

PART TWO

Foundations of Full Spectrum Operations

Part Two discusses the foundations of full spectrum operations: fundamentals, battle command, and conduct. Warfighting is complex, but its essence is simple, and may be distilled into five general rules: Army forces win on the offense; initiate combat on their terms—not their adversaries; gain and maintain the initiative; build momentum quickly; and win decisively.

The three chapters in this part provide the foundations for these rules and provide greater detail on aspects of how to think about operations.

Chapter 4 describes the range of Army operations, elements of combat power, principles of war, tenets of Army operations, operational framework, and Army capabilities. Army forces can be tailored to create combined arms teams able to mass complementary and reinforcing effects across the range of military operations—war and military operations other than war—at the strategic, operational, and tactical levels. The elements of combat power—maneuver, firepower, leadership, protection, and information—connect Army doctrine, organizations, and operations. Army commanders use the principles of war and the tenets of Army operations to apply the elements of combat power in decisive full spectrum operations. They use the operational framework to arrange their forces in time, space, purpose, and resources to accomplish the mission.

Chapter 5 examines battle command. Battle command is the application of leadership as an element of combat power. It involves four functions: visualizing, describing, directing, and leading. Commanders visualize an operation in terms of METT-TC, the elements of operational design, and their own experience and judgment. Commanders use the commander's intent and planning guidance to describe their vision. Commanders use the concept of operations and the seven battlefield operating systems to direct their forces. Throughout, commanders apply the art of command to lead their soldiers and organizations to success.

Chapter 6 describes the conduct of full spectrum operations in terms of the operations process. The operations process consists of the activities units perform as they conduct operations: planning, preparation, and execution with continuous assessment. It translates the commander's vision into action.

Chapter 4

Fundamentals of Full Spectrum Operations

The art of war owns certain elements and fixed principles. We must acquire that theory, and lodge it in our heads—otherwise, we will never get very far.

Frederick the Great

4-1. Doctrine for full spectrum operations depends upon certain fundamentals. These fundamentals provide the conceptual foundations for execution in the field as well as leader development in the classroom. They provide the basis for the efficient and effective generation, employment, and sustainment of Army forces. Ultimately, knowledge and application of the fundamentals enable Army forces to be decisive across the range of military operations.

4-2. The fundamentals provide the basis for full spectrum operations (see Figure 4-1). The *elements of combat power* are building blocks that

underlie the generation of combat power. In land operations, commanders combine and apply the elements of combat power to produce overwhelming effects. The *principles of war* guide and instruct commanders as they combine the elements of combat power. The principles reflect the distillation of Army experience into a set of time-tested guidelines. The *tenets of Army operations* characterize both the substance and form of full spectrum operations. The tenets permeate Army doctrine. The *operational framework* relates the activities of Army forces in time, space, and purpose. Combined with tenets of Army operations, the framework provides commanders with a conceptual basis for applying combat power. Commanders combine and use the capabilities of combined arms formations in complementary, reinforcing, and asymmetric ways. Combined arms organizations apply combat power to achieve decisive results across the range of operations.

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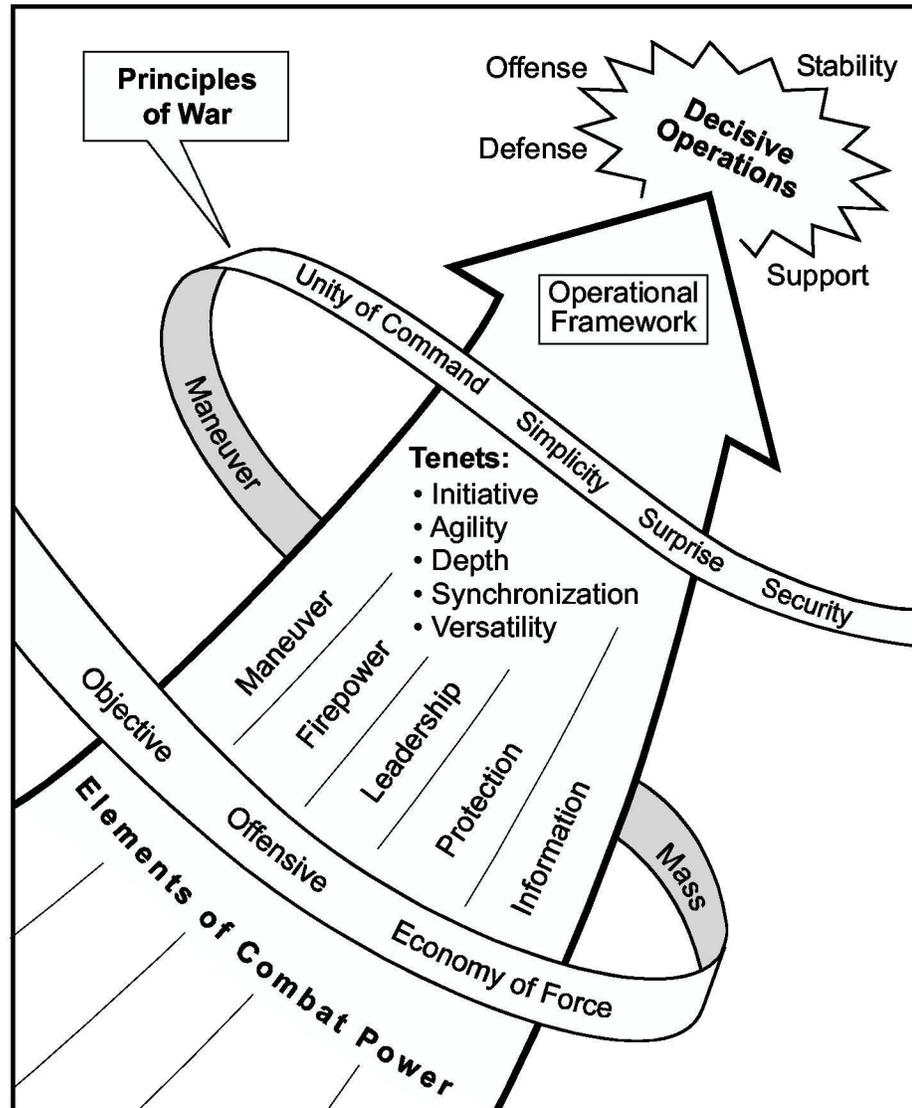


Figure 4-1. The Fundamentals of Full Spectrum Operations

THE ELEMENTS OF COMBAT POWER

4-3. The ability of Army forces to fight and win underlies success in all operations, whether lethal force is used or not. Combat power is the ability to fight. It is the total means of destructive or disruptive force, or both, that a military unit or formation can apply against the adversary at a given time. Commanders combine the elements of combat power—maneuver, firepower, leadership, protection, and information—to meet constantly changing requirements and defeat an enemy (see Figure 4-2, page 4-4). Defeating an enemy requires increasing the disparity between friendly and enemy forces by reducing enemy combat power. Commanders do this by synchronizing the elements of friendly force combat power to create overwhelming effects at the decisive time and place. Focused combat power ensures success and denies an enemy any chance to maintain coherent resistance. Massed effects created by

synchronizing the elements of combat power are the surest means of limiting friendly casualties and swiftly ending a campaign or operation.

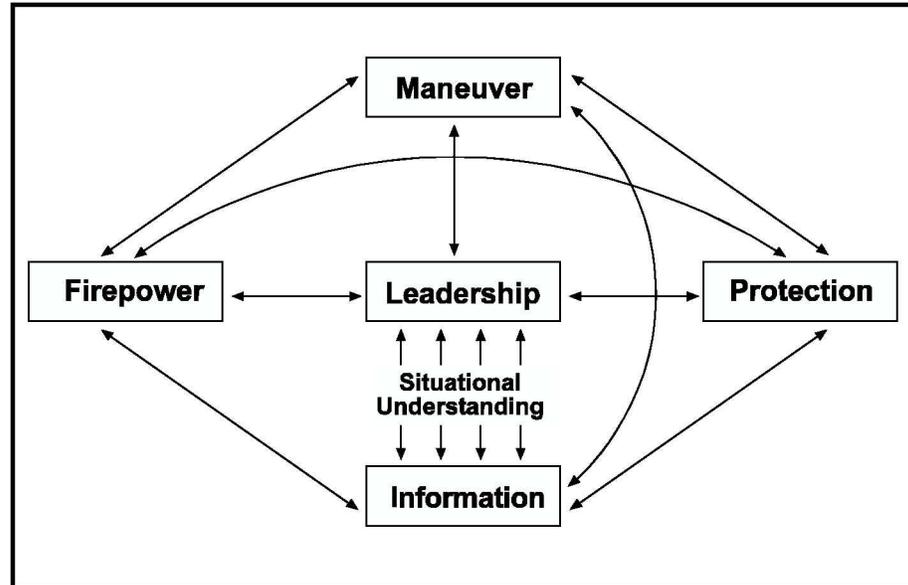


Figure 4-2. The Elements of Combat Power

MANEUVER

4-4. Maneuver is the employment of forces, through movement combined with fire or fire potential, to achieve a position of advantage with respect to the enemy to accomplish the mission. Maneuver is the means by which commanders concentrate combat power to achieve surprise, shock, momentum, and dominance.

Operational Maneuver

4-5. Operational maneuver involves placing Army forces and resources at the critical place in time to achieve an operational advantage. It is complex and often requires joint and multinational support. Deployment and intratheater movements are operational maneuver if they achieve a positional advantage and influence the outcome of a campaign or battle.

4-6. To achieve operational results, commanders seek operational advantages of position before combat begins and exploit tactical success afterwards. Ideally, operational maneuver secures positional advantage before an enemy acts and either preempts enemy maneuver or ensures his destruction if he moves. Operational movements and maneuver allow commanders to create the conditions they desire for battle and take full advantage of tactical actions. During Operation Desert Storm, for example, US Central Command (USCENTCOM) moved VII and XVIII Corps west of Kuwait to position them to envelop or turn the strongest Iraqi defenses. This undetected operational movement resulted in surprise at both the operational and tactical levels. This surprise, combined with rapid tactical movement and overwhelming combat power, resulted in the decisive defeat of the Iraqi army.

Tactical Maneuver

4-7. Tactical maneuver wins battles and engagements. By keeping the enemy off balance, it also protects the force. In both the offense and defense, it positions forces to close with and destroy the enemy. Effective tactical maneuver continually poses new problems for the enemy. It renders his reactions ineffective and eventually drives him to defeat.

4-8. In stability operations, effective tactical maneuver preempts adversary options. It concentrates friendly combat power where it can deter or reduce the effects of violence and places friendly forces in position to use firepower should combat follow. Tactical maneuver gives credibility to an operation by providing tangible evidence of Army force capabilities. In support operations, maneuver positions Army forces to apply their capabilities where they are needed.

Close Combat

4-9. Close combat is inherent in maneuver and has one purpose—to decide the outcome of battles and engagements. ***Close combat* is combat carried out with direct fire weapons, supported by indirect fire, air-delivered fires, and nonlethal engagement means. Close combat defeats or destroys enemy forces, or seizes and retains ground.** The range between combatants may vary from several thousand meters to hand-to-hand combat.

Close Combat at Landing Zone X-Ray

On 14 November 1965, soldiers from the 1st Battalion, 7th Cavalry engaged in close combat with North Vietnamese Army (NVA) forces in the Ia Drang Valley, Republic of Vietnam.

Specialist 5 Marlin T. Dorman recalled hugging the ground because “if you moved you got hit.” He noted that “our training really showed then. We shifted into defensive positions. We had five men killed in 25 minutes. Then all of a sudden they [the NVA] tried a mass assault from three directions, rushing from bush to bush and laying fire on us. We put our M-16s on full automatic and killed most of them.” Specialist 4 Galen Bungum added, “We gathered up all the full magazines we could find and stacked them up in front of us. There was no way we could dig a foxhole. The handle was blown off my entrenching tool and one of my canteens had a hole blown through it. The fire was so heavy that if you tried to raise up to dig you were dead. There was death and destruction all around.”

On the third morning of heavy fighting, the NVA tried one last attempt to break through the battalion perimeter. Under the light of flares, the NVA massed 50 yards in front of the American positions and ran forward. The soldiers responded with air burst field artillery shells, mortar rounds, machine guns, and small arms. After 14 minutes of continuous combat, the NVA force broke off the attack and ended the three-day battle at Landing Zone X-Ray.

4-10. All tactical actions inevitably require seizing or securing terrain as a means to an end or an end in itself. Close combat is necessary if the enemy is skilled and resolute; fires alone will neither drive him from his position nor convince him to abandon his cause. Ultimately, the outcome of battles, major operations, and campaigns depends on the ability of Army forces to close with and destroy the enemy. During offensive and defensive operations, the certainty of destruction may persuade the enemy to yield. In stability operations, close combat dominance is the principal means Army forces use to influence adversary actions. In all cases, the ability of Army forces to engage in close combat, combined with their willingness to do so, is the decisive factor in defeating an enemy or controlling a situation.

FIREPOWER

4-11. Firepower provides the destructive force essential to overcoming the enemy's ability and will to fight. Firepower and maneuver complement each other. Firepower magnifies the effects of maneuver by destroying enemy forces and restricting his ability to counter friendly actions; maneuver creates the conditions for the effective use of firepower. Although one element might dominate a phase of an action, the synchronized effects of both are present in all operations. The threat of one in the presence of the other magnifies the impact of both. One without the other makes neither decisive. Combined, they make destroying larger enemy forces feasible and enhance protection of friendly forces.

4-12. Firepower is the amount of fires that a position, unit, or weapons system can deliver. Fires are effects of lethal and nonlethal weapons. Fires include fire support functions used separately from or in combination with maneuver. The extended range, capabilities, and accuracy of modern weapons systems (direct and indirect) and target acquisition systems make fires more lethal than ever before. These capabilities also allow commanders to create effects throughout the area of operations (AO). Commanders integrate and synchronize operational and tactical fires to accomplish their mission.

Operational Fires

4-13. **Operational fires are the operational-level commander's application of nonlethal and lethal weapons effects to accomplish objectives during the conduct of a campaign or major operation.** They are a vital component of any operational-level plan. Assets other than those supporting tactical maneuver normally furnish operational fires. Commanders direct operational fires against targets whose destruction or neutralization they expect to significantly affect a campaign or major operation. Planning operational fires includes allocating apportioned joint and multinational air, land, and sea means. Operational fires can be designed to achieve a single operational-level objective, for example, interdiction of major enemy forces to create the conditions for defeating them in detail.

4-14. Operational maneuver and operational fires may occur simultaneously but have very different objectives. In general terms, operational fires are not the same as fire support, and operational maneuver does not necessarily depend on operational fires. However, operational maneuver is most effective when commanders synchronize it with, and exploit opportunities developed

by, operational fires. Combining operational fires with operational maneuver generates asymmetric, enormously destructive, one-sided battles, as the Desert Storm ground offensive showed.

Tactical Fires

4-15. Tactical fires destroy or neutralize enemy forces, suppress enemy fires, and disrupt enemy movement. Tactical fires create the conditions for decisive close combat. Commanders take special care to synchronize fires with the effects of other systems. Massing maximum fires requires a thorough understanding of the commander's intent and the ability to employ all available means simultaneously against a variety of targets. The effective application of tactical fires relies on procedures for determining priorities; locating, identifying, and tracking targets; allocating firepower assets; and assessing effects. Effective fires demand well-trained, competently led units with a high degree of situational understanding.

Operational Maneuver and Fires—Operation Desert Storm

On 27 February 1991, Operation Desert Storm demonstrated how operational fires and maneuver can generate a one-sided, decisive battle. The campaign plan identified the Iraqi Army, a force whose elimination would decisively conclude the war, as the operational center of gravity.

XVIII Airborne Corps turned Objective Tim into Forward Operating Base Viper and launched two aviation brigades into Engagement Area Thomas, north of Basrah. There they destroyed over 80 Iraqi vehicles. To the south, the corps pushed eastward. They seized Jalibah Airfield and moved at speeds approaching 40 miles per hour as they overran and destroyed Iraqi forces.

After destroying the Iraqi Tawakalna mechanized and Medina armored divisions, VII Corps pressed an attack that destroyed more than 100 tanks and armored personnel carriers just short of the Kuwaiti border. British forces under operational control of the corps pressed the attack beyond the Basrah-Kuwait City highway to the coast. The remaining Iraqi forces fled encircling coalition forces for sanctuary across the Euphrates River.

LEADERSHIP

4-16. Because it deals directly with soldiers, leadership is the most dynamic element of combat power. Confident, audacious, and competent leadership focuses the other elements of combat power and serves as the catalyst that creates conditions for success. Leaders who embody the warrior ethos inspire soldiers to succeed. They provide purpose, direction, and motivation in all operations. Leadership is key, and the actions of leaders often make the difference between success and failure, particularly in small units.

4-17. The duty of every leader is to be competent in the profession of arms. Competence requires proficiency in four sets of skills: interpersonal, conceptual, technical, and tactical. Army leaders hone these skill sets through continual training and self-study (see FM 6-22).

4-18. Leaders instill their units with Army values, energy, methods, and will. The professional competence, personality, and will of strong commanders at all levels represent a significant part of every unit's combat power. All Army leaders must demonstrate strong character and high ethical standards. Leaders are soldiers first: they know and understand their subordinates and act with courage and conviction. During operations, they know where to be, when to make decisions, and how to influence the action.

4-19. Leaders build teamwork and trust. Trust is a key attribute in the human dimension of combat leadership. Soldiers must trust and have confidence in their leaders. Leaders must command the trust and confidence of their soldiers. Once trust is violated, a leader becomes ineffective. Trust encourages subordinates to seize the initiative. In unclear situations, bold leaders who exercise disciplined initiative within the commander's intent accomplish the mission.

PROTECTION

4-20. **Protection is the preservation of the fighting potential of a force so the commander can apply maximum force at the decisive time and place.** Protection is neither timidity, nor risk avoidance. The Army operates in tough, unforgiving environments where casualties occur. Full spectrum operations create an inherently tense relationship between accomplishing the mission and taking casualties. Accomplishing the mission takes precedence over avoiding casualties. However, soldiers are the most important Army resource, and excessive casualties cripple future mission accomplishment. Casualties from accident and disease are particularly galling. They contribute nothing to mission accomplishment and degrade unit effectiveness. Commanders are responsible for accomplishing the mission with the fewest friendly casualties feasible.

4-21. Protection has four components: force protection, field discipline, safety, and fratricide avoidance. Force protection, the primary component, minimizes the effects of enemy firepower (including weapons of mass destruction [WMD]), maneuver, and information. Field discipline precludes losses from hostile environments. Safety reduces the inherent risk of nonbattle deaths and injuries. Fratricide avoidance minimizes the inadvertent killing or maiming of soldiers by friendly fires.

Force Protection

4-22. **Force protection consists of those actions taken to prevent or mitigate hostile actions against DOD personnel (to include family members), resources, facilities, and critical information. These actions conserve the force's fighting potential so it can be applied at the decisive time and place and incorporates the coordinated and synchronized offensive and defensive measures to enable the effective employment of the joint force while degrading opportunities for the enemy. Force protection does not include actions to defeat the enemy or protect against accidents, weather, or disease.** It includes air, space, and missile defense; nuclear, biological, and chemical defense; antiterrorism; defensive information operations; and security to operational forces and means. The increased emphasis on force protection at every

echelon stems from the conventional dominance of Army forces. Often unable to challenge the Army in conventional combat, adversaries seek to frustrate Army operations by resorting to asymmetric means, weapons, or tactics. Force protection counters these threats.

4-23. Force protection at all levels minimizes losses to hostile action. Skillful and aggressive counterintelligence and threat assessments decrease the vulnerability of friendly forces. Effective operations security (OPSEC) keeps adversaries from exploiting friendly information. Proper dispersion helps reduce losses from enemy fires and terrorist action. Camouflage discipline, local security, and field fortifications do the same. Protection of electronic links and nodes, to include combat troops with electronic devices, is vital to protecting information, information systems, and soldiers. At the operational level, rear area and base security contributes to force protection. Air defense artillery forces protect installations and civilian populations from over-the-horizon strikes by conventional warheads and WMD. Army air and missile defense units complement the air component's control of the air. Nuclear, biological, and chemical (NBC) defense measures provide the capability to sustain operations in nuclear, biological, or chemical environments.

Field Discipline

4-24. Field discipline, a second component of protection, guards soldiers from the physical and psychological effects of the environment. Oppressive environments can sap soldier strength and morale far more quickly than enemy action. Soldiers can adapt to the point that they outperform indigenous populations; however, this adaptation can only stem from training in fieldcraft skills and thorough preparation.

Field Discipline—Preventive Medicine in Combat

In the 1898 war with Spain, the US mobilized the Army and sent soldiers to fight in Cuba, the Philippines, and Puerto Rico. Combat claimed 379 American lives. Well over 10 times that number were lost to disease. Almost 1,000 soldiers died from typhoid fever and diarrhea in crowded, filthy training camps in the US. Once in the tropics, malaria and yellow fever increased the disease-related deaths to several thousand. The resulting scandal led to efforts to reform the War Department.

Nearly a century after the Spanish-American War, the US conducted contingency operations in Panama (1989-90) and Haiti (1994-96). In both cases, combat casualties were minimal, while deaths from disease were nonexistent. Today, good leadership, the advanced state of medical knowledge, formalized measures designed to prevent disease, and first-rate medical treatment ensure that US troops sent overseas are among the healthiest in the world.

4-25. Commanders take every measure and precaution to keep soldiers healthy and maintain their morale. Such actions include securing equipment and supplies from loss or damage. Commanders ensure systems are in place for adequate combat health support (to include preventive medicine) and the

quick return of minor casualties. They provide effective systems for maintenance, evacuation, and rapid replacement or repair of equipment. Tactical commanders take care of their soldiers' basic health needs and prevent unnecessary exposure to debilitating conditions.

Safety

4-26. Safety is a third component of protection. Operational conditions often impose significant risks to soldiers' lives and health and make equipment operation difficult. Trained crews and operators must know the capabilities and limitations of their weapons systems. Commanders must know how to employ them. In designing operations, commanders consider the limits of human endurance. They balance the possible benefits of sustained, high-tempo operations with the risks involved. In combat, fatigue extends reaction times and reduces alertness. Fatal accidents, loss of combat power, and missed tactical opportunities may follow. Command attention to safety and high levels of discipline lessen those risks, particularly as soldiers become exhausted. Safe operations come from enforcing standards during training. While taking calculated risks is inherent in operations, commanders are obligated to embed safety in the conduct of all operations.

Fratricide Avoidance

4-27. A fourth component of protection is fratricide avoidance. ***Fratricide is the unintentional killing or wounding of friendly personnel by friendly firepower.*** The destructive power and range of modern weapons, coupled with the high intensity and rapid tempo of combat, increase the potential for fratricide. Tactical maneuvers, terrain, and weather conditions may also increase the danger of fratricide. Commanders seek to lower the probability of fratricide without discouraging boldness and audacity. Good leadership resulting in positive weapons control, control of troop movements, and disciplined operational procedures contributes to achieving this goal. Situational understanding and using friendly personnel and vehicle identification methods also help. Eliminating fratricide increases soldiers' willingness to act boldly, confident that misdirected friendly fires will not kill them.

INFORMATION

4-28. Information enhances leadership and magnifies the effects of maneuver, firepower, and protection. In the past, when forces made contact with the enemy, commanders developed the situation to gain information. Today, Army leaders use information collected by unmanned systems to increase their situational understanding before engaging the enemy. They also use offensive information operations (IO) to shape the operational environment and create the conditions for employing the other elements of combat power.

4-29. The common operational picture (COP) based on enhanced intelligence, surveillance, and reconnaissance (ISR) and disseminated by modern information systems provides commanders throughout the force with an accurate, near real-time perspective and knowledge of the situation. Information from the COP, transformed into situational understanding, allows commanders to combine the elements of combat power in new ways. For example, superior understanding of the situation allows commanders to avoid enemy

engagement areas, while concentrating fires and maneuver at the decisive place and time. This ability increases the survivability of the force without substantially increasing passive protective systems, such as armor. Modern information systems help leaders at all levels make better decisions faster. Better decisions rapidly communicated allow Army forces to mass the effects of combat power more rapidly and effectively than the enemy. This enables Army forces to see first, understand first, and act first.

4-30. Information is not neutral; opposing sides use it directly and indirectly to gain exploitable advantages and apply them against selected targets. Just as fires are synchronized and targeted, so is information. Some examples illustrate the use of information as an element of combat power: In 1989 during Operation Just Cause, and again in 1991 during Operation Desert Storm, psychological operations (PSYOP) units accompanied maneuver forces. In both conflicts, PYSOP, combined with the demonstrated destructive power of Army forces, convinced many enemy troops to surrender. In Operation Desert Storm, military deception (an element of offensive IO) resulted in the diversion of forces away from USCENTCOM's decisive operation.

Information Modernization— AH-64D Longbow

The AH-64D attack helicopter represents the wave of integrated digital weapons systems now entering service. The aircraft provides the commander with digital links to the ground and air situation. Its computer shares the situational picture with all other aircraft on the mission. The radar fire control system on the aircraft can scan, detect, and classify more than 128 targets, prioritize the 16 most dangerous ones, transmit the information to other aircraft, and initiate a precision attack—all in less than a minute.

4-31. Army forces are modernizing information systems to an unprecedented degree. This effort will have far-reaching effects on Army operations. The aim of these improvements is to provide all leaders with near real-time information that will allow them to understand the tactical situation and act within the commander's intent. This increased capability poses operational challenges. While subordinates have access to the broader tactical situation, commanders have access to layers of tactical detail. Higher-level commanders yielding to the temptation to direct minor tactical actions could reduce the benefits of advanced information systems and the situational understanding they support.

THE FOUNDATIONS OF ARMY OPERATIONS

4-32. Understanding the principles of war and tenets of Army operations is fundamental to operating successfully across the range of military operations. The principles of war and tenets of Army operations form the foundation of Army operational doctrine.

THE PRINCIPLES OF WAR

4-33. The nine principles of war provide general guidance for conducting war and military operations other than war at the strategic, operational, and

tactical levels. The principles are the enduring bedrock of Army doctrine. The US Army published its original principles of war after World War I. In the following years, the Army adjusted the original principles, but overall they have stood the tests of analysis, experimentation, and practice.

4-34. The principles of war are not a checklist. They do not apply in the same way to every situation. Rather, they summarize the characteristics of successful Army operations. Their greatest value lies in the education of the military professional. Applied to the study of past campaigns, major operations, battles, and engagements, the principles of war are powerful tools for analysis.

The Principles of War

- Objective
- Offensive
- Mass
- Economy of force
- Maneuver
- Unity of command
- Security
- Surprise
- Simplicity

Objective

Direct every military operation toward a clearly defined, decisive, and attainable objective.

4-35. At the operational and tactical levels, objective means ensuring all actions contribute to the goals of the higher headquarters. The principle of objective drives all military activity. When undertaking any mission, commanders should have a clear understanding of the expected outcome and its impact. At the strategic level, this means having a clear vision of the theater end state. This normally includes aspects of the political dimension. Commanders need to appreciate political ends and understand how the military conditions they achieve contribute to them.

No one starts a war—or rather, no one in his senses ought to do so—without first being clear in his mind what he intends to achieve by that war.

Clausewitz

4-36. Military leaders cannot divorce objective from considerations of restraint and legitimacy, particularly in stability operations and support operations. The amount of force used to obtain the objective must be prudent and appropriate to strategic aims. The military objective must also sustain the willing acceptance of a lawfully constituted agency, group, or government by the population in the AO. Without restraint or legitimacy, support for military action deteriorates and the objective becomes unobtainable.

4-37. To accomplish missions, commanders persevere. Offensive and defensive operations may swiftly create the conditions for short-term success, but protracted stability operations or support operations may be needed to cement lasting strategic objectives. Commanders balance a natural desire to enter the AO, quickly accomplish the mission, and depart with the broader requirements for incremental achievement of national goals and objectives.

Offensive

Seize, retain, and exploit the initiative.

4-38. Offensive action is key to achieving decisive results. It is the essence of successful operations. Offensive actions are those taken to dictate the nature, scope, and tempo of an operation. They force the enemy to react. Commanders use offensive actions to impose their will on an enemy, adversary, or situation. Offensive operations are essential to maintain the freedom of action necessary for success, exploit vulnerabilities, and react to rapidly changing situations and unexpected developments.

Mass

Concentrate the effects of combat power at the decisive place and time.

4-39. Commanders mass the effects of combat power to overwhelm enemies or gain control of the situation. They mass combat power in time and space to achieve both destructive and constructive results. Massing in time applies the elements of combat power against multiple targets simultaneously. Massing in space concentrates the effects of different elements of combat power against a single target. Both dominate the situation; commanders select the method that best fits the circumstances. To an increasing degree, joint and Army operations mass the full effects of combat power in both time and space, rather than one or the other. Such effects overwhelm the entire enemy defensive system before he can react effectively.

4-40. Army forces can mass effects without concentrating forces to a far greater extent than in the past. They can also mass effects more quickly. This does not imply that Army forces accomplish their missions with fires alone. Swift and fluid maneuver supported by situational understanding complement firepower. Often, this combination accomplishes in a single operation what formerly took an entire campaign.

4-41. Commanders mass the effects of combat power against a combination of elements critical to the enemy force to shatter its coherence. Some of these may be concentrated and vulnerable to operations that mass in both time and space. Others may spread throughout the AO, vulnerable only to simultaneous, nonlinear operations that mass in time only. Commanders combine simultaneous and sequential operations to mass effects in time and space.

Economy of Force

Allocate minimum essential combat power to secondary efforts.

4-42. Economy of force is the reciprocal of mass. It requires accepting prudent risk in selected areas to achieve superiority—overwhelming effects—in the decisive operation. Economy of force involves the discriminating employment and distribution of forces. Commanders never leave any element without a purpose. When the time comes to execute, all elements should have tasks to perform.

Maneuver

Place the enemy in a disadvantageous position through the flexible application of combat power.

4-43. As both an element of combat power and a principle of war, maneuver concentrates and disperses combat power to place and keep the enemy at a disadvantage. It achieves results that would otherwise be more costly. Effective maneuver keeps enemies off balance by making them confront new problems and new dangers faster than they can deal with them. Army forces gain and preserve freedom of action, reduce vulnerability, and exploit success through maneuver. Maneuver is more than just fire and movement. It includes the dynamic, flexible application of leadership, firepower, information, and protection as well. It requires flexibility in thought, plans, and operations and the skillful application of mass, surprise, and economy of force.

Unity of Command

For every objective, ensure unity of effort under one responsible commander.

4-44. Developing the full combat power of a force requires unity of command. Unity of command means that a single commander directs and coordinates the actions of all forces toward a common objective. Cooperation may produce coordination, but giving a single commander the required authority unifies action.

4-45. The joint, multinational, and interagency nature of unified action creates situations where the military commander does not directly control all elements in the AO. In the absence of command authority, commanders cooperate, negotiate, and build consensus to achieve unity of effort (see JP 3-0; FM 6-22).

Security

Never permit the enemy to acquire an unexpected advantage.

4-46. Security protects and preserves combat power. It does not involve excessive caution. Calculated risk is inherent in conflict. Security results from measures taken by a command to protect itself from surprise, interference, sabotage, annoyance, and threat ISR. Military deception greatly enhances security. The threat of asymmetric action requires emphasis on security, even in low-threat environments (see FM 3-13; FM 3-90; FM 3-07.2).

Surprise

Strike the enemy at a time or place or in a manner for which he is unprepared.

4-47. Surprise is the reciprocal of security. Surprise results from taking actions for which an enemy or adversary is unprepared. It is a powerful but temporary combat multiplier. It is not essential to take the adversary or enemy completely unaware; it is only necessary that he become aware too late to react effectively. Factors contributing to surprise include speed, information superiority, and asymmetry.

Simplicity

Prepare clear, uncomplicated plans and clear, concise orders to ensure thorough understanding.

4-48. Plans and orders should be simple and direct. Simple plans and clear, concise orders reduce misunderstanding and confusion. The factors of METT-TC determine the degree of simplicity required. Simple plans executed on time are better than detailed plans executed late. Commanders at all levels weigh the apparent benefits of a complex concept of operations against the risk that subordinates will not be able to understand or follow it.

4-49. Multinational operations put a premium on simplicity. Differences in language, doctrine, and culture complicate multinational operations. Simple plans and orders minimize the confusion inherent in this complex environment. The same applies to operations involving interagency and nongovernmental organizations.

THE TENETS OF ARMY OPERATIONS

4-50. The tenets of Army operations—initiative, agility, depth, synchronization, and versatility—build on the principles of war. They further describe the characteristics of successful operations. These tenets are essential to victory. While they do not guarantee success, their absence risks failure.

Initiative

4-51. Initiative has both operational and individual components. From an operational perspective, ***initiative is setting or dictating the terms of action throughout the battle or operation.*** Initiative implies an offensive spirit in all operations. To set the terms of battle, commanders eliminate or reduce the number of enemy options. They compel the enemy to conform to friendly operational purposes and tempo, while retaining freedom of action. Army leaders anticipate events throughout the battlespace. Through effective command and control (C2), they enable their forces to act before and react faster than the enemy does.

4-52. From an individual perspective, initiative is the ability to be a self-starter, to act when there are no clear instructions or when the situation changes. An individual leader with initiative is willing to decide and initiate independent actions when the concept of operations no longer applies or when an unanticipated opportunity leading to the accomplishment of the commander's intent presents itself (see FM 6-22). Despite advances in C2 from digital technology, individual initiative remains important for successful operations. In battle, leaders exercise this attribute when they act independently within the framework of the commander's intent. They trust their subordinates to do the same. Disciplined initiative requires well-trained and competent leaders who carry out studied and considered actions.

4-53. Initiative requires delegating decision making authority to the lowest practical level. Commanders give subordinates the greatest possible freedom to act. They encourage aggressive action within the commander's intent by issuing mission-type orders. Mission-type orders assign tasks to subordinates without specifying how to accomplish them (see FM 6-0). Such decentralization frees commanders to focus on the critical aspects of the overall operation.

Using mission-type orders requires individual initiative exercised by well-trained, determined, disciplined soldiers. It also requires leaders who trust their subordinates and are willing to take and underwrite risks.

4-54. In the offense, initiative involves throwing the enemy off balance with powerful, unexpected strikes. It implies never allowing the enemy to recover from the initial shock of an attack. To do this, commanders mass the effects of combat power and execute with speed, audacity, and violence. They continually seek vulnerable spots and shift their decisive operation when opportunities occur. To retain the initiative, leaders press the fight tenaciously and aggressively. They accept risk and push soldiers and systems to their limits. Retaining the initiative requires planning beyond the initial operation and anticipating possible events. The higher the echelon, the more possibilities the commander must anticipate and the further in advance the staff must plan.

4-55. In the defense, initiative implies quickly turning the tables on the attacker. It means taking aggressive action to collect information and force the attacker to reveal his intentions. Defenders aim to negate the attacker's initial advantages, gain freedom of action, and force the enemy to fight on the defender's terms. Once an enemy commits to a course of action, defending forces continue to seek offensive opportunities. They use maneuver and firepower to dictate the tempo of the fight and preempt enemy actions.

4-56. In stability operations, initiative contributes to influence over factions. It establishes conditions conducive to political solutions and disrupts illegal activities. For instance, commanders may establish conditions in which belligerent factions can best achieve their interests by remaining peaceful. Other examples of exercising initiative include defusing complicated crises, recognizing and preempting inherent dangers before they occur, and resolving grievances before they ignite open hostilities.

4-57. To gain and maintain the initiative in support operations, commanders develop a comprehensive understanding of the situation and anticipate requirements. Doing these things allows massing of resources to mitigate and prevent the effects of disasters. Commanders can then contribute to relieving suffering, managing consequences, and providing essential services.

Agility

4-58. **Agility is the ability to move and adjust quickly and easily.** It springs from trained and disciplined forces. Agility requires that subordinates act to achieve the commander's intent and fight through any obstacle to accomplish the mission.

4-59. Operational agility stems from the capability to deploy and employ forces across the range of Army operations. Army forces and commanders shift among offensive, defensive, stability, and support operations as circumstances and missions require. This capability is not merely physical; it requires conceptual sophistication and intellectual flexibility.

4-60. Tactical agility is the ability of a friendly force to react faster than the enemy. It is essential to seizing, retaining, and exploiting the initiative.

Agility is mental and physical. Agile commanders quickly comprehend unfamiliar situations, creatively apply doctrine, and make timely decisions.

Depth

4-61. **Depth is the extension of operations in time, space, and resources.** Commanders use depth to obtain space for effective maneuver, time to conduct operations, and resources to achieve and exploit success. Depth enables momentum in the offense, elasticity in the defense, and staying power in all operations.

4-62. In the offense and defense, depth entails attacking the enemy throughout the AO—simultaneously when possible, sequentially when necessary—to deny him freedom to maneuver. Offensive depth allows commanders to sustain momentum and press the fight. Defensive depth creates opportunities to maneuver against the enemy from multiple directions as attacking forces are exposed or discovered.

4-63. In stability operations and support operations, depth extends influence in time, space, purpose, and resources to affect the environment and conditions. In stability operations, ISR combined with IO help commanders understand factional motives, identify power centers, and shape the environment. In support operations, depth in resources, planning, and time allows commanders to stop suffering and prevent or slow the spread of disease.

4-64. In all operations, staying power—depth of action—comes from adequate resources. Depth of resources in quantity, positioning, and mobility is critical to executing military operations. Commanders balance depth in resources with agility. A large combat service support (CSS) tail can hinder maneuver, but inadequate CSS makes the force fragile and vulnerable.

Synchronization

4-65. **Synchronization is arranging activities in time, space, and purpose to mass maximum relative combat power at a decisive place and time.** Without synchronization, there is no massing of effects. Through synchronization, commanders arrange battlefield operating systems to mass the effects of combat power at the chosen place and time to overwhelm an enemy or dominate the situation. Synchronization is a means, not an end. Commanders balance synchronization against agility and initiative; they never surrender the initiative or miss a decisive opportunity for the sake of synchronization.

4-66. Some activities—such as electronic warfare, suppressing enemy air defenses, and shifting maneuver forces—might occur before the decisive operation. They may take place at locations distant from each other. Though separated in time and space, commanders closely synchronize such actions to mass overwhelming effects at the decisive time and place. Synchronization often requires explicit coordination and rehearsals among participants.

Versatility

4-67. **Versatility is the ability of Army forces to meet the global, diverse mission requirements of full spectrum operations.** Competence in a variety of missions and skills allows Army forces to quickly transition

from one type of operation to another with minimal changes to the deployed force structure. Versatility depends on adaptive leaders, competent and dedicated soldiers, and well-equipped units. Effective training, high standards, and detailed planning also contribute. Time and resources limit the number of tasks any unit can perform well. Within these constraints, commanders maximize versatility by developing the multiple capabilities of units and soldiers. Versatility contributes to the agility of Army units.

4-68. Versatility is a characteristic of multifunctional units. Commanders can take advantage of this by knowing each unit's capabilities and carefully tailoring forces for each mission. Military police, for example, can provide a mobile, lethal show of force, restore civil order, process detainees, and support peacekeeping operations. Engineer units can rebuild infrastructure, construct ports and base camps, and maintain lines of communications (LOCs). At higher echelons, versatility implies the ability to assume more complex responsibilities. For example, a corps headquarters can serve as an ARFOR headquarters or, with augmentation, a joint task force headquarters.

THE OPERATIONAL FRAMEWORK

4-69. **The *operational framework* consists of the arrangement of friendly forces and resources in time, space, and purpose with respect to each other and the enemy or situation. It consists of the area of operations, battlespace, and the battlefield organization.** The framework establishes an area of geographic and operational responsibility, and provides a way for commanders to visualize how to employ forces against the enemy. Commanders design an operational framework to accomplish their mission by defining and arranging its three components. They use the operational framework to focus combat power.

THEATER ORGANIZATION

4-70. The operational framework for Army forces rests within the combatant commander's theater organization. Combatant commanders with geographic responsibilities conduct operations within an area of responsibility (AOR) (theater) assigned by the Unified Command Plan. When warranted, they designate theaters of war, theaters of operations, combat zones, and a communications zone (COMMZ). Joint force commanders (JFCs) at all levels may establish subordinate operational areas (see Figure 4-3). Joint doctrine discusses the assignment and responsibilities associated with theater operational areas.

4-71. Either the National Command Authorities or a combatant commander may designate a theater of war. It is the area of air, land, and water that is, or may become, directly involved in the conduct of the war. A theater of war does not normally encompass a combatant commander's entire AOR and may contain more than one theater of operations. Combatant commanders typically assign theaters of operations to subordinate unified commanders.

4-72. A theater of operations is a subarea within a theater of war defined by a combatant commander required to conduct or support specific combat operations. Different theaters of operations within the same theater of war will normally be geographically separate and focused on different enemy

forces. Theaters of operations are usually of significant size, allowing for operations over extended periods of time.

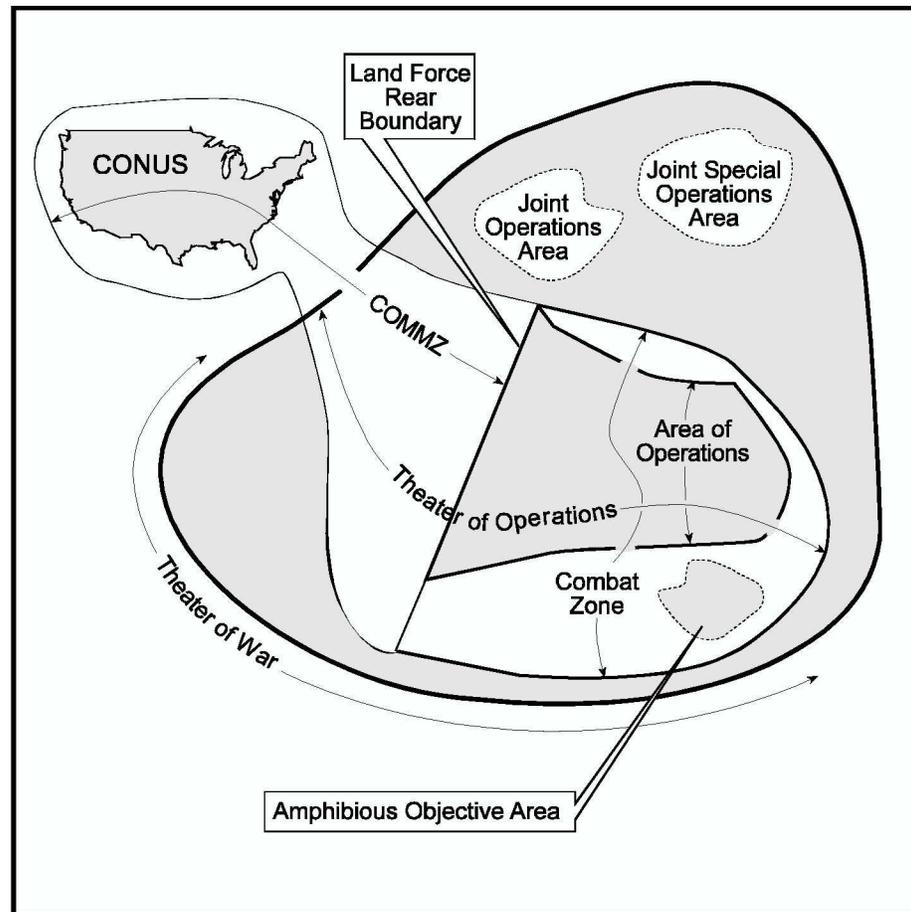


Figure 4-3. Theater Organization

4-73. A combat zone is that area required by combat forces for the conduct of operations. It normally extends forward from the land force rear boundary. The COMMZ is the rear part of theater of operations (behind but contiguous to the combat zone). It contains the LOCs, establishments for supply and evacuation, and other agencies required for the immediate support and maintenance of the field forces. It reaches back to the continental US, to a supporting combatant command AOR, or both.

AREA OF OPERATIONS

4-74. An AO is an operational area defined by the JFC for land and naval forces. AOs do not typically encompass the entire operational area of the JFC but should be large enough for component commanders to accomplish their missions and protect their forces. AOs should also allow component commanders to employ their organic, assigned, and supporting systems to the limits of their capabilities. Within their AOs, land and naval force commanders synchronize operations and are supported commanders.

4-75. Component commanders normally designate AOs for subordinate units. They use control measures to describe AOs and design them to fit the situation and take advantage of joint force capabilities. Commanders specify the minimum control measures necessary to focus combat power, delineate responsibilities, assign geographic responsibility, and promote unified action. At a minimum, control measures include boundaries on all sides of an AO (see FM 3-90). In linear operations, AOs require forward boundaries.

4-76. Commanders typically subdivide some or all of their AO by assigning AOs to subordinate units. Subordinate unit AOs may be contiguous or noncontiguous (see Figure 4-4). When AOs are contiguous, a boundary separates them. When AOs are noncontiguous, they do not share a boundary; the concept of operations links the elements of the force. The higher headquarters is responsible for the area between noncontiguous AOs.

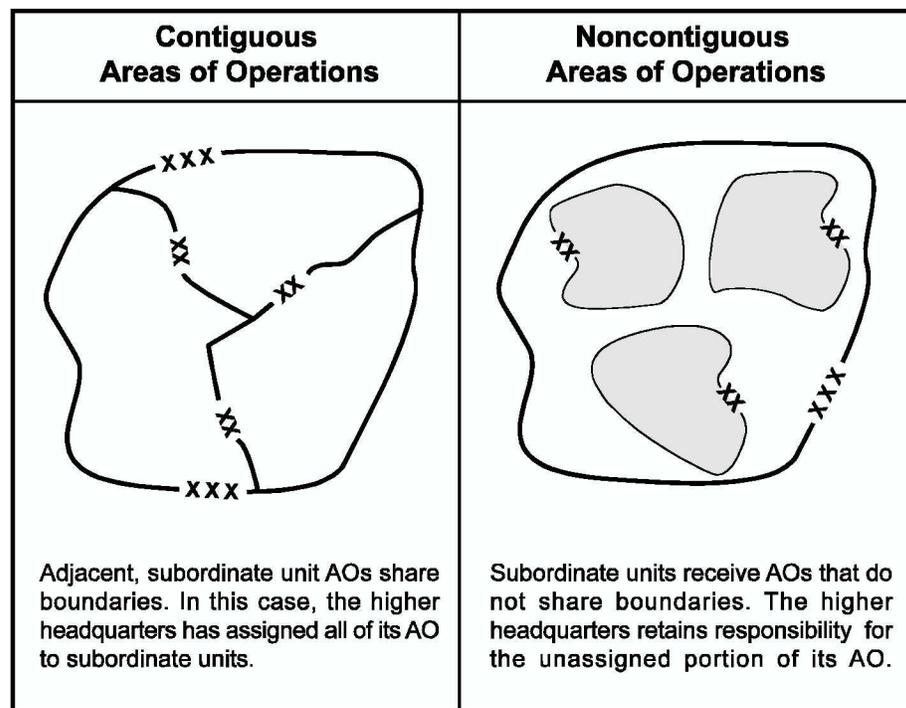


Figure 4-4. Contiguous and Noncontiguous Areas of Operations

BATTLESPACE

4-77. Battlespace is the environment, factors, and conditions commanders must understand to successfully apply combat power, protect the force, or complete the mission. This includes the air, land, sea, space, and the included enemy and friendly forces, facilities, weather, terrain, the electromagnetic spectrum, and the information environment within the operational areas and areas of interest (see Figure 4-5).

4-78. Battlespace is conceptual—a higher commander does not assign it. Commanders determine their battlespace based on their concept of operations, accomplishing the mission, and protecting the force. Commanders use

their experience, professional knowledge, and understanding of the situation to visualize and change their battlespace as current operations transition to future operations. Battlespace is not synonymous with AO. However, because battlespace is conceptual, Army forces conduct operations only within that portion of it delineated by their AO.

Areas of Influence and Interest

4-79. Battlespace has an associated area of influence and area of interest. An *area of influence* is a geographical area in which a commander can directly influence operations by maneuver or fire support systems normally under the commander's command or control. Areas of influence surround and include the associated AO. The extent of subordinate units' areas of influence normally guides higher commanders in assigning subordinate AOs. An AO should not be substantially larger than the unit's area of influence. An *area of interest* is that area of concern to the commander, including the area of influence and areas adjacent to it. It extends into enemy territory, to the objectives of current or planned operations. This area also includes areas occupied by enemy forces that could jeopardize the accomplishment of the mission. Areas of interest serve to focus intelligence development and IO directed at factors outside the AO that may affect the operation.

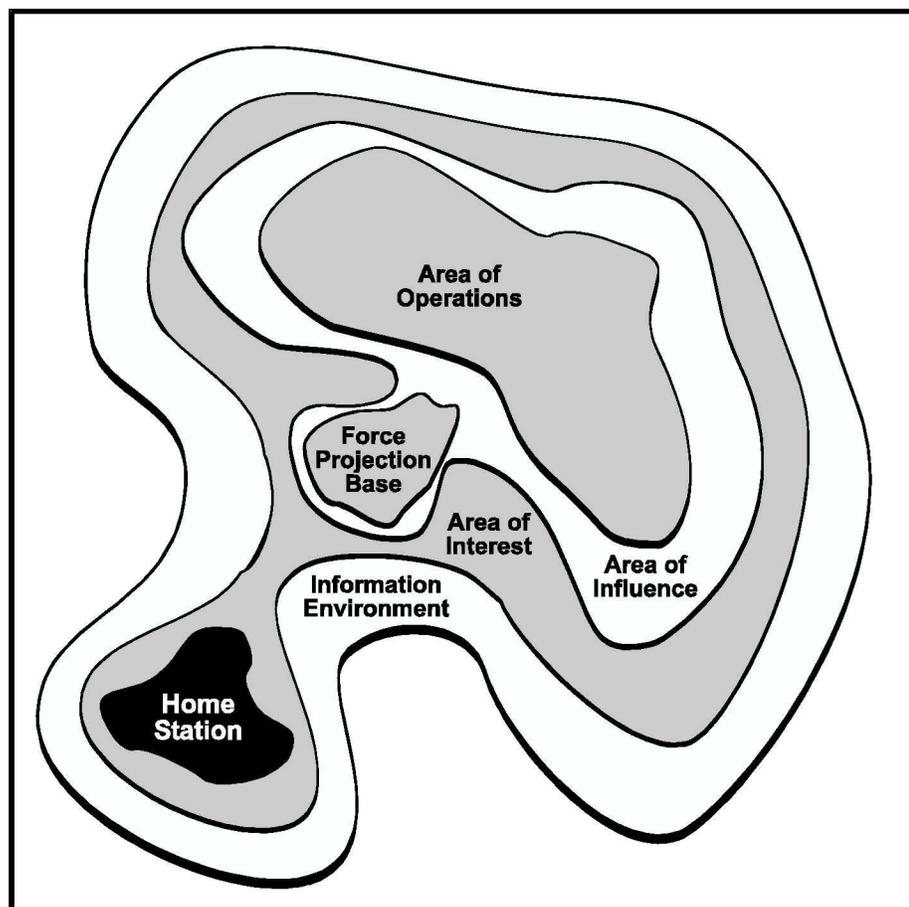


Figure 4-5. Battlespace Components

The Information Environment

4-80. A commander's battlespace includes that part of the information environment that encompasses information activity affecting the operation. The information environment contains information activities that collect, process, and disseminate information to national and international audiences but are beyond direct military influence. It includes space-based systems that provide data and information to Army forces. To envision that part of the information environment that is within their battlespace, commanders determine the information activities that affect their operation and the capabilities of their own and opposing C2 and information systems.

Force Projection Bases

4-81. Army forces may deploy from home station directly to the AO or may move to the AO through force projection bases. Intermediate staging bases and power projection platforms are force projection bases. Force projection bases influence operations in a fashion similar to home stations. Sometimes one part of the deploying force will be at the force projection base while another operates in the AO. The deployed force may receive combat support (CS) and CSS from the force projection base for some or all of the operation.

Home Station

4-82. Home stations are the permanent locations of active component (AC) units and reserve component (RC) units (for example, the location of an armory or reserve center). Because the Army is a power projection force, its AC units deploy from and return to home stations. RC forces normally mobilize and deploy from installations that serve as power projection platforms (see FM 3-100.22). Although home stations and power projection platforms lie outside the AO, the commander's battlespace includes them. Home stations provide support to deployed forces until they return. The ability to receive CS, CSS, and C2 support from home station assets reduces the size of the deployed force. To a significant degree, events occurring at home station affect the morale and performance of deployed forces. Thus, the commander's battlespace encompasses all home station functions, including family readiness programs.

BATTLEFIELD ORGANIZATION

4-83. As part of the military decision making process, commanders visualize their battlespace and determine how to arrange their forces. **The *battlefield organization* is the allocation of forces in the AO by purpose. It consists of three all-encompassing categories of operations: decisive, shaping, and sustaining.** Purpose unifies all elements of the battlefield organization by providing the common focus for all actions. Commanders organize forces according to purpose by determining whether each unit's operation will be decisive, shaping, or sustaining. These decisions form the basis of the concept of operations. When circumstances require a spatial reference, commanders describe the AO in terms of deep, close, and rear areas. These spatial categories are especially useful in operations that are generally contiguous and linear and feature a clearly defined enemy force.

Decisive Operations

4-84. **Decisive operations** are those that directly accomplish the task assigned by the higher headquarters. Decisive operations conclusively determine the outcome of major operations, battles, and engagements. There is only one decisive operation for any major operation, battle, or engagement for any given echelon. The decisive operation may include multiple actions conducted simultaneously throughout the AO. Commanders weight the decisive operation by economizing on combat power allocated to shaping operations.

4-85. In the offense and defense, decisive operations normally focus on maneuver. For example, Third Army's decisive operation in the Gulf War sent VII Corps against the Iraqi Republican Guard after a major shaping operation by the USCENTCOM air component. Conversely, CSS units may conduct the decisive operation during mobilization and deployment or in support operations, particularly if the mission is humanitarian.

Shaping Operations

4-86. **Shaping operations** at any echelon create and preserve conditions for the success of the decisive operation. Shaping operations include lethal and nonlethal activities conducted throughout the AO. They support the decisive operation by affecting enemy capabilities and forces, or by influencing enemy decisions. Shaping operations use all elements of combat power to neutralize or reduce enemy capabilities. They may occur before, concurrently with, or after the start of the decisive operation. They may involve any combination of forces and occur throughout the AO.

Sample Shaping Operations

- Economy of force actions
- Security Operations
- Actions designed to limit enemy freedom of action
- Actions to deny the enemy the ability to concentrate
- Attacks designed to fix enemy forces
- Destruction of enemy capabilities
- Information operations (including military deception)
- Covering force actions

4-87. Some shaping operations, especially those that occur simultaneously with the decisive operation, are economy of force actions. If the force available does not permit simultaneous decisive and shaping operations, the commander sequences shaping operations around the decisive operation. Regardless of the type of operation, commanders may designate a successful shaping operation as the decisive operation. In that case, commanders weight the new decisive operation with combat power from other shaping operations. The concept of operations clearly describes how shaping operations support the decisive operation.

4-88. Security operations are important shaping operations. They enable the decisive operation of the next higher headquarters and provide time and space for friendly forces to react to enemy activities. They also blind enemy

attempts to gain information on friendly forces and protect friendly forces from enemy observation and fires.

4-89. A reserve is a portion of a body of troops, kept to the rear or withheld from action at the beginning of an engagement and available for a decisive movement. Until committed, reserves shape through their placement within the AO. For example, the placement or movement of the reserve helps deceive the enemy as to the decisive operation and influences when the enemy commits forces. When committed, reserves either become or reinforce the decisive operation. Reserves prepare to seize and retain the initiative as a situation develops. Commanders use them to influence circumstances or exploit opportunities. When commanders anticipate uncertainty, they hold a greater portion of the force in reserve. Reserves reposition as necessary to ensure their protection and prompt availability.

Sustaining Operations

4-90. The purpose of sustaining operations is to generate and maintain combat power. ***Sustaining operations*** are operations at any echelon that enable shaping and decisive operations by providing combat service support, rear area and base security, movement control, terrain management, and infrastructure development. Sustaining operations include the following elements:

- **Combat service support** encompasses activities at all levels of war that generate and sustain combat power. It provides the essential capabilities and performs the functions, activities, and tasks necessary to sustain all forces in theater.
- **Rear area and base security** includes measures taken by military units, activities, and installations to protect themselves from acts designed to impair their effectiveness. It has four components: intelligence, base and base cluster self-defense, response force operations, and combined arms tactical combat force (TCF) operations (see FM 3-100.40).
- **Movement control** includes planning, routing, scheduling, and controlling personnel and materiel movements into, within, and out of an AO. Maintaining movement control, keeping LOCs open, managing reception and transshipment points, and obtaining host nation support are critical to movement control.
- **Terrain management** includes allocating terrain, designating assembly areas, and specifying locations for units and activities. It includes grouping units into bases and designating base clusters as necessary.
- **Infrastructure development** applies to all fixed and permanent installations, fabrications, or facilities that support and control military forces. Infrastructure development focuses on facility security modifications and includes area damage control and repairs.

A tactical combat force is a combat unit, with appropriate combat support and combat service support assets, that is assigned the mission of defeating level III threats.

4-91. While sustaining operations are inseparable from decisive and shaping operations, they are not usually decisive themselves. However, in some support operations, CSS forces may be the decisive element of the Army force. Sustaining operations occur throughout the AO, not just within a rear area. Failure to sustain normally results in mission failure. Sustaining operations determine how fast Army forces reconstitute and how far Army forces can exploit success.

4-92. At the operational level, sustaining operations focus on preparing for the next phase of the campaign or major operation. At the tactical level, sustaining operations underwrite the tempo of the overall operation; they assure the ability to take immediate advantage of any opportunity.

Main Effort

4-93. Within the battlefield organization of decisive, shaping, and sustaining operations, commanders designate and shift the main effort. **The *main effort* is the activity, unit, or area that commanders determine constitutes the most important task at that time.** Commanders weight the main effort with resources and priorities and shift it as circumstances and intent demand.

4-94. The main effort and the decisive operation are not always identical. Commanders anticipate shifts of main effort throughout an operation and include them in the plan. In contrast, changing the decisive operation requires execution of a branch, sequel, or new plan. A shaping operation may be the main effort before execution of the decisive operation. However, the decisive operation becomes the main effort upon execution.

Close, Deep, and Rear Areas

4-95. Despite the increasing nonlinear nature of operations, there may be situations where commanders describe decisive, shaping, and sustaining operations in spatial terms (see Figure 4-6, page 4-26). Typically, linear operations involve conventional combat and concentrated maneuver forces. Ground forces share boundaries and orient against a similarly organized enemy force. Terrain or friendly forces secure flanks and protect CSS operations. In some multinational operations, the capabilities and doctrine of partners may dictate spatial organization of the AO. In such situations, commanders designate close, deep, and rear areas.

4-96. **Close Areas.** When designated, the *close area* is where forces are in immediate contact with the enemy and the fighting between the committed forces and readily available tactical reserves of both combatants is occurring, or where commanders envision close combat taking place. Typically, the close area assigned to a maneuver force extends from its subordinates' rear boundaries to its own forward boundary. Commanders plan to conduct decisive operations through maneuver and fires in the close area and position most of the maneuver force within it.

4-97. The activities of forces directly supporting fighting elements also occur in the close area. Examples of these activities are field artillery fires and combat health support. Within the close area, depending on echelon, one unit

may conduct the decisive operation while others conduct shaping operations. Commanders of forces engaged in the close area may designate subordinate deep, close, and rear areas.

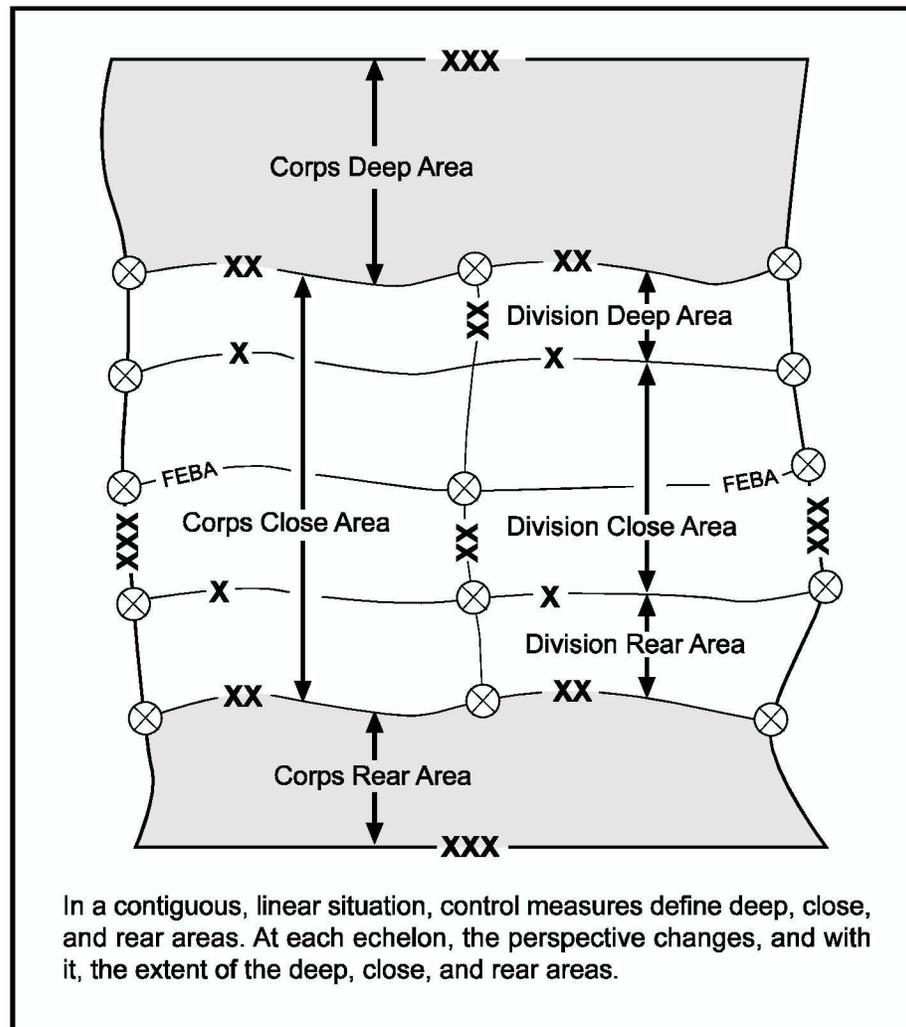


Figure 4-6. Close, Deep, and Rear Areas

4-98. **Deep Areas.** When designated, the *deep area* is an area forward of the close area that commanders use to shape enemy forces before they are encountered or engaged in the close area. Typically, the deep area extends from the forward boundary of subordinate units to the forward boundary of the controlling echelon. Thus, the deep area relates to the close area not only in terms of geography but also in terms of purpose and time. The extent of the deep area depends on the force's area of influence—how far out it can acquire information and strike targets. Commanders may place forces in the deep area to conduct shaping operations. Some of these operations may involve close combat. However, most maneuver forces stay in the close area.

4-99. **Rear Areas.** When designated, the *rear area* for any command extends from its rear boundary forward to the rear boundary of the next lower level of command. This area is provided primarily for the performance of support functions and is where the majority of the echelon's sustaining operations occur. Operations in rear areas assure freedom of action and continuity of operations, sustainment, and C2. Their focus on providing CS and CSS leaves units in the rear area vulnerable to attack. Commanders may designate combat forces to protect forces and facilities in the rear area. In some cases, commanders may designate a noncontiguous rear area due to geography or other circumstances. In this case, the rear area force protection challenge increases due to physical separation of forces in the rear area from combat units that would otherwise occupy a contiguous close area.

ARMY CAPABILITIES

4-100. Commanders combine AC and RC Army forces—consisting of different types of units with varying degrees of modernization—with multinational forces and civilian agencies to achieve effective and efficient unified action. A broad range of organizations makes up the institutional Army that supports the field Army. Institutional Army organizations design, man, train, and equip the force. The institutional Army assists effectively integrating Army capabilities. It does this through leadership and guidance regarding force structure, doctrine, modernization, and budget (see FM 3-100.11).

TASK ORGANIZATION

4-101. The Army supports JFCs by providing tailored force packages to accomplish joint missions and dominate enemies and situations on land. Trained and equipped AC and RC units comprise these force packages. Within these force packages, Army commanders organize groups of units for specific missions. They reorganize for subsequent missions when necessary. **This process of allocating available assets to subordinate commanders and establishing their command and support relationships is called *task organizing*. A temporary grouping of forces designed to accomplish a particular mission is a *task organization*.** The ability of Army forces to tailor (select forces based upon a mission) and task organize (temporarily organize units to accomplish a tactical mission) gives them extraordinary agility. It allows operational- and tactical-level commanders to organize their units to make best use available resources. The ability to task organize means Army forces can shift rapidly among offensive, defensive, stability, and support operations.

COMBINED ARMS

4-102. The fundamental basis for the organization and operations of Army forces is combined arms. ***Combined arms* is the synchronized or simultaneous application of several arms—such as infantry, armor, field artillery, engineers, air defense, and aviation—to achieve an effect on the enemy that is greater than if each arm was used against the enemy separately or in sequence.** The ultimate goal of Army organization for operations remains success in joint and combined arms warfare. Its com

bined arms capability allows commanders to form Army combat, CS, and CSS forces into cohesive teams focused on common goals.

IF RELATIONSHIP IS:		INHERENT RESPONSIBILITIES ARE:							
		Has Command Relationship with:	May Be Task Organized by:	Receives CSS from:	Assigned Position or AO By:	Provides Liaison To:	Establishes/ Maintains Communications with:	Has Priorities Established by:	Gaining Unit Can Impose Further Command or Support Relationship of:
COMMAND	Attached	Gaining unit	Gaining unit	Gaining unit	Gaining unit	As required by gaining unit	Unit to which attached	Gaining unit	Attached; OPCON; TACON; GS; GSR; R; DS
	OPCON	Gaining unit	Parent unit and gaining unit; gaining unit may pass OPCON to lower HQ. Note 1	Parent unit	Gaining unit	As required by gaining unit	As required by gaining unit and parent unit	Gaining unit	OPCON; TACON; GS; GSR; R; DS
	TACON	Gaining unit	Parent unit	Parent unit	Gaining unit	As required by gaining unit	As required by gaining unit and parent unit	Gaining unit	GS; GSR; R; DS
	Assigned	Parent unit	Parent unit	Parent unit	Gaining unit	As required by parent unit	As required by parent unit	Parent unit	Not Applicable
SUPPORT	Direct Support (DS)	Parent unit	Parent unit	Parent unit	Supported unit	Supported unit	Parent unit; Supported unit	Supported unit	Note 2
	Reinforcing (R)	Parent unit	Parent unit	Parent unit	Reinforced unit	Reinforced unit	Parent unit; reinforced unit	Reinforced unit; then parent unit	Not Applicable
	General Support Reinforcing (GSR)	Parent unit	Parent unit	Parent unit	Parent unit	Reinforced unit and as required by parent unit	Reinforced unit and as required by parent unit	Parent unit; then reinforced unit	Not Applicable
	General Support (GS)	Parent unit	Parent unit	Parent unit	Parent unit	As required by parent unit	As required by parent unit	Parent unit	Not Applicable

NOTE 1. In NATO, the gaining unit may not task organize a multinational unit (see TACON).

NOTE 2. Commanders of units in DS may further assign support relationships between their subordinate units and elements of the supported unit after coordination with the supported commander.

Figure 4-7. Army Command and Support Relationships and Inherent Responsibilities

ARMY COMMAND AND SUPPORT RELATIONSHIPS

4-103. Commanders build combined arms organizations using command and support relationships (see Figure 4-7). Command relationships define command responsibility and authority. Support relationships define the purpose, scope, and effect desired when one capability supports another.

COMPLEMENTARY AND REINFORCING EFFECTS

4-104. The services and the various arms within Army forces complement each other by posing a dilemma for the enemy. As the enemy evades the effects of one type of action, he exposes himself to destruction by another. This leads to enemy paralysis, destruction, or surrender. A tactical example of complementary effects is suppressing a defender with indirect fires while maneuvering to envelop and destroy him. If the enemy attempts to move to meet the threat, he risks destruction from the fires. If he remains in place to survive the fires, he risks being encircled and trapped.

4-105. *Complementary* capabilities protect the weaknesses of one system or organization with the capabilities of another (see Figure 4-8). For example, tanks combine protection, firepower, and mobility. However, they are vulnerable to mines, antiarmor missiles, concealed infantry, and restricted avenues of approach. They are particularly vulnerable in urban areas and dense vegetation. Therefore, commanders combine tanks, infantry, and engineers into combined arms teams and task forces. The infantry maneuvers on terrain where armor cannot and eliminates concealed threats to the tanks. The engineers clear obstacles, restoring the mobility of the armor. Unhindered by small arms fire, the armor maneuvers to deliver devastating firepower to

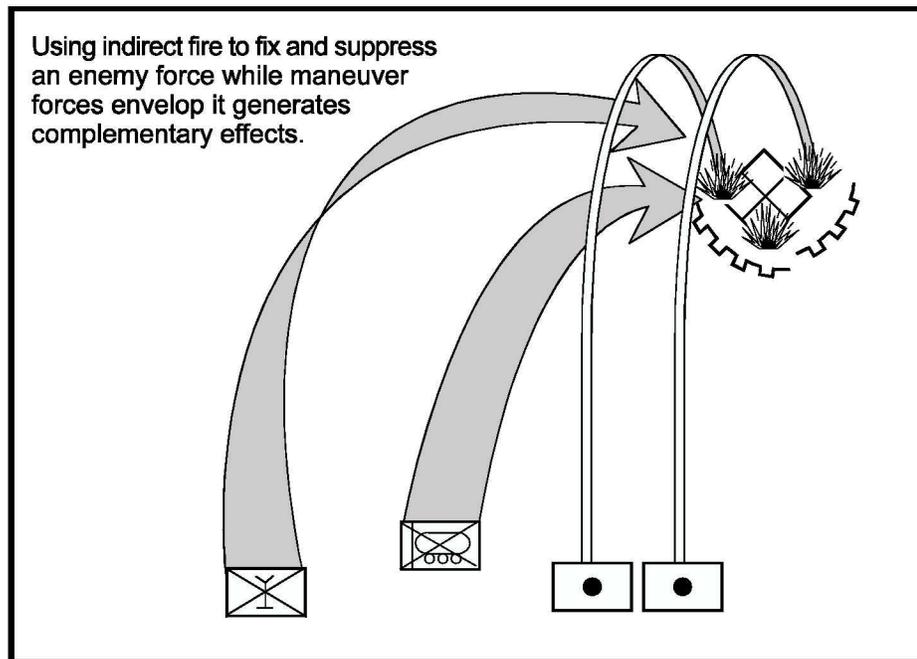


Figure 4-8. Complementary Effects

support the infantry and engineers. CSS units support, providing the capabilities that the mix of systems requires.

4-106. At the operational level, the capabilities of the services complement each other. This situation provides JFCs with a wide range of options and confronts enemies with difficult dilemmas. Army, Navy, Marine, and Air Force aircraft engage targets that degrade enemy capabilities. Space, airborne, and land-based sensors monitor enemy reactions. Pilots and aviators use this information to refine and sharpen strikes. Ground forces maneuver, seize terrain, and destroy enemy forces. If the enemy attempts to meet the ground maneuver, he leaves his protected areas and exposes himself to the full weight of air power and long-range missiles. He is then even more vulnerable to the effects of maneuver. If the enemy attempts missile strikes on US air bases and lodgments, theater missile defenses, supported by space systems, intercept the weapons. As US ground forces maneuver, they overrun enemy air defenses, air bases, launch areas, command posts, and CSS units, eliminating both tactical and operational threats and rendering the enemy's situation hopeless.

4-107. Army forces and those of the other services *reinforce* each other when they combine the effects of similar capabilities (see Figure 4-9). Commanders reinforce to achieve focused, overwhelming effects at a single point. When massed, different types of field artillery systems, such as howitzers and missiles, reinforce each other. Aerial fires have similar effects and can reinforce indirect fires. In a similar manner, commanders reinforce maneuver elements to guarantee superiority at the decisive time and place.

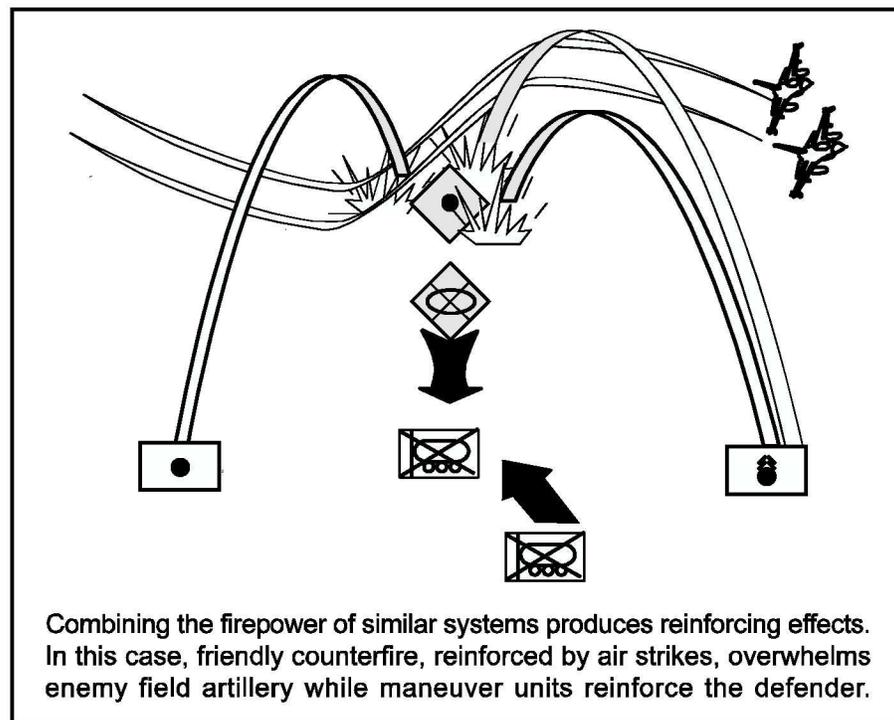


Figure 4-9. Reinforcing Effects

4-108. Achieving complementary and reinforcing effects requires synchronization, initiative, and versatility. Synchronized action is the basis for complementary and reinforcing effects. Commanders focus systems in space and time to generate synergy that increases effects. The initiative of leaders combines units and systems in the fluid circumstances of action, often in the absence of orders. Confronted with a constantly changing situation, leaders develop new combinations of systems and pose new dilemmas for the adversary. Properly combined, these effects produce asymmetries that the joint force uses to achieve theater objectives.

ASYMMETRY

4-109. Asymmetry concerns dissimilarities in organization, equipment, doctrine, capabilities, and values between other armed forces (formally organized or not) and US forces. JFCs arrange symmetrical and asymmetrical actions to take advantage of friendly strengths and enemy vulnerabilities, and to preserve freedom of action. Engagements are symmetric if forces, technologies, and weapons are similar; they are asymmetric if forces, technologies, and weapons are different, or if a resort to terrorism and rejection of more conventional rules of engagement are the norm. In one sense, there are always asymmetries between forces: differing circumstances lead to differing military structures. Asymmetry becomes very significant, perhaps decisive, when the degree of dissimilarity creates exploitable advantages. Asymmetric engagements can be extremely lethal, especially if the target is not ready to defend itself against the asymmetric threat. Asymmetry tends to decay over time as adversaries adapt to dissimilarities exposed in action. In a larger sense, asymmetric warfare seeks to avoid enemy strengths and concentrate comparative advantages against relative weaknesses. The following tactical and operational examples illustrate the dynamic nature of asymmetry.

4-110. Third Army forces in the Gulf War were equipped with second-generation thermal sights. Iraqi units depended upon older, far less capable active infrared and light amplification systems. In engagement after engagement, US, British, and French armor destroyed Iraqi units, who could only return ineffective fire. At the system level, the advanced armor on the US and British tanks resisted the occasional hit from Iraqi fire, while friendly rounds immediately destroyed their targets. At tactical levels, Army forces exploited asymmetry in terms of equipment and organization.

4-111. In 1999, Serbian forces in Kosovo faced unrelenting aerial bombardment by North Atlantic Treaty Organization (NATO) air forces. As the air operations intensified, NATO refined its strike techniques while the Serbs applied techniques learned by the Iraqis during the Gulf War. Over time, the Serbs became very proficient at using decoys and concealment. Although they were unable to prevent losses, Serbian units protected most of their ground combat systems from this asymmetric attack. Thus, the asymmetric advantage conferred by advanced air power over ground elements decayed over time.

4-112. At the operational level in the Gulf War, USCENTCOM exploited the inherent flexibility of sea power and amphibious assault to threaten the Iraqi forces in Kuwait with a major strike from the Persian Gulf. Lacking a navy,

the only possible operational response by the Iraqi high command was to shift six divisions to coastal defense. The coalition ground offensive enveloped and destroyed these Iraqi forces, which were fixed by the threat of amphibious assault.

4-113. The likelihood of asymmetric attack increases with the continued conventional dominance of US forces at sea, on land, in the air, and in space. Such attacks may only disrupt tactical activities briefly; however, the operational and strategic consequences, particularly in stability operations and support operations, may be far-reaching. In Beirut, Lebanon, in 1983, and again at Khobar Towers, Saudi Arabia, in 1996, massive truck bombs destroyed portions of US military compounds, with heavy loss of life. Both attacks demonstrated asymmetry in terms of equipment and values. In addition, each was a political act of terrorism taken against a military objective. The risks of asymmetry multiply with the threat of WMD.

4-114. Asymmetric attacks pose dilemmas to both friendly and enemy forces. Countering asymmetric attacks requires the disadvantaged side to alter rules of engagement, organization, doctrine, training, or equipment. The higher the echelon, the longer it takes to remedy an enemy asymmetric advantage. To reduce the vulnerability to asymmetric attacks and to minimize their effects, Army organizations, training, and equipment emphasize flexible employment in diverse situations. Protective measures, such as physical security and OPSEC, lessen the effects of asymmetry. A credible NBC defense capability at the tactical level deters the use of WMD. Commanders must anticipate asymmetries and take preventive measures that reduce adversary advantages. Commanders identify and exploit friendly capabilities that pose asymmetric challenges to the enemy force, even as Army forces act to counter hostile asymmetric threats.

Chapter 5

Battle Command

...[It is] essential that all leaders—from subaltern to commanding general—familiarize themselves with the art of clear, logical thinking. It is more valuable to be able to analyze one battle situation correctly, recognize its decisive elements and devise a simple, workable solution for it, than to memorize all the erudition ever written of war.

Infantry in Battle, 1939

5-1. Battle command applies the leadership element of combat power. It is principally an art that employs skills developed by professional study, constant practice, and considered judgment. Commanders, assisted by the staff, visualize the operation, describe it in terms of intent and guidance, and direct the actions of subordinates within their intent. Commanders direct operations in terms of the battlefield operating systems (BOS). They directly influence operations by personal presence, supported by their command and control (C2) system.

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THE ART OF COMMAND

5-2. Command is the authority a commander in military service lawfully exercises over subordinates by virtue of rank and assignment. Leaders possessing command authority strive to use it with firmness, care, and skill. Command remains a very personal function. As such, it is more an art than a science, although it exhibits characteristics of both.

5-3. **Battle command** is the exercise of command in operations against a hostile, thinking enemy. Skilled judgment gained from practice, reflection, study, experience, and intuition often guides it. The art of command lies in conscious and skillful exercise of command authority through

visualization, decision making, and leadership. Using judgment acquired from experience, training, study, and creative thinking, commanders visualize the situation and make decisions. In unclear situations, informed intuition may help commanders make effective decisions by bridging gaps in information. Through the art of command, commanders apply their values, attributes, skills, and actions to lead and motivate their soldiers and units. Well-led units succeed in training and accomplish their missions. As the senior leaders of organizations, commanders apply the leadership element of combat power. Subordinate commanders and small unit leaders reinforce it.

5-4. Effective battle command demands decisions that are both timely and more effective than those of the enemy. Success often depends on superior information that enables superior decisions. Effective decision making combines judgment with information as an element of combat power: it requires knowing if to decide, when to decide, and what to decide. It requires commanders to judge information quality. It also requires identifying important information and focusing subordinates and the staff on it. These are tactical, operational, and strategic judgments. Commanders anticipate and understand the activities that follow decisions, knowing that once executed, some commitments are irretrievable.

5-5. Battle command puts a premium on leader skills and actions that contribute to effective decisions. The volume of available information challenges all leaders. They assimilate enormous amounts of information as they visualize the operation, describe their intent, and direct their subordinates' actions. Visualizing the operation is continuous. It requires commanders to understand the current situation, broadly define the future situation, assess the difference between the two, and envision major actions that link them. Commanders accept calculated risks to seize and retain the initiative. They assess the tradeoff between risks and opportunities and apply it to their vision.

5-6. To translate the commander's vision into action, the staff and subordinates must understand it. Commanders describe their vision in succinct planning guidance and the commander's intent, providing enough detail to focus planning and preparation. To command is to direct. Commanders direct the outcome of major operations, battles, and engagements by—

- Assigning missions.
- Prioritizing and allocating resources.
- Assessing and taking risks.
- Deciding when and how to make adjustments.
- Committing reserves.
- Seeing, hearing, and understanding the needs of subordinates and superiors.
- Guiding and motivating the organization to accomplish the mission.

VISUALIZE, DESCRIBE, DIRECT

5-7. Visualizing, describing, and directing are aspects of leadership common to all commanders. Technology, the fluid nature of operations, and the volume of information increase the importance of commanders being able to visualize and describe operations. Commanders' perspective and the things

they emphasize change with echelon. Operational art differs from tactics principally in the scope and scale of what commanders visualize, describe, and direct. Operational commanders identify the time, space, resources, purpose, and action of land operations and relate them to the joint force commander's (JFC's) operational design. In contrast, tactical commanders begin with an area of operations (AO) designated, objectives identified, the purpose defined, forces assigned, sustainment allocated, and time available specified.

5-8. While JFCs and component commanders exercise leadership primarily through subordinates, small unit commanders command face to face. Operational success depends on the ability of operational commanders to visualize and describe complex land operations; tactical success depends on the ability of small unit commanders to motivate and direct soldiers.

5-9. Commanders use the factors of METT-TC to assess the situation. Staff estimates and collaborative information sharing among commanders refine and deepen their situational understanding. Commanders then visualize the operation, describe it within their intent, and direct their subordinates toward mission accomplishment. Depending on echelon, commanders examine the elements of operational design and determine factors that will shape the operation. Commanders direct operations and synchronize the BOS through plans and orders. They personally apply the leadership element of combat power through their presence and priorities (see Figure 5-1, page 5-4).

VISUALIZE

5-10. Upon receipt of a mission, commanders consider their battlespace and conduct a mission analysis that results in their initial vision, which they continually confirm or modify. Commanders use the factors of METT-TC, elements of operational design, staff estimates, input from other commanders, and their experience and judgment to develop their vision.

5-11. To visualize the desired outcome, commanders must clearly understand the situation in the battlespace: What is the mission? What are the enemy's capabilities and likely actions? What are the characteristics of the AO? Do weather and terrain favor friendly or enemy actions? How much time is available? What combat service support (CSS) factors are most important? What role do civil considerations play? This framing of the battlespace takes place during mission analysis (see FM 5-0). Additionally, commanders draw on the principles of war, tenets of operations, and their experience.

The Factors of METT-TC

5-12. METT-TC refers to factors that are fundamental to assessing and visualizing: Mission, Enemy, Terrain and weather, Troops and support available, Time available, and Civil considerations. The first five factors are not new. However, the nature of full spectrum operations requires commanders to assess the impact of nonmilitary factors on operations. Because of this added complexity, *civil considerations* has been added to the familiar METT-T to form METT-TC. All commanders use METT-TC to start their visualization. Staff estimates may address individual elements of, and add to, the commander's visualization.

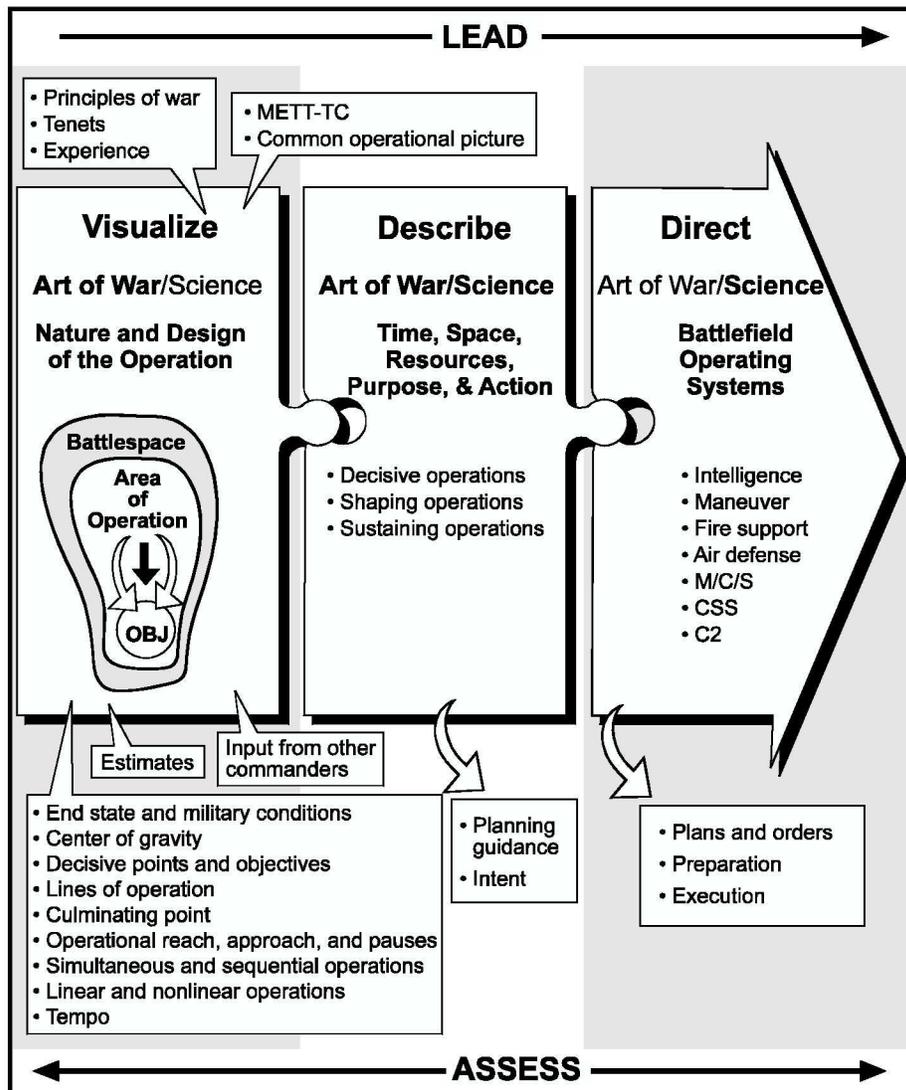


Figure 5-1. Visualize, Describe, Direct

5-13. **Mission.** Commanders determine the mission through analysis of the tasks assigned. The results of that analysis yield the essential tasks that, together with the purpose of the operation, clearly indicate the action required. The mission includes what tasks must be accomplished; who is to do them; and when, where, and why the tasks are to be done.

5-14. **Enemy.** The analysis of the enemy includes current information about his strength, location, activity, and capabilities. Commanders and staffs also assess the most likely enemy courses of action. In stability operations and support operations, the analysis includes adversaries, potentially hostile parties, and other threats to success. Threats may include the spread of infectious disease, regional instabilities, or misinformation. Commanders consider asymmetric as well as conventional threats.

5-15. **Terrain and Weather.** Analysis of terrain and weather helps commanders determine observation and fields of fire, avenues of approach, key terrain, obstacles and movement, and cover and concealment (OAKOC [see FM 6-0]). Terrain includes manmade features such as cities, airfields, bridges, railroads, and ports. Weather and terrain also have pronounced effects on ground maneuver, precision munitions, air support, and CSS operations. The nature of operations extends the analysis of the natural environment (weather and terrain) into the context of the physical environment of a contaminated battlefield. To find tactical advantages, commanders and staffs analyze and compare the limitations of the environment on friendly, enemy, and neutral forces.

5-16. **Troops and Support Available.** Commanders assess the quantity, training level, and psychological state of friendly forces. The analysis includes the availability of critical systems and joint support. Commanders examine combat, combat support (CS), and CSS assets. These assets include contractors (see FM 3-100.21).

5-17. **Time Available.** Commanders assess the time available for planning, preparing, and executing the mission. They consider how friendly and enemy or adversary forces will use the time and the possible results.

You can ask me for anything you like, except time...

Napoleon

Proper use of the time available can fundamentally alter the situation. Time available is normally explicitly defined in terms of the tasks assigned to the unit and implicitly bounded by enemy or adversary capabilities.

5-18. **Civil Considerations.** Civil considerations relate to civilian populations, culture, organizations, and leaders within the AO. Commanders consider the natural environment, to include cultural sites, in all operations directly or indirectly affecting civilian populations. Commanders include civilian political, economic, and information matters as well as more immediate civilian activities and attitudes.

5-19. At the operational level, civil considerations include the interaction between military operations and the other instruments of national power. Civil considerations at the tactical level generally focus on the immediate impact of civilians on the current operation; however, they also consider larger, long-term diplomatic, economic, and informational issues. Civil considerations can tax the resources of tactical commanders while shaping force activities. Civil considerations define missions to support civil authorities.

5-20. Political boundaries of nations, provinces, and towns are important civil considerations. Conflict often develops across boundaries, and boundaries may impose limits on friendly action. Boundaries, whether official or not, determine which civilian leaders and institutions can influence a situation. These considerations can be important at all levels.

5-21. Media presence guarantees that a global audience views US military activities in near real-time. Commanders factor public opinion into their vision of the battlespace. The activities of the force—including individual soldiers—can have far reaching effects on domestic and international opinion. The media also affect activities and opinions within the AO and often prove a valuable information resource.

5-22. The local population and displaced persons influence commanders' decisions. Their presence and the need to address their control, protection, and welfare affect the choice of courses of action and the allocation of resources. In stability operations and support operations, these people are a central feature of AOs.

The Elements of Operational Design

5-23. A major operation begins with a design—an idea that guides the conduct (planning, preparation, execution, and assessment) of the operation. The operational design provides a conceptual linkage of ends, ways, and means. The elements of operational design are tools to aid designing major operations. They help commanders visualize the operation and shape their intent.

Elements of Operational Design

- End state and military conditions
- Center of gravity
- Decisive points and objectives
- Lines of operation
- Culminating point
- Operational reach, approach, and pauses
- Simultaneous and sequential operations
- Linear and nonlinear operations
- Tempo

5-24. The elements of operational design are most useful in visualizing major operations. They help clarify and refine the vision of operational-level commanders by providing a framework to describe operations in terms of task and purpose. They help commanders understand the complex combinations of combat power involved. However, their usefulness and applicability diminishes at each lower echelon. For example, senior tactical commanders must translate the operational commander's operational reach and culminating point into a limit of advance for ground forces. Decisive points become geographic or force-oriented objectives. Senior tactical commanders normally consider end state, decisive points and objectives, culminating point, simultaneous and sequential operations, linear and nonlinear operations, and tempo. However, their subordinates at the lowest tactical echelons may only consider objectives.

5-25. **End State and Military Conditions.** At the strategic level, the end state is what the National Command Authorities want the situation to be when operations conclude—both those where the military is the primary instrument of national power employed and those where it supports other instruments. It marks the point when military force is no longer the principal strategic means. **At the operational and tactical levels, the *end state* is the conditions that, when achieved, accomplish the mission. At the operational level, these conditions attain the aims set for the campaign or major operation.**

5-26. JFCs establish the end state for campaigns or joint major operations and set the military conditions necessary to accomplish them. Army operations at the theater level focus on achieving the military conditions on land necessary to achieve the JFC's objectives and end state. In situations where military force is employed with nonmilitary means, commanders designate measures of effectiveness to focus military action. In many operations—particularly short-notice, smaller-scale contingencies—the end state

and supporting military conditions may be poorly defined or entirely absent. In other operations, the end state may be vague or evolving. Therefore, commanders at all levels monitor and assess progress toward the end state. Operational commanders continuously assess the major operation and campaign objectives against measures of effectiveness and the strategic end state.

5-27. **Center of Gravity.** Centers of gravity are those characteristics, capabilities, or localities from which a military force derives its freedom of action, physical strength, or will to fight. Destruction or neutralization of the enemy center of gravity is the most direct path to victory. The enemy will recognize and shield his center of gravity. Therefore, a direct approach may be costly and sometimes futile. Commanders examine many approaches, direct and indirect, to the enemy center of gravity.

5-28. The center of gravity is a vital analytical tool in the design of campaigns and major operations. Once identified, it becomes the focus of the commander's intent and operational design. Senior commanders describe the center of gravity in military terms, such as objectives and missions.

5-29. Commanders not only consider the enemy center of gravity, but also identify and protect their own center of gravity. During the Gulf War, for example, US Central Command identified the coalition itself as the friendly center of gravity. The combatant commander took measures to protect it, including deployment of theater missile defense systems.

5-30. **Decisive Points and Objectives.** A *decisive point* is a geographic place, specific key event, or enabling system that allows commanders to gain a marked advantage over an enemy and greatly influence the outcome of an attack. Decisive points are not centers of gravity; they are keys to attacking or protecting them. Normally, a situation presents more decisive points than the force can control, destroy, or neutralize with available resources. Part of operational art consists of selecting the decisive points that will most quickly and efficiently overcome the enemy center of gravity. Decisive points shape operational design and allow commanders to select objectives that are clearly defined, decisive, and attainable.

5-31. Some decisive points are geographic, for example, a port facility, transportation network or node, or base of operations. Other physical decisive points include elements of an enemy force, such as units, command posts, fire support units capable of delivering weapons of mass destruction (WMD), or important communications sites. Events, such as commitment of the enemy operational reserve, may also be decisive points. Once identified and selected for action, decisive points become objectives.

5-32. Decisive points may have a different character in support missions and stability operations. During hurricane relief efforts in Florida, for example, the Joint Task Force Andrew commander identified the reopening of public schools as a decisive point. This decisive point was physical in nature, but its real value was psychological. Reopening schools signaled to residents that they were on their way to recovery.

5-33. **Lines of Operations.** *Lines of operations* define the directional orientation of the force in time and space in relation to the enemy. They connect the force with its base of operations and its objectives.

In geographic terms, lines of operations connect a series of decisive points that lead to control of the objective or defeat of the enemy force.

5-34. An operation may have single or multiple lines of operation. A single line of operations concentrates forces and simplifies planning. Multiple lines of operations increase flexibility and create several opportunities for success. Multiple lines of operations make it difficult for an enemy to determine the friendly objectives and force him to disperse resources against several possible threats. Each potential option further complicates the enemy's situation and stresses his C2 system. The strategic responsiveness and tactical agility of Army forces create opportunities for simultaneous operations along multiple lines of operations.

5-35. Lines of operations may be either interior or exterior (see Figure 5-2). **A force operates on interior lines when its operations diverge from a central point.** With interior lines, friendly forces are closer to separate enemy forces than the enemy forces are to each other. Interior lines allow a weaker force to mass combat power against a portion of the enemy force by shifting resources more rapidly than the enemy. **A force operates on exterior lines when its operations converge on the enemy.** Operations on exterior lines offer the opportunity to encircle and annihilate a weaker or less mobile enemy; however, they require stronger or more mobile forces.

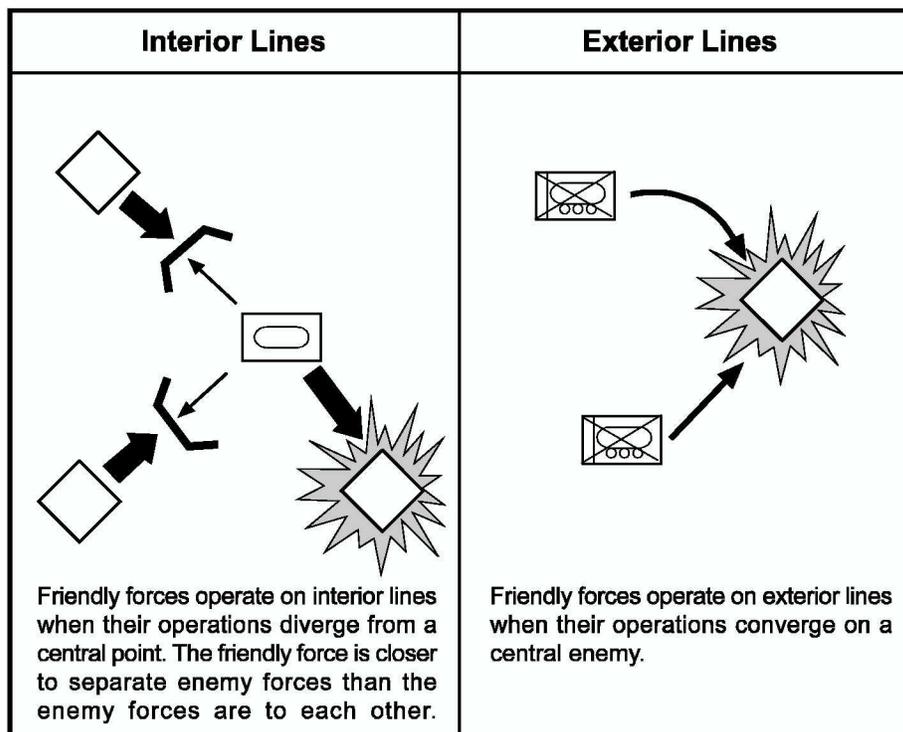


Figure 5-2. Interior and Exterior Lines of Operations

5-36. The relevance of interior and exterior lines depends on the relationship of time and distance between the opposing forces. An enemy force may have interior lines with respect to the friendly force; however, that advantage

disappears if the friendly force is more agile and operates at a higher tempo. Conversely, if a smaller friendly force maneuvers to a position between larger but less agile enemy forces, the friendly force may defeat them in detail before they can react effectively.

5-37. When positional reference to an enemy or adversary has little relevance, commanders may visualize the operation along *logical lines* (see Figure 5-3). This situation is common in stability operations and support operations. Commanders link multiple objectives and actions with the logic of purpose—cause and effect. In a linkage between objectives and forces, only the logical linkage of lines of operations may be evident. Multiple and complementary lines of operations work through a series of objectives. Commanders synchronize activities along multiple lines of operation to achieve the desired end state. Logical lines of operations also help commanders visualize how military means can support nonmilitary instruments of national power.

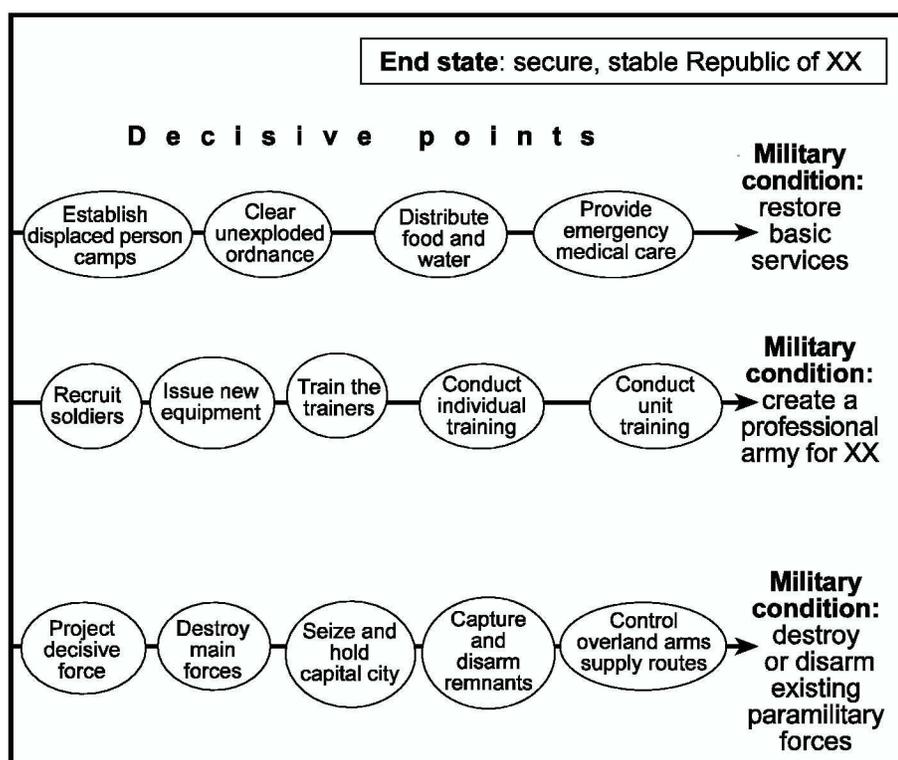


Figure 5-3. Logical Lines of Operations

5-38. **Culminating Point.** Culminating point has both operational and tactical relevance. In the offense, the *culminating point* is that point in time and space where the attacker's effective combat power no longer exceeds the defender's or the attacker's momentum is no longer sustainable, or both. Beyond their culminating point, attackers risk counterattack and catastrophic defeat and continue the offense only at great peril. Defending forces reach their culminating point when they can no longer defend successfully or counterattack to restore the cohesion of the

defense. **The defensive culminating point marks that instant at which the defender must withdraw to preserve the force.** Commanders tailor their information requirements to anticipate culmination early enough to either avoid it or, if avoiding it is not possible, place the force in the strongest possible posture.

5-39. In operations where stability or support predominate, culmination may result from the erosion of national will, decline of popular support, questions concerning legitimacy or restraint, or lapses in protection leading to excessive casualties. Operational culmination in a stability or support mission usually occurs when the force is spread too thinly to control the situation, from a lack of resources, or from the inability to supply resources when needed. Then small failures may cascade into larger defeats, shocks in the political arena, or inability to provide the necessary support.

5-40. **Operational Reach, Approach, and Pauses.** Good operational design balances operational reach, operational approach, and operational pauses to ensure the force achieves its objectives before it culminates. Commanders carefully assess the physical and psychological condition of friendly and enemy forces, anticipate culmination, and plan operational pauses if necessary. They commit the required forces and conduct operational risk assessments. Commanders aim to extend operational reach while avoiding culmination and operational pauses.

5-41. **Operational reach is the distance over which military power can be employed decisively.** It is a tether. Operational reach varies based on the situation. Combat power, sustainment capabilities, and the geography surrounding and separating friendly and enemy forces all influence it. Army forces extend their operational reach by locating forces, reserves, bases, and support forward; by increasing the range of weapons systems; through supply discipline; and by improving lines of communications (LOCs).

5-42. **Operational approach is the manner in which a commander attacks the enemy center of gravity. The direct approach applies combat power directly against the enemy center of gravity or the enemy's principal strength. The indirect approach attacks the enemy center of gravity by applying combat power against a series of decisive points that avoid enemy strengths.** When possible, commanders choose an indirect approach: they maneuver to avoid enemy strengths and degrade enemy capabilities; they refuse combat when the situation is unfavorable or the outcome does not significantly affect the operation. An effective operational approach, whether direct or indirect, focuses symmetric and asymmetric effects on the objective. By a shrewd operational approach, careful integration of joint capabilities, and agile BOS combinations, Army forces bring enemies within their operational reach while protecting themselves.

5-43. **An operational pause is a deliberate halt taken to extend operational reach or prevent culmination.** An operational pause may occur because the force has culminated, because the character of the operation has changed (by the intervention of another enemy, for example), or through a combination of other factors. If the situation requires an operational pause, the commander should designate a new main effort. Army forces coordinate

operational pauses with other components so the joint force can maintain the initiative and momentum.

5-44. Simultaneous and Sequential Operations. The sequence of operations is closely related to the use of resources. ARFOR commanders synchronize subordinate unit actions in time, space, and effects to link the theater strategy and design of joint major operations to tactical execution. Without this linkage, major operations deteriorate into haphazard battles and engagements that waste resources without achieving decisive results.

5-45. When possible, Army forces conduct simultaneous operations throughout the AO. They seek to employ combat power against the entire enemy system. Army forces concurrently engage as many decisive points as possible. Simultaneity exploits depth and agility to overwhelm enemy forces. It threatens opponents with immediate consequences throughout the AO. The presence of multiple threats overloads enemy C2 systems. Enemy commanders confront many decisions within a very short period. The chance of a serious mistake is high, and each mistake creates opportunities for friendly forces.

5-46. Simultaneous operations place a premium on information superiority and overwhelming combat power. In practical terms, the force size and force projection constraints may limit the ability of Army forces to achieve simultaneity. Effective operational designs employ complementary and reinforcing joint and service capabilities to achieve maximum simultaneity.

5-47. Sequential operations achieve the end state by phases. Commanders concentrate combat power at successive points over time, achieving the mission in a controlled series of steps. Often the scale and scope of the campaign or major operation, together with the resiliency of the enemy, compel commanders to destroy and disrupt the enemy in stages, exposing the center of gravity step by step.

5-48. Nonlinear and Linear Operations. Nonlinear operations are now more common than ever. Stability operations and support operations are normally nonlinear. Operation Just Cause and the last 36 hours of Operation Desert Storm featured large-scale nonlinear offensive operations. Ideally, a mobile defense transforms an enemy attack into a nonlinear operation that destroys him.

5-49. In *nonlinear operations*, maneuver units may operate in noncontiguous areas throughout the AO. Even when operating in contiguous AOs, maneuver forces may orient on objectives without geographic reference to adjacent forces. Nonlinear operations typically focus on multiple decisive points. Simultaneity overwhelms opposing C2 and retains the initiative. Nonlinear operations proceed along multiple lines of operations—geographic, logical, or both. LOCs often diverge from lines of operation, and sustaining operations may depend on CSS moving with maneuver units or delivered by air.

5-50. Smaller, lighter, more mobile, and more lethal forces sustained by efficient, distribution-based CSS systems lend themselves to simultaneous operations against multiple decisive points. Situational understanding, coupled with precision fires, frees commanders to maneuver against multiple objectives. Swift maneuver against several decisive points—supported by

precise, concentrated fire—induces paralysis and shock among enemy troops and commanders.

5-51. In *linear operations*, maneuver units normally operate in contiguous AOs. Each combined arms force directs and sustains combat power toward enemy forces in concert with adjacent units. The ratio of forces to space and the array of maneuver forces emphasize geographic position and tend to create a continuous forward line of own troops (FLOT). This protects and simplifies LOCs. Protected LOCs, in turn, increase the endurance of Army forces and ensure freedom of action for extended periods.

5-52. A linear battlefield organization may be best for some operations or certain phases of an operation. Conditions that favor linear operations include those where US forces lack the information needed to conduct nonlinear operations or are severely outnumbered. Linear operations are also appropriate against a deeply arrayed, echeloned enemy force or when the threat to LOCs reduces friendly force freedom of action. In these circumstances, linear operations allow commanders to concentrate and synchronize combat power more easily. Coalition operations may also require a linear design.

5-53. Nonlinear and linear operations are not mutually exclusive. Depending upon perspective and echelon, operations often combine them. For example, a corps may employ its forces in noncontiguous areas, operating simultaneously against multiple decisive points. A brigade combat team in the same corps operating within an urban area may employ units in a linear array.

5-54. **Tempo.** *Tempo is the rate of military action.* Controlling or altering that rate is necessary to retain the initiative. Army forces adjust tempo to maximize friendly capabilities. Commanders consider the timing of the effects achieved rather than the chronological application of combat power or capabilities. Tempo has military significance only in relative terms. When the sustained friendly tempo exceeds the enemy's ability to react, friendly forces can maintain the initiative and have a marked advantage.

5-55. Commanders complement rapid tempo with three related concepts. First, operational design stresses simultaneous operations rather than a deliberate sequence of operations. Second, an operation may achieve rapid tempo by avoiding needless combat. This includes bypassing resistance that appears at times and places commanders do not consider decisive. Third, the design gives maximum latitude to independent action and initiative by subordinate commanders.

5-56. Army forces generally pay a price for rapid tempo through greater fatigue and resource expenditure. Commanders judge the capacity of their forces to operate at high tempo based on theater resources and deteriorating friendly performance. They design the operation for various tempos that take into account the endurance of the force.

Input from Other Commanders and Staff

5-57. Subordinate, adjacent, and higher commanders use similar factors but different perspectives to visualize their battlespace. Commanders increase the depth and sophistication of their visualizations through exchanges with other commanders. Advanced C2 systems support this collaboration by

allowing commanders to share a common operational picture (COP). In a similar fashion, staff input, in the form of estimates, provides focused analysis of the situation and its potential effects on operations. Commanders direct staffs to provide the information necessary to shape their vision.

The Commander's Experience and Judgment

5-58. Commanders consider the context of the operation, the relationship of Army forces within the joint team, and JFC-designated roles and missions. Experience, combined with situational understanding, provides the intellectual setting around which commanders visualize the operational design. Based upon the commander's direction, Army units plan, prepare, execute, and continuously assess the operation.

5-59. Judgment provides the basis for the considered application of combat power in innovative ways adapted to new situations. In circumstances where experience provides few answers, commanders combine their experience, intuition, and judgment with the recommendations of the staff and subordinates to create new strategies. In many instances, solutions to tough questions may come from the reasoned application of historical study, a hallmark of professional development. In other situations, small unit leaders or soldiers invent solutions to tactical problems. When proposed solutions appear, commanders consider them and decide on appropriate actions.

Experience and Innovation on Grenada

In October 1983, Army forces invaded Grenada as part of Joint Task Force 120. During operations on 27 October, paratroopers from the 82d Airborne Division advanced eastward across southern Grenada. Army forces cleared all enemy forces in their AO, phase line by phase line. During operations, soldiers discovered that runway problems at Point Salines had delayed the arrival of the division's attack helicopters, a critical means of fire support. Without the helicopters, the 82d soldiers relied upon naval aircraft and naval gunfire. Their tactical radios, however, were incompatible with communications systems aboard the ships of the *Independence* battle group. Army soldiers invented a solution to their dilemma by using commercial telephone cards to send their request for fire support to Fort Bragg, North Carolina. Fort Bragg personnel then relayed the requests via satellite to the ships. Army soldiers developed an innovative solution to a complex problem and, by doing so, helped to identify and later correct the joint compatibility issues.

DESCRIBE

5-60. To describe operations, commanders use operational framework and elements of operational design to relate decisive, shaping, and sustaining operations to time and space. In all operations, purpose and time determine the allocation of space. Commanders clarify their description, as circumstances require. They emphasize how the combination of decisive, shaping, and sustaining operations relates to accomplishing the purpose of the overall operation. When appropriate, commanders include deep, close, and rear areas

in the battlefield organization. Whether commanders envision linear or nonlinear operations, combining the operational framework with the elements of operational design provides a flexible tool to describe actions. Commanders describe their vision in their commander's intent and planning guidance, using terms suited to the nature of the mission and their experience.

Commander's Intent

5-61. Commanders express their vision as the commander's intent. The staff and subordinates measure the plans and orders that transform thought to action against it. **The commander's intent is a clear, concise statement of what the force must do and the conditions the force must meet to succeed with respect to the enemy, terrain, and the desired end state.** Commanders make their own independent, and sometimes intuitive, assessment of how they intend to win. The final expression of intent comes from commanders personally.

5-62. Intent, coupled with mission, directs subordinates toward mission accomplishment in the absence of orders. When significant opportunities appear, subordinates use the commander's intent to orient their efforts. Intent includes the conditions that forces meet to achieve the end state. Conditions apply to all courses of action. They include the tempo, duration, effect on the enemy, effect on another friendly force operation, and key terrain.

Commander's Intent and Sherman's "March to the Sea"

On 4 April 1864, LTG Ulysses S. Grant wrote to MG William T. Sherman regarding his plan for conducting a spring campaign against the Confederacy. LTG Grant conveyed his intent to "take the initiative in the spring campaign, to work all parts of the army together, and somewhat toward a common center." LTG Grant informed MG Sherman of what his fellow commanders would be doing to accomplish that intent. Then he told MG Sherman to "move against Johnston's army, to break it up and to get into the interior of the enemy's country as far as you can, inflicting all the damage you can against their war resources. I do not propose to lay down for you a plan of campaign, but simply lay down the work it is desirable to have done and leave you free to execute it in your own way. Submit to me, however, as early as you can, your plan of operations."

LTG Grant understood that by asking MG Sherman to penetrate deep into enemy territory he would occasionally lose communications with his subordinate. Yet, he trusted that MG Sherman understood what he was to do, adding, "I believe you will accomplish it." The operation that resulted from this intent was MG Sherman's "march to the sea." The operation forced the Confederacy to divert resources from the forces opposing the Union main effort by the Army of the Potomac and hastened the end of the war.

Planning Guidance

5-63. From the vision, commanders develop and issue planning guidance. Planning guidance may be either broad or detailed, as circumstances dictate. However, it conveys the essence of the commander's vision. Commanders use their experience and judgment to add depth and clarity to their planning guidance. Commanders attune the staff to the broad outline of their vision, while still permitting latitude for the staff to explore different options.

Planning Guidance—Grant and Thomas at Chattanooga

On 18 November 1863, MG Ulysses S. Grant gave MG George H. Thomas his planning guidance for seizing Confederate positions near Chattanooga, Tennessee, a critical city lying along vital Confederate LOCs. MG Grant told MG Thomas of his plan for a daylight assault to seize Missionary Ridge, thereby gaining key terrain from which to weaken the Confederate defense. He stated that "the general plan, you understand, is for Sherman to effect a crossing of the Tennessee River just below the mouth of Chickamauga...to secure the heights on the northern extremity to about the railroad tunnel before the enemy can concentrate against him. You will cooperate with Sherman. The troops in Chattanooga Valley should be well concentrated on your left flank, leaving only the necessary force to defend fortifications on the right and center, and a movable column of one division in readiness to move wherever ordered. Your effort then will be to form a junction with Sherman, making your advance well towards the northern end of Missionary Ridge, and moving as near simultaneously with him as possible." Once the two forces converged, MG Thomas was told to establish communications "at once between the two armies by roads on the south bank of the river." MG Grant intended to move fast; thus, he added that wanted the troops to be "provided with two days' cooked rations in haversacks and one hundred rounds of ammunition on the person of each infantry soldier." MG Grant's guidance was simple and clear. MG Thomas accomplished his mission, and the Union Army defeated the Confederate forces at Chattanooga.

DIRECT

5-64. Armed with a coherent and focused intent, commanders and staffs develop the concept of operations and synchronize the BOS. The BOS are the physical means (soldiers, organizations, and equipment) used to accomplish the mission. The BOS group related systems together according to battlefield use. Information about specific tasks associated with each BOS is in FM 7-15.

The Battlefield Operating Systems

- Intelligence
- Maneuver
- Fire support
- Air defense
- Mobility/countermobility/survivability
- Combat service support
- Command and control

Intelligence

5-65. The intelligence system plans, directs, collects, processes, produces, and disseminates intelligence on the threat and environment to perform intelligence preparation of the battlefield (IPB) and the other intelligence tasks. A critical part of IPB involves collaborative, cross-BOS analysis across echelons and between analytic elements of a command. The other intelligence tasks are—

- Situation development.
- Target development and support to targeting.
- Indications and warning.
- Intelligence support to battle damage assessment.
- Intelligence support to force protection.

Intelligence is developed as a part of a continuous process and is fundamental to all Army operations.

Maneuver

5-66. Maneuver systems move to gain positions of advantage against enemy forces. Infantry, armor, cavalry, and aviation forces are organized, trained, and equipped primarily for maneuver. Commanders maneuver these forces to create conditions for tactical and operational success. By maneuver, friendly forces gain the ability to destroy enemy forces or hinder enemy movement by direct and indirect application of firepower, or threat of its application.

Fire Support

5-67. Fire support consists of fires that directly support land, maritime, amphibious, and special operations forces in engaging enemy forces, combat formations, and facilities in pursuit of tactical and operational objectives. Fire support integrates and synchronizes fires and effects to delay, disrupt, or destroy enemy forces, systems, and facilities. The fire support system includes the collective and coordinated use of target acquisition data, indirect-fire weapons, fixed-wing aircraft, electronic warfare, and other lethal and nonlethal means to attack targets. At the operational level, maneuver and fires may be complementary in design, but distinct in objective and means.

Air Defense

5-68. The air defense system protects the force from air and missile attack and aerial surveillance. It prevents enemies from interdicting friendly forces while freeing commanders to synchronize maneuver and firepower. All members of the combined arms team perform air defense tasks; however, ground-based air defense artillery units execute most Army air defense operations. These units protect deployed forces and critical assets from observation and attack by enemy aircraft, missiles, and unmanned aerial vehicles. The WMD threat and proliferation of missile technology increase the importance of the air defense system. Theater missile defense is crucial at the operational level.

Mobility/Counter mobility/Survivability

5-69. *Mobility* operations preserve friendly force freedom of maneuver. *Mobility* missions include breaching obstacles, increasing battlefield circulation,

improving or building roads, providing bridge and raft support, and identifying routes around contaminated areas. *Countermobility* denies mobility to enemy forces. It limits the maneuver of enemy forces and enhances the effectiveness of fires. Countermobility missions include obstacle building and smoke generation. *Survivability* operations protect friendly forces from the effects of enemy weapons systems and from natural occurrences. Hardening of facilities and fortification of battle positions are active survivability measures. Military deception, OPSEC, and dispersion can also increase survivability. NBC defense measures are essential survivability tasks.

Combat Service Support

5-70. CSS includes many technical specialties and functional activities. It includes the use of host nation infrastructure and contracted support. CSS provides the physical means for forces to operate, from the production base and replacement centers in the continental US to soldiers engaged in close combat. It is present across the range of military operations, at all levels of war.

Command and Control

5-71. Command and control has two components—the commander and the C2 system. Communications systems, intelligence systems, and computer networks form the backbone of C2 systems and allow commanders to lead from any point on the battlefield. The C2 system supports the commander's ability to make informed decisions, delegate authority, and synchronize the BOS. Moreover, the C2 system supports the ability of commanders to adjust plans for future operations, even while focusing on the current fight. Staffs work within the commander's intent to direct units and control resource allocations. They also are alert to spotting enemy or friendly situations that require command decisions and advise commanders concerning them. Through C2, commanders initiate and integrate all military functions and systems toward a common goal: mission accomplishment (see FM 6-0).

Command and control is the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission.

5-72. Reliable communications are central to C2 systems. Effective battle command requires reliable signal support systems that enable commanders to conduct operations at varying tempos. Nonetheless, commanders, not their communication systems, dictate command style. Signal planning increases the commander's options by providing signal support to pass vital information at critical times. This capability allows commanders to leverage tactical success and anticipate future operations. Communications planning is a vital component of maintaining or extending operational reach.

PERSONAL IMPACT OF THE COMMANDER

5-73. Command occurs at the commander's location, whether at a command post, infiltrating at night with light infantry elements, or in a combat vehicle with the decisive operation. Commanders balance inspiring soldiers through leading by example with the need to maintain C2 continuity. Even when equipped with advanced C2 systems, commanders carefully consider their personal location and its impact on their ability to recognize opportunities. In larger tactical and operational formations, the command post is normally the focus of information flow and planning. There, information systems, the staff, and the COP enhance commanders' ability to visualize possibilities and recognize opportunities. Yet there are times when commanding from forward locations is necessary. Plans should account for such temporary requirements as well as the possible loss of the commander. Commanders at all levels locate where they can not only exercise command but also sense the battle. Sometimes this is at the command post; sometimes it is face to face with subordinate commanders and soldiers.

5-74. The commander's will is the constant element that propels the force through the shock and friction of battle. Things can and will go wrong. The ability of leaders and soldiers to concentrate erodes as they reach the limits of their endurance. If the enemy is skilled and resolute, soldiers may approach that point when "can't be done" and "can't go any further" dominate their thinking. At that point, the will and personal presence of commanders provide the impetus for action.

Modern land warfare is tough, uncompromising, and highly lethal. The enemy is found and engaged at ranges from a few meters to thousands of meters. Casualties are sudden and unexpected even though you know they will happen. Because of that, commanders and soldiers at every level are aware not only of the tactical, operational, and strategic problem solving demands of war but also the intense human dimension. They know results are final and will be frozen in time for a lifetime. Objectives are achieved but always at a cost to your soldiers. It is why at all levels the aim always is mission at least cost. Often that least cost is achieved by seizing the initiative and by bold action. Commanders and soldiers have to feel it all to really know what to do. But in feeling it all they must not be paralyzed into inaction. They must decide, often in nanoseconds, make the decision stick, and go on. They must feel but they also must act. They cannot give in to second guessing themselves nor to their emotions. That is what makes combat leadership so demanding. It is why commanders train hard and continually throughout a professional lifetime so they can make the few tough decisions they have to make in battle to put their soldiers at the best possible advantage over the enemy. Soldiers trust battle commanders to be able to do that, but also to assume responsibility when things do not go as planned and quickly make the right adjustments to keep them at that advantage.

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