

FM 3-0

OPERATIONS



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HEADQUARTERS, DEPARTMENT OF THE ARMY

1-64. The strategic and operational levels of warfare provide the context for tactical operations. Without this context, tactical operations devolve into a series of disconnected and unfocused actions. Likewise, tactical operations inform strategic and operational objectives, ensuring that those objectives remain tethered to reality and adjust, when necessary, according to the situation. Strategic and operational success is a measure of how the achievement of objectives in one or more battles contributes to winning a major operation or campaign. (See ADP 3-90 for more information on tactics.)

ARMY STRATEGIC CONTEXTS

1-65. Joint doctrine describes the strategic environment in terms of a competition continuum. Rather than a world either at peace or at war, the competition continuum describes three broad categories of strategic relationships—cooperation, competition below armed conflict, and armed conflict. Each relationship is defined as between the United States and another strategic actor relative to a specific set of policy aims. Cooperation, competition, and even armed conflict commonly go on simultaneously in different parts of the world. Because of this, the needs of CCDRs and Army component commanders in one area are affected by the strategic needs of others. (See JP 3-0 for more information about the joint competition continuum.)

Note. This manual uses “competition” to mean “competition below armed conflict.”

1-66. Although combatant commands and theater armies campaign across the competition continuum, Army tactical formations typically conduct operations within a context dominated by one strategic relationship at a time. Therefore, Army doctrine describes the strategic situation through three contexts in which Army forces conduct operations:

- Competition below armed conflict.
- Crisis.
- Armed conflict.

1-67. The Army strategic contexts generally correspond to the joint competition continuum and the requirements of joint campaigns. Because cooperation is generally conducted with an ally or partner to counter an adversary or enemy, Army doctrine considers it part of competition. Army doctrine adds crisis to account for the unique challenges facing ground forces that often characterize transition between competition and armed conflict. (See figure 1-3 for an illustration of Army strategic contexts.)

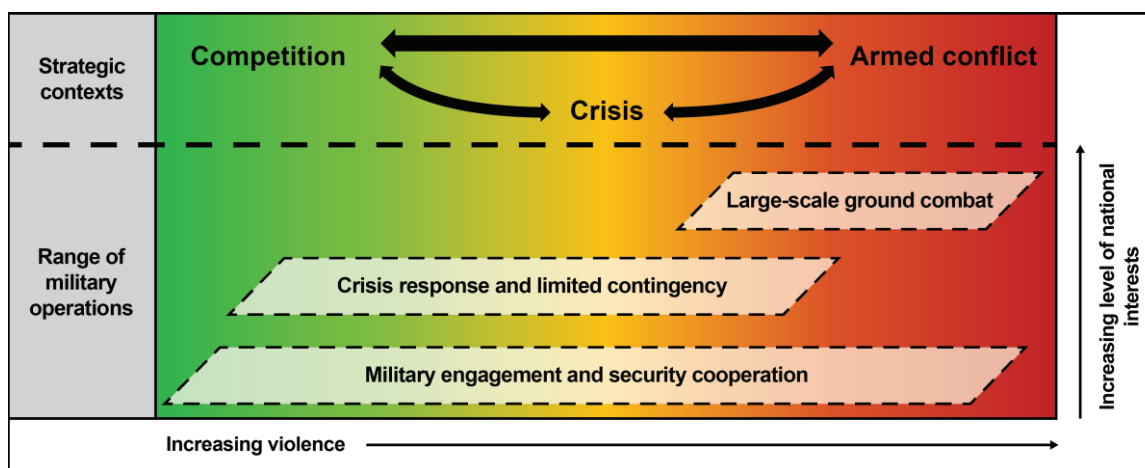


Figure 1-3. Army strategic contexts and operational categories

Competition Below Armed Conflict

1-68. Competition below armed conflict exists when two or more state or non-state adversaries have incompatible interests, but neither seeks armed conflict. Nation-states compete with each other using all instruments of national power to gain and maintain advantages that help them achieve their goals. Low levels

of lethal force can be a part of competition below armed conflict. Adversaries often employ cyberspace capabilities and information warfare to destroy or disrupt infrastructure, interfere with government processes, and conduct activities in a way that does not cause the United States and its allies to respond with force. Competition provides military forces time to prepare for armed conflict, opportunities to assure allies and partners of resolve and commitment, and time and space to set the necessary conditions to prevent crisis or conflict. Examples of competition include return of forces to Europe (known as REFORGER) exercises conducted during the Cold War, security assistance provided to Ukraine since 2014, and Pacific Pathways activities to improve readiness in the Indo-Pacific region. (See Chapter 4 for a detailed discussion of Army forces during competition.)

Crisis

1-69. A *crisis* is an emerging incident or situation involving a possible threat to the United States, its citizens, military forces, or vital interests that develops rapidly and creates a condition of such diplomatic, economic, or military importance that commitment of military forces and resources is contemplated to achieve national and/or strategic objectives (JP 3-0). Commanders have to consider the possibility that overt military action may escalate a crisis towards armed conflict. The use of space and cyberspace capabilities provides other options that are less likely to cause escalation. The context of crisis is relative to an adversary, which is different from crisis response, which can result from a natural or human disaster. During crisis, armed conflict has not yet occurred, but it is either imminent or a distinct possibility that requires rapid response by forces prepared to fight if deterrence fails.

Note. A crisis can be long in duration, but it can also reflect a near-simultaneous transition to armed conflict. Leaders do not assume that a crisis provides additional time for a transition to armed conflict.

1-70. Army forces contribute to joint operations, seeking to deter further provocation and compel an adversary to de-escalate aggression and return to competition under conditions acceptable for the United States and its allies or partners. Through rapid movement and integration with the joint force, Army forces help signal the readiness and willingness to prevail in combat operations. When authorized, Army forces can inform or influence perceptions about an operation's goals and progress to amplify effects on the ground during a crisis; however, commanders ensure their message aligns with reality and that their narratives are truthful and credible.

1-71. Army forces help the joint force maintain freedom of action and associated positions of relative advantage through the activities they conduct and their presence on the ground. They operate in a way that disrupts adversary risk calculations about the cost of acting contrary to U.S. national interests, compels de-escalation, and fosters a return to competition conditions favorable to the United States. If deterrence fails to end a crisis, Army forces are better postured for operations during armed conflict. Examples of crisis include the Cuban missile crisis of 1962, Iraq's invasion of Kuwait in 1990, North Korean missile and rocket provocations in 2017-2018, and the Russian attacks into Ukraine in 2014 and 2022. (See Chapter 5 for a detailed discussion of Army forces during crisis.)

Armed Conflict

1-72. Armed conflict occurs when a state or non-state actor uses lethal force as the primary means to satisfy its interests. Armed conflict can range from irregular warfare to conventional warfare and combinations of both. Entering into and terminating armed conflict is a political decision. Army forces may enter conflict with some advanced warning during a prolonged crisis or with little warning during competition. How well Army forces are prepared to enter into an armed conflict ultimately depends upon decisions and preparations made during competition and crisis.

1-73. At the onset of armed conflict, forward-positioned Army forces may defend key terrain or infrastructure while seeking opportunities to gain the initiative or reposition to more favorable locations with partner forces. Army forces help JFCs gain and maintain the initiative, defeat enemy forces on the ground, control territory and populations, and consolidate gains to establish conditions for a political settlement favorable to U.S. interests. Army forces provide landpower to the joint force and conduct limited contingency

or large-scale combat operations to ensure enduring political outcomes favorable to U.S. interests. Examples of armed conflict include the Vietnam War, OPERATION DESERT STORM, and OPERATION INHERENT RESOLVE. (See Chapter 6 for a detailed discussion of Army forces conducting operations during armed conflict. See Chapter 7 for a discussion of Army forces in large-scale combat in maritime environments.)

CONSOLIDATING GAINS

1-74. Army commanders must exploit successful operations by continuously consolidating gains during competition, crisis, and armed conflict. *Consolidate gains* are activities to make enduring any initial operational success and to set the conditions for a sustainable security environment, allowing for a transition of control to other legitimate authorities (ADP 3-0). Consolidation of gains is an integral and continuous part of competition, and it is necessary for achieving success across the range of military operations. Successful consolidation of gains requires a realistic and pragmatic assessment of strategic conditions, ally and partner legitimacy, friendly and adversary relative advantages, and the viability of a sustainable political outcome. Operations to inform and influence foreign audiences also play a key role in achieving lasting outcomes.

1-75. During competition, Army forces may consolidate gains from previous conflicts for many years as JFCs seek to maintain relative advantages against a specific adversary and sustain enduring political outcomes. U.S. forces in Europe, Japan, the Republic of Korea, and the Middle East remained in place for decades to consolidate gains made in earlier conflicts. Army forces also consolidate gains by continuously developing multinational interoperability and readiness for large-scale combat operations.

1-76. During armed conflict, Army forces deliberately plan to consolidate gains throughout an operation as part of defeating the enemy in detail to accomplish overall policy and strategic objectives. Early and effective consolidation activities are a form of exploitation performed while other operations are ongoing, and they enable the achievement of lasting favorable outcomes in the shortest time span. Tactical units consolidating on an objective can be the first step in consolidating gains. In some instances, Army forces will be the lead for integrating forces and synchronizing activities to consolidate gains. In other situations, Army forces will be in support of allies and partners. Army forces may consolidate gains for a sustained period over large land areas. Military governments in occupied territories stabilize civilian populations. Military authorities may temporarily govern areas until populations are stable enough for transition to legitimate civilian authorities. This transition of control to civil authorities reduces demands on combat power.

1-77. While Army forces must continuously consolidate gains throughout an operation, consolidating gains becomes the overall focus of Army forces when large-scale combat operations have concluded. During competition, Army forces may consolidate gains from previous conflicts for many years as JFCs seek to maintain relative advantages against a specific adversary. During crisis, Army forces seek to consolidate whatever gains are made relative to a specific adversary so that the crisis does not occur again.

UNDERSTANDING AN OPERATIONAL ENVIRONMENT

Since men live upon the land and not upon the sea, great issues between nations at war have always been decided—except in the rarest of cases—either by what your army can do against your enemy’s territory and national life, or else by fear of what the fleet makes it possible for your army to do.

Sir Julian Corbett

1-78. An *operational environment* is the aggregate of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander (JP 3-0). For Army forces, an operational environment includes portions of the land, maritime, air, space, and cyberspace domains understood through three dimensions (human, physical, and information). The land, maritime, air, and space domains are defined by their physical characteristics. Cyberspace, a manmade network of networks, transits and connects the other domains as represented by the dots shown in figure 1-4.

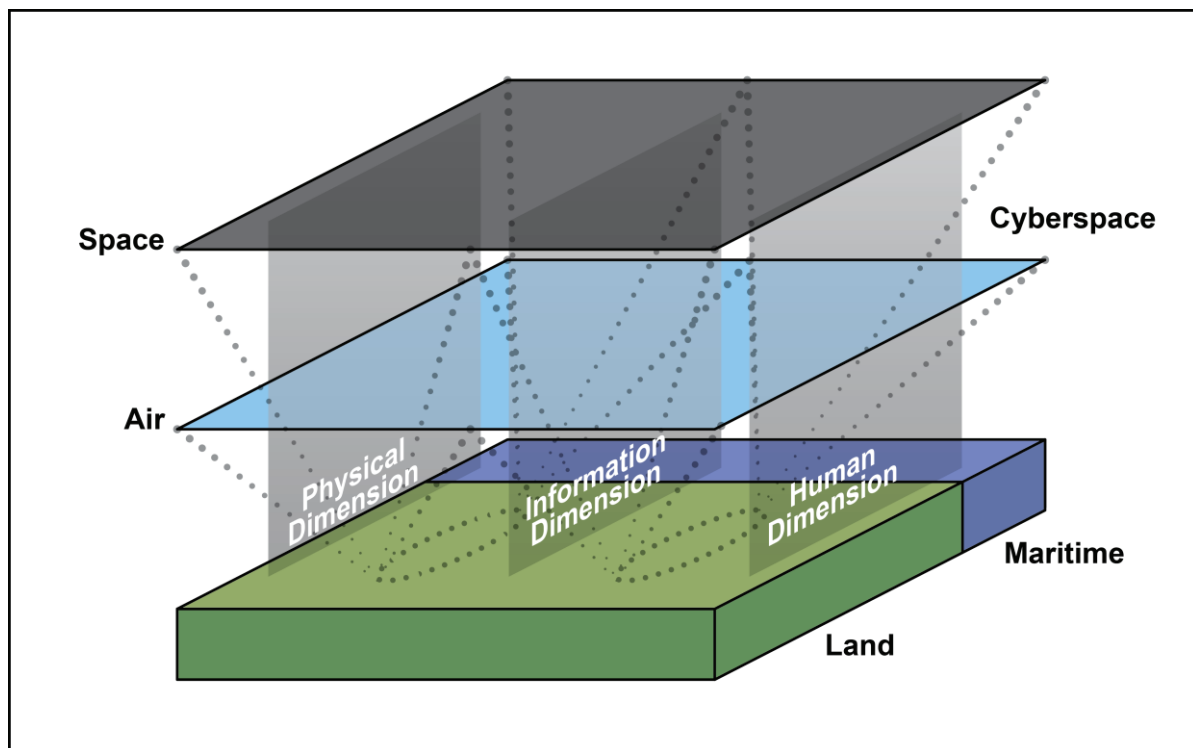


Figure 1-4. Domains and dimensions of an operational environment

Note. Joint doctrine describes the components of an operational environment as the physical areas of the land, maritime, air, and space domains; the information environment (which includes cyberspace); the electromagnetic spectrum; and other factors. (See JP 2-0 and JP 5-0 for more information on describing and analyzing an operational environment from a joint perspective.)

1-79. The operational environment model aids in accounting for the totality of factors, specific circumstances, and conditions that impact the conduct of operations. This understanding enables leaders to better identify problems; anticipate potential outcomes; and understand the results of various friendly, enemy, adversary, and neutral actions and the effects these actions have on achieving the military end state. A description of an operational environment includes all the factors that the commander and staff need to capture and understand to inform the conduct of operations.

1-80. Knowledge of the operational environment is the precursor to effective action. Obtaining knowledge about an operational environment requires aggressive and continuous intelligence, surveillance, reconnaissance, and security operations to acquire information. Information collected from multiple sources and analyzed becomes intelligence that answers commanders' intelligence requirements. Using all available relevant information to determine how the operational environment affects operations is essential to understanding which courses of action are the most feasible, suitable, and acceptable. Throughout the course of operations, commanders and staffs rely on an integrated information collection effort to develop an accurate picture of their operational environment. *Information collection* is an activity that synchronizes and integrates the planning and employment of sensors and assets and as well as the processing, exploitation, and dissemination systems in direct support of current and future operations (FM 3-55).

1-81. An operational environment is the totality of factors that affect what occurs in an assigned area. These factors include actors, events, or actions that occur outside the assigned area. How the many entities behave and interact with each other is difficult to discern. No two operational environments are the same, and all of them continually change. Changes result, in part, from opposing forces and actors interacting, learning, and adapting. The complex and dynamic nature of an operational environment makes determining the relationship

between cause and effect challenging, and it contributes to the uncertain nature of war and human competition. This requires that commanders, supported by their staffs, develop and maintain the best possible understanding of their operational environment. Several tools and processes assist commanders and staffs in understanding their operational environment. They include—

- Domains.
- Dimensions.
- Operational and mission variables (detailed in FM 6-0).
- Running estimates (described in ADP 5-0).
- Army design methodology (described in ATP 5-0.1).
- The military decision-making process (described in ADP 5-0).
- Building intelligence knowledge (described in FM 2-0).
- Intelligence preparation of the battlefield (described in ATP 2-01.3).
- Sustainment preparation of the operational environment (described in FM 4-0).

DOMAINS

1-82. Within the context of an operational environment, a **domain is a physically defined portion of an operational environment requiring a unique set of warfighting capabilities and skills**. Each military Service and branch trains and educates its leaders to be experts about operations in a primary domain, although each Service has some capability in each of the domains, and each develops shared understanding of how to integrate capabilities from different domains. Land operations require mastery of terrain and ground maneuver. Cyberspace operations require mastery of digital information systems and computer code. Space, air, and maritime operations likewise require specific capabilities and skills, which manifest themselves in separate Services within the joint force. Although most domains align with the skills developed in a particular Service, no Service focuses entirely upon or exerts total control of that single domain during operations. Joint commanders assign responsibilities and task-organize based on mission requirements. However, the domains present very different conditions of warfare and require the specialized warfighting skills developed by the different Services and subcomponents within each of the Services. Army leaders do not need to understand all the technical components of what the joint force does in other domains, but they do need to understand the complementary and reinforcing ways in which they can request and employ those capabilities and methods in support of operations on land. (See Chapter 3 for a discussion of convergence.)

Understanding the strengths and dependencies of joint capabilities in each domain is fundamental to a multidomain, combined arms approach to operations.

Land Domain

1-83. The *land domain* is the area of the Earth's surface ending at the high water mark and overlapping with the maritime domain in the landward segment of the littorals (JP 3-31). Variations in climate, terrain, and the diversity of populations have a far greater impact on operations in the land domain than in any other domain. The most distinguishing characteristic of the land domain is the human dimension. Humans transit the maritime, air, and space domains, but they ultimately live, make political decisions, and seek conflict resolution on land.

1-84. The nature of combat on land is unique due to the impacts of terrain on all warfighting functions and the application of combat power. For example, terrain provides forces opportunities for evading detection and increasing survivability. It also provides enemy forces the same opportunities. Although technology increases the range of capabilities, complex terrain causes opposing forces to fight at close ranges. Land combatants routinely come face-to-face with one another in large numbers in a wide variety of operational environments containing all types of terrain and potentially nuclear, biological, and chemically degraded environments. When other means fail to drive enemy forces from their positions, Army forces close with and destroy or capture them through close combat. *Close combat* is warfare carried out on land in a direct-fire fight, supported by direct and indirect fires and other assets (ADP 3-0). The outcome of battles and engagements depends on the ability of Army forces to close with enemy forces and prevail in close combat.

1-85. Land-based domain capabilities are able to use or alter the terrain, operate in all forms of weather, and operate among populations. Land capabilities extend operational reach and provide options for enabling joint operations. Long-range artillery provides the joint force with a fires capability that is more survivable in some circumstances than air and maritime fires. Land-based electromagnetic capabilities are capable of jamming enemy communications and C2 systems. Land-based air and missile defense (AMD) capabilities, enabled by space and cyberspace capabilities, provide protection for Army and joint forces.

1-86. The other four domains depend, in some way, on land. Airfields, ports, servers, ground control stations and land-based radars support or enable operations in other domains. Most cyberspace capabilities and all the electricity that powers them depend on land-based networks. The energy that fuels air, space, and most maritime platforms comes from locations on land.

1-87. Operations on land depend on capabilities from other domains. Air lift, sea lift, cyberspace networks, and all non-land based examples of ISR and fires enable operations on land. (See JP 3-31 for information on joint land operations.)

Maritime Domain

1-88. The *maritime domain* is the oceans, seas, bays, estuaries, islands, coastal areas, and the airspace above these, including the littorals (JP 3-32). It overlaps with the land domain in the seaward segment of the littoral. Maritime capability may be viewed as global, regional, territorial, coastal, and self-defense forces. Only a few navies are capable of sustained employment far from their countries' shores. However, whether or not their navies are capable of global power projection, most maritime nations also maintain air forces capable of conducting operations over the adjacent maritime domain. This air capability, combined with land-based long-range fires, greatly impacts operations in the maritime domain.

1-89. The Navy and its partners employ five functions in a combined arms approach to provide a unique relative advantage for the joint force. These functions are deterrence, operational access, sea control, power projection, and maritime security.

1-90. Maritime forces move strategic fires capabilities globally, conceal strategic capabilities below the surface of the ocean, transport personnel and equipment over vast distances, and sustain maritime operations for long periods. Maritime forces depend on or require support from the joint force to—

- Protect maritime capabilities from enemy interdiction.
- Protect ports.
- Secure geographic choke points.
- Influence populations.
- Mitigate long timelines associated with maritime movement.
- Compensate for the limited number of available maritime platforms.
- Mitigate the inability to replace ships lost during a conflict.

1-91. Army forces rely on maritime capabilities for deployment and sustainment. Additionally, maritime fires and AMD complement and reinforce land-based systems. Army forces assist maritime forces with sea control, projecting power ashore to neutralize threats or control terrain in the landward portion of the littorals. Army long-range fires, attack aviation, AMD, and cyberspace capabilities contribute to local and regional maritime superiority.

1-92. For intratheater operations, Army watercraft provide a capability to move maneuver formations and sustain operations in a maritime environment. Army watercraft systems support joint and combined seabasing and joint logistics over-the-shore (JLOTS). In some circumstances, Army watercraft capabilities can mitigate enemy antiaccess (A2) or area denial (AD) approaches by providing access to shallow coastal waters, rivers, and narrow inland waterways where mature ports or road networks are unavailable. (See JP 3-32 for information on joint maritime operations.)

Air Domain

1-93. The *air domain* is the atmosphere, beginning at the Earth's surface, extending to the altitude where its effects upon operations become negligible (JP 3-30). The speed, range, and payload of aircraft, rockets,

missiles, and hypersonic glide vehicles operating in the air domain directly and significantly affect operations on land and sea. Likewise, advances in AMD, electromagnetic warfare, directed energy, and cyberspace capabilities increasingly contest freedom of maneuver in the air.

1-94. Control of the air and control of the land are often interdependent requirements for successful campaigns and operations. Control of the air provides a significant advantage when attacking strategically valuable targets at long ranges. However, control of the land is necessary for operating secure airfields and protecting other key terrain that enables air operations. The desired degree of control of the air may vary geographically and over time from no control, to parity, to local air superiority, to air supremacy, all depending upon the situation and the JFC's approved concept of operations.

1-95. Army forces rely on the Air Force and other joint and multinational air capabilities for ISR, strategic attack, close air support, interdiction, personnel recovery, communications, sustainment, and mobility. Air platforms are unencumbered by terrain, but they are vulnerable to detection and interdiction. Effectiveness of air platforms can be contingent upon weather conditions. Aerial reconnaissance and surveillance cannot always detect enemy capabilities concealed by vegetation or terrain. The number of sorties air platforms can conduct depends on having control of airfields and their proximity to targets.

1-96. Army aviation provides ground commanders and the joint force with land-focused air capabilities. Joint force commanders and land component commanders establish control measures to enable Army forces to operate unimpeded in the air domain, coordinated when necessary with air capabilities from the other Services. Army aviation (including fixed-wing, rotary-wing, and unmanned aircraft) provides reconnaissance and surveillance, fires, intelligence, communications, and movement capabilities to Army, joint, and multinational forces. Army rotary-wing aviation uses terrain to protect it from enemy detection. Army forces also have aerial ISR capabilities that support security operations, targeting, delivering precision fires, and information collection. Army land-based AMD capabilities provide protection against enemy air and missile attack. (See JP 3 30 for more information on joint air operations.)

Space Domain

1-97. **The *space domain* is the area above the altitude where atmospheric effects on airborne objects become negligible.** Like the air, land, and maritime domains, space is a physical domain in which military, civil, and commercial activities are conducted. The U.S. Space Command (known as USSPACECOM) has an area of responsibility that surrounds the earth at altitudes equal to, or greater than, 100 kilometers (54 nautical miles) above mean sea level. It has responsibility for planning and execution of global space operations, activities, and missions.

1-98. Proliferation of advanced space technology provides access to space-enabled technologies to a global audience. Some adversaries have their own space capabilities, while commercially available systems allow almost universal access to some level of space-enabled capability with military applications.

1-99. Space capabilities provide information collection; early warning; target acquisition; electromagnetic warfare; environmental monitoring; satellite-based communications; and positioning, navigation, and timing information for ground forces. Activities in the space domain enable freedom of action for operations in all other domains, and operations in the other domains can create effects in and through the space domain.

1-100. Army forces rely on space-based capabilities to enable each warfighting function and effectively conduct operations. Commanders and staffs require an understanding of space capabilities and their effects and the ability to coordinate activities between involved agencies and organizations. Commanders cannot assume that U.S. forces will have unconstrained use of space-based capabilities, including data communications. Therefore, Army forces must be prepared to operate under the conditions of a denied, degraded, and disrupted space domain. (See FM 3-14 for doctrine on Army space operations.)

Cyberspace Domain

1-101. For Army forces, the ***cyberspace domain* is the interdependent networks of information technology infrastructures and resident data, including the Internet, telecommunication networks, computer systems, embedded processors and controllers, and relevant portions of the electromagnetic spectrum.** Cyberspace is an extensive and complex global network of wired and wireless links connecting

nodes that permeate every domain. Cyberspace networks cross geographic and political boundaries to connect individuals, organizations, and systems around the world. Cyberspace allows interactivity among individuals, groups, organizations, and nation-states. Friendly, enemy, adversary, and host-nation networks, communications systems, computers, cellular phone systems, social media, and technical infrastructures are all part of cyberspace. Cyberspace is congested, contested, and critical to successful operations.

1-102. Cyberspace is dependent on the land, maritime, air, and space domains. Cyberspace operations use links and nodes located in these domains and perform functions to gain access and create effects first in cyberspace and then, as needed, in the other domains. Virtually all space operations depend on cyberspace, and a critical portion of cyberspace bandwidth can only be provided via space operations. These interrelationships are important considerations during planning.

1-103. Army forces conduct cyberspace operations and supporting activities as part of both Army and joint operations. Because cyberspace is a global communications and data-sharing medium, it is inherently joint, interorganizational, multinational, and often a shared resource, with signal and intelligence organizations maintaining significant equities.

1-104. Commanders can use cyberspace and electromagnetic warfare capabilities to gain situational awareness and understanding of the enemy through reconnaissance and sensing activities. These reconnaissance and sensing activities augment and enhance the understanding a commander gains from other forms of information collection and intelligence processes. Cyberspace and electromagnetic warfare capabilities enable decision making and protect friendly information. They are a significant means for informing and influencing audiences.

1-105. Leaders maintain situational understanding of friendly electromagnetic signatures to assess vulnerabilities. By protecting friendly information systems and signals from disruption or exploitation by an adversary or enemy, a commander can ensure C2 and maintain operations security. Conversely, a commander might use cyberspace and electromagnetic warfare capabilities to slow or degrade an enemy's decision-making processes by disrupting enemy sensors, communications, or data processing. To achieve an information advantage, a commander must plan early to integrate cyberspace operations and electromagnetic warfare activities into the overall scheme of maneuver. (See FM 3-12 for more details on cyberspace.)

DIMENSIONS

1-106. Understanding the physical, information, and human dimensions of each domain helps commanders and staffs assess and anticipate the impacts of their operations. Operations reflect the reality that war is an act of force (in the physical dimension) to compel (in the information dimension) the decision making and behavior of enemy forces (in the human dimension). Actions in one dimension influence factors in the other dimensions. Understanding the interrelationship enables decision making about how to create and exploit advantages in one dimension and achieve objectives in the others without causing undesirable consequences.

Physical Dimension

1-107. **The physical dimension is the material characteristics and capabilities, both natural and manufactured, within an operational environment.** While war is a human endeavor, it occurs in a material environment, and it is conducted with physical things. Each of the domains is inherently physical. Terrain, weather, military formations, electromagnetic radiation, weapons systems and their ranges, and many of the things that support or sustain forces are part of the physical dimension. Activities or conditions in the physical dimension create effects in the human and information dimensions.

1-108. The electromagnetic spectrum is one of the material characteristics that crosses all the domains. It consists of a range of frequencies of electromagnetic radiation from zero to infinity divided into 26 alphabetically designated bands. The electromagnetic spectrum is relevant in the land, maritime, and air domains because capabilities in those domains depend on electromagnetic spectrum-enabled communications and weapon systems. The electromagnetic spectrum plays a key role in the ability to detect enemy forces that can be identified by their electromagnetic signatures. Conversely, friendly forces must take efforts to mask their electromagnetic signatures to degrade enemy surveillance and reconnaissance efforts.

1-109. A physical advantage occurs when a force holds the initiative in terms of a combination of quantitative capabilities, qualitative capabilities, or geographical positioning. Physical advantages are most familiar to tactical forces, and they are typically the immediate goal of most tactical operations. Finding enemy forces, defeating enemy forces, and seizing land areas typically requires the creation and exploitation of multiple physical advantages, including occupation of key terrain, the physical isolation of enemy forces, and the destruction of enemy units. While this dominates tactical operations, leaders understand that physical advantages both complement and are complemented by human and information advantages.

1-110. Examples of physical advantage include favorable geography, superior equipment, quantity of resources, and favorable combat power ratios. Superior equipment and favorable geography provide options for seizing the initiative. Superior combat power allows friendly forces to engage enemy forces on favorable terms. The exploitation of physical advantages reduces an enemy force's capacity to fight, creating information and human advantages. Physical advantages implicitly communicate a message that can influence enemy forces' will to fight, sway popular support, and influence enemy risk calculus.

Information Dimension

1-111. The **information dimension is the content, data, and processes that individuals, groups, and information systems use to communicate.** Information systems include the technical processes and analytics used to exchange information. The information dimension contains the information itself, including text and images. It also includes the flow or communication pathways of information. Information exchange may be in the form of electromagnetic transmission, print, or speech. The information dimension connects humans to the physical world.

1-112. Information transits through all domains in some way or another, whether in electromagnetic transmissions through cyberspace, radar data collected by a destroyer, leaflets dropped from aircraft, social media messaging, books, or satellite photography collected in and transmitted from space. Information, whether true, false, or somewhere in between, is used by friendly, enemy, adversary, and neutral actors to influence the perceptions, decision making, and behavior of individuals and groups. Effective employment of information depends on the audience, message, and method of delivery.

1-113. Information is available globally in near-real time. The ability to access information—from anywhere, at any time—broadens and accelerates human interaction, including person to person, person to organization, person to government, and government to government. Social media enables the swift mobilization of people and resources around ideas and causes, even before they are fully understood. Disinformation creates malign narratives that can disseminate quickly and instill an array of emotions and behaviors among groups, ranging from disinterest to violence. From a military standpoint, information enables decision making, leadership, and combat power; it is also a key component of combat power necessary for seizing, retaining, and exploiting the initiative and consolidating gains.

1-114. An information advantage is the operational benefit derived when friendly forces understand and exploit the informational considerations of the operational environment to achieve information objectives while denying the threat's ability to do the same. Army forces employ human and physical aspects of the operational environment to gain information advantages. Most types of information advantage result from physical and human factors or activities intrinsic to the operations Army forces conduct. The side possessing better information and using that information more effectively to understand and make decisions has an information advantage. A force that effectively communicates and protects its information while preventing the enemy from doing the same has an advantage. A force that uses information to deceive and confuse an opponent has an advantage. Using information to influence relevant actor behavior more effectively than an adversary or enemy is another information advantage.

Human Dimension

1-115. The **human dimension encompasses people and the interaction between individuals and groups, how they understand information and events, make decisions, generate will, and act within an operational environment.** The will to act and fight emerges from the complex interrelationship of culture, emotion, and behavior. Influencing these factors—by affecting attitudes, beliefs, motivations, and perceptions—underpins the achievement of military objectives.

1-116. Commanders and staffs identify relevant actors and anticipate their behavior. Actors are individuals, groups, networks, and populations. Relevant actors are actors who, through their behavior, could substantially impact campaigns, operations, or tactical actions. From this understanding, commanders develop ways to influence relevant actor behavior, decision making, and will through physical and informational means.

1-117. A human advantage occurs when a force holds the initiative in terms of training, morale, perception, and will. Human advantages enable friendly morale and will, degrade enemy morale and will, and influence popular support. Examples of human advantages include leader and Soldier competence, morale of troops, and the health and physical fitness of the force. Forces with a cultural affinity to the population in which they operate are also a form of a human advantage. For Army forces, the mission command approach to C2 is a significant human advantage that enhances the friendly decision cycle. (See ADP 6-0 for more information on mission command.)

OPERATIONAL AND MISSION VARIABLES

1-118. The operational and mission variables are tools to assist commanders and staffs in refining their understanding of the domains and dimensions of an operational environment. Commanders and staffs analyze and describe an operational environment in terms of eight interrelated operational variables: political, military, economic, social, information, infrastructure, physical environment, and time (known as PMESII-PT). The operational variables help leaders understand the land domain and its interrelationships with information, relevant actors, and capabilities in the other domains.

1-119. Commanders analyze information categorized by the operational variables in the context of the missions they are assigned. They use the mission variables, in combination with the operational variables, to refine their understanding of the situation and to visualize, describe, and direct operations. The mission variables are mission, enemy, terrain and weather, troops and support available, time available, and civil considerations, each of which have informational considerations. The mission variables are represented as METT-TC (I). (See FM 5-0 for more information on operational and mission variables.) ***Informational considerations are those aspects of the human, information, and physical dimensions that affect how humans and automated systems derive meaning from, use, act upon, and are impacted by information.*** (See FM 5-0 for more details about informational considerations.)

Note. METT-TC (I) represents the mission variables leaders use to analyze and understand a situation in relationship to the unit's mission. The first six variables are not new. However, the pervasiveness of information and its applicability in different military contexts requires leaders to continuously assess its various aspects during operations. Because of this, "I" has been added to the METT-TC mnemonic. Information considerations are expressed as a parenthetical variable because they are not an independent consideration, but an important component of each variable of METT-TC that leaders must understand when developing understanding of a situation.

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