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).
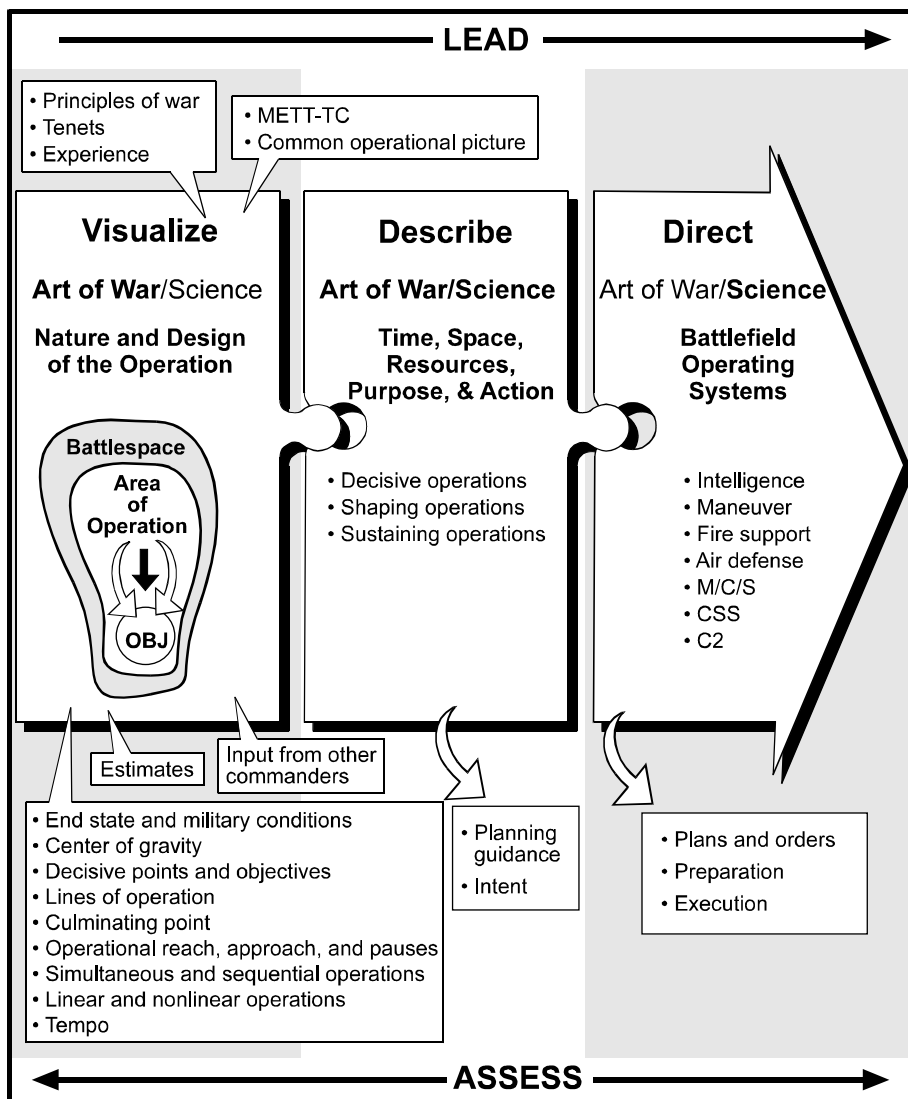
VISUALIZE

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.

LEAD

- Principles of war
- Tenets
- Experience

- METT-TC
- Common operational picture

Visualize

Art of War/Science

Nature and Design of the Operation

Battlespace

Area of Operation

OBJ

Describe

Art of War/Science

Time, Space, Resources, Purpose, & Action

- Decisive operations
- Shaping operations
- Sustaining operations

Direct

Art of War/**Science**

Battlefield Operating Systems

- Intelligence
- Maneuver
- Fire support
- Air defense
- M/C/S
- CSS
- C2

Estimates

Input from other commanders

- 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

- Planning guidance
- Intent

- Plans and orders
- Preparation
- Execution

ASSESS

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.

| Interior Lines	Exterior Lines
Friendly forces operate on interior lines when their operations diverge from a central point. The friendly force is closer to separate enemy forces than the enemy forces are to each other.	Friendly forces operate on exterior lines when their operations converge on a central enemy.
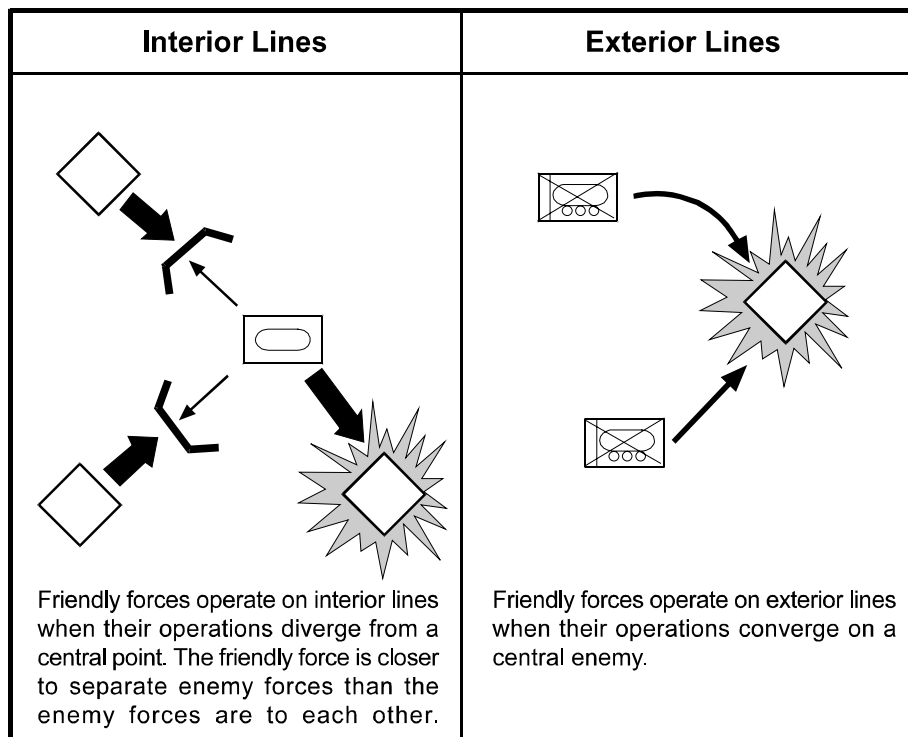
Figure 5-2. Interior and Exterior Lines of Operations

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.
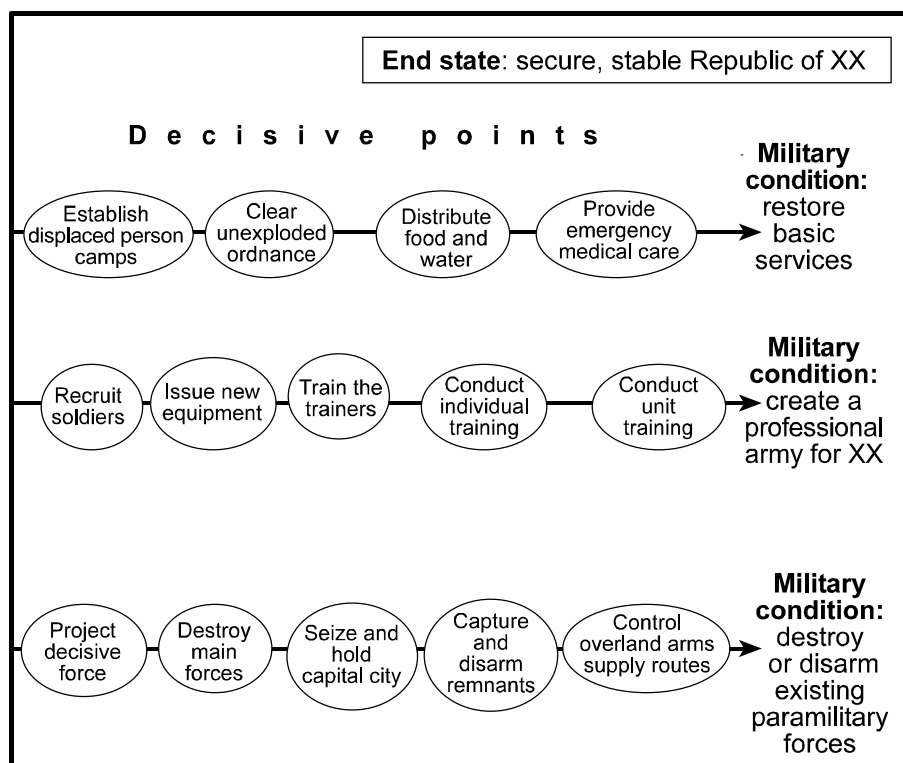
Figure 5-3. Logical Lines of Operations

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 to-

The Battlefield Operating Systems

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

gether according to battlefield use. Information about specific tasks associated with each BOS is in FM 7-15.

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/Countermobility/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.

General Frederick M. Franks Jr.
VII Corps Commander, Operation Desert Storm