiative. Defensive operations are a counter to an enemy offensive action, and they seek to destroy as much of the attacking enemy forces as possible. They preserve control over land, resources, and populations, and retain key terrain, protect lines of communications, and protect critical capabilities against attack. Commanders can conduct defensive operations in one area to free forces for offensive operations elsewhere.

Refer to SUTS3: The Small Unit Tactics SMARTbook, 3rd Ed. (ADP 3-90)

Defense

Types of Defensive Operations

- Mobile defense
- Area defense
- Retrograde

Purposes

- Deter or defeat enemy offensive operations
- Gain time
- Achieve economy of force
- Retain key terrain
- Protect the populace, critical assets and infrastructure
- Refine intelligence

3. Stability Operations

A stability operation is an operation conducted outside the United States in coordination with other instruments of national power to establish or maintain a secure environment and provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief. These operations support governance by a host nation, an interim government, or a military government. Stability involves coercive and constructive action. Stability helps in building relationships among unified action partners and promoting U.S. security interests. It can help establish political, legal, social, and economic institutions in an area while supporting transition of responsibility to a legitimate authority. Commanders are legally required to perform minimum-essential stability operations tasks when controlling populated areas of operations. These include security, food, water, shelter, and medical treatment.

Refer to TAA2: The Military Engagement, Security Cooperation & Stability SMARTbook, 2nd Ed. (ADP 3-07)

Stability

Stability Operations Tasks

- Establish civil security
- Establish civil control
- Restore essential services
- Support to governance
- Support to economic and infrastructure development
- Conduct security cooperation

Purposes

- Provide a secure environment
- Secure land areas
- Meet the critical needs of the populace
- Gain support for host-nation government
- Shape the environment for interagency and host-nation success
- Promote security, build partner capacity, and provide access
- Refine intelligence

4. Defense Support of Civil Authority

Defense support of civil authorities is support provided by U.S. Federal military forces, DOD civilians, DOD contract personnel, DOD Component assets, and National Guard forces (when the Secretary of Defense, in coordination with the Governors of the affected States, elects and requests to use those forces in Title 32, United States Code status) in response to requests for assistance from civil authorities for domestic emergencies, law enforcement support, and other domestic activities, or from qualifying entities for special events. (DODD 3025.18). DSCA is a task executed in the homeland and U.S. territories. It is performed to support another primary agency, lead federal agency, or local authority. When DSCA is authorized, it consists of four types of operations. National Guard forces—Title 32 or state active forces under the command and control of the governor and the adjutant general—are usually the first forces to respond on behalf of state authorities. When Federal military forces are employed for DSCA activities, they remain under Federal military command and control at all times.

Refer to HDS1: Homeland Defense & DSCA SMARTbook. (JP 3-28)

Defense Support of Civil Authorities

Defense Support of Civil Authorities Tasks

- Provide support for domestic disasters
- Provide support for domestic CBRN incidents
- Provide support for domestic civilian law enforcement agencies
- Provide other designated support

Purposes

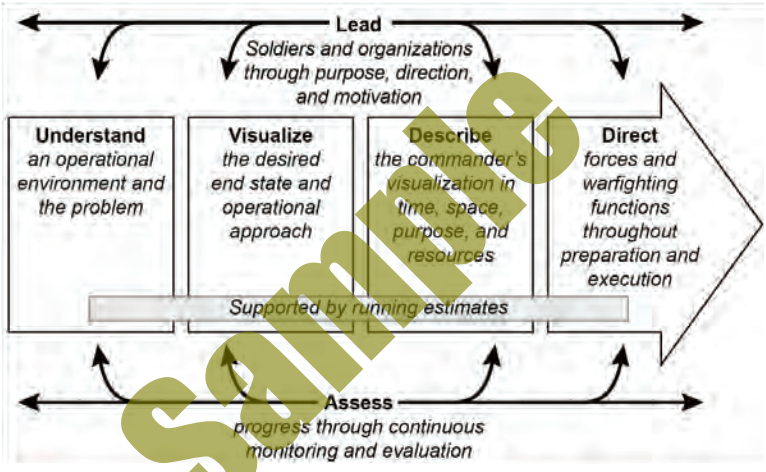
- Save lives
- Restore essential services
- Maintain or restore law and order
- Protect infrastructure and property
- Support maintenance or restoration of local government
- Shape the environment for interagency success

II. Understand, Visualize Describe, Direct, Lead, Assess

Ref: ADP 5-0, The Operations Process (Jul '19), chap. I.

Commanders are the most important participants in the operations process. While staffs perform essential functions that amplify the effectiveness of operations, commanders drive the operations process through understanding, visualizing, describing, directing, leading, and assessing operations. Accurate and timely running estimates maintained by the staff, assist commanders in understanding situations and making decisions.

The Commander's Role in the Ops Process



Ref: ADP 5-0, The Operations Process (Jul '19), fig. 1-2, p. 1-8.

I. Understand

Understanding an OE and associated problems is fundamental to establishing a situation's context and visualizing operations. An operational environment is a composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander (JP 3-0). An OE encompasses the air, land, maritime, space, and cyberspace domains; the information environment; the electromagnetic spectrum; and other factors. Included within these areas are the enemy, friendly, and neutral actors who are relevant to a specific operation.

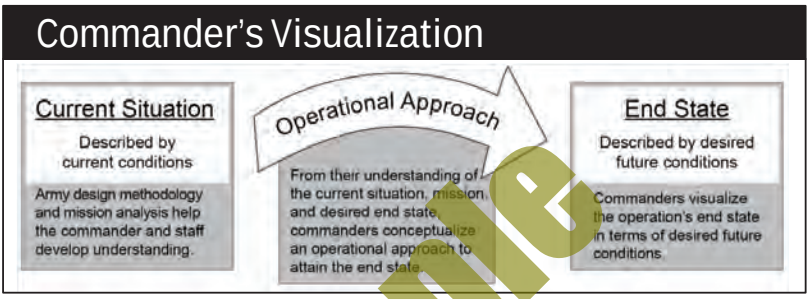
Commanders collaborate with their staffs, other commanders, and unified action partners to build a shared understanding of their OEs and associated problems. Planning, intelligence preparation of the battlefield (IPB), and running estimates help commanders develop an initial understanding of their OEs. During execution, commanders direct reconnaissance and develop the situation through action to improve their understanding. Commanders circulate within the area of operations (AO) as often as possible, collaborating with subordinate commanders and speaking with Soldiers. Ideally, true understanding should be the basis for decisions.

See pp. 1-16 to 1-17 (operational and mission variables) and p. 1-26 (principles of joint operations).

II. Visualize

As commanders build understanding about their OEs, they start to visualize solutions to solve the problems they identify. Collectively, this is known as commander's visualization—the mental process of developing situational understanding, determining a desired end state, and envisioning an operational approach by which the force will achieve that end state (ADP 6-0).

In building their visualization, commanders first seek to understand those conditions that represent the current situation. Next, commanders envision a set of desired future conditions that represents the operation's end state. Commanders complete their visualization by conceptualizing an operational approach—a broad description of the mission, operational concepts, tasks, and actions required to accomplish the mission (JP 5-0). Figure 1-3 depicts activities associated with developing the commander's visualization.



Ref: ADP 5-0, The Operations Process, fig. 1-3, p. 1-9.

Part of developing an operational approach includes visualizing an initial operational framework. The operational framework provides an organizing construct for how the commander intends to organize the AO geographically (deep, close, support, and consolidation areas), by purpose (decisive, shaping, and sustaining operations), and by effort (main and supporting). When establishing their operational framework, commanders consider the physical, temporal, virtual, and cognitive factors that impact on their AOs. Collectively, these considerations allow commanders and staffs to better account for the multi-domain capabilities of friendly and threat forces.

See p. 1-32 for discussion of the elements of operational design and art. See pp. 1-18 to 1-19 for related discussion of the operational framework, and pp. 1-22 to 1-23 for discussion of the elements of combat power and the six warfighting functions.

III. Describe

Commanders describe their visualization to their staffs and subordinate commanders to facilitate shared understanding and purpose throughout the force. During planning, commanders ensure subordinates understand their visualization well enough to begin course of action (COA) development. During execution, commanders describe modifications to their visualization in updated planning guidance and directives resulting in fragmentary orders (FRAGORDs) that adjust the original operation order (OPORD). Commanders describe their visualization in doctrinal terms, refining and clarifying it, as circumstances require. Commanders describe their visualization in terms of—

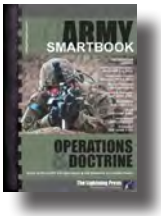
- Commander's intent
- Planning guidance, including an operational approach
- Commander's critical information requirements (CCIRs)
- Essential elements of friendly information

See pp. 1-20 to 1-21 for further discussion of these elements.

Operational Framework (Visualize/Describe)

Ref: ADP 3-0, Operations (Jul '19), pp. 4-2 to 4-5. See also AODS6 pp. 2-14 to 2-21.

Army leaders are responsible for clearly articulating their concept of operations in time, space, purpose, and resources. They do this through an operational framework & associated vocabulary. An operational framework is a cognitive tool used to assist commanders and staffs in clearly visualizing and describing the application of combat power in time, space, purpose, and resources in the concept of operations (ADP 1-01).



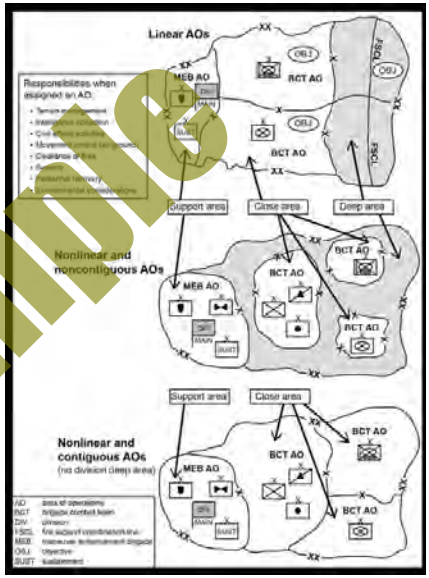
Refer to AODS6 (w/SMARTupdate 1): The Army Operations & Doctrine SMARTbook (Guide to FM/ADP 3-0 Operations & the Elements of Combat Power). Completely updated with the Jul 2019 ADPs, Chg 1 to the 400-pg AODS6 includes operations (ADP 3-0), large-scale combat operations (FM 3-0 w/Chg 1), and refocused chapters on the elements of combat power: command & control (ADP 6-0), movement and maneuver (ADPs 3-90, 3-07, 3-28, 3-05), intelligence (ADP 2-0), fires (ADP 3-19), sustainment (ADP 4-0), & protection (ADP 3-37).

Area of Operations

An area of operations is an operational area defined by a commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces (JP 3-0). For land operations, an area of operations includes subordinate areas of operations assigned by Army commanders to their subordinate echelons. In operations, commanders use control measures to assign responsibilities, coordinate fire and maneuver, and control combat operations. A control measure is a means of regulating forces or warfighting functions (ADP 6-0). One of the most important control measures is the assigned area of operations. The Army commander or joint force land component commander is the supported commander within an area of operations designated by the JFC for land operations. Within their areas of operations, commanders integrate and synchronize combat power. To facilitate this integration and synchronization, commanders designate targeting priorities, effects, and timing within their areas of operations.

Area of Influence

Commanders consider a unit's area of influence when assigning it an area of operations. An area of influence is a geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command or control (JP 3-0).



Understanding the area of influence helps the commander and staff plan branches to the current operation in which the force uses capabilities outside the area of operations.

Area of Interest

An area of interest is that area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory. This area also includes areas occupied by enemy forces who could jeopardize the accomplishment of the mission (JP 3-0). An area of interest for stability or DSCA tasks may be much larger than that area associated with the offense and defense.

Deep, Close, Support, and Consolidation Areas

- The **deep area** is where the commander sets conditions for future success in close combat. Operations in the deep area involve efforts to prevent uncommitted enemy forces from being committed in a coherent manner. A commander's deep area generally extends beyond subordinate unit boundaries out to the limits of the commander's designated area of operations. The purpose of operations in the deep area is often tied to setting conditions for future events in time and space.
- The **close area** is the portion of the commander's area of operations where the majority of subordinate maneuver forces conduct close combat. Operations in the close area are within a subordinate commander's area of operations. Commanders plan to conduct decisive operations using maneuver and fires in the close area, and they position most of the maneuver force in it.
- A **support area** is the portion of the commander's area of operations that is designated to facilitate the positioning, employment, and protection of base sustainment assets required to sustain, enable, and control operations.
- The **consolidation area** is the portion of the land commander's area of operations that may be designated to facilitate freedom of action, consolidate gains through decisive action, and set conditions to transition the area of operations to follow on forces or other legitimate authorities.

Decisive, Shaping, and Sustaining Operations

Decisive, shaping, and sustaining operations lend themselves to a broad conceptual orientation.

- The **decisive operation** is the operation that directly accomplishes the mission. The decisive operation is the focal point around which commanders design an entire operation. The decisive operation is designed to determine the outcome of a major operation, battle, or engagement. Multiple subordinate units may be engaged in the same decisive operation across multiple domains. Decisive operations lead directly to the accomplishment of the commander's intent.
- A **shaping operation** is an operation at any echelon that creates and preserves conditions for success of the decisive operation through effects on the enemy, other actors, and the terrain. Information operations, for example, may integrate engagement tasks into an operation to reduce tensions between Army units and different ethnic groups. In combat, synchronizing the effects of aircraft, artillery fires, and obscurants to delay or disrupt repositioning forces illustrates shaping operations. Shaping operations may occur throughout the area of operations and involve any combination of forces and capabilities across multiple domains. Shaping operations set conditions for the success of the decisive operation. Commanders may designate more than one shaping operation.
- A **sustaining operation** is an operation at any echelon that enables the decisive operation or shaping operations by generating and maintaining combat power. Sustaining operations differ from decisive and shaping operations in that they focus internally (on friendly forces) rather than externally (on the enemy or environment).

Throughout decisive, shaping, and sustaining operations, commanders and their staffs need to ensure that forces maintain **positions of relative advantage**, operations are **integrated with unified action partners**, and **continuity** is maintained throughout operations.

Main and Supporting Efforts

Commanders designate main and supporting efforts to establish clear priorities of support and resources among subordinate units.

- The **main effort** is a designated subordinate unit whose mission at a given point in time is most critical to overall mission success. It is usually weighted with the preponderance of combat power. Typically, commanders shift the main effort one or more times during execution. Designating a main effort temporarily prioritizes resource allocation. When commanders designate a unit as the main effort, it receives priority of support and resources in order to maximize combat power.
- A **supporting effort** is a designated subordinate unit with a mission that supports the success of the main effort. Commanders resource supporting efforts with the minimum assets necessary to accomplish the mission. Forces often realize success of the main effort through success of supporting efforts.

3. Describe

Ref: ADP 5-0, The Operations Process (Jul '19), pp. 1-9 to 1-10.

Commanders describe their visualization to their staffs and subordinate commanders to facilitate shared understanding and purpose throughout the force. During planning, commanders ensure subordinates understand their visualization well enough to begin course of action (COA) development. During execution, commanders describe modifications to their visualization in updated planning guidance and directives resulting in fragmentary orders (FRAGORDs) that adjust the original operation order (OPORD). Commanders describe their visualization in doctrinal terms, refining and clarifying it, as circumstances require. Commanders describe their visualization in terms of—

- Commander's intent
- Planning guidance, including an operational approach
- Commander's critical information requirements (CCIRs)
- Essential elements of friendly information

A. Commander's Intent *See p. 2-26.*

The commander's intent is a clear and concise expression of the purpose of the operation and the desired military end state that supports mission command, provides focus to the staff, and helps subordinate and supporting commanders act to achieve the commander's desired results without further orders, even when the operation does not unfold as planned (JP 3-0). During planning, the initial commander's intent guides COA development. In execution, the commander's intent guides initiative as subordinates make decisions and take action when unforeseen opportunities arise or when countering threats. Commanders develop their intent statement personally. It must be easy to remember and clearly understood by commanders and staffs two echelons lower in the chain of command. The more concise the commander's intent, the easier it is to understand and recall.

B. Planning Guidance *See p. 2-27.*

Commanders provide planning guidance to the staff based upon their visualization of the operation. Planning guidance conveys the essence of the commander's visualization, including a description of the operational approach. Effective planning guidance reflects how the commander sees the operation unfolding. The commander's planning guidance broadly describes when, where, and how the commander intends to employ combat power to accomplish the mission within the higher commander's intent. Broad and general guidance gives the staff and subordinate leaders maximum latitude; it lets proficient staffs develop flexible and effective options. Commanders modify planning guidance based on staff and subordinate input and changing conditions during different stages of planning and throughout the operations process.

Refer to FM 6-0 for sample planning guidance by warfighting function.

C. Commander's Critical Information Requirements (CCIR) *See p. 2-21.*

A commander's critical information requirement is an information requirement identified by the commander as being critical to facilitating timely decision making (JP 3-0). Commanders decide to designate an information requirement as a CCIR based on likely decisions during the conduct of an operation. A CCIR may support one or more decision points. During planning, staffs recommend information requirements for commanders to designate as CCIRs. During preparation and execution, they recommend changes to CCIRs based on their assessments of the operation.

(The Operations Process) A. Planning

Ref: ADP 5-0, The Operations Process (Jul '19), chap. 2.

Planning is the art and science of understanding a situation, envisioning a desired future, and determining effective ways to bring that future about. Planning helps leaders understand situations; develop solutions to problems; direct, coordinate, and synchronize actions; prioritize efforts; and anticipate events. In its simplest form, planning helps leaders determine how to move from the current state of affairs to a more desirable future state while identifying potential opportunities and threats along the way.

Planning Methodologies

A **Army Design Methodology**
See pp. 1-36 to 1-39.

B **The Military Decisionmaking Process (MDMP)** *See pp. 2-1 to 2-58.*

C **Troop Leading Procedures (TLP)**
See pp. 2-59 to 2-62.

D **Rapid Decision-Making and Synchronization Process (RDSP)** *See pp. 1-60 to 1-63.*

E **Army Problem Solving**
See pp. 1-40 to 1-41.

Ref: ADP 5-0, The Operations Process, p. 2-16.

Planning is a continuous learning activity. While planning may start an iteration of the operations process, planning does not stop with the production of an order. During preparation and execution, the commander and staff continuously refine the order to account for changes in the situation. Subordinates and others provide assessments about what works, what does not work, and how the force can do things better. In some circumstances, commanders may determine that the current order (to include associated branches and sequels) no longer applies. In these instances, instead of modifying the current order, commanders reframe the problem and develop a new plan.

Planning may be highly structured, involving the commander, staff, subordinate commanders, and others who develop a fully synchronized plan or order. Planning may also be less structured, involving a commander and selected staff who quickly determine a scheme of maneuver for a hasty attack. Planning is conducted along various planning horizons, depending on the echelon and circumstances. Some units may plan out to years and months, others out to days and hours.

IV. Operational Art

Ref: ADP 5-0, The Operations Process (Mar '12), p. 2-10 to 2-17.

Operational art is the cognitive approach by commanders and staffs—supported by their skill, knowledge, experience, creativity, and judgment—to develop strategies, campaigns, and operations to organize and employ military forces by integrating ends, ways, and means (JP 3-0). Operational art applies to all types and aspects of operations. It integrates ends, ways, and means while accounting for risk. Applying operational art requires commanders to answer the following questions:

- What conditions, when established, constitute the desired end state (*ends*)?
- How will the force achieve these desired conditions (*ways*)?
- What sequence of actions helps attain these conditions (*ways*)?
- What resources are required to accomplish that sequence of actions (*means*)?
- What risks are associated with that sequence of actions and how can they be mitigated (*risks*)?

Operational art encompasses all levels of warfare. It requires creative vision, broad experience, and a knowledge of capabilities, tactics, and techniques across multiple domains. Commanders and staffs employ operational art during ADM and the MDMP.

Elements of *Operational Design*

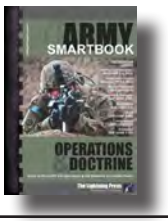
Within operational art, joint force commanders and staffs consider elements of operational design. Elements of operational design are individual tools that help the joint force commander and staff visualize and describe the broad operational approach.

- Termination
- Military end state
- Objective
- Effects
- Center of gravity
- Decisive point
- Lines of operations and lines of effort
- Direct and indirect approach
- Anticipation
- Operational reach
- Culmination
- Arranging operations
- Force and functions

Elements of *Operational Art*

As some elements of operational design apply only to joint force commanders, the Army modifies the elements of operational design into elements of operational art, adding Army specific elements. During the planning and execution of Army operations, Army commanders and staffs consider the elements of operational art as they assess the situation.

- End state and conditions
- Center of gravity
- Decisive points
- Lines of operations and lines of effort
- Operational reach
- Basing
- Tempo
- Phasing and transitions
- Culmination
- Risk



Refer to AODS6 (w/SMARTupdate 1): The Army Operations & Doctrine SMARTbook (Guide to FM/ADP 3-0 Operations & the Elements of Combat Power). Completely updated with the Jul 2019 ADPs, Chg 1 to the 400-pg AODS6 includes operations (ADP 3-0), large-scale combat operations (FM 3-0 w/Chg 1), and refocused chapters on the elements of combat power: command & control (ADP 6-0), movement and maneuver (ADPs 3-90, 3-07, 3-28, 3-05), intelligence (ADP 2-0), fires (ADP 3-19), sustainment (ADP 4-0), & protection (ADP 3-37).

Army Planning Methodologies

Ref: ADP 5-0, The Operations Process (Jul '19), pp. 2-16 to 2-19.

A. Army Design Methodology (ADM)

Army design methodology is a methodology for applying critical and creative thinking to understand, visualize, and describe problems and approaches to solving them. ADM is particularly useful as an aid to conceptual planning, but it must be integrated with the detailed planning typically associated with the MDMP to produce executable plans and orders. There is no one way or prescribed set of steps to employ the ADM. There are, however, several activities associated with ADM including framing an OE, framing problems, developing an operational approach, and reframing when necessary. While planners complete some activities before others, the understanding and learning within one activity may require revisiting the learning from another activity. Thus, ADM is iterative in nature.

When problems are difficult to identify, the operation's end state is unclear, or a COA is not self-evident, commanders employ ADM. This is often the case when developing long-range plans for extended operation or developing supporting plans to the CCP and associated contingencies. The results of ADM include an understanding of an OE and problem, the initial commander's intent, and an operational approach that serves as the link between conceptual and detailed planning. Based on their understanding and learning gained during ADM, commanders issue planning guidance—to include an operational approach—to guide more detailed planning using the MDMP.

See following pages (pp. 1-36 to 1-39) for an overview and discussion from ATP 5-0.1.

B. The Military Decision-Making Process (MDMP)

The military decision-making process is an iterative planning methodology to understand the situation and mission, develop a course of action, and produce an operation plan or order. It is an orderly, analytical process that integrates the activities of the commander, staff, and subordinate headquarters in the development of a plan or order. The MDMP helps leaders apply thoroughness, clarity, sound judgement, logic, and professional knowledge to develop situational understanding and produce a plan or order that best accomplishes the mission.

The MDMP consists of seven steps. Each step of the MDMP has inputs, a series of substeps, and outputs. The outputs lead to an increased understanding of the situation facilitating the next step of the MDMP. Commanders and staffs generally perform these steps sequentially; however, before producing the plan or order, they may revisit several steps in an iterative fashion as they learn more about the situation. The seven steps are—

- Step 1 – Receipt of mission.
- Step 2 – Mission analysis.
- Step 3 – COA development.
- Step 4 – COA analysis.
- Step 5 – COA comparison.
- Step 6 – COA approval.
- Step 7 – Orders production, dissemination, and transition.

Commanders initiate the MDMP upon receipt of, or in anticipation of, a mission. Commanders and staffs often begin planning in the absence of an approved higher headquarters' OPLAN or OPORD. In these instances, they start planning based on a warning order (WARNORD), a planning order, or an alert order from higher headquarters. This requires active collaboration with the higher headquarters and parallel planning among echelons as the plan or order is developed.

See chap. 2, Military Decision-Making Process (MDMP), for complete discussion.

C. Troop Leading Procedures (TLP)

The MDMP and TLP are similar but not identical. Troop leading procedures are a dynamic process used by small-unit leaders to analyze a mission, develop a plan, and prepare for an operation. TLP extend the MDMP to the small-unit level. Commanders with a coordinating staff use the MDMP as their primary planning process. Company-level and smaller units lack formal staffs and use TLP to plan and prepare for operations. This places the responsibility for planning primarily on the commander or small-unit leader with assistance from forward observers, supply sergeants, and other specialists in the unit.

- Step 1 – Receive the mission.
- Step 2 – Issue a warning order.
- Step 3 – Make a tentative plan.
- Step 4 – Initiate movement.
- Step 5 – Conduct reconnaissance.
- Step 6 – Complete the plan.
- Step 7 – Issue the order.
- Step 8 – Supervise and refine.

See pp. 2-59 to 2-62 for discussion of the troop leading procedures from FM 6-0.

D. Rapid Decision-Making and Synchronization Process (RDSP)

The rapid decision-making and synchronization process (RDSP) is a decision-making and planning technique that commanders and staffs commonly use during execution when available planning time is limited. While the MDMP seeks an optimal solution, the RDSP seeks a timely and effective solution within the commander's intent. Using the RDSP lets leaders avoid the time-consuming requirements of developing decision criteria and multiple COAs. Under the RDSP, leaders combine their experiences and intuition to quickly understand the situation and develop a COA. The RDSP includes five steps:

- Step 1 – Compare the current situation to the order.
- Step 2 – Determine that a decision, and what type, is required.
- Step 3 – Develop a course of action.
- Step 4 – Refine and validate the course of action.
- Step 5 – Issue the implement the order.

See pp. 1-60 to 1-63 for an overview and further discussion of RDSP from FM 6-0.

E. Army Problem Solving

The ability to recognize and effectively solve problems is an essential skill for Army leaders. Where the previous methodologies are designed for planning operations, Army problem solving is a methodology available for leaders in identifying and solving a variety of problems. Similar in logic to the MDMP, Army problem solving is an analytical approach to defining a problem, developing possible solutions to solve the problem, arriving at the best solution, developing a plan, and implementing that plan to solve the problem. The steps to Army problem solving are—

- Step 1 – Gather information.
- Step 2 – Identify the problem.
- Step 3 – Develop criteria.
- Step 4 – Generate possible solutions.
- Step 4 – Analyze possible solutions.
- Step 6 – Compare possible solutions.
- Step 7 – Make and implement the decision.

See pp. 1-40 to 1-41 for an overview and further discussion from FM 6-0.

(The Operations Process) B. Preparation

Ref: ADP 5-0, The Operations Process (Jul '19), chap. 3.

Preparation consists of those activities performed by units and Soldiers to improve their ability to execute an operation. Preparation creates conditions that improve friendly forces' opportunities for success and include activities such as rehearsals, training, and inspections. It requires commander, staff, unit, and Soldier actions to ensure the force is ready to execute operations.

Preparation helps the force transition from planning to execution. Preparation normally begins during planning and continues into execution by uncommitted units. Like the other activities of the operations process, commanders drive preparation activities with a focus on leading and assessing.

Preparation Activities

- Coordinate and establish liaison
- Initiate information collection
- Initiate security operations
- Initiate troop movements
- Complete task organization
- Integrate new units and Soldiers
- Train
- Conduct pre-operations checks and inspections
- Initiate sustainment preparation
- Initiate network preparations
- Manage terrain
- Prepare terrain
- Conduct confirmation briefs
- Conduct rehearsals
- Conduct plans-to-operations transition
- Revise and refine the plan
- Supervise

Ref: ADP 5-0, The Operations Process (Jul '19), table 3-1, p. 3-4.

Guides to Effective Preparation

Like the other activities of the operations process, commanders drive preparation. They continue to understand, visualize, describe, direct, lead, and assess. They gather additional information to improve their situational understanding, revise the plan as required, coordinate with other units and partners, and supervise preparation activities to ensure their forces are ready to execute operations. The following guides aid commanders and leaders in effectively preparing for operations:

- Allocate time and prioritize preparation efforts.
- Protect the force.
- Supervise.

See following pages (pp. 1-48 to 1-51) for discussion of activities Commanders, units, and Soldiers conduct to ensure the force is protected and prepared for execution. See also p. 1- 52 for discussion of preparation fundamentals.

I. Preparation Activities

Ref: ADP 5-0, The Operations Process (Jul '19), pp. 3-4 to 3-9.

Commanders, units, and Soldiers conduct the following activities to ensure the force is protected and prepared for execution.

Coordinate and Conduct Liaison

Units and organizations establish liaison in planning and preparation. Establishing liaison helps leaders internal and external to the headquarters understand their unit's role in upcoming operations and prepare to perform that role. In addition to military forces, many civilian organizations may operate in the operational area. Their presence can both affect and be affected by the commander's operations. Continuous liaison between the command and unified action partners helps to build unity of effort.

Liaison is most commonly used for establishing and maintaining close communications. It continuously enables direct, physical communications between commands. Establishing and maintaining liaison is vital to external coordination. Liaison enables direct communications between the sending and receiving headquarters. It may begin with planning and continue through preparing and executing, or it may start as late as execution. Available resources and the need for direct contact between sending and receiving headquarters determine when to establish liaison.

Establishing liaisons with civilian organizations is especially important in stability operations because of various external organizations and the inherent coordination challenges. Civil affairs units (to include LNOs) are particularly important in coordination with civilian organizations.

See pp. 5-29 to 5-34 for further discussion.

Initiate Information Collection

During planning and preparation, commanders take every opportunity to improve their situational understanding prior to execution. This requires aggressive and continuous information collection. Commanders often direct information collection (to include reconnaissance operations) early in planning that continues in preparation and execution. Through information collection, commanders and staffs continuously plan, task, and employ collection assets and forces to collect timely and accurate information to help satisfy CCIRs and other information requirements. *(Refer to FM 3-55).*

Initiate Security Operations

Security operations—screen, guard, cover, area security, and local security—are essential during preparation. During preparation, the force is vulnerable to surprise and enemy attacks. Leaders are often away from their units and concentrated together during rehearsals. Parts of the force could be moving to task-organize. Required supplies may be unavailable or being repositioned. Units assigned security missions execute these missions while the rest of the force prepares for the overall operation. Every unit provides local security to its own forces and resources.

Refer to SUTS3: The Small Unit Tactics SMARTbook, 3rd Ed. for further discussion.

Initiate Troop Movements

The repositioning of forces prior to execution makes up a significant portion of activities of preparation. Commanders position or reposition units to the correct starting places before execution. Commanders integrate operations security measures with troop movements to ensure these movements do not reveal any intentions to the enemy. Troop movements include assembly area reconnaissance by advance parties and route reconnaissance. They also include movements required by changes to the task organization. Commanders can use WARNORDs to direct troop movements before they issue the OPORD.

Complete Task Organization

During preparation, commanders complete task-organizing their force to obtain the right mix of capabilities to accomplish a specific mission. The commander may direct task organization to occur immediately before the OPORD is issued. This task-organizing is done with a WARNORD. Doing this gives units more time to execute the tasks needed to affect the new task organization. Task-organizing early allows affected units to become better integrated and more familiar with all elements involved. This is especially important with inherently time-consuming tasks, such as planning technical network support for the organization.

See pp. 4-7 to -14 for further discussion.

Integrate New Units and Soldiers

Commanders, command sergeants major, and staffs help assimilate new units into the force and new Soldiers into their units. They also prepare new units and Soldiers in performing their duties properly and integrating into an upcoming operation smoothly. Integration for new Soldiers includes training on unit SOPs and mission-essential tasks for the operation. It also means orienting new Soldiers on their places and roles in the force and during the operation. This integration for units includes, but is not limited to—

- Receiving and introducing new units to the force and the AO.
- Exchanging SOPs.
- Conducting briefs and rehearsals.
- Establishing communications links.
- Exchanging liaison teams (if required).

Refer to TLS5: The Leader's SMARTbook, 5th Ed.

Train

Training prepares forces and Soldiers to conduct operations according to doctrine, SOPs, and the unit's mission. Training develops the teamwork, trust, and mutual understanding that commanders need to exercise mission command and that forces need to achieve unity of effort. Training does not stop when a unit deploys. If the unit is not conducting operations or recovering from operations, it is training. While deployed, unit training focuses on fundamental skills, current SOPs, and skills for a specific mission.

Refer to TLS5: The Leader's SMARTbook, 5th Ed.

Conduct Pre-Operations Checks and Inspections

Unit preparation includes completing pre-operations checks and inspections. These checks ensure units, Soldiers, and systems are as fully capable and ready to execute the mission as time and resources permit. The inspections ensure the force has the resources necessary to accomplish the mission. During pre-operations checks and inspections, leaders also check Soldiers' ability to perform crew drills that may not be directly related to the mission. Some examples of these include drills that respond to a vehicle rollover or an onboard fire.

Initiate Sustainment Preparation

Resupplying, maintaining, and issuing supplies or equipment are major activities during preparation. Repositioning of sustainment assets can also occur. During preparation, sustainment personnel at all levels take action to optimize means (force structure and resources) for supporting the commander's plan. These actions include, but are not limited to, identification and preparation of bases, coordinating for host-nation support, and improving lines of communications.

Refer to SMFLS4: The Sustainment & Multifunctional Logistics SMARTbook, 4th Ed.

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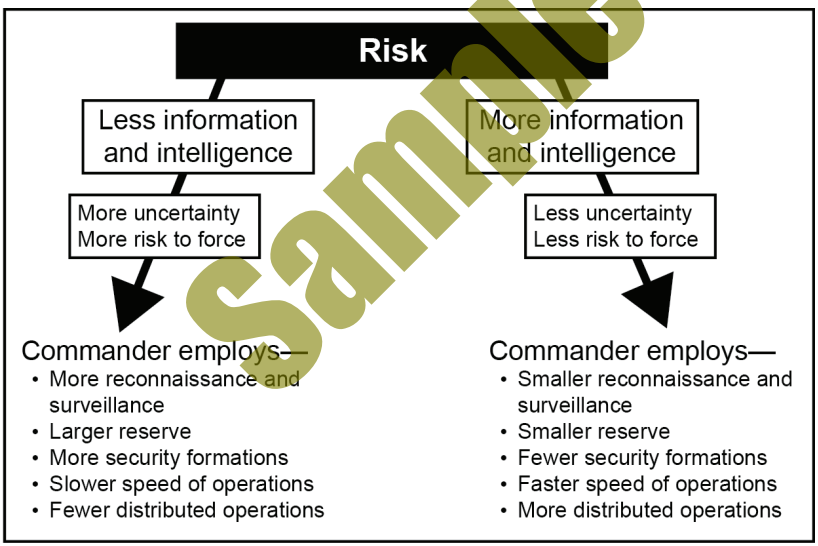
Risk Reduction Factors

Ref: ADP 5-0, The Operations Process (Jul '19), pp. 4-2 to 4-3.

Uncertainty and risk are inherent in all military operations. Recognizing and acting on opportunity means taking risks. Reasonably estimating and intentionally accepting risk is not gambling. Carefully determining the risks, analyzing and minimizing as many hazards as possible, and executing a plan that accounts for those hazards contributes to successfully applying military force. Gambling, in contrast, is imprudently staking the success of an entire action on a single, improbable event. Commanders assess risk by answering three questions:

- Am I minimizing the risk of friendly losses?
- Am I risking the success of the operation?
- Am I minimizing the risk of civilian casualties and collateral damage?

When commanders embrace opportunity, they accept risk. It is counterproductive to wait for perfect preparation and synchronization. The time taken to fully synchronize forces and warfighting functions in a detailed order could mean a lost opportunity. It is far better to quickly summarize the essentials, get things moving, and send the details later. Leaders optimize the use of time with WARNORDs, FRAGORDs, and verbal updates.



Ref: ADP 5-0, fig. 4-1. Risk reduction factors.

Commanders exercise the art of command when deciding how much risk to accept. As shown above in figure 4-1, the commander has several techniques available to reduce the risk associated in a specific operation. Some techniques for reducing risk take resources from the decisive operation, which reduces the concentration of effects at the decisive point.

See pp. 3-71 to 3-74 for discussion of risk management (from ATP 5-19) as an integrating process. Refer to ADP 3-90 for a detailed discussion of the art of tactics and risk reduction.

III. Execution Activities

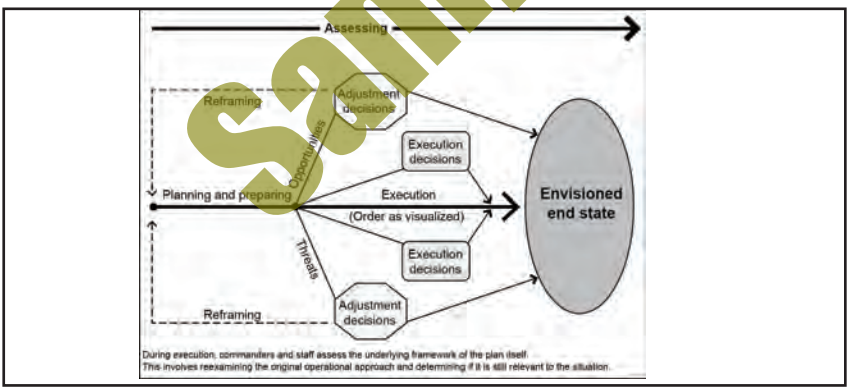
Ref: ADP 5-0, The Operations Process (Jul '19), pp. 4-5 to 4-9.

Execution entails putting the plan into action, and adjusting the plan based on changing circumstances. Friction and uncertainty, especially enemy actions, dynamically affect plans. An accurate situational understanding that accounts for new realties that affect plans provides the basis for commanders to exploit opportunities or counter threats. Major activities of execution include—

A. Assessment

During execution, assessment helps commanders visualize probable outcomes and determine whether they need to change the plan to accomplish the mission, take advantage of opportunities, or react to unexpected threats. Assessment includes both monitoring the situation and evaluating progress. Monitoring—the continuous observation of those conditions relevant to the current operation—allows commanders and staffs to improve their understanding of the situation. Evaluation—using indicators to measure change in the situation and judge progress—allows commanders to identify variances, their significance, and if a decision is required to alter the plan.

A variance is a difference between the actual situation during an operation and the forecasted plan for the situation at that time or event. A variance can be categorized as an opportunity or threat as shown with the vertical lines in figure 4-2. The first form of variance is an opportunity to accomplish the mission more effectively. Opportunities result from forecasted or unexpected success. When commanders recognize an opportunity, they alter the order to exploit it if the change achieves the end state more effectively or efficiently. The second form of variance is a threat to mission accomplishment or survival of the force. When recognizing a threat, the commander adjusts the order to eliminate the enemy advantage, restore the friendly advantage, and regain the initiative.



B. Decisionmaking

When operations are progressing satisfactorily, variances are minor and within acceptable levels. Commanders who make this evaluation—explicitly or implicitly—allow operations to continue according to the plan. Plans usually identify some decision points; however, unexpected enemy actions or other changes often present situations that require unanticipated decisions. Commanders act when these decisions are required. As commanders assess the operation, they describe their impressions to staffs and subordinates and then discuss the desirability of choices available. Once commanders make decisions, their staffs transmit the necessary directives, normally in a FRAGORD. Decisions made during execution are either **execution decisions** or **adjustment decisions** *(facing page)* as shown in figure 4-2's lightly shaded boxes above.

Execution Decisions

Execution decisions implement a planned action under circumstances anticipated in the order such as changing a boundary, committing the reserve, or executing a branch plan. In their most basic form, execution decisions are decisions the commander foresees and identifies for execution during an operation. Commanders are responsible for those decisions but may direct the chief of staff, executive officer, or staff officer to supervise implementation. The current operations integration cell oversees the synchronization and integration needed to implement execution decisions.

Adjustment Decisions

Adjustment decisions modify the operation to respond to unanticipated opportunities and threats. They often require implementing unanticipated operations and resynchronizing the warfighting functions. Commanders make these decisions, delegating implementing authority only after directing the major change themselves. Adjustments may take one of three forms: reallocating resources, changing the concept of operations, or changing the mission.

	Decision types	Actions
Execution decisions	Minor variances from the plan Operation proceeding according to plan. Variances are within acceptable limits.	To execute planned actions • Commander or designee decides which planned actions best meet the situation and directs their execution. • Staff issues fragmentary order. • Staff completes follow-up actions.
	Anticipated situation Operation encountering variances within the limits for one or more branches or sequels anticipated in the plan.	To execute a branch or sequel • Commander or staff reviews branch or sequel plan. • Commander receives assessments and recommendations for modifications to the plan, determines the time available to refine it, and either issues guidance for further actions or directs execution of a branch or sequel. • Staff issues fragmentary order. • Staff completes follow-up actions.
Adjustment decisions	Unanticipated situation —friendly success Significant, unanticipated positive variances result in opportunities to achieve the end state in ways that differ significantly from the plan.	To make an adjustment decision • Commander recognizes the opportunity or threat and determines time available for decision making. • Commander selects a decision-making method. If there is not enough time for a complete military decision-making process, the commander may direct a single course of action or conduct the rapid decision-making and synchronization process with select staff members. • Depending on time available, commanders may issue verbal fragmentary orders to subordinates followed by a written fragmentary order to counter the threat or exploit an opportunity. • In rare situations, commanders may reframe the problem, change the mission, and develop an entirely new plan to address significant changes in the situation.
	Unanticipated situation —enemy threat Significant, unanticipated negative variances impede mission accomplishment.	

Several decision support tools assist the commander and staff during execution. See p. 1-64 for an overview and further discussion of the DST and execution matrix.

C. Directing Action

To implement execution or adjustment decisions, commanders direct actions that apply combat power. Based on the commander's decision and guidance, the staff resynchronizes the operation to mass the maximum effects of combat power to seize, retain, and exploit the initiative. This involves synchronizing the operations in time, space, and purpose and issuing directives to subordinates. When modifying the plan, commander and staffs seek to make the fewest changes possible and facilitate future operations.

V. Decision-Making Tools

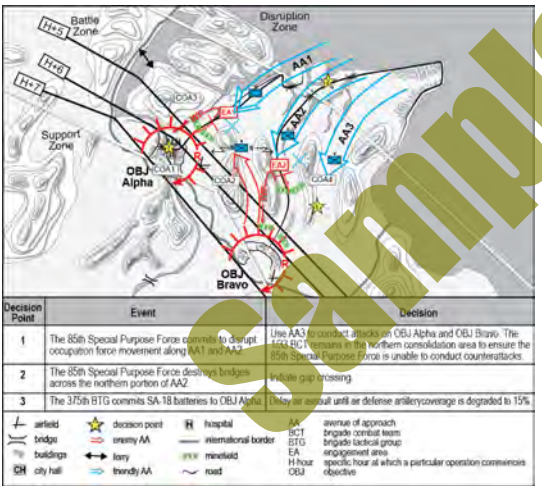
Ref: ADP 5-0, The Operations Process (Jul '19), pp. 4-7 to 4-8.

Several decision support tools assist the commander and staff during execution. Among the most important are the decision support template, decision support matrix, execution matrix, and execution checklist. The current operations integration cell uses these tools, among others, to help control operations and to determine when anticipated decisions are coming up for execution.

Decision Support Template (DST)

The decision support template depicts decision points, timelines associated with movement of forces and the flow of the operation, and other key items of information required to execute a specific friendly COA. Part of the decision support template is the decision support matrix—a written record of a war-gamed course of action that describes decision points and associated actions at those decision points. The decision support matrix lists decision points, locations of decision points, criteria to be evaluated at decision points, actions that occur at decision points, and the units responsible to act on the decision points.

See p. 3-51 for related discussion of the DST from ATP 2-01.3.



Decision Point	Event	Decision
1	The 85th Special Purpose Force commits to disrupt occupation force movement along AA1 and AA3	Use AA3 to conduct attacks on OBJ Alpha and OBJ Bravo. The 155th BCT remains in the northern consolidation area to ensure the 85th Special Purpose force is unable to conduct counterattacks.
2	The 85th Special Purpose Force destroys bridges across the northern portion of AA2	Initiate gap crossing.
3	The 375th BTG commits SA-18 batteries to OBJ Alpha	Delay air assault until air defense artillery coverage is degraded to 15%

airfield, bridge, buildings, CH city hall, decision point, enemy AA, lorry, friendly AA, H hospital, international border, minefield, road

AA avenue of approach, BCT brigade combat team, BTG brigade tactical group, EA engagement area, H-hour specific hour at which a particular operation commences, OBJ objective

The DST provides the commander with a structured basis for deploying fires, maneuver, and jamming assets and for reducing the enemy's defensive capability with these assets. Simply stated, it provides commanders with the specific points on the battlefield where they will be required to make decisions regarding the employment of assets. These decisions can be keyed to phase lines, events on the ground, or to specific enemy actions. (ATP 2-01.3, fig. 6-14. DST and matrix example.)

Execution Matrix

An execution matrix is a visual representation of subordinate tasks in relationship to each other over time. An operation can have multiple execution matrices. An execution matrix can cover the entire force for the duration of an operation; a specific portion of an operation (such as an air assault execution matrix); or for a specific warfighting function (such as a fire support execution matrix). Commanders and staffs use the execution matrix to control, synchronize, and adjust operations as required. An execution checklist is a distillation of the execution matrix that list key actions sequentially, units responsible for the action, and an associated code word to quickly provide shared understanding among the commander, staff, and subordinate units on initiation or completion of the action.

See p. 3-51 for related discussion of the execution matrix from ATP 2-01.3.

(The Operations Process)
D. Assessment

Ref: ADP 5-0, The Operations Process (Jul '19), chap. 5.

Assessment is the determination of the progress toward accomplishing a task, creating a condition, or achieving an objective (JP 3-0). Assessment is a continuous activity of the operations process that supports decision making by ascertaining progress of the operation for the purpose of developing and refining plans and for making operations more effective. Assessment results enhance the commander's decision making and help the commander and the staff to keep pace with constantly changing situations.

Assessment Process Activities

Monitoring

Evaluating

Recommending or Directing Action

Assessment involves deliberately comparing intended outcomes with actual events to determine the overall effectiveness of force employment. More specifically, assessment helps the commander determine progress toward attaining the desired end state, achieving objectives, and performing tasks. Through professional military judgment, assessment helps answer the following questions:

- Where are we?
- What happened?
- Why do we think it happened?
- So what?
- What are the likely future opportunities and risks?
- What do we need to do?

Assessment precedes and guides the other activities of the operations process. During planning, assessment focuses on understanding an OE and building an assessment plan. During preparation, the focus of assessment switches to discerning changes in the situation and the force's readiness to execute operations. During execution, assessment involves deliberately comparing forecasted outcomes to actual events while using indicators to judge operational progress towards success. Assessment during execution helps commanders determine whether changes in the operation are necessary to take advantage of opportunities or to counter unexpected threats.

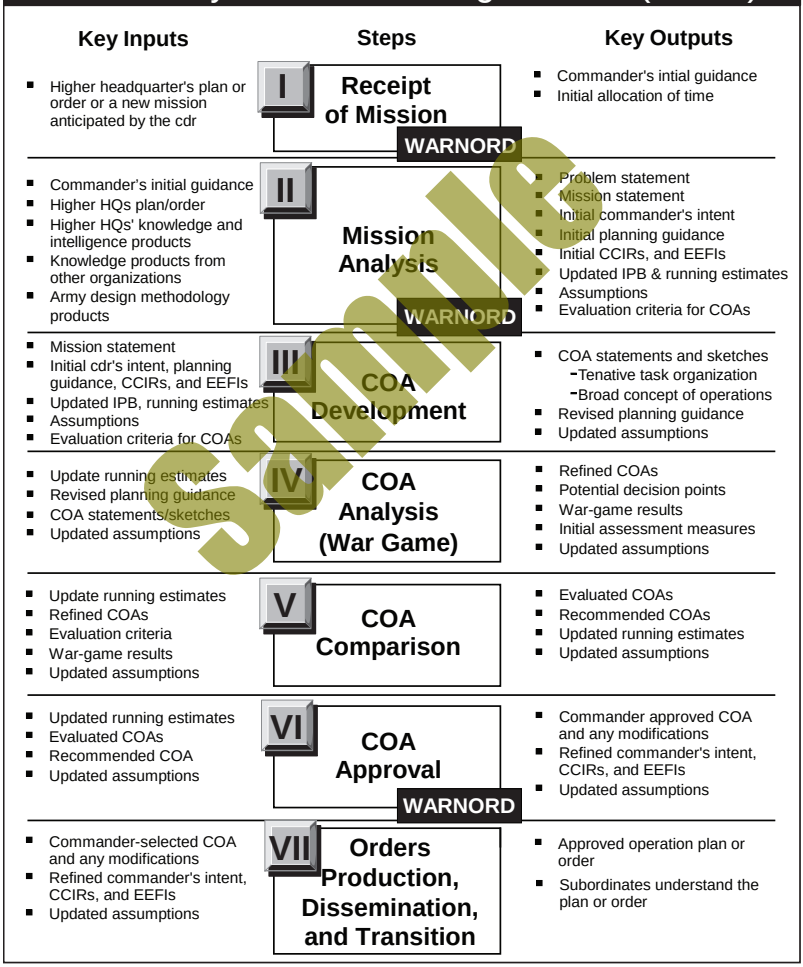
The situation and echelon dictate the focus and methods leaders use to assess. Assessment occurs at all echelons. Normally, commanders assess those specific operations or tasks that they were directed to accomplish. This properly focuses collection and assessment at each echelon, reduces redundancy, and enhances the efficiency of the overall assessment process.

The Military Decision-making Process (MDMP)

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), chap. 9.

The military decisionmaking process is an iterative planning methodology to understand the situation and mission develop a course of action, and produce an operation plan or order (ADP 5-0).

The Military Decisionmaking Process (MDMP)



Ref: FM 6-0 (C2), Commander and Staff Organization and Operations, fig. 9-1, p. 9-3.

II. Running Estimates

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), chap. 8.

A running estimate is the continuous assessment of the current situation and future operations used to determine if the current operation is proceeding according to the commander's intent and if future operations are supportable. The commander and each staff section maintain a running estimate. In their running estimates, the commander and each staff section continuously consider the effects of new information and update the following:

- Facts
- Assumptions
- Friendly force status
- Enemy activities and capabilities
- Civil considerations
- Conclusions and recommendations

Commanders maintain their running estimates to consolidate their understanding and visualization of an operation. The commander's running estimate includes a summary of the problem and integrates information and knowledge of the staff's and subordinate commanders' running estimates.

Each staff element builds and maintains running estimates. The running estimate helps the staff to track and record pertinent information and provide recommendations to commanders. Running estimates represent the analysis and expert opinion of each staff element by functional area. Staffs maintain running estimates throughout the operations process to assist commanders in the exercise of mission command.

Each staff element and command post functional cell maintains a running estimate focused on how its specific areas of expertise are postured to support future operations. Because an estimate may be needed at any time, running estimates must be developed, revised, updated, and maintained continuously while in garrison and during operations. While in garrison, staffs must maintain a running estimate on friendly capabilities. Running estimates can be presented verbally or in writing.

A comprehensive running estimate addresses all aspects of operations and contains both facts and assumptions based on the staff's experience within a specific area of expertise. Each staff element modifies it to account for its specific functional areas. All running estimates cover essential facts and assumptions, including a summary of the current situation by the mission variables, conclusions, and recommendations. Once they complete the plan, commanders and staff elements continuously update their estimates.

See pp. 2-14 to 2-17 for sample staff guidelines for mission analysis.

The base running estimate addresses information unique to each functional area. It serves as the staff's initial assessment of the current readiness of equipment and personnel and how the factors considered in the running estimate affect their ability to accomplish the mission. The staff identifies functional area friendly and enemy strengths, systems, training, morale, leadership, weather and terrain effects, and how all these factors define both the operational environment and area of operations. Because the running estimate is a picture relative to time, facts, and assumptions, it is constantly updated as new information arises, as assumptions become facts or are invalidated, when the mission changes, or when the commander requires additional input.

Running Estimates in the Operations Process

Commanders and staff elements immediately begin updating their running estimates upon receipt of a mission. They continue to build and maintain their running estimates throughout the operations process in planning, preparation, execution, and assessment. Running estimates can be presented verbally or in writing.

Generic Base Running Estimate Format

1. SITUATION AND CONSIDERATIONS.

a. Area of Interest. Identify and describe the area of interest that impact or affect functional area considerations.

b. Characteristics of the Area of Operations.

(1) Terrain. State how terrain affects staff functional area's capabilities.

(2) Weather. State how weather affects staff functional area's capabilities.

(3) Enemy Forces. Describe enemy disposition, composition, strength, capabilities, systems, and possible courses of action (COAs) with respect to their effect on functional area.

(4) Friendly Forces. List current functional area resources in terms of equipment, personnel, and systems. Identify additional resources available for functional area located at higher, adjacent, or other units. Compare requirements to current capabilities and suggest solutions for satisfying discrepancies.

(5) Civilian Considerations. Describe additional personnel, groups, or associations that cannot be categorized as friendly or enemy. Discuss possible impact these entities may have on functional area.

c. Assumptions. List all assumptions that affect the functional area.

2. MISSION. Show the restated mission resulting from mission analysis.

3. COURSES OF ACTION.

a. List friendly COAs that were war-gamed.

b. List enemy actions or COAs that were templated that impact functional area.

c. List the evaluation criteria identified during COA analysis. All staff use the same criteria.

4. ANALYSIS. Analyze each COA using the evaluation criteria from COA analysis. Review enemy actions that impact functional area as they relate to COAs. Identify issues, risks, and deficiencies these enemy actions may create with respect to functional area.

5. COMPARISON. Compare COAs. Rank order COAs for each key consideration. Use a decision matrix to aid the comparison process.

6. RECOMMENDATION AND CONCLUSIONS.

a. Recommend the most supportable COAs from the perspective of the functional area.

b. Prioritize and list issues, deficiencies, and risks and make recommendations on how to mitigate them.

Each staff element continuously analyzes new information during operations to create knowledge and to understand if operations are progressing according to plan. During planning, staffs develop measures of effectiveness and measures of performance to support assessment, including analysis of anticipated decisions during preparation and execution. The assessment of current operations also supports validation or rejection of additional information that will help update the estimates and support further planning. At a minimum, a staff element's running estimate assesses the following::

- Friendly force capabilities with respect to ongoing and planned operations.
- Enemy capabilities as they affect the staff element's area of expertise for current operations and plans for future operations.
- Civil considerations as they affect the staff element's area of expertise for current operations and plans for future operations.

III. The Role of Commanders and Staff

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), p. 9-2.

The **commander** is the most important participant in the MDMP. More than simply the decision makers in this process, commanders use their experience, knowledge, and judgment to guide staff planning efforts. While unable to devote all their time to the MDMP, commanders remain aware of the current status of the planning effort, participate during critical periods of the process, and make sound decisions based upon the detailed work of the staff. During the MDMP, commanders focus their battle command activities on understanding, visualizing, and describing.

The **chief of staff (COS)** or **executive officer (XO)** is a key participant in the MDMP. The COS or XO manages and coordinates the staff's work and provides quality control during the MDMP. The COS or XO must clearly understand the commander's intent and guidance because COS's or Sox supervise the entire process. They provide timelines to the staff, establish briefing times and locations, and provide any instructions necessary to complete the plan.

The **staff's** effort during the MDMP focuses on helping the commander understand the situation, making decisions, and synchronizing those decisions into a fully developed plan or order. Staff activities during planning initially focus on mission analysis. The products developed during mission analysis help commanders understand the situation and develop the commander's visualization. During course of action (COA) development and COA comparison, the staff provides recommendations to support the commander in selecting a COA. After the commander makes a decision, the staff prepares the plan or order that reflects the commander's intent, coordinating all necessary details.

	Cdr	Staff Officers	Staff NCOs	RTOs	Clerks/ Typists
Mission Analysis					
Prepare charts for msn analysis				x	x
Prepare terrain sketches				x	x
Update/post unit reports/status			x	x	
Prepare TOC for planning			x	x	x
Conduct mission analysis		x	x		
Serve as recorder			x	x	x
Brief commander and staff	x	x	x		
Commander's Guidance					
Assist cdr in developing guidance		x	x		
Issue guidance	x				
Record/post cdr's guidance		x	x	x	x
COA Development					
Prepare charts				x	x
Sketch COAs				x	x
Develop COAs	x	x	x		
COA Analysis					
Collect and prepare tools/charts				x	x
Serve as war-game recorders			x	x	x
Conduct war-game session	x	x	x		
COA Approval					
Make recommendation to cdr		x	x		
Decide	x				
Record/post cdr's guidance		x	x	x	x
Orders Preparation					
Write annexes		x	x		
Consolidate annexes			x	x	
Type order			x	x	x
Reproduce order/graphics				x	x
Review order	x	x	x		
Approve order	x				

Ref: Adapted from FM 101-5, fig. K-1 (not found in FM 6-0).

MDMP Step I. Receipt of Mission

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), pp. 9-4 to 9-6.

Commanders initiate the MDMP upon receipt or in anticipation of a mission. This step alerts all participants of the pending planning requirements, enabling them to determine the amount of time available for planning and preparation and decide on a planning approach, including guidance on design and how to abbreviate the MDMP, if required. When commanders identify a new mission, commanders and staffs perform the actions and produce the expected key outputs.

I. Receipt of Mission

Key Inputs	Key Outputs
▪ Higher headquarters plan or order or a new mission anticipated by the commander	▪ Commander's initial guidance ▪ Initial allocation of time WARNORD

1. Alert the Staff and Other Key Participants
2. Gather the Tools
3. Update Running Estimates
4. Conduct Initial Assessment
5. Issue the Commander's Initial Guidance
6. Issue the Initial Warning Order

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations, fig. 9-2, p. 9-4.

1. Alert the Staff and Other Key Participants

As soon as a unit receives a new mission (or when the commander directs), the current operations integration cell alerts the staff of the pending planning requirement. Unit standard operating procedures (SOPs) should identify members of the planning staff who participate in mission analysis. In addition, the current operations integration cell also notifies other military, civilian, and host-nation organizations of pending planning events as required.

2. Gather the Tools

Once notified of the new planning requirement, the staff prepares for mission analysis by gathering the needed tools. These tools include, but are not limited to:

- Appropriate publications, including ADRP 1-02
- All documents related to the mission and area of operations, including the higher headquarters' OPLAN and OPORD, maps and terrain products, and operational graphics
- Higher headquarters' and other organizations' intelligence and assessment products
- Estimates and products of other military and civilian agencies and organizations
- Both their own and the higher headquarters' SOPs
- Current running estimates
- Any Army design methodology products

The gathering of knowledge products continues throughout the MDMP. Staff officers carefully review the reference sections (located before paragraph 1. Situation) of the higher headquarters' OPLANs and OPORDs to identify documents (such as theater policies and memoranda) related to the upcoming operation. If the MDMP occurs while in the process of replacing another unit, the staff begins collecting relevant documents—such as the current OPORD, branch plans, current assessments, operations and intelligence summaries, and SOPs—from that unit.

3. Update Running Estimates

While gathering the necessary tools for planning, each staff section begins updating its running estimate—especially the status of friendly units and resources and key civil considerations that affect each functional area. Running estimates compile critical facts and assumptions not only from the perspective of each staff section, but also include information from other staff sections and other military and civilian organizations. While this task is listed at the beginning of the MDMP, developing and updating running estimates is continuous throughout the MDMP and the operations process.

See pp. 2-4 to 2-5 for further discussion of running estimates.

4. Conduct Initial Assessment

During receipt of mission, the commander and staff conduct an initial assessment of time and resources available to plan, prepare, and begin execution of an operation. This initial assessment helps commanders determine:

- The time needed to plan and prepare for the mission for both headquarters and subordinate units
- Guidance on conducting the Army design methodology and abbreviating the MDMP, if required
- Which outside agencies and organizations to contact and incorporate into the planning process
- The staff's experience, cohesiveness, and level of rest or stress

This assessment primarily identifies an initial allocation of available time. The commander and staff balance the desire for detailed planning against the need for immediate action. The commander provides guidance to subordinate units as early as possible to allow subordinates the maximum time for their own planning and preparation of operations. As a rule, commanders allocate a minimum of two-thirds of available time for subordinate units to conduct their planning and preparation. This leaves one-third of the time for commanders and their staff to do their planning. They use the other two-thirds for their own preparation. Time, more than any other factor, determines the detail to which the commander and staff can plan.

Staff Guidelines (CONT)

Ref: Adapted from previous references (not provided in FM 6-0, C2).

Continued from previous page

Protection

Chief of Protection

The chief of protection is responsible for all mission analysis conducted by the protection section:

Air and Missile Defense Coordinator

- Air defense rules of engagement
- Weapons control status
- Current airspace control measures (current, planned, and required)
- Enemy air and missile capabilities (most likely air avenues of approach, types and numbers of sorties, and high-value target lists)
- Offensive counter-air, defensive counter-air, and theater missile defense targets and priorities
- Active and passive air defense measures
- Status of air and missile defense systems, air and missile defense sensor assets, and air defense artillery ammunition available

Chemical Officer

- Assets available, including reconnaissance, decontamination, and smoke
- Constraints related to CBRNE
- Mission-oriented protective posture status
- Troop safety criteria
- Enemy CBRNE capabilities and friendly vulnerabilities

Explosive Ordnance Disposal Officer

- Status of explosive ordnance disposal units
- Identifying the status of explosive ordnance disposal tools, equipment, and demolition materials
- Enemy explosive threats and capabilities

Operations Security Officer

- Assessing the commander's posture on operations security
- Determining essential elements of friendly information and OPSEC vulnerabilities
- Determining appropriate OPSEC measures
- Evaluating the potential effect of compromise to friendly information system, functions, and data

Personnel Recovery Officer

- Determining the time-distance relationship to interned, missing, detained, and captured for all units
- Assessing status of personnel recovery equipment
- Assessing ISR operations for effects on personnel recovery
- Assessing civilian and diplomatic capabilities to support personnel recovery
- Assessing how civilians and local security forces support and disrupt personnel recovery
- Identifying medical support to personnel recovery

Provost Marshal

- Route reconnaissance
- Dislocated civilian and straggler movement control
- Traffic regulation and enforcement
- Main supply route regulation
- Populace and resource control
- Tactical and police intelligence collecting and reporting

The provost marshal also considers area security operations, including activities associated with:

- Area and base security operations
- Command post access control
- Physical security procedures for critical assets, nodes, and sensitive materials
- Counter reconnaissance
- Protective services for key personnel
- Response force operations
- Antiterrorism
- Tactical and police intelligence collecting and reporting
- Criminal activity and trends within the operational area
- Host-nation law enforcement organization and capabilities
- Internment and resettlement of enemy prisoners of war and civilian internees, dislocated civilians, and U.S. military prisoners
- Law and order operations

Safety Officer

The safety officer provides technical advice and assistance to the staff as they complete their functional area risk assessments.

Sustainment

Chief of Sustainment

The chief of sustainment leads the mission analysis effort for the sustainment section.

ACOS, G-1/AG (S-1), Personnel

- Analyzing personnel strength data to determine current capabilities and project future requirements
- Analyzing unit strength maintenance, including monitoring, collecting, and analyzing data affecting Soldier readiness
- Preparing estimates for personnel replacement requirements based on estimated casualties, non-battle losses, and foreseeable administrative losses to include critical

military occupational skill requirements
- Determining personnel services available to the force (current and projected)
- Determining personnel support available to the force (current and projected)

ACOS, G-4 (S-4), Logistics
- Determining current and projected supply status (classes I, II, III, IV, V, VII, and IX)
- Providing current equipment readiness status of the force and projected maintenance timelines
- Forecasting combat vehicle and weapons status
- Identifying availability of transportation assets
- Identifying availability and status of services
- Identifying contracted and host-nation support
- Reviewing availability of general engineer assets that enable logistics, to include units, host-nation support, and contract support

ACOS, G-8, Financial Management
- Determining current and projected funding levels, by type of appropriated funding
- Ensuring funding complies with laws and financial management regulations
- Determining current and projected currency requirements (U.S. and foreign) to support the procurement process
- Developing cost estimates and providing cost analyses (cost alternatives)
- Determining resource impact of contract and host-nation support

Command Surgeon
- Civilian and military medical assets available (treatment, evacuation, critical medical equipment, and personnel)
- Class VIII supply status including blood management, medical equipment maintenance and repair, and drug supply issues
- Environmental health effects on military forces
- Medical threats (to include occupational and environment health hazards)
- Patient estimates (medical workload)
- Theater evacuation policy
- Medical troop ceiling and availability of health service support medical treatment and evaluation resources
- Force health protection

Command and Control

ACOS, G-6 (S-6), Signal
- Determining communication and information systems operational status
- Determining available communications assets, including higher and host-nation support
- Ensuring integration with the higher headquarters communications plan

ACOS, G-7 (S-7), Information Engagement
- Identify higher themes and messages
- Analyze internal and external audience to inform, educate, and influence

ACOS, G-8, Financial Management
- Determining current and projected funding levels, by type of appropriated funding
- Ensuring funding complies with laws and financial management regulations
- Determining current and projected currency requirements (U.S. and foreign) to support the procurement process
- Developing cost estimates and providing cost analyses (cost alternatives)
- Determining resource impact of contract and host-nation support

ACOS, G-9 (S-9), Civil Affairs Operations
- Analyzing how civilian populations affect military operations
- Analyzing how military operations affect the host nation and its populace
- Determining dislocated civilian movement, routes, and assembly areas
- Identifying the host-nation ability to care for civilians
- Identifying host-nation resources to support military operations
- Determining a no-strike list, including cultural, religious, historical, and high-density civilian population areas
- Identifying NGO & other independent organizations in the operational area

Public Affairs Officer (PAO)
- The operation and information environment
- Level of U.S. public, host-nation, and international support
- The media presence and facilitation in the operational area
- Public affairs support to counter deception and counterpropaganda
- The status of public affairs units

Knowledge Management Officer
- Identifies knowledge gaps and additional knowledge requirements
- Identifies sources and solutions to fill knowledge gaps
- Determines what information and knowledge needs to be shared, who it needs to be shared with, and how best to share it
- Captures, organizes, and transfers new knowledge created by the staff

Chaplain
- The status of available unit ministry teams to include identified religious preferences
- Effects of indigenous religions on military operations

13. Develop a Proposed Mission Statement

The COS (XO) or operations officer prepares a proposed mission statement for the unit based on the mission analysis. The commander receives and approves the unit's mission statement normally during the mission analysis brief. A mission statement is a short sentence or paragraph that describes the organization's essential task (or tasks) and purpose—a clear statement of the action to be taken and the reason for doing so. The mission statement contains the elements of who, what, when, where, and why, but seldom specifies how (JP 5-0). The five elements of a mission statement answer the questions:

- **Who** will execute the operation (unit or organization)?
- **What** is the unit's essential task (tactical mission task)?
- **When** will the operation begin (by time or event) or what is the duration of the operation?
- **Where** will the operation occur (area of operations, objective, grid coordinates)?
- **Why** will the force conduct the operations (for what purpose)?

The who, where, and when of a mission statement are straightforward. The what and why are more challenging to write and can confuse subordinates if not stated clearly. The what is a task and is expressed in terms of action verbs. These tasks are measurable and can be grouped as "actions by friendly forces" or "effects on enemy forces." The why puts the task into context by describing the reason for performing it. The why provides the mission's purpose—the reason the unit is to perform the task. It is extremely important to mission command and mission orders.

See facing page for further discussion.

14. Present the Mission Analysis Briefing

The mission analysis briefing informs the commander of the results of the staff's analysis of the situation. It helps the commander understand, visualize, and describe the operations. Throughout the mission analysis briefing, the commander, staff, and other partners discuss the various facts and assumptions about the situation. Staff officers present a summary of their running estimates from their specific functional area and how their findings impact or are impacted by other areas. This helps the commander and staff as a whole to focus on the interrelationships among the mission variables and to develop a deeper understanding of the situation. The commander issues guidance to the staff for continued planning based on situational understanding gained from the mission analysis briefing.

Ideally, the commander holds several informal meetings with key staff members before the mission analysis briefing, including meetings to assist the commander in developing CCIRs, the mission statement, and themes and messages. These meetings enable commanders to issue guidance for activities (such as reconnaissance, surveillance, security, and intelligence operations) and develop their initial commander's intent and planning guidance.

A comprehensive mission analysis briefing helps the commander, staff, subordinates, and other partners develop a shared understanding of the requirements of the upcoming operation. Time permitting, the staff briefs the commander on its mission analysis:

- Mission and commander's intent of the headquarters two levels up
- Mission, commander's intent, and concept of operations of the headquarters one level up
- A proposed problem statement
- A proposed mission statement
- Review of the commander's initial guidance

Proposed Mission Statement

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), pp. 9-12 to 9-13.

The mission statement contains the elements of who, what, when, where, and why, but seldom specifies how. The five elements of a mission statement answer the questions:

- **Who** will execute the operation (unit or organization)?
- **What** is the unit's essential task (tactical mission task)?
- **When** will the operation begin (by time or event) or what is the duration of the operation?
- **Where** will the operation occur (area of operations, objective, grid coordinates)?
- **Why** will the force conduct the operations (for what purpose or reason)?

The what is a task and is expressed in terms of action verbs. These tasks are measurable and can be grouped as "actions by friendly forces" or "effects on enemy forces." The why puts the task into context by describing the reason for performing it. The why provides the mission's purpose—the reason the unit is to perform the task. It is extremely important to mission command and mission orders.

Example 1. *Not later than 220400 Aug 09 (when), 1st Brigade (who) secures ROUTE SOUTH DAKOTA (what/task) in AREA OF OPERATIONS JACKRABBIT (where) to enable the movement of humanitarian assistance materials (why/purpose).*

Example 2. *1-505th Parachute Infantry Regiment (who) seizes (what/task) JACKSON INTERNATIONAL AIRPORT (where) not later than D-day, H+3 (when) to allow follow-on forces to air-land into AREA OF OPERATIONS SPARTAN (why/ purpose).*

The mission statement may have more than one essential task:

Example. *1-509th Parachute Infantry Regiment (who) seizes (what/task) JACKSON INTERNATIONAL AIRPORT (where) not later than D-day, H+3 (when) to allow follow-on forces to air-land into AREA OF OPERATIONS SPARTAN (why/purpose). On order (when), secures (what/task) OBJECTIVE GOLD (where) to prevent the 2nd Pandor Guards Brigade from crossing the BLUE RIVER and disrupting operations in AREA OF OPERATIONS SPARTAN (why/purpose).*

Tactical Mission Tasks

Commanders should use tactical mission tasks or other doctrinally approved tasks contained in combined arms field manuals or mission training plans in mission statements. These tasks have specific military definitions that differ from dictionary definitions. A tactical mission task is a specific activity performed by a unit while executing a form of tactical operation or form of maneuver. It may be expressed as either an action by a friendly force or effects on an enemy force (FM 7-15). FM 3-90-1 describes each tactical task. FM 3-07 provides a list of primary stability tasks which military forces must be prepared to execute. Commanders and planners should carefully choose the task that best describes the commander's intent and planning guidance.

The following is a list of commonly used tactical mission tasks; see pp. 7-35 to 7-38 for a listing of tactical mission tasks to include symbols and definitions:

- attack by fire
- block
- breach
- bypass
- canalize
- clear
- contain
- control
- counter reconnaissance
- defeat
- destroy
- disengage
- disrupt
- exfiltrate
- fix
- follow and assume
- follow and support
- interdict
- isolate
- neutralize
- occupy
- reduce
- retain
- secure
- seize
- support-by-fire
- suppress
- turn

- Initial IPB products, including civil considerations that impact the conduct of operations
- Specified, implied, and essential tasks
- Pertinent facts and assumptions
- Constraints
- Forces available and resource shortfalls
- Initial risk assessment
- Proposed themes and messages
- Proposed CCIRs and EEFIs
- Initial information collection plan
- Recommended timeline
- Recommended collaborative planning sessions

During the mission analysis briefing or shortly thereafter, commanders approve the mission statement and CCIRs. They then develop and issue their initial commander's intent and planning guidance.

15. Develop and Issue Initial Commander's Intent

The commander's intent is a clear and concise expression of the purpose of the operation and the desired military end state that supports mission command, provides focus to the staff, and helps subordinate and supporting commanders act to achieve the commander's desired results without further orders, even when the operation does not unfold as planned (JP 3-0). The initial commander's intent describes the purpose of the operation, initial key tasks, and the desired end state

See p. 1-20 for further discussion of commander's intent.

The higher commander's intent provides the basis for unity of effort throughout the force. Each commander's intent nests within the higher commander's intent. The commander's intent explains the broader purpose of the operation beyond that of the mission statement. This explanation allows subordinate commanders and Soldiers to gain insight into what is expected of them, what constraints apply, and most importantly, why the mission is being conducted.

Based on their situational understanding, commanders summarize their visualization in their initial commander's intent statement. The initial commander's intent links the operation's purpose with conditions that define the desired end state. Commanders may change their intent statement as planning progresses and more information becomes available. The commander's intent must be easy to remember and clearly understood by leaders two echelons lower in the chain of command. The shorter the commander's intent, the better it serves these purposes. Typically, the commander's intent statement is three to five sentences long and contains the purpose, key tasks, and end state.

16. Develop and Issue Initial Planning Guidance

Commanders provide planning guidance along with their initial commander's intent. Planning guidance conveys the essence of the commander's visualization. This guidance may be broad or detailed, depending on the situation. The initial planning guidance outlines an operational approach—a description of the broad actions the force must take to transform current conditions into those desired at end state (JP 5-0). The initial planning guidance outlines specific COAs the commander desires the staff to look at as well as rules out any COAs the commander will not accept. That clear guidance allows the staff to develop several COAs without wasting effort on things that the commander will not consider. It reflects how the commander sees the operation unfolding. It broadly describes when, where, and how the commander intends to employ combat power to accomplish the mission within the higher commander's intent.

Commander's Planning Guidance **by Warfighting Function**

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), table 9-1, p. 9-15.

The following list is not intended to meet the need of all situations. Commanders tailor planning guidance to meet specific needs based on the situation rather than address each item.

Mission Command	Commander's critical information requirements Rules of engagement Command post positioning Commander's location Initial themes and messages Succession of command	Liaison officer guidance Planning and operational guidance timeline Type of order and rehearsal Communications guidance Civil affairs operations Cyber electromagnetic considerations
Intelligence	Information collection guidance Information gaps Most likely and most dangerous enemy courses of action Priority intelligence requirements Most critical terrain and weather factors	Most critical local environment and civil considerations Intelligence requests for information Intelligence focus during phased operations Desired enemy perception of friendly forces
Movement and Maneuver	Commander's intent Course of action development guidance Number of courses of action to consider or not consider Critical events Task organization Task and purpose of subordinate units Forms of maneuver Reserve composition, mission, priorities, and control measures	Security and counterreconnaissance Friendly decision points Branches and sequels Task and direct collection Military deception Risk to friendly forces Collateral damage or civilian casualties Any condition that affects achievement of endstate Information operations
Fires	Synchronization and focus of fires with maneuver Priority of fires High priority targets Special munitions Target acquisition zones Observer plan Air and missile defense positioning High-value targets	Task and purpose of fires Scheme of fires Suppression of enemy air defenses Fire support coordination measures Attack guidance Branches and sequels No strike list Restricted target list
Protection	Protection priorities Priorities for survivability assets Terrain and weather factors Intelligence focus and limitations for security Acceptable risk Protected targets and areas	Vehicle and equipment safety or security constraints Environmental considerations Unexploded ordnance Operations security risk tolerance Rules of engagement Escalation of force and nonlethal weapons Counterintelligence
Sustainment	Sustainment priorities—manning, fueling, fixing, arming, moving the force, and sustaining Soldiers and systems Health system support Sustainment of detainee and resettlement operations	Construction and provision of facilities and installations Detainee movement Anticipated requirements of Classes III, IV, V Controlled supply rates

Refer to AODS6-1: The Army Operations & Doctrine SMARTbook, 6th Ed. (w/SMARTupdate 1) for discussion of the fundamentals, principles and tenets of Army operations, plus chapters on each of the six warfighting functions: command & control, movement and maneuver, intelligence, fires, sustainment, and protection.

MDMP Step III. COA Development

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), pp. 9-16 to 9-25.

A COA is a broad potential solution to an identified problem. The COA development step generates options for follow-on analysis and comparison that satisfy the commander's intent and planning guidance. During COA development, planners use the problem statement, mission statement, commander's intent, planning guidance, and various knowledge products developed during mission analysis.

III. COA Development

Key Inputs	Key Outputs
▪ Mission statement ▪ Initial commander's intent, planning guidance, CCIRs, and EEFIs ▪ Updated IPB and running estimates ▪ Assumptions ▪ Evaluation Criteria for COAs	▪ COA statements and sketches - Tentative task organization - Broad concept of operations ▪ Revised planning guidance ▪ Updated assumptions

1. Assess Relative Combat Power
2. Generate Options
3. Array Forces
4. Develop a Broad Concept
5. Assign Headquarters
6. Prepare COA Statements & Sketches
7. Conduct COA Briefing
8. Select or Modify COAs for Continued Analysis

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations, fig. 9-4, p. 9-16.

1. Assess Relative Combat Power

Combat power is the total means of destructive, constructive, and information capabilities that a military unit/formation can apply at a given time. Army forces generate combat power by converting potential into effective action (ADP 3-0). Combat power is the effect created by combining the elements of intelligence, movement and maneuver, fires, sustainment, protection, mission command, information, and leadership. The goal is to generate overwhelming combat power to accomplish the mission at minimal cost.

To assess relative combat power, planners initially make a rough estimate of force ratios of maneuver units two levels down. For example, at division level, planners compare all types of maneuver battalions with enemy maneuver battalion equivalents. Planners then compare friendly strengths against enemy weaknesses, and vice versa, for each element of combat power. From these comparisons, they may deduce particular vulnerabilities for each force that may be exploited or may need protection. These comparisons provide planners insight into effective force employment.

In troop-to-task analysis for stability and defense support of civil authorities, staffs determine relative combat power by comparing available resources to specified or implied stability or civil support tasks. This analysis provides insight as available options and needed resources. In such operations, the elements of sustainment, movement and maneuver, non-lethal effects, and information may dominate. By analyzing force ratios and determining and comparing each force's strengths and weaknesses as a function of combat power, planners can gain insight into:

- Friendly capabilities that pertain to the operation
- The types of operations possible from both friendly and enemy perspectives
- How and where the enemy may be vulnerable
- How and where friendly forces are vulnerable
- Additional resources needed to execute the mission
- How to allocate existing resources

Planners must not develop and recommend COAs based solely on mathematical analysis of force ratios. Although the process uses some numerical relationships, the estimate is largely subjective. Assessing combat power requires assessing both tangible and intangible factors, such as morale and levels of training. A relative combat power assessment identifies exploitable enemy weaknesses, identifies unprotected friendly weaknesses, and determines the combat power necessary to conduct essential stability or defense support of civil authorities tasks.

2. Generate Options

Based on the commander's guidance and the initial results of the relative combat power assessment, the staff generates options. A good COA can defeat all feasible enemy COAs while accounting for essential stability tasks. In an unconstrained environment, planners aim to develop several possible COAs. Depending on available time, commanders may limit the options in the commander's guidance. Options focus on enemy COAs arranged in order of their probable adoption or on those stability tasks that are most essential to prevent the situation from deteriorating further.

Brainstorming is the preferred technique for generating options. It requires time, imagination, and creativity, but it produces the widest range of choices. The staff (and members of organizations outside the headquarters) remains unbiased and open-minded when developing proposed options.

In developing COAs, staff members determine the doctrinal requirements for each proposed operation, including doctrinal tasks for subordinate units. For example, a deliberate breach requires a breach force, a support force, and an assault force. Essential stability tasks require the ability to provide a level of civil security, civil control, and certain essential services. In addition, the staff considers the potential capabilities of attachments and other organizations and agencies outside military channels.

Course of Action (COA) Development

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), p. 9-17.

Embedded in COA development is the application of operational and tactical art. Planners develop different COAs by varying combinations of the elements of operational design, such as phasing, lines of effort, and tempo. (See ADRP 3-0.) Planners convert the approved COA into the concept of operations.

COA Screening Criteria

The commander's direct involvement in COA development greatly aids in producing comprehensive and flexible COA's within the available time. To save time, the commander may also limit the number of COA's to be developed or specify particular COA's not to explore. Planners examine each prospective COA for validity using the following screening criteria:

Feasible

The COA can accomplish the mission within the established time, space, and resource limitations

Acceptable

The COA must balance cost and risk with the advantage gained

Suitable

The COA can accomplish the mission within the commander's intent and planning guidance

Distinguishable

Each COA must differ significantly from the others (such as scheme or form of maneuver, lines of effort, phasing, day or night operations, use of reserves, and task organization)

Complete

A COA must incorporate:

- How the decisive operation or effort leads to mission accomplishment
- How shaping operations or efforts create and preserve conditions for success of the decisive operation or effort
- How sustaining operations enable shaping and decisive operations or efforts
- How offensive, defensive, and stability tasks are accounted for
- How to account for offensive, defensive, and stability or defense support of civil authorities tasks.
- Tasks to be performed and conditions to be achieved.

It is important in COA development that commanders and staffs appreciate the unpredictable and uncertain nature of the operational environment, and understand how to cope with ambiguity. Some problems that commanders face are straightforward, as when clearly defined guidance is provided from higher headquarters, or when resources required for a mission are available and can easily be allocated. In such cases, the COA is often self evident. However, for problems that are unfamiliar or ambiguous, Army design methodology may assist commanders in better understanding the nature of the problem, and afford both the commander and staff a level of comfort necessary to effectively advance through COA development. Commanders and staffs that are comfortable with ambiguity will often find that the Army design methodology provides flexibility in developing COAs that contain multiple options for dealing with changing circumstances. Staffs tend to focus on specific COAs for specific sets of circumstances, when it is usually best to focus on flexible COAs that provide the greatest options to account for the widest range of circumstances.

War-Gaming Responsibilities

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), pp. 9-36 to 9-39.

Mission Command Responsibilities

The commander has overall responsibility for the war-gaming process, and the commander can determine the staff members who are involved in war-gaming. Traditionally, certain staff members have key and specific roles.

The COS (XO) coordinates actions of the staff during the war game. This officer is the unbiased controller of the process, ensuring the staff stays on a timeline and achieves the goals of the war-gaming session. In a time-constrained environment, this officer ensures that, at a minimum, the decisive operation is war-gamed.

The G-3 (S-3) assists the commander with the rehearsal. The G-3 (S-3)—

- Portrays the friendly scheme of maneuver, including the employment of information-related capabilities.
- Ensures subordinate unit actions comply with the commander's intent.
- Normally provides the recorder.

The assistant chief of staff, signal (G-6 [S-6]) assesses network operations, spectrum management operations, network defense, and information protection feasibility of each war-gamed COA. The G-6 (S-6) determines communications systems requirements and compares them to available assets, identifies potential shortfalls, and recommends actions to eliminate or reduce their effects The information operations officer assesses the information operations concept of support against the ability of information-related capabilities to execute tasks in support of each war-gamed COA and the effectiveness of integrated information-related capabilities to impact various audiences and populations in and outside the area of operations. The information operations officer, in coordination with the electronic warfare officer, also integrates information operations with cyber electromagnetic activities.

The assistant chief of staff, civil affairs operations (G-9 [S-9]) ensures each war-gamed COA effectively integrates civil considerations (the "C" of METT-TC). The civil affairs operations officer considers not only tactical issues but also sustainment issues. This officer assesses how operations affect civilians and estimates the requirements for essential stability tasks commanders might have to undertake based on the ability of the unified action partners. Host-nation support and care of dislocated civilians are of particular concern. The civil affairs operations officer's analysis considers how operations affect public order and safety, the potential for disaster relief requirements, noncombatant evacuation operations, emergency services, and the protection of culturally significant sites. This officer provides feedback on how the culture in the area of operations affects each COA. If the unit lacks an assigned civil affairs officer, the commander assigns these responsibilities to another staff member.

The red team staff section provides the commander and assistant chief of staff, intelligence (G-2) with an independent capability to fully explore alternatives. The staff looks at plans, operations, concepts, organizations, and capabilities of the operational environment from the perspectives of enemies, unified action partners, and others.

The electronic warfare officer provides information on the electronic warfare target list, electronic attack taskings, electronic attack requests, and the electronic warfare portion of the collection matrix and the attack guidance matrix. Additionally, the electronic warfare officer assesses threat vulnerabilities, friendly electronic warfare capabilities, and friendly actions relative to electronic warfare activities and other cyber electromagnetic activities not covered by the G-6 or G-2.

The staff judge advocate advises the commander on all matters pertaining to law, policy, regulation, good order, and discipline for each war-gamed COA. This officer provides legal advice across the range of military operations on law of war, rules of engagement, international agreements, Geneva Conventions, treatment and disposition of noncombatants, and the legal aspects of targeting.

The operations research and systems analysis staff section provides analytic support to the commander for planning and assessment of operations. The safety officer provides input to influence accident and incident reductions by implementing risk management procedures throughout the mission planning and execution process. The knowledge management officer assesses the effectiveness of the knowledge management plan for each course of action. The space operations officer provides and represents friendly, threat, and non-aligned space capabilities.

Intelligence Responsibilities

During the war game the G-2 (S-2) role-plays the enemy commander, other threat organizations in the area of operations, and critical civil considerations in the area of operations. This officer develops critical enemy decision points in relation to the friendly COAs, projects enemy reactions to friendly

actions, and projects enemy losses. The intelligence officer assigns different responsibilities to available staff members within the section (such as the enemy commander, friendly intelligence officer, and enemy recorder) for war-gaming. The intelligence officer captures the results of each enemy, threat group, and civil considerations action and counteraction as well as the corresponding friendly and enemy strengths and vulnerabilities. By trying to realistically win the war game for the enemy, the intelligence officer ensures that the staff fully addresses friendly responses for each enemy COA.

Movement and Maneuver Responsibilities

During the war game, the G-3 (S-3) and assistant chief of staff, plans (G-5 [S-5]) are responsible for movement and maneuver. The G-3 (S-3) normally selects the technique for the war game and role-plays the friendly maneuver commander. Various staff officers assist the G-3 (S-3), such as the aviation officer and engineer officer. The G-3 (S-3) executes friendly maneuver as outlined in the COA sketch and COA statement. The G-5 (S-5) assesses warfighting function requirements, solutions, and concepts for each COA; develops plans and orders; and determines potential branches and sequels arising from various war-gamed COAs. The G-5 (S-5) also coordinates and synchronizes warfighting functions in all plans and orders. The planning staff ensures that the war game of each COA covers every operational aspect of the mission. The members of the staff record each event's strengths and weaknesses and the rationale for each action. They complete the decision support template and matrix for each COA. They annotate the rationale for actions during the war game and use it later with the commander's guidance to compare COAs.

Fires Responsibilities

The chief of fires (fire support officer) assesses the fire support feasibility of each war-gamed COA. This officer develops a proposed high-payoff target list, target selection standards, and attack guidance matrix. The chief of fires works with the intelligence officer to identify named and target areas of interest for enemy indirect fire weapon systems, and identifies high-payoff targets and additional events that may influence the positioning of field artillery and air defense artillery assets. The chief of fires should also offer a list of possible defended assets for air defense artillery forces and assist the commander in making a final determination about asset priority.

Protection Responsibilities

The chief of protection assesses protection element requirements, refines EEFIs, and develops a scheme of protection for each war-gamed COA.

Sustainment Responsibilities

During the war game, the assistant chief of staff, personnel (G-1 [S-1]) assesses the personnel aspect of building and maintaining the combat power of units. This officer identifies potential shortfalls and recommends COAs to ensure units maintain adequate manning to accomplish their mission. As the primary staff officer assessing the human resources planning considerations to support sustainment operations, the G-1 (S-1) provides human resources support for the operation.

The assistant chief of staff, logistics (G-4 [S-4]) assesses the logistics feasibility of each war-gamed COA. This officer determines critical requirements for each logistics function (classes I through VII, IX, and X) and identifies potential problems and deficiencies. The G-4 (S-4) assesses the status of all logistics functions required to support the COA, including potential support required to provide essential services to the civilians, and compares it to available assets. This officer identifies potential shortfalls and recommends actions to eliminate or reduce their effects. While improvising can contribute to responsiveness, only accurately predicting requirements for each logistics function can ensure continuous sustainment. The logistics officer ensures that available movement times and assets support each COA.

During the war game, the assistant chief of staff, financial management (G-8) assesses the commander's area of operations to determine the best COA for use of resources. This assessment includes both core functions of financial management: resource management and finance operations. This officer determines partner relationships (joint, interagency, intergovernmental, and multinational), requirements for special funding, and support to the procurement process.

The surgeon section coordinates, monitors, and synchronizes the execution of the health system activities for the command for each war-gamed COA to ensure a fit and healthy force.

Recorders

The use of recorders is particularly important. Recorders capture coordinating instructions, subunit tasks and purposes, and information required to synchronize the operation. Recorders allow the staff to write part of the order before they complete the planning. Automated information systems enable recorders to enter information into preformatted forms that represent either briefing charts or appendixes to orders. Each staff section keeps formats available to facilitate networked orders production.

5. Select the War-Game Method

Three recommended war-game methods exist: belt, avenue-in-depth, and box. Each considers the area of interest and all enemy forces that can affect the outcome of the operation. Planners can use the methods separately or in combination and modified for long-term operations dominated by stability.

See facing page (p. 2-43) for further discussion of the three war-game methods.

A. The Belt Method

The belt method divides the AO into belts (areas) running the width of the AO. The shape of each belt is based on the factors of METT-TC. The belt method works best when conducting offensive and defensive operations on terrain divided into well-defined cross-compartments, during phased operations (such as river crossings, air assaults, or airborne operations), or when the enemy is deployed in clearly defined belts or echelons. Belts can be adjacent to or overlap each other.

This method is based on a sequential analysis of events in each belt. It is preferred because it focuses simultaneously on all forces affecting a particular event. A belt might include more than one critical event. Under time-constrained conditions, the commander can use a modified belt method. The modified belt method divides the AO into not more than three sequential belts. These belts are not necessarily adjacent or overlapping but focus on the critical actions throughout the depth of the AO.

In stability tasks, the belt method can divide the COA by events, objectives (goals not geographic location), or events and objectives in a selected slice across all lines of effort. It consists of war-gaming relationships among events or objectives on all lines of effort in the belt.

B. Avenue-in-Depth Method

The avenue-in-depth method focuses on one avenue of approach at a time, beginning with the decisive operation. This method is good for offensive COA's or in the defense when canalizing terrain inhibits mutual support.

In stability tasks, planners can modify the avenue-in-depth method. Instead of focusing on a geographic avenue, the staff war-games a line of effort. This method focuses on one line of effort at a time, beginning with the decisive line. The avenue-in-depth method includes not only war-gaming events and objectives in the selected line, but also war-gaming relationships among events or objectives on all lines of effort with respect to events in the selected line.

C. The Box Method

The box method is a detailed analysis of a critical area, such as an engagement area, a river-crossing site, or a landing zone. It works best in a time-constrained environment, such as a hasty attack. It is particularly useful when planning operations in noncontiguous areas of operation. When using this method, the staff isolates the area and focuses on critical events in it. Staff members assume that friendly units can handle most situations in the AO's and focus their attention on essential tasks.

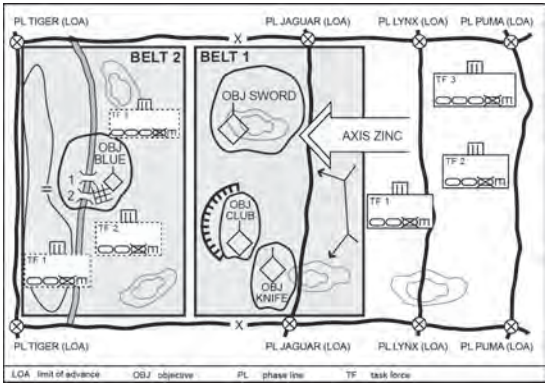
In stability tasks, the box method may focus analysis on a specific objective along a line of effort, such as development of local security forces as part of improving civil security.

War-Game Methods

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), pp. 9-28 to 9-31.

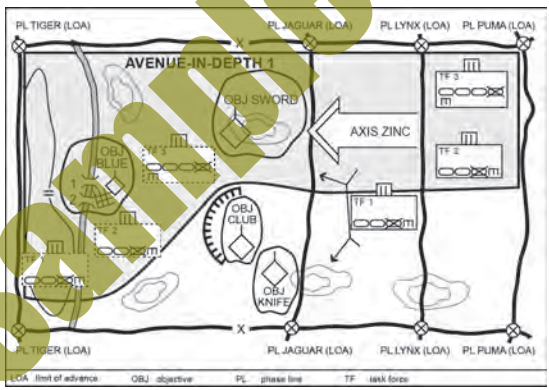
Belt Method

The belt method divides the AO into belts (areas) running the width of the AO. The shape of each belt is based on the factors of METT-TC. The belt method works best when conducting offensive and defensive operations on terrain divided into well-defined cross-compartments, during phased operations or when the enemy is deployed in clearly defined belts or echelons.



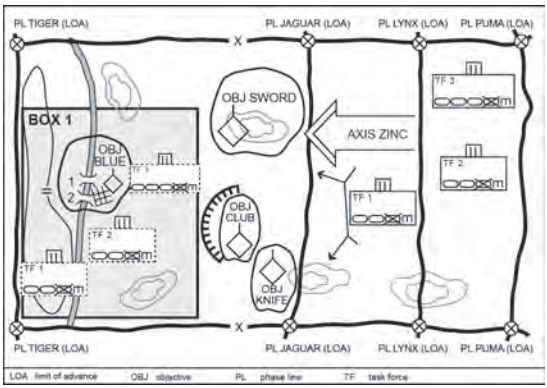
Avenue-in-Depth Method

The avenue-in-depth method focuses on one avenue of approach at a time, beginning with the decisive operation. This method is good for offensive COA's or in the defense when canalizing terrain inhibits mutual support. In stability operations, this method can be modified. Instead of focusing on a geographic avenue, the staff wargames a line of effort.



Box Method

The box method is a detailed analysis of a critical area, such as an engagement area, a river-crossing site, or a landing zone. It is used when time is constrained. It is particularly useful when planning operations in noncontiguous AOs. The staff isolates the area and focuses on critical events in it. Staff members assume friendly units can handle most situations on the battlefield and focus on essential tasks.



Troop Leading Procedures (TLP)

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), pp. 10-3 to 10-9. Refer to SUTS3:The Small Unit Tactics SMARTbook, 3rd Ed. for further discussion.

TLP provide small-unit leaders a framework for planning and preparing for operations. This occurs in steps 1 and 2 of TLP and is refined in plan development. Plan development occurs in step 3 and is completed in 6 of TLP. These tasks are similar to the steps of the military decisionmaking process (MDMP).

1. Receive the Mission

Receive the mission may occur in several ways. It may begin with the initial WARNORD or OPORD from higher headquarters or when a leader anticipates a new mission. Frequently, leaders receive a mission in a FRAGORD over the radio. Ideally, they receive a series of WARNORD's, the OPORD, and a briefing from their commander. Normally after receiving an OPORD, leaders give a confirmation brief to their higher commander to ensure they understand the higher commander's intent and concept of operations. The leader obtains clarification on any portions of the higher headquarters plan as required.

When they receive the mission, leaders perform an initial assessment of the situation (METT-TC analysis) and allocate the time available for planning and preparation. (Preparation includes rehearsals and movement.) This initial assessment and time allocation forms the basis of their initial WARNORD's.

Leaders complete a formal mission statement during TLP step 3 (make a tentative plan) and step 6 (complete the plan).

Based on what they know, leaders estimate the time available to plan and prepare for the mission. They begin by identifying the times at which major planning and preparation events, including rehearsals, must be complete. Reverse planning helps them do this. Leaders identify the critical times specified by higher headquarters and work back from them. Critical times might include aircraft loading times, the line of departure time, or the start point for movement.

Leaders ensure that all subordinate echelons have sufficient time for their own planning and preparation needs. A general rule of thumb for leaders at all levels is to use no more than one-third of the available time for planning and issuing the OPORD.

2. Issue a Warning Order

As soon as leaders finish their initial assessment of the situation and available time, they issue a WARNORD. Leaders do not wait for more information. They issue the best WARNORD possible with the information at hand and update it as needed with additional WARNORD's.

The WARNORD contains as much detail as possible. It informs subordinates of the unit mission and gives them the leader's timeline. Leaders may also pass on any other instructions or information they think will help subordinates prepare for the new mission. This includes information on the enemy, the nature of the higher headquarters' plan, and any specific instructions for preparing their units. The most important thing is that leaders not delay in issuing the initial WARNORD. As more information becomes available, leaders can—and should—issue additional WARNORD's. By issuing the initial WARNORD as quickly as possible, leaders enable their subordinates to begin their own planning and preparation.

WARNORD's follow the five-paragraph OPORD format. Normally an initial WARNORD issued below battalion level includes:

- Mission or nature of the operation
- Time and place for issuing the OPORD
- Units or elements participating in the operation
- Specific tasks not addressed by unit SOPs
- Timeline for the operation

3. Make a Tentative Plan

Once they have issued the initial WARNORD, leaders develop a tentative plan. This step combines the MDMP steps 2 through 6: mission analysis, COA develop-

ment, COA analysis, COA comparison, and COA approval. At levels below battalion, these steps are less structured than for units with staffs. Often, leaders perform them mentally. They may include their principal subordinates—especially during COA development, analysis, and comparison:

- Mission analysis
- Course of action development
- Analyze courses of action (war game)
- Compare COA's & make a decision

4. Initiate Movement

Leaders initiate any movement necessary to continue mission preparation or position the unit for execution, sometimes before making a tentative plan. They do this as soon as they have enough information to do so, or when the unit is required to move to position itself for a task. This is also essential when time is short. Movements may be to an assembly area, a battle position, a new AO, or an attack position. They may include movement of reconnaissance elements, guides, or quartering parties. Leaders often initiate movement based on their tentative plan and issue the order to subordinates in the new location.

5. Conduct Reconnaissance

Whenever time and circumstances allow, leaders personally observe the AO for the mission prior to execution. No amount of intelligence preparation of the battlefield can substitute for firsthand assessment of METT-TC from within the AO. Unfortunately, many factors can keep leaders from performing a personal reconnaissance. The minimum action necessary is a thorough map reconnaissance, supplemented by imagery and intelligence products.

Leaders use results of the war game to identify information requirements. Reconnaissance operations seek to confirm or deny information that supports the tentative plan. They focus first on information gaps identified during mission analysis.

6. Complete the Plan

During this step, leaders incorporate the result of reconnaissance into their selected COA to complete the plan or order. This includes preparing overlays, refining the indirect fire target list, coordinating sustainment with command and control requirements, and updating the tentative plan as a result of the reconnaissance. At lower levels, this step may entail only confirming or updating information contained in the tentative plan. If time allows, leaders make final coordination with adjacent units and higher HQs before issuing the order.

7. Issue the Order

Small-unit orders are normally issued verbally and supplemented by graphics and other control measures. The order follows the standard five paragraph format OPORD format. Typically, leaders below company level do not issue a commander's intent. They reiterate the intent of their higher and next higher commander.

The ideal location for issuing the order is a point in the AO with a view of the objective and other aspects of the terrain. The leader may perform a leader's reconnaissance, complete the order, and then summon subordinates to a specified location to receive it. Sometimes security or other constraints make it infeasible to issue the order on the terrain. Then leaders use a sand table, detailed sketch, maps, and other products to depict the AO and situation.

8. Supervise and Refine

Throughout TLP, leaders monitor mission preparations, refine the plan, coordinate with adjacent units, and supervise and assess preparations. Normally unit SOPs state individual responsibilities and the sequence of preparation activities. Leaders supervise subordinates and inspect their personnel and equipment to ensure the unit is ready for the mission. A crucial component of preparation is the rehearsal:

- Practice essential tasks
- Identify weaknesses or problems in the plan
- Coordinate subordinate element actions
- Improve Soldier understanding of the concept of operations
- Foster confidence among Soldiers

Company and smaller sized units use four types of rehearsals:

- Back brief
- Combined arms rehearsal
- Support rehearsal
- Battle drill or SOP rehearsal

Chap 3

Integrating Processes

Ref: ADP 5-0, The Operations Process (Jul '19), pp. 1-15 to 1-17.

Commanders and staffs integrate the warfighting functions and synchronize the force to adapt to changing circumstances throughout the operations process. They use several integrating processes to do this. An integrating process consists of a series of steps that incorporate multiple disciplines to achieve a specific end. For example, during planning, the military decision-making process (MDMP) integrates the commander and staff in a series of steps to produce a plan or order. Key integrating processes that occur throughout the operations process include—

- Intelligence preparation of the battlefield
- Information collection
- Targeting
- Risk management
- Knowledge management

I. Intelligence Preparation of the Battlefield (IPB) *See p. 3-3.*

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

IPB consists of four steps. Each step is performed or assessed and refined to ensure that IPB products remain complete and relevant:

- Define the Operational Environment
- Describe Environmental Effects on Operations
- Evaluate the Threat
- Determine Threat Courses of Action

IPB begins in planning and continues throughout the operations process. IPB results in intelligence products used to aid in developing friendly COAs and decision points for the commander. Additionally, the conclusions reached and the products created during IPB are critical to planning information collection and targeting.

II. Information Collection *See pp. 3-53 to 3-56.*

Information collection is an activity that synchronizes and integrates the planning and employment of sensors and assets as well as the processing, exploitation, and dissemination systems in direct support of current and future operations (FM 3-55). It integrates the functions of the intelligence and operations staffs that focus on answering CCIRs. Information collection includes acquiring information and providing it to processing elements. It has three steps:

- Collection management
- Task and direct collection
- Execute collection

III. Targeting *See pp. 3-57 to 3-70.*

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 seeks to create specific desired effects through lethal and nonlethal actions. The emphasis of targeting is on identifying enemy resources (targets) that if destroyed or degraded will contribute to the success of the friendly mission. Targeting begins in planning and continues throughout the operations process. The steps of the Army's targeting process are—

- Decide
- Detect
- Deliver
- Assess

This methodology facilitates engagement of the right target, at the right time, with the most appropriate assets using the commander's targeting guidance.

IV. Risk Management *See pp. 3-71 to 3-74.*

Risk—the exposure of someone or something valued to danger, harm, or loss—is inherent in all operations. Because risk is part of all military operations, it cannot be avoided. Identifying, mitigating, and accepting risk is a function of command and a key consideration during planning and execution.

Risk management is the process to identify, assess, and control risks and make decisions that balance risk cost with mission benefits (JP 3-0). Commanders and staffs use risk management throughout the operations process to identify and mitigate risks associated with hazards (to include ethical risk and moral hazards) that have the potential to cause friendly and civilian casualties, damage or destroy equipment, or otherwise impact mission effectiveness. Like targeting, risk management begins in planning and continues through preparation and execution. Risk management consists of the following steps:

- Identify hazards
- Assess hazards to determine risks
- Develop controls and make risk decisions
- Implement controls
- Supervise and evaluate

V. Knowledge Management *See pp. 3-75 to 3-78.*

Knowledge management is the process of enabling knowledge flow to enhance shared understanding, learning, and decision making (ADP 6-0). It facilitates the transfer of knowledge among commanders, staffs, and forces to build and maintain situational understanding. Knowledge management helps get the right information to the right person at the right time to facilitate decision making. Knowledge management uses a five-step process to create shared understanding. The steps of knowledge management include—

- Assess
- Design
- Develop
- Pilot
- Implement

I. Intelligence Preparation of the Battlefield (IPB)

Ref: ATP 2-01.3, Intelligence Preparation of the Battlefield (Mar '19).

Intelligence preparation of the battlefield is the systematic process of analyzing the mission variables of enemy, terrain, weather, and civil considerations in an area of interest to determine their effect on operations.

I. IPB Process

Define the Operational Environment
(See p. 3-16.)

Describe Environmental Effects on Operations
(See p. 3-23.)

Evaluate the Threat
(See p. 3-32.)

Determine Threat Courses of Action
(See p. 3-42.)

IPB allows commanders and staffs to take a holistic approach to analyzing the operational environment (OE). A holistic approach—

- Describes the totality of relevant aspects of the OE that may impact friendly, threat, and neutral forces.
- Accounts for all relevant domains that may impact friendly and threat operations.
- Identifies windows of opportunity to leverage friendly capabilities against threat forces.
- Allows commanders to leverage positions of relative advantage at a time and place most advantageous for mission success with the most accurate information available.

IPB results in intelligence products that are used during the military decision-making process (MDMP)to assist in developing friendly courses of action (COAs) and decision points for the commander. Additionally, the conclusions reached and the products (which are included in the intelligence estimate)developed during IPB are critical to planning information collection and targeting operations. IPB products include—

- Threat situation templates with associated COA statements and high-value target (HVT) lists.
- Event templates and associated event matrices.
- Modified combined obstacle overlays (MCOOs), terrain effects matrices, and terrain assessments.
- Weather effects work aids—weather forecast charts, weather effects matrices, light and illumination tables, and weather estimates.
- Civil considerations overlays and assessments.

The J-2/G-2/S-2 leads the staff effort and begins preparing for IPB during generate intelligence knowledge, which is associated with the intelligence support to force generation task of the intelligence warfighting function and incorporated into the Army design methodology.

During generate intelligence knowledge, intelligence staffs create data files for their OE based on existing information and their evaluation of the information and intelligence related to the operational variables (political, military, economic, social, information, infrastructure, physical environment, and time[PMESII-PT]). The intelligence staff can also access holdings maintained by the military intelligence brigade-theater (also called MIB-T). This theater-aligned unit processes, refines, and stores intelligence products daily, which benefit nonregionally aligned units.

When generating intelligence knowledge, the intelligence staff should begin by determining the information needed to collect on the OE. As the staff begins to collect data on the OE, the data should be organized into baseline data files in accordance with the commander's guidance. These files must be compatible with the unit's mission command information systems. Generally, tactical echelons create primary data files based on the enemy, terrain and weather, and civil considerations. Strategic and operational echelons create data files based on the commander's operational requirements.

Given the limited time available to collect and evaluate information and intelligence on the operational variables, the information obtained from these data files may not be specific enough to support the IPB process and the MDMP. However, the commander and staff can use the information to assist in framing the OE during the Army design methodology.

Throughout the operations process, the commander and staff continually collect information and analyze the operational variables in order to provide increased situational understanding due to possible contingency operations. Situational understanding is the product of applying analysis and judgment to relevant information to determine the relationship among the operational and mission variables to facilitate decision making (ADP 5-0).

Upon receipt of a warning order or mission, the commander and staff draw relevant information categorized by the operational variables and filter it into the mission variables used during mission analysis. The mission variables are mission, enemy, terrain and weather, troops and support available, time available,and civil considerations (METT-TC). During IPB, the staff focuses on the relevant aspects of the OE as they pertain to the staff's warfighting function. The staff focuses primarily on the mission variables of enemy,terrain and weather, and civil considerations. However, depending on the staff's echelon, the type of OE, the type of operation, and changes in the OE, the staff may need to update its analysis to ensure the mission focus is both relevant and accurate.

Commanders conduct planning to—

- Understand a problem or situation.
- Envision a desired future.
- Develop COAs, with assistance from their staffs, that can bring about that desired future.

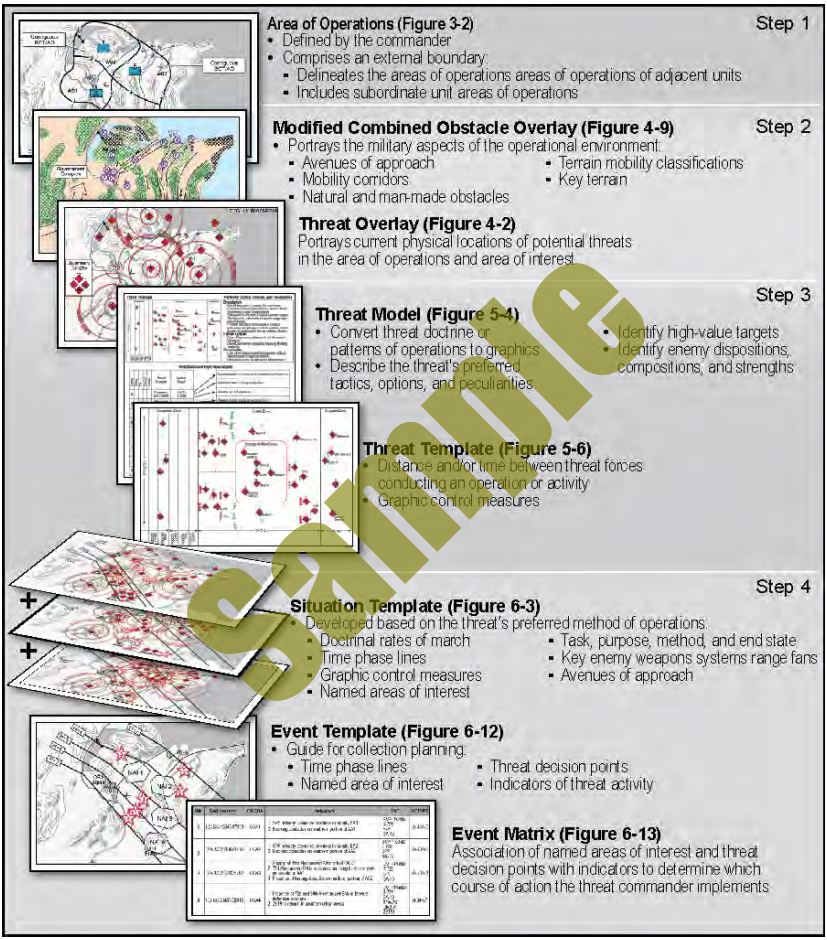
During planning, commanders focus their activities on understanding, visualizing, and describing the OE, while directing and assessing operations. IPB is one of the processes commanders use to assist in planning. IPB supports the MDMP and troop leading procedures—two of the three methodologies that assist commanders and staffs in planning.

See following pages for an overview and discussion of IPB in relation to the military decisionmaking process (pp. 3-6 to 3-7), troop leading procedures (pp. 3-8 to 3-9), and rapid decisionmaking and synchronization process (pp. 3-10 to 3-11).

A. Products of the IPB Process

Ref: ATP 2-01.3, Intelligence Preparation of the Battlefield (Mar '19), p. xi.

IPB is a collaborative staff effort led by the J-2/G-2/S-2 and the intelligence staff. IPB products developed and continuously updated facilitate situational understanding and assist commanders and staffs in identifying relevant aspects within the area of operations and area of interest that can affect mission accomplishment. The introductory figure lists and summarizes the relevant IPB products.



Ref: Introductory figure. Products of the IPB process.

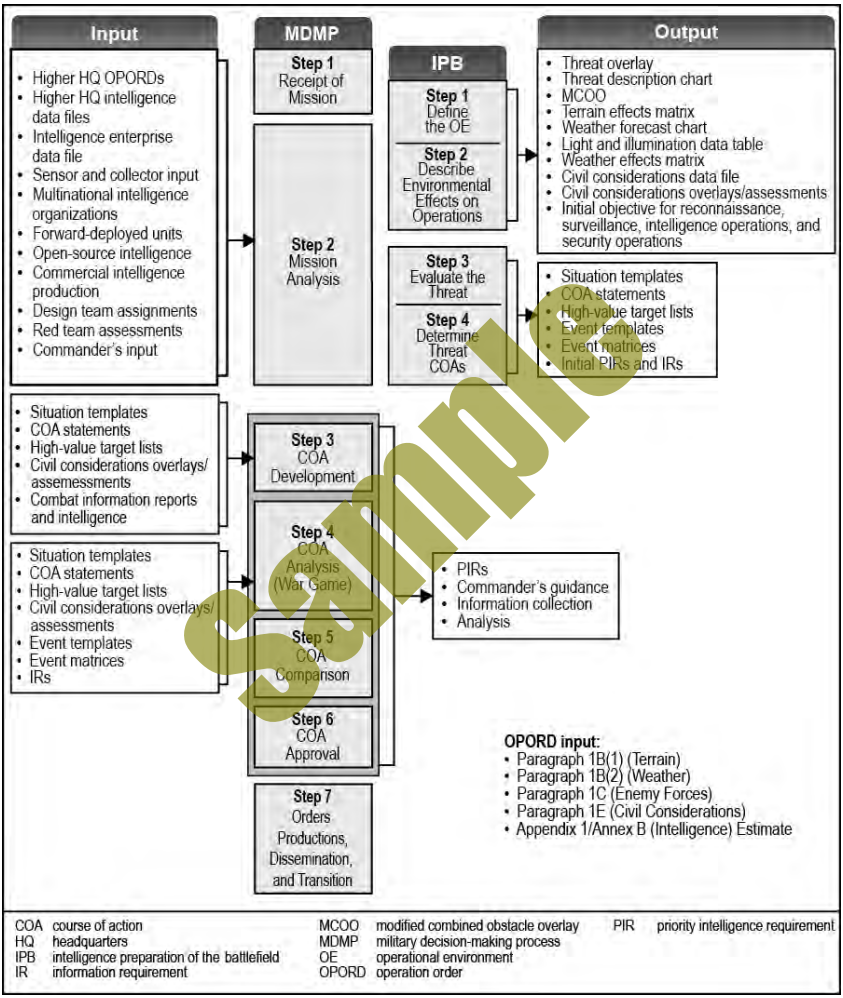
The IPB process is unique—it impacts the range of military operations, is relevant across all echelons, and is the fundamental element used in all planning and decision making. IPB serves as the initial framework for analysis of the battlefield in all operations.

B. IPB and the MDMP

Ref: ATP 2-01.3, Intelligence Preparation of the Battlefield (Mar '19), pp. 2-1 to 2-3.

The military decision-making process is an interactive planning methodology to understand the situation and mission, develop a course of action, and produce an operation plan or order (ADP 5-0).

See chap. 2 for detailed discussion of the MDMP.



Ref: Figure 2-1. IPB and the MDMP steps.

Understand the Situation and Mission

During the mission analysis step of the MDMP, the staff conducts IPB to understand the situation and mission. The IPB products developed during this step are discussed fully in ATP 2-01.3, chapters 3 through 6. The products listed below are critical to developing and comparing COAs, deciding on a COA, and producing an operation order:

- Intelligence gaps.
- Information requirements.
- Threat situation templates with associated COA statements and HVT lists.
- Event templates with associated event matrices.
- Relative combat power matrices for threat forces.
- Geospatial intelligence tactical decision aids required to support continual planning (terrain effects).
- Weather tactical decision aids required to support continued planning (operational climatology or weather forecast chart and weather effects matrix).
- Civil considerations tactical decision aids required to support continued planning (civil considerations effects).
- Estimates on how other significant variables may affect the mission.
- Reconnaissance objectives.
- The tempo and focus of reconnaissance, surveillance, security operations, and intelligence operations to answer PIRs and meet other requirements.

Develop and Compare Courses of Action

In the COA development step of the MDMP, friendly COAs are broad potential solutions to an identified problem. These solutions are based on conclusions reached during initial IPB and any refinement of those conclusions that occurs between the conclusion of mission analysis and the beginning of COA development. The primary IPB product required for COA development is the threat situation template with the associated COA statement.

Decide on a Course of Action that Best Accomplishes the Mission

In the COA analysis step of the MDMP, deciding on a COA enables commanders and staffs to identify difficulties or coordination problems and probable consequences of planned actions for each COA being considered. The primary IPB products required for deciding a COA are—

- Threat situation templates with associated COA statements.
- Event templates with associated event matrices.
- Relative combat power matrices for threat forces.

During stability tasks, additional products may be required, such as civil considerations overlays and assessments. Information collection operations conducted during the mission analysis step of the MDMP provide pertinent combat information that informs COA development. This information confirms or denies the threat situation template and the associated COA statement.

Produce an Operation Plan or Operation Order for Execution

At the conclusion of the MDMP, the staff prepares the operation plan or order by turning the selected COA into a clear, concise concept of operations and required supporting material. The results of IPB are included within the base order and appropriate annexes.

III. Types of Intelligence Products

Ref: Adapted from ADRP 2-0, Intelligence (Aug '12), pp. 5-9 to 5-12.

In addition to IPB, the G-2/S-2 staff produces and maintains a broad variety of products tailored to its consumers. These products are developed and maintained in accordance with the commander's guidance. For all of these products, the primary focus of the G-2/S-2 staff's analysis is presenting predictive intelligence to support operations.

A. Intelligence Estimate

An intelligence estimate is the appraisal, expressed in writing or orally, of available intelligence relating to a specific situation or condition with a view to determining the courses of action open to the threat and the order of probability of their adoption. The G-2/S-2 staff develops and maintains the intelligence estimate. The primary purpose is to—

- Determine the full set of COAs open to the threat and the probable order of their adoption
- Disseminate information and intelligence
- Determine requirements concerning threats and other relevant aspects of the operational environment

The intelligence estimate is a logical and orderly examination of intelligence factors affecting the accomplishment of a mission (threats, terrain and weather, and civil considerations). It provides commanders with an analysis of the area of interest and threat strengths and capabilities that can influence their mission. An intelligence estimate may be prepared at any level. It may be formal or informal and detailed or summarized. It is normally written at division and higher levels and briefed down to the battalion level. The following is an example of the basic information and intelligence that could be included:

- **Mission.**
- **Analysis of the AO.** This analysis of the terrain is based on—
  - The military aspects of terrain (OAKOC)
  - Other significant characteristics
  - The effects of the terrain on friendly and threat operations and civil considerations
  - The effects of weather on friendly and threat operations and civil considerations:
    - Operational climatology data and information, light data, and predictive weather effects based on specific weather sensitivity thresholds
    - The current weather conditions based on the military aspects of weather (visibility, wind, precipitation, cloud cover, temperature, and humidity)
    - Projected weather forecasts with significant seasonal trends for that specific geographic location
  - An analysis of the civil considerations and projected effects of civil considerations on friendly and threat operations, and vice versa.
- **Current threat situation.** This is based on the threat characteristics (see FM 2-01.3) and includes estimates of the strength of threat forces, recent significant threat activities and trends, and threat peculiarities and weaknesses.
- **Threat capabilities.** These are the broad COAs and supporting operations that threats can take to achieve their goals and objectives. The G-2/S-2 staff considers each threat's ability to conduct each operation based on the mission variables (METT-TC) related to the current situation.
- **Threat characteristics.** These provide a framework for the consistent evaluation of any force. The G-2/S-2 staff considers composition, disposition, strengths, weaknesses, combat effectiveness, doctrine and tactics, command and support relationships, electronic technical data, capabilities and limitations, current operations, and historical data when analyzing threat characteristics.
- **Summary of the most significant points.** This includes:
  - The most significant terrain and weather and civil considerations effects on operations.
  - Potential impacts of operations on terrain and civil considerations.
  - At a minimum, the most likely and most dangerous threat COAs.
  - The most significant threat strengths and vulnerabilities.

The intelligence estimate also includes four tabs: Tab A (Terrain), Tab B (Weather), Tab C (Civil Considerations), and Tab D (IPB).

B. Intelligence Summary (INTSUM)

INTSUMs provide the context for commander's situational understanding. The INTSUM reflects the G-2's/S-2's interpretation and conclusions regarding threats, terrain and weather, and civil considerations over a designated period of time. This period will vary with the desires of the commander and the requirements of the situation. The INTSUM provides a summary of the threat situation, threat capabilities, the characteristics of terrain and weather and civil considerations, and COAs.

The INTSUM can be presented in written, graphic, or oral format, as directed by the commander. The INTSUM assists in assessing the current situation and updating other intelligence reports. It is disseminated to higher, lower, and adjacent units. The INTSUM has no prescribed format. The following is an example of the basic information and intelligence that should be included in an INTSUM:

- **Date-time group (DTG)** of the INTSUM and the period of time the INTSUM covers.
- **Weather and weather effects** that include current and forecast meteorological parameters and analysis based on the military aspects of weather and weather sensitivity thresholds.
- **Significant threat activities** over the reporting period and a near-term analysis of threat intent and activity.
- **Significant impacts of civil considerations** on operations and vice versa.
- **Subunit assessments of significant threat activities and civil considerations** in the AO over the reporting period and a near-term analysis of threat intent and activity.
- **Notable trends in threat activity** over a designated period of time (such as the previous 14 days). This may be presented as an all-source analysis product or focused on specific threat activities of interest to the commander—or both. This portion of the INTSUM should highlight new or emerging threats and the level of impact that each threat may present to the unit's operations.
- **Combat damage assessment roll-up** includes known or estimated threat unit strengths, significant threat systems degraded or destroyed, and all known captured, wounded, or killed threat personnel during the reporting period.
- **Written threat situation or situation template** (as of a specific DTG).
- **Assessments** include a near-term and long-term assessment of threat activities with as much detail as possible based on available information and current intelligence analysis. INTSUMs are predictive in nature. When specific intelligence or information is not available, INTSUMs must contain the G-2/S-2's best assessment of probabilities of threat actions based on experience and professional military judgment.
- **HVTLs** (in coordination with the targeting officer) may include high-value individuals, depending on the unit mission.
- **Current PIRs and projected PIRs** by phase.
- **Planning requirements tools and products.**
- **Special assessments** are developed for any unique circumstance that requires additional analysis.

C. Intelligence Running Estimate

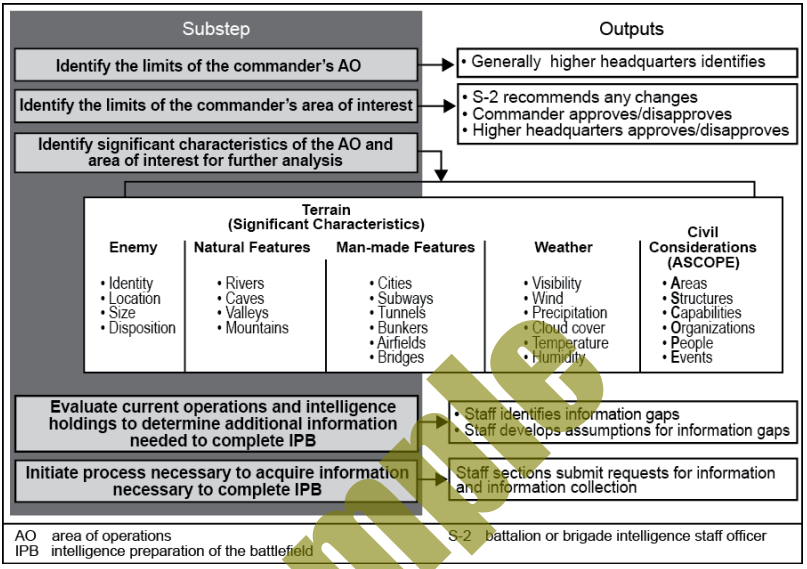
Effective plans and successful execution hinge on accurate and current running estimates. A running estimate is the continuous assessment of the current situation used to determine if the current operation is proceeding according to the commander's intent and if the planned future operations are supportable (ADP 5-0). Failure to maintain accurate running estimates may lead to errors or omissions that result in flawed plans or bad decisions during execution. Running estimates are principal knowledge management tools used by the commander and staff throughout the operations process. In their running estimates, the commander and each staff section continuously consider the effect of new information and update the following: facts, assumptions, friendly force status, threat activities and capabilities, civil considerations, recommendations and conclusions.

D. Common Operational Picture (COP)

A common operational picture is a single display of relevant information within a commander's area of interest tailored to the user's requirements and based on common data and information shared by more than one command (ADRP 6-0). The COP is the primary tool for supporting the commander's situational understanding. All staff sections provide input from their area of expertise to the COP.

Step 1—Define the Operational Environment

During step 1 of the IPB process, the intelligence staff identifies for further analysis the significant characteristics of or activities within the OE that may influence friendly and threat COAs and command decisions, as well as the physical space the mission will occupy. Within an OE, Army forces may face large-scale combat operations, which simultaneously encompass multiple domains, military engagements, and populations.



Ref: Figure 3-1. Substeps and outputs of step 1 of the IPB process.

So What?

The "so what" of step 1 is to clearly define for commanders the relevant characteristics of their AOIs.

- Success results in time and effort saved by focusing only on those characteristics that influence friendly COAs and command decisions.

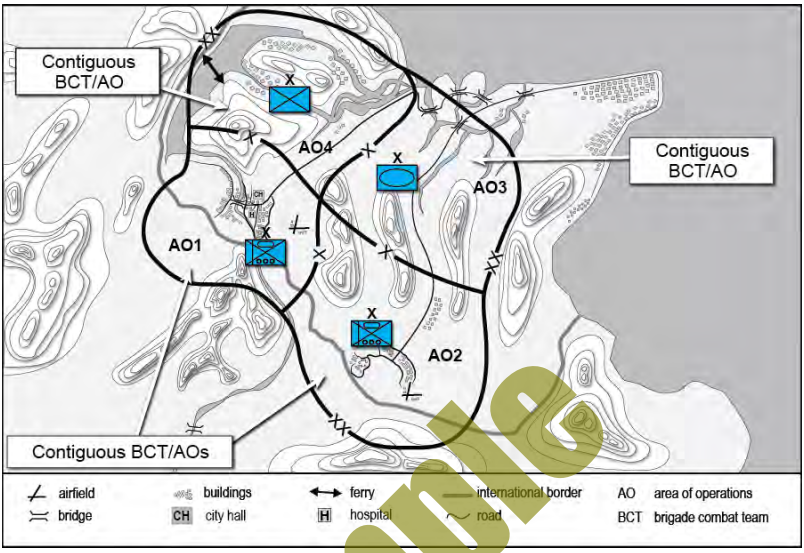
Consequences of failure:

- Failure to focus on only the significant characteristics leads to wasted time and effort collecting and evaluating intelligence on OE characteristics that do not influence the operation.
- Staff failure to identify all significant characteristics in all domains relevant to the OE may lead to the command's surprise and unpreparedness when some overlooked feature of the OE affects the operation for which the commander did not plan.

A. Identify the Limits of the Commander's Area of Operations

Area of operations is an operational area defined by a commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces (JP 3-0). The AO comprises an external boundary that delineates adjacent units AOs and includes subordinate unit AOs. Subordinate unit AOs may be contiguous or noncontiguous.

Within an AO, commanders conduct decisive, shaping, and sustaining operations to articulate an operation in terms of purpose. Commanders designate main and supporting efforts to establish the shifting and prioritization of resources. The AO may be impacted due to political boundaries and/or other civil considerations. Once assigned, an AO can be subdivided by that command, as necessary, to support mission requirements. Figure 3-2 illustrates contiguous AOs.



Ref: Figure 3-2. Area of operations examples.

B. Identify the Limits of the Commander's Area of Interest

An area of interest is that area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory (JP 3-0). The AOI also includes areas occupied by threat forces who could jeopardize mission accomplishment. An area of influence is a geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command or control (JP 3-0). The area of influence includes terrain inside and outside the AO and is determined by both the G-2/S-2 and G-3/S-3.

The AOI is—

- Established by the commander with input from the G-2/S-2 or G-3/S-3. The operational and mission variables must be considered.
- An area normally larger than or outside the area of influence that directly impacts the AO;therefore, possibly requiring more intelligence assets to monitor. It may include staging areas.
- An area that may be irregular in shape or noncontiguous and can overlap the areas of adjacent and subordinate unit AOs.
- An area that assists in determining NAIs during step 4 of the IPB process.

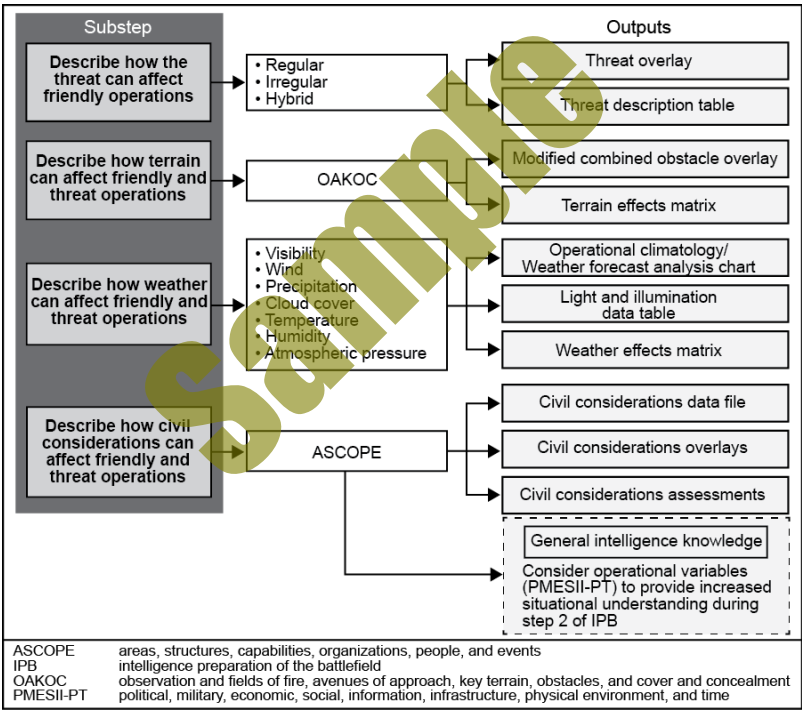
An AOI is the geographical area from which information is required to facilitate planning and the successful conduct of the command's operation. The area changes as the situation changes and as commanders determine new information requirements. It includes any threat forces or characteristics that significantly influence accomplishing the command's mission. In combat operations, the AOI extends into threat terri-

Step 2. Describe Environmental Effects on Operations

Step 2 of the IPB process determines how significant characteristics of the OE can affect friendly and threat operations. The staff begins evaluation by analyzing existing and projected conditions in the AO and AOI, and then determining effects on both friendly and threat operations. The example shows how significant characteristics of the OE (specifically the terrain) impact friendly operations.

> ***Example***
>
> *A brigade S-2 informs the commander that the terrain the brigade must attack through will canalize friendly forces into platoon-sized mobility corridors that will prevent the friendly forces from supporting each other. The brigade S-2 also informs the commander that the terrain favors enemy use of obstacles, small antitank ambushes, and indirect fire throughout its security zone.*

Describing environmental effects on operations consists of the substeps and outputs shown in figure 4-1.



Ref: Figure 4-1. Substeps and outputs of step 2 of the IPB process.

So What?

The "so what" of step 2 is to identify how relevant characteristics of the AOI affect friendly and threat operations:

- Success results in the commander being able to quickly choose and exploit terrain, weather, and civil considerations to best support the mission during decisive, shaping, and sustaining operations.

- **Natural terrain** analysis focuses on airspace and surface and subsurface areas.
- **Complex terrain** analysis also focuses on airspace, surface and subsurface areas, but it must also consider internal, external, and super surface areas.

Analyze the Military Aspects of Terrain

Geospatial intelligence cells generally conduct detailed terrain analysis. These cells are assigned to theater army, corps, and division headquarters and to brigade combat teams based on priorities established by the S-2. These cells have digital mapping tools and access to national-level support from agencies such as the National Geospatial-Intelligence Agency. The geospatial intelligence cell, along with the G-2/S-2,collaborates with an Air Force staff weather officer to leverage the appropriate weather capabilities in order to incorporate the effects of current and future weather conditions into terrain analysis. Terrain analysis results in the evaluation of the military aspects of terrain (OAKOC) on operations.

See pp. 3-20 to 3-21 for an overview of the military aspects of terrain (OAKOC).

Evaluate Terrain Effects on Military Operations

The staff determines terrain effects on friendly and threat operations. The MCOO and the terrain effects matrix are the primary analytic tools used to determine these effects.

Modified Combined Obstacle Overlay (MCOO)

The modified combined obstacle overlay is a joint intelligence preparation of the operational environment product used to portray the militarily significant aspects of the operational environment, such as obstacles restricting military movement, key geography, and military objectives (JP 2-01.3). The MCOO is tailored to the mission and is a collaborative effort involving input from the entire staff. The staff uses its warfighting function expertise to determine how the terrain will impact that function. Specific aspects of the MCOO include but are not limited to AAs, key terrain, mobility corridors, natural and man-made obstacles, and terrain mobility classifications.

See following pages (pp. 3-26 to 3-27) for further discussion of the MCOO.

Terrain Effects Matrix

Using the MCOO as a guide, a terrain effects matrix describes OAKOC factor effects on friendly and threat operations.

OAKOC factors (military aspects of terrain)	*Terrain effects*
Observation and fields of fire	• Sparse vegetation on generally flat desert terrain with observation of 3 to 5 kilometers. • There are 10 kilometers between intervisibility lines. • Limited air support observation due to sparse terrain and the Earth's curvature. • Fields of fire for direct fire are 300 to 500 meters for small arms. • Intermediate breaks in observation and fields of fire due to runoffs and cuts. • Likely engagement area at Julian pass. • Likely engagement area 1000 meters north of the major city.
Avenues of approach (AAs)	• Primary and secondary road systems for high AAs. • Generally flat terrain with brigade-sized mobility corridors between small villages. • Railroad in the north running east to west. • AA2 is the recommended AA as it enables the placement of organic weapon systems in range before observation from the threat in the defense.
Key terrain	• Airfield used as resupply and troop movements. • Dam controls water flow on the river and is the primary objective of the threat.
Obstacles	• Restrictive runoffs and cuts run throughout the area of operations with an average depth of 5 to 10 feet and an average width of 20 feet that runs 6 to 10 kilometers long. • Aboveground oil and transport pipeline (which is severely restrictive terrain) that runs through the central width of the area of operations.
Cover and concealment	• Cover by direct fire systems is provided by intervisibility lines. • Concealment is limited by the open terrain and sparse vegetation.

Table 4-5. Terrain effects matrix example.

Modified Combined Obstacle Overlay (MCOO)

Ref: ATP 2-01.3, Intelligence Preparation of the Battlefield (Mar '19), pp. 4-13 to 4-16.

The combined obstacle overlay provides a basis for identifying ground AAs and mobility corridors. Unlike the cross-country mobility, the combined obstacle overlay integrates all impediments to mobility, such as built-up areas, slope, soils, vegetation, and hydrology into one overlay. This overlay also allows the staff to visualize impediments to mobility for both friendly and threat forces. The overlay depicts areas that impede mobility (severely restricted and restricted areas) and areas where friendly and threat forces can move unimpeded (unrestricted areas).

The modified combined obstacle overlay is a joint intelligence preparation of the operational environment product used to portray the militarily significant aspects of the operational environment, such as obstacles restricting military movement, key geography, and military objectives (JP 2-01.3). The MCOO is tailored to the mission and is a collaborative effort involving input from the entire staff. The staff uses its warfighting function expertise to determine how the terrain will impact that function.

Specific aspects of the MCOO include but are not limited to:

- AAs
- Key terrain
- Mobility corridors
- Natural and man-made obstacles
- Terrain mobility classifications

The MCOO depicts the terrain according to the mobility classification. These classifications are severely restricted, restricted, and unrestricted:

- **Severely restricted terrain** severely hinders or slows movement in combat formations unless some effort is made to enhance mobility, such as committing engineer assets to improving mobility or deviating from doctrinal tactics (moving in columns instead of line formations or at speeds much lower than those preferred). For example, severely restricted terrain for armored and mechanized forces is typically characterized by steep slopes and large or dense obstacle compositions with few bypasses. A common technique to depict this type of terrain on overlays and sketches is marking the areas with green crosshatched diagonal lines.
- **Restricted terrain** hinders movement to some degree. Little effort is needed to enhance mobility, but units may have difficulty maintaining preferred speeds, moving in combat formations, or transitioning from one formation to another. Restricted terrain slows movement by requiring zigzagging or frequent detours. Restricted terrain for armored or mechanized forces typically consists of moderate-to-steep slopes or moderate-to-dense obstacle compositions, such as restrictive slopes or curves. Swamps or rugged terrain are examples of restricted terrain for dismounted infantry forces. Logistical or sustainment area movement may be supported by poorly developed road systems. A common and useful technique to depict restricted terrain on overlays and sketches is marking the areas with green diagonal lines.
- **Unrestricted terrain** is free from any restriction to movement. Nothing is required to enhance mobility. Unrestricted terrain for armored or mechanized forces is typically flat to moderately sloping terrain with few obstacles such as limiting slopes or curves. This terrain allows wide maneuver by the forces under consideration and unlimited travel supported by well-developed road networks. No symbology is needed to show unrestricted terrain on overlays and sketches.

Terrain mobility classifications are not absolute but reflect the relative effect of terrain on the different types and sizes of movement formations. They are based on the force's ability to maneuver in combat formations or transition from one type of formation to another.

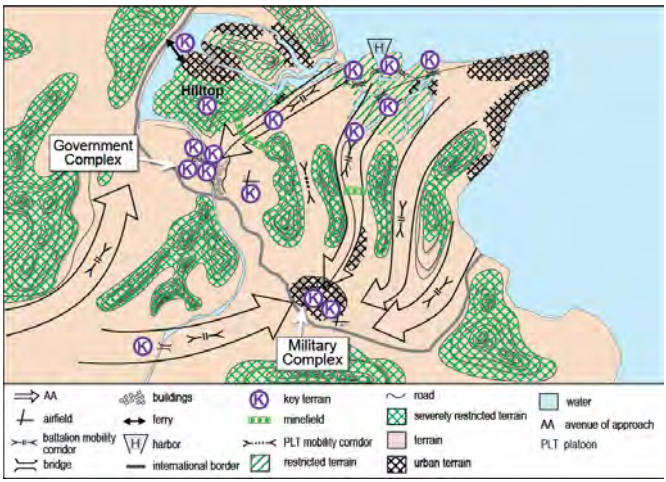


Figure 4-9. Modified combined obstacle overlay example.

The staff should consider the following:

- Obstacles are only effective if covered by observation and fields of fire. However, even undefended obstacles may canalize an attacker into concentrations, which are easier to detect and target or defend. Obstacles are green on map overlays.
- When evaluating the terrain's effects on more than one type of organization (for example, mounted or dismounted), obstacle overlays reflect an impact on mobility of a particular force.
- The cumulative effects of individual obstacles should be considered in the final evaluation. For example, individually, a gentle slope or a moderately dense forest may prove to be an unrestrictive obstacle to vehicular traffic; together, the slope and dense forest may prove to be restrictive.
- The staff should account for the weather's effects on factors that affect mobility.
- The classification of terrain into various obstacle types reflects only its relative impact on force mobility.

For urban areas, graphics typically depict population status overlays (dense population centers, political boundaries), logistics sustainability overlays, LOCs, route overlays (street names, patterns, widths),bridges (underpass and overpass information), potential sniper and ambush locations (will likely be a separate overlay), and key navigational landmarks. In developing urban area and complex terrain overlays, the following should be depicted:

- **Natural terrain**. The underlying terrain on which man-made terrain is superimposed, such as rivers, streams, hills, valleys, forests, desert, bogs, swamps.
- **Man-made terrain**. Streets, bridges, buildings, railways, canals, sewer systems, subway systems, military bunkers, traffic control points; building density, construct, dimensions; functional zone disposition; street construct, materials, disposition, dimensions.
- **Key facilities, targets and/or terrain**. Banks, hospitals, police stations, industrial plants and factories, media and information facilities, bridges, airports, seaports, electric power grids, oil facilities, military facilities, key residences and places of employment, waterways; tall structures(skyscrapers); choke points; street patterns, intersections; industrial complexes; other facilities; density of construction or population.
- **Obstacles**. Rubble and vehicles on the road; fixed barriers; masking of fires, burning of buildings, and other fire hazards; rivers and lakes; power lines and cell phone towers; population; trenches and minefields; certain religious or cultural sites; wire obstacles (concertina wire, barb wire).

Threat Models

Ref: ATP 2-01.3, Intelligence Preparation of the Battlefield (Mar '19), pp. 5-9 to 5-16.

A threat model is an analytical tool that assists analysts in developing situation templates during step 4 of the IPB process. Threat models consist of three activities:

1. Convert Threat Doctrine or Patterns of Operation to Graphics

Threat templates graphically portray how the threat might use its capabilities to perform the functions required to accomplish its objectives when not constrained by the effects of the OE. Threat templates are scaled to depict the threat's disposition and actions for a type of operation (for example, offense, defense, ambush, personnel movement, clandestine sustainment operations or kidnapping). When possible, templates should be depicted graphically as an overlay, on a supporting system, or through some other means. Threat templates are tailored to the needs of the unit or staff creating them. Some threat templates consider threat forces, while others focus on a single warfighting function, such as intelligence or fire support. Other products depict pattern analysis, time event charts, and association matrices. Threat templates may depict, but are not limited to, unit frontages, unit depths, boundaries, engagement areas, and obstacles.

Refer to ATP 2-33.4 for more on pattern analysis and association matrices.

2. Describe the Threat's Tactics, Options, and Peculiarities

The threat model includes a description of the threat's preferred **tactics** (including but not limited to attack, defend, reinforce, and retrograde). A description is still required even if the preferred tactics are depicted in graphic form. This allows the template to become more than a "snapshot in time" of the operation being depicted.

Options are described by listing items such as identified threat capabilities and branches and sequels. Branches and sequels are used primarily for changing deployments or direction of movement and for accepting or declining combat. Analysts research and annotate any threat peculiarities about the operation.

Peculiarities can provide insights into threat strengths and vulnerabilities, as well as assist friendly forces in addressing them.

3. Identify High-Value Targets (HVTs)

Identifying HVTs assists the staff in creating HPTs during the COA development step of the MDMP. The following techniques may be useful in identifying/evaluating HVTs:

- Identify HVTs from existing intelligence studies; the evaluation of the databases; size, activity, location, unit, time, and equipment (also called SALUTE) reports; patrol debriefs; the threat template and its associated threat capability statement; and the use of tactical judgment.
- Review threat TTP and previous threat operations as well as understand the threat's task, purpose, method, and end state.
- Consider that HVTs usually fall within non maneuver elements (command and control [C2],intelligence, fires, sustainment, and protection).
- Identify assets that are key to executing the primary operation or sequels.
- Determine how the threat might react to losing each identified HVT. Consider the threat's ability to substitute other assets as well as adopt branches or sequels.
- Conduct mental war gaming and think through the operation under consideration and how the threat will use assets from each of the elements (such as fire support, engineers).

Target Value Analysis. HVTs should be prioritized by their relative value to the threat's operation. Target value analysis assists in prioritizing HVTs. Target value analysis is a process led by the fires cell as part of targeting that quantifies the relative value of HVTs with each other in relation to a threat operation.

Outputs from IPB Step 3

Ref: ATP 2-01.3, Intelligence Preparation of the Battlefield (Mar '19), pp. 5-18 to 5-22.

The following IPB products are developed based on outcomes from step 3 of the IPB process:

1. Threat Template

As operations begin, it is imperative to develop foundationally sound and accurate threat models through careful analysis. The analyst analyzes a threat's capabilities, vulnerabilities, doctrinal principles, and preferred TTP. It is from the threat's doctrine, training practices, and observed patterns and activities that analysts construct threat templates.

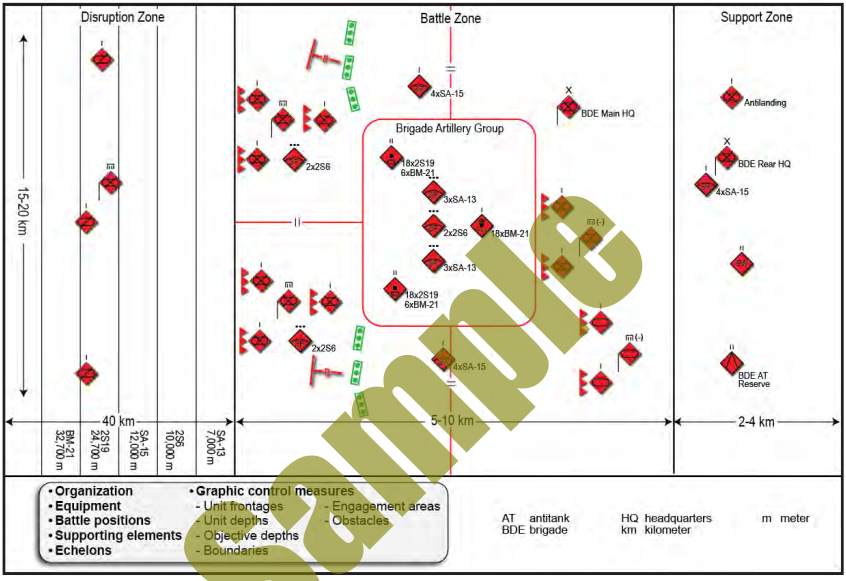


Figure 5-6. Threat template example.

Threat templates graphically portray how the threat prefers to use its capabilities to perform the functions required to accomplish its objectives. They are scaled depictions of threat deployment patterns and dispositions for a particular operation (for example, offense, defense, ambush, or terrorist kidnapping operation) when not constrained by OE effects. Depending on the mission variables, developing templates can be time intensive.

Note. Analysts should create as many threat templates as time allows. This assists in creating situation templates during step 4 of the IPB process.

Threat templates are tailored to the needs of the unit or staff creating them. When possible, they should be depicted graphically as an overlay, on a supporting system, or through some other means. Threat templates do not include environmental effects, such as terrain and weather. They include—

- The location of all threat units two levels down. For example, an infantry battalion in the defense template would depict platoon and specialty team locations.
- The distance and/or time between threat forces conducting a specific operation or activity.
- Graphic control measures associated with the operation, including but not limited to unit frontages, unit depths, boundaries, engagement areas, and obstacles.

Threat templates allow analysts and the staff to—

- Fuse all relevant combat information.
- Assist in identifying intelligence gaps.
- Predict threat activities and adapt COAs.
- Synchronize information collection.

2. High-Value Target List

The HVTs identified during step 3 of IPB are initially refined during step 4 of IPB. They are refined again during the COA analysis step of the MDMP. The HVT list is developed based on identified HVTs.

Threat element	*High-value targets*	
Command and control	• Commander's variant main battle tank (T-72 BK) • Command and staff vehicle (BMP-1KShM) • SAM system fire control (SA-15b)	• Artillery command and reconnaissance vehicle (1V14-3) • Command infantry fighting vehicle (BMP-3K)
Movement and maneuver	• Main battle tank (T-72B) • Excavating vehicle (MDK-3) • Tracked minelaying vehicle (GMZ-3) • Infantry fighting vehicle (BMP-3)	• Towed mechanical minelayer (PMZ-4) • Mine-clearing plow attached (KMT-8) • Armored personnel carrier (BTR-80)
Protection	• NBC reconnaissance vehicle (RKhm-4-01)	• NBC reconnaissance vehicle (BRDM-2RKh)
Fires	• 122-mm multiple rocket launcher (BM-21) • 30-mm self-propelled antiaircraft gun/missile system (2S6M1) • 152-mm self-propelled howitzer (2S19M1)	• 120-mm self-propelled mortar (2S12) • Man-portable SAM system (SA-18) • SAM system (SA-15b) • SAM system (SA-13b)
Intelligence	• Signal van (GAZ-66) • Battlefield surveillance radar (SNAR-10) • Armored scout car (BRDM)	• Short-range drone (ORLAN-10) • SAM system radar system (SA-15b) • Artillery locating radar (ARK-1M)
Sustainment	• Tactical utility vehicle (UAZ-469) • 2-mT 4x4 cargo truck (GAZ-66)	• 4.5-mT 6x6 cargo truck (URAL-4320)

mm millimeter
mT metric ton
NBC nuclear, biological, chemical
SAM surface-to-air missile

Figure 5-7. High-value target list developed during step 3 of IPB (example)

3. Threat Capability Statement

A threat capability statement can be a narrative, table, or visual representation of the data. It identifies a particular action the threat has the capability to complete, and the tactics the threat prefers to accomplish its objectives. It addresses a major unit's operations portrayed on the threat template and the activities of each threat capability.

Threat element	*Statement*
Command and control	The threat can establish commands across the country based on communications capabilities. The threat has constant communications to maintain control of subordinate units from corps down to team echelons.
Movement and maneuver	Corps can provide defensive positions for the forward line of own troops, as well as necessary reinforcement operations to the forward division tactical groups via blocking and ambush operations. The groups will delay United States (U.S.) operations to the eastern border.
Protection	Corps will maintain constant communications to establish air corridor denial of U.S. forces within their respective areas of operations: coordinate with the 9th Corps to ensure successful capture of the capital while denying U.S. forces control of airspace and delaying U.S. forces arrival.
Fires	Division tactical groups will use SS26s and 2S19s to delay U.S. force advancements to the country capital while canalizing U.S. forces through constant fires operations. Division tactical groups will only retaliate with CBRN capability when U.S. forces first use CBRN or U.S. forces approach the capital before division tactical group control is imminent.
Intelligence	The threat uses special purpose forces for early warning systems and can establish terror organizations. It uses guerilla warfare and insurgency tactics against U.S. forces to delay advancement.
Sustainment	Protection and fires will ensure routes are established for resupply opportunities and will establish consolidation areas for refit of forward elements.

CBRN chemical, biological, radiological, and nuclear

Figure 5-8. Threat capability statement example (narrative format). (Fig 5-9, not depicted, provides a table format example.)

I. Primary Information Collection Tasks and Operations

Ref: FM 3-55, Information Collection (May '13), pp. 1-4 to 1-14.

Information collection activities help the commander understand and visualize the operation by identifying gaps in information, aligning assets and resources against those gaps, and assessing the collected information and intelligence to inform the commander's decisions. These activities also support the staff's integrating processes during planning and execution. The direct result of the information collection effort is a coordinated plan that supports the operation. The staff assesses information and intelligence, refines the plan, and issues fragmentary orders to the plan to retask or assign a new mission to assets and units.

Information Collection Purpose

Information collection activities provide commanders with detailed, timely, and accurate intelligence. By answering the CCIRs, information collection activities help commanders make informed decisions. For effective information collection activities to occur, the staff must—

- Provide relevant information and intelligence products to commanders and staffs.
- Provide combat information to commanders.
- Contribute to situational awareness and facilitate continuous situational understanding.
- Develop a significant portion of the common operational picture (COP) vertically and horizontally among organizations, commanders, and staffs.
- Support the commander's visualization, permitting more effective mission command.
- Answer the CCIRs.
- Facilitate intelligence preparation of the battlefield (IPB).
- Support effective, efficient, and accurate targeting.
- Decrease risk for the unit.

Information collection includes all activities and operations that gather data and information used to create knowledge and support the commander's requirements, situational understanding, and visualization. Commanders achieve information collection when they employ all collection tasks and operations together in an operation. This appropriate mix of collection tasks and operations helps satisfy many different requirements. It also ensures that the operations and intelligence working group does not favor or become too reliant on one particular unit, discipline, or system. The Army has four tasks or operations it primarily conducts as a part of the information collection plan:

A. Reconnaissance

Reconnaissance is a mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or adversary, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area (JP 2-0). Reconnaissance primarily relies on the human dynamic rather than technical means and it is a focused collection effort. A combined arms operation, reconnaissance actively collects information against targets for a specified time based on mission objectives.

Successful and effective units combine three methods to perform reconnaissance: dismounted, mounted, and aerial. Sensors can augment each method. To gain information on the enemy or a particular area, units use passive surveillance, technical means, and human interaction or they fight for information.

The five forms of reconnaissance are—

- Area reconnaissance
- Route reconnaissance
- Zone reconnaissance
- Reconnaissance in force
- Special reconnaissance

B. Surveillance

Surveillance is the systematic observation of aerospace, surface, or subsurface areas, places, persons, or things, by visual, aural, electronic, photographic, or other means (JP 3-0). Surveillance involves observing an area to collect information.

In the observation of a given area, the focus and tempo of the collection effort primarily comes from the commander's intent and guidance. Surveillance involves observing the threat and local populace in a NAI or target area of interest (TAI). Surveillance may be a stand-alone mission or part of a reconnaissance mission (particularly area reconnaissance). Elements conducting surveillance must maximize assets, maintain continuous surveillance on all NAIs and TAIs, and report all information rapidly and accurately.

Surveillance tasks can be performed by a variety of assets (ground, air, sea, and space), means (Soldier and systems), and mediums (throughout the electromagnetic spectrum).

Generally, surveillance is a "task" when performed as part of a reconnaissance mission. However, many Army, joint, and national systems are designed to conduct only surveillance. These are surveillance missions. Army military intelligence organizations typically conduct surveillance missions. Reconnaissance units can conduct surveillance tasks as part of reconnaissance, security, or other missions. Reconnaissance and surveillance both include observation and reporting.

Surveillance is distinct from reconnaissance. Surveillance is tiered and layered with technical assets that collect information. It is passive and continuous. Reconnaissance is active in the collection of information (such as maneuver) and usually includes human participation. Additionally, reconnaissance may involve fighting for information. Sometimes these operations are deliberate, as in a reconnaissance in force; however, the purpose of reconnaissance is to collect information, not initiate combat. Reconnaissance involves many tactics, techniques, and procedures throughout the course of a mission. An extended period of surveillance may be a tactic or technique. Commanders complement surveillance with frequent reconnaissance. Surveillance, in turn, increases the efficiency of reconnaissance by focusing those missions while reducing the risk to Soldiers.

Effective surveillance—

- Maintains continuous observations of all assigned NAIs and TAIs
- Provides early warning
- Detects, tracks, and assesses key targets
- Provides mixed, redundant, and overlapping coverage

The types of surveillance are—

- Zone surveillance
- Area surveillance
- Point surveillance
- Network surveillance

C. Security Operations

Security operations are those operations undertaken by a commander to provide early and accurate warning of enemy operations, to provide the force being protected with time and maneuver space within which to react to the enemy, and to develop the situation to

Continued on next page

Army Targeting Process (D3A)

Ref: ADP 3-19, Fires (Jul '19), pp. 3-7 to 3-9.

The Army targeting process organizes the efforts of the commander and staff to accomplish key targeting requirements. This methodology is referred to as the D3A. D3A assists the commander and staff decide which targets must be acquired and engaged and to help develop options to engage those targets. Options may include lethal or nonlethal, organic or supporting assets at all levels, including maneuver, electronic attack, psychological operations, attack aircraft, surface-to-surface fires, air to surface fires, other information-related capabilities, or a combination of these options.

The D3A methodology is an integral part of the MDMP. As the MDMP is conducted, targeting becomes more focused based on the commander's guidance and intent. Certain targets may require special considerations or caution, because engaging them improperly could create unintended effects. Examples include targets that should be handled with sensitivity due to potential political and or diplomatic repercussions and targets located in areas with a high risks of collateral damage, to include weapons of mass destruction facilities. These measures are incorporated in the coordinating instructions and appropriate annexes of the operation plan or operation order.

I. Decide

Decide is the first function in targeting and occurs during the planning portion of the operations process. It is the most important function, requiring close interaction between the commander, intelligence, plans, operations, the fires cell, and staff judge advocate. It begins during the mission analysis portion of the MDMP and continues throughout the operation.

II. Detect

Detect is the second function in targeting and occurs initially during the prepare portion of the operations process, continuing throughout the operation. A key resource for fires planning and targeting is the intelligence generated through information collection to answer the targeting information requirements. Commanders express requirements for target detection and action as priority intelligence and information requirements. During large-scale combat operations, it might be challenging to prioritize the detection of targets and could require the opening of windows of opportunity for specific collection capabilities in support of fires. High-payoff targets must be integrated and support associated priority intelligence requirements. Their priority depends on the importance of the target to the friendly course of action and target acquisition requirements. Targets are prioritized through a quantitative and qualitative valuation methodology. An example of a valuation methodology is the target value analysis process that prioritizes targets based on the target's criticality, accessibility, recuperability, vulnerability, effect, and recognizability. Targeting working groups incorporate priority intelligence and information requirements that support acquisition of high-payoff targets into the overall information collection plan along with named areas of interest, target areas of interest, and engagement areas.

III. Deliver

Deliver is the third function in targeting and occurs primarily during the execution portion of the operations process. The main objective is to engage targets in accordance with the commander's guidance or engagement authority's direction. The selection of a weapon system or a combination of weapons systems leads to the tactical decision of time of engagement and then the technical solution for the selected weapon.

IV. Assess

Assess is the fourth function of targeting and occurs throughout the operations process. The commander and staff assess the results of mission execution. The assessment process is continuous and directly tied to the commander's decisions throughout planning, preparation, and execution of operations.

Operations Process & Targeting Relationship

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.

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. Army targeting addresses two targeting categories—deliberate and dynamic.

Operations Process		D3A	Targeting Task
Continuous Assessment	Planning	Decide	• Perform target value analysis to develop fire support, high-value targets, and critical asset list. • Provide fires running estimates and information/influence to the commander's targeting guidance and desired effects.
			• Designate potential high-payoff targets. • Deconflict and coordinate potential high-payoff targets. • Develop high-payoff target list/defended asset list. • Establish target selection standards and identification matrix (air and missile defense). • Develop attack guidance matrix, fire support, and cyber/electromagnetic activities tasks. • Develop associated measures of performance and measures of effectiveness.
			• Refine high-payoff target list. • Refine target selection standards. • Refine attack guidance matrix and surface-to-air-missile tactical order. • Refine fire support tasks. • Refine associated measures of performance and measures of effectiveness. • Develop the target synchronization matrix. • Draft airspace control means requests.
			• Finalize the high-payoff target list. • Finalize target selection standards. • Finalize the attack guidance matrix. • Finalize the targeting synchronization matrix. • Finalize fire support tasks. • Finalize associated measures of performance and measures of effectiveness. • Submit information requirements to staff and subordinate units.
	Preparation	Detect	• Collect information (surveillance, reconnaissance). • Report and disseminate information. • Update information requirements as they are answered. • Focus sensors, locate, identify, maintain track, and determine time available. • 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. • Update fire support tasks. • Update associated measures of performance and measures of effectiveness. • Target validated, deconfliction and target area clearance resolved, target execution/ engagement approval.
	Execution	Deliver	• Order engagement. • 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. • Monitor/manage engagement.
	Assess	Assess	• Assess task accomplishment (as determined by measures of performance). • Assess effects (as determined by measures of effectiveness). • Reporting results. • Reattack/reengagement recommendations.

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

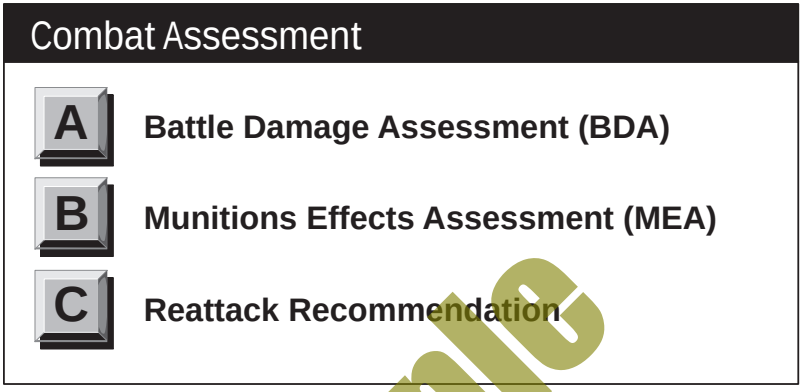
Ref: Adapted from ADRP 3-09, Fires (Aug '12), table 3-2, p. 3-2 (not provided in ADP 3-19).

Refer to AODS6-1: The Army Operations & Doctrine SMARTbook, 6th Ed. (w/SMARTupdate 1) for complete discussion of the fires warfighting function from ADP 3-19 (Jul '19). Sections include fires as a warfighting function; fires in unified land operations, execution of fires across the domains; and integrating Army, joint & multinational fires (to include airspace planning/ integration and air and missile defense planning/integration).

IV. Assess

Assess is the fourth function of targeting and occurs throughout the operations process. The commander and staff 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.

Combat assessment is the determination of the effectiveness of force employment during military operations. Combat assessment is composed of three elements:



A. Battle Damage Assessment (BDA)

In combination, BDA and MEA inform the commander of effects against targets and target sets. Based on this, the threat's ability to make and sustain war and centers of gravity are continuously estimated. During the review of the effects of the campaign, restrike recommendations are proposed or executed. BDA pertains to the results of attacks on targets designated by the commander.

B. Munitions Effectiveness Assessment (MEA)

The G3 through the targeting team conducts MEA concurrently and interactively with BDA as a function of combat assessment. MEA is used as the basis for recommending changes to increase effectiveness in:

- Methodology
- Tactics
- Weapon systems
- Munitions
- Weapon delivery parameters

The G3 develops MEA by determining the effectiveness of tactics, weapons systems, and munitions. Munitions effect on targets can be calculated by obtaining rounds fired on specific targets by artillery assets. The targeting team may generate modified commander's guidance concerning:

- Unit Basic Load (UBL)
- Required Supply Rate (RSR)
- Controlled Supply Rate (CSR)

The need for BDA for specific HPTs is determined during the decide function. Record BDA on the AGM and intelligence collection plan. The resources used for BDA are the same resources used for target development and TA. An asset used for BDA may not be available for target development and TA. The ACE receives, processes, and disseminates the results of attack (in terms of desired effects).

Each BDA has three assessment components:

1. Physical Damage Assessment

Physical damage assessment estimates the quantitative extent of physical damage through munitions blast, fragmentation, and/or fire damage effects to a target. This assessment is based on observed or interpreted damage.

2. Functional Damage Assessment

Functional damage assessment estimates the effect of attack on the target to perform its intended mission compared to the operational objective established against the target. This assessment is inferred on the basis of all-source intelligence and includes an estimate of the time needed to replace the target function. A functional damage assessment is a temporary assessment (compared to target system assessment) used for specific missions.

3. Target System Assessment

Target system assessment is a broad assessment of the overall impact and effectiveness of all types of attack against an entire target systems capability; for example, enemy ADA systems. It may also be applied against enemy unit combat effectiveness. A target system assessment may also look at subdivisions of the system compared to the commander's stated operational objectives. It is a relatively permanent assessment (compared to a functional damage assessment) that will be used for more than one mission.

BDA is more than determining the number of casualties or the amount of equipment destroyed. The targeting team can use other information, such as:

- Whether the targets are moving or hardening in response to the attack
- Changes in deception efforts and techniques
- Increased communication efforts as the result of jamming
- Whether the damage achieved is affecting the enemy's combat effectiveness as expected

BDA may also be passive by compiling information regarding a particular target or area (e.g., the cessation of fires from an area). If BDA is to be made, the targeting team must give intelligence acquisition systems adequate warning for sensors to be directed at the target at the proper time. BDA results may change plans and earlier decisions. The targeting team must periodically update the decisions made during the decide function concerning:

- IPB products
- HPTLs
- TSS
- AGMs
- Intelligence collection plans
- OPLANs

C. Reattack Recommendation

Based on BDA and MEA, the G2/G3 consider the level to which operational objectives have been achieved and make recommendations to the commander. Reattack and other recommendations should address operational objectives relative to the:

- Target
- Target critical elements
- Target systems
- Enemy combat force strengths

Chap 4

I. Plans & Orders

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), app. C.

Planning is the art and science of understanding a situation, envisioning a desired future, and laying out an operational approach to achieve that future. Based on this understanding and operational approach, planning continues with the development of a fully synchronized operation plan or order that arranges potential actions in time, space, and purpose to guide the force during execution (see ADP 5-0).

A product of planning is a plan or order—a directive for future action. Commanders issue plans and orders to subordinates to communicate their understanding of the situation and their visualization of an operation. Plans and orders direct, coordinate, and synchronize subordinate actions and inform those outside the unit how to cooperate and provide support.

Prepare the Order or Plan

The staff prepares the order or plan by turning the selected COA into a clear, concise concept of operations and the required supporting information. The COA statement becomes the concept of operations for the plan. The COA sketch becomes the basis for the operation overlay. If time permits, the staff may conduct a more detailed war game of the selected COA to more fully synchronize the operation and complete the plan. The staff writes the OPORD or OPLAN using the Army's operation order format.

See pp. 2-55 to 2-56, step VII of the MDMP, Orders Production.

Normally, the COS (XO) coordinates with staff principals to assist the G-3 (S-3) in developing the plan or order. Based on the commander's planning guidance, the COS (XO) dictates the type of order, sets and enforces the time limits and development sequence, and determines which staff section publishes which attachments.

Prior to the commander approving the plan or order, the staff ensures the plan or order is internally consistent and is nested with the higher commander's intent through—

- Plans and orders reconciliation
- Plans and orders crosswalk

Verbal Orders

Commanders use verbal orders when operating in an extremely time-constrained environment. These orders offer the advantage of being distributed quickly but risk important information being overlooked or misunderstood. Verbal orders are usually followed by written FRAGORDs.

Written Orders

Commanders issue written plans and orders that contain both text and graphics. Graphics convey information and instructions through military symbols. (FM 1-02 lists approved symbols.) They complement the written portion of a plan or an order and promote clarity, accuracy, and brevity. Staffs often develop and disseminate written orders electronically to shorten the time needed to gather and brief the orders group. Staffs can easily edit and modify electronically produced orders. They can send the same order to multiple recipients simultaneously. Using computer programs to develop and disseminate precise, corresponding graphics adds to the efficiency and clarity of the orders process. Electronic editing makes importing text and graphics into orders easy. Unfortunately, such ease can result in orders becoming unnecessarily large without added operational value.

III. Types of Plans and Orders

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16)), pp. C-3 to C-4.

Plans

Plans come in many forms and vary in scope, complexity, and length of planning horizons. Strategic plans establish national and multinational military objectives and include ways to achieve those objectives. Operational-level or campaign plans cover a series of related military operations aimed at accomplishing a strategic or operational objective within a given time and space. Tactical plans cover the employment of units in operations, including the ordered arrangement and maneuver of units in relation to each other and to the enemy within the framework of an operational-level or campaign plan. There are several types of plans:

1. Campaign Plan

A campaign plan is a joint operation plan for a series of related major operations aimed at achieving strategic or operational objectives within a given time and space (JP 5-0). Developing and issuing a campaign plan is appropriate when the contemplated simultaneous or sequential military operations exceed the scope of a single major operation. Only joint force commanders develop campaign plans.

2. Operation Plan (OPLAN)

An operation plan is 1. Any plan for the conduct of military operations prepared in response to actual and potential contingencies. 2. A complete and detailed joint plan containing a full description of the concept of operations, all annexes applicable to the plan, and a time-phased force and deployment data. (JP 5-0). An OPLAN may address an extended period connecting a series of objectives and operations, or it may be developed for a single part or phase of a long-term operation. An OPLAN becomes an operation order when the commander sets an execution time or designates an event that triggers the operation.

3. Supporting Plan

A supporting plan is an operation plan prepared by a supporting commander, a subordinate commander, or an agency to satisfy the requests or requirements of the supported commander's plan (JP 5-0). For example, the ARFOR commander develops a supporting plan as to how Army forces will support the joint force commander's campaign plan or OPLAN.

4. Concept Plan

In the context of joint operation planning level 3 planning detail, a concept plan is an operation plan in an abbreviated format that may require considerable expansion or alteration to convert it into a complete operation plan or operation order (JP 5-0). Often branches and sequels are written as concept plans. As time and the potential allow for executing a particular branch or sequel, these concept plans are developed in detail into OPLANs.

5. Branch

A branch describes the contingency options built into the base plan. A branch is used for changing the mission, orientation, or direction of movement of a force to aid success of the operation based on anticipated events, opportunities, or disruptions caused by enemy actions and reactions. Branches are also used in stability operations to address potential actions and reactions of populations.

6. Sequel

A sequel is the subsequent major operation or phase based on the possible outcomes (success, stalemate, or defeat) of the current major operation or phase (JP 5-0). For every action or major operation that does not accomplish a strategic or operational objective, there should be a sequel for each possible outcome, such as win, lose, draw, or decisive win.

Orders

An order is a communication—verbal, written, or signaled—which conveys instructions from a superior to a subordinate. Commanders issue orders verbally or in writing. The five-paragraph format (situation, mission, execution, sustainment, and command and signal) remains the standard for issuing orders. The technique used to issue orders (verbal or written) is at the discretion of the commander; each technique depends on time and the situation. Army organizations use three types of orders:

1. Operation Order (OPORD)

An operation order is a directive issued by a commander to subordinate commanders for the purpose of effecting the coordinated execution of an operation (JP 5-0). Commanders issue OPORDs to direct the execution of long-term operations as well as the execution of discrete short-term operations within the framework of a long-range OPORD.

See pp. 4-22 to 4-27 for a sample format.

2. Fragmentary Order (FRAGORD)

A fragmentary order is an abbreviated form of an operation order issued as needed after an operation order to change or modify that order or to execute a branch or sequel to that order (JP 5-0). FRAGORDs include all five OPORD paragraph headings and differ from OPORDs only in the degree of detail provided. An example of the proper naming convention for a FRAGORD to an OPORD is "FRAGORD 11 to OPORD 3411 (OPERATION DESERT DRAGON) (UNCLASSIFIED)." If a FRAGORD contains an entire annex, then the proper naming convention for the annex would be "Annex A (Task Organization) to FRAGORD 12 to OPORD 3411 (OPERATION DESERT DRAGON) (UNCLASSIFIED)."

See p. 4-32 for a sample format.

3. Warning Order (WARNORD)

A warning order is a preliminary notice of an order or action that is to follow (JP 3-33). WARNORDs help subordinate units and staffs prepare for new missions by describing the situation, providing initial planning guidance, and directing preparation activities. For example, the proper naming convention for WARNORD number 8 is "WARNORD #8."

See p. 4-21 for a sample format.

In addition to these types of orders, Army forces may receive the following types of orders from a joint headquarters:

- Planning order
- Alert order
- Execute order
- Prepare-to-deploy order

Joint Planning Processes, Procedures and Orders

To properly understand and execute the joint commander's plan, Army commanders and staffs must be familiar with joint planning processes, procedures, and orders formats. An Army headquarters that forms the base of a joint task force uses the joint operation planning process and publishes plans and orders in accordance with the joint format. An Army HQs that provides the base of a joint force or coalition forces land component command headquarters will participate in joint planning and receive a joint formatted plan or order. This headquarters then has the option to use the MDMP or joint operations planning process to develop its own supporting plan or order. Refer to JFODS5-1: The Joint Forces Operations & Doctrine SMARTbook.

III. Unit Listing Sequence

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), pp. D-3 to D-6.

Order writers group units by headquarters. They list major subordinate maneuver units first (for example, 2d ABCT; 1-77th IN; A/4-52d CAV). Order writers place them by size in numerical order. They list brigade combat teams (BCTs) ahead of combat aviation brigades. In cases where two BCTs are numbered the same, order writers use the division number (by type). For example, 1st ABCT (armored brigade combat team) 1st Infantry Division (Mechanized) is listed before the 1st ABCT 1st Armored Division (AD). In turn, the 1st ABCT 1st Armored Division is listed before the 1st ABCT 1st Cavalry Division. Combined arms battalions are listed before battalions, and company teams before companies. Order writers follow maneuver units with multifunctional supporting units in the following order: fires, battlefield surveillance, maneuver enhancement, and sustainment. Supporting units (in alpha-numerical order) follow multifunctional supporting units. The last listing should be any special troops units under the command of the force headquarters.

Order writers use a plus (+) symbol when attaching one or more subordinate elements of a similar function to a headquarters. They use a minus symbol (–) when deleting one or more subordinate elements of a similar function to a headquarters. Order writers always show the symbols in parenthesis. They do not use a plus symbol when the receiving headquarters is a combined arms task force or company team. Order writers do not use plus and minus symbols together (as when a headquarters detaches one element and receives attachment of another); they use the symbol that portrays the element's combat power with respect to other similar elements. Order writers do not use either symbol when two units swap subordinate elements and their combat power is unchanged.

If applicable, order writers list task organizations according to phases of the operation. When the effective attachment time of a nonorganic unit to another unit differs from the effective time of the plan or order, order writers add the effective attachment time in parentheses after the attached unit—for example, 1-80 IN (OPCON 2 ABCT Phase II). They list this information either in the task organization (preferred) or in paragraph 1c of the plan or order, but not both. For clarity, order writers list subsequent command or support relationships under the task organization in parentheses following the affected unit—for example, "...on order, OPCON (operational control) to 2 ABCT" is written (O/O OPCON 2 ABCT).

Long or complex task organizations are displayed in outline format in Annex A (Task Organization) of the OPLAN or OPORD in lieu of being placed in the base plan or order. Units are listed under the headquarters to which they are allocated or that they support in accordance with the organizational taxonomy previously provided in this chapter. The complete unit task organization for each major subordinate unit should be shown on the same page. Order writers only show command or support relationships if they are other than organic or attached. Other Services and multinational forces recognize and understand this format. Planners should use it during joint and multinational operations.

Order writers list subordinate units under the higher headquarters to which they are assigned, attached, or in support. They place direct support (DS) units below the units they support. Order writers indent subordinate and supporting units two spaces. They identify relationships other than attached with parenthetical terms—for example, (GS) or (DS).

Order writers provide the numerical designations of units as Arabic numerals, unless they are shown as Roman numerals. For example, an Army corps is numbered in series beginning with Roman numeral "I"—for example, I Corps or XVIII Airborne Corps.

During multinational operations, order writers insert the country code between the numeric designation and the unit name—for example, 3d (DE) Corps. (Here, DE designates that the corps is German. ADRP 1-02 contains authorized country codes.)

Order writers use abbreviated designations for organic units. They use the full designation for nonorganic units—for example, 1-52 FA (MLRS) (GS), rather than 1-52 FA. They specify a unit's command or support relationship only if it differs from that of its higher headquarters.

Order writers designate task forces with the last name of the task force (TF) commander (for example, TF WILLIAMS), a code name (for example, TF DESERT DRAGON), or a number.

For unit designation at theater army level, order writers list major subordinate maneuver units first, placing them in alpha-numerical order, followed by multifunctional brigades in the following order: fires, intelligence, maneuver enhancement, sustainment, then followed by functional brigades in alpha-numerical order, and any units under the command of the force headquarters. For each function following maneuver, they list headquarters in the order of commands, brigades, groups, battalions, squadrons, companies, detachments, and teams.

	Corps	Division	Brigade	Battalion	Company
Movement and Maneuver	Divisions Separate maneuver brigades or battalions Combat aviation brigades or battalions Special operations forces - Ranger - Special forces MISO	Brigade-size ground units in alpha-numerical order - Infantry - Armor - Stryker Battalion TF - Named TFs in alphabetical order - Numbered TFs in numerical order MISO Combat aviation brigade Special operations forces - Ranger - Special forces	Battalion TFs Battalions or squadrons - Combined arms - Infantry - Reconnaissance Company teams Companies Air cavalry squadrons MISO	Company teams - Named teams in alphabetical order - Letter designated teams in alphabetical order Companies or troops (in alphabetical order) - Infantry - Armor - Stryker MISO	Platoons - Organic platoons - Attached platoons - Weapons squads
Fires	Fires brigade USAF air support unit - Air defense	Fires brigade USAF air support unit - Air defense	Fires battalion USAF air support unit - Air defense	FA batteries Fire support team Mortar platoon USAF air support unit - Air defense	FA firing platoons Fire support team Mortar section - Air defense
Intelligence	Battlefield surveillance brigade - MI - Recon squads - Human terrain team	Battlefield surveillance brigade - MI - Recon squads - Human terrain team	CI teams Ground sensor teams Human terrain team HUMINT teams Scout platoon TUAS platoon	CI teams Ground sensor teams HUMINT teams Scout platoon TUAS platoon	CI teams Ground sensor teams HUMINT teams
Protection	MEB Functional brigades - Air defense - CBRN - Engineer - EOD - Military police	MEB Functional brigades - Air defense - CBRN - Engineer - EOD - Military police	Functional battalions or companies or batteries and detachments - Air defense - CBRN - Engineer - EOD - Military police	Functional companies or batteries and detachments - Air defense - CBRN - Engineer - EOD - Military police	Functional platoons and detachments - Air defense - CBRN - Engineer - EOD - Military police
Sustainment	Sustainment brigade (attached functional units are listed in alpha-numerical order) - Contracting - Finance - Ordnance - Personnel services - Transportation - Quartermaster Medical brigade (support)	Sustainment brigade (attached functional units are listed in alpha-numerical order) - Contracting - Finance - Ordnance - Personnel services - Transportation - Quartermaster Medical brigade (support)	Brigade support battalion (attached or supporting functional units are listed first by branch in alphabetical order and then in numerical order)	Forward support company (attached or supporting functional units are listed first by branch in alphabetical order and then in numerical order)	Attached or supporting functional platoons and teams listed in alpha-numerical order

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), table D-1, pp. D-3 to D-4.

Warning Order (WARNORD) Format

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), fig. C-4, p. C-24.

[Classification]
(Change from verbal orders, if any) (Optional)

Copy ## of ## copies
Issuing headquarters
Place of issue
Date-time group of signature
Message reference number

WARNING ORDER [number] Example: **WARNING ORDER #8**

(U) References: *Refer to higher headquarters' OPLAN/OPORD and identify map sheets for operation (Optional).*

(U) Time Zone Used Throughout the OPLAN/OPORD: (Optional)

(U) Task Organization: (Optional)

1. (U) Situation. *The situation paragraph describes the conditions and circumstances of the operational environment that impact operations in the following subparagraphs:*

a. (U) Area of Interest.

b. (U) Area of Operations.

c. (U) Enemy Forces.

d. (U) Friendly Forces.

e. (U) Interagency, Intergovernmental, and Nongovernmental Organizations.

f. (U) Civil Considerations.

g. (U) Attachments and Detachments. *Provide initial task organization.*

h. (U) Assumptions. *List any significant assumptions for order development.*

2. (U) Mission. *State the issuing headquarters' mission.*

3. (U) Execution.

a. (U) Initial Commander's Intent. *Provide brief commander's intent statement.*

b. (U) Concept of Operations. *This may be "to be determined" for an initial WARNORD.*

c. (U) Task to Subordinate Units. *Include any known tasks at time of issuance of WARNORD.*

d. (U) Coordinating Instructions.

4. (U) Sustainment. *Include known logistics, personnel, or health system prep tasks.*

5. (U) Command and Signal. *Include changes to existing order or state "no change."*

ACKNOWLEDGE:

[Commander's last name]
[Commander's rank]

OFFICIAL:
[Authenticator's name]
[Authenticator's position]
ANNEXES: *List annexes by letter and title.*
DISTRIBUTION: *List recipients.*

[page number]
[CLASSIFICATION]

Annotated OPLAN/OPORD Format

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), fig. C-2, pp. C-11 to C-17.

[CLASSIFICATION]

Place the classification at the top and bottom of every page of the OPLAN or OPORD. Place the classification marking at the front of each paragraph and subparagraph in parentheses. Refer to AR 380-5 for classification and release marking instructions.

Copy ## of ## copies
Issuing headquarters
Place of issue
Date-time group of signature
Message reference number

The first line of the heading is the copy number assigned by the issuing headquarters. A log is maintained of specific copies issued to addressees. The second line is the official designation of the issuing headquarters (for example, 1st Infantry Division). The third line is the place of issue. It may be a code name, postal designation, or geographic location. The fourth line is the date or date-time group that the plan or order was signed or issued and becomes effective unless specified otherwise in the coordinating instructions. The fifth line is a headquarters internal control number assigned to all plans and orders in accordance with unit standing operating procedures (SOPs).

OPERATION PLAN/ORDER [number] [(code name)] [(classification of title)]
Example: **OPORD 3411 (OPERATION DESERT DRAGON) (UNCLASSIFIED)**

Number plans and orders consecutively by calendar year. Include code name, if any.

(U) References: *List documents essential to understanding the OPLAN/OPORD. List references concerning a specific function in the appropriate attachments.*

(a) List maps and charts first. Map entries include series number, country, sheet names, or numbers, edition, and scale.

(b) List other references in subparagraphs labeled as shown.

(U) Time Zone Used Throughout the OPLAN/OPORD: *State the time zone used in the area of operations during execution. When the OPLAN/OPORD applies to units in different time zones, use Greenwich Mean (ZULU) Time.*

(U) Task Organization: *Describe the organization of forces available to the issuing headquarters and their command and support relationships. Refer to Annex A (Task Organization) if long or complicated.*

1. (U) Situation. *The situation paragraph describes the conditions of the operational environment that impact operations in the following subparagraphs:*

a. (U) Area of Interest. *Describe the area of interest. Refer to Annex B (Intelligence) as required.*

b. (U) Area of Operations. *Describe the area of operations (AO). Refer to the appropriate map by its subparagraph under references, for example, "Map, reference (b)." Refer to the Appendix 2 (Operation Overlay) to Annex C (Operations).*

(1) (U) Terrain. *Describe the aspects of terrain that impact operations. Refer to Annex B (Intelligence) as required.*

(2) (U) Weather. *Describe the aspects of weather that impact operations. Refer to Annex B (Intelligence) as required.*

[page number]
[CLASSIFICATION]

Continued on next page

c. (U) Enemy Forces. *Identify enemy forces and appraise their general capabilities. Describe the enemy's disposition, location, strength, and probable courses of action. Identify known or potential terrorist threats and adversaries within the AO. Refer to Annex B (Intelligence) as required.*

d. (U) Friendly Forces. *Briefly identify the missions of friendly forces and the objectives, goals, and missions of civilian organizations that impact the issuing headquarters in following subparagraphs:*

(1) (U) Higher Headquarters' Mission and Intent. *Identify and state the mission and commander's intent for headquarters two levels up and one level up from the issuing headquarters.*

(a) (U) Higher Headquarters Two Levels Up. *Identify the higher headquarters two levels up the paragraph heading (for example, Joint Task Force-18).*

1 (U) Mission.

2 (U) Commander's Intent.

(b) (U) Higher Headquarters. *Identify the higher headquarters one level up in the paragraph heading (for example, 1st (US) Armored Division).*

1 (U) Mission.

2 (U) Commander's Intent.

(2) (U) Missions of Adjacent Units. *Identify and state the missions of adjacent units and other units whose actions have a significant impact on the issuing headquarters.*

e. (U) Interagency, Intergovernmental, and Nongovernmental Organizations. *Identify and state the objective or goals and primary tasks of those non-Department of Defense organizations that have a significant role within the AO. Refer to Annex V (Interagency Coordination) as required.*

f. (U) Civil Considerations. *Describe the critical aspects of the civil situation that impact operations. Refer to Appepndix 1 (Intelligence Estimate) to Annex B (Intelligence) as required.*

g. (U) Attachments and Detachments. *List units attached to or detached from the issuing headquarters. State when each attachment or detachment is effective (for example, on order, on commitment of the reserve) if different from the effective time of the OPLAN/OPORD. Do not repeat information already listed in Annex A (Task Organization).*

h. (U) Assumptions. *List assumptions used in the development of the OPLAN/OPORD*

2. (U) Mission. *State the unit's mission—a short description of the who, what (task), when, where, and why (purpose) that clearly indicates the action to be taken and the reason for doing so.*

3. (U) Execution. *Describe how the commander intends to accomplish the mission in terms of the commander's intent, an overarching concept of operations, schemes of employment for each warfighting function, assessment, specified tasks to subordinate units, and key coordinating instructions in the subparagraphs below.*

Continued on next page

I. Mission Command

Ref: ADP 6-0, Mission Command (Jul '19) and ADP 3-0, Operations (Jul '19), p. 5-3.

I. Command & Control Warfighting Function

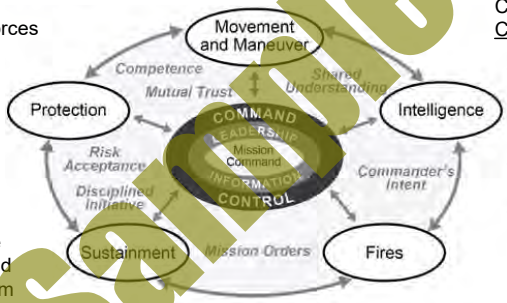
The command and control warfighting function is the related tasks and a system that enable commanders to synchronize and converge all elements of combat power (ADP 3-0). The primary purpose of the command and control warfighting function is to assist commanders in integrating the other elements of combat power to achieve objectives and accomplish missions. The command and control warfighting function consists of the command and control warfighting function tasks and the command and control system.

Command and Control Warfighting Function

The related tasks and a system that enables commanders to synchronize and converge all elements of combat power.

Tasks

- Command forces
- Control operations
- Drive the operations process
- Establish the command and control system



Command and Control System

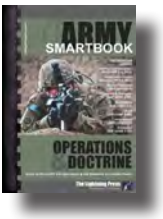
- People
- Processes
- Networks
- Command posts

Ref: ADP 6-0 (Jul '19), Figure 1-2. Combat power model.

The command and control warfighting function tasks focus on integrating the activities of the other elements of combat power to accomplish missions. Commanders, assisted by their staffs, integrate numerous processes and activities within their headquarters and across the force through the mission command warfighting function:

- Command forces
- Control operations
- Drive the operations process *(see pp. 5-8 to 5-9)*
- Establish the command and control system

See p. 5-7 for discussion of specific warfighting function tasks as described in FM 3-0.



Refer to AODS6 (w/SMARTupdate 1): The Army Operations & Doctrine SMARTbook (Guide to FM/ADP 3-0 Operations & the Elements of Combat Power). Completely updated with the Jul 2019 ADPs, Chg 1 to the 400-pg AODS6 includes operations (ADP 3-0), large-scale combat operations (FM 3-0 w/Chg 1), and refocused chapters on the elements of combat power: command & control (ADP 6-0), movement and maneuver (ADPs 3-90, 3-07, 3-28, 3-05), intelligence (ADP 2-0), fires (ADP 3-19), sustainment (ADP 4-0), & protection (ADP 3-37).

II. Command & Control Warfighting Tasks

Ref: FM 3-0 (w/Chg 1), Operations (Dec '17), pp. 2-23 to 2-34.

The command and control warfighting function is the related tasks and a system that enable commanders to synchronize and converge all elements of combat power (ADP 3-0). The primary purpose of the command and control warfighting function is to assist commanders in integrating the other elements of combat power to achieve objectives and accomplish missions.

**Editor's Note: FM 3-0 (w/Chg 1), Operations (Dec '17) predates the more recent ADP 6-0, Mission Command (Jul '19) which renamed the "Mission Command Warfighting Function" to the "Command and Control Warfighting Function." For clarity, the following material from FM 3-0 still uses the term "mission command" when discussing warfighting tasks.*

"Mission Command" Warfighting Tasks (from FM 3-0*)

While staffs perform essential functions, commanders are ultimately responsible for accomplishing assigned missions. Throughout operations, commanders encourage disciplined initiative through a clear commander's intent while providing enough direction to integrate and synchronize the force at the decisive place and time. To this end, commanders perform three primary mission command warfighting function tasks. The commander tasks are—

- Drive the operations process through the activities of understanding, visualizing, describing, directing, leading, and assessing operations.
- Develop teams, both within their own organizations and with unified action partners.
- Inform and influence audiences, inside and outside their organizations.

Staffs support commanders in the exercise of mission command by performing four primary mission command warfighting function tasks. The staff tasks are—

- Conduct the operations process: plan, prepare, execute, and assess.
- Conduct knowledge management, information management, and foreign disclosure.
- Conduct information operations.
- Conduct cyberspace electromagnetic activities.

Six additional tasks reside within the mission command warfighting function. These tasks are—

- Conduct CA operations.
- Conduct military deception.
- Install, operate, and maintain the DODIN.
- Conduct airspace control.
- Conduct information protection.
- Plan and conduct space activities.

See following pages (pp. 5-8 to 5-12) for further discussion of these key warfighting function tasks from FM 3-0 (w/Chg 1), Operations (Dec '17).

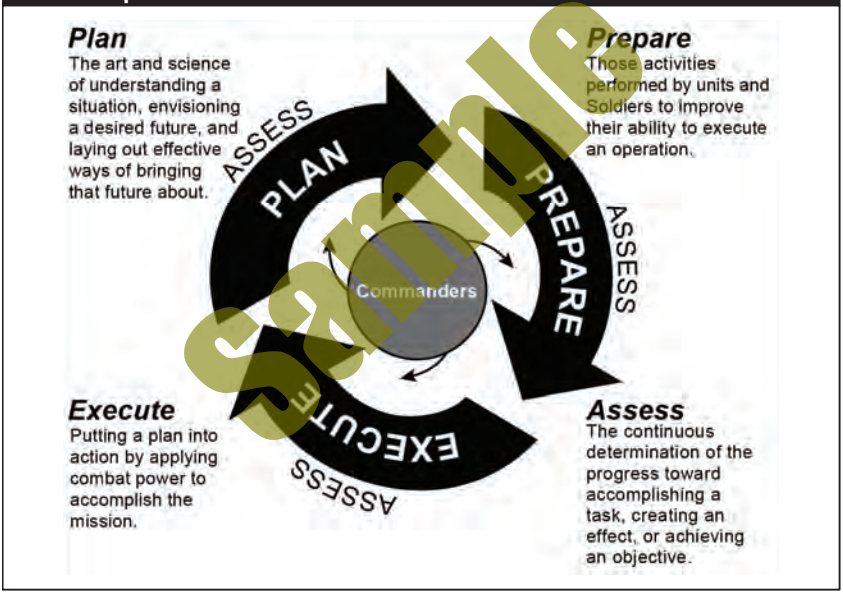
I. Conduct the Operations Process

Ref: FM 3-0 (w/Chg 1), Operations (Dec '17), pp. 2-24 to 2-26. See also pp. 1-49 and 1-51.

The Army's framework for exercising mission command is the operations process—the major mission command activities performed during operations: planning, preparing, executing, and continuously assessing the operation (ADP 5-0). The operations process is a commander-led activity, informed by the philosophy of mission command. Commanders, supported by their staffs, use the operations process to drive the conceptual and detailed planning necessary to understand, visualize, and describe their operational environment; make and articulate decisions; and direct, lead, and assess operations.

The operations process serves as an overarching model that commanders, staffs, and subordinate leaders use to integrate the warfighting functions across all domains and synchronize the force to accomplish missions. This includes integrating numerous processes such as the intelligence process, the military decision-making process, and targeting within the headquarters and with higher echelon, subordinate, supporting, supported, and adjacent units.

The Operations Process



Ref: FM 3-0 (Oct '17), fig. 2-7. The operations process.

The activities of the operations process (plan, prepare, execute, and assess) are not discrete; they overlap and recur as circumstances demand. Planning starts an iteration of the operations process. Upon completion of the initial order, planning continues as leaders revise the plan based on changing circumstances. Preparing begins during planning and continues through execution. Execution puts a plan into action by applying combat power to seize, retain, and exploit the initiative and consolidate gains. Assessing is continuous and influences the other three activities. The operations process, while simple in concept, is dynamic in execution-especially in fast-paced, large-scale combat operations. Commanders must organize and train their staffs and subordinates as an integrated team to simultaneously plan, prepare, execute, and assess operations.

III. Command Post (CP) Organization/Operations

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), chap. 1.

This section describes how commanders organize their headquarters into command posts during the conduct of operations. This section defines the different types of command posts and describes their purposes. Next, this section discusses the effectiveness and survivability factors commanders consider when organizing their command posts. This section also describes how commanders cross-functionally organize their staffs within command posts into functional and integrating cells. The section concludes by providing guidelines for command post operations, including the importance of establishing standard operating procedures (SOPs) for the headquarters.

Refer to JP 3-33 for more information on an Army headquarters serving as a joint headquarters.

Command Post (CP)

A command post is a unit headquarters where the commander and staff perform their activities. The headquarters' design, combined with robust communications, gives commanders a flexible mission command structure consisting of a main CP, a tactical CP, and a command group for brigades, divisions, and corps. Combined arms battalions are also resourced with a combat trains CP and a field trains CP. Theater army headquarters are resourced with a main CP and a contingency CP. See appropriate echelon manuals for doctrine on specific CP and headquarters' organization. Each CP performs specific functions by design as well as tasks the commander assigns. Activities common in all CPs include, but are not limited to:

- Maintaining running estimates and the common operational picture
- Controlling operations
- Assessing operations
- Developing and disseminating orders
- Coordinating with higher, lower, and adjacent units
- Conducting knowledge management and information management
- Conducting network operations
- Providing a facility for the commander to control operations, issue orders, and conduct rehearsals
- Maintaining the common operational picture
- Performing CP administration (examples include sleep plans, security, and feeding schedules)
- Supporting the commander's decisionmaking process

I. Command Post Organization

In operations, effective mission command requires continuous, close coordination, synchronization, and information sharing across staff sections. To promote this, commanders cross-functionally organize elements of staff sections in command posts (CPs) and CP cells. Additional staff integration occurs in meetings, including working groups and boards.

See following pages (pp. 5-20 to 5-21) for an overview and discussion of the types of command posts as outlined in FM 3-0.

Types of Command Posts

Ref: FM 3-0 (w/Chg 1), Operations (Dec '17), pp. 2-34 to 2-38.

Main Command Post

A main command post is a facility containing the majority of the staff designed to control current operations, conduct detailed analysis, and plan future operations (FM 6-0). The main CP is the unit's principal CP serving as the primary location for plans, analysis, sustainment coordination, and assessment. It includes representatives of all staff sections and a full suite of information systems to plan, prepare, execute, and assess operations. The main CP is larger in size and in personnel and less mobile than the tactical CP. The chief of staff or executive officer provides staff supervision of the main CP. All units battalion echelon and above are resourced a main CP. Functions of the main CP include, but are not limited to—

- Controlling operations.
- Receiving reports for subordinate units and preparing reports required by higher echelon headquarters.
- Planning operations, including branches and sequels.
- Integrating intelligence into current operations and plans.
- Synchronizing the targeting process.
- Planning and synchronizing sustaining operations.
- Assessing the overall progress of operations.

Contingency Command Post

A contingency CP is a facility tailored from the theater army headquarters that enables a commander to conduct crisis response and limited contingency operations within an AOR. Employing the contingency CP for a mission involves a trade-off between the contingency command post's immediate response capability and its known limitations. These limitations include the scale, scope, complexity, intensity, and duration of operations that it can effectively command without significant augmentation. The contingency CP depends upon the main CP for long-range planning and special staff functional support.

Operational Command Post

An operational CP is a facility containing a tailored portion of a field army headquarters used to control operations for a limited period or for a small-scale contingency. The operational CP provides a field army commander, or designated individual, the capability to form an ARFOR, land component, or JTF headquarters within a JOA. Depending on the situation, the operational CP staff may require additional augmentation, since its design provides minimal essential capabilities. The operational CP may require joint augmentation if it is designated a JTF headquarters or joint force land component headquarters. The operational CP personnel and equipment are deployable by fixed-wing aircraft from their garrison locations into a JOA. However, the operational CP has limited organic transportation once deployed into the JOA and typically occupies a semi-permanent fixed facility. The operational CP relies on the main CP for detailed planning, analysis, and special staff support.

Tactical Command Post

A tactical command post is a facility containing a tailored portion of a unit headquarters designed to control portions of an operation for a limited time (FM 6-0). The tactical CP maintains continuous communication with subordinates, higher echelon headquarters, other CPs, and supporting units. The tactical CP is fully mobile and includes only essential Soldiers and equipment. The tactical CP relies on the main CP for planning, detailed analysis, and coordination. A deputy commander or operations officer generally

leads the tactical CP. Corps through battalion commanders employ a tactical CP as an extension of the main CP. Functions of a tactical CP include—

- Controlling the decisive operation or a specific shaping operation.
- Controlling a specific task within a larger operation such as a gap crossing, a passage of lines, a relief in place, or an air assault operation.
- Controlling the overall unit's operations for a limited time when the main CP is displacing or otherwise not available.
- Performing short-range planning.
- Providing input to targeting and future operations planning.
- Providing a forward location for issuing orders and conducting rehearsals.
- Forming the headquarters of a task force with subordinate units task-organized under its control.

When a commander does not employ the tactical CP, the staff assigned to it reinforces the main CP. Unit standard operating procedures should address the specifics for this, including procedures to quickly detach the tactical CP from the main CP. Some multifunctional support brigades and functional brigades and battalions are not resourced with a tactical CP by table of organization and equipment; however, based on the situation, commanders can form a tactical CP from the personnel and equipment authorized from the main CP to assist them with mission command.

Support Area Command Post (SACP)

Depending on the situation, including the threat, size of the support area, and number of units within the support and consolidation areas, division and corps commanders may form a support area command post (SACP) to assist in controlling operations. The SACP enables division and corps commanders to exercise mission command over disparate functionally focused elements operating within the support and consolidation areas that may exceed the effective span of control of the MEB or division and corps main CPs.

The SACP is not a separate section in the units table of organization and equipment. Commanders form a SACP from the equipment and personnel from the main and tactical CPs. The SACP normally co-locates with the MEB, which provides the SACP with signal connectivity, sustainment, security and workspace.

Early-Entry Command Post (EECP)

While not a separate section of a unit's table of organization and equipment, commanders can establish an early-entry command post to assist them in controlling operations during the deployment phase of an operation. An early-entry command post is a lead element of a headquarters designed to control operations until the remaining portions of the headquarters are deployed and operational (FM 6-0).

Based on the situation, an early entry command post normally consists of personnel and equipment from the tactical CP with additional intelligence analysts, planners, and other staff officers from the main CP. The early-entry CP performs the functions of the main and tactical CPs until those CPs are deployed and operational. A deputy commander, assistant division commander, chief of staff, executive officer, or operations officer normally leads the early entry CP.

Command Group

While not a CP, commanders form a command group to assist them in controlling operations when they are not located at a CP. A command group consists of the commander and selected staff members who assist the commander in controlling operations away from a command post (FM 6-0). Command group personnel include staff representation that can immediately affect current operations, such as maneuver, fires (including the air liaison officer), and intelligence. The mission dictates the command group's makeup.

Sample Shift-Change Briefing

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), table 1-1, p. 1-1.

Current mission and commander's intent (COS [XO])

Enemy situation (G-2 [S-2])

- Significant threat or local populace attitudes and actions during the last shift.
- Current enemy situation and changes in the most likely enemy courses of action
- Anticipated significant threat or undesired local populace activity in the next 12/24/48 hours
- Changes in priority intelligence requirements (PIRs)
- Weather update and weather effects on operations in the next 12/24/48 hours.
- Changes to information collection priorities.
- Status of information collection units and capabilities.

Civil Situation (G-9 [S-9])

- Significant actions by the population during the last shift
- Current civil situation
- Disposition and status of civil affairs units and capabilities
- Significant activities involving the population anticipated during the next shift

Friendly situation (G-3 [S-3])

- Significant friendly actions during the last shift
- Subordinate units' disposition and status
- Higher and adjacent units' disposition and status
- Major changes to the task organization and tasks to subordinate units that occurred during the last shift
- Answers to CCIRs and changes in CCIRs
- Changes to reconnaissance and surveillance
- Disposition and status of selected reconnaissance and surveillance units and capabilities
- Answers to FFIRs and changes in FFIRs
- Significant activities/decisions scheduled for next shift (decision support matrix)
- Anticipated planning requirements

Running estimate summaries by warfighting function and staff section —

- Fires
- Air liaison officer
- Aviation officer
- Air and missile defense officer
- G-7 (S-7)
- Engineer officer
- Chemical officer
- Provost marshal
- G-1 (S-1)
- G-4 (S-4)
- G-6 (S-6)

Briefings include—

- Any significant activities that occurred during the last shift
- The disposition and status of units within their area of expertise
- Any changes that have staff wide implications (for example, "higher headquarters changed the controlled supply rate for 120 mm HE, so that means...").
- Upcoming activities and anticipated changes during the next shift

CP operations and administration (headquarters commandant or senior operations NCO).

- CP logistic issues
- CP security
- CP displacement plan and proposed new locations
- Priority of work

COS or XO guidance to the next shift, including staff priorities and changes to the battle rhythm.

I. Methods of Rehearsals

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), pp. 12-2 to 12-6.

Techniques for conducting rehearsals are limited only by the commander's imagination and available resources. Generally, six techniques are used for executing rehearsals.

A. Full-dress Rehearsal

A full-dress rehearsal produces the most detailed understanding of the operation. It involves every participating soldier and system. If possible, organizations execute full-dress rehearsals under the same conditions-weather, time of day, terrain, and use of live ammunition-that the force expects to encounter during the actual operation.

- **Time**. Full-dress rehearsals are the most time consuming of all rehearsal types. For companies and smaller units, the full-dress rehearsal is the most effective technique for ensuring all involved in the operation understand their parts. However, brigade and task force commanders consider the time their subordinates need to plan and prepare when deciding whether to conduct a full-dress rehearsal.
- **Echelons involved**. A subordinate unit can perform a full-dress rehearsal as part of a larger organization's reduced-force rehearsal.
- **OPSEC**. Moving a large part of the force may attract enemy attention. Commanders develop a plan to protect the rehearsal from enemy surveillance and reconnaissance. One method is to develop a plan, including graphics and radio frequencies, that rehearses selected actions but does not compromise the actual OPORD. Commanders take care to not confuse subordinates when doing this.
- **Terrain**. Terrain management for a full-dress rehearsal can be difficult if it is not considered during the initial array of forces. The rehearsal area must be identified, secured, cleared, and maintained throughout the rehearsal.

B. Key Leader Rehearsal

Circumstances may prohibit a rehearsal with all members of the unit. A key leader rehearsal involves only key leaders of the organization and its subordinate units. Often commanders use this technique to rehearse fire control measures for an engagement area during defensive operations. Commanders often use a reduced-force rehearsal to prepare key leaders for a full-dress rehearsal.

- **Time**. A reduced-force rehearsal normally requires less time than a full-dress rehearsal. Commanders consider the time their subordinates need to plan and prepare when deciding whether to conduct a reduced-force rehearsal.
- **Echelons involved**. A small unit can perform a full-dress rehearsal as part of a larger organization's reduced-force rehearsal.
- **OPSEC**. A reduced-force rehearsal is less likely to present an OPSEC vulnerability than a full-dress rehearsal because the number of participants is smaller. However, the number of radio transmissions required is the same as for a full-dress rehearsal and remains a consideration.
- **Terrain**. Terrain management for the reduced-force rehearsal can be just as difficult as for the full-dress rehearsal. The rehearsal area must be identified, secured, cleared, and maintained throughout the rehearsal.

C. Terrain-model Rehearsal (or "Digital" Terrain-model)

The terrain-model rehearsal is the most popular rehearsal technique. It takes less time and fewer resources than a full-dress or reduced-force rehearsal. When possible, commanders place the terrain model where it overlooks the actual terrain of the AO. (reverse slope for OPSEC, though).The model's orientation coincides with that of the terrain. The size of the terrain model can vary from small (using markers to represent units) to large (on which the participants can walk).

- **Time**. Often, the most time-consuming part of this technique is constructing the terrain model.
- **Echelons involved**. Because a terrain model is geared to the echelon conducting the rehearsal, multiechelon rehearsals using this technique are difficult.
- **OPSEC**. This rehearsal can present an OPSEC vulnerability if the area around the site is not secured. The collection of commanders & vehicles can draw enemy attention.
- **Terrain**. Terrain management is less difficult than with the previous techniques. An optimal location overlooks the terrain where the operation will be executed. With today's digital capabilities, users can construct terrain models in virtual space.

D. Sketch-map Rehearsal

Commanders can use the sketch-map technique almost anywhere, day or night. The procedures are the same as for a terrain-model rehearsal, except the commander uses a sketch map in place of a terrain model. Effective sketches are large enough for all participants to see as each participant walks through execution of the operation. Participants move markers on the sketch to represent unit locations and maneuvers.

- **Time**. Sketch-map rehearsals take less time than terrain-model rehearsals and more time than map rehearsals.
- **Echelons involved**. Because a sketch map is geared to the echelon conducting the rehearsal, multiechelon rehearsals using this technique are difficult.
- **OPSEC**. This rehearsal can present an OPSEC vulnerability if the area around the site is not secured. The collection of commanders & vehicles can draw enemy attention.
- **Terrain**. This technique requires less space than a terrain model rehearsal. A good site is easy for participants to find, yet concealed from the enemy. An optimal location overlooks the terrain where the unit will execute the operation.

E. Map Rehearsal

A map rehearsal is similar to a sketch-map rehearsal, except the commander uses a map and operation overlay of the same scale used to plan the operation.

- **Time**. The most time-consuming part is the rehearsal itself. A map rehearsal is normally the easiest technique to set up, since it requires only maps and current operational graphics.
- **Echelons involved**. Because a map is geared to the echelon conducting the rehearsal, multiechelon rehearsals using this technique are difficult.
- **OPSEC**. This rehearsal can present an OPSEC vulnerability if the area around the site is not secured. The collection of commanders & vehicles can draw enemy attention.
- **Terrain**. This technique requires the least space. An optimal location overlooks the terrain where the operations will be executed, but is concealed from the enemy.

F. Network Rehearsal

Units conduct network rehearsals over wide-area networks or local area networks. Commanders and staffs practice these rehearsals by talking through critical portions of the operation over communications networks in a sequence the commander establishes. The organization rehearses only the critical parts of the operation. CPs can also rehearse battle tracking.

- **Time**. If the organization does not have a clear SOP and if all units are not up on the net, this technique can be very time consuming.
- **Echelons involved**. This technique lends itself to multiechelon rehearsals. Participation is limited only by commander's desires and the availability of INFOSYSs.
- **OPSEC**. If a network rehearsal is executed from current unit locations, the volume of the communications transmissions and potential compromise of information through enemy monitoring can present an OPSEC vulnerability.
- **Terrain**. If a network rehearsal is executed from unit locations, terrain considerations are minimal.

The After Action Review (AAR)

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), pp. 16-3 to 16-4.

Formal and informal after action reviews generally follow the same format:

1. Review what was supposed to happen

The facilitator and participants review what was supposed to happen. This review is based on the commander's intent for the operation, unit operation or fragmentary orders (FRAGORDs), the mission, and the concept of operations.

2. Establish what happened

The facilitator and participants determine to the extent possible what actually happened during execution. Unit records and reports form the basis of this determination. An account describing actual events as closely as possible is vital to an effective discussion. The assistant chief of staff, intelligence (G-2 [S-2]) provides input about the operation from the enemy's perspective.

3. Determine what was right or wrong with what happened

Determine what was right or wrong with what happened. Participants establish the strong and weak points of their performance. The facilitator guides discussions so that the conclusions the participants reach are operationally sound, consistent with Army standards, and relevant to the operational environment.

4. Determine how the task should be done differently the next time

The facilitator helps the chain of command lead the group in determining how participants might perform the task more effectively. The intended result is organizational and individual learning that can be applied to future operations. If successful, this learning can be disseminated as lessons learned.

Leaders understand that not all tasks will be performed to standard. In their initial planning, they allocate time and other resources for retraining after execution or before the next operation. Retraining allows participants to apply the lessons learned from after action reviews and implement corrective actions. Retraining should be conducted at the earliest opportunity to translate observations and evaluations from after action reviews into performance in operations. Commanders ensure Soldiers understand that training is incomplete until the identified corrections in performance have been achieved.

After action reviews are often tiered as multi-echelon leader development tools. Following a session involving all participants, senior commanders may continue after action reviews with selected leaders as extended professional discussions. These discussions usually include a more specific review of leader contributions to the operation's results. Commanders use this opportunity to help subordinate leaders master current skills and prepare them for future responsibilities. After action reviews are opportunities for knowledge transfer through teaching, coaching, and mentoring.

Commanders conduct a final after action review during recovery after an operation. This after action review may include a facilitator. Unit leaders review and discuss the operation. Weaknesses or shortcomings identified during earlier after action reviews are identified again and discussed. If time permits, the unit conducts training to correct these weaknesses or shortcomings in preparation for future operations.

Lessons learned can be disseminated in at least three ways. First, participants may make notes to use in retraining themselves and their sections or units. Second, facilitators may gather their own and participants' notes for collation and analysis before dissemination and storage for others to use. Dissemination includes forwarding lessons to other units conducting similar operations as well as to the Center for Army Lessons Learned, doctrinal proponents, and generating force agencies. Third, units should publicize future successful applications of lessons as lessons learned.

Step 1. Planning the After Action Review

Ref: FM 6-0 (C2), Commander and Staff Organization and Operations (Apr '16), pp. 16-3 to 16-4.

To maximize the effectiveness of AARs, formal or informal, leaders must plan and prepare to execute AARs. AAR planning is part of each training event. All leaders must understand the unit's mission and the commander's intent for the operation (event).

The amount and level of detail needed during the planning and preparation process depends on the type of AAR to be conducted and available resources. The AAR process has four steps: planning, preparing, conducting, and follow up (using AAR results).

I. Planning the AAR

1. Selecting and training observor controllers (OCs)
2. Reviewing the training and evaluation outline (T&EO)
3. Scheduling stopping points
4. Determining attendance
5. Choosing training aids
6. Reviewing the AAR plan

Commanders are responsible for training their units. They hold subordinate leaders responsible for training their respective organizations. Commanders instill mission command by using orders for events to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders. The AAR helps Soldiers develop a mutual understanding of the unit's strengths and weaknesses. Commanders issue guidance and specify their intent for an upcoming event's AAR.

The AAR plan provides the foundation for successful AARs. Commanders provide their intent and guidance to develop an AAR plan for each training event. Subordinates then determine how to achieve the commander's intent. The guidance applies for formal and informal AARs and should contain—

- Which tasks are trained and are the focus of the AAR
- Which events / phases of the operation are AARs conducted
- Who observes the training and who conducts the AAR
- Who attends
- When and where the AAR occurs
- What training aids are required

Leaders or OCs use the AAR plan to identify critical places and events they must observe to provide the unit a timely and valid assessment; examples include unit maintenance collection points, passage points, and unit aid stations. The AAR plan also includes who (either internal or external to the unit) facilitates the AAR for a particular event. The leader or OC is the individual tasked to observe training, provide control for the training, and lead the AAR.

1. Selecting and Training Observer Controllers (OC)

When planning an AAR, commanders select leaders/OCs who—

- Demonstrate proficiency in the tasks to be trained
- Are knowledgeable of the duties they are to observe
- Are knowledgeable of current doctrine and TTPs

When using external OCs, commanders strive to have OCs that are at least equal in rank to the leader of the unit they will assess. If commanders must choose between experience and an understanding of current TTPs or rank, they should go with experience. A staff sergeant with experience as a tank platoon sergeant is a better platoon OC than a sergeant first class who has no platoon sergeant experience.

Commanders are responsible for training and certifying OCs, to include providing training on how to conduct an AAR. Ideally, inexperienced OCs should observe properly conducted AARs beforehand.

2. Reviewing the Training & Evaluation Outline (T&EO)

The commander must specify their intent for the event along with the objectives and tasks to be trained. The commander also states the operational environment that is to be replicated during the event and the focus of the tasks trained. The leaders then review the T&EO which provides the conditions and standards for the respective collective or individual tasks. Leaders use the T&EOs to measure unit and soldier performance.

T&EOs are located on the Digital Training Management System (DTMS) and via the Army Training Network (ATN). Leaders and OCs must review the tasks to be trained as specified in the commander's guidance and intent for an upcoming event. The respective T&EOs are not only provided to remaining OC team members, but also to the Soldiers in the unit. The T&EO states the performance measures and the order specifies the commander's intent. All members of the unit must review these documents to gain a complete and mutual understanding of the critical places and phases to assess task performance.

3. Scheduling Stopping Points

Commanders schedule the time and place to conduct AARs as an integral part of training events. Commanders plan for an AAR at the end of each critical phase or major training event. For example, a leader may plan a stopping point after issuing an OPORD, when the unit arrives at a new position, or after consolidation on an objective, etc.

Commanders plan to allow approximately 30-45 minutes for platoon-level AARs, 1 hour for company-level AARs, and about 2 hours for battalion-level and above. Soldiers receive better feedback on their performance and remember the lessons longer as result of a quality AAR.

4. Determining Attendance

The AAR plan specifies who attends each AAR. At each echelon, an AAR has a primary set of participants. At squad and platoon levels, everyone attends and participates. At company or higher levels, it may not be practical to have everyone attend because of continuing operations or training. In this case, unit and OPFOR commanders, unit leaders, and other key players may be the only participants. Leaders or OCs may recommend additional participants based on specific observations.

5. Choosing Training Aids

Training aids add to AAR effectiveness. Training aids should directly support discussion of the training and promote learning. Local training support center (TSC) catalogs list training aids available to each unit. Dry-erase boards, video equipment, digital maps, terrain models, and enlarged maps are all worthwhile under the right conditions. For example, if reconnaissance reveals there are no sites which provided a view of the exercise area, the AAR facilitator may want to use a terrain table, or digital map if available.

6. Reviewing the AAR Plan

The AAR plan is only a guide. Commanders issue their intent and subordinates determine how to achieve that intent. Commanders, leaders and OCs should review the AAR plan regularly (e.g., training meeting) to make sure it is on track and meets the training needs of the units. The plan may be adjusted as necessary, but changes take preparation and planning time away from subordinate leaders or OCs. The purpose of the AAR plan is to allow OCs and leaders as much time as possible to prepare for the AAR.

I. Operational Terms & Acronyms

ADP 1-02, Terms and Military Symbols (Aug '18)

ADP 1-02 constitutes approved Army doctrinal terminology and symbology for general use. It builds on the foundational doctrine established in ADP 1-02.

The principal audience for ADP 1-02 is all members of the profession of Arms. Commanders and staffs of Army headquarters serving as joint task force or multinational headquarters should also refer to applicable joint or multinational doctrine concerning the range of military operations and joint or multinational forces. Trainers and educators throughout the Army will also use this publication.

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

This publication implements the following international agreements:

- STANAG 1059 (ED. 8). Letter Codes for Geographical Entities. 1 April 2004.
- STANAG 1241 (ED. 5). NATO Standard Identity Description Structure for Tactical Use. 6 April 2005.
- STANAG 2019 (ED. 7)/APP-6 (D). NATO Joint Military Symbology. 16 October 2017.
- STANAG 3680 (ED. 5)/AAP-6 (2017) (2). NATO Glossary of Terms and Definitions (English and French). 7 February 2018.

ADP 1-02 uses joint terms where applicable.

ADP 1-02 applies to the Active Army, Army National Guard/Army National Guard of the United States, and United States Army Reserve unless otherwise stated.

ADP 1-02 is augmented by the Army Dictionary online. Changes to terminology occur more frequently than traditional publication media can be updated. The terminology and symbology database, known as the Army Dictionary, is updated monthly to reflect the latest editions of Army publications. (To access the database, go to https://jdeis.js.mil/jdeis/index.jsp?pindex=207, and log in with a common access card.) This database is an official Department of Defense (DOD) Web site, maintained by the Combined Arms Doctrine Directorate in collaboration with the Joint Staff Directorate for Joint Force Development. The site is part of the Joint Doctrine, Education, and Training Electronic Information System. It includes all Army doctrinal terms and all military symbols in MIL-STD 2525D, including air, land, maritime, space, activities control measures, and meteorological symbols. While the database includes the same joint terms appearing in ADP 1-02, readers should consult the DOD Dictionary of Military and Associated Terms for up-to-date joint terminology.

ADP 1-02 also provides a single standard for developing and depicting hand-drawn and computer-generated military symbols for situation maps, overlays, and annotated aerial photographs for all types of military operations. It is the Army proponent publication for all military symbols, and it complies with Department of Defense (DOD) Military Standard (MIL-STD) 2525D. The symbology chapters of this ADP focus primarily on military symbols applicable to Army land operations. When communicating instructions to subordinate units, commanders and staffs from company through corps echelons should use this publication as a dictionary of operational terms and military symbols.

Combined Glossary (ADP 5-0/6-0)

This glossary -- compiled from both ADP 5-0 The Operations Process (Jul '19) and ADP 6-0 Mission Command (Jul '19)-- lists operational planning and mission command-related acronyms and terms with Army or joint definitions. Where Army and Joint definitions differ, (Army) precedes the definition. Terms for which ADP 5-0 or ADP 6-0 is the proponent are noted as appropriate. The proponent publication for other terms is listed in parentheses after the definition.

Army team building - A continuous process of enabling a group of people to reach their goals and improve effectiveness through leadership and various exercises, activities and techniques. (FM 6-22)

assessment - The determination of the progress toward accomplishing a task, creating a condition, or achieving an objective. (JP 3-0)

battle rhythm - A deliberate, daily schedule of command, staff, and unit activities intended to maximize use of time and synchronize staff actions. (JP 3-33)

branch - The contingency options built into the base plan used for changing the mission, orientation, or direction of movement of a force to aid success of the operation based on anticipated events, opportunities, or disruptions caused by enemy actions and reactions. (JP 5-0)

campaign plan - A joint operation plan for a series of related major operations aimed at achieving strategic or operational objectives within a given time and space. (JP 5-0)

center of gravity - The source of power that provides moral or physical strength, freedom of action, or will to act. (JP 5-0)

chain of command - The succession of commanding officers from a superior to a subordinate through which command is exercised. (JP 1)

civil considerations - The influence of manmade infrastructure, civilian institutions, and attitudes and activities of the civilian leaders, populations, and organizations within an area of operations on the conduct of military operations. (ADP 6-0)

collaborative planning - Two or more echelons planning together in real time, sharing information, perceptions, and ideas to develop their respective plans simultaneously. (ADP 5-0)

combat power - (Army) The total means of destructive, constructive, and information capabilities that a military unit or formation can apply at a given time. (ADP 3-0)

command - The authority that a commander in the armed forces lawfully exercises over subordinates by virtue of rank or assignment. (JP 1)

command and control - The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. (JP 1)

command and control system - (Army) The arrangement of people, processes, networks, and command posts that enable commanders to conduct operations. (ADP 6-0)

command and control warfighting function - The related tasks and a system that enable commanders to synchronize and converge all elements of combat power. (ADP 3-0)

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

II. Military Symbology Basics

Ref: ADP 1-02, Terms and Military Symbols (Aug '18), chap. 3

This section discusses framed symbols, locations of amplifiers, the bounding octagon, and the locations of icons and modifiers. It also discusses the building process for framed symbols and unframed symbols.

A military symbol is a graphic representation of a unit, equipment, installation, activity, control measure, or tactical task relevant to military operations that is used for planning or to represent the common operational picture on a map, display, or overlay. Military symbols are governed by the rules in Military Standard (MIL-STD) 2525D.

Military symbols fall into two categories: framed, which includes unit, equipment, installation, and activity symbols; and unframed, which includes control measure and tactical symbols:

A. Framed Symbols

A framed symbol is composed of a frame, color (fill), icon, modifiers, and amplifiers. Framed symbols include:

- Unit, individuals, and organization symbols *(see pp. 7-17 to 7-20)*
- Equipment symbols *(see pp. 7-22 to 7-25)*
- Installation symbols *(see p. 7-21)*
- Activity symbols *(see p. 7-20)*

See following page (pp. 7-10 to 7-15) for discussion of the building process for framed symbols.

B. Unframed Symbols

Control measure symbols and mission task verb symbols are unframed symbols. They conform to special rules for their own elements. Unframed symbols include:

- Control measure symbols *(see pp. 7-27 to 7-34)*
- Tactical symbols *(see pp. 7-35 to 7-38)*

See p. 7-16 for discussion of the building process for unframed symbols.

Mission and Operational Task Symbols

The mission and operational task symbols are graphic representations of many of the tactical tasks, tactical enabling tasks, retrograde tasks, and special purpose attacks. However, not all have an associated symbol. Tactical task symbols are for use in course of action sketches, synchronization matrixes, and maneuver sketches. They do not replace any part of an operation order. Mission and operational task symbols should be scaled to fit the map scale and the size of unit represented.

See pp. 7-35 to 7-38.

A. Framed Symbols

Ref: ADP 1-02, Terms and Military Symbols (Aug '18), pp. 3-1 to 3-3.

The frame is the border of a symbol. It does not include associated information inside or outside of the border. The frame serves as the base to which other symbol components are added. The frame indicates the standard identity, physical domain, and status of the object being represented.

Standard Identity

Standard identity reflects the relationship between the viewer and the operational object being monitored. The standard identity categories are unknown, pending, assumed friend, friend, neutral, suspect,and hostile. In the realm of surface operation symbols, a circle or rectangle frame denotes friend or assumed friend standard identity, a diamond frame denotes hostile or suspect standard identity, a square frame denotes neutral standard identity, and a quatrefoil frame denotes unknown and pending standard identity. Table 3-1 shows frame shapes for standard identities for land symbols.

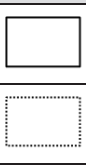
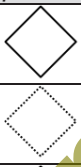
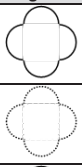
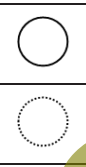
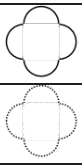
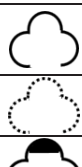
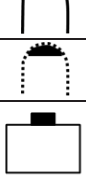
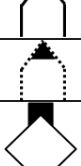
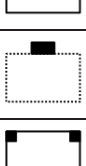
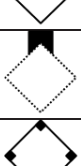
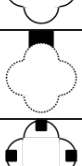
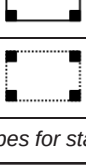
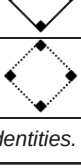
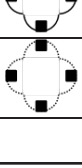
Standard Identity	*Friendly* / *Assumed Friend*	*Hostile* / *Suspect*	*Neutral*	*Unknown* / *Pending*
Unit				
Land equipment and sea surface				
Air				
Space				
Installation				
Activity				

Table 3-1. Frame shapes for standard identities.

Physical Domain

The physical domain defines the primary mission area for the object within the operational environment. An object can have a mission area above the earth's surface (in the air domain or space domain),on the earth's surface, or below the earth's surface (that is, in the land domain or maritime domain). The land domain includes those mission areas on the land surface or close to the surface (such as caves, mines, and underground shelters). Maritime surface units are depicted in the sea surface dimension. Aircraft, regardless of Service ownership, can be depicted in either the air dimension (in flight) or land dimension (on the ground),while air units are depicted as a land unit and facilities as a land installation. Land equipment is depicted in the land dimension. Likewise, landing craft whose primary mission is ferrying personnel or equipment to and from shore are represented in the sea surface dimension. However, a landing craft whose primary mission is to fight on land is a ground asset and is represented in the land dimension.

Continued on next page

Status

Status depicts whether an object exists at the location identified (status is "present" or "confirmed"),will in the future reside at that location (status is "planned" or "anticipated"), or is thought to reside at that location ("suspected"). See table 3-2 for a depiction of friendly frames.

Dimension / Status	Space	Air	Land Unit	Land Equipment and Sea Surface	Land Installation	Sea Subsurface	Activity or Event
Present or confirmed position							
Anticipated, planned or suspected position							

Table 3-2. Friendly frames in present, planned, or suspected status.

Color (Fill)

In framed symbols, color provides a redundant clue with regard to standard identity. The fill is the interior area in a symbol. If color is not used, the fill is transparent. In unframed symbols (equipment), color is the sole indicator of standard identity, excluding text amplifiers. The default colors used to designate standard identity are blue for friendly or assumed friend, red for hostile or suspect, green for neutral, and yellow for unknown or pending. Affiliation color without the fill may also be used for the frame, main icon,and modifiers.

The Octagon

The octagon serves as a three sector spatial reference for placement of main icons and modifiers in the frame of a symbol. The three sectors specify where main icons and modifiers are positioned and how much space is available for sizing of main icons and modifiers. The vertical bounding octagon allows for effective use of the space when dealing with vertical icons. Figure 3-1 shows an example of a full-frame main icon for all frame shapes.

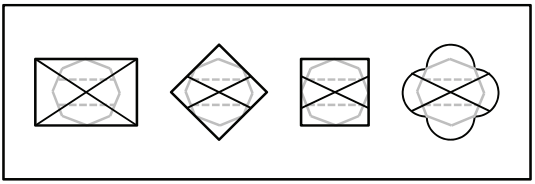


Figure 3-1. Example of full-frame main icons (with octagon sectors).

Continued on next page

Main Icons for Equipment

Ref: ADP 1-02, Terms and Military Symbols (Aug '18), chap. 5.

Equipment is all nonexpendable items needed to outfit or equip an individual or organization. Equipment symbols can be used with or without frames. When frames are not used, then standard identity color must be used. Icons in the main sector reflect the main function of the symbol. Equipment can use either the horizontal or vertical bounding octagon depending on the icon.

Description	Icon
Weapon systems	
Note. Weapon systems, missile launchers, and nonlethal weapons use the horizontal bounding octagon and a unique system for indicating size, altitude, or range. Weapons size is indicated by a horizontal line(s) perpendicular to the weapon icon. If an equipment symbol has no lines, it is a basic equipment symbol. Adding one line designates it as light, low altitude, or short-range. Adding two lines designates it as medium, medium altitude, or medium-range. Finally, adding three lines designates it as heavy, high altitude, or long-range. If a weapon system is designated as greater than heavy, high altitude, or long-range, then a heavy, high-altitude, or long-range indicator is used.	
Unspecified weapon	
Flame thrower	
Grenade launcher	
Guns	
Description	Icon
Air defense gun	
Antitank gun	
Direct fire gun	
Recoilless gun	
Howitzer	
Machine gun	
Description	Icon
Missile launchers	
Missile launcher	
Air defense missile launcher surface-to-air missile launcher	
Antitank missile launcher	
Surface-to-surface missile launcher	
Mortar	
Rifle	
Description	Icon
Rockets	
Single rocket launcher	
Multiple rocket launcher	
Antitank rocket launcher	
Description	Icon
Nonlethal weapons	
Nonlethal weapon	
Taser	
Water cannon	

Description	Icon
Vehicles	
Note: Vehicle systems use a unique system for indicating size or range. Vehicle size is indicated by either horizontal or vertical line(s) within the icon depending on the orientation of the symbol. If an equipment symbol has no lines, it is a basic equipment symbol. Adding one line designates it as light or short-range. Adding two lines designates it as medium or medium-range. Finally, adding three lines designates it as heavy or long-range. Note: Armored fighting vehicles, armoured personnel carriers, earthmovers, and tanks use the vertical bounding octagon. All remainin equipment icons use the horizontal bounding octagon.	
Armored fighting vehicle	
Armored personnel carrier	
Armored protected vehicle	
Earthmover	
Tank	
Train locomotive	
Utility vehicle	
Description	Icon
Other equipment	
Bridge	
Chemical, biological, radiological, or nuclear (CBRN) equipment	
Improvised explosive device	IED
Description	Icon
Mines	
Antipersonnel mine	
Antitank mine	
Unspecified mine	
Radar	
Sensor	
Description	Icon
Aircraft	
Note: These are aircraft on the ground. Aircraft in flight use the air domain frame. Change: This brings the land equipment icons in line with air domain icons.	
Helicopter (rotary-wing aircraft)	
Fixed wing aircraft	
Unmanned aircraft	
Description	Icon
Engineer Equipment	
Bridge	
Fixed bridge	
Folding girder bridge	
Hollow deck bridge	
Drill	
Earthmover	
Mine clearing	
Mine laying	

Table 5-1. Main icons for equipment (examples).

Icons & Modifiers for Land Equipment Symbols

This section includes the lists of icons and modifiers for building land equipment symbols. Figure 5-1 shows the placement of land equipment symbol amplifiers around the friend symbol frame. Table 5-1 provides descriptions and formats of each amplifier and modifier. Equipment is all nonexpendable items needed to outfit or equip an individual or organization. Equipment symbols can be used with or without frames. When frames are not used, then standard identity colors must be used.

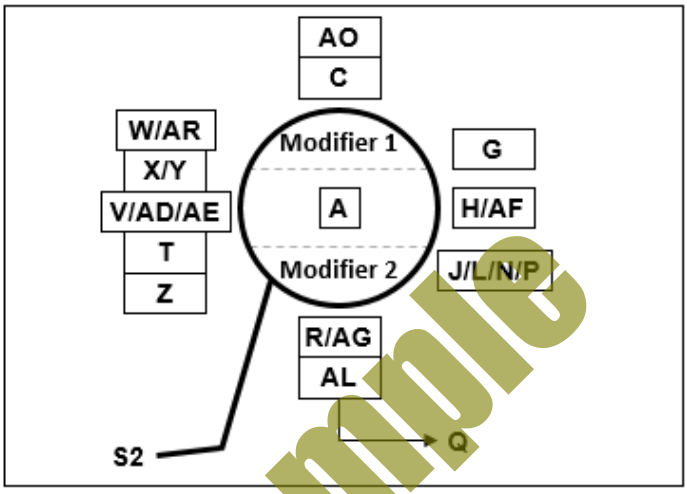


Figure 5-1. Placement of land equipment symbol amplifiers
(See table 5-1 on following pages for field descriptions.)

Continued on next page

Sector 1 Modifiers for Equipment *Examples*

This is a change to the previous system.

Description	*Modifier*	*Example of modifier with friendly equipment frame* / *Example of most common usage* / *Icon or symbol without frame*
Horizontal bounding octagon		
Vertical bounding octagon		
Attack	A	Attack helicopter

Sector 2 Modifiers for Equipment *Examples*

Description	Modifier
Light	L
Medium	M
Heavy	H

Mobility Indicator Amplifier (Field R) *Examples*

Description	Amplifier
Amphibious	
Barge	
Over snow (prime mover)	
Pack animal	
Railway	
Sled	
Towed	
Tracked	
Wheeled (cross-country)	
Wheeled (limited mobility)	
Wheeled and tracked	

Continued on next page

V. Control Measure Symbols

Ref: ADP 1-02, Terms and Military Symbols (Aug '18), chap. 8.

A control measure symbol is a graphic used on maps and displays to regulate forces and warfighting functions. Definitions of terms related to control measure symbols are provided in ADP 1-02, chapter 1. Control measure symbols generally fall into one of three categories: points, lines, or areas. The coloring and labeling of control measure symbols are almost identical to framed symbols.

See p. 7-16 for discussion and overview of the building process for control measure symbols (unframed symbols).

Composition of Control Measure Symbols

Control measure symbols can be combined with other symbols, icons and amplifiers to display operational information (see figure 8-1). They do not follow the same building rules as the icon-based symbols but shall be built in accordance with the draw rules specified in the symbol tables.

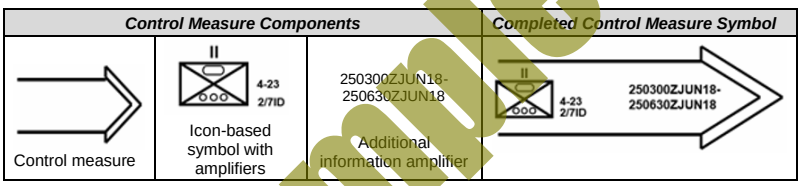


Fig. 8-1. Composition of control measure symbols.

Standard Identity Coloring Control Measures

Friendly graphic control measures will be shown in black or blue when drawn manually or on a color computer-generated display. Hostile graphic control measures will be shown in red. If red is not available,they will be drawn in black with the abbreviation "ENY" placed on the graphic in at least two places. Obstacles as shown in this chapter (friendly, hostile, neutral, unknown or factional) will be drawn using the color green. If the color green is not available, obstacles should be drawn using black. The color yellow will be used for the hatching for chemical, biological, radiological, and nuclear (CBRN) contaminated areas.

Control Measure Acronyms and Abbreviations

Acronyms and abbreviations shown in this chapter are for use with Army control measure symbols,and no acronyms or abbreviations other than those provided in this publication may be used. Acronyms or abbreviations become part of the military symbol language when approved for use as military symbols and are no longer considered an acronym or abbreviation when used within the military symbol construct. The acronyms and abbreviations in this chapter are considered symbols that are part of the military symbol lexicon.

Labeling Control Measures

Make all text labeling in upper case letters. The reader should be able to read the labels for all text labels of modifier or amplifier fields for control measures symbols when the bottom of the overlay is closest to the reader. Labeling written on an angle should be readable to viewers so they do not have to turn their heads.

Status

Status refers to whether a control measure exists at the location identified (status is “present”) or will in the future reside at that location (status is “planned”, “anticipated”, “suspected”, or “on order”). If a control measure is on order, the status code shall be specified “A – anticipated or planned” and field amplifier “W”shall be present and specified “O/O”. In general, linear control measures (including boundary lines) and area control measures shall be a solid line when indicating present status and a dashed line when indicating anticipated or planned status. There are certain control measures such as counterattack which are drawn in the “present’” status with dashed lines.

Amplifiers

An amplifier provides optional additional information about a tactical symbol. The field identification,field title, description, and maximum allowable display lengths of tactical symbol amplifiers are presented in table 8-2 (facing page). Amplifiers can be defined as either static or dynamic:

- **Static amplifiers** are amplifiers whose size and placement are fixed and remain constant.
- **Dynamic amplifiers** are amplifiers whose size and placement are based on the attributes of an object and can change as these attributes and the scale of the background change.

See facing page for amplifier descriptions for control measure symbols (table 8-2).

The **direction of movement indicator** is an arrow identifying the direction of movement of events. The arrow extends downward from the center of the icon and points in the direction of movement. The indicator is represented in field Q as defined in table 8-2 (facing page) and positioned as shown in figure 8-3 below.

The **echelon indicator** provides a graphic representation of command level and is used to show the element echelon on lines and areas. The indicator is represented in field Q as defined in table 8-2 and positioned as shown in fig. 8-3 (below).

The **offset location indicator** is used when placing an object away from its actual location. The indicator is a line extending downward from an appropriate anchor point on an icon. The actual location (field Y) is given in latitude and longitude. The indicator is represented in field S in table 8-2.

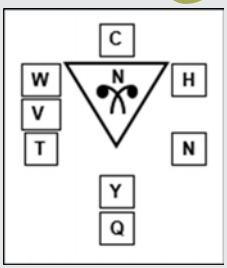


Fig. 8-3. CBRN events composition template

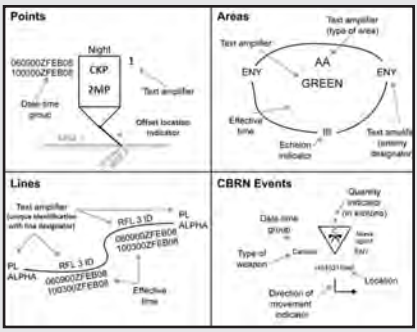


Fig. 8-2. Amplifier descriptions usage examples

*Table 8-2 (facing page) defines the specific content, length and type of each **text amplifier.** Additional information is contained in field H, with the content of this field being implementation specific, provided the maximum number of characters in each field is not exceeded.*

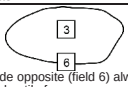
Control Measure Symbols (Examples)

Ref: ADP 1-02, Terms and Military Symbols (Aug '18), tables 8-7 to 8-31.

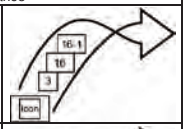
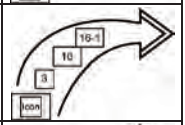
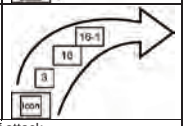
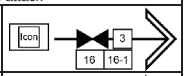
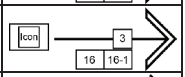
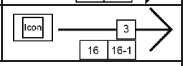
Mission Command (C2)

Type	Icon
Points	
Coordination point	
Decision point	
Checkpoint	CKP
Linkup point	LU
Passage point	PP
Rally point	RLY
Release point	RP
Start point	SP
Type	Icon
Lines	
Light line	LL
Type	Icon
Areas	
Area of operations	AO
Named area of interest	NAI
Targeted area of interest	TAI

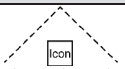
Movement and Maneuver

Type	Icon
General	
Points	
Point of interest	
Lines	
Forward line of troops	
Handover line	HL
Phase line	PL
Areas	
Assembly area	AA
Drop zone	DZ
Extraction zone	EZ
Landing zone	LZ
Pickup zone	PZ
Defensive	
Points	
Combat outpost	
Observation post	
Lines	
Final protective line	FPL
Areas	
Battle position	 Note: The side opposite (field 6) always faces toward the hostile force.

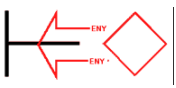
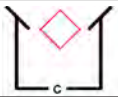
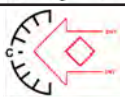
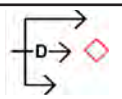
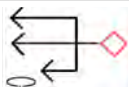
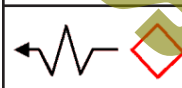
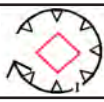
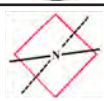
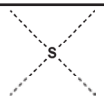
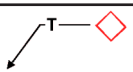
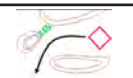
Movement and Maneuver (cont.)

Type	Icon
Offensive	
Axis of advance	
Airborne/aviation (supporting attack)	
Main attack	
Supporting attack	
Direction of attack	
Aviation (main attack)	
Main attack	
Supporting attack	
Points	
Target reference point Note: Task force units and below use target reference points (TRPs). A TRP can delineate sectors of fire within an engagement area. TRPs are designated using the standard target symbol or numbers issued by the fire support officer. Once designated, TRPs can also constitute indirect fire targets.	
Lines	
Bridgehead line	BL
Final coordination line	FCL
Holding line	HL
Limit of advance	LOA
Line of departure	LD
Line of departure/line of contact	LD/LC
Probable line of deployment	PLD Note:Use the planned status for the line.
Release line	RL
Areas	
Assault position	ASLT
Attack position	ATK
Objective	OBJ
Special areas	
Airhead/airhead line	 Note: An airhead/airhead line can be an area or a line.

Intelligence

Point, line, or area	
Type	Icon
Decoy/dummy/ feint/phoney	 Note: The icon refers to another control measure icon, such as axis of advance, direction of attack, or minefield.

C. Effect on Enemy Forces

Block		*Block* is a tactical mission task that denies the enemy access to an area or prevents his advance in a direction or along an avenue of approach.
		*Block* is also an engineer obstacle effect that integrates fire planning and obstacle effort to stop an attacker along a specific avenue of approach or prevent him from passing through an engagement area.
Canalize		*Canalize* is a tactical mission task in which the commander restricts enemy movement to a narrow zone by exploiting terrain coupled with the use of obstacles, fires, or friendly maneuver.
Contain		*Contain* is a tactical mission task that requires the commander to stop, hold, or surround enemy forces or to cause them to center their activity on a given front and prevent them from withdrawing any part of their forces for use elsewhere.
Defeat	*No graphic*	*Defeat* occurs when an enemy has temporarily or permanently lost the physical means or the will to fight. The defeated force is unwilling or unable to pursue his COA, and can no longer interfere to a significant degree. Results from the use of force or the threat of its use.
Destroy		*Destroy* is a tactical mission task that physically renders an enemy force combat-ineffective until it is reconstituted. Alternatively, to destroy a combat system is to damage it so badly that it cannot perform any function or be restored to a usable condition without being entirely rebuilt.
Disrupt		*Disrupt* is a tactical mission task in which a commander integrates direct and indirect fires, terrain, and obstacles to upset an enemy's formation or tempo, interrupt his timetable, or cause his forces to commit prematurely or attack in a piecemeal fashion.
		*Disrupt* is also an engineer obstacle effect that focuses fire planning and obstacle effort to cause the enemy to break up his formation and tempo, interrupt his timetable, commit breaching assets prematurely, and attack in a piecemeal effort.
Fix		*Fix* is a tactical mission task where a commander prevents the enemy from moving any part of his force from a specific location for a specific period. Fixing an enemy force does not mean destroying it. The friendly force has to prevent the enemy from moving in any direction.
		*Fix* is also an engineer obstacle effect that focuses fire planning and obstacle effort to slow an attacker's movement within a specified area, normally an engagement area.
Isolate		*Isolate* is a tactical mission task that requires a unit to seal off-both physically and psychologically-an enemy from his sources of support, deny him freedom of movement, and prevent him from having contact with other enemy forces.
Neutralize		*Neutralize* is a tactical mission task that results in rendering enemy personnel or materiel incapable of interfering with a particular operation.
Suppress		*Suppress* is a tactical mission task that results in the temporary degradation of the performance of a force or weapon system below the level needed to accomplish its mission.
Turn		*Turn* is a tactical mission task that involves forcing an enemy element from one avenue of approach or movement corridor to another.
		*Turn* is also a tactical obstacle effect that integrates fire planning and obstacle effort to divert an enemy formation from one avenue of approach to an adjacent avenue of approach or into an engagement area.

Tactical Doctrinal Taxonomy

Ref: Adapted from ADP 3-90, Offense and Defense (Jul '19), fig. 2-1, p. 2-3.

The following shows the Army's tactical doctrinal taxonomy for the four elements of decisive action (in accordance with ADP 3-0) and their subordinate tasks. The commander conducts tactical enabling tasks to assist the planning, preparation, and execution of any of the four elements of decisive action. Tactical enabling tasks are never decisive operations in the context of the conduct of offensive and defensive tasks. (They are also never decisive during the conduct of stability tasks.) The commander uses tactical shaping tasks to assist in conducting combat operations with reduced risk.

Elements of Decisive Action (and subordinate tasks)

Offensive Operations

Movement to Contact
- Search and attack
- Cordon and search

Attack
- Ambush*
- Counterattack*
- Demonstration*
- Spoiling attack*
- Feint*
- Raid*
- **Also known as special purpose attacks*

Exploitation

Pursuit
- Frontal
- Combination

Forms of Maneuver
- Envelopment
- Frontal attack
- Infiltration
- Penetration
- Turning Movement

Defensive Operations

Area Defense

Mobile Defense

Retrograde
- Delay
- Withdraw
- Retirement

Forms of the Defense
- Defense of linear obstacle
- Perimeter defense
- Reverse slope defense

Stability Operations
- Civil security
- Civil control
- Restore essential services
- Support to governance
- Support to economic and infrastructure development
- Conduct security cooperation

Defense Support to Civil Authorities
- Provide support for domestic disasters
- Provide support for domestic CBRN incidents
- Provide support for domestic law enforcement agencies
- Provide other designated support

Enabling Operations

Reconnaissance Operations
- Area
- Reconnaissance in force
- Route
- Special
- Zone

Security
- Screen
- Guard
- Cover
- Area

Passage of Lines
- Forward
- Rearward

Troop Movement
- Administrative movement
- Approach march
- Road march

Encirclement Operations

Relief in Place
- Sequential
- Simultaneous
- Staggered

Other Enabling Operations (Examples)
- Information Operations (FM 3-13)
- Mobility Operations (ATP 3-90.4)
- Countermobility Operations (ATP 3-90.8)

Tactical Mission Tasks

Actions by Friendly Forces
- Attack-by-Fire
- Breach
- Bypass
- Clear
- Control
- Counterreconnaissance
- Disengage
- Exfiltrate
- Follow and Assume
- Follow and Support
- Occupy
- Reduce
- Retain
- Secure
- Seize
- Support-by-Fire

Effects on Enemy Force
- Block
- Canalize
- Contain
- Defeat
- Destroy
- Disrupt
- Fix
- Interdict
- Isolate
- Neutralize
- Suppress
- Turn

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