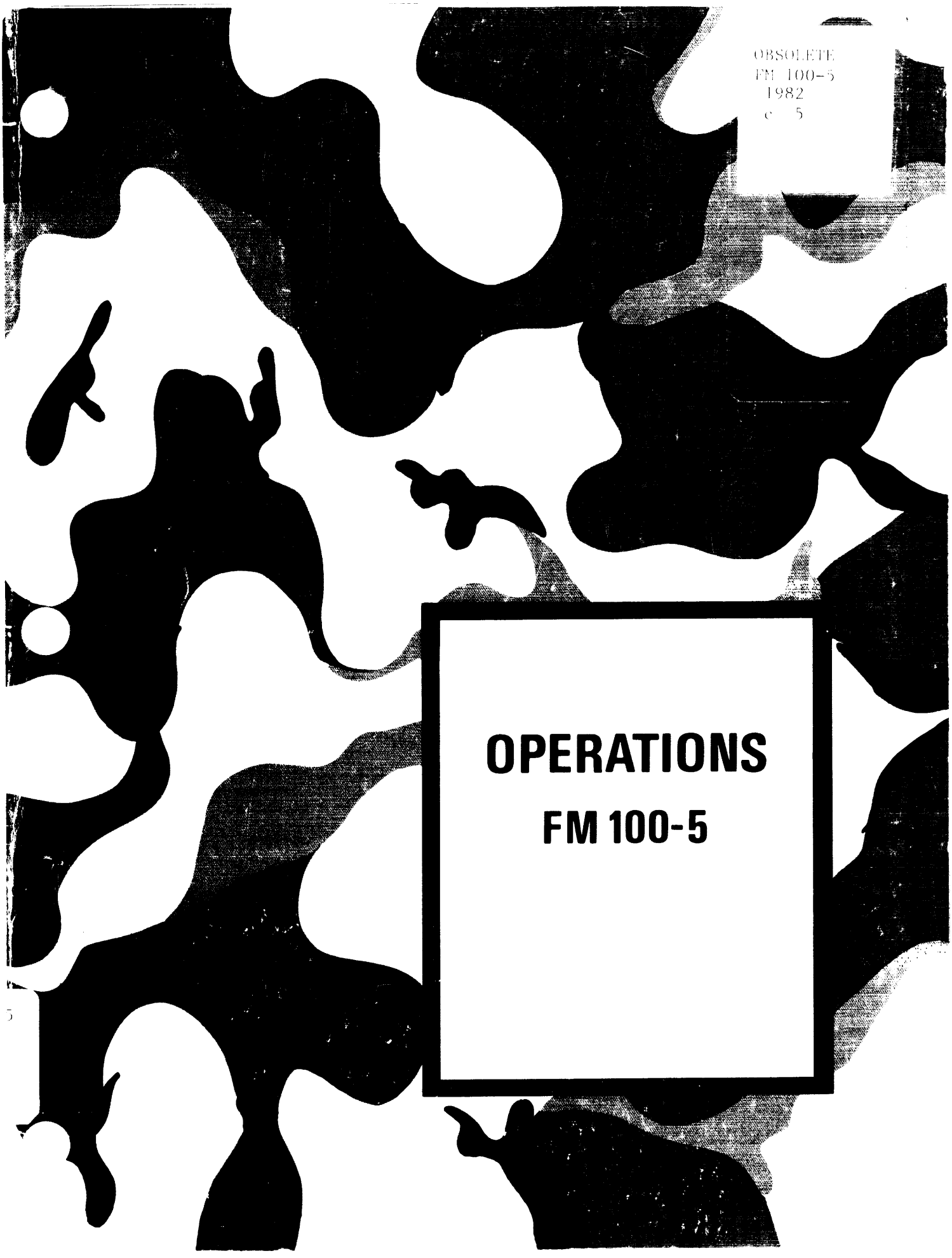
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FM 100-5

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Field Manual
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HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 20 August 1982

OPERATIONS

Preface

THE FUNDAMENTAL MISSION OF THE UNITED STATES ARMY IS TO DETER WAR. Should conflict occur, FM 100-5 is the Army's keystone How to Fight manual. It is consistent with NATO doctrine and strategy. The manual emphasizes the application of conventional weapons; however, the United States Army must be capable of operating in any environment including the nuclear and chemical battlefield. Nuclear and chemical weapons can be used only after authorization has been granted by the national command authority. FM 100-5 provides operational guidance for use by commanders and trainers at all echelons. It forms the foundation of Army service school curricula and serves as the basis for developing Army doctrine, training, and materiel systems and organizations.

FM 100-5 explains how the Army must conduct campaigns and battles in order to win. It describes US Army operational doctrine involving maneuver, firepower, and movement; combined arms warfare; and cooperative actions with sister services and allies. It emphasizes tactical flexibility and speed as well as mission orders, initiative among subordinates, and the spirit of the offense. Specific operational details appear in other field manuals and regulations.

FM 100-5 is based on the purpose, organization, responsibilities, and goals of the US Army as set forth in FM 100-1. The principles of war, the conditions of modern battle, and the fundamentals of military professionalism and leadership used in this manual also come from FM 100-1. The terms and graphics necessary to understand this manual are contained in FM 101-5-1. Both FM 100-1 and FM 101-5-1 are required references.

Users of this publication are encouraged to recommend changes and submit comments for its improvement. Key comments to the specific page and paragraph in which the change is recommended. Provide a reason for each comment to insure understanding and complete evaluation. To send changes or comments, prepare DA Form 2028 (Recommended Changes to Publications and Blank Forms) and forward it to Commandant, USACGSC, ATTN: ATZL-SWT, Fort Leavenworth, Kansas 66027.

When used in this publication, "he," "him," "his," and "men" represent both the masculine and feminine genders unless otherwise stated.

*This publication supersedes FM 100-5, 1 July 1976.

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20 AUGUST 1982

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PART ONE

THE ARMY AND HOW IT FIGHTS

CHAPTER 1

Challenges for the US Army

THERE IS NO SIMPLE FORMULA for winning wars. Defeating enemy forces in battle will not always insure victory. Other national instruments of power and persuasion will influence or even determine the results of wars. Wars cannot be won, however, without a national will and military forces equal to the task. Although successful military operations do not guarantee victory, they are an indispensable part of winning. Winning campaigns and battles is the focus of this manual.

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IDENTIFYING THE CHALLENGES

The US Army must meet a variety of situations and challenges. In the 1980s it can expect to be committed in either of two environments. It may fight on a sophisticated battlefield with an existing infrastructure of communications, air defense, logistic facilities, and ports. Or, on a relatively unsophisticated battlefield, it may have to create an infrastructure or choose to fight without one. It must be ready to fight light, well-equipped forces such as Soviet-supported insurgents or sophisticated terrorist groups. It must be prepared to fight highly mechanized forces typical of Warsaw Pact or Soviet surrogates in southwest or northeast Asia. In the areas of greatest strategic concern, it must expect battles of greater scope and intensity than ever fought before. It must anticipate battles fought with nuclear and chemical weapons.

Such battles are likely to be intense, deadly, and costly. To win, we must coordinate all available military forces in pursuit of common objectives. We must retain the initiative and disrupt our opponent's fighting capability in depth with deep attack, effective firepower, and decisive maneuver. Soldiers and units must prepare for such battles, and the Army's operational concept must enable it to win. AirLand Battle is the doctrine that deals with these worldwide challenges. This manual provides that doctrine.

The four basic challenges to the Army will be the battlefield, leadership, readiness, and training.

THE NEXT BATTLEFIELD

Nonlinear Maneuver Battles. In modern battle, the US Army will face an enemy who expects to sustain rapid movement during the offense and who will probably use every weapon at his disposal. Breaking or

restraining the enemy's initial ground attacks will not end the hostilities. We must be prepared to fight campaigns of considerable movement, complemented by intense volumes of fire and complicated by increasingly sophisticated and lethal weapons used over large areas.

BATTLE LINES WILL BE INDISTINCT

Opposing forces will rarely fight along orderly, distinct lines. Massive troop concentrations or immensely destructive fires will make some penetrations by both combatants nearly inevitable. This means that linear warfare will most often be a temporary condition at best and that distinctions between rear and forward areas will be blurred. Air and ground maneuver forces; conventional, nuclear, and chemical fires; unconventional warfare; active reconnaissance, surveillance, and target-acquisition efforts; and electronic warfare will be directed against the forward and rear areas of both combatants.

Lethal Systems. Potential enemies of the United States will probably field large quantities of high-quality weapon systems whose range and lethality equal or exceed our own. Potent ground and air systems, complemented by closely-coordinated, precision-guided munitions, will concentrate enormous combat power, especially at the points of decision.

Sensors and Communications. Wide-ranging surveillance, target-acquisition sensors, and communications that provide intelligence almost immediately will affect the range and scope of battle. Sensors offer the commander more than just timely information on deep enemy locations and activity. They also serve as the basis for attacking enemy follow-on forces with artillery, Air Force attack aircraft, attack helicopters, irregular forces, and nonlethal weapons such as jamming and deception. These attacks have but one purpose—to support the ground commander's overall scheme. Therefore, the sensors and communications that make them possible are particularly valuable.

Nuclear and Chemical Warfare. A growing number of nations can employ chemical and nuclear weapons and are apparently willing to use them. US forces must plan to fight in an environment where nuclear and chemical weapons pose a clear and present danger. Accordingly, they must be organized, equipped, and trained to meet the unique challenges to be faced on the integrated battlefield. Tactical nuclear weapons will drastically change the traditional balance between fire and maneuver. On the modern battlefield, nuclear fires may become the predominant expression of combat power, and small tactical forces will exploit their effects. The destructive effects of nuclear weapons will increase the tempo of decisive combat. Engagements will be short and violent. *Decisive battles may last hours instead of days or weeks.*

Command and Control. At the very time when battle demands better and more effective command and control, modern electronic countermeasures may make that task more difficult than ever before. Commanders will find it difficult to determine what is happening. Small units will often have to fight without sure knowledge about their force as a whole. Electronic warfare, vulnerability of command and control facilities, and mobile combat will demand initiative in subordinate commanders. The commander who continues to exercise effective command and control will enjoy a decisive edge over his opponent.

Air Systems. Air mobility and air power will extend the battle to new depths for all combatants. Effective air defenses or air superiority by one combatant could represent a significant advantage in the conduct of operations.

Austere Support. Our Army must be prepared to fight its battles at the end of long, vulnerable lines of logistical support. It may have to fight outnumbered against an enemy with significantly shorter supply lines.

Rear Area Combat. Support projected forward from rear areas will be subject to attack by subversion; terrorism; large airmobile, amphibious, or airborne forces; and long-range conventional, chemical, or nuclear fires.

Urban Combat. Combat in built-up areas will be unavoidable, especially in Europe. Attack and defense in urban areas and the fluid battle beyond them will require that corps and divisions apply coherent plans for urban warfare.

Desert Combat. Combat in vast arid regions over extended frontages will require imagination and skillful adaptation.

LEADERSHIP

The fluid nature of modern war will place a premium on leadership, unit cohesion, and effective, independent operations. The conditions of combat on the next battlefield will be less forgiving of mistakes and more demanding of leader skill, imagination, and flexibility than any in history. General S. L. A. Marshall's studies of the US Army teach that American soldiers will fight resolutely when they know and respect their leaders and feel they are part of a good unit.

READINESS

Forward deployed forces may have to fight on a few hours' notice. Other components of the force may have only days or weeks to make final preparations for war. Commanders must have effective plans for those important days or weeks, and they must train for the specific missions they anticipate. They must insure that each officer, NCO, and soldier is individually prepared for battle and is able to perform his job as part of the unit.

Unit readiness cannot be a reality without logistical readiness—the availability and proper functioning of materiel, resources, and systems to maintain and sustain operations on a fluid, destructive, and resource-hungry battlefield. The training of support units is as

important as the training of tactical units. Support units should be rigorously trained under conditions similar to those anticipated in combat.

TRAINING

Soldiers must be prepared for combat both professionally and psychologically. Training is the cornerstone of success. Training is a full-time job for all commanders in peacetime, and it continues in wartime combat zones regardless of other operations or missions. On the day of battle, soldiers and units will fight as well or as poorly as they were trained before battle.

Soldiers receive most of their training in their units. There they can best train as individuals and as members of teams under conditions that approximate battle. Unit training aims at developing maximum effectiveness with combined and supporting arms. Once units meet basic standards, commanders should review the same tasks under more difficult conditions. Unit training must simulate as closely as possible the modern battlefield's tempo and scope. Unit training should include combined and supporting arms teamwork, which is far more effective than separate training.

"The whole of military activity must . . . relate directly or indirectly to the engagement. The end for which a soldier is recruited, clothed, armed, and trained, the whole object of his sleeping, eating, drinking, and marching is simply that he should fight at the right place and the right time."
Karl von Clausewitz

The complexities of modern combat make it increasingly important to concentrate on unit training programs for leaders and teams. Those who direct weapon systems and small units must be as competent as those who operate them. Commanders must strike a balance between training soldiers and subordinate leaders. They must take time to train subordinate leaders, building their confidence and teaching them to exercise initiative before attempting complex collective tasks. Such a practice will insure soldier and unit morale, confidence, and effectiveness.

MEETING THE CHALLENGES

The US Army can meet these challenges. Armies win by generating superior combat

power in battles and throughout campaigns. Superior combat power depends on three fundamentals. First and foremost, it depends on good people—soldiers with character and resolve who will win because they simply will not accept losing. Next, it depends on armaments sufficient for the task at hand. Finally, it depends on sound, well-understood, and practical concepts for fighting.

The character of modern battle and the geographical range of US national interests make it imperative that the Army fight as part of a team with the tactical forces of the US Air Force, the US Marine Corps, and the US Navy. It is also critical that commanders prepare themselves to fight alongside the forces of one or more of our nation's allies. As it has been throughout the twentieth century, teamwork in joint and combined operations will be an essential ingredient of any battles the Army will have to fight.

The AirLand Battle doctrine presented in the following chapters outlines an approach to fighting intended to develop the full potential of US forces. Operations based on this doctrine are nonlinear battles which attack enemy forces throughout their depth with fire and maneuver. They require the coordinated action of all available military forces in pursuit of a single objective.

Air and ground maneuver forces; conventional, nuclear and chemical fires; unconventional warfare; active reconnaissance, surveillance, and target-acquisition efforts; and electronic warfare will be directed against the forward and rear areas of both combatants. The AirLand Battle will be dominated by the force that retains the initiative and, with deep attack and decisive maneuver, destroys its opponent's abilities to fight and to organize in depth.

By extending the battlefield and integrating conventional, nuclear, chemical, and electronic means, forces can exploit enemy vulnerabilities anywhere. The battle extends from the point of close combat to the forces approaching from deep in the enemy rear. Fighting this way, the US Army can quickly begin offensive action by air and land forces to conclude the battle on its terms.

CHAPTER 2

Combat Fundamentals

AN ARMY'S OPERATIONAL CONCEPT is the core of its doctrine. It is the way the Army fights its battles and campaigns, including tactics, procedures, organizations, support, equipment, and training. The concept must be broad enough to describe operations in all anticipated circumstances. Yet it must allow sufficient freedom for tactical variations in any situation. It must also be uniformly known and understood.

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OPERATIONAL CONCEPTS

The object of all operations is to destroy the opposing force. At the foundation of the US Army's operations are the principles of war and their application to classical and modern theories. The Army's basic operational concept is called AirLand Battle doctrine. This doctrine is based on securing or retaining the initiative and exercising it aggressively to defeat the enemy. Destruction of the opposing force is achieved by throwing the enemy off balance with powerful initial blows from unexpected directions and then following up rapidly to prevent his recovery. The best results are obtained when initial blows are struck against critical units and areas whose loss will degrade the coherence of enemy operations, rather than merely against the enemy's leading formations.

Army units will fight in all types of operations to preserve and to exploit the initiative. They will attack the enemy in depth with fire and maneuver and synchronize all efforts to attain the objective. They will maintain the agility necessary to shift forces and fires to the points of enemy weakness. Our operations must be rapid, unpredictable, violent, and disorienting to the enemy. The pace must be fast enough to prevent him from taking effective counteractions. Operational planning must be precise enough to preserve combined arms cooperation throughout the battle. It must also be sufficiently flexible to respond to changes or to capitalize on fleeting opportunities to damage the enemy.

This requires that the entire force thoroughly understand the commander's intent. Subordinate leaders must align their operations with the overall mission. They must develop opportunities that the force as a whole can exploit. Large unit commanders must encourage initiative in their subordinates. They must also be able to shift their main effort quickly to take advantage of enemy weaknesses that their subordinates discover or create. Success on the modern battlefield will depend on the basic tenets of AirLand Battle doctrine: *initiative, depth, agility, and synchronization.*

"Rapidity is the essence of war; take advantage of the enemy's unreadiness, make your way by unexpected routes, and attack unguarded spots."

Sun Tzu

INITIATIVE

Initiative implies an offensive spirit in the conduct of all operations. The underlying purpose of every encounter with the enemy is to seize or to retain independence of action. To do this we must make decisions and act more quickly than the enemy to disorganize his forces and to keep him off balance.

To preserve the initiative, subordinates must act independently within the context of an overall plan. They must exploit successes boldly and take advantage of unforeseen opportunities. They must deviate from the expected course of battle without hesitation when opportunities arise to expedite the overall mission of the higher force. They will take risks, and the command must support them. Improvisation, initiative, and aggressiveness—the traits that have historically distinguished the American soldier—must be particularly strong in our leaders.

DEPTH

Depth, important to all US Army operations, refers to time, distance, and resources. Momentum in the attack and elasticity in the defense derive from depth. Knowing the time required to move forces—enemy and friendly—is essential to knowing how to employ fire and maneuver to destroy, to disrupt, or to delay the enemy.

Commanders need to use the entire depth of the battlefield to strike the enemy and to prevent him from concentrating his firepower or maneuvering his forces to a point of his choice. Commanders also need adequate space for disposition of their forces, for maneuver, and for dispersion.

Depth of resources refers to the number of men, weapon systems, and materiel that provide the commander with flexibility and extend his influence over great areas. Commanders need depth of time, space, and resources to execute appropriate countermoves, to battle the forces in contact, and to attack enemy rear forces.

The battle in depth should delay, disrupt, or destroy the enemy's uncommitted forces and isolate his committed forces so that they may be destroyed. The deep battle is closely linked with the close-in fight. All involved weapons, units, and surveillance assets must contribute to the commander's overall objective. When we fight an echeloned enemy, such operations may be vital to success.

Reserves play a key role in achieving depth and flexibility. Important in any battle is the commander's decision on the size, composition, and positioning of his reserves. They are best used to strike a decisive blow once the enemy has committed himself to a course of action or revealed a vulnerability.

Finally, commanders must be prepared to engage enemy airborne or airmobile forces that attack our rear areas. They must insure that combat service support units can survive nuclear and chemical strikes and still support the fast-paced battle. These are other aspects of the in-depth battle.

AGILITY

Agility requires flexible organizations and quick-minded, flexible leaders *who can act faster than the enemy.* They must know of critical events as they occur and act to avoid enemy strengths and attack enemy vulnerabilities. This must be done repeatedly, so that every time the enemy begins to counter one action, another immediately upsets his plan. This will lead to ineffective, uncoordinated, and piecemeal enemy responses and eventually to his defeat.

An organization's flexibility is determined by its basic structure, equipment, and systems. Units should have an appropriate mix of soldiers and equipment to complete their tasks. Mission, enemy, terrain, troops, and time available (METT-T) should control any permanent or temporary reorganization.

The mental flexibility necessary to fight on a dynamic battlefield is more difficult to describe but easier to achieve. Our Army has traditionally taken pride in our soldiers' ability to "think on their feet"—to see and to react rapidly to changing circumstances. Mental flexibility must be developed during

the soldier's military education and maintained through individual and unit training.

SYNCHRONIZATION

Synchronized operations achieve maximum combat power. However, synchronization means more than coordinated action. It results from an all-prevading unity of effort throughout the force. There can be no waste. Every action of every element must flow from understanding the higher commander's concept.

Synchronized, violent execution is the essence of decisive combat. Synchronized combined arms complement and reinforce each other, greatly magnifying their individual effects. In AirLand Battle doctrine, synchronization applies both to our conventional forces and, when authorized, to nuclear and chemical weapons. It also characterizes our operations with other services and allies.

Forceful and rapid operations achieve at least local surprise and shock effect. Commanders must look beyond these immediate effects when they plan operations. They must make specific provisions in advance to exploit the opportunities that tactical success will create.

LEVELS OF WAR

War is a national undertaking which must be coordinated from the highest levels of policymaking to the basic levels of execution. Strategic, operational, and tactical levels are the broad divisions of activity in preparing for and conducting war. While the principles of war are appropriate to all levels, applying them involves a different perspective for each.

STRATEGIC

Military strategy employs the armed forces of a nation to secure the objectives of national policy by applying force or the threat of force. Military strategy sets the fundamental conditions for operations. Its formulation is beyond the scope of this manual.

OPERATIONAL

The operational level of war uses available military resources to attain strategic goals within a theater of war. Most simply, it is the theory of larger unit operations. It also involves planning and conducting campaigns. Campaigns are sustained operations designed to defeat an enemy force in a specified space and time with simultaneous and sequential battles. The disposition of forces, selection of objectives, and actions taken to weaken or to outmaneuver the enemy all set the terms of the next battle and exploit tactical gains. They are all part of the operational level of war. In AirLand Battle doctrine, this level includes the marshalling of forces and logistical support, providing direction to ground and air maneuver, applying conventional and nuclear fires in depth, and employing unconventional and psychological warfare.

TACTICAL

Tactics are the specific techniques smaller units use to win battles and engagements which support operational objectives. Tactics employ all available combat, combat support, and combat service support. Tactics involve the movement and positioning of forces on the battlefield in relation to the enemy, the provision of fire support, and the logistical support of forces prior to, during, and following engagements with the enemy.

At corps and division, operational and tactical levels are not clearly separable. They are guided by the same principles, and this manual applies to both. An operation designed to defeat an enemy force in an extended area does so through operational maneuver and a series of tactical actions.

DYNAMICS OF BATTLE

Dynamics of battle refers to *the interaction of factors that decide battle.* Force ratios and the effects of fire and maneuver are significant in deciding battles; however, a number of intangible factors often predominate. Among these intangible factors are state of training, troop motivation, leader skill, firmness of purpose, and boldness—the abilities to perceive opportunities, to think rapidly, to communicate clearly, and to act decisively. The effects of these factors create tangible and reversible relationships. To understand the dynamics of battle, it is important to understand combat power and the role of its component elements—maneuver, firepower, protection, and leadership.

COMBAT POWER

Combat power is relative, never an absolute, and has meaning only as it compares to that of the enemy. The appropriate combination of maneuver, firepower, and protection by a skillful leader within a sound operational plan will turn combat potential into actual combat power. Superior combat power applied at the decisive place and time decides the battle.

Maneuver. Maneuver is the dynamic element of combat, the means of concentrating forces in critical areas to gain and to use the advantages of surprise, psychological shock, position, and momentum which enable smaller forces to defeat larger ones. More specifically, it is the employment of forces through movement supported by fire to achieve a position of advantage from which to destroy or to threaten destruction of the enemy. The object of maneuver at the operational level is to focus maximum strength against the enemy's weakest point, thereby gaining strategic advantage. At this level, successful maneuver is achieved through skillful coordination of fire in depth with movement of large units. At the tactical level, maneuver contributes significantly to sustaining the initiative, to exploiting success, to preserving freedom of action, and to reducing vulnerability. Successful maneuver at this level depends upon skillful movement along indirect approaches supported by direct and indirect fires.

The *effect* created by maneuver is the first element of combat power. Effective maneuver demands battlefield mobility; knowledge of the enemy and terrain generated by reconnaissance and other intelligence activities; effective command and control; flexible operational practices; sound organization; and reliable logistical support. It requires imaginative, bold, competent, and independent leaders; discipline, coordination, and speed; well-trained troops; and logistically ready units. Effective maneuver protects the force and keeps the enemy off balance. It continually poses new problems for him, renders his reactions ineffective, and eventually leads to his defeat.

Firepower. Firepower provides the enabling, violent, destructive force essential to successful maneuver. It is the means of suppressing the enemy's fires, neutralizing his tactical forces, and destroying his ability to fight. This is done by killing, wounding, or paralyzing the enemy's soldiers and by damaging the materiel and installations necessary for his continued combat effectiveness. Firepower is delivered by personal arms, crew-served direct fire weapons, mortars, artillery, cannons and missiles, air defense guns and missiles, attack helicopters, Air Force and Navy aircraft, and Naval gunfire bombardment.

The *effect* of firepower on the enemy and not its unapplied or misused potential makes a vital contribution to combat power. It is the accuracy and effectiveness of munitions which ultimately contribute to combat power. Therefore, efficient target-acquisition systems, viable command and control, a steady supply of ammunition, and the tactical mobility necessary to place weapons within range of critical targets are necessary ingredients of this element of combat power.

Protection. Protection is the shielding of the fighting potential of the force so that it can be

applied at the decisive time and place. Protection has two components. The first includes all actions to counter the enemy's firepower and maneuver by making soldiers, systems, and units difficult to locate, to strike, or to destroy. Among these actions are security, dispersion, cover,. camouflage, deception, suppression, and mobility. These actions routinely include the reinforcement and concealment of fighting positions, command posts, and support facilities. The second component includes actions to keep soldiers healthy, to maintain their fighting morale, and to diminish the impact of severe weather. It also means keeping equipment in repair and supplies from becoming lost.

As in the other elements of combat power, the *effects* of protection contribute to combat power. These effects are measured by the fighting potential available at the moment of decisive combat. It is in this way that the activities listed above contribute to combat power.

Leadership. Leadership provides purpose, direction, and motivation in combat. Leaders function through personal interaction with their men and through command and control systems and facilities. While leadership requirements differ from squad to echelons above corps, leaders must be men of character; they must know and understand soldiers and the physical tools of battle; and they must act with courage and conviction. *The primary function of leadership is to inspire and to motivate soldiers to do difficult things in trying circumstances.* Leaders must also understand how to control and to integrate fire and maneuver and how to use terrain. They must know how to combine direct and indirect fires, how to use air and naval fires, and how to substitute massed fires for massed troops.

LEADERSHIP IS THE CRUCIAL ELEMENT OF COMBAT POWER

This is the component upon which all others depend. Again, it is the *effect* the leader creates through proper application of his potential maneuver, firepower, and protection capabilities which generates combat power. Throughout the history of war, victory

has gone to the leader who understood and used the means at his disposal to the best advantage. Therefore, leaders are the crucial element of combat power. It is up to them to turn the potential of men, weapons, and resources available into superior combat power.

Leaders must set the preconditions for winning on the battlefield; therefore, superior combat power has its roots in proper preparation. Preparation includes many matters of long-term concern to the Army at the highest levels—force design, equipment design, and procurement, to name only a few. The tactical commander has a more immediate perspective. To him, preparation involves logistic readiness and motivation. It means continuous planning and training to the moment of, and even during, battle. It means training throughout campaigns because every endeavor causes the unit to learn either good or bad habits. Continuous training under all conditions insures positive skills that will contribute to success in battle. Commanders must demand excellence under all conditions and must strive to make it habitual.

In the final analysis and once the force is engaged, *superior combat power derives from the courage of soldiers, the excellence of their training, and the quality of their leadership.*

COMBAT IMPERATIVES

Success in battle—achieving superior combat power—also depends on using tactics appropriate to mission, enemy, terrain, troops, and time available. The effectiveness of maneuver, firepower, and protection depends on how the commander combines operational procedures, battle drills, or other measures from an established repertoire to solve a particular problem. Doctrine establishes common techniques of fighting throughout the force. The successful tactician depends on proven techniques and on troops who are well-versed in employing them. Standardized practices actually enhance flexibility; but they must be more than just a series of routine approaches to solving types of operational problems. As he plans and fights the battle, the tactician must understand the seven imperatives of combat:

1. **Insure unity of effort.**
2. **Direct friendly strengths against enemy weaknesses.**
3. **Designate and sustain the main effort.**
4. **Sustain the fight.**
5. **Move fast, strike hard, and finish rapidly.**
6. **Use terrain and weather.**
7. **Protect the force.**

1 Insure Unity of Effort

The principles of war that provide the basis for this imperative are *objective, unity of command,* and *simplicity.* Its fundamental requirements are effective leadership and an effective command and control system through which the commander—

- **Learns what is going on.**
- **Decides what to do about it.**
- **Issues the necessary orders.**
- **Keeps track of how the battle is going.**

This process is dynamic. Its primary measure of effectiveness is whether it functions efficiently and more quickly than the enemy's. At its heart are the commander and his system for command and control. The commander must insure a unified, aggressive, quick, precise, agile, and synchronized effort throughout the force.

Unity of effort *depends on motivation*—getting all involved to work quickly and well. Important to motivation in a high-risk environment are mutual trust, confidence, loyalty, and pride—the notions that describe relationships between leader and led. Leaders must convince subordinates that objectives are possible and thus deserve total dedication.

Unity of effort requires that the commander and his staff see the battlefield realistically. To do this, they must continuously study their resources, the enemy,

and the terrain from a perspective that extends from the unit's rear boundary to the forward edge of its area of interest. Because he can never know everything, the commander will make decisions based on imperfect information. He must, therefore, make realistic demands for intelligence in a clear order of priority. Commanders *must avoid the temptation to gather more detail than they need* and thus clog the flow of timely, vital information.

Unity of effort also requires continuous sensing of the battle conditions, both enemy and friendly, as the basis for sound decisions and firm directions for the force as a whole. Modern forces have decentralized and institutionalized much of the decision process, especially that involved with supporting arms and services. As decision making decentralizes, the need for unity of effort grows. Commanders who are *flexible rather than mechanical* will win decisive victories.

A plan which promotes unity of effort must have a well-defined, comprehensive mission statement. The commander identifies his goals through mission orders that leave his subordinates the greatest possible freedom. Because plans must be implemented by units under stress, simple plans are best. If a plan is necessarily complex, it must incorporate simple control measures and insure that subordinates' individual tasks remain simple. Since commanders cannot foresee, plan, or communicate instructions for every potential event, they should not attempt to control every action of their subordinates. The chaos of battle will not allow absolute control. *As battle becomes more complex and unpredictable, decision making must become more decentralized.* Thus, all echelons of command will have to issue mission orders. Doing so will require leaders to exercise initiative, resourcefulness, and imagination—and to take risks.

Risk-taking in combat has two dimensions. One has to do with the danger to men and materiel involved in the mission; the other with accomplishing the mission. All leaders must take risks of both types independently, based on a prudent assessment of the situation. An informed risk, however, should not be confused with a gamble. A gamble is a resort to chance in the absence of either information or control. Although a gamble may be necessary in a desperate situation, a subordinate should have his commander's approval.

Mission orders require commanders to determine *intent*—what they want to happen to the enemy. Their intent must be consistent with their superiors' and must be communicated clearly to their subordinates. During battle, commanders must support and develop the local successes of their subordinates. They must commit reserves where there is the greatest chance of success. They must concentrate fires wherever the enemy is vulnerable. While detailed orders may be necessary at times, commanders must trust their subordinates to make correct on-the-spot decisions within the mission framework. Such decentralization converts initiative into agility, allowing rapid reaction to capture fleeting opportunities. Mission orders need to cover only three important points:

- **They should clearly state the commander's objective, what he wants done, and why he wants it done.**
- **They should establish limits or controls necessary for coordination.**
- **They should delineate the available resources and support from outside sources.**

The subordinate commander must fully understand his commander's *intent* and the overall mission of the force. If the battle develops so that previously issued orders no longer fit the new circumstances, the subordinate must inform his commander and propose appropriate alternatives. If this is not possible, he must act as he knows his commander would and make a report as soon as possible.

To insure that his concept is driving the operation to completion, the commander must follow up. He must have an overall view

of the battle based on reports from subordinates, information from surveillance systems, and his own personal observtions. He must compare enemy and friendly situations, assess progress, and if necessary, issue fragmentary orders (FRAGO) to adjust assigned tasks. This process of follow-up and reassessment is one of the commander's critical responsibilities.

Direct Friendly Strengths Against Enemy Weaknesses

The principles of war that provide the basis for this imperative are *maneuver* and *surprise.* To determine what tactics to use, commanders must study the enemy. They must know enemy organization, equipment, and tactics—how the enemy fights. More specifically, they must understand the strengths and weaknesses of the enemy force they are about to fight. Techniques that work in one instance against one enemy may not work against another enemy or even the same enemy at a different time and place. Commanders should determine and take into account the capabilities, limitations, and idiosyncrasies of particular enemy units.

The good tactician looks for an approach that focuses his own strengths against the enemy's weaknesses. Weaknesses may result from gaps in the enemy's dispositions, his predictability, or the character of his soldiers or units. Commanders must strive to attack the enemy where his operational, technical, or human weaknesses make him most vulnerable.

Meeting the enemy where he is strongest is sometimes unavoidable, but doing so *deliberately* is extremely hazardous. However, it may be necessary to support an indirect effort elsewhere with a direct approach. Sometimes an immediate, violent, quickly executed, direct frontal assault can capitalize on enemy unreadiness.

Our tactics must appear formless to the enemy until the last possible moment. They must deceive him about our true intentions. They must confuse him by threatening multiple objectives, each of which he must be prepared to defend. They must surprise him whenever possible, simply by doing what he least expects. All such efforts must be fully integrated into operational plans.

Designate and Sustain the Main Effort

The principles of war that provide the basis for this imperative are *mass* and *economy of force.* The commander identifies the main effort when he states his intent. Designating the main effort links each subordinate commander's actions to those around him. Such a link maintains cohesion and insures synchronization. Yet it also permits initiative.

Whether in an attack, a defense, or any other operation, *the main effort is assigned to only one unit.* All other elements support and sustain the effort of that unit. If that unit encounters unexpected difficulties, or if a secondary effort meets with unexpected success, the commander may shift his focus by designating a new unit to make the main effort. In this way he can shift the concentration of forces, fires, and required logistics in the direction required to best achieve his aim.

To succeed against superior numbers, the commander must not limit his attack or defense to the vicinity of the forward line of own troops (FLOT). He supports the main effort by fire or maneuver that reaches deeply into the enemy's zone of action. He strikes the enemy's vulnerable high-value targets or engages his still undeployed follow-on forces. Thus, the commander seeks to set the terms of battle throughout the depth of the battlefield.

The purpose of concentrating effort is to shock, paralyze, and overwhelm the enemy at the chosen time and place. To achieve this effect, the tactician designates the objective and plans the employment of combat, combat support, and logistics means, using each to the greatest advantage in the overall scheme. By proper integration he achieves an effect that is greater than the sum of its parts.

The increased need for dispersion on the nuclear-chemical-conventional battlefield compounds the problem of concentration. To move units rapidly and efficiently over preselected and coordinated routes, tacticians must plan and prepare extensively. They must also select and coordinate alternate routes in case primary ones are blocked.

4. Sustain the Fight

Battles or campaigns have often gone to the side that has been most successful in pressing the main effort to conclusion. To sustain the momentum that early successes generate, leaders must do two things. First, they must deploy forces in adequate depth and arrange for timely and continuous combat and combat service support at the outset of operations. Then, they must take risks and tenaciously press soldiers and systems to the limits of endurance for as long as necessary.

Commanders deploy forces and logistic resources in depth to insure continuous, flexible operations and to protect the force. In the attack, they echelon forces and logistic resources in depth to maintain momentum and to exploit success. In the defense, depth insures continuity and flexibility for maneuver. It provides options for the defender if forward positions are penetrated. In both attack and defense, deploying in depth increases dispersion and decreases the vulnerability of the total force to nuclear and chemical fires.

To gage the risks involved in pressing soldiers to the limits of their endurance, commanders must understand the human dimension. Ardant Du Picq, a nineteenth-century student of the human dimension of battle, appropriately stated that we can "reach into the well of courage only so many times before the well runs dry." The confusion, extreme stress, and lethality of the modern battlefield place a heavy burden on courage and endurance. Commanders must assess human abilities and limitations as they plan and fight their battles. They must accurately gage which units should lead, which should be replaced, and which should be reinforced. They must also be aware of the traditional concerns of weather, training, and leadership.

5. Move Fast, Strike Hard, and Finish Rapidly

The principles of war that provide the basis for this imperative are *maneuver* and *mass*. Speed has also always been important, but it will be even more important on the next battlefield because of sophisticated sensors and the possibility of conventional, nuclear, or chemical counterstrikes. To avoid detection, our concentrations must be disguised. To avoid effective counterstrikes, they must be short.

Speed allows the commander to seize and to hold the initiative, and thereby to maintain freedom of action. Quick, decisive action also makes the enemy react and deprives him of the initiative. When this happens, units should have well-conceived plans for exploiting their successes.

6. Use Terrain and Weather

Terrain and weather affect combat more significantly than any other physical factors. The ground has an immense influence on how the battle will be fought. It provides opportunities and imposes limitations, giving a decisive edge to the commander who uses it best. Most battles have been won or lost by the way in which combatants used the terrain to protect their own forces and to destroy those of the enemy. One of the best investments of the commander's time before battle is an intensive personal reconnaissance of the terrain.

Weather affects equipment and terrain, but its greatest impact is on the men. The commander must understand how weather and visibility affect his operations as well as the enemy's. He anticipates changes in the weather, capitalizing on them when possible, and uses smoke to alter visibility when it suits his purposes. The impact of terrain, weather, and visibility is developed in chapter 3.

Protect the Force

Successful commanders preserve the strength of the force. They do so by assuring security, keeping troops healthy and equipment ready, and sustaining discipline and morale.

Tacticians assure security by taking precautions against surprise. They must use aggressive reconnaissance, set out security forces, maintain operational security, avoid operational patterns, and practice deception. When time permits, they must build protective field fortifications. They must also disperse troops, especially on the nuclear battlefield. The degree of dispersion depends on the value of their force as a target, on whether it is mobile or static, and on the probability of its being detected.

Leaders must habitually think about troop health and equipment readiness. In the past, disease and the elements have weakened entire formations. Likewise, equipment that is not properly maintained can fail, leaving forces at a serious disadvantage. Commanders must insist on proper maintenance both before and during battle. They must anticipate needs, conserve resources, and be ready for emergencies.

In battle, unit cohesion is important to protection. Poor morale can weaken any unit. Enemy psychological warfare, an unsuccessful operation, or a surprising and violent display of enemy strength can degrade morale. Peacetime preparation, however, will contribute directly to a unit's strength and durability in combat. *Soldiers who are always required to do it right in training will instinctively do so in combat.*

Marshall de Saxe wrote that "the soldier's courage must be reborn daily." A leader, he said, will insure this "by his dispositions, his positions, and those traits of genius that characterize great captains. . . . It is of all the elements of war the one that is most necessary to study." Leaders create cohesion and maintain discipline. Soldiers who serve in disciplined, cohesive units will be on hand with functioning equipment when the decisive moment arrives.

CHAPTER 3

Weather and Terrain

WEATHER AND TERRAIN have more impact on battle than any other physical factor, including weapons, equipment, or supplies. The terrain on which battles are fought will present opportunities to both sides. In some cases the advantages are unmistakably clear. Control of Little Round Top at Gettysburg, for example, was decisive to the outcome. Indeed, most battles have been won by the side that used terrain to protect itself and to reinforce fires to destroy the enemy. To be effectual, commanders must understand the nature, uses, and reinforcement of terrain. They must also understand how weather affects troops and equipment. To retain the initiative, they must be able to operate in adverse conditions and during periods of limited visibility.

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WEATHER

Weather affects equipment and terrain, but its greatest impact is on the soldiers. Cloud cover, rain, snow, dust, light conditions, and temperature extremes will combine in various ways to affect troop efficiency. Control becomes difficult. Troops tend to seek shelter and to neglect chores which expose them to the elements. Security is difficult to insure in stationary positions.

Perhaps the most important effect of weather is on the soldier's ability to function effectively in battle. Inclement weather generally favors an attacker because defending troops will be less alert. Successful defense under limited-visibility conditions (night, fog, or smoke) depends on thorough planning. Necessary movement must be thoroughly rehearsed. At night, apprehension rises among troops waiting to defend. While a successful defense under these conditions depends on thorough planning, limited visibility makes it easier to move troops secretly and to achieve surprise. At night the advantage also belongs to the attacker.

Units must therefore be prepared to attack at night—to switch from defense to offense or to continue an attack already begun. Attack under limited-visibility conditions should strive to achieve surprise. It should be pursued aggressively and violently with an uncomplicated maneuver scheme.

Weather also affects some equipment and weapon systems. Night, fog, or smoke reduce the useful ranges of most weapon systems. Despite technical advances in night vision equipment, these conditions usually call for a change in tactics. The blinding effect of

nuclear fires is greater at night than during day. Nighttime atmospheric conditions generally favor the use of chemical agents.

Sub-zero weather may improve trafficability, but it also adds to maintenance problems. Extreme heat reduces aircraft load limits, and heat waves from the surface can make optical systems less effective. Sandstorms in the desert can raise havoc with equipment.

Rain or snow and the resulting mud reduce mobility. They place heavier loads on automotive systems of all kinds, thereby increasing maintenance requirements. They also hamper recovery operations and replacement of major items like tanks, infantry fighting vehicles, trucks, and cannons.

Cloud cover reduces air support on both sides and affects terminally guided artillery projectiles. Weather can determine the duration of nuclear and chemical weapons' effects and the extent of downwind hazard.

Two general observations summarize the effects of weather on operations:

- **Good physical condition, acclimatization, and sound discipline at the small-unit level can overcome the adverse effects of weather and visibility. They can give a well-prepared force an advantage over an ill-prepared enemy.**
- **The leadership time and effort required to care for the soldiers who are accomplishing the mission increases proportionately with the severity of weather.**

The commander should select the best course of action to complete the mission only after thorough consideration of the favorable and unfavorable effects of weather on personnel, weapon systems, and equipment.

TERRAIN

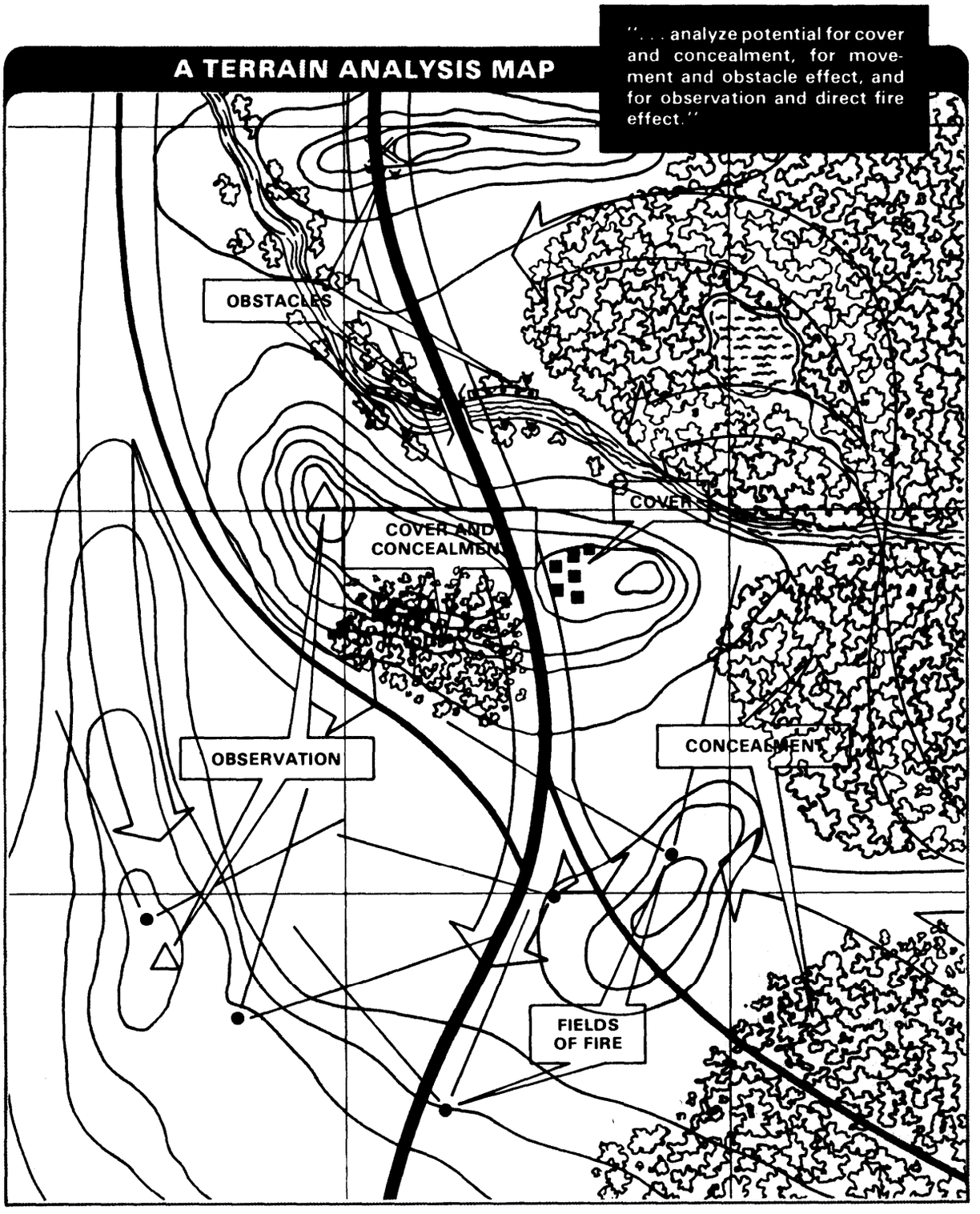
Terrain forms the natural structure of the battlefield. Early in the planning process, commanders must recognize its limitations and possibilities, using it to protect friendly operations by putting the enemy at a disadvantage.

ANALYZING TERRAIN

Every level of command must study the terrain's limitations and opportunities. Platoon leaders concentrate on wood lines, streams, and individual hills in preparing their operations. Corps commanders analyze road nets, rail nets, drainage patterns, and hill systems.

Commanders analyze terrain in light of the unit's mission. Such analysis will include a unit's assigned area of responsibility and the surrounding terrain which may affect operations. They analyze potential for cover and concealment, for movement and obstacle effect, and for observation and direct fire effect. They must recognize the battlefield's natural structure, and the necessity to improve or overcome it to accomplish the mission. Fire, maneuver, and obstacle plans are designed and integrated to fit the terrain.

Terrain analysis, intelligence preparation of the battlefield, and engineer operations are all basic to the operational use of terrain. Surrounding areas are included so that approaches to the battlefield, its flanks, and its rear are properly evaluated. After studying the area in detail, they provide the commander with an assessment, including the ground's general organization, dominant features, chief avenues for movement, and key areas. The staff or commander specifies named areas of interest as a means of focusing the surveillance and interdiction efforts of the unit. In terrain analysis, intelligence and operations officers identify significant features such as obstacles and key or decisive terrain, air and ground avenues of approach, and defensible terrain.


A TERRAIN ANALYSIS MAP
". . . analyze potential for cover and concealment, for movement and obstacle effect, and for observation and direct fire effect."
OBSTACLES
COVER
COVER AND CONCEALMENT
OBSERVATION
CONCEALMENT
FIELDS OF FIRE

Key Terrain. Key terrain refers to any feature which, in the control of a combatant, will affect the conduct of an operation. The commander designates key terrain after he has analyzed his mission.

Decisive Terrain. The commander may designate certain key terrain as decisive terrain if it will have an extraordinary impact on his mission. Many battlefields may not have decisive terrain. To designate terrain as decisive is to recognize that the mission, whether offensive or defensive, depends on seizing or retaining it. The commander designates decisive terrain to communicate its importance in his concept of operations, first to his staff and, later, to subordinate commanders.

Avenues of Approach. Avenues of approach are evaluated in terms of their—

- **Potential to support maneuver units of a specified size and type.**
- **Access to important areas and adjacent avenues.**
- **Degree of canalization.**
- **Cover and concealment.**
- **Effect on line-of-sight communications.**
- **Obstacles.**

A good avenue of approach must support rapid movement along its length. Obstacles should be avoidable or reducible in reasonable time. The obstacle effects of nuclear fires, atomic demolition munitions, and scatterable mines must also be taken into account. An avenue should be broad enough to permit maneuver along its course. It should have parallel spurs or branches to bypass strong defenses. Enough covering terrain should be available to permit part of the force to overwatch the rest. Combat support units and combat service support units must be able to move along the avenue in support of the attacking force. This may also be done over parallel routes or along routes which are uncovered as the attack gains ground.

If the enemy has air superiority, the avenue should provide concealment from the air. Air avenues for attack helicopters, airmobile forces, and close air support have different characteristics. A good air approach provides terrain masking from air defense radar and direct-fire air defense weapons.

Analyzing avenues of approach is as important to the defender as to the attacker. The defender must accurately determine the main approaches to his sector and identify the internal avenues which will permit him to maneuver against the attacker.

Defensible Terrain. Defensible terrain refers to ground that affords—

- **Long-range visibility.**
- **Cover and concealment.**
- **Obstacles which canalize or retard movement into the defended area and secure the flanks of the defender.**
- **Covered routes between positions and covered approaches to the attacker's flank or rear areas.**

To a large degree, terrain in the defensive sector will determine the design of the defense. Static defenses can be mounted only in areas where terrain makes bypassing difficult or otherwise limits the movement of an attacker to a few routes. Dynamic defenses require maneuver space, good avenues of movement, and strong positions in depth. Special conditions, such as heavily urbanized terrain, difficult cross-country mobility, or dense vegetation, require special consideration in the defense.

USING TERRAIN

Terrain can be used for cover and concealment, movement and obstacles, and observation and fire.

Cover and Concealment. Terrain can protect a unit from observation and fire, or it can hide forces. The cover from fire afforded by slopes, folds, and depressions is critical because it preserves the strength of the force. A direct-fire unit in a covered defensive position can dominate areas open to its front without suffering casualties. Covered

positions are as important to command posts, indirect fire units, combat support units, and combat service support units as they are to committed maneuver units. Nuclear and chemical fires can overcome some of the protection the ground affords. Yet commanders can insure acceptable cover in active nuclear-chemical environments by prudently dispersing units among multiple covered positions. Whether maneuvering on the ground or in the air, all forces should seek the protection of covering terrain to the greatest degree possible.

Urbanized terrain, broken hills, high ground, and forested areas can be used to hide forces, but in operations against well-equipped forces, terrain alone cannot conceal a force or facility. Electronic and thermal emissions must be concealed, troops must be camouflaged from overhead detection, and even in wooded areas, movement must be minimized. In spite of the fluid conditions around the line of contact, there will still be opportunities to conceal forces for short periods.

Concealment of maneuver forces can be a great tactical advantage. Defenders can use it to draw the enemy deeply into prepared defensive areas. Attackers can use it to avoid being detected or engaged as they close. Stay-behind forces, from patrol to battalion size, can use it in areas which enemy attack has bypassed.

When nuclear weapons are used, concealment of command posts, artillery units, logistics facilities, and other high-value targets is vitally important. Urban areas, farm buildings, and other man-made structures can hide and protect these sensitive units or facilities.

Movement and Obstacles. There are few truly impassable areas. The cliffs at Quebec, the tides of Inchon, and the Ardennes forest all appeared impassable to their defenders. Historically, enterprising commanders have won decisive victories by striking suddenly over unlikely routes. We should actively seek the indirect approaches in our own operations and protect difficult approaches to our positions against surprise enemy incursions.

Roads, ridgelines, river valleys, and plains are high-speed approaches on which fluid battles may develop rapidly. Combat moves slowly through swamps, thick forests, sandy areas, and broken or mountainous terrain that is traversable only through defiles or by dismounted movement.

Normally, an area of operations will contain both obstructing terrain and avenues suitable for airmobile, mounted, or dismounted movement. Terrain which canalizes movement into a few areas allows the defender to economize by concentrating on the dangerous approaches. In such cases the attacker secures the area before the defender can occupy it, or he resorts to ground or aerial bypass, infiltration, or nuclear fires. In predominantly open areas, the attacker will be able to choose between many different approaches, and the defender will be forced to fight a mobile battle of considerable depth.

Natural or man-made obstacles that parallel the direction of movement can protect the flanks from attacks or counterattacks. When such obstacles cross an avenue of approach they form lines of resistance for the defender.

Obstacles vary in their effect on different types of forces. Rail lines, small streams, and villages along roads do not significantly affect dismounted operations; however, they may be of great value in slowing the pace of a mounted operation. Adequately guarded forests and marshes which can be traversed by dismounted infantry or airmobile forces are very difficult for armored forces to penetrate.

The most promising approaches are often those which appear unlikely. Often it is possible to gain access to a high-speed ridge approach by crossing difficult terrain immediately to its front. Old roadbeds also offer potential because they follow solid ground and are usually not as well defended as modern routes. Patton's use of the Norman roads of France and Israel's 1967 penetration

of the Sinai along the trace of a Roman road are good examples.

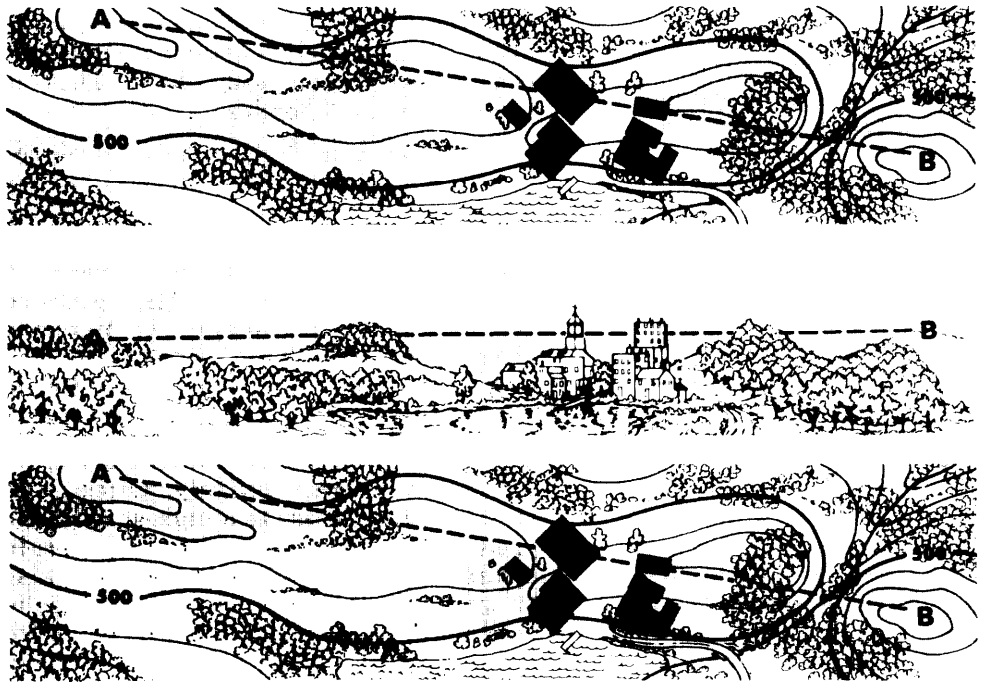
Observation and Fire. Contour and vegetation affect fields of view and fire. With limited visibility, direct-fire weapons are ineffective, and movement entails little risk. Remote sensors can be used to cue artillery and cover some of the space which cannot be observed directly. Large forests, jungles, built-up areas, and tracts of broken ground will absorb large numbers of troops and limit both the possibilities of observation and the effects of conventional fire.

Fields of observation and fire differ according to weapon characteristics. Hilltops and the tops of buildings make excellent observation posts or radar sites, but are rarely satisfactory positions for direct-fire weapons. Tanks, missiles, and machine guns must be sited where their effects will be the greatest and dead space will be minimized.

Terrain must support the concept of any operation. In planning the battle, the commander considers the battlefield's depth as well as his area of immediate operations. Terrain analysis extends into the territory through which the enemy must move to attack or to concentrate defensive forces. Carefully evaluating areas of interest and influence can predict the areas and routes the enemy is most likely to use. Surveillance, interdiction, and deep attack plans derive from that prediction. Destroying bridges, blocking defiles, or obstructing routes in depth can separate enemy echelons, isolate enemy positions, and create lucrative targets for air or nuclear attack.

Analysis of the flanking and rear terrain is necessary to facilitate changes in direction and to anticipate threats created by enemy maneuver. Commanders should also analyze terrain in terms of air observation and fire. In many cases, Army aircraft can overwatch

LIMITING FIELDS OF OBSERVATION AND FIRE



It is not easy to find long-range fields of fire for direct-fire weapons. For example, line of sight can be thought of as being like this.

But hills and valleys, vegetation, and man-made structures can interrupt the line of sight and break it into segments, as shown here.

from flanking positions in woods and valleys inaccessible to ground troops.

REINFORCING TERRAIN

Commanders must thoroughly understand and improve the area prior to active operations. Preparation of the ground cannot be an afterthought. The proper use and appropriate reinforcement of terrain must be an integral part of the commander's concept. Artillery fires, direct-fire killing areas, battle positions, and appropriate terrain reinforcements such as minefields and antitank obstacles must all be completely meshed and wedded to the ground.

Although the attacker determines the time and place for attack, the defender has a clear advantage in the preparation of the battlefield. He must make the most of his opportunity to learn, to organize, and to improve the terrain. The attacker must bear the defender's advantage in mind and allow him as little time as possible to dig in, to obstruct routes, to prepare counterattack approaches, and to establish solid communications. Attacking some positions, like the Kursk salient of 1943, is feasible only before the defender has improved his position. *Once the defense has occupied a strong position and improved it, successful attack becomes far more difficult.*

Terrain reinforcement and mobility and countermobility improvements are the business of the maneuver commander. Generally, a commander should concentrate his engineer effort in two directions: to develop an obstacle system in depth to enhance his fires and to increase the vulnerability of enemy forces; to develop covered positions beyond the capability of combat units. To the maximum degree possible, he should use combat troops to develop covered positions and close-in obstacles.

Terrain reinforcement is a combined arms operation with engineers and all other units participating. Engineers install tank ditches, minefields, abatis, craters, and demolitions to canalize enemy movement, to hold the enemy in areas where he can be destroyed by fire, and to protect the flanks of maneuvering forces. Artillery, aviation, and close air support units emplace scatterable mines on targets of opportunity to suppress enemy air defense and artillery units and to interdict follow-on enemy formations. Defending units emplace minefields around their positions. Maneuver units will often be responsible for placing demolitions and obstacles and for closing lines and gaps. Units, supported by engineer equipment and by occasional labor, develop their own covered and/or concealed initial and subsequent positions. Operating with leading maneuver elements, engineers clear obstacles, construct bridges and rafts, and support countermine operations. Because engineers cannot be everywhere, units must be capable of conducting countermine operations. Engineers will assist with minefields that are beyond the unit's capabilities.

Reinforcing terrain takes increasingly less time and fewer resources as new engineer systems are introduced. Such capabilities allow rapid development of minefields and covered fighting positions in response to enemy movement and friendly operation plans. Even with these developments, all projects to reinforce terrain must be carefully designed and realistically planned according to clear priorities.

ACQUIRING TERRAIN INTELLIGENCE

Sources of terrain intelligence include military, civilian, and engineer maps; topographical studies; civilian officials and area residents; and air, space, and ground reconnaissance units. The intelligence staff officer (G2 or S2) is responsible for assembling all available information on the terrain and estimating its effect on operations. The commander, however, must acquaint himself with the terrain as fully as possible before combat. Because maps are sometimes inaccurate or incomplete, commanders of battalions and smaller units

should conduct detailed personal reconnaissance. They should issue orders from vantage points on the ground whenever possible.

URBANIZED TERRAIN

Commanders have always recognized the importance of urban centers as strategic objectives, but directly seizing cities and towns has always been difficult. Sun Tzu taught that "the worst policy of all is to besiege walled cities." Many armies have learned the wisdom of these words at such places as Stalingrad, Tobruk, Hue, and Beirut. Such efforts consume enormous resources, degrade the momentum of offensive operations, restrict maneuver, and consume time. Therefore, commanders should not commit forces to urban areas unless doing so can realize specific advantages.

Modern armies that fight in the heavily industrialized regions of the world may have great difficulty in avoiding urban combat. Previously separated population centers have expanded to form extensive urban belts. In Western Europe, for example, large cities have combined or are combining into megalopolises. Entire areas, such as the Ruhr and Rhine-Main River complex, have assumed a near-continuous urban character. Commanders and staff officers must learn to analyze urbanized terrain and to plan effectively for operating on it.

Maps often need updating to reflect the latest in construction and terrain alteration. Commanders and staff need to learn to work with maps of different scales: lower scale for greater resolution of detail within cities and normal scale to control the overall battle. The urban fight can be isolated from the overall battle if commanders view the battles separately.

Corps and division commanders are responsible for major urban areas. At brigade level and below, commanders concern themselves with smaller cities, towns, villages, and strip areas. At lower levels of command, the makeup and composition of urban terrain become increasingly important. At these levels, terrain should be analyzed from the standpoint of fighting from or within urban areas.

All of the considerations which apply to terrain in general apply to urban terrain, but engagement ranges are shorter and terrain detail is more varied. Structures may replace or supplement natural hills, obstacles, and vegetation. In many cases, a sewer system available for communications and small-unit maneuvers or heavily constructed multistory structures add a vertical dimension. The cover and concealment available in urban areas can be defensively advantageous. Fighting from mutually supporting strongpoints in a village can slow or impede the attacker and provide anchor points or islands of resistance for a defense of maneuver and counterattack. It can also create opportunities for offensive maneuver against an attacker who has been halted and sits exposed at the edge of an urban area.

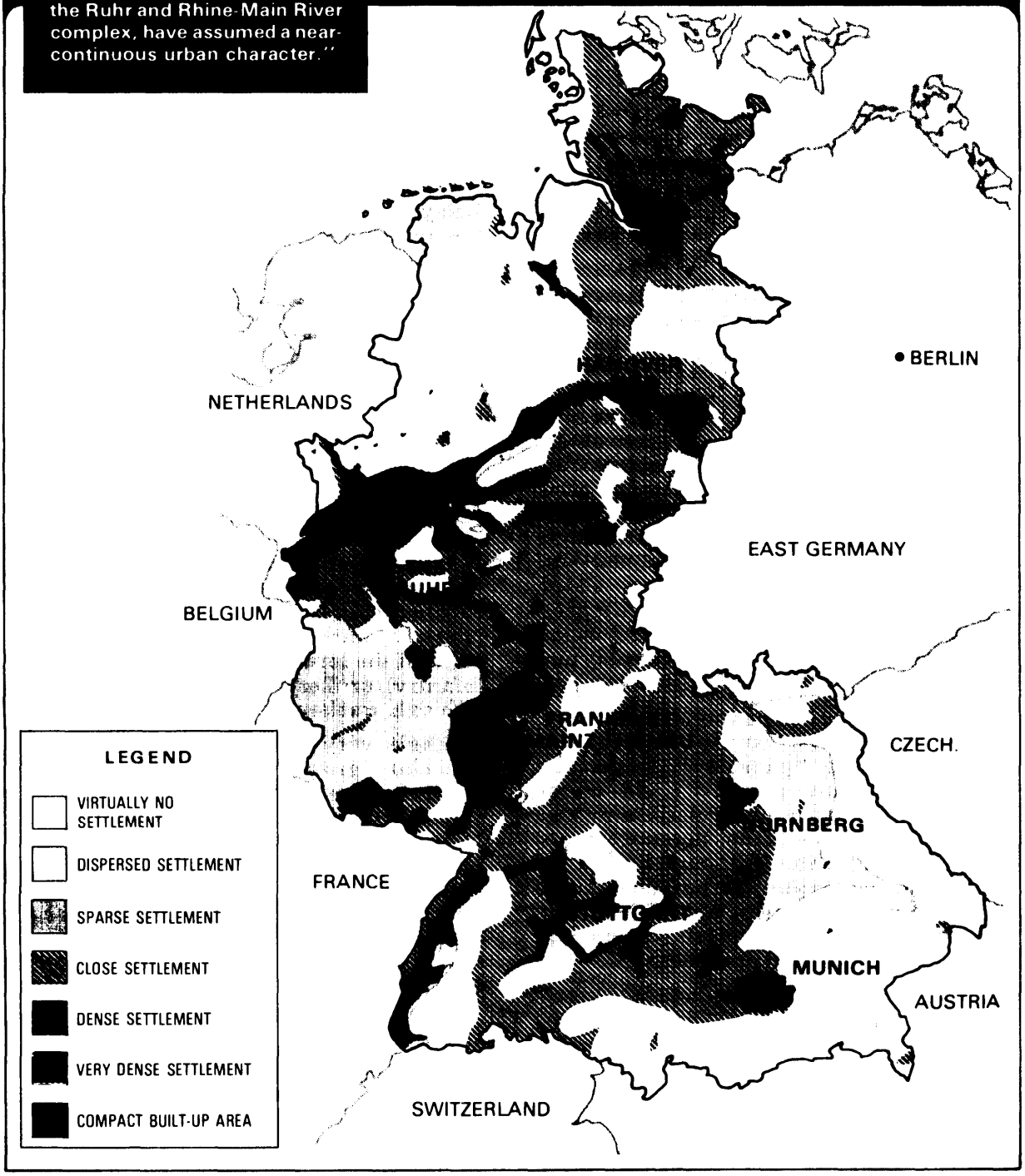
The defender normally has the advantage in built-up areas. He has readily available protection as well as concealment and covered routes of movement within the area. On the other hand, the attacker can isolate and bypass built-up areas, but he may be required to attack others. He is then faced with fighting from the outside into a well-defended position. Both attacking and defending forces will take advantage of urban cover and concealment to position command posts, stocks of supplies, and combat service support units.

Commanders must use their forces to the best advantage. An urban area can severely limit the full potential of armored or mechanized forces. Urban areas normally degrade their mobility, maneuverability, and weaponry. Available light infantry forces hold well-protected positions in built-up areas while minimizing their vulnerabilities to modern weapons.

For details on how to fight on urbanized terrain, see FM 90-10.

"... large cities have combined or are combining into megalopolises. Entire areas, such as the Ruhr and Rhine-Main River complex, have assumed a near-continuous urban character."

AREA DEVELOPMENT IN WEST GERMANY



SPECIAL ENVIRONMENTS

MOUNTAINS

Mountainous terrain exists throughout the world from the northern regions to the tropics. Therefore, the Army must maintain the capability to operate in it. Both light forces (infantry, airborne, and airmobile) and heavy forces (armor and mechanized) provide this capability. The mobility of light forces comes primarily from the helicopter and the boot, not from the piton and the rope. Heavy forces will operate in the passes and flat valleys of mountain ranges. Aviation units will be important for reconnaissance, antitank fire, and troop movement.

Mountainous terrain significantly influences the use of weapons and equipment. Fire is generally less effective than in normal terrain because rocks and cliffs provide much natural cover. Overhead and long-range fires, however, can be greatly increased because the elevation affords good observation. Occupying the heights in order to fire down on the enemy is advantageous even though slopes limit grazing fire and create large dead spaces. Thus, weapons with a high angle of fire—such as field artillery, mortars, and grenade launchers—take on added importance. Rugged mountain terrain makes movement so difficult that all equipment should be as light as possible, preferably air-transportable.

Ground mobility in mountains is extremely difficult. Highways usually run in the valleys; existing roads and trails are normally few and primitive; and cross-country movement is particularly arduous. Helicopters, however, can normally overcome these difficulties. Although limited by unfavorable weather, density-altitude considerations, and enemy air defense, helicopters are extremely useful for moving forces during mountain operations.

Finally, mountain combat lacks the unity that is characteristic of combat in level or rolling terrain. Major engagements typically occur at the entrances and exits of passes. This tends to give the battlefield a piecemeal character and induces isolated conflicts which are difficult for higher commanders to control.

Mountainous terrain tends to favor the defender and provides him with excellent observation and firing positions. Man-made obstacles intensify the natural obstacle of rugged mountainous terrain. The defender can easily deceive the enemy as to his strength and dispositions. Because the defender normally has more time to develop lateral trails, he can usually shift forces on the ground more rapidly than the attacker. Delaying actions are particularly effective in the mountains and can be accomplished by smaller-than-ordinary forces. Nonetheless, an aggressive attacker can sometimes traverse mountains rapidly, as the US campaign through the Eifel and the German attack through the Balkans have demonstrated.

A detailed discussion on how to fight in mountains is in FM 90-6.

JUNGLES

The jungle regions of Asia, Africa, and the Western Hemisphere are potential battlefields. Past wars have provided valuable experience for the US Army in the conduct of jungle operations. They have proven the value of the infantry (particularly airmobile infantry), artillery, and light armored forces in jungle warfare.

Jungles vary from tropical rain forests and secondary growth forests to swamps and tropical savannas. The dominating features of jungle areas are thick vegetation, constant high temperature, heavy rainfall, and humidity. These features restrict movement, observation, fields of fire, communications, battlefield surveillance, and target acquisition. However, they also favor military operations by providing excellent cover and concealment.

The jungle environment is a serious obstacle to movement. Dense vegetation, gullies, steep hills and cliffs, rivers, unfordable streams, and swamps hinder movement. Vehicular movement is normally canalized or impeded or made impossible. Cross-country movement by foot is slow and

difficult. High mobility is attained most effectively by air.

Jungle climate and vegetation dictate that all equipment must be rugged, lightweight, and man-portable. The fighting load of the soldier should be under 40 pounds. All weapons and equipment require daily maintenance in a tropical climate. Combat service support and engineer support will exceed normal requirements because road and rail networks are scarce.

The jungle contains numerous health hazards for troops, particularly unacclimatized soldiers who have little or no resistance to many of the endemic diseases. Thus, an increased disease rate may occur from gastro-intestinal maladies and fungus infections. Protection is required against mosquitoes, flies, fleas, leeches, and other parasites. If these health hazards are not countered, disease may hospitalize more troops than wounds do.

According to the type of vegetation, ground observation in jungle areas can vary from a few feet to 20 to 30 meters. Aerial observation is often ineffective because of the jungle canopy, heavy rain, low hanging clouds, fog, and haze. While the jungle enhances camouflage, vegetation does not protect the soldier from enemy fire. Troops are prone to mistake concealment for cover. For example, in most jungle areas, trees will not usually provide adequate cover. Surface irregularities, such as ravines, gullies, and large rocks, provide cover in jungle areas.

A detailed discussion of how to fight in jungles is found in FM 90-5.

DESERTS

Many desert areas of the world are potentially vital to the national interests of the United States. The US Army may be called on to fight in desert regions for a wide variety of factors—strategic location, natural resources, assistance to an ally, and deterrence of aggression, to name a few. Armor and mechanized infantry forces are most suitable to desert combat; however, airmobile forces can also be advantageous. For the initial lodgment, airborne forces are valuable. Army and Air Force air may support airborne and airmobile forces in bearing the brunt of the fighting until heavy forces arrive.

Deserts are semiarid and arid regions that contain a wide variety of soils in varying relief. Desert conditions can vary radically. Temperatures often range from 30° to 130°F. The unequaled visibility and flight conditions of a clear day may be ruined by a raging sandstorm that can halt all military operations. Long periods of drought are interrupted by sudden rains that bring flash floods and mud but little relief from water shortages. Large areas of generally excellent trafficability are interspersed with insurmountable mountains, dunes, impassable ravines, bogs, and sand seas. The availability of water will be a prime factor in planning and executing desert operations. Selecting locations for supporting logistics facilities and objectives will frequently be based on water supply.

Flat desert areas have a significant effect on military operations. Because the terrain does not canalize large forces, large-scale use of mines and obstacles becomes necessary. The lack of prominent terrain features severely increases the problem of land navigation. Commanders must often use dead-reckoning techniques. Key terrain in the classic sense loses its importance to smaller units. Although large cover is scarce, small indentations and folds in the ground do provide cover for small units and individual weapons. Every effort must be made to capitalize on existing cover.

Because of the sparse vegetation, concealment in the desert is more difficult than in many other environments. Concealment, however, is not only possible, *it is absolutely necessary.* To survive on the desert battlefield, forces must use camouflage nets, pattern and mud painting, covers for reflective surfaces, and similar methods. In general, easy observation and long fields of

fire make undetected advances and withdrawals extremely difficult.

Deception measures of all types (feints, ruses, and decoy equipment, for example) become mandatory for success. Troops should move at night or during sandstorms while maintaining strict communications security. Long-range engagements place a premium on accurate gunnery at maximum range.

The desert environment has a debilitating effect on troops who have not been properly acclimatized or trained. Continued exposure to the sun causes profuse sweating, sunburn, dehydration, cramps, heat exhaustion, and even heat stroke. Proper field sanitation and personal hygiene are necessary to prevent dysentery and other diseases. The environment induces mental fatigue, impaired perception, and depression, which, coupled with the pressures of combat, can overwhelm the soldier and render him ineffective. Acclimatization and proper training can defeat these environmental effects.

The desert has an even greater detrimental affect on machines. Dust and sand can be as deadly to our vehicles as enemy fire. If they contaminate fuel, lubricants, and intake air, dust and sand can ruin engines and erode components. Intense command supervision will insure continuous availability of these three precious commodities—clean air, fuel, and lubricants.

Vehicle cooling and electrical systems are vulnerable to desert extremes of temperature. Tracks, tires, and suspension systems wear out rapidly in the desert. Sand and rocks literally grind away rubber track parts, while thorns repeatedly puncture tires. More spare parts are required here than operations in more moderate environments. The intense desert heat can quickly cause communication equipment to overheat and malfunction. Proper operation of equipment, as well as proper preventive maintenance, is necessary to insure effective communications.

A detailed discussion of how to fight in desert areas is in FM 90-3.

WINTER ZONES

It is quite possible that an enemy would deliberately choose to attack in midwinter in central Europe or the Korean peninsula. The US Army must therefore maintain military capability in this environment.

In arctic regions such as the polar ice cap, survival of the force requires so many resources that few may remain to accomplish anything militarily useful. Therefore, the likelihood is small that large forces will be committed to such an extreme environment. Nevertheless, the Army must be able to operate air defense forces in the arctic regions. It must be prepared to employ airmobile elements for relief, resupply, reconnaissance, and surveillance as necessary.

In addition to extreme cold and snow, winter operations must endure other weather phenomena, particularly in northernmost regions. Whiteouts and grayouts cause a loss of depth perception which increases the hazards of flying, driving, or even walking. Ice fogs can form over a body of troops, bivouac areas, motor parks, or convoys, thereby exposing their locations.

The most suitable time for ground operations is from midwinter to early spring before the thaw. During winter months, units can achieve excellent mobility on frozen ground. However, when the ground thaws, cross-country movement can become difficult at best and can cause vehicles to become road bound.

Extremely low temperatures affect weapons. Metal becomes brittle in extreme cold, and parts on all types of weapons break with increased frequency. Many weapons create ice fog which, on a still day, may obscure the gunner's vision and require movement to another position after the first shot. Bringing a weapon into a warm shelter creates condensation which will freeze and cause malfunction when the weapon returns to the cold outside. Tank weapons face a particularly bad obscuration problem from ice fog and the soft snow blown up by the muzzle blast. Extreme cold also decreases tank gun ammunition velocity and, hence, its

accuracy. Snow or mud can dampen the effectiveness of field artillery or mortar rounds.

Finally, the winter environment significantly increases the time required to perform even simple tasks. Experience has shown that five times the norm may be required in extreme cold. The proper equipment and training and the highest caliber of leadership are the ingredients for successful operations in this environment. Commanders must recognize these factors and avoid a business-as-usual attitude.

A detailed discussion of how to fight in winter is in FM 31-71.

CHAPTER 4

Battlefield Environments

TERRAIN AND WEATHER constitute the basic physical setting for battle. Nuclear and chemical weapons, electronic warfare, and smoke will compound their influence. Although treated separately here, these elements will combine with the confusion of battle to create a stressful and difficult environment for leaders and their soldiers in battle, making combat violent and confusing. The combined effects will challenge command and control and stress human frailties, producing an atmosphere, in which, as Clausewitz said, "the simplest things become difficult." Commanders must recognize these effects and conduct their operations accordingly.

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NUCLEAR AND CHEMICAL WEAPONS

THE THREAT

Soviet doctrine stresses the principle of mass and seeks to win through relentless offense. The Soviets are willing to use nuclear and chemical weapons to insure success. Soviet planners know that such weapons will alter tactics, rates of advance, and force requirements. However, they expect little deviation from their basic doctrine, and equip, arm, and train their forces to fight on the nuclear and chemical battlefield.

The immediate effects of nuclear weapons are blast, thermal radiation, electromagnetic pulse (EMP), and initial nuclear radiation. They can cause major personnel and materiel losses and change the tempo and direction of the battle.

Nuclear weapons can cause tree blowdown, urban destruction, fires, radiological contamination, and in some cases, flooding. EMP from a nuclear explosion can burn out unshielded electronic equipment, including radars, weapon systems, data processing, and communications systems. Nuclear weapons also produce long-term residual radiation from fallout or rainout.

Chemical weapons can also produce immediate and delayed effects. They contaminate individuals, terrain, equipment, and supplies. Prompt use of protective equipment and shelters will significantly reduce casualties. But using protective equipment and shelters can also reduce individual and unit efficiency.

In the past, some units have continued to fight effectively despite losing many personnel and much equipment over a long period. On the next battlefield, however, nuclear weapons and chemical agents may inflict large losses very quickly. Such large and sudden losses will likely shock and confuse poorly trained or psychologically unprepared troops.

In addition to taking immediate losses, units suffering such attacks will be weakened by long-lasting effects. Long-term residual radiation can contaminate supplies, facilities, equipment, terrain, and uncovered food and water. Soldiers exposed to different levels of radiation will vary in effectiveness. Wearing chemical protective clothing or

operating for long times in contaminated environments will also affect performance. Merely carrying out normal body functions will be tedious and time-consuming. Commanders must apply the proper mission oriented protection posture (MOPP) to balance protection with mission. They must minimize chemical casualties on one hand and reduce heat and fatigue casualties on the other.

The use of chemical and nuclear weapons will dramatically affect the control of forces. Command posts will be prime targets for attack. Even within small units, control will be difficult. Soldiers and leaders who are wearing protective equipment will be difficult to recognize. Leaders will have to cope with the additional burden of protective equipment while they perform their duties. Inexperienced or poorly trained small-unit leaders could become so concerned about their own welfare that they cease to function as leaders. *Only cohesive, disciplined, and well-trained units can function in such an environment.*

CHARACTERISTICS OF AND DEFENSE AGAINST CHEMICAL AGENTS

TYPE OF AGENT	SYMBOL	HOW NORMALLY DISSEMINATED	SYMPTOMS	EFFECTS	RATE OF ACTION	FIRST AID	DECONTAMINATION	PROTECTION REQUIRED
BLOOD	**AC**	Vapor	Convulsions, coma	Incapacitates; kills if high concentration inhaled	Rapid	None	None	Mask
NERVE	**G series GA GB* GD**	Vapor or aerosol	Difficult breathing; drooling, nausea, convulsions, sometimes dimness of vision	Incapacitates; kills if high concentration inhaled	Delayed through the skin; very rapid through inhalation	Nerve agent antidote; artificial respiration	None required	Mask, protective clothing
	V series VX* VR55 GD(T)	Liquid droplet		Incapacitates; kills if skin not decontaminated rapidly	Delayed through the skin; more rapid through the eyes		Flush eyes with water; use M258 kit to decontaminate skin	
BLISTER	**H* HD* HN H/L L CX**	Liquid droplet; CX as a fine powder or liquid	H, HD, HN—no early symptoms L—searing pain in eyes, stinging of skin CX—irritated eyes and nose	Blisters skin; destroys lung tissue	Delayed blisters, hours to days; eyes affected more rapidly; H/L, L, and CX very rapid	None	Flush eyes with water; use M258 kit on skin; wash with soap and cold water	Mask, protective clothing

*Indicates standard US toxic chemical agents. The Threat is capable of employing all agents listed.

BIOLOGICAL EFFECTS OF NUCLEAR RADIATION

RAD*	ONSET OF INITIAL SYMPTOMS	INCAPACITATION	HOSPITALIZATION AND DISPOSITION
0-70	**Within 6 hours** slight incidence of transient headache and nausea. Vomiting in up to 5% of personnel in the upper part of dose range	None	Hospitalization not required; all return to duty
70-150	**Within 3 to 6 hours** transient mild headache and nausea; some vomiting in up to 50% of group	None to slight decrease in ability to perform duties in up to 25% of group; up to 5% may be combat ineffective	Eventual hospitalization (20-30 days) or less than 5% in upper part of dose range; return to duty; no deaths anticipated
150-450	**Within 3 hours** headache, nausea, and fatigue; slight incidence of diarrhea; over 50% of group vomits	Can perform routine tasks; combat or complex tasks may be hampered; over 5% will be combat ineffective; percent ineffective increasing with higher doses	Hospitalization (30-90 days) in upper range after latent period of 10-30 days; some deaths (less than 5% to 50% at upper end of range); return to duty questionable at higher doses
450-800	**Within 1 hour** severe nausea and vomiting; diarrhea, fever early in upper part of range	Can perform simple tasks; significant reduction in combat effectiveness in upper part of range; lasts more than 24 hours	Hospitalization (90-120 days for those surviving) for 100% of the group; latent period 7-20 days; 50% deaths at lower and increasing toward uper end; all deaths within 45 days
800-3000	**Within 1/2 to 1 hour** severe and prolonged vomiting, diarrhea, and fever	Significant reduction in combat effectiveness; in upper part of range transient period of complete combat effectiveness for some, followed by some response until end of the latent period	**Hospitalization for 100%; latent period of less than 7 days; 100% deaths within 14 days**
3000-8000	**Within 5 minutes** severe and prolonged vomiting, diarrhea, fever, and prostration; convulsions may occur at higher doses	Completely incapacitated within 5 minutes; remain so for 30 to 45 minutes; then recover, but functionally impaired until death	**Hospitalization for 100%; latent period of 1 to 2 days; 100% deaths within 5 days**
ABOVE 8000	**Within 5 minutes** the same symptoms as above	Complete, permanent incapacitation; unable to perform physically demanding tasks	**Hospitalization for 100%; no latent period; 100% deaths in 15 to 48 hours**

*RAD - radiation absorbed dose.

MITIGATING ACTIONS

Against an enemy with a nuclear-chemical capability, our forces must conduct operations with the knowledge that such weapons may be used at any time. First use, and especially surprise use, of nuclear-chemical weapons by the enemy must not allow him to win. Commanders must act to accomplish the mission with least risk. Their plans should include measures for survival and reconstitution.

Units will survive by anticipating nuclear-chemical attacks. They must take the following steps to avoid becoming lucrative targets:

- MAINTAIN ALERTNESS. Commanders at all levels need to be continually alert to nuclear and chemical attack. They need to balance risk to their units against mission requirements. They need to adjust dispersion and MOPP without losing momentum.
- INSTILL DISCIPLINE. The unit needs to survive the shock of a nuclear or chemical attack and continue the mission. Troops should be physically and psychologically conditioned by frequent training in protective clothing. Leaders must know what to do, set the example, and motivate their soldiers.
- AVOID DETECTION. Units must use active and passive measures to defeat enemy target-acquisition capabilities. The commander of a unit that is a high-priority target must consider displacing whenever he suspects he has been detected.
- REMAIN MOBILE. Tactical mobility gives the commander the best chances for survival. He knows, however, that chemical and radiological contamination, tree blowdown, urban rubble, fires, flooding, and cratering affect mobility.
- DISPERSE FORCES AND INSTALLATIONS. Combat service support installations and troops in compact assembly areas are very vulnerable. The decision to disperse is an important one. Dispersion needs to be done intelligently. It must be based on knowledge of enemy doctrine and weapons, and it must include necessary provisions for massing dispersed units on short notice. The degree of acceptable dispersion will depend on the tactical situation, enemy capabilities, and available terrain.
- SEEK TERRAIN SHIELDING AND COVER. Natural terrain shields troops from the effects of nuclear and chemical weapons. Foxholes with overhead cover and simple shelters are used as much as possible. Extensive construction will usually take too long and will increase the chance of detection.
- INSURE LOGISTIC PREPAREDNESS. The logistic system must function in the nuclear and chemical environment. Critical supplies can be stored under cover to prevent contamination. Logistic facilities should be dispersed, concealed, and redundant. Units should have sufficient protective clothing, decontamination equipment and materials, and medical supplies to meet initial demands.
- PLAN FOR RAPID RECONSTITUTION. Commanders must be prepared to continue the mission after a nuclear or chemical attack. Those who can reconstitute or replace lost units rapidly will have the advantage in the continuing battle. Following an enemy strike, commanders should assess the damage promptly and implement contingency plans quickly to replace lost units.

ELECTRONIC WARFARE

THE THREAT

Armies based on the Soviet model will attempt to control the electromagnetic spectrum through the use of radio electronic combat (REC). They will analyze an opponent's communications system by signals intelligence (SIGINT) to find the terminals, links, and relays vital to command and control. Then, following their commander's priorities, they will attempt to destroy or to disrupt those communications.

Soviet forces will try to jam selected air defense radars, but they will target most radars for destruction by artillery.

Soviet intercept systems and jamming devices are less sophisticated than US systems, but they are formidable because of sheer numbers and power. They are simple, reliable, and rugged and can be operated while on the move.

DEFENSIVE ELECTRONIC WARFARE

Using countertactics to cope with enemy electronic warfare may mean the difference between survival or destruction. A command post or a weapon system cannot survive if its electronic emissions make it easy to identify and locate. In an active electronic warfare environment, the commander should take the following steps to conceal emitters or to deceive the enemy as to their identities and locations:

- **Change radio frequencies often to make it difficult for the enemy to identify targets.**
- **Use directional antennas as a means of communicating only with the desired receiver.**
- **Issue emission control orders (EMCON) to restrict use of the electromagnetic spectrum or to prohibit transmissions during particular periods. This prevents the enemy from collecting emission data. It may also prevent friendly emissions from unintentionally interfering with other critical friendly systems.**
- **Employ manipulative electronic deception (MED) to alter electromagnetic profiles or to portray a notional unit in support of deception, countersurveillance, or an operations security (OPSEC) plan.**
- **Use wire or cable communications whenever possible.**

Operators must be trained to work in spite of electronic warfare. Subject to the constraints of security and governmental regulations, commanders should make their tactical training in electronic warfare as realistic as possible. Continued operations during electronic warfare environment require—

- **Operators trained to use communications-electronics operation instructions (CEOI) effectively.**
- **Short transmissions (under 10 seconds when possible; never more than 30 seconds).**
- **Operation on the lowest power possible.**
- **Emitters concealed by terrain masking.**
- **Electronic warfare-locating assets to target enemy REC assets for fire and air attack.**
- **Alternate means for passing information.**
- **Trained subordinates to act independently in support of the overall mission when communications fail.**

SMOKE AND OBSCURANTS

SOVIET DOCTRINE

Soviet doctrine emphasizes extensive use of smoke during tactical operations.

The Soviets use three basic types of smoke: blinding, camouflaging, and false or decoy. Each type is classified as frontal, oblique, or flank depending on its placement relative to the front line. Each type serves a different tactical purpose, and all three can be employed simultaneously. Soviet forces are well-equipped with smoke munitions and smoke-generating assets. These include vehicle exhaust generators, smoke hand grenades, and aerial-delivered smoke bombs.

Soviet forces use smoke to conceal friendly positions or to confuse the attacker. Because their doctrine asserts that smoke favors the attacker, they train extensively to maintain a rapid rate of advance in a smoke environment.

Soviet defense doctrine calls for withdrawal from the areas of heaviest smoke concentration. When they want to keep the terrain, Soviet troops will attempt to flank the

attacker and engage him in a crossfire. Second echelon or reserve elements may also reinforce Soviet units within the smoke area.

Soviet forces make use of active night vision devices and passive infrared image intensifiers as electro-optical countermeasures in the smoke environment.

US ARMY DOCTRINE

US forces use smoke to increase their effectiveness while reducing their vulnerability. Specifically, smoke will—

- **Deny the enemy information.**
- **Reduce the effectiveness of enemy target-acquisition means.**
- **Restrict nap-of-earth and contour approaches for enemy aircraft.**
- **Disrupt enemy movement, operations, and command and control.**
- **Create conditions to surprise the enemy.**
- **Deceive the enemy.**

Each level of command plans how to use smoke to support its overall tactical plan. In doing so, commanders must weigh how smoke will degrade enemy combat effectiveness against how it might adversely affect friendly command and control and target acquisition. During darkness and other periods of reduced visibility, smoke can further degrade enemy observation capability, particularly enemy electro-optical devices. It can increase the effectiveness of conventional and scatterable mines and chemical munitions. Similarly, smoke can intensify the effects of electronic warfare on enemy command and control. When a unit is going to use smoke, it must coordinate with adjacent, higher, and lower headquarters to avoid disrupting their operations.

Smoke in Offensive Operations. Commanders can maneuver units behind or under smoke screens. This denies the enemy information about our strength, position, activity, and movement. It also helps in breaching obstacles, bypassing enemy strongpoints, and reducing effectiveness of enemy observers and weapon systems.

Deception screens enhance surprise and prevent the enemy from concentrating his defense against the main attack. Obscuration smoke against enemy defensive positions in depth helps isolate forward enemy positions for assault.

Smoke in Defensive Operations. Smoke employed with other munitions impedes and disrupts the momentum of enemy formations. It obscures suspected enemy observers, conceals defensive positions, screens disengaging forces, or conceals counterattacking forces. Smoke screens can silhouette assaulting forces and prevent enemy aerial surveillance of assembly, marshaling, staging, and logistic areas. Smoke operations should not interfere with friendly target acquisition, adjustment of fires, or maneuver.

CHAPTER 5

Combat Service Support

THE COMBAT SERVICE SUPPORT (CSS) SYSTEM develops and maintains maximum combat power by sustaining combat forces. It may include administrative, chaplain, civil affairs, food, finance, legal, maintenance, medical, military police, supply, transportation, and other logistic services.

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MODERN LOGISTICS

Commanders must plan tactics and logistics concurrently to insure that the tactical scheme of maneuver and fire support are logistically supportable. They consider the constraints that CSS planners identify. They modify unsupportable plans or accept the risks involved. To develop the support scheme and to evaluate the CSS system's ability to support a particular operation, commanders should consider the following factors:

- AVAILABILITY. **Are there sufficient CSS resources (trained soldiers; ammunition; repair parts; trucks; tools; and petroleum, oils, and lubricants [POL]) to provide the support required? Can more be obtained if required? Will shortages require that priorities be established? If so, approximately when?**
- SUPPORTABILITY. **If the resources are sufficient, is the CSS system capable of getting them where they are needed on time?**
- RISK. **To how much risk will CSS resources be exposed by the tactical scheme? When the CSS structure is austere, how will the loss of a few support personnel affect the maintenance effort?**
- FUTURE OPERATIONS. **At the end of the current operation, how well will the CSS system be able to support contingencies or future operations?**

All commanders and staff officers should know the capabilities of their CSS units, as well as the CSS assistance available from the next higher headquarters. To plan realistically, anticipate problems, and reduce their impact, commanders should also remain aware of their own CSS status:

- **Ammunition stocks.**
- **Fuel.**
- **Transportation system capacity.**
- **Maintenance capabilities (mechanics and spare parts).**

AUSTERITY

In past wars, America had the time to mobilize her industrial and manpower base fully. The next conflict may escalate too rapidly to permit full mobilization. The Army may be forced to fight a come-as-you-are war with the soldiers, weapon systems, and supplies already on hand.

Future conflicts will be intense and consume resources rapidly. Austerity will be the rule; efficiency will be mandatory. Commanders will have to conserve CSS resources, especially ammunition, POL, and repair parts. When capabilities do not meet requirements, commanders must establish priorities for support. For greatest efficiency, the

maintenance system must repair damaged equipment far forward in the battle area, preferably on site.

In theaters of operations, host-nation support may offset some CSS requirements. On the basis of peacetime agreements, host nations may be able to furnish—

- **Supplies.**
- **Facilities.**
- **Transportation support (rail, road, inland waterway).**
- **Materiel handling support.**
- **Some maintenance support.**

Most support from host nations will be provided in the rear areas.

REQUIREMENTS

The CSS system supports weapon systems and the soldiers who man them. Those who direct the CSS effort insure that critical weapon systems have sufficient ammunition and fuel, that they are quickly repaired or replaced, and that soldiers are available to operate them. Combat equipment is armed, fueled, fixed, and manned as close to the point of employment as possible. Supplies are provided to forward units according to the commander's priorities. Replacement personnel are moved forward to maintain the strength of front-line units. Weapon system replacement operations (WSRO) provide major weapon systems in a ready-to-fight condition.

CSS ORGANIZATION

UNITS

Each level of command has a CSS element to provide its support. From company team level through division level, CSS elements are built into the command's table of organization and equipment (TOE) to provide specified types and quantities of support. At corps level and above, CSS is designed and organized to provide the amounts and types of support required by the force.

MANAGEMENT

At the division, corps, and theater Army levels, CSS management is centralized, and execution is decentralized. Control centers at each of these echelons are linked through automatic data processing equipment. Within the theater of operations, three basic types of control centers exist—one for materiel and maintenance, one for transportation and movements, and one for personnel management.

COMMUNICATIONS

The effectiveness of the CSS system depends on adequate communications to keep abreast of changing situations and requirements. The CSS system operates best with automated systems that transfer large volumes of information rapidly. Such automated systems must be backed up by manual reporting procedures. Transceiver terminals within the theater provide channels of communication between the sources of supply in the continental United States (CONUS) and—

- **Division support command (DISCOM).**
- **Corps support command (COSCOM).**
- **Theater Army Area Command (TAACOM).**
- **Theater Army (TA) materiel management centers (MMC).**

Modern data and management information links bring CONUS-based managers and technicians close to the pulse of the battlefield. Support managers transmit information to the commander's headquarters in response to his queries. Forward CSS elements depend upon FM radios and area communications systems to operate.

OPERATIONS

The CSS operational system performs specialized functions at all levels in a theater of operations.

Ammunition. The CSS system maintains combat capability by providing unit basic

OBSOLETE

loads of ammunition, ammunition resupply, and special ammunition.

Unit Basic Load

Units are authorized basic loads of ammunition, expressed in rounds per weapon system, to sustain them in combat until they can be resupplied. The theater commander normally establishes a unit's basic load based on—

- **Its mission.**
- **The types and numbers of its weapon systems.**
- **Its transport capability.**
- **The time necessary to effect resupply.**

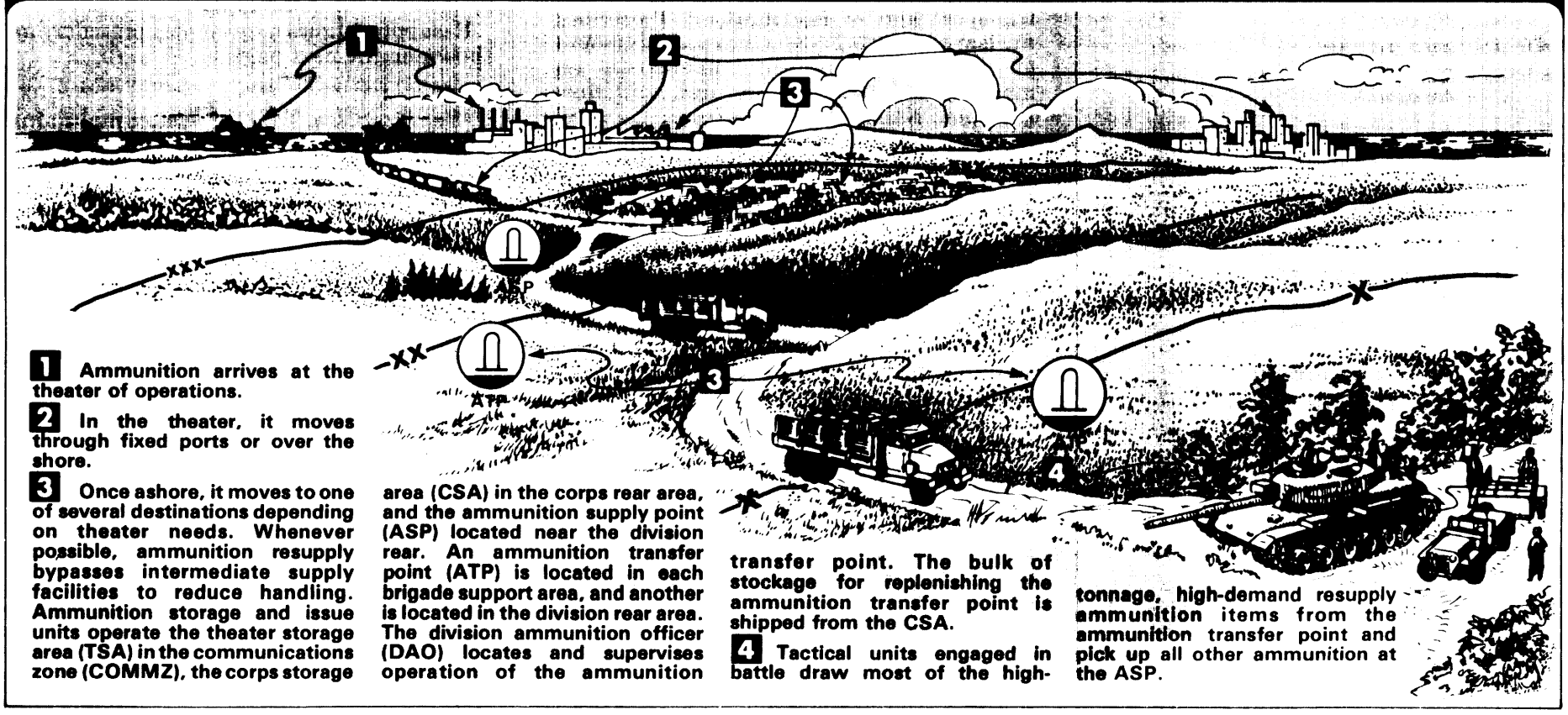
The basic load is carried into battle on the unit's cargo vehicles, on combat vehicles, and with the individual soldier. Standing operating procedures should prescribe distribution of the basic load.

Resupply

To determine the requirements for a specific operation or time period, combat units develop a required supply rate (RSR) for each type of ammunition. Expressed as rounds per weapon per day, the RSR may derive from experience or from reference manuals. The operations officer (S3 or G3) prepares the RSR for the commander during the planning stages of the operation. Requests are consolidated at each level until they reach the highest Army headquarters in the theater (corps, TA). At that level, the G3, G4, and commander review the requirements and availability of ammunition. Based on this review, the commander establishes a controlled supply rate (CSR), the actual resupply rate. The CSR is expressed as rounds per weapon per day by ammunition item. Those ammunition items for which the CSR is less than the RSR will normally be identified in the appropriate annex of operations orders or in CSS plans or orders. After consulting with their operations and logistic staff officers, commanders will normally establish priorities for the allocation of ammunition.

Timely resupply of ammunition is critical. Basically, it occurs in the four-step sequence illustrated below.

AMMUNITION SUPPLY PROCEDURE



1 Ammunition arrives at the theater of operations.

2 In the theater, it moves through fixed ports or over the shore.

3 Once ashore, it moves to one of several destinations depending on theater needs. Whenever possible, ammunition resupply bypasses intermediate supply facilities to reduce handling. Ammunition storage and issue units operate the theater storage area (TSA) in the communications zone (COMMZ), the corps storage area (CSA) in the corps rear area, and the ammunition supply point (ASP) located near the division rear. An ammunition transfer point (ATP) is located in each brigade support area, and another is located in the division rear area. The division ammunition officer (DAO) locates and supervises operation of the ammunition transfer point. The bulk of stockage for replenishing the ammunition transfer point is shipped from the CSA.

4 Tactical units engaged in battle draw most of the high-tonnage, high-demand resupply ammunition items from the ammunition transfer point and pick up all other ammunition at the ASP.

The acronyms pertinent to the CSS procedures illustrated in this chapter appear below.

APOD	*aerial port of debarkation*
APOE	*aerial port of embarkation*
ASF	*aeromedical staging facility*
BSA	*brigade support area*
CPOC	*Corps Personnel Operations Center*
CSH	*Combat Support Hospital*
DARCOM	*United States Army Materiel Development and Readiness Command*
DLA	*Defense Logistics Agency*
DMMC	*division materiel management center*
DSA	*division support area*
DSU	*direct support unit*
FARP	*forward arming and refueling point*
GRREG	*graves registration*
GSA	*General Services Administration*
GSU	*general support unit*
MASF	*mobile aeromedical staging facility*
MP	*military police*
MRO	*materiel release order*
NICP	*national inventory control point*
OSRC	*Overseas Replacement Command*
P&A	*personnel and administration*
PERSCOM	*personnel command*
PS	*personnel service*
RRD	*replacement regulating detachment*
TAPOC	*Theater Army Personnel Operations Center*
ZI	*zone of interior*

Special Ammunition

To fight effectively, combat forces may require nuclear and chemical special ammunitions. The national command authority (NCA) controls their allocation to overseas theater commanders based on—

- **The mission.**
- **Assignment of delivery units.**
- **Availability of items.**
- **Operational requirements.**
- **Other considerations.**

When use of nuclear weapons is authorized, a nuclear special ammunition allocation is established for planning purposes. It specifies the numbers and types of nuclear weapons a commander may expend during a stated period. The prescribed nuclear load (PNL) is the specific amount of nuclear ammunition a firing unit will carry depending on its mission, the tactical and logistical situation, and its ability to transport and to fire the load. Prescribed nuclear stockage (PNS) is the specific amount of nuclear ammunition placed in an ammunition supporting unit or installation. Like the PNL, it is based on the tactical and logistical situation and on the unit's ability to receive, store, maintain, and issue the ammunition. *Stockage is not supplied in a fixed amount or at a fixed rate, and resupply is not automatic.*

Chemical special ammunition allocation designates the chemical ammunition a commander may use when such ammunition is authorized. Chemical ammunition stockage specifies the quantity of items to be stocked in a storage unit or installation. The command decision to establish and replenish this stock depends on the tactical and logistical situation and on the unit's ability to perform the special functions required.

Petroleum, Oils, and Lubricants. The CSS system maintains combat capability by providing bulk POL supply and resupply.

Bulk POL

A dedicated supply system manages, transports in special containers, and issues the supply of bulk petroleum. As long as fuel is available, it moves on demand to refill storage containers of subordinate units. The initial allocation derives from estimates that using units develop based on experience or standard planning data in FM 101-10-1. Such estimates should consider special factors, including terrain and weather and the type of mission. Forecasts are refined and consolidated at the brigade, forwarded to the division MMC, and then forwarded to the corps MMC.

Established requirements are compared to force capabilities. Tactical battalions have limited storage and distribution capabilities—fuel tankers, tank and pump units, and trailer-mounted pods. The supply and transport battalion of the DISCOM has a greater capability in its storage bladders, containers, and petroleum tanker trucks.

Resupply

Resupply follows a seven-step procedure as shown on the next page.

Other Supplies. The CSS system maintains combat capability by providing—

- **Rations.**
- **Water.**
- **Clothing.**
- **Personal-demand items.**
- **Individual and unit equipment.**
- **Fortification and barrier materials.**
- **Major end items of equipment.**
- **Repair parts.**
- **Items intended to support nonmilitary programs.**

Medical supplies and equipment are provided through medical channels.

Normally, the wartime supply system for materiel provided by surface in a fully developed theater follows an established sequence such as shown on the next page.

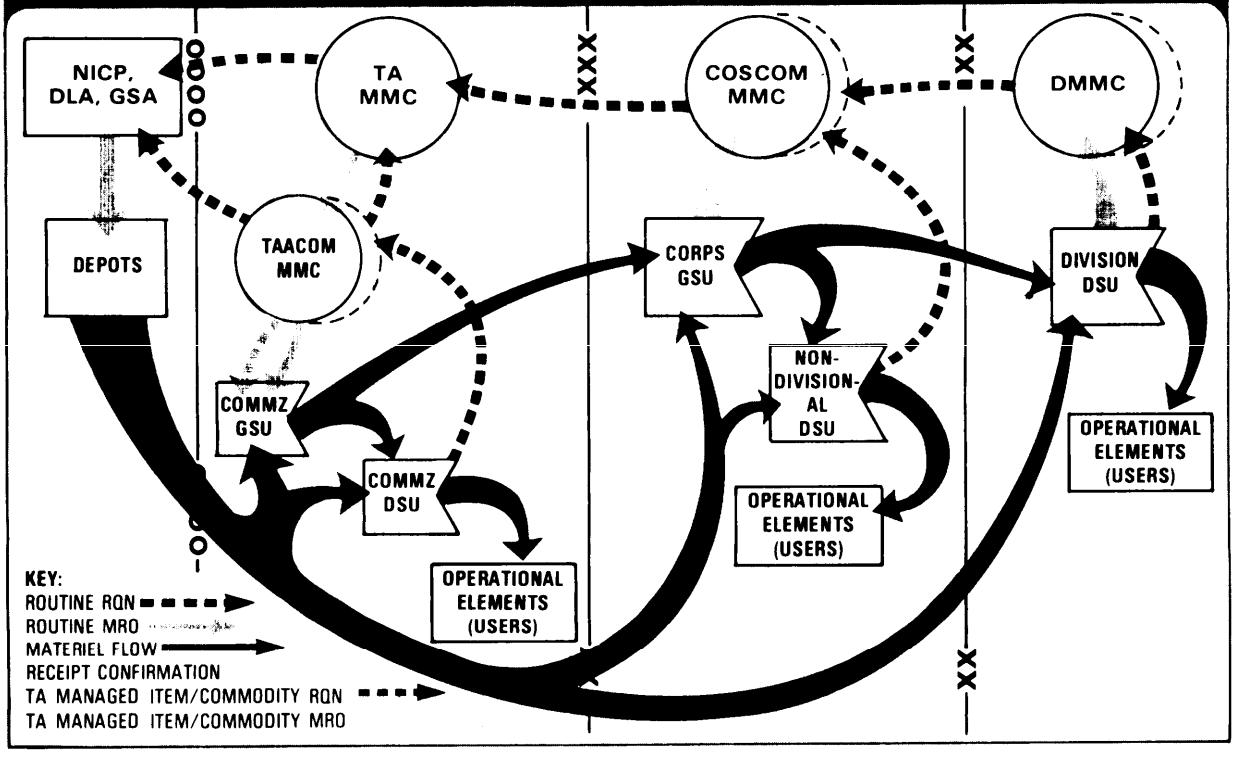
Normally, the wartime supply system for items provided by air lines of communication (ALOC) in a fully developed theater also

PETROLEUM, OILS, AND LUBRICANTS SUPPLY PROCEDURE



POL is delivered to the corps from CONUS 1 or off-shore sources. It flows into corps field storage 2 bladders or tank farms from pipelines, trucks, or railcars; or in an emergency, by aircraft delivery. Corps moves 3 POL to the divisions. Divisions normally store POL in bladders 4 or in tank trucks. Divisions deliver 5 to their brigades and other major units 6 . Tactical refueling forward of brigade trains is by battalion tankers 7 .

MATERIEL SUPPLY BY SURFACE

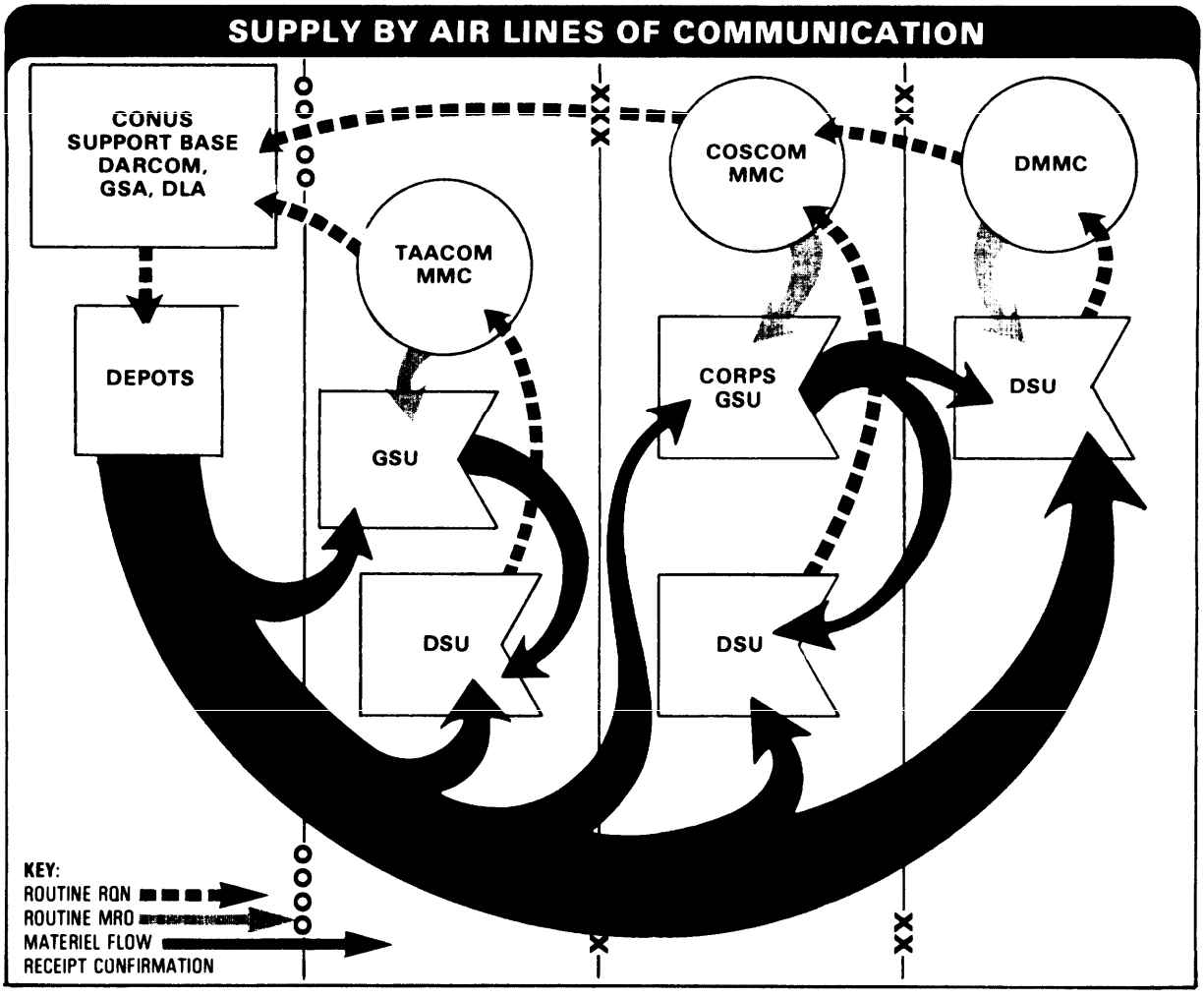


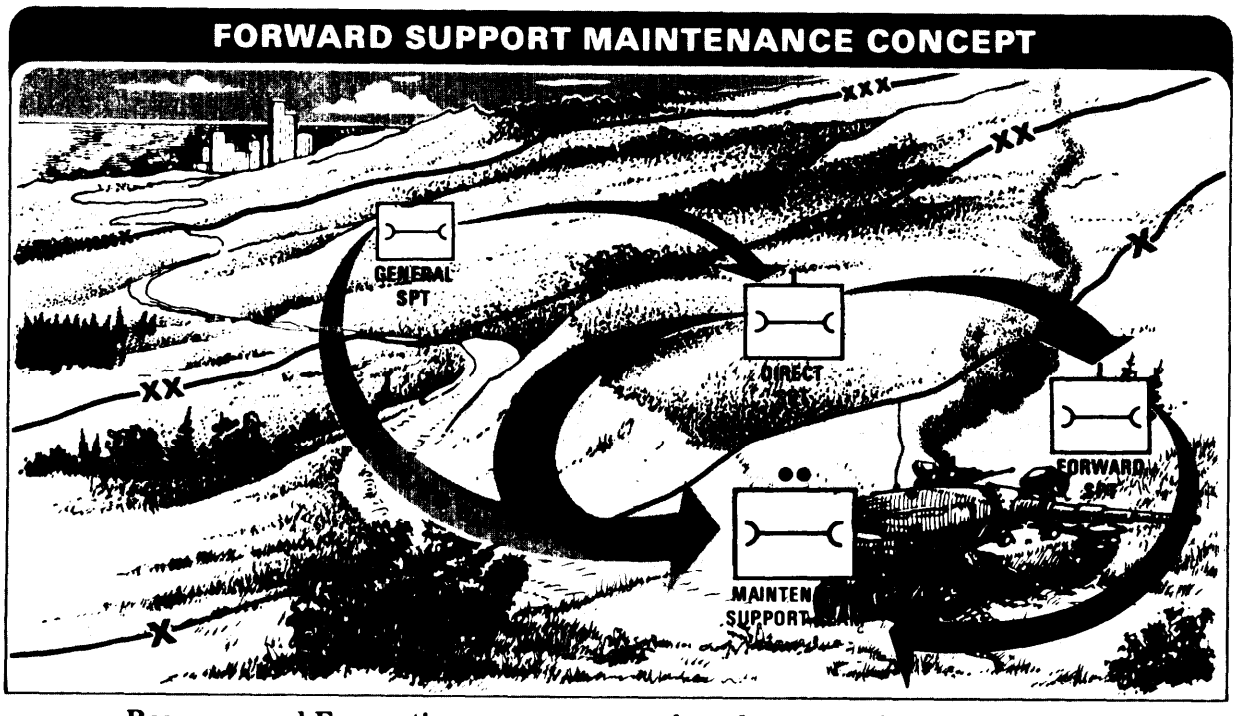
follows an established sequence (shown below). In a contingency operation, the highest Army headquarters deals directly with the CONUS support base.

Maintenance. The CSS system maintains combat capability with operations that provide forward support, recovery and evacuation, repair parts supply and direct exchange, and battlefield controlled exchange and cannibalization.

Forward Support

Organizational maintenance teams assess equipment damage. They determine the appropriate disposition based on the extent of damage and the combat situation. To reduce the time required to return equipment to battle, support teams repair it as far forward as possible. This is the essence of the forward support maintenance concept. Under this concept, maintenance support teams from corps and division maintenance units in forward areas assist the mechanics assigned to combat units. Teams consider controlled exchange of parts or components prior to evacuation, but they do not remove parts from systems which can be repaired quickly. Extensively damaged systems may be sources of repair parts.





Recovery and Evacuation

Recovery operations remove materiel from forward combat areas to nearby safe locations for immediate repair or, if forward repair is not practical, to the unit's field trains. Other useful materiel, including enemy materiel, is also retrieved from the battlefield. Each unit is responsible for recovering its own damaged equipment. Wreckers and other recovery vehicles in the maintenance element of the battalion move equipment that cannot be repaired on site to collection points along designated routes. Immovable items remain in place until supporting maintenance units can recover them.

Evacuation operations move equipment from the recovery site or maintenance collection point to an area where it can be repaired or cannibalized or from which it can be evacuated farther. Maintenance, supply, and transportation elements coordinate evacuation efforts.

Repair Parts Supply and Direct Exchange

Direct support (DS) maintenance units supply repair parts. Units can exchange selected recoverable and repairable components for serviceable items. Direct support and general support (GS) maintenance units requisition repair parts through supply channels.

Battlefield Controlled Exchange and Cannibalization

Forward maintenance support also involves battlefield controlled exchange and cannibalization. In controlled exchange, maintenance units remove serviceable parts from unserviceable but economically repairable equipment, using them on like equipment so that it can be returned to combat immediately. Unserviceable parts should stay with the equipment from which the serviceable parts were taken. Controlled exchange decisions should be made as close to the damaged or disabled equipment as possible, preferably by using-unit maintenance personnel. Both using and support units will practice controlled exchange extensively on the battlefield. To cannibalize is to remove parts from irreparable equipment for stockage or immediate use. Guidelines for cannibalization and controlled exchange are established at higher headquarters.

Personnel. The CSS system maintains combat capability by providing support to personnel.

Personnel support operations maintain unit strength and see to the morale and welfare of the individual soldier. Personnel support includes—

- **Personnel services.**
- **Chaplain activities.**
- **Administrative services.**
- **Legal services.**
- **Health services.**
- **Comptroller and finance services.**
- **Morale and welfare support services.**
- **Personnel automatic data processing (ADP) support and services.**
- **Public affairs.**

Personnel Services

Accurate strength accounting necessary for long-range tactical planning is handled through the Standard Installation/Division Personnel System (SIDPERS). To support current operations, units feed personnel status reports to the battalion Personnel and Administration Center (PAC) by the most expeditious means possible. Precision and detail may be sacrificed in the interest of timeliness. Personnel staff officers provide immediate staff reports to commanders and operation centers at each echelon.

Troop Replacement

The theater replacement system requires centralized planning and decentralized execution. Timely individual and unit replacements keep combat units effective. HQDA coordinates and directs the flow of replacements. Without waiting for theater requisitions, HQDA assigns personnel replacements for the first 60 days. It does so based on the strength of the deployed force and on estimated battle losses. Using requisitions and casualty reports from the theater, it reevaluates and updates the estimates to maintain a constant replacement flow.

Commanders may have to adjust strength between companies or battalions, moving soldiers from some units to maintain the effectiveness of others. Reorganizing units at brigade level will provide quick replacements until the requisition process can begin. However, commanders must judge unit effectiveness by more than personnel strength. It is seldom a good idea to break up a proficient team in combat.

Within the theater, replacement requisitions begin at the lowest level that can accurately determine needs. Each level of command validates and adjusts its requirements, with critical military specialties receiving the highest priority.

Casualty Reports

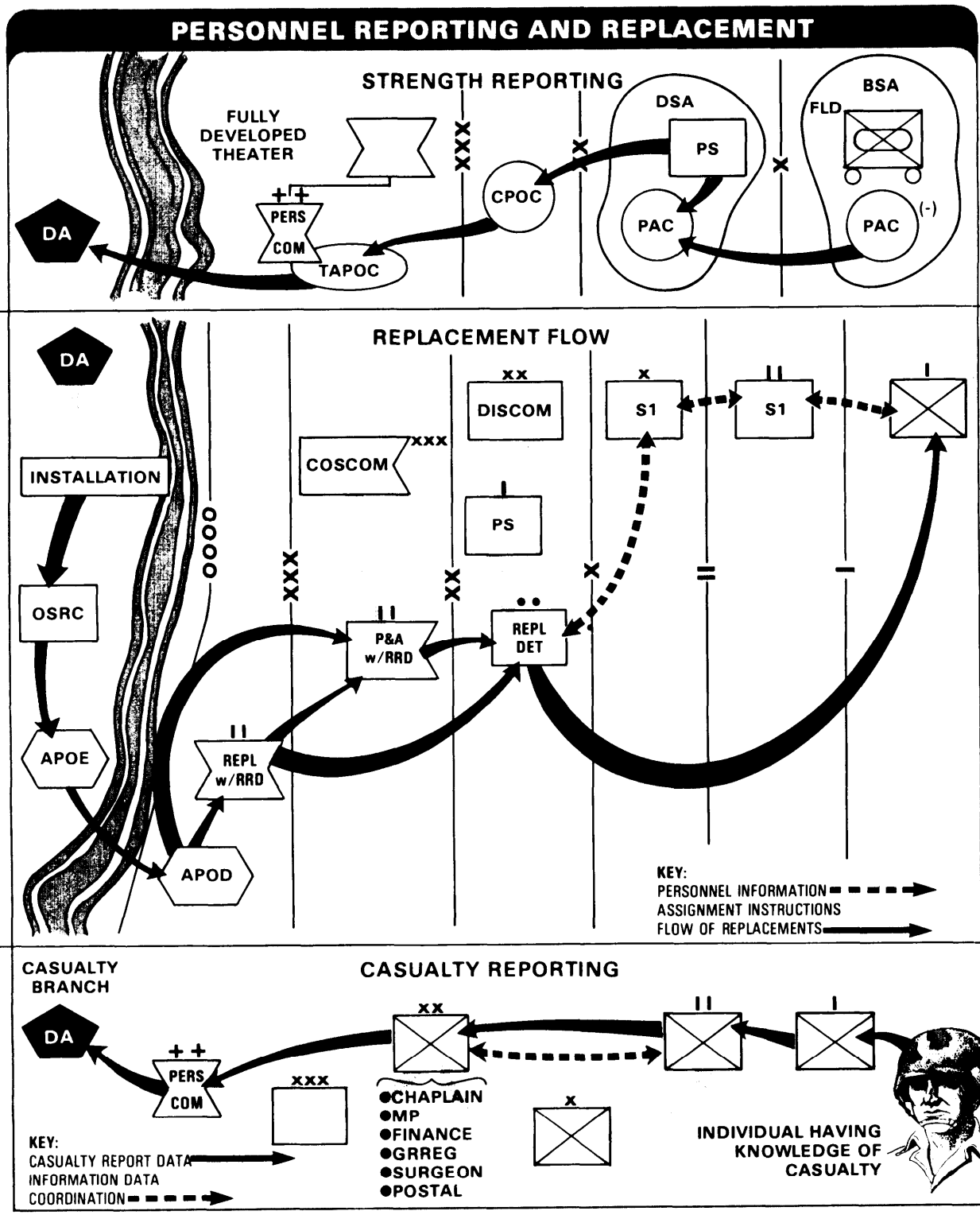
Prompt and accurate casualty reports are of great importance. Casualty reporting channels account for personnel, and they influence the flow and distribution of replacements.

Health Services

In all wars involving US troops, more soldiers have been hospitalized by disease and noncombat injuries than by enemy action. The proportion has run as high as 3 to 1. The health service mission is to conserve fighting strength by promoting and maintaining the general health of all soldiers in the theater. Health service support functions include—

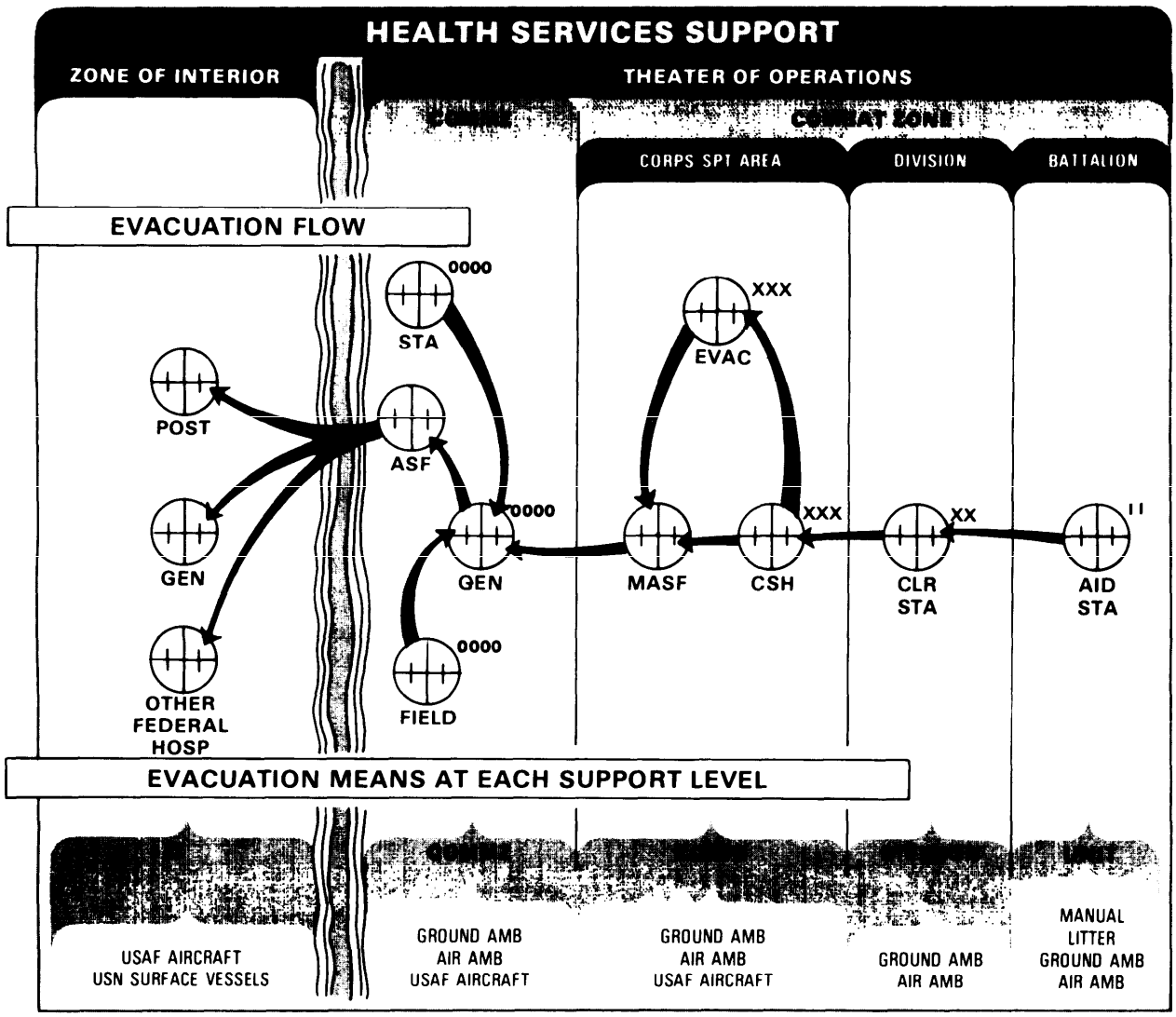
- **Medical treatment and hospitalization.**
- **Intratheater medical evacuation.**
- **Medical regulating.**
- **Blood bank services.**
- **Medical materiel supply and maintenance.**
- **Dental services.**
- **Veterinary services.**
- **Preventive medicine.**
- **Medical consultation.**

Health service support within a theater of operations is organized into levels: unit, division, corps, and COMMZ. A system of


PERSONNEL REPORTING AND REPLACEMENT
STRENGTH REPORTING
FULLY DEVELOPED THEATER
DSA
BSA
FLD
PS
CPOC
PAC
PAC
(-)
DA
PERS COM
TAPOC
REPLACEMENT FLOW
DA
DISCOM
S1
S1
INSTALLATION
COSCOM
PS
OSRC
P&A w/RRD
REPL DET
APOE
REPL w/RRD
APOD
KEY:
PERSONNEL INFORMATION
ASSIGNMENT INSTRUCTIONS
FLOW OF REPLACEMENTS
CASUALTY BRANCH
CASUALTY REPORTING
DA
PERS COM
●CHAPLAIN
●MP
●FINANCE
●GRREG
●SURGEON
●POSTAL
INDIVIDUAL HAVING KNOWLEDGE OF CASUALTY
KEY:
CASUALTY REPORT DATA
INFORMATION DATA
COORDINATION

increasingly sophisticated treatment organizations, beginning with the unit aidman, provides medical treatment and hospitalization. In general, each level of health service support has treatment capabilities similar to the levels just below it, as well as additional, more sophisticated capability. Each level of medical support has air or ground medical evacuation assets. The preferred method is by air. Use, however, depends on availability, the treatment required, the locations of adequate treatment facilities, tactical situations, and weather. Patients will be evacuated no farther than necessary. A system of medical regulating elements located at the medical command and control headquarters controls this flow.

To insure that soldiers are physically able to fight, commanders must establish comprehensive programs of health preservation and restoration. The theaterwide health services system provides four levels of medical support, evacuation, and treatment facilities.



Field Services

Field services generally include—

- **Laundry.**
- **Bath.**
- **Clothing exchange.**
- **Bakery.**
- **Textile renovation.**
- **Salvage.**
- **Decontamination.**
- **Graves registration.**
- **Clothing renovation.**
- **Post exchange sales.**
- **The provision of general duty labor.**

The supply and transportation battalion is responsible for providing water.

In peacetime, divisions do not have graves registration or clothing exchange and bath capabilities. During wartime these capabilities are provided by augmentation.

The DISCOM supply and service company, when augmented with a graves registration platoon, handles graves registration. If graves registration platoons are not available during the early stages of combat, it may be necessary to train unit personnel in recovery, identification, care, and burial of remains. Remains are evacuated to collection points in the brigade support area, then to a collection point in the division support area, and from there to a corps collection point.

COSCOM field services companies, not the division, provide laundry service. COSCOM detachments also perform post exchange sales, when provided. The supply and service company, when augmented with a clothing exchange and bath platoon, provides clothing exchange and bath services.

The supply and service company salvages damaged and irreparable equipment. The company operates salvage collection points in the brigade support areas and in the division support area. These points are normally collocated with the maintenance battalion's maintenance collection points. It also operates salvage collection points in support of units in the corps rear area.

Transportation. As the connecting link between other logistic functions, transportation moves personnel and materiel. It moves repaired equipment from maintenance units to storage areas or using units. It moves supplies, including repair parts, where they are needed. It moves personnel replacements from reception areas to combat units.

The transportation elements within a theater perform three functions: modal operations, terminal operations, and movement management. Modal operations move personnel or materiel in any conveyance by air, rail, road, and water. Terminal operations shift cargo from one mode of transportation to another or from one type of transport within a mode to a different type. Only echelons above the division have terminal operations capability. Movement management involves the staff planning and coordination necessary to the transportation system's effectiveness.

CHAPTER 6

Tactical Intelligence

TO BE EFFECTIVE, the commander must know the battlefield. He must surprise the enemy and catch him at a disadvantage as often as possible. He must avoid the enemy's strengths and exploit his weaknesses. To do so, he must know the area of operations, the conditions, and the nature, capabilities, and activities of his enemy. He must know when and where to concentrate combat power. This information is obtained through intelligence activities. Intelligence provides the basis for tactical and operational decisions. This chapter describes the areas of interest and influence and the information-gathering resources of each level of command. It also discusses how the intelligence system links different echelons of command. Finally, it surveys how the commander uses intelligence operations and tactical counterintelligence (CI) to see the battlefield.

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SCOPE OF INTELLIGENCE

Commanders normally consider the battlefield in terms of the time and space necessary to defeat an enemy force or to complete an operation before the enemy can reinforce. Commanders should view the battlefield as having two distinct areas: an area of *influence* in which commanders fight the current battle and a larger area of *interest* in which commanders carefully monitor enemy forces that might affect future operations.

Areas of influence and interest are important because they normally contain the forces and features which constitute essential elements of information (EEI). They are means of focusing a unit's collection effort on the most important terrain or enemy units during an operation. The actual dimensions of influence and interest areas vary with the factors of METT and reflect the design of each operation. Time is the primary consideration. Higher headquarters convert time to distance so that reconnaissance, surveillance, and target-acquisition resources can focus to support the concept of operations. At corps level, for example, an operation generally takes 3 to 4 days. Therefore, the corps area of influence extends for about 72 hours beyond the FLOT, covering an area within which the corps will fight enemy formations that influence the operation.

AREAS OF INFLUENCE

In an area of influence, commanders locate and monitor the progress of those enemy formations that can affect their current operations, fighting them when necessary with organic and/or supporting means. The actual area of concern will vary in size with the nature of the terrain, the mobility and dispositions of the enemy, and the capability of the friendly unit to react to enemy actions. Commanders monitor enemy forces beyond the FLOT or attack objectives according to the criteria below.

Level of Command		Time Beyond FLOT or Attack Objectives
Battalion	-	up to 3 hours
Brigade	-	up to 12 hours
Division	-	up to 24 hours
Corps	-	up to 72 hours
Echelons above corps (EAC)	-	up to 96 hours

AREAS OF INTEREST

Areas of interest extend beyond areas of influence. They include adjacent territory occupied by enemy forces capable of affecting a commander's operations in the near future. Commanders' guidelines for these limits appear below.

Level of Command		Time Beyond FLOT or Attack Objectives
Battalion	-	up to 12 hours
Brigade	-	up to 24 hours
Division	-	up to 72 hours
Corps	-	up to 96 hours
EAC	-	beyond 96 hours

Each echelon of command receives information about enemy forces in its area of interest primarily from higher and adjacent commands. This information may also come from tactical units, other services, allies, or national agencies. It is provided to operating units through the all-source intelligence center (ASIC) system.

INTELLIGENCE COLLECTION

Continuous reconnaissance is the responsibility of all commanders. With or without specific orders, every unit must be prepared to conduct reconnaissance, surveillance, and target acquisition (RSTA) with every means at its disposal. RSTA obtains reliable information about the enemy and the area of operations as quickly and as completely as possible. With this information commanders estimate enemy capabilities and courses of action. Reconnaissance seeks to discover the types, strengths, organizations, and behaviors of enemy forces and their locations, directions, and speeds.

The RSTA must be directed. The commander must establish priorities for the EEI he needs. He should task each reconnaissance activity or subordinate unit to work first on the information essential for continued operations. The more rapidly the situation changes and the more far-ranging and mobile combat operations are, the more important reconnaissance becomes. Commanders routinely report essential RSTA results to subordinate and adjacent units, as well as to the next higher echelon of command.

BATTALION

The battalion needs information about the enemy forces it is fighting or may have to fight. Tank and infantry companies, scouts, ground surveillance radar (GSR) sections, patrols, and artillery fire support teams (FIST) are the organic and supporting forces that obtain most of the information in the battalion area of influence. The battalion reports such information to its companies, adjacent battalions, and the brigade. The brigade and division provide area of interest information to the battalion.

BRIGADE

A divisional brigade may have no organic reconnaissance or security forces. The brigade obtains information about the area of influence from subordinate battalions, divisional or corps intelligence units, supporting field and air defense artillery units, divisional or corps cavalry, and adjacent brigades. The brigade reports the information it collects to its battalions, adjacent brigades, and the division. The division or corps reports area of interest information to the brigade.

DIVISION

In the attack, the division interdicts echelons, reserves, and other enemy combat and combat support forces that are positioned in depth and can affect the operations of its brigades. In the defense, the division interdicts enemy follow-on forces to disrupt and delay them before they can join the battle.

Division commanders should locate enemy—

- **Regimental, divisional, and army command posts.**
- **Reserves.**
- **Cannon and rocket artillery (particularly nuclear and chemical delivery units).**
- **Air defense, radio electronic combat, aviation, airborne, and airmobile units.**
- **Service support forces in, or moving to, the division's area of influence.**

The division reports such information to subordinate units, adjacent divisions, and corps.

The division's own troops and the RSTA efforts of adjacent divisions and the corps provide area of influence information about enemy activities and terrain to the division. The primary intelligence collection assets of the division are its—

- **Subordinate brigades.**
- **Cavalry squadron.**
- **Military intelligence battalion.**
- **Divisional artillery (especially its target-acquisition units).**
- **Nuclear, biological, and chemical (NBC) reconnaissance platoon.**
- **Air defense battalion.**
- **Divisional engineer and aviation units.**

Tactical air reconnaissance, corps, and echelons above corps (EAC), including national systems, may also provide necessary information about locations, strengths, and movements of enemy forces and projections on when they will enter areas of influence.

CORPS

The corps is generally the first level of command where reports from national and tactical intelligence systems come together. Analyzing this information, an attacking corps commander directs, coordinates, and supports divisions operating against enemy combat and combat support forces. In the defense, the corps interdicts follow-on enemy forces, disrupting and delaying them before they can join the battle.

Within his areas of influence, a corps commander attempts to locate the enemy's—

- **Division and army command posts.**
- **Nuclear and chemical delivery systems.**
- **Radio electronic combat units.**
- **Logistics installations.**
- **Communications centers.**
- **Frontal aviation operations centers.**

A corps gets this information from—

- **Subordinate divisions and brigades.**
- **Armored cavalry regiments.**
- **Artillery units.**
- **Military intelligence groups.**
- **Aviation groups.**
- **Engineers.**
- **Adjacent corps.**

Tactical air reconnaissance, the reports of theater air defense brigades, and the assets of

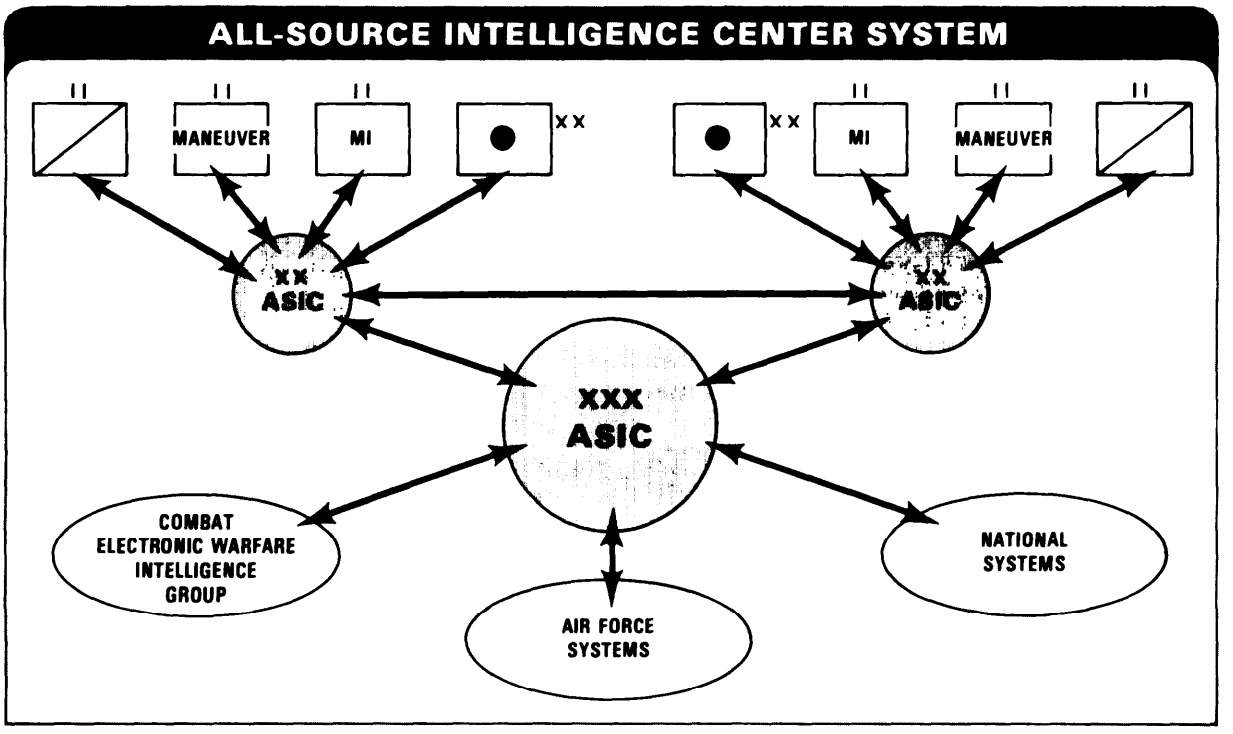
higher levels of command and allied forces also contribute to the corps intelligence effort.

A corps provides the information it collects to divisions, adjacent corps, and echelons above corps. A corps needs to know what enemy forces are in its area of interest, where they are going, and when they are expected to enter the corps area of influence. Echelons above corps, including national systems, provide this intelligence.

ECHELONS ABOVE CORPS (THEATER ARMY AND ARMY GROUP)

Division ground units and corps assigned reconnaissance and surveillance units can provide much of the information out to 150 kilometers beyond the FLOT. Military intelligence and cavalry units, which have primary responsibilities for intelligence collection, carry much of this load. Information and intelligence about the enemy and areas beyond 150 kilometers from the FLOT are provided to EAC and below by Army intelligence and electronic warfare (IEW) organizations at EAC. The Army IEW structure at EAC fills US combat, support, and national requirements and provides intelligence for use by US joint and allied commands. Army IEW units at EAC interface with US Air Force and US Navy intelligence operations; they can also function with allied military forces and host nations. Army IEW units at EAC work with units from other US services and from national agencies and request collection coverage from them as required.

Army IEW units at EAC are tailored to fit specific needs of the commands at EAC. IEW at EAC supports both corps forces and Army units at EAC. The IEW organizations can also support a US unified or joint command and other US service components. IEW support to combined operations is conducted in accordance with multinational agreements, bilateral agreements, and less formal arrangements between two or more nations.



THE INTELLIGENCE SYSTEM

The intelligence system coordinates the collecting means of subordinate levels of command, taps external sources and supporting assets of higher levels of command for intelligence, and analyzes the information from all sources. It links all levels of command together through ASICs which provide rapid and reliable intelligence for tactical commanders.

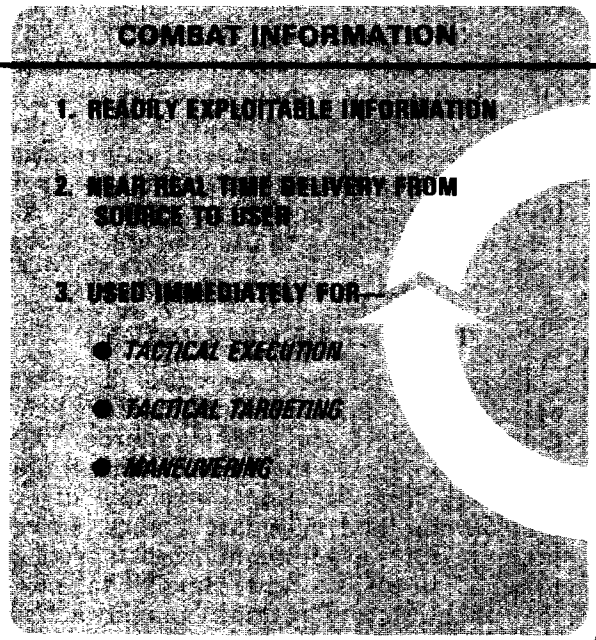
Intelligence, however, is not necessarily the same as combat information. Raw data that can be used for fire or maneuver as received, without interpretation or integration with other data, is combat information. Combat information is used for the rapid tactical execution of maneuvers and fire support in response to the immediate enemy situation. Once validated, integrated, compared, and analyzed, raw data may become intellience. In some cases, the same data can be both combat information and intelligence.

Systems of intelligence and electronic warfare support measures (ESM) acquire a great deal of combat information. Those systems must provide immediate information to commanders for combat action, and they must also forward the information for processing by intelligence production centers.

Combat systems operators, commanders, and staffs must exchange combat information freely to insure its timely exploitation. Intelligence officers must be trained to make immediate distribution. Higher commands can sometimes supply necessary intelligence. For example, EAC and national-level collection assets support corp requirements, and corps collecting means support division and brigade operations.

The intelligence and electronic warfare organizations at EAC, corps, and division analyze and integrate information from all sources. Brigades, battalions, and companies normally report combat information up, and receive intelligence down, their respective chains of command.

COMBAT INFORMATION AND INTELLIGENCE DISTINCTIONS



INTELLIGENCE

1. ALL-SOURCE/COMPLEX INFORMATION
2. DETAILED ANALYSIS DELIVERED IN HOURS
3. USED BY HIGHER COMMANDERS FOR—
   - *PLANNING*
   - *MOVEMENT/CONCENTRATION*
   - *LONG-RANGE TARGETING*

INTELLIGENCE OPERATIONS

Intelligence operations are the organized efforts of a commander to gather information on terrain, weather, and the enemy. Assembling an accurate picture of the battlefield requires centralized direction, simultaneous action at all levels of command, and timely distribution of information throughout the command. Intelligence operations normally begin before contact and continue as the battle develops.

NO COMMANDER CAN SUCCEED UNLESS HE DEMANDS AND RECEIVES THE INTELLIGENCE AND COMBAT INFORMATION HE NEEDS

DIRECTION

Commanders provide direction for the intelligence effort by articulating EEI and other intelligence requirements (OIR) needed in the decision-making process. To insure that intelligence provides the basis for timely tactical decisions, commanders must plan and control intelligence operations with the same level of interest and personal involvement as they normally devote to combat operations. Intelligence must respond to commanders.

The intelligence officer (G2 or S2) must inform the commander and all others concerned regarding the enemy situation and capabilities, terrain, and weather. The G2 or the S2 converts the commander's EEI and OIR into specific missions for available collection resources. He directs the evaluation and interpretation of information collected from all sources, and he directs the timely dissemination of intelligence and combat information to the concerned units.

TARGET DEVELOPMENT

Target development provides direct and correlated information which meets the commander's target selection standards. These standards support the overall tactical plan. The targeting function correlates diverse information and cues intelligence, surveillance, and target-acquisition assets to provide accurate and timely detection, identification, and location of enemy activity in sufficient detail for effective attack.

INTELLIGENCE PREPARATION OF THE BATTLEFIELD

Intelligence preparation of the battlefield (IPB) should start well before combat operations begin. The IPB is a continuous, integrated, and comprehensive analysis of the effects of terrain, weather, and enemy capabilities on operations. Using overlays, graphic displays, and templating techniques, the IPB process increases the accuracy and timeliness of the intelligence available to the commander. Continuous IPB is a major function of the intelligence officer who—

- **Directs intelligence-collection activities.**
- **Assesses their results.**
- **Refines the requirements for further collecting efforts.**
- **Develops targets.**
- **Provides OPSEC information to the G3.**

Overlays. In the initial analysis, a series of overlays can clearly depict terrain and the effects of weather:

- **OBSTACLE OVERLAYS mark existing and reinforcing barriers or obstructions.**
- **AVENUES-OF-APPROACH OVERLAYS identify routes as good, poor, or best; and they indicate the type of traffic for the route—wheeled or tracked vehicles, foot troops, helicopters, and high-performance aircraft.**
- **TRAFFICABILITY OVERLAYS specify the type of soil and degree of slope and show which vehicles can pass under which conditions—drought, rain, snow, and freezing or melting precipitation.**
- **INTERVISIBILITY OVERLAYS indicate how vegetation, terrain, and weather interfere with visual contact.**

OVERLAYS PROVIDE INCISIVE INTELLIGENCE ABOUT TERRAIN, WEATHER, MOBILITY, AND VISIBILITY

Templates. The commander and his intelligence officer review opposing force doctrine and tactics before the battle begins. This review, together with weather and terrain information, allows the construction of doctrinal, situational, and event templates. Templates are normally prepared at corps and division level, but separate brigades conducting independent operations may also

develop them. These templates come in three general types:

- **DOCTRINAL TEMPLATES are models based on enemy tactical doctrine. They generally portray his frontages, depths, echelon spacing, and force composition, as well as his disposition of combat, combat support, and combat service support units for a given type of tactical operation.**
- **SITUATIONAL TEMPLATES are a series of projections that portray how the doctrinal templates will most probably appear when they are applied to a specific piece of terrain or an avenue of approach under specific weather conditions.**
- **EVENT TEMPLATES serve as models against which enemy activity can be recorded and compared. They represent a sequential projection of events that relate to space and time on the battlefield, and they indicate the enemy's ability to adopt a particular course of action.**

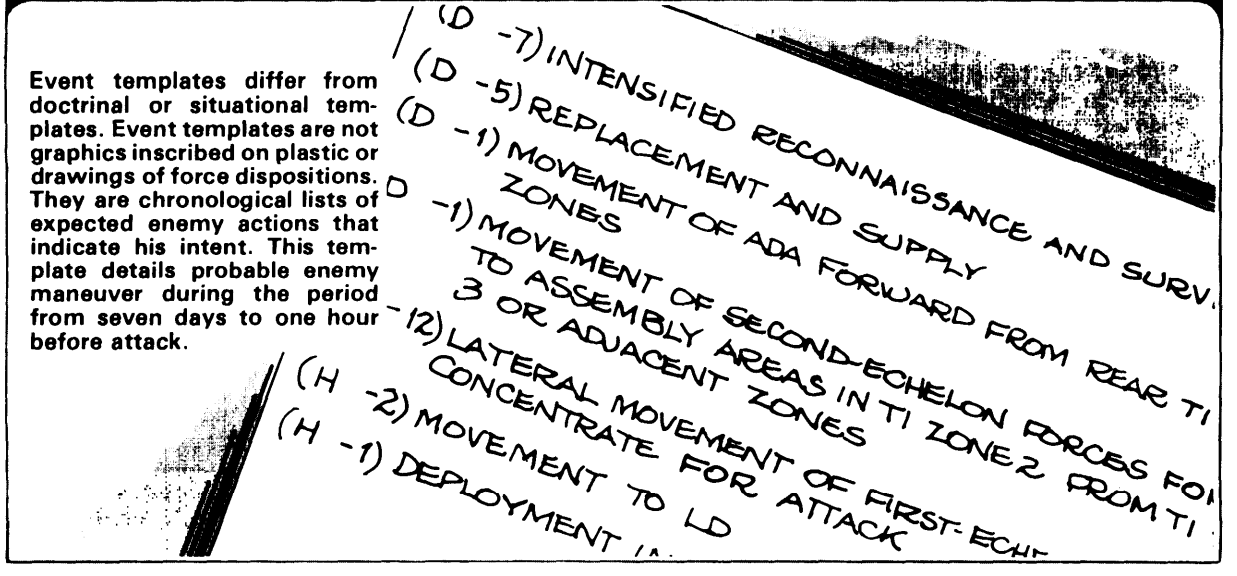
An enemy force preparing for action usually follows a procedural sequence. It may begin as he positions strongpoints in the security zone up to 30 kilometers in front of his main defense belt. Similarly, he may conduct reconnaissance and move into assembly areas before an attack. He must also pre-position supplies, POL, and ammunition; move command posts; and displace his artillery well forward. These events indicate his possible intentions. When enemy activity points to a particular course of action, the commander is alerted.

Once event templates have identified the enemy's general activities, the commander and the intelligence officer direct their attention toward specific areas or windows of interest. Comparing these windows with doctrinal templates, the commander can determine the enemy's options and possible courses of action.

Doctrinal templates postulate enemy dispositions and operations on the basis of doctrinal norms and observed activities. Thus, they are rough tools. Templates can be used in preliminary targeting and for directing surveillance or reconnaissance operations. They must, however, be considered as approximations and be used carefully since they are subject to significant error and are susceptible to the enemy's deception efforts.

EXAMPLE OF AN EVENT TEMPLATE

Event templates differ from doctrinal or situational templates. Event templates are not graphics inscribed on plastic or drawings of force dispositions. They are chronological lists of expected enemy actions that indicate his intent. This template details probable enemy maneuver during the period from seven days to one hour before attack.



TACTICAL COUNTERINTELLIGENCE

OPERATIONS SECURITY

Tactical CI supports OPSEC by identifying vulnerabilities and by eliminating or controlling the intelligence indicators susceptible to hostile exploitations. Intelligence support to OPSEC consists of developing and analyzing data on the enemy's intelligence-collecting capabilities and on friendly profiles. Such an analysis uncovers the sensitive aspects of a planned operation; determines essential elements of friendly information (EEFI) that, if known by the enemy, will compromise the operation; and assesses friendly susceptibilities. The G2 or the S2 assists the G3 or the S3 in making these determinations and risk assessments. Then the G3 or the S3 OPSEC staff officer uses them to propose effective countermeasures to the commander.

Tactical CI also includes a wide range of operations such as countersabotage, counterespionage, internal security investigations, personnel, and information security. All are designed to thwart hostile all-source collecting efforts in a tactical environment. The CI estimate assesses the enemy's view of friendly forces, identifies our vulnerabilities, and recommends corrective actions that should be included in the commander's OPSEC annex. Such actions might include—

- **COUNTERSURVEILLANCE—actions to protect the true status of friendly activities and operations.**
- **COUNTERMEASURES—actions to eliminate or to reduce the enemy intelligence and electronic warfare threat.**
- **DECEPTION—actions to create a false picture of friendly activities and operations.**

To deceive the enemy, the commander must first know how he collects information. The enemy collects intelligence by using three primary methods:

- **HUMAN INTELLIGENCE (HUMINT). This threat can be minimized by aggressive CI and security practices assisted by territorial security forces—local military, paramilitary, police, and intelligence organizations.**
- **IMAGERY. Detection from hostile overhead platforms can be reduced by concealment and camouflage.**
- **ELECTROMAGNETICS. This threat is the primary enemy tactical intelligence capability. Communications and electronics discipline and security must be imposed to shield our intentions and actions from hostile electromagnetic observation.**

Tactical CI operations supported by intelligence data and detailed preparation of the battlefield are prerequisites to deception. The enemy's intelligence collection capability must be accurately understood before any deception operation is undertaken. For deception, damaged equipment and weapons can be realistically positioned. While dummies cannot often deceive imagery, real inoperative equipment can if it is placed in realistic, covered, and camouflaged positions. Phantom nets operated by specially trained and equipped units can deceive and mislead the enemy. Smoke can also be used in decoy and deception operations to obscure the view of real, as well as notional, positions and facilities. These operations present a fictitious order of battle and tend to overload enemy acquisition systems. Tactical CI and OPSEC require central management by the senior tactical commander and decentralized execution. Well used, CI and OPSEC can significantly enhance the relative combat power of units.

ELECTRONIC WARFARE

Intelligence support to electronic warfare (EW) involves intercepting signals and direction finding to provide target-acquisition data for jamming, electronic deception, or other forms of combat capability. The use of an all-source data base to support the EW function is discussed further in chapter 7.

CHAPTER 7

Conduct of Operations

FUTURE BATTLES AND CAMPAIGNS have the potential for extending over greater distances and continuing longer than any military operations of the past. Victory in such battles will demand complete unity of effort and thoroughly synchronized air and ground action. To win, our forces must use every element of combat power and keep each in operation. They must also coordinate combined arms effectively. Applying AirLand Battle doctrine, a fully synchronized small force can defeat a much larger enemy force that is poorly coordinated.

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AIRLAND BATTLE FUNDAMENTALS

AirLand Battle doctrine takes a nonlinear view of battle. It enlarges the battlefield area, stressing unified air and ground operations throughout the theater. It distinguishes the operational level of war—the conduct of campaigns and large-unit actions—from the tactical level. It recognizes the nonquantifiable elements of combat power, especially maneuver which is as important as firepower. It acknowledges the importance of nuclear and chemical weapons and of electronic warfare, and it details their effects on operations. Most important, it emphasizes the human element: *courageous, well-trained soldiers and skillful, effective leaders.*

In execution, the AirLand Battle may mean using every element of combat power from psychological operations to nuclear weapons. The battlefield includes every area and enemy unit that can affect the outcome of the immediate fight, and it extends into the area of interest where future operations will take place. An innovative approach to fighting at both the tactical and operational levels,

all arms, all services, and all means of support.

To insure success, AirLand Battle doctrine concentrates on—

- **Indirect approaches.**
- **Speed and violence.**
- **Flexibility and reliance on the initiative of junior leaders.**
- **Rapid decision-making.**
- **Clearly defined objectives and operational concepts.**
- **A clearly designated main effort.**
- **Deep attack.**

AirLand Battle offensives are rapid, violent operations that seek enemy soft spots, remain flexible in shifting the main effort, and exploit successes promptly. The attacker creates a fluid situation, maintains the initiative, and destroys the coherence of the enemy defense. Using supporting and reserve units flexibly, the attack must continue for as long as it takes to assure victory.

AirLand Battle defenses combine static and dynamic elements. Static strongpoints and battle positions and dynamic delays and counterattacks are supported by effective deep attack. This allows the defender to defeat the attacker's momentum, to present him with the unexpected, to defeat his combined arms cooperation, and to gain the initiative.

Whether attacking or defending, any US force operating anywhere in the world must secure the initiative as early as possible and exercise it aggressively. It will use every weapon, asset, and combat multiplier to gain the initiative and to throw the enemy off balance with a powerful blow from an unexpected direction. *It will follow up rapidly to prevent his recovery.* At the operational level, the force will defeat the enemy by destroying his critical units or facilities. At the tactical level, both attrition and massed fires, substituting for massed troops, will occasionally facilitate decisive maneuver at the operational level. At both the tactical and operational levels and for all levels of command, initiative, depth, agility, and synchronization are the essence of AirLand Battle doctrine.

Initiative, the ability to set the terms of battle by action, *is the greatest advantage in war.* Whether US forces are attacking or defending, they must seize and preserve the initiative to hasten the enemy's defeat and to prevent his recovery. Subordinate commanders must understand the well-defined objectives thoroughly and be aggressive. They must be able to act independently when electronic warfare, the destruction of friendly forces and headquarters, or the confusion of war disrupt command and control communications.

Depth refers to time, space, and resources. Deep attack is neither a sideshow nor an unimportant optional activity; it is an inseparable part of a unified plan of operation. Plans for the deep battle must be realistic, complete, and firmly linked to the commander's central concept for an operation.

Combat will extend throughout the operational area, and deep actions will influence the outcome of the battle between committed forces. Improved sensors, long-range weapons, and a responsive intelligence distribution system can be used to great advantage in the deep battle. Using all available assets, the commander must protect his own rear area and attack the enemy's uncommitted forces and support facilities. He must be ready to carry the battle into new areas, to fight and support for extended periods, to operate without interruption even if the enemy resorts to nuclear weapons, and to convert battlefield successes into campaign advantages.

Agility means acting faster than the enemy to exploit his weaknesses and to frustrate his plans. It implies a constant effort to pit friendly strengths against enemy weaknesses. Agility involves maneuver which concentrates friendly strength in vulnerable areas and tactics which exploit friendly

technical, human, or geographical advantages, while avoiding enemy strengths. Good intelligence, imaginative planning, flexible operational techniques, and responsive tactical units are indispensable in achieving superior agility. Mission orders, initiative, maneuver, and the readiness to exploit fleeting advantages rapidly all foster agility.

Synchronization combines economy of force and unity of effort so that *no effort is wasted* either initially or as operations develop. The commander's concept of operation determines the design of all supporting plans. Attaining the commander's goal usually depends on whether his maneuver plan succeeds and on whether the combat and combat support units accomplish their critical tasks. The designated main effort must be supported by every means necessary and maintained or shifted as the battle progresses or the campaign matures. In nonlinear combat, maneuver units from company to corps must support their main efforts continuously and modify them quickly if the situation changes.

The actual or potential use of nuclear weapons will significantly affect the battle. Depending on deception, surprise, target acquisition, and user boldness, nuclear strikes can change the course of a battle suddenly and decisively. Nuclear weapons give the commanders the ability to hold the enemy at risk throughout their areas of influence. When facing a nuclear-capable enemy, commanders plan and conduct their operations so they can continue synchronized operations without interruption if nuclear weapons are used. When nuclear or chemical weapons are being used, fire support may be more important than maneuver or combat support.

BATTLE COMMAND AND CONTROL

Command and control is the exercise of command, the means of planning and directing campaigns and battles. Its essence lies in applying leadership, making decisions, issuing orders, and supervising operations. At the operational level it concerns the organizations, procedures, facilities, equipment, and techniques which facilitate the exercise of command. A comprehensive discussion of all command and control elements is contained in FM 101-5.

Staffing, equipment, and organizational concerns vary among levels of command. In every case, however, the only purpose of command and control is to implement the commander's will in pursuit of the unit's objective. The system must be reliable, secure, fast, and durable. It must collect, analyze, and present information rapidly. It must communicate orders, coordinate support, and provide direction to the force in spite of enemy interference, destruction of command posts, or loss and replacement of commanders. The key measure of command and control effectiveness is whether it functions more efficiently and more quickly than the enemy's. Effective operations depend on its superiority.

Communications on the contemporary battlefield will be uncertain. Opportunities to inflict damage on the enemy and to accomplish the mission will arise and pass quickly. Command and control doctrine assumes that subordinate commanders exercise initiative within the context of the higher commander's concept. Staff assistance and coordination are indispensable to conducting sustained operations, but the mutual understanding which enables commanders to act rapidly and confidently in the crisis of battle is equally important.

COMBINED ARMS

Victory on the battlefield will hinge on fully synchronizing combat forces. Weapons and units are more effective when they operate jointly than when they function separately.

The term *combined arms* refers to two or more arms in mutual support to produce complementary and reinforcing effects that neither can obtain separately. Technically, combined arms refers to coordinating weapons of differing characteristics. For example, guns and missiles can combine in the air defense of a key installation; or mines, mortars, or grenade launchers can cover the dead space of a machine gun's field of fire. Tactically, combined arms refers to coordinating units of different arms or capabilities. For example, armor and mechanized infantry should operate together routinely. Artillery and mortars must support their maneuver, and engineers must assist it. Air defense must cover vulnerable forces and facilities. *Complementary combined arms should pose a dilemma for the enemy.* As he evades the effects of one weapon or arm, he places himself in jeopardy of attack by the other.

Combined arms also reinforce each other. The effects of one supplement the effects of another to create a cumulative effect. This massing of effects is also discernible at both technical and tactical levels. Technically, it may involve engineer preparation of fighting positions, the teamwork of observation and attack helicopters, or the massing of all antitank fires against an armored threat. Tactically, it may involve concentrating all types of maneuver forces or fires to create mass.

At the tactical level, forces maneuver to attack the enemy's flanks, rear, or supporting formations. Doing so sustains the initiative, exploits success, and reduces vulnerability. Normally supported by direct and indirect fires, tactical maneuver attempts to obtain a local position of advantage. Often part of the maneuvering force provides fire to support movements of other parts. Once it comes into contact with the enemy, the maneuvering force advances using the fire and movement technique. One element of an engaged force adds its suppressive direct fires to the supporting indirect fires of mortars, artillery, naval guns, or close air. This firepower makes movement by another element possible. A force may close with the enemy by alternating its elements between fire and movement.

At the operational level, corps and divisions maneuver to envelop, to turn, to penetrate, or to block enemy forces. Although it may not be directly tied to fire, such movement is also maneuver.

Effective use of maneuver and firepower depends on good intelligence throughout a unit's areas of interest and influence. It also requires sound staff and operational procedures that permit rapid and coordinated reaction to opportunity. Through battle drill, battalions and smaller units attain the speed and flexibility so necessary to effective operations. In larger units, contingency plans are the basis of this flexibility.

The basic combined arms maneuver element is the battalion task force. Battalion task forces are organized from infantry battalions, tank battalions, and cavalry squadrons. Field and air defense artillery, engineers, and Air Force and Army air elements provide support. Battalion task forces can be infantry-heavy, tank-heavy, or balanced. They can also be pure, depending on the brigade commander's plan. Armor and infantry, the nucleus of the combined arms team, provide flexibility during operations over varied terrain. Infantry assists the advance of tanks in difficult terrain, while armor provides protection in open terrain. They can develop both complementary and reinforcing effects. A similar synergy exists in defense or delay.

UNITS

Infantry. Light infantry can operate effectively in most terrain and weather. In mounted operations, infantry units can—

- **Occupy strongpoints as pivots for maneuver.**
- **Make initial penetrations for exploitation by armor and mechanized infantry.**
- **Attack over approaches that are not feasible for heavy forces.**

- **Capture or defend built-up areas.**
- **Control restrictive routes for use by other forces.**
- **Follow and support exploiting heavy forces.**

In dismounted operations, airborne, air-mobile, or other light infantry leads the combined arms attack, and all other arms support the infantry attack.

Mechanized Infantry. Mechanized infantry complements armor in its ability to hold ground. It provides overwatching antitank fires and suppresses enemy infantry and antitank guided missile elements. Infantrymen can dismount—

- **To patrol difficult terrain.**
- **To clear or to emplace obstacles and minefields.**
- **To infiltrate and to attack enemy positions.**
- **To protect tanks in urban and wooded areas and in limited-visibility conditions.**

Mechanized infantrymen have the same mobility as tankers but less firepower and protection. Armor and mechanized infantry must perform as a team to defeat enemy armored forces on the modern battlefield.

When equipped with infantry fighting vehicles, the mechanized infantry is significantly more capable. So equipped, it can accompany tanks in mounted assault. In the attack, such infantrymen can act as fixing forces. In the defense, they act as pivot points for maneuvering tank-heavy forces.

Armor. In mounted warfare, the tank is the primary offensive weapon. Its firepower, protection from enemy fire, and speed create the shock effect necessary to disrupt the enemy's operations and to defeat him. Tanks can destroy enemy armored vehicles and suppress enemy infantry and antitank guided missile elements. Tanks can break through suppressed defenses, exploit the success of an attack by striking into the enemy's rear areas, and boldly pursue enemy forces. Armored units can also blunt enemy attacks and rapidly counterattack in force.

Armored units also have limitations. They are vulnerable in close terrain, such as forests and cities, and under limited-visibility conditions. They cannot cross most rivers and swamps without bridging, and they cannot climb steep grades.

Armored Cavalry. The basic tasks of armored cavalry units are *reconnaissance and security.* The ability of armored cavalry units to find the enemy, to develop the situation, and to provide the commander with reaction time and security also make them ideal for economy-of-force missions. Armored cavalry forces can delay an attacking enemy as well as assist in a withdrawal. They are also capable of attacking and defending, although these are not their normal missions.

Field Artillery. The principal fire support element in fire and maneuver is the field artillery. It not only provides conventional, nuclear, or chemical fires with cannon, rocket, and missile systems; but it also integrates all means of fire support available to the commander. Field artillery is capable of suppressing enemy direct fire forces, attacking enemy artillery and mortars, and delivering scatterable mines to isolate and to interdict enemy forces or to protect friendly operations. It contributes to the deep battle by delaying or disrupting enemy forces in depth and by suppressing enemy air defense systems to facilitate Army and Air Force air operations. The artillery can also screen operations with smoke or illuminate the battlefield. Normally as mobile as the maneuver forces it supports, field artillery can provide continuous fire in support of the commander's scheme of maneuver.

Air Defense Artillery. Air defense units provide the commander with security from enemy air attack by destroying or driving off enemy close air support aircraft and helicopters. Their fires can degrade the effectiveness of enemy strike and reconnaissance aircraft by forcing them to evade friendly air

defenses. Short-range air defense (SHORAD) systems normally provide forward air defense protection for maneuver units whether they are attacking, delaying, withdrawing, or repositioning in the defense. Air defense secures critical facilities, such as command posts, logistic installations, and special ammunition supply points. It also protects convoys and lines of communication. In conjunction with US Air Force elements, Army air defense plays a significant role in protecting friendly air maneuver and in attacking enemy air maneuver units.

Combat Engineers. Combat engineers contribute to the combined arms team by performing mobility, countermobility, and survivability missions. *Mobility missions* include breaching enemy minefields and obstacles, improving existing routes or building new ones, and providing bridge and raft support for crossing major water obstacles. *Countermobility* efforts limit the maneuver of enemy forces and enhance the effectiveness of our fires. Engineers improve the *survivability* of the friendly force by hardening command and control facilities and key logistic installations and by fortifying battle positions in the defense. In addition, combat engineers are organized, equipped, and trained to fight as infantry in tactical emergencies.

Army Aviation. Three types of Army aviation units participate in combined arms operations: attack helicopter, air cavalry, and combat support aviation.

Attack Helicopter Units

These provide highly maneuverable antiarmor firepower. They use natural cover and speed to compensate for their vulnerabilities. They are ideally suited for situations in which rapid reaction time is important or terrain restricts ground forces. Attack helicopters are best suited for attacking moving enemy armor formations. Attack helicopter units—

- **Overwatch ground maneuver forces with antitank fires.**
- **Attack the flanks and rear of attacking or withdrawing enemy formations.**
- **Counterattack enemy penetrations.**
- **Conduct raids in enemy-held territory.**
- **Dominate key terrain by fires for ground maneuver forces.**

Employed alone or working with close air support aircraft and using tactics of a joint air attack team (JAAT), attack helicopters can defeat enemy armored formations. To be most effective, however, such missions require other elements of the combined arms to suppress enemy air defense.

Air Cavalry Units

These perform the same missions of reconnaissance and security as ground cavalry and are therefore complementary parts of the cavalry system. Because of its greater mobility, air cavalry can reconnoiter and maintain surveillance over a much larger area in a shorter period of time than its ground counterpart. During security operations, air cavalry reconnoiters, screens forward and to the flanks of moving ground forces, and acts as a rapid reaction force.

Combat Support Aviation

These units give dismounted infantry and ground antitank units great tactical mobility, moving them rapidly to the enemy's flanks or rear or repositioning them rapidly in the defense. Combat support aviation can quickly move towed field artillery units and other lighter elements of the combined arms team as the commander dictates. It can also provide critical supplies to forward areas in the defense and to attacking formations when ground lines of communication have been interdicted or overloaded.

Air Support. The Air Force is an equal partner in the air-land battle. It supports the battle with counterair and air interdiction operations, offensive air support (OAS), and tactical airlift operations. *Counterair* operations achieve necessary air superiority and insure that enemy air forces cannot interfere with the operations of friendly air or

ground forces. *Air interdiction* operations destroy, isolate, neutralize, or delay the enemy's military potential before it can influence friendly operations. OAS is that portion of offensive airpower in direct support of ground operations and consists of tactical air reconnaissance, battlefield air interdiction (BAI), and close air support (CAS).

Electronic Warfare Units. The military intelligence battalion (combat electronic warfare intelligence [CEWI]) detects important enemy communications nets and intercepts their traffic to provide the commander with intelligence. It also directs electronic countermeasures, primarily jamming, against enemy fire direction and command and control communications, air defense radar, and electronic guidance systems. This capability to locate the enemy, to intercept his messages, and to hamper his operations at critical periods contributes directly and indirectly to the effectiveness of combined arms operations.

BATTLE PLANNING AND COORDINATION

Assets available for an operation vary with the level of command and the type of unit, but in almost every case commanders must coordinate—

- **Maneuver.**
- **Fire support.**
- **Deep battle.**
- **Electronic warfare.**
- **Engineer support.**
- **Air defense.**
- **Signal and command control.**
- **Logistics** *(see chapter 5).*
- **Other operations** *(deception, psychological operations, unconventional warfare, ranger operations, and civil-military operations).*

MANEUVER

Maneuver is the dynamic element of battle, the means of concentrating forces in critical areas to gain the advantages of surprise, position, and momentum which enable small forces to defeat larger ones. Effective maneuver maintains or restores initiative. Using indirect approaches to avoid the enemy's greatest strength, friendly forces maneuver to positions on enemy flanks and rear. The attack strikes him where he is least prepared and exposes his critical forces to destruction. Maneuver maximizes the effectiveness of firepower by restricting the enemy's freedom to act and forcing him to react, to concentrate his force, and thus to expose himself.

US Army doctrine balances maneuver with firepower. *Maneuver and firepower are inseparable and complementary elements of combat.* Although one might dominate a phase of the battle, the coordinated use of both characterizes all operations. Their joint use makes the destruction of larger enemy forces feasible and enhances the protection of a friendly force.

Conversely, fire support helps to create opportunities for maneuver. It destroys or suppresses enemy forces and isolates areas of immediate concern through deep attack. It accomplishes the physical destruction which maneuver makes possible and adds to the shock effect of all operations. When nuclear weapons are used, maneuver may mainly exploit the effects of fire.

In most cases the plan for maneuver is the central expression of the commander's concept of operations. The maneuver plan—

- **Outlines the movements of the force.**
- **Identifies objectives or areas to be retained.**
- **Assigns responsibilities for zones, sectors, or areas.**
- **Identifies maneuver options which may develop during an operation.**

The commander's plan for maneuver determines the subsequent allocation of forces and the design of supporting plans. Fires, barriers, air defense priorities, electronic warfare, deception efforts, combat support, and combat service support arrangements are normally subordinate to and coordinated with the maneuver plan.

Commanders normally design the maneuver plan to avoid the enemy's strength and to strike at his weaknesses. Maneuver units can inflict the greatest damage on the enemy by avoiding head-on encounters with his deployed forces. Instead they should operate on his flanks and rear, where direct fire is most effective, psychological shock is greatest, and the enemy is least prepared to fight. By coordinating attacks on the enemy in depth with attacks on his forward units, the commander—

- **Preserves or secures the initiative.**
- **Upsets the enemy's plan.**
- **Disrupts his coordination.**
- **Destroys his most sensitive forces—reserves, artillery, command and control, and logistic support.**

Maneuver in defensive counterattacks on the enemy side of the FLOT in the defended sector is particularly important and must be planned in detail.

The maneuver plan should gain surprise. It should use indirect approaches and flank positions which do not attract immediate attention. As a rule, a maneuver plan should contain only the minimum necessary control measures. Subordinate commanders should have the greatest possible freedom to maneuver.

The maneuver plan should disseminate supplementary control measures. These include on-order routes, axes, objectives, and battle positions for implementation on order. They will provide the necessary flexibility for responding to changes in the situation.

The plan should designate axes of advance and routes for the commitment or movement of reserves or for the forward or rearward passage of one unit through another. It should also identify air axes for the maneuver of attack helicopter and air cavalry units or for the helicopter movement of light infantry and other assets.

Movement of supporting units is also critical to the success of the maneuver plan. Commanders must assure the uninterrupted support of field artillery, air defense, engineer, military intelligence, and logistic units. To do so they must plan multiple routes throughout the area of operations and closely control their use. Military police must be prepared to facilitate these movements, to prevent congestion, and to respond to changes in the maneuver plan.

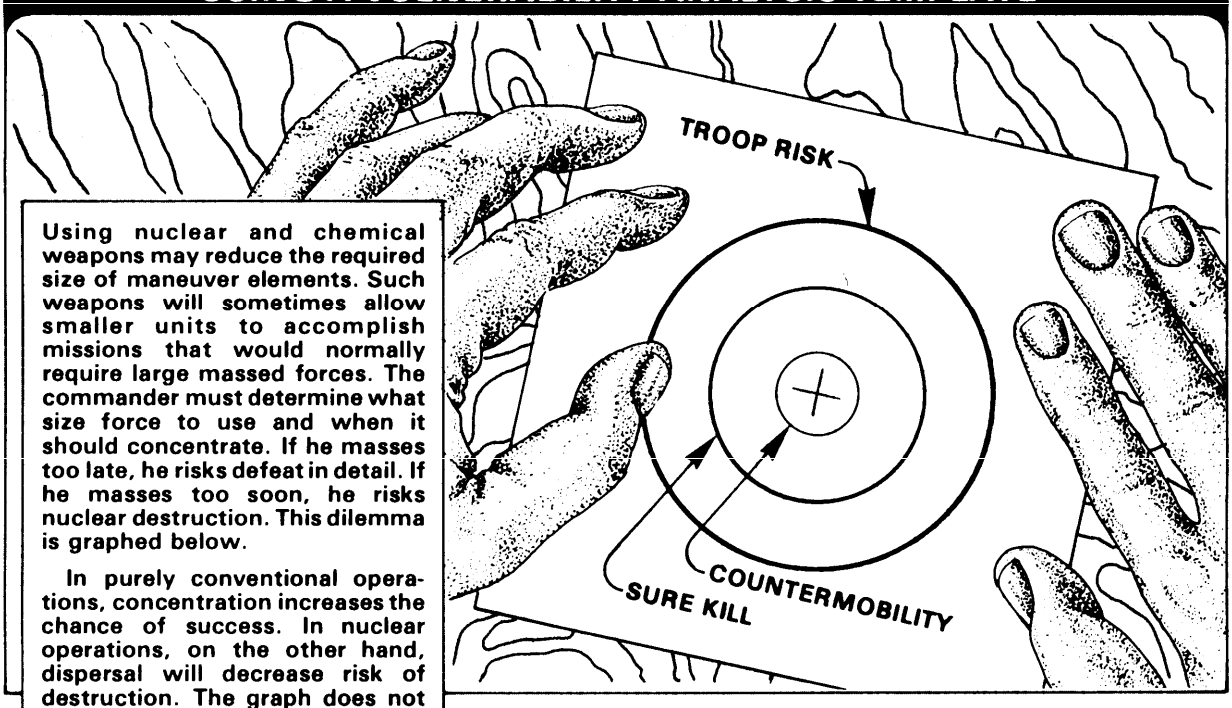
When planning operations, the commanders must take account of the effects of nuclear and chemical weapons. Commanders must consider the troop risk area (emergency risk to unwarned exposed personnel), the sure kill area, and countermobility areas (tree blowdown and urban rubble). Vulnerability analysis templates for specific weapons, such as the one shown on the following page, display these areas.

Commanders must not create lucrative targets. They should also avoid positions which can be isolated by obstacles that nuclear weapons create.

Commanders must constantly seek to minimize the overall risk by dispersing their commands into small units that are not worthwhile targets. Yet, they must maintain sufficient concentration to accomplish the mission. The size of the unit depends on its function. The distance between units varies in accordance with their size, mobility, firepower, and the terrain.

The dilemma is dynamic; the degree of risk changes as the distance between opposing forces changes. Initially, maneuver forces will disperse to avoid presenting a battalion-size target. As the distance from the enemy decreases, maneuver units will concentrate over multiple routes at the decisive place and time and will disperse again after defeating the enemy.

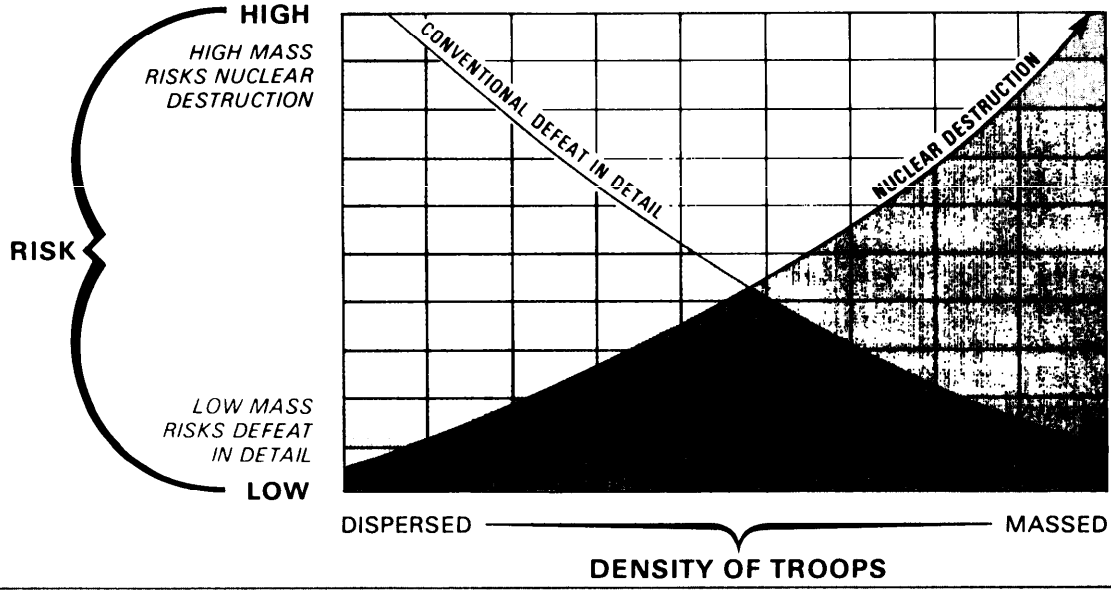
USING A VULNERABILITY ANALYSIS TEMPLATE



Using nuclear and chemical weapons may reduce the required size of maneuver elements. Such weapons will sometimes allow smaller units to accomplish missions that would normally require large massed forces. The commander must determine what size force to use and when it should concentrate. If he masses too late, he risks defeat in detail. If he masses too soon, he risks nuclear destruction. This dilemma is graphed below.

In purely conventional operations, concentration increases the chance of success. In nuclear operations, on the other hand, dispersal will decrease risk of destruction. The graph does not depict one key dimension—duration. Speed in achieving the necessary concentration and rapid dispersal after the mission are essential.

RISK ANALYSIS



The maneuver plan must also control the airspace over a unit's area of responsibility. Air movements and maneuver in support of the commander's maneuver plan, including specific routes and times, must coordinate with air defense and ground maneuver units whose areas will be overflown.

FIRE SUPPORT

The fire support plan includes mortars, field artillery, naval gunfire, and air-delivered weapons. The long range and great flexibility of the fire support system make it especially effective. The commander can use it to support his maneuver plan, to mass firepower rapidly without shifting maneuver forces, and to delay, to disrupt, or to destroy enemy forces in depth.

Fire support must be integrated with the unit's maneuver plan and its surveillance and target-acquisition efforts. It must be flexible enough to supply conventional support without interruption as the tactical situation changes. It must be capable of shifting from conventional to nuclear or chemical support during the course of an operation.

The fire support system destroys, neutralizes, or suppresses surface targets, including enemy weapons, formations or facilities, and fires from the enemy's rear. It also suppresses enemy air defense and executes nuclear packages.

When nuclear weapons are available, the fire support may become the principal means of destroying enemy forces. The maneuver may then be designed specifically to exploit the effects of the fire support.

The weapons of the system are mortars, guns, cannons, rockets, guided missiles, and tactical fighter aircraft. These weapons are coordinated by a network of fire support teams, liaison parties, fire direction centers, and fire support elements that work closely with an appropriate ASIC and an artillery headquarters. This network masses fires against area targets or directs fires against point targets. The force commander exercises central control of the system.

Commanders at all levels are responsible for integrating fire support into their plans. Corps and division commanders who command their own artillery employ their artillery commanders as fire support coordinators. Air Force and Navy liaison teams at all levels down to battalion will normally coordinate fires that are available from their respective services. Supporting artillery units provide commanders below division level with fire support elements (FSE). Each cell is capable of coordinating all the fire support necessary for its commander's plans.

In integrating fire support into operations, the most important considerations are adequacy, flexibility, and continuity. In offensive operations, the main attack gets priority fire support while long-range systems strike defenses in depth, enemy reserves, or targets such as command posts, brigades, and defiles. In defense, a greater balance of fire support is necessary, but anticipated areas of the enemy's main effort are allocated stronger fire support.

When maneuver forces have missions such as advance guard, flank guard, or covering force, which take them beyond supporting distance of the main body, commanders must make special provision for their fire support. This may be provided by CAS allocation, direct support field artillery battalions, dedicated batteries, or mortar support, depending on the size of the force and its mission.

Commanders must make special provisions for foreseeable contingencies or phases of a maneuver operation. These may include—

- **Time-on-target attacks of ambush areas in coordination with direct fires and a particular obstacle.**
- **Obscuration of an open area with smoke to facilitate ground maneuver.**
- **SEAD fires in conjunction with attack helicopter, close air support, or joint air attack team operations.**

- **Final protective fires around a defensive position.**
- **Interdiction of a specific follow-on unit to complete an attack in progress.**

Commanders must also insure flexibility by—

- **Holding some of the artillery in general support.**
- **Giving artillery units on-order missions which orient them on likely contingencies.**
- **Reserving some of the allocated CAS missions for the force commander's use.**

They must also distribute liaison teams properly and plan possible road or air movements before they become necessary. Planners must recognize that long road movements, for example, are time-consuming and reduce support capability. Commanders insure continuous support by designating routes for artillery units and by planning air movement of weapons and ammunition. When rapid offensive progress occurs or defensive counterstrokes are planned beyond the FLOT, commanders must insure that artillery units are in position to support the maneuver.

The large number of targets acquired during combat may generate demands for fire support that exceeds the system's capacity. To deal with such overloads and yet satisfy the most important demands, commanders must establish priorities. They can express these priorities in allocating assets, in positioning fire support units, in constraining ammunition expenditure, or in guiding the attack to specified types of targets.

The commander will also control fires by using standard control measures such as the fire support coordination line (FSCL), the coordinated fire line (CFL), and the restrictive fire line (RFL). *Specific details of fire planning and direction are in FM 6-20.*

Offensive Air Support. OAS is an integral element of fire support in offensive and defensive operations. Corps commanders will be supported with CAS sorties, BAI, and tactical air reconnaissance missions.

Tactical air reconnaissance supplies intelligence gathered by observers and/or sensors. Reconnaissance tasks include identifying hostile forces and facilities and collecting terrain and weather information. Information acquired by tactical air reconnaissance is of special value in the conduct of the deep battle and must be disseminated rapidly.

BAI is air action against hostile surface targets nominated by the ground commander and in direct support of ground operations. It is the primary means of fighting the deep battle at extended ranges. BAI isolates enemy forces by preventing their reinforcement and resupply and by restricting their freedom of maneuver. It also destroys, delays, or disrupts follow-on enemy units before they can enter the close battle. BAI missions may be planned against targets on either side of the FSCL in the ground commander's area of influence. Missions short of the FSCL require close coordination with ground units. Although all BAI missions require joint planning and coordination, they may not require continuous coordination in the execution stage.

CAS is air action against hostile targets near friendly forces. CAS complements and reinforces ground fire. Each air mission must be integrated with the ground commander's fire and maneuver scheme. This means that aircraft are under either positive or procedural control. Inherent in the ground commander's responsibility is the need to suppress enemy air defenses. CAS can offset shortages of surface firepower during critical initial phases of airborne, airmobile, and amphibious operations.

Because each offensive air support sortie is a critical asset, its use must be planned and employed carefully. Corps and division commanders normally distribute CAS to lower levels; however, they should retain some CAS missions at their own levels to influence the conduct of operations. If BAI will be more

useful than CAS in a projected operation, corps commanders should request BAI emphasis early in the planning process.

Joint Suppression of Enemy Air Defenses. Joint suppression of enemy air defenses (J-SEAD) increases the overall effectiveness of friendly air-land operations. The two types of J-SEAD are campaign and localized.

The Air Force component commander conducts the theaterwide J-SEAD operation against specific surface-to-air defense systems. The locations of most campaign targets will dictate this. However, Army surface-to-surface weapons will complement these efforts. More than one J-SEAD campaign may be necessary during a conflict.

Localized J-SEAD operations attack specific ground targets or support airborne, airmobile, or other air operations. Battalions and larger Army units plan localized J-SEAD operations to protect friendly aircraft and to maximize the effect of offensive air support. Such operations normally involve jammers, suppressive fires, and passive measures such as camouflage or deception to degrade the effects of enemy air defenses. Localized J-SEAD operations can use field artillery, attack helicopters, direct fire weapons, and electronic warfare.

Nuclear Weapons. When nuclear weapons are in use, the fire support plan becomes more potent and is subject to unique considerations. The authority to use nuclear weapons will be conveyed from the NCA through the operational chain of command.

Using nuclear weapons requires advanced planning, training, and logistic support. One technique is to develop preplanned *packages.* A package is a group of nuclear weapons of specific yields for use in a specific area and within a limited time to support a specific tactical goal. Each package must contain nuclear weapons sufficient to alter the tactical situation decisively and to accomplish the mission. For effective employment, it is essential to update and to refine packages continuously.

Planning must reflect the constraints and directives of higher authority, procedures for warning friendly units, and responsibilities for post-strike analysis. Careful selection of targets, yields, aimpoints, and delivery systems can limit collateral damage. *Special care must be taken not to create obstacles to friendly maneuver through the use of nuclear fire.* Aircraft may deliver some weapons. Other services must warn friendly aircraft to avoid areas scheduled for nuclear strikes. Thus, joint planning and coordination is mandatory. The echelon which controls the requested package is responsible for disseminating the warning.

In general, preferred targets are—

- **Enemy nuclear delivery systems.**
- **Key command and control elements.**
- **Support forces in the rear of committed elements.**
- **Follow-on or deep-echeloned forces.**
- **Reserves.**

This selective targeting allows friendly units in contact to defeat engaged enemy forces by conventional means.

Brigade and division commanders will develop groups of targets in their areas of influence on the basis of the above criteria or their special operational needs. They will limit collateral damage to the levels specified in their planning guidance. The corps will review its divisions' nuclear fire plans and will integrate them into its plans.

Chemical Weapons. US policy prohibits the *first use* of lethal or incapacitating chemical munitions. It also prohibits *any use* of biological weapons. However, because the United States has reserved the right to retaliate if enemies use chemical weapons, Army units must be prepared to conduct chemical operations. *Only the NCA can grant authority to employ chemical munitions.* When it does, it will also provide specific guidance governing their use.

Commanders must be prepared to integrate chemical weapons into nuclear and conventional fire plans on receipt of chemical release. Chemical weapons are individually more lethal than conventional munitions. However, the chemical expenditure rates necessary to produce a significant effect on a well-trained and well-equipped enemy may approach those of conventional fires. Thus, when they plan, commanders must carefully consider how chemical weapons will affect operations and logistics.

Modern chemical agents produce three types of toxic effect that range from mild incapacitation to high lethality depending on concentration, degree of protection, and length of exposure. Nerve agents usually cause suffocation: breathing ceases. Blister agents attack the respiratory tract, the eyes, and the skin. Skin blistering is usually delayed, but damage to the eyes and lungs occurs rapidly. Deaths from blister agent poisoning are not common. Blood agents interfere with the ability of body tissue, especially the brain, to absorb oxygen from the blood.

Chemical agents are either persistent or nonpersistent. They normally enter the body through inhalation or through the skin. Persistent agents may present hazards from both inhalation and skin contact. Chemical munitions can also have substantial blast and fragmentation effects, producing additional casualties or materiel damage.

When properly employed in mass and without warning, chemical fires can—

- **Cause high casualties among poorly trained or poorly equipped troops.**
- **Degrade the effectiveness of weapons, vehicles, and command posts by causing their operators to wear protective equipment.**
- **Restrict the use of weapons, supplies, and equipment by contamination.**
- **Disrupt rear area operations and troop movement.**
- **Enhance the effects of other fire support by slowing enemy movement.**
- **Reduce the speed, cohesion, and freedom of movement of enemy formations.**
- **Restrict or deny the use of key terrain.**
- **Force the enemy to undertake decontamination operations, thereby producing fresh targets for chemical or other fire support means.**

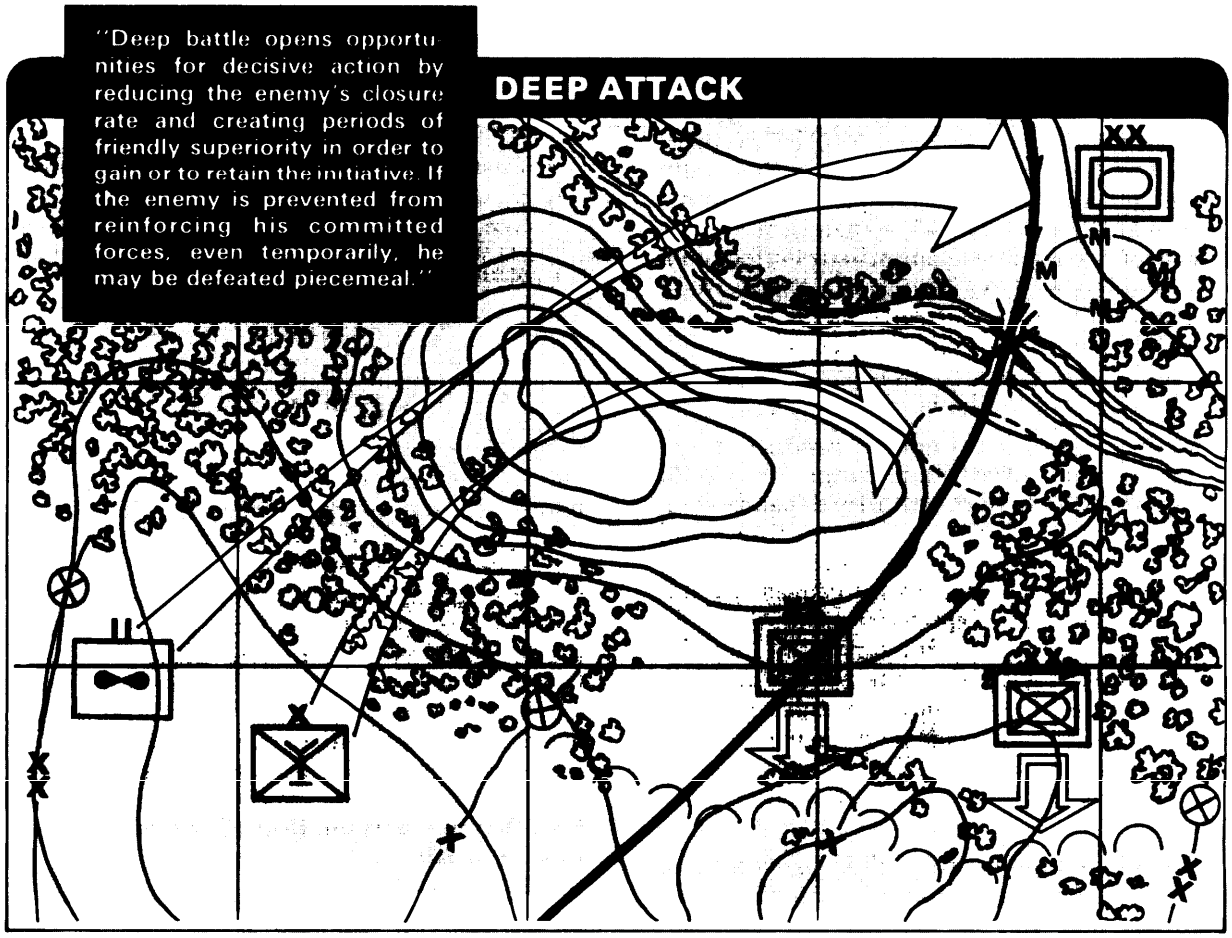
DEEP BATTLE

The deep battle component of the AirLand Battle doctrine supports the commander's basic scheme of maneuver by disrupting enemy forces in depth. In either attack or defense, timely and well-executed deep actions against enemy forces not yet in contact are necessary for effective operations. This is not a new discovery. US, German, and Israeli campaign plans have historically made use of long-range interdiction to gain local battlefield advantages. Deep battle prevents the enemy from massing and creates windows of opportunity for offensive actions that allow us to defeat him in detail.

The deep battle is based on a thorough IPB and timely intelligence from organic and higher sources. High-value targets must be identified, and organic and support means must be synchronized in the attack.

The corps is the focal point for intelligence collection and distribution in the deep battle. However, deep battle planning and execution are just as important at division and lower levels.

Our primary strike assets for deep attack are air and artillery interdiction. Conventional and unconventional military forces can also interdict enemy movement in depth; and while tactical electronic warfare systems do not have the range to hit deep targets, they can free artillery units for the deep battle. Deception also plays a part in delaying, disrupting, and diverting an enemy and in frustrating his plans for committing follow-on forces.



When deep attack assets are limited, it is impossible to destroy such follow-on forces. However, it is possible to delay, to disrupt, or to divert selected enemy forces by attacking targets in those forces or blocking choke-points in the terrain. To obtain an actual tactical or operational advantage, these efforts must be directed towards a specific goal.

In the offense, the deep battle initially isolates, immobilizes, and weakens defenders in depth. As the attack continues, it sustains momentum by preventing the reorganization of coherent defenses, by blocking the movement of enemy reserves, and by preventing the escape of defending units. In the defense, the deep battle prevents the enemy from concentrating overwhelming combat power. Its major objectives are to separate and to disrupt attacking echelons, to protect the defender's maneuver, and to degrade the enemy's fire support, command and control, communications, combat support, and combat service support.

Deep battle opens opportunities for decisive action by reducing the enemy's closure rate and creating periods of friendly superiority in order to gain or to retain the initiative. If the enemy is prevented from reinforcing his committed forces, even temporarily, he may be defeated piecemeal.

Long-range weapons will be relatively scarce, but the choice of targets is apt to be large. Therefore, the commander must select targets of the highest possible mission value, whose loss will substantially degrade enemy capability.

Nuclear weapons are particularly effective in engaging follow-on formations or forces in depth because of their inherent power and because of reduced concerns about troop safety and collateral damage. Air maneuver units, airborne or airmobile troops, mechanized formations, and artillery can also take part in the deep battle. Battlefield air interdiction, however, is the most common means of striking at extended ranges.

To conduct a deep attack successfully, the fire support coordinator, the G3, and the G2 must cooperate fully. They must maintain proper emphasis on the deep battle during all phases of the operation.

Commanders will fight the enemy in an *area of influence* designated by the next higher level of command. This area normally contains enemy forces whose actions can affect the unit's close battle. Commanders simultaneously monitor activity beyond and adjacent to their areas of influence in what is called the *area of interest.* The area of interest contains enemy units capable of affecting future operations.

The exact dimensions of a unit's areas of interest and influence will vary with the terrain, weather, and capabilities of friendly and enemy forces. Corps will strive to maintain surveillance of an area of interest large enough to give 96 hours' notice of the approach of enemy divisions and armies. The ASIC, using all assets of the corps and obtaining support of higher echelons of command, collects this information under the direction of the G2.

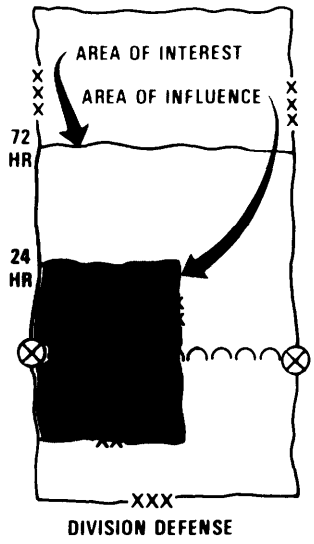
The corps area of influence should extend far enough beyond the FLOT to permit a corps to engage enemy forces which can *join or support the main battle within 72 hours.* Divisions must collect intelligence on enemy forces up to 72 hours before they can reach the defended area. Further, divisions should be able to fight enemy forces up to 24 hours before they reach the FLOT.

An area of interest may be irregular in shape and may overlap the areas of adjacent and subordinate units. The area will change with the forward or rearward movement of the FLOT as new avenues uncover and as commanders assess mission, enemy, terrain,

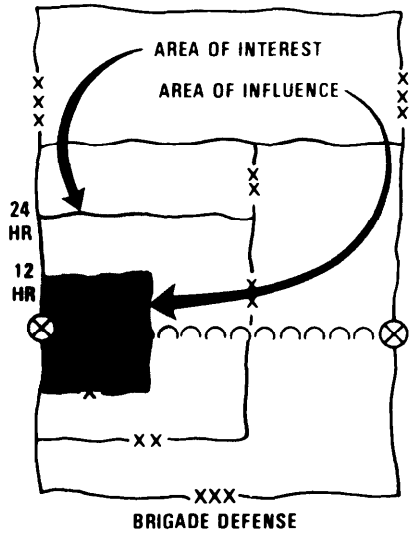
AREAS OF INFLUENCE AND INTEREST

AREA OF INFLUENCE. The area of influence is the assigned area of operations wherein a commander is capable of acquiring and fighting enemy units with assets organic to or in support of his command. It is a geographical area, the size of which depends upon the factors of METT-T. It is assigned by higher headquarters and designated by boundaries and a forward terminating line.

AREA OF INTEREST. The area of interest extends beyond the area of influence. It includes territory which contains enemy forces capable of affecting future operations. The area of interest is usually within the next higher headquarter's and a portion of adjacent units' areas of influence.



DIVISION DEFENSE



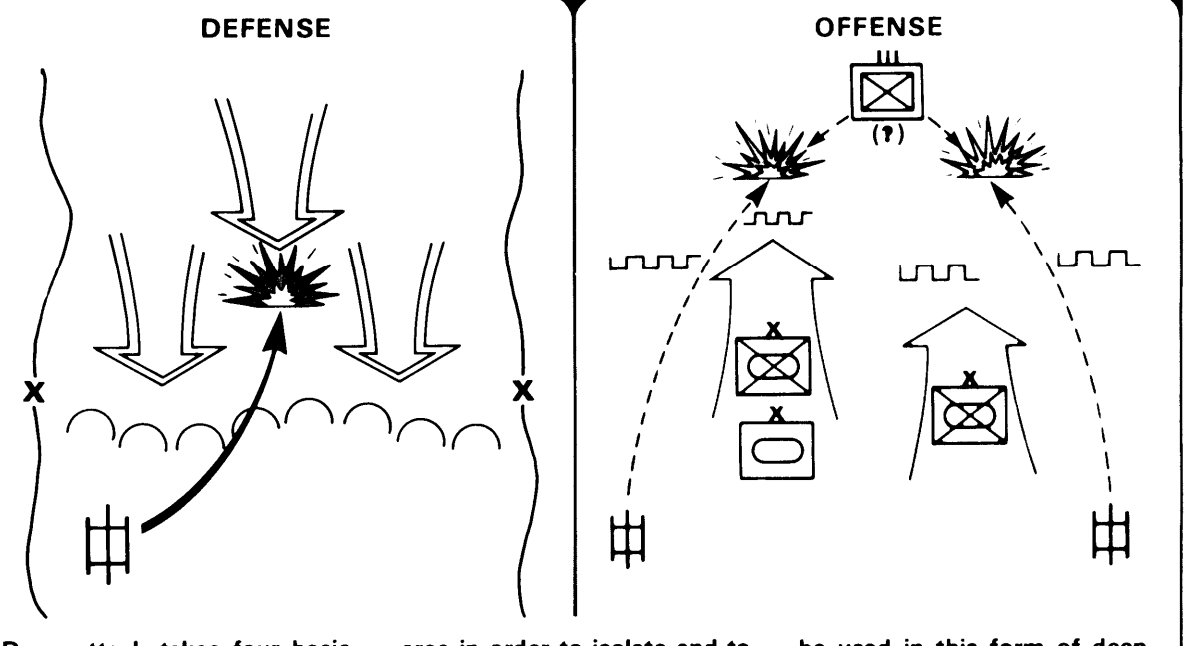
BRIGADE DEFENSE

and troops (METT). Higher headquarters should provide intelligence on overlapping areas of interest to all concerned commanders through the ASIC system.

Named areas of interest (NAI), routes or avenues of approach, direction of enemy movement, and specific enemy units may combine to define an area of interest. They also focus intelligence collection or fires during the battle. Corps or divisions may restrict the fires of adjacent or subordinate units and Air Force operations by designating no-fire areas. Close coordination between corps and their divisions assures that their deep battle plans complement and do not duplicate each other.

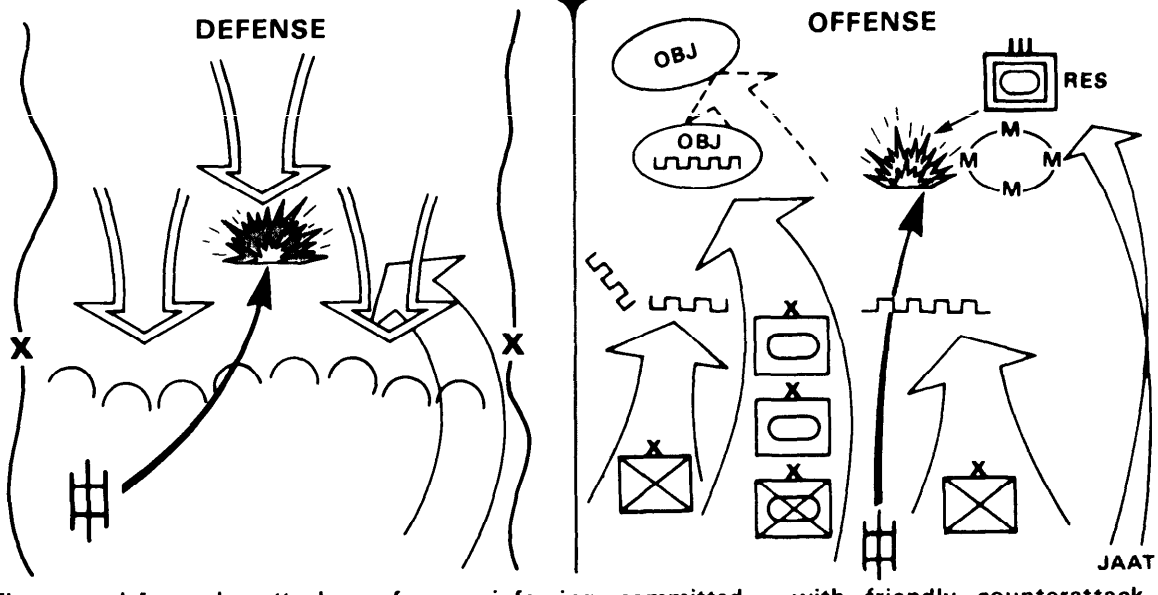
The corps area of influence includes divisional areas of influence just as the division's area of influence overlaps those of its brigades. Each level of command fights its deep battle simultaneously. In many instances, enemy units will concern both superior and subordinate commanders. For example, both corps and divisions may follow the second echelon divisions of an enemy army. But divisions will fight enemy second echelon regiments. Corps commanders usually will fight the second echelon divisions. Commanders may restrict the engagement of particular forces or physical targets in a subordinate's area of influence. They do so if the overall plan of defense calls for unimpeded advance of the enemy on certain approaches. They do so if it is in their interest to defer destruction of an enemy force or facility. In some cases the corps may choose to limit its divisions' deep battle responsibilities and engage deep regiments itself. Normally, however, the corps will expect divisions to fight the defense in depth and will allocate enabling resources.

DELAY OF FORCES TO PREVENT REINFORCEMENT



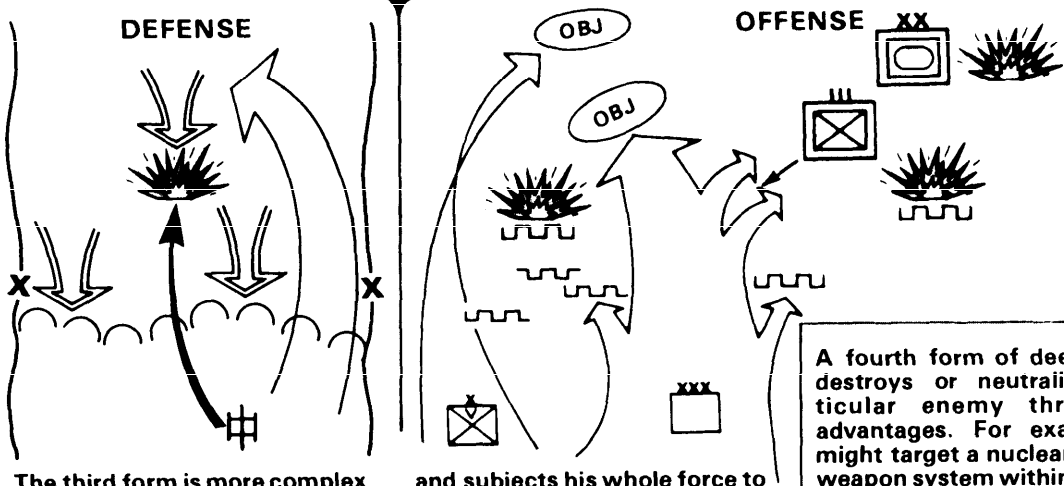
Deep attack takes four basic forms. The first disrupts enemy forces in depth with fire and delays their arrival in the battle area in order to isolate and to defeat the forces in contact. Deception, offensive EW, artillery fires, and BAI may all be used in this form of deep attack.

DELAY OF FORCES TO ALLOW MANEUVER COMPLETION



The second form also attacks enemy deep forces with fire. It does not merely prevent them from reinforcing committed enemy units. Rather, it prevents them from interfering with friendly counterattack against the flanks or rear of close-battle forces.

DECISIVE DEEP ATTACK



The third form is more complex and more difficult to achieve. It engages follow-on echelons with both firepower *and* maneuver forces while the close battle continues. It prevents the enemy from massing, deprives him of momentum, and subjects his whole force to destruction. Using combined arms to achieve its effects, this form of attack will require close coordination between Army air and ground maneuver forces, artillery, EW, and Air Force BAI missions.

A fourth form of deep attack destroys or neutraiizes particular enemy threats or advantages. For example, it might target a nuclear-capable weapon system within range of the friendly force. It might target bridging to prevent an enemy river crossing. All of these deep attacks use target value analysis to focus very narrowly on the purpose and on the most lucrative targets.

INTEGRATED ELECTRONIC WARFARE

EW is an effective tool of battle in a combined arms context. It can support operations by—

- **Deceiving the enemy.**
- **Locating his electronic emitters.**
- **Intercepting his transmissions.**
- **Complicating his command and control and his target-acquisition systems at decisive junctures in the battle.**

Planners should understand the relative scarcity of EW weapons, their limitations, and the transient nature of their effects.

The commander is the key to successfully integrating electronic warfare into the operational scheme. He must understand its potential impact on the battlefield and provide the continuous guidance necessary to its proper use.

When developing his concept of operation, the commander should treat EW assets much as he treats artillery assets. He should deploy EW assets to committed units in the light of their missions, the capabilities of available systems, and potential enemy actions.

The commander and staff members must understand the enemy's electronic systems. Commanders and staffs at corps and division levels must sort out thousands of enemy emitters and hundreds of communications nets by function. Then they must determine the ones that can disrupt the friendly combat plan. Each enemy net or weapon system that uses electronic emitters has a relative target value. Commanders should identify nets which have high tactical value to the enemy but little or no intelligence value. Enemy fire direction nets usually meet these criteria and should be jammed and/or destroyed per SOP.

Enemy nets may routinely pass information of intelligence value. SOP requires their identification and monitoring. Jammers and enemy radars cannot normally be jammed by ground resources, and they pass virtually no intelligence. SOP requires their destruction. Such SOPs allow the commander and his staff to focus on key emitters and nets that require decisive action. Decisions to jam, to destroy, or to exploit for intelligence require routine reevaluation.

The G2 or the S2 is responsible to the commander for intelligence, counterintelligence, and target development. Working with the G3 or the S3, he will develop the intelligence, counterintelligence, electronic warfare support measures, and target development requirements for planning and executing an operation.

For EW, the G2 or the S2 will task his collection ground and airborne systems to develop targets for interception, jamming, or destruction. His direction-finding equipment determines the approximate location of enemy emitters. These locations provide valuable information for targeting command posts, key control points, and, in the case of radars, the enemy weapon systems. Airborne direction finders available to a corps and its divisions provide the most accurate locations and do so at greater ranges than the ground vehicular systems. Ground equipment, however, provides the nucleus of locating assets. Direction finders will assist in determining enemy intentions by providing a picture of the battlefield.

The communciations-electronics officer manages the defensive electronic warfare battle. Defensive EW is discussed in chapter 4.

The G3 or the S3 has the overall responsibility for EW, but his primary focus will be offensive EW or electronic combat. He must fully implement the commander's guidance by developing plans and orders. The G3 or the S3 is responsible for jamming missions, fire missions, and deception operations.

The supporting military intelligence unit provides an electronic warfare support element (EWSE) to assist the G3 or the S3 in coordinating EW activities. The EWSE will collocate with the fire support element (FSE) to facilitate target acquisition, fire planning, and coordination.

The G3 or the S3 has staff responsibility for attacking enemy electronic emitters by

electronic means (jamming). The FSE coordinates both lethal and nonlethal means of attack for the G3. Jamming should interrupt or disrupt the enemy's command and control at the decisive moment on the battlefield. When jamming is timed to coincide with other combat actions, it can produce decisive results. Like any other combat capability, it is a scarce resource with specific applicability. Jamming may be effective only for the short periods of time the enemy needs to take evasive action or to execute countermeasures.

Jammers support other combat actions—

- **To disrupt key command and control nets, thus slowing or disorganizing the enemy in critical sections.**
- **To deny the enemy the ability to react to changes on the battlefield, for example, by committing reserves or changing direction.**
- **To reduce the effectiveness of enemy fire support and air control nets.**
- **To deny the enemy the use of his air defense fire control nets.**
- **To disrupt the enemy's flow of critical supplies, such as ammunition and POL.**

Jammers are vulnerable to direction finding and destruction by fire. They should be used judiciously and moved often enough to avoid destruction. The G3 or the S3 coordinates the initial positioning of jammers and other electronic warfare assets in the sectors or zones of action of subordinate units. Their subsequent movement must be coordinated with the units in whose areas they are located. Such units may best control any relocation of ground mobile equipment. The electronic warfare assets must be positioned on favorable terrain away from command posts and fighting positions. They must remain close enough to the FLOT to be effective, but they cannot hinder the movement of combat units.

The G3 or the S3 is also responsible for electronic deception activities. These should tie to and enhance the overall deception effort of the corps, and they should include imitative communication deception (ICD) and MED. ICD enters an enemy net, posing as a member. It can simply harass or, by passing changes in orders, disrupt the operations of the enemy unit. ICD is strictly controlled. *Applicable rules are in AR 105-86.*

MED is an effective means of deceiving the enemy that must also be carefully planned to create the desired effect. It passes a false picture of friendly unit dispositions and intentions to the enemy. It can portray a phantom unit by using the proper numbers of radios and radars normally assigned to the real unit. It can also portray a false image of a unit's intentions. Changing the number or kind of radio messages passed during a given period creates the illusion of a buildup of personnel and supplies. Eliminating normal radio traffic creates the illusion of radio silence, typical practice prior to an attack.

The enemy is well-versed in both ICD and MED and is likely to be wary of them. Our efforts must be well-planned and based on accurate data, or they will deceive no one. Furthermore, if poorly done, they will only deprive us of critical assets which could be better employed elsewhere.

ENGINEER SUPPORT

Maneuver and fires must be coordinated with a *supporting engineer plan.* The commander's decision and guidance for using engineers should control the plan. At maneuver brigade and battalion levels, the maneuver unit S3 prepares the engineer plan. At division and above, the engineer is responsible for preparing the engineer plan under the direction of the G3.

The engineer system has three basic purposes: It preserves the freedom of maneuver of friendly forces; it obstructs the maneuver of the enemy in areas where fire and maneuver can be used to destroy him; it enhances the survivability of friendly forces with protective construction. Engineer plans must be fully coordinated with the scheme of maneuver and fire support plans. They must allocate units and furnish a clear list of mission priorities.

Time, equipment, and materials may restrict the amount of engineer work accomplished before and during battle. Engineer plans must reflect these limitations realistically. They must assess the necessary trade-offs between survivability, mobility, and countermobility tasks and assign priorities. Normally, they must concentrate in vital areas in support of the main effort rather than throughout the force.

In offensive operations, engineers normally concentrate their efforts in supporting maneuver by—

- **Improving and maintaining routes.**
- **Laying bridges.**
- **Breaching and removing obstacles to movement.**
- **Installing protective obstacles to the flanks of the attacking forces.**

Some corps engineer units may be attached to, or placed under operational control of, divisions. Others will operate in direct or general support.

In the defense, engineers reinforce the terrain to anchor the defense in critical areas, to maximize the effects of the defender's fires, and to facilitate the movement of counterattack forces. They also prepare positions and roads or trails for moving reserve, artillery, logistic, and other units. Doing so enhances the survivability of forces and vital facilities.

Corps engineer units are responsible for employing atomic demolition munitions against accessible hard targets. Maneuver units will provide the required mission support.

Engineer units *must coordinate obstacle plans in detail.* They must destroy or emplace bridges at the proper time, accurately place and report gaps and flank obstacles, and close routes left open for friendly maneuver or withdrawal on time. All engineer, artillery, and aviation units are responsible for emplacing scatterable mines. Plans must provide for the timely recording of in-place obstacles, and key information must be promptly disseminated to all affected units.

Engineer operations are time and labor intensive. They must begin as early as possible in the defense. They must also be flexible enough to change as the battle develops. They must include detailed plans for emplacing scatterable mines rapidly, installing bridging on short notice, and placing or clearing obstacles in combat.

Denial plans will prevent or hinder the enemy from occupying or using areas or objects of tactical or strategic value. To the maximum extent possible, all materials of military value to the enemy will be removed or destroyed prior to retrograde movements. International agreements and national policy restrict denial operations to military objects. They prohibit destroying certain materials and facilities for humanitarian concerns. Each local commander must strictly follow the theater policy on denial.

INTEGRATED AIR DEFENSE

US forces can no longer count on unchallenged air superiority. Enemy air forces will contest control of the air, and our operations are likely to be conducted under temporary or local air superiority, air parity, or even enemy domination. Enemy air capability will require us to coordinate air defenses.

Corps and divisions will often possess organic SHORAD units. High-to-medium-altitude air defense (HIMAD) units may also be assigned or attached to corps when higher echelons are not providing them.

All air defense systems must be integrated to preclude the attack of friendly aircraft and to engage hostile aircraft. The Air Force component commander in a theater is normally the area air defense commander. He is responsible for integrating all air defense elements. He also establishes air defense rules of engagement and procedures for all air defense systems within the theater. HIMAD systems are integrated by automated data

link to an Air Force control and reporting center (CRC). Air defense rules and procedures pass from the CRC through the corps and division to SHORAD systems by voice communication.

The commander locates air defense battalions of corps and divisions to protect his highest priority assets. These will vary with each operation. When air attack is likely, he should be concerned about—

- **Command posts.**
- **Logistic facilities.**
- **Artillery units.**
- **Bridges or defiles.**
- **Reserves.**
- **Forward arming and refueling points.**
- **Massed maneuver forces.**

The unit air defense officer recommends air defenses based on the commander's guidance for each operation. Passive defensive measures will remain important since there will rarely be enough air defense artillery (ADA) weapons to provide complete protection.

Like field artillery, ADA must provide continuous coverage of protected units during mobile operations. Movements must be carefully planned, firing positions must be cleared with sector or zone commanders, and plans must be flexible enough to accommodate sudden changes. *FM 44-1 and Joint Chiefs of Staff Publication 8 contain detailed discussions of air defense operation.*

AIRSPACE COORDINATION

Airspace coordination maximizes joint force effectiveness in the air-land battle without hindering the combat power of either service. Friendly aircraft must be able to enter, to depart, and to move within the area of operations free of undue restrictions, while artillery fires in support of the ground force continue uninterrupted. The tempo and complexity of modern combat rule out a system that requires complicated or time-consuming coordination. Also, the likelihood of poor or enemy-jammed communications dictates maximum reliance on procedural arrangement. To be simple and flexible, our airspace coordination system operates under a concept of management by exception.

Each service is free to operate its aircraft within the theater airspace. Army aircraft at low altitudes operate under the control of Army commanders. Air Force aircraft at medium and high altitudes operate under control of the tactical air control system. The boundary between low- and medium-altitude regimes is flexible and situation-dependent. Only when aircraft pass from one regime to another is traffic coordination required. Generally, Army aircraft operate without restriction below coordinating altitudes forward of the division rear boundary. Passing information about major movements or high concentrations of fire helps to avoid conflicts.

The operations officer is responsible for the airspace coordination of Army aviation. He coordinates air routes and movements with the aviation officer, the air defense officer, the fire support coordinators, and aviation unit commanders. Doing so insures the safe movement of aircraft within his area of responsibility. Routes, times of flight, and other procedures must be precisely defined and stringently observed to engage enemy aircraft effectively.

COMMUNICATIONS

Signal support plans deliberately meet the requirements of the operation. Means for transmitting information and orders range from the time-tested radio, wire, and messenger systems to high-speed data links and man-packed satellite communication terminals. Commanders and staffs at all echelons must understand the capabilities and limitations of their systems. They must be actively involved in insuring adequacy. Atmospheric conditions, terrain, enemy EW efforts, and nuclear EMP may hinder electronic signal equipment. The key to survivability is establishing command and

control procedures that—

- **Provide redundancy of communications.**
- **Eliminate unnecessary reports.**
- **Insure that subordinates know what to do during communications interruption.**
- **Do not overload communications and use them only when absolutely necessary.**
- **Minimize use of the most vulnerable means.**
- **Practice good operations security and good communications security.**

Each means of communication has its strengths and weaknesses. Carefully integrated means should give the most flexible and reliable system possible.

DECEPTION

Deception misleads the enemy regarding friendly intentions, capabilities, objectives, and locations of vulnerable units and facilities. The G3 assembles the deception plan, making use of every unit and asset available to project a plausible deception story designed to elicit a specific enemy reaction. He may use combat units; CEWI units; elements of the signal, support, command, and aviation units, as well as civil affairs staff and other forces. The deception effort may include demonstrations and ruses as part of offensive or defensive maneuver plans.

Demonstrations deceive the enemy by a show of force in an area where no battle is sought. Although forces may move as part of a demonstration, they do not intend to contact the enemy. For example, maneuver or fire support forces might be positioned to indicate an attack at a location other than that actually intended.

Ruses are single actions that *deliberately* place false information in enemy hands. They may cause the enemy to disclose his intentions, state of morale, or combat readiness. One ruse is to use a few vehicles towing chains to produce the dust clouds of a large movement. Another is to move a few tanks throughout an area at night to simulate repositioning of forces. Manipulative communications deception is a common means of placing false or misleading information in the enemy's hands. *FM 90-2 provides additional details on deception operations.*

PSYCHOLOGICAL OPERATIONS

Psychological operations (PSYOP) are an important component of the political, military, economic, and ideological actions that support both long-term and immediate objectives. Propaganda and other PSYOP techniques for changing the attitudes and behavior of target groups provide the commander with his primary means of communication with opposing military forces and civilian groups. When effectively integrated with other operations, PSYOP add to the relative combat power of the force. They manipulate the psychological dimension of the battlefield—

- **To reduce the combat effectiveness of enemy forces.**
- **To promote support for friendly forces by foreign populations and groups.**
- **To reduce the effectiveness of enemy PSYOP directed toward friendly forces and supporting civilian groups.**

PSYOP must be effectively employed from the theater to the division level. Based on levels of employment, objectives, and targeted groups, each of the following categories is part of an integrated theater PSYOP effort:

- **Strategic PSYOP, conducted to advance broad or long-term objectives and to create a psychological environment favorable to military operations.**
- **Tactical PSYOP, conducted to achieve relatively immediate and short-term objectives in support of tactical commanders.**
- **Consolidated PSYOP, conducted to facilitate military operations, to reduce interference by noncombatants, and to**

obtain the cooperation of the civilian population in the area of operations.

The G3 is responsible for integrating psychological and combat operations. The supporting PSYOP unit commander plans and executes PSYOP. He normally provides a small PSYOP staff element to the supported G3.

Effective integration of PSYOP is based on the following fundamental principles:

- **Planning should begin early, concurrently with operational planning.**
- **PSYOP must occur early in an operation.**
- **Scarce resources for conducting PSYOP should be targeted against groups most critical to success.**
- **Campaigns of strategic, tactical, and consolidation PSYOP must be thoroughly coordinated and mutually supportive.**
- **All PSYOP units are part of a PSYOP command to insure integration and consistency of campaigns.**
- **PSYOP must respond to changing requirements of the battlefield.**

UNCONVENTIONAL WARFARE

Unconventional warfare (UW), normally conducted by US Army Special Forces, operates deep in the enemy's rear area. Special Forces can disrupt the enemy's ability to prosecute the main battle by conducting either unconventional warfare or unilateral operations deep in his rear areas. Normally, the unified commander assigns missions through his Joint Unconventional Warfare Command (JUWC). Special Forces will provide support by responding to requirements from the tactical corps commander when their elements are located in the corps area of interest.

The US Army Special Forces conduct unconventional warfare in a theater. These operations concentrate on strategic goals and have long-range and immediate effects on the battle. They include interdicting enemy lines of communications and destroying military and industrial facilities. Special Forces conduct PSYOP to demoralize the enemy and to collect information in the enemy's rear areas. Special Forces organize, train, equip, and advise resistance forces in guerrilla warfare, evasion and escape (E&E), subversion, and sabotage. Their greatest value to commanders of conventional forces is in fighting the deep battle and forcing the enemy to deploy significant numbers of combat forces to counter these activities.

Guerrilla warfare combines military and paramilitary operations conducted in enemy-held or hostile territory by irregular, predominantly indigenous forces. Guerrilla operations are brief, violent offensive actions conducted to complement, to support, or to extend conventional military operations. Guerrilla operations in support of a corps' deep battle can assist the commander by maintaining surveillance of a critical area, by distracting enemy attention from objective areas, by attacking enemy fire support units, and by interdicting key approaches.

E&E, subversion, and sabotage activities are aspects of UW which contribute to the strategic effort of conventional forces. E&E moves military and selected civilian personnel out of enemy-held territory. Subversion undermines the military, economic, psychological, or political strength or morale of a government. Sabotage injures or obstructs the defense of a country by destroying war materiel and human or natural resources.

If the United States retains control of the guerrilla forces after linkup with the conventional forces, the guerrillas may augment conventional forces. They may participate in conventional combat operations or conduct reconnaissance in support of conventional forces. They may also relieve or replace conventional units in the main battle area, for example, to contain or to destroy bypassed enemy units and enemy guerrilla elements.

Special Forces elements can deploy unilaterally into the enemy's rear area to locate, to identify, and to destroy vital

targets. Special Forces detachments may have the following missions:

- **Intelligence collection.**
- **Target acquisition.**
- **Terminal guidance for Air Force strike aircraft and Army missile systems.**
- **Interdiction of critical transportation targets.**
- **Destruction of nuclear storage sites and command and control facilities.**
- **Personnel recovery.**

RANGER OPERATIONS

Ranger companies and battalions are specially organized, trained, and equipped to perform reconnaissance, surveillance, target acquisition, ground interdiction, and raids in the enemy rear. Ranger battalions can deploy rapidly to any location in the world where an immediate US military presence is required. They can infiltrate the hostile area by air, land, or sea. When adequately supported, they are capable of independent operations. Ranger missions should integrate into a plan designed to destroy, to delay, and to disorganize the enemy. As an additional benefit, they cause him to divert a significant portion of his combat forces to rear area security.

Ranger operations normally take two forms: quick response and deliberate. In quick response, Ranger units accomplish missions before the enemy can react to their presence. Deliberate operations rely on—

- **Meticulous planning for every phase.**
- **Detailed reconnaissance or surveillance of a target area.**
- **Deceptive countermeasures and absolute secrecy, thorough preparation, and rehearsals.**
- **Decisive execution characterized by surprise, speed, precision, and boldness.**

In either kind, the mission should be completed and the unit extracted before the enemy can react in strength.

Command and control of the ranger battalion will normally be at a level where the unit's unique capabilities can be fully employed on a worldwide or a theaterwide basis. The command echelon to which the Ranger battalion is attached must be able to provide all resources necessary to employ it properly.

Ranger units require access to real-time, all-source tactical and strategic intelligence. The controlling headquarters must have interface with national-, theater-, and corps-level intelligence collection and production elements. It must provide timely, detailed, processed intelligence to the Ranger planning staff.

Insertion and extraction operations are crucial to Ranger employment. Ranger battalions must be provided mission-dedicated assets when air insertion and extraction are involved. Ranger units must also have effective and secure long-range communications with controlling headquarters.

CIVIL-MILITARY OPERATIONS

Commanders must expect to fight in or near populated areas. Centers of civilian population have the potential of providing supplies, facilities, services, and labor resources that US commanders can use to support military operations. Conversely, uncontrolled and uncoordinated movement of civilians about the battlefield, hostile actions by the population, or failure to cooperate with US forces can significantly disrupt military operations. International law, including the Geneva Convention of 1949, requires all commanders to maintain a humane standard of treatment of civilians in the battle area, to preserve law and order, and to protect private property.

Civil-military operations (CMO) affect the relationship between a military command and the civilian populace. They include activities conducted to assist civil authorities and to control the population in the operational area. To obtain the cooperation of the civilian population, CMO integrate psychological operations and civil affairs operations.

OBSOLETE

The G3 supervises PYSOP, but the G5 coordinates those PYSOP directed against civilian populations. PYSOP support CMO through political, military, and economic actions planned and conducted to mold the opinions, attitudes, and behavior of foreign groups to support US national objectives. They also counter enemy PYSOP. The target audience need not be under US control.

The G5 or the S5 staff supervises civilian affairs activities. Civil affairs are those activities which involve US military forces and civil authorities and people in a friendly country or area or those in a country or area occupied by US military forces. This relationship may be established prior to, during, or after military action in time of hostilities or other emergencies. In a friendly country or area, US forces coordinate activities with local agencies or persons, when possible. Normally these relationships are covered by a treaty or other agreement, expressed or implied. In occupied territory, a military government may have to exercise executive, legislative, and judicial authority. Civil-military activities—

- **Identify the local resources, facilities, and support available for US operations.**
- **Coordinate the use of local resources, facilities, and support such as civilian labor, transportation, communications, maintenance or medical facilities, and miscellaneous services and supplies.**
- **Minimize interference by the local populace with US military operations.**
- **Assist the commander in meeting legal and moral obligations to the local populace.**

PART TWO

OFFENSIVE OPERATIONS

CHAPTER 8

Fundamentals of the Offense

THE OFFENSE is the decisive form of war, the commander's only means of attaining a positive goal or of completely destroying an enemy force. Since great numerical advantages are rare in war, the attacker will normally economize in large areas in order to develop local superiority at the point of the main effort. The attacker concentrates quickly and strikes hard at an unexpected place or time to throw the defender off balance. Once the attack is underway, the attacker must move fast, press every advantage aggressively, and capitalize on each opportunity to destroy either the enemy's forces or the overall coherence of his defense.

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HISTORICAL PERSPECTIVE

From Yorktown in the Revolutionary War to the Yalu River in the Korean War, the US Army has a long history of successful offensive campaigns. Sherman, Jackson, MacArthur, Bradley, and Patton are names which stand out from a long list of American leaders who were expert in the attack.

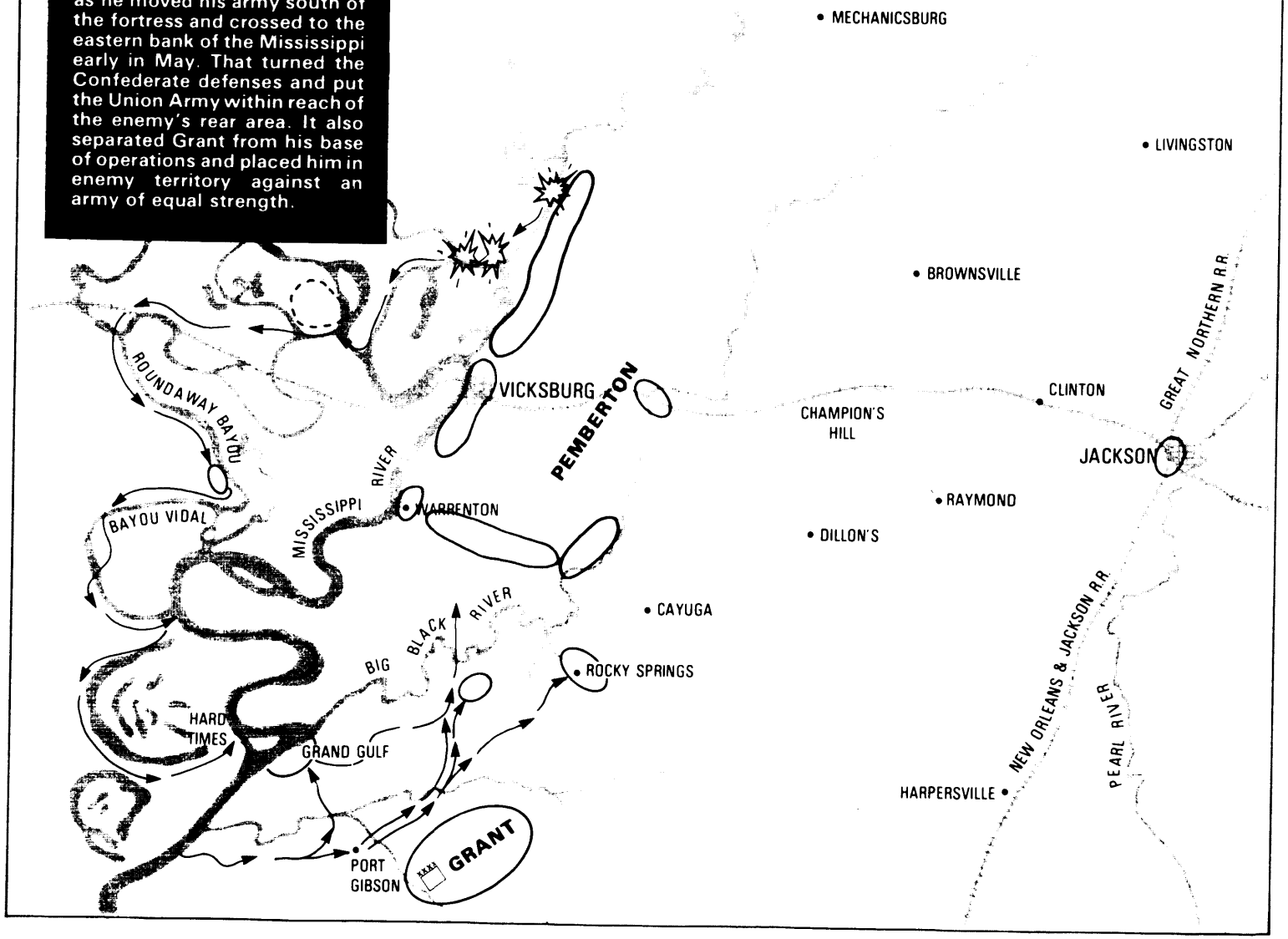
General Grant also understood the essence of offensive operations. Although he could fight direct and bloody actions when necessary, he was a master of maneuver, speed, and the indirect approach. His operation south of Vicksburg, called the most brilliant campaign ever fought on American soil, exemplifies the qualities of a well-conceived, violently executed offensive plan.

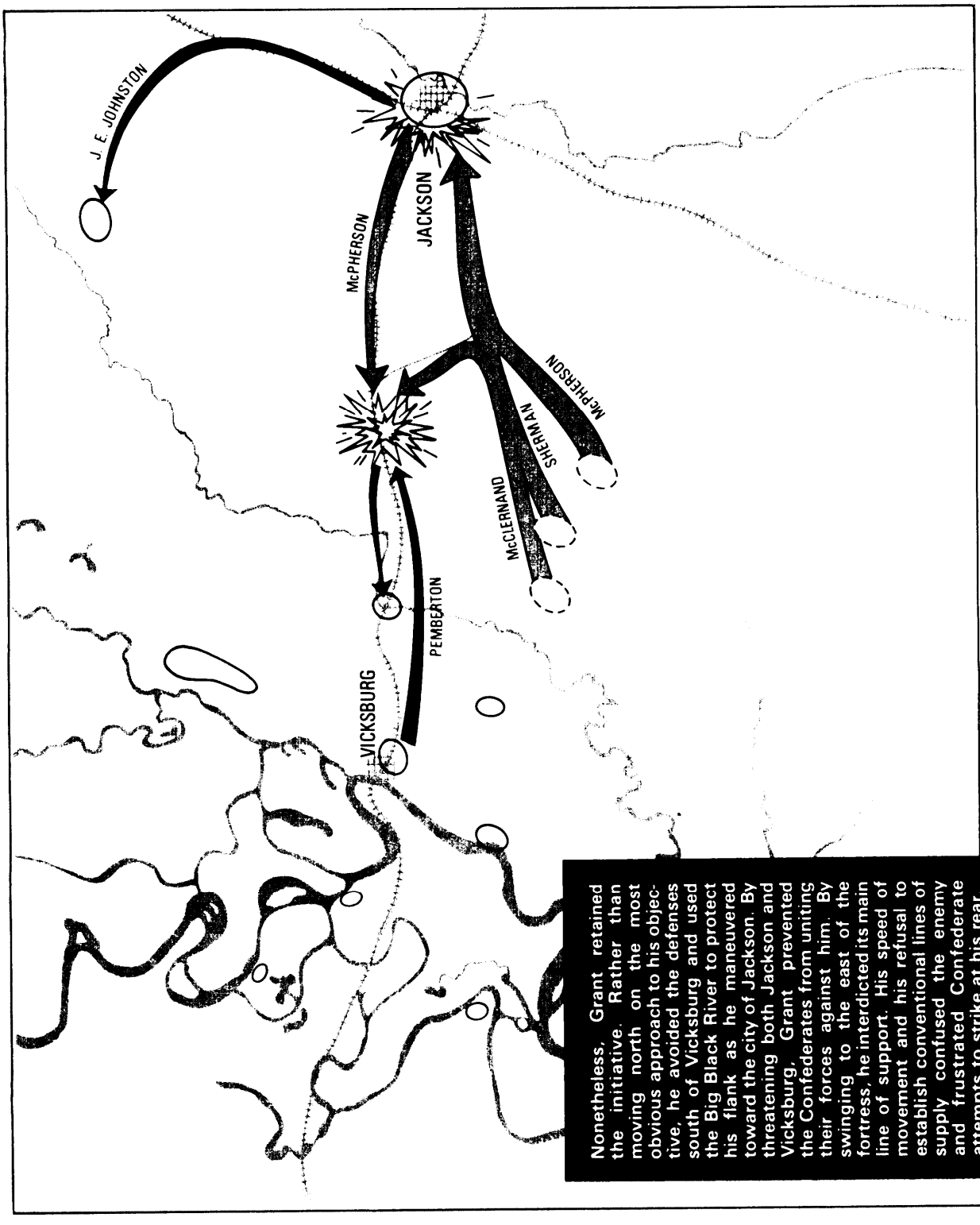
Setting a pace of operations so rapid that his enemies could not follow his activities, Grant defeated the forces of Generals Johnston and Pemberton in five engagements. He covered 200 miles in 19 days, capturing Jackson and driving the defenders of Vicksburg into their trenches. Grant's 4,000 casualties were only half as great as his enemy's. Within 6 weeks the 30,000 men of the Vicksburg garrison surrendered, giving the Union uncontested control of the Mississippi and dividing the Confederacy.

The same speed, surprise, maneuver, and decisive action will be required to win battles of the future. Sensors and long-range weapons of the deep battle, maneuver of ground and air units, and effectively concentrated forces and fires will insure success.

THE BATTLE OF VICKSBURG

After 6 months of fruitless effort north of Vicksburg, Grant masked his operation with demonstrations and raids as he moved his army south of the fortress and crossed to the eastern bank of the Mississippi early in May. That turned the Confederate defenses and put the Union Army within reach of the enemy's rear area. It also separated Grant from his base of operations and placed him in enemy territory against an army of equal strength.





Nonetheless, Grant retained the initiative. Rather than moving north on the most obvious approach to his objective, he avoided the defenses south of Vicksburg and used the Big Black River to protect his flank as he maneuvered toward the city of Jackson. By threatening both Jackson and Vicksburg, Grant prevented the Confederates from uniting their forces against him. By swinging to the east of the fortress, he interdicted its main line of support. His speed of movement and his refusal to establish conventional lines of supply confused the enemy and frustrated Confederate attempts to strike at his rear.

PURPOSES OF THE OFFENSE

". . . when we speak of destroying the enemy's forces . . . nothing obliges us to limit this idea to physical forces: the moral element must also be considered."
Karl von Clausewitz

Destroying the enemy's fighting force is the only sure way of winning; therefore, forces undertake offensive operations primarily to destroy enemy forces. It is not necessary to defeat every enemy combat formation to win. Attacks that avoid the enemy's main strength but shatter the will of the defending commander or reduce the fighting capability of his troops are the fastest and the cheapest way of winning.

Frontal attacks are nearly certain to be costly in lives and equipment. Therefore, they should be undertaken only when they will inflict disabling losses on the enemy, neutralize a major enemy force, or accomplish some lesser effect for a specific and important purpose. On the other hand, accomplished tacticians have consistently preferred well-conceived attacks against weakness rather than force-on-force battles of attrition. They know that destruction is most practical after the enemy has been turned out of a position or is caught in a posture vulnerable to fire.

Offensive operations also have secondary purposes, all of which contribute to destroying the enemy. Elements of large attacking forces may undertake offensive operations specifically—

- **To secure key or decisive terrain.**
- **To deprive the enemy of resources or decisive terrain.**
- **To gain information.**
- **To deceive and to divert the enemy.**
- **To hold the enemy in position.**

Attackers gain a decided advantage when they seize decisive terrain. The Israelis did so when they captured the Mitla Pass in 1967. From such terrain, the attacker may deliver or direct destructive fires. Seizing such terrain may also prevent the enemy's escape or reinforcement. Capturing or destroying key resources or features such as roads, railways, oil lines, politically significant cities, or communications centers denies their use to the enemy or provides a psychological advantage.

A limited-objective attack or reconnaissance in force may be the primary source of information about enemy strength, dispositions, weapons, morale, supply, and intentions. Such attacks occurred frequently in the past. With the advent of improved electronic sensors, they complement intelligence-gathering means; they will remain necessary in the future.

Supporting attacks deceive or distract the enemy and delay his recognition of the main attack. In conjunction with other deceptive measures, they cause him to shift forces from critical areas or to delay sending forces against the main effort. Spoiling attacks can disrupt enemy defensive preparations or preempt his own offensive actions.

Some attacks prevent enemy movement. Such fixing attacks keep the enemy from interfering with friendly maneuver elsewhere and normally facilitate envelopment or pentration by a friendly force.

OPERATIONAL CONCEPTS FOR THE ATTACK

Surprise, concentration, and violence can give the attacker his only significant advantage—the *initiative*. If the attacker loses the initiative, even temporarily or locally, he will jeopardize the success of the entire operation. To maintain the initiative, the attacker must see opportunities, analyze courses of action, decide what to do, and act faster than the enemy—*repeatedly*. Aggressive maneuver, responsive firepower, and effective deep attack are essential to maintaining the initiative.

On today's battlefield the attacker must maneuver rapidly, penetrate deeply, survive powerful counterfires and countermeasures, and above all, maintain momentum by maintaining the initiative. If the attacker does not preserve the momentum, the enemy will recover from the shock of the first assault. He will identify the attacker's main effort and mass forces and fires against it.

METT-T, weapons, and the higher commander's concept of operations determine the conduct of an offensive operation. Whatever the plan may be, **concentration, surprise, speed, flexibility, and audacity** are fundamental.

CONCENTRATION

First, concentration of effort is essential. Successful twentieth-century attacks have usually launched from sudden concentrations and dispersed rapidly as penetrating forces moved into the depths of the defended area on divergent axes. The Third Army's attack through France, the Soviet's advance into Manchuria in 1945, the United Nations' counteroffensive in Korea, and Israel's Sinai campaign of 1967 provide the best examples for the offensive designs of the future. In all but the Soviet advance, the attackers lacked significant numerical advantage. Instead, they succeeded by massing unexpectedly where they could achieve a brief local superiority and by preserving their initial advantage through relentless exploitation. *Similar situations and tactics will occur even more rapidly on the nuclear-chemical battlefield.*

The battlefield is lethal, and the attacker must succeed early and maintain a rapid pace. Thus, division and corps commanders should concentrate for the attack and employ every combat capability available to them. They should allocate enough combat, combat support, and combat service support units to permit them to adjust missions and task organizations. Such support and flexibility will allow the attacker to exploit opportunities as they arise.

Every level of command practices concentration of effort. However, it is most effective at division level and higher, where all combat power, including logistic resources, can be coordinated in support of the plan. When

concentrating forces for the attack, commander must avoid patterns or obvious movements which indicate the attack's timing or direction. Mobility, speed, security, and deception are essential to concentrate forces successfully.

Offensive operations, especially those involving air-land operations, require arms and services to cooperate closely to achieve concentration of effort. Air-ground operations are complementary. Ground maneuver forces will be the critical elements in an attack, but their progress will depend on Army and Air Force reconnaissance, close air support, and tactical interdiction. The attacker's advance causes the defender to concentrate and to move forces. This, in turn, can create lucrative targets for air attack. Air attack on enemy reserves and defenses in depth promotes ground maneuver.

Concentration of combat and logistic support is also essential to maintaining offensive momentum. Historically, disrupted engineer assistance, air defense coverage, field artillery support, communications, and logistic support have limited the success of large offensives. These functions require integrated staff planning.

Nuclear and chemical weapons dramatically increase the possibilities for sudden alterations on the battlefield, which attacks can exploit. Troop concentrations should be brief,deception should be of the highest quality, and plans should be flexible enough to accommodate sudden changes. These imperatives, however, represent only an extension of the characteristics of a sound attack. Although risks will be greater, the attacker will gain considerable protection from nuclear fires by disrupting the defender's fire support system and by confusing him with speed.

Under nonnuclear conditions, developing schemes of maneuver and then planning fire support to achieve their objectives are normal. When nuclear weapons are available, planning such fires and then basing schemes of maneuver on their effects may be preferable.

The commander must determine the size of the maneuver forces and when they should concentrate. If they mass too late, he risks defeat in detail. If they mass too soon, he risks nuclear destruction. To minimize the overall risks, he can disperse into concentrated small units. If less than battalion-size, they are not worthwhile targets. As the distance from the enemy decreases, maneuver units will concentrate over multiple routes at the decisive place and time.

Tactical schemes for the nuclear or the chemical environment must stress rapid movement, minimum massing, alternative routes, and violent execution of simple plans even when communications are lost. Nuclear or chemical fire support may allow smaller units to accomplish missions that would require the massed forces in a conventional battle.

SURPRISE

Second, the commander must strive to surprise the enemy. Initiative allows him to choose the time, place, and means of launching his attack. This advantage must throw the enemy off balance and prevent him from recovering until the mission succeeds. The basic requirement for surprise is to strike the enemy at an unexpected place and time.

Striking at an unexpected place and time normally means avoiding the enemy's strengths and attacking his weaknesses. It creates ambiguity and elicits uncoordinated responses. Basil Liddell Hart referred to all such efforts as "the indirect approach." He further noted, "effective results have rarely been attained unless the approach has had such indirectness as to ensure the opponent's unreadiness to meet it. The indirectness has usually been physical and always psychological." Although a direct attack against enemy strength may produce an immediate effect, that effect will seldom be lasting. Attacking forces cannot usually afford the losses that result from a direct approach.

The enemy's strength depends in part on his numbers and resources. It also depends on the morale of his troops, his dispositions, the stability of his command and control, and the effectiveness of his combat support and logistic arrangements. Attacking any of these soft underpinnings can seriously undermine his ability to fight. Divisions and corps commonly use the indirect approach, but smaller units can also apply it to their operations. In its broadest sense of gaining surprise by avoiding the obvious, the indirect approach is vital to offensive success.

SPEED

Third, the attack must move rapidly. Demonstrations, deceptions, feints, and electronic warfare are means of creating or prolonging the enemy's confusion. Speed, however, is absolutely essential to success. It promotes surprise, keeps the enemy off balance, contributes to the security of the attacking force, and degrades the defender's countermeasures which cannot keep pace. Speed can so confuse and immobilize the defender that the attack becomes unstoppable. Finally, as it compensates for lack of mass, speed can provide the momentum necessary for attacks to achieve their aims.

Attacks move fast and follow reconnaissance units or successful probes through gaps in enemy defenses. They must shift their strength quickly to widen penetrations, roll up exposed flanks, and reinforce successes. The attacker tries to carry the battle deep into the enemy rear to break down the enemy's defenses before he can react. The enemy must never be permitted to recover from the shock of the initial assault, never be given the time to identify the main effort, and above all, never be afforded the opportunity to mass his forces or supporting fire against the main offensive effort.

Speed is built into operations through careful planning. Commanders must identify the best avenues for attack, plan the battle in depth, provide for quick transitions to exploitation and pursuit, and concentrate and combine forces effectively. Speed certainly depends on the violent execution of the plan by fire and maneuver units, but it will also depend on—

- **Availability and positioning of engineers.**
- **Use of air and ground cavalry.**
- **Maintenance of effective air defense.**
- **Responsive logistic support of the force.**

FLEXIBILITY

Fourth, the attack must be flexible. The plan must foresee developments as far ahead as possible. However, it must also expect uncertainties, and it must be ready to exploit opportunities. To preserve synchronization on a fluid battlefield, initial planning must be detailed. Subordinates must understand the higher commander's aims so well that they can properly exploit battlefield opportunities even when communications fail. The corps or division must coordinate and support all arms and control operations that may cover 50 to 80 kilometers daily and change direction frequently.

The plan must use routes which permit the maximum possible opportunities for maneuver around strongpoints. A major offensive operation must provide—

- **Branches from the main approach.**
- **Plans for reversion to the defense and for exploitation.**
- **Provisions for changing the direction or location of the main effort.**
- **Provisions for combat at night or in limited visibility.**

Even if nuclear and chemical weapons do not support the attack, commanders must plan to protect the force from such enemy's strikes. Planning for maximum dispersion, using multiple routes, and having reserves assume major missions are all basic to an attack on the next battlefield.

AUDACITY

Finally, audacity has always been the keystone of successful offensives. To the overly cautious around him, General George S. Patton, Jr., once warned, "Never take counsel of your fears. The enemy is more worried than you are. Numerical superiority, while useful, is not vital to successful offensive action. The fact that you are attacking induces the enemy to believe that you are stronger than he is."

In summary, the key terms of AirLand Battle doctrine—initiative, depth, agility, and synchronization—also apply to any successful attack. Offensive operations—

- **Seize and retain the initiative throughout the operation, never allowing the enemy to recover from the shock of the initial attack.**
- **Fight the enemy throughout the depth of his formations to frustrate his decision making, his attempts to react to the attack, and his attempts to sustain a coherent defense.**
- **Maintain agility and flexibility in using fire, maneuver, and electronic warfare to set the terms of battle and to create confusion in the mind of the defender. Just as he begins to react to one threatening situation, he is faced with another. This overloads the enemy's command and control system and renders his reaction uncoordinated and indecisive. Indecision and uncoordinated actions can result in destruction of the defending force if vigorously exploited.**
- **Synchronize all available combat capability in well-coordinated combined arms actions. To create a violent overall effect, every action of every soldier, system, and unit should either complement or reinforce the actions of other soldiers, systems, and units. Violent execution of flexible plans and aggressive exploitation of enemy weaknesses can destroy a defense which is no longer synchronized.**

FORMS OF MANEUVER

Just as commanders must consider the principles of war collectively and not as a list of separate procedures, so must they view the basic forms of maneuver. In actual operations, the frontal attack, penetration, and envelopment will be used in combination. Infiltration may be a part of both penetrations and envelopments. For example, committed battalions in a divisional envelopment may have to conduct penetrations in their own sectors.

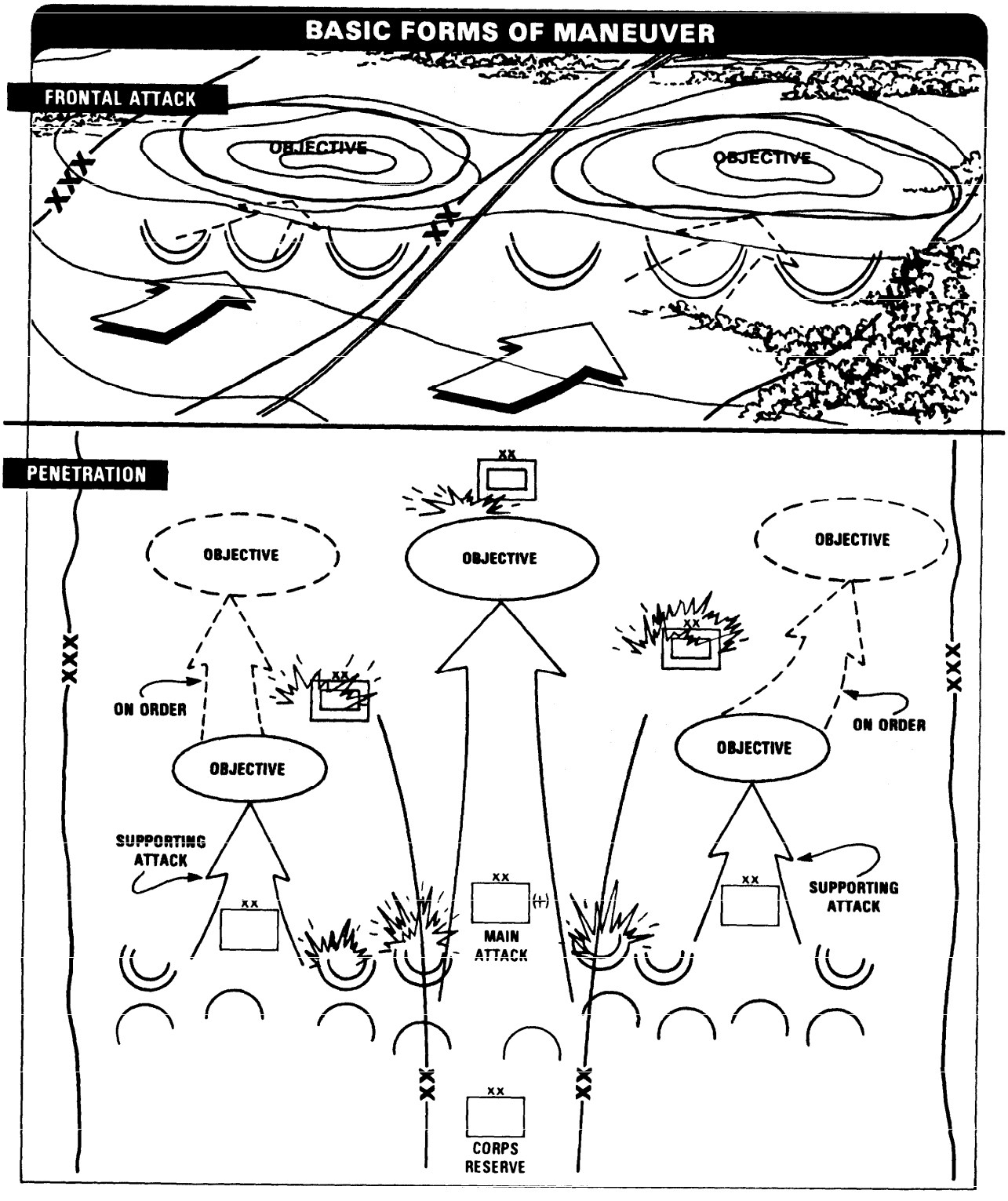
FRONTAL ATTACK

A frontal attack strikes the enemy across a broad front and over the most direct approaches. For deliberate attacks, the frontal attack is unquestionably the least preferable because it exposes the attacker to the concentrated fire of the defender over the most obvious approach.

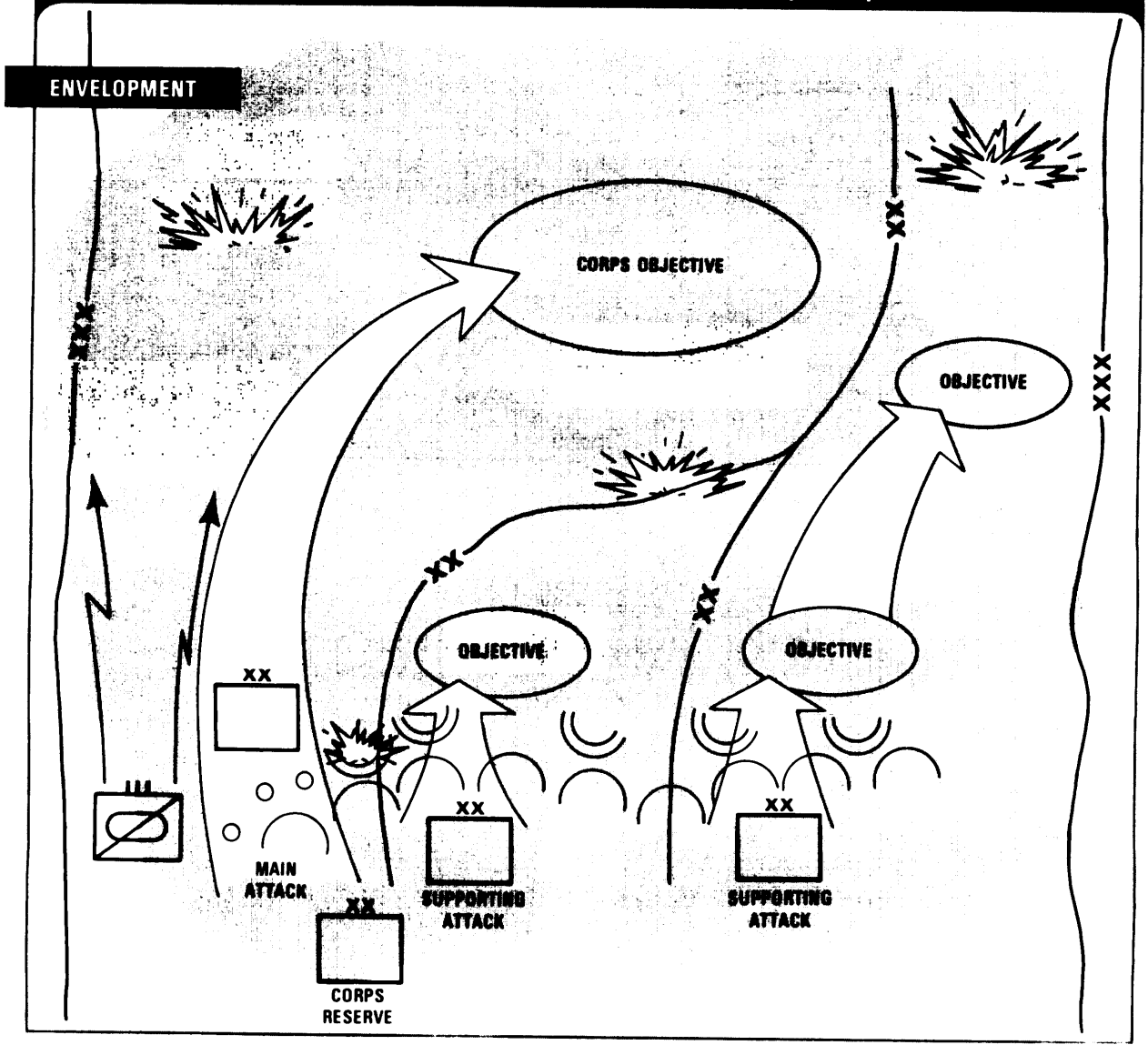
As the quickest approach to the enemy, however, frontal maneuver is useful for overwhelming light defenses, covering forces, or disorganized units. It is often the best form of manuever for a hasty attack in a meeting engagement or for exploiting the effects of nuclear or chemical strikes immediately after they occur. The frontal attack is also used in exploitation and pursuit and during envelopment by the committed subordinate formations.

PENETRATION

A pentration breaks through the defense on a narrow front, widens the gap thus created, and seizes deep objectives to destroy the coherence of the defense. Penetration will frequently precede an envelopment. Shallow penetrations by infantry may initiate armored envelopments or penetrations. Nuclear or chemical fires can also destroy enemy defensive positions and assist in making a penetration.


BASIC FORMS OF MANEUVER
FRONTAL ATTACK
OBJECTIVE
OBJECTIVE
XXX
XX
PENETRATION
OBJECTIVE
OBJECTIVE
OBJECTIVE
ON ORDER
ON ORDER
OBJECTIVE
OBJECTIVE
SUPPORTING ATTACK
SUPPORTING ATTACK
XX
XX
XX
XX
XX
XX
XX
XX
(+)
MAIN ATTACK
CORPS RESERVE
XXX
XXX

BASIC FORMS OF MANEUVER (cont)



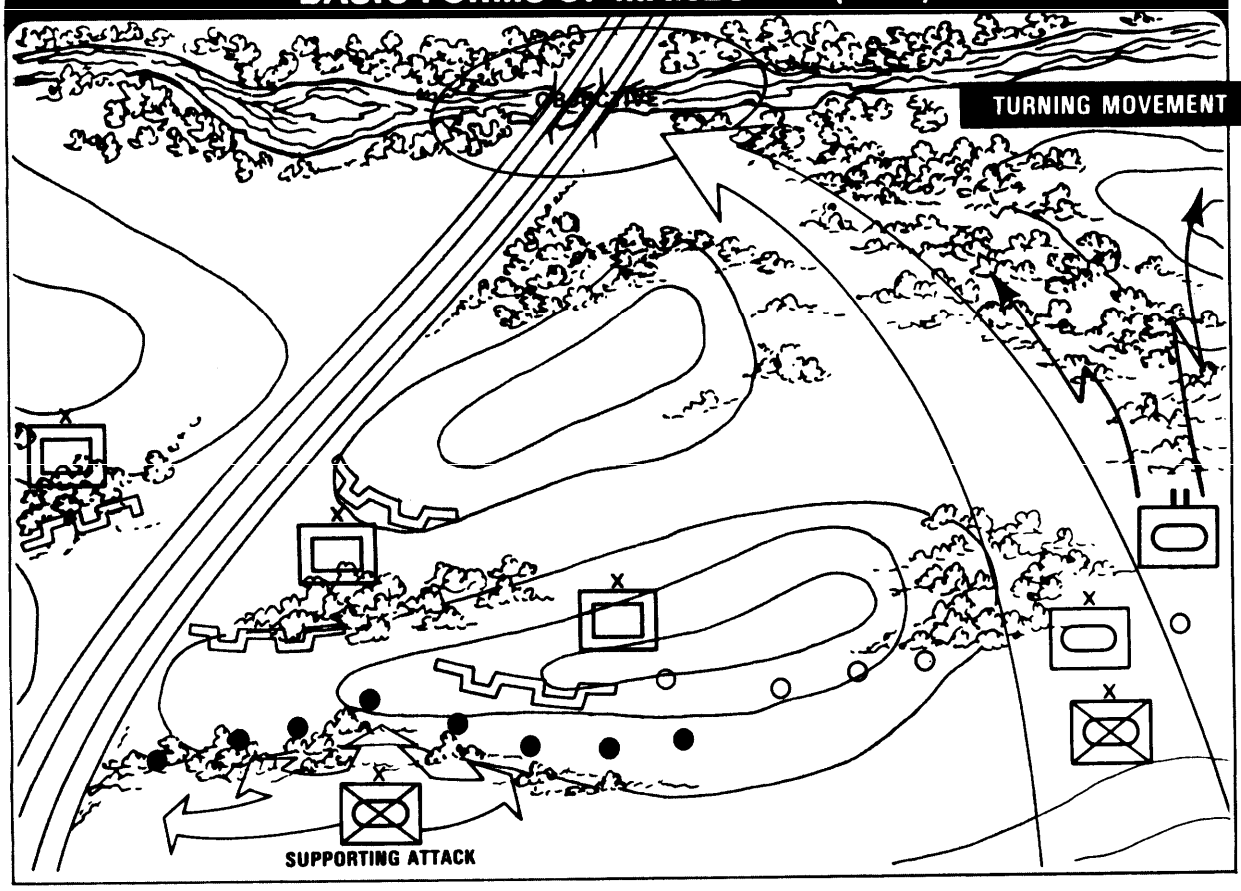
ENVELOPMENT

Envelopment avoids the enemy's strength—his front, where the effects of his fires and obstacles are greatest. The attacker maneuvers around or over the main defenses to secure objectives on the enemy flank or rear. There the defender is less able to concentrate fire, and the attacker enjoys numerical superiority. Tacticians generally prefer envelopment because the attacking force will suffer minimum damage while gaining maximum opportunities to destroy the enemy. It also produces the greatest psychological shock.

Envelopments aim at gaps between enemy positions or at weak points in the defense. Nuclear, chemical, or concentrated conventional fire may create such gaps or weaknesses. Rapid and decisive attack can then exploit them.

OBSOLETE

BASIC FORMS OF MANEUVER (cont)



A turning movement is a variation of an envelopment. The attacking force passes around or over enemy defenses to secure objectives deep in his rear area. In doing so, it forces the enemy to abandon his positions, to divert major forces to meet the threat, and to fight in two directions simultaneously. The speed of airborne and airmobile forces makes them uniquely valuable for turning movements. Because they will normally attack beyond the range of other forces, they need special support.

Infiltration is sometimes used in conjunction with penetration or envelopment. Infiltrating units or parts of units move to favorable positions beyond enemy lines. The prime consideration during the movement is to avoid detection and engagement. Ideally, infiltrations occur during reduced visibility, over rough or difficult terrain, or through areas the enemy has not occupied or covered by surveillance.

While infiltration may also be conducted during defensive operations, it is primarily an offensive maneuver. The commander may order an infiltration through gaps in the enemy's defenses—

- **To attack lightly held positions.**
- **To attack strongpoints from the flank or rear.**
- **To occupy positions from which the main effort can be supported.**
- **To secure key terrain.**
- **To conduct operations in the enemy rear area.**

CHAPTER 9

Offensive Operations

OFFENSIVE OPERATIONS are characterized by aggressive initiative on the part of subordinate commanders, by rapid shifts in the main effort to take advantage of opportunities, by momentum, and by the deepest, most rapid destruction of enemy defenses possible. The ideal attack should resemble Liddell Hart's concept of the expanding torrent. It should move fast, follow reconnaissance units or successful probes through gaps in enemy defenses, and shift its strength quickly to widen penetrations and to reinforce its successes, thereby carrying the battle deep into the enemy rear. It should destroy or bring under control the forces or areas critical to the enemy's overall defensive organization before the enemy can react.

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TYPES OF OFFENSIVE OPERATIONS

The five types of major offensive operations are—

- **Movement to contact.**
- **Hasty attack.**
- **Deliberate attack.**
- **Exploitation.**
- **Pursuit.**

Although these operations are roughly sequential, any offensive operation has the potential of developing into either a more fluid type of operation or a defense. The whole series can proceed by steps from movement to contact to an eventual pursuit; however, an attack can shift quickly forward or backward along the scale as resistance varies. Commanders must organize for combat so that they can change the operation from one type to another without a delay for reorganization. They must also anticipate their dispositions at the conclusion of the operation.

Movement to contact gains or reestablishes contact with the enemy. It may be used when

neither opponent clearly has the initiative or when the enemy has broken contact. The Soviets, looking ahead to operations in a nuclear or a chemical environment, regard it as the type of operation likely to dominate high-intensity warfare. Whether or not this is the case, the movement to contact will certainly be a part of any nonlinear battle.

Movement to contact involves rapid movement, decentralized control, and the hasty deployment of combined arms formations from the march to attack or to defend. It should result in a meeting engagement as the advancing force encounters the enemy. Sensors observing the corps or the division areas of interest may discover the enemy before the covering force reaches him. No matter how contact is made, however, seizure of the initiative is the overriding imperative.

A *hasty attack* takes minimum planning. It usually develops from a movement to contact, but it can also be the means of quickly seizing the initiative after a successful defense. The principles of attack—concentration of effort, surprise, speed, flexibility, and audacity—apply in a hasty attack as in any other.

Rapid and decisive action requires simpler schemes and greater reliance on SOPs and independent execution. Battle drill at company level and below often serves to launch hasty attacks. Battalions employ preconceived plans to launch hasty attacks. Divisions and brigades improvise hasty attacks or effect them through contingency plans. A corps attacks from the march on the basis of the hasty attacks of its divisions or covering forces.

Commanders must thoroughly plan and coordinate each *deliberate attack.* Planning such an attack takes considerable time, but it is sometimes necessary. Against well-organized enemy defenses without apparent gaps and weaknesses, a hasty attack would fail. Synchronized execution is most important. With sufficient information available to plan properly, attack actions will be synchronized in time and space for all elements of the force.

A bold *exploitation* should always follow a successful attack, either to destroy the enemy's ability to reconstitute a defense or to conduct an orderly withdrawal. Regardless of the weather or time of day, successful exploitations continue until the enemy force is completely destroyed or can stop the exploitation with a reorganized defense. Psychologically, exploitations create confusion and apprehension throughout the enemy force and reduce enemy ability to react. Thus, exploitation may well be decisive. As enemy forces become demoralized and the structure of the defense begins to disintegrate, exploitation may develop into pursuit.

Pursuit follows a successful attack and exploitation. It cuts off and annihilates a retreating enemy by maintaining direct pressure on him and by intercepting and destroying his main force.

In addition to the five major types of offensive operations mentioned above, commanders must also be prepared to conduct the special purpose operations:

- **Reconnaissance in force.**
- **Raid.**
- **Feint.**
- **Demonstration.**
- **Relief to continue the attack.**

A *reconnaissance in force* is a limited-objective operation by a considerable force that obtains information and locates and tests enemy dispositions, strengths, and reactions. Even when the commander is executing a reconnaissance in force primarily to gather information, he must be alert to seize any opportunity to exploit tactical success. If the enemy situation must be developed along a broad front, the reconnaissance in force may consist of strong probing actions to determine the enemy situation at selected points. The enemy's reactions may reveal major weaknesses in his defensive system. Because reconnaissance in force is primarily an information-gathering operation, commanders must carefully assess all risks involved. They

must make advance provisions either to extricate the force or to exploit success.

A *raid* is an attack into enemy-held territory for a specific purpose other than gaining or holding terrain. The raiding force always withdraws after it accomplishes its mission.

A *feint* is a diversionary supporting attack conducted to draw the enemy's attention from the main effort. It is normally executed by brigades and smaller units. Feints are usually shallow, limited-objective attacks that go in before or during the main attack.

A *demonstration* is a show of force in an area where a decision is not sought. It is similar to a feint, but it does not make contact with the enemy.

A *relief to continue the attack* is conducted to bring fresh troops forward to continue offensive operations, to introduce a new unit into combat, to avoid excessive radiation exposure, or to decontaminate forces that have been exposed to chemical munitions. While any pause in the attack is detrimental to success, special circumstances may dictate such a relief. Commanders conduct such an operation after objectives have been seized, units have dispersed, and enemy counterattacks are unlikely. An offensive relief can be a forward passage of lines, an area relief, or a relief in place. Forward passage of lines and area relief are more common in the offense than relief in place.

MANY SITUATIONS CAN GENERATE A CALL FOR RELIEF OF FORCES

MOVEMENT TO CONTACT

Movement to contact develops the combat situation and maintains the commander's freedom of action after contact. This flexibility, essential to maintaining the initiative, is based on the following principles:

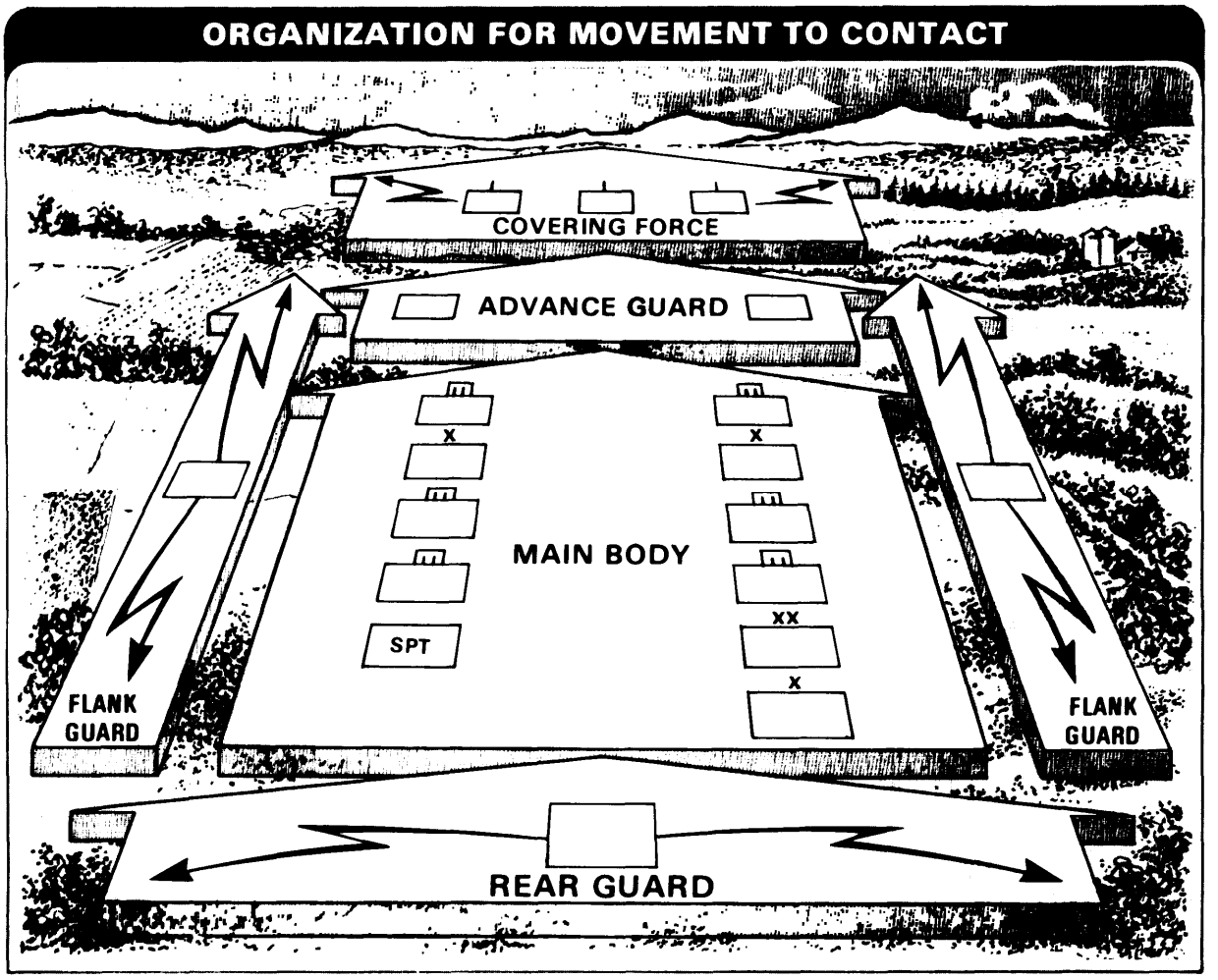
- **To locate and to fix the enemy, the commander must lead with a small mobile force, but he must also hold the bulk of his force back far enough so that he can maneuver without becoming inadvertently engaged in a decisive action. He fights through light resistance with lead**

units whenever possible to maintain the momentum of the operation.

- The commander must organize the force into combined arms teams that are ready to deploy and to attack rapidly in any direction with the support of accompanying air and artillery.
- The formation must provide for all-around security—that is, to the flanks and rear and against air attack, as well as to the front.
- The force must move aggressively with maximum speed. A slow or a cautious advance on a high-intensity battlefield will be dangerous, because slow-moving forces are easy to outflank or to target for a nuclear strike.
- The commander must decentralize execution of the movement to leaders on the front and flanks. However, he must also maintain sufficient control to assure that long-range supporting fires are effective and that succeeding echelons are prompt to follow up after contact.

ORGANIZATION AND PLANNING

A corps and its divisions usually organize a covering force, an advance guard, and a main body for movement to contact. The main body normally provides flank and rear security forces.



The composition, size, and operation of the covering force may influence the entire course of the battle. It must include the necessary fire support, logistic support, and other resources necessary to enable it to fight independently. In this regard it is essential that the covering force include engineer assets—bridging for hasty gap-crossing and dozers and plows to reduce obstacles, including minefields.

The covering force should be highly mobile and well-balanced. It should be employed well forward of the main body to reconnoiter, to develop the enemy situation, and to provide security so that the main body can deploy and fight on the best possible terms. Covering force operations may include attacking to destroy enemy resistance, securing or controlling key terrain, and containing large enemy units.

The advance guard is a security force provided by the main body. It operates to the front of the main body to insure its uninterrupted advance and to protect it from surprise attack by defeating, destroying, or delaying the enemy. The advance guard may protect the deployment of the main body and facilitate its advance by removing obstacles, repairing roads and bridges, or locating bypasses.

The advance guard moves as fast as possible but should remain within supporting distance of the protected force. It performs continuous reconnaissance to the front and flanks and pushes back or destroys small enemy groups before they can hinder the advance of the protected force. When the advance guard encounters large enemy forces or heavily defended areas, it takes prompt and aggressive action to develop the situation and, within its capability, employs offensive action to defeat the enemy. It employs every means available to determine the location, strength, disposition, and composition of the enemy. It may then have to join in the attack. The advance guard must be far enough in front of the main body to insure that the commander of the protected force has freedom of action. However, it must not be so far in front that enemy attack can destroy it before assistance arrives. The protected force commander usually specifies how far in front of his force the advance guard is to operate. At night, in close terrain, and under conditions of low visibility, those distances are reduced.

The advance guard normally advances in column until it makes contact. It may move continuously or by bounds. It moves by bounds when contact with the enemy is imminent and the terrain is favorable. Mechanized infantry, cavalry, and armored units are most suitable for use in the advance guard. Engineers should move with the advance guard, but other support can normally be provided by the main body.

The main body consists of combined arms elements prepared for immediate action on contact. Small units prepare by cross-attaching combined arms and using battle drill. Battalions and brigades prepare by cross-attachment and the direct support of artillery, engineers, air defense, and other units necessary to maintain momentum. Attack helicopter units will normally remain at division and corps level until contact. Air reconnaissance, close air support, battlefield air interdiction, and counterair operations are essential to the success of any large-scale movement-to-contact operation. Local air superiority or parity is also vital to their success.

Combat service support to sustain the elements of the main body must be decentralized and readily available. Aerial resupply may also be necessary to support a large-scale movement to contact or to maintain its momentum.

Brigades, divisions, and corps move over multiple parallel routes with numerous lateral branches in order to remain flexible and to reduce the time needed to initiate maneuver. The speed, momentum, and dispersion of the formation and its limited electromagnetic emissions make targeting by the enemy difficult. Once the force makes

contact and concentrates to overcome the enemy, however, it becomes vulnerable to nuclear and chemical strikes. The force must concentrate, attack rapidly, and disperse as soon as it overcomes resistance. Whether employed in the covering force, the flank, or the rear guard, air cavalry can assist by providing rapid and timely information to the commander.

In a movement to contact, a good command and control system is imperative. The force commander must be able to move quickly to the area of contact. Then he must size up the situation promptly, act quickly and aggressively, and report the situation accurately.

To provide the commander with the earliest possible warning of enemy movement in his area of interest, long-range surveillance should support a force that is moving to contact. The information-gathering system, especially at corps and division levels, should provide current information as continuously as possible. Taking these steps will reduce battlefield uncertainties and provide the commander with a much better chance to seize and to hold the initiative.

Elements of the force must maintain continuous coordination. The advance guard maintains contact with the covering force. The lead elements of the main body maintain contact with the advance guard. The rear guard and flank guards maintain contact with, and orient on, the main body. The main body keeps enough distance between itself and forward elements to maintain flexibility for maneuver. This distance varies with the level of command, the terrain, and the availability of information about the enemy.

Open terrain provides maneuver options on either side of the line of march and supports high-speed movement. It also allows greater dispersion and usually permits more separation between forward elements and the main body than close terrain does. Commanders should never commit the main body to canalizing terrain before its forward elements have advanced far enough to insure that it will not become trapped. As information about the enemy becomes certain, the commander may choose to follow closely to decrease reaction time, or he may begin to deploy in preparation for contact.

Speed of movement should be the greatest allowed by the terrain, the mobility of the force, and the enemy situation. The commander must determine the degree of risk he is willing to accept on the basis of his mission. In a high risk environment, it is usually better to increase the distance between forward elements and the main body than to slow the speed of advance. On a battlefield where only the attacker is moving, he must avoid blundering into enemy killing zones. Therefore, as the advancing unit approaches suspected enemy positions, the unit leader must select covered and concealed routes and keep part of his force in overwatching positions.

Crossing obstacles in stride is generally desirable. When possible, bridges are seized intact in advance of leading elements. Airmobile forces are ideal for this mission. Lead elements bypass or clear obstacles as quickly as possible to maintain the momentum of the movement. If lead elements cannot overcome obstacles, follow-on elements may bypass and take the lead. Follow-on forces breach obstacles which will hinder the combat service support of the force.

ACTIONS ON CONTACT

At any level of command, successful movements to contact depend on—

- **Seizing the initiative early.**
- **Developing the situation and planning maneuver rapidly.**
- **Attacking violently and resolutely.**
- **Maintaining the momentum by synchronizing combat elements, combat support elements, and combat service support elements.**

A movement to contact often results in a *meeting engagement.* A meeting engagement can be a chance encounter between two opposing forces. Such encounters often occur in small-unit operations and when reconnais-

sance has been ineffective. But a meeting engagement may also occur when each opponent is aware of the other and both decide to attack without delay to obtain a tactical advantage, to gain a decisive terrain feature, or to demonstrate superiority. A meeting engagement may also occur when one opponent deploys hastily for defense while the other attacks before that defense can organize.

A commander should determine quickly whether he can bypass the enemy or whether he must attack and destroy him. Bypassed enemy forces must be reported to the next superior headquarters, which then assumes responsibility for their destruction or containment. Generally, if a division's leading task force(s) cannot quickly bypass, defeat, or fight through the enemy, the commander must decide whether to conduct a hasty attack. His alternative is to take the time to develop the situation more carefully and then to conduct a deliberate attack. Usually, the available intelligence will indicate clearly which course the commander should follow. However, a hasty attack may be necessary to insure that inferior forces are not holding up the attack or luring it into an unnecessary delay.

ATTACKS

The opportunity to attack may arise during the course of battle, or it may be created by skillful tactical leadership. Whatever the source, the attack must be fast, violent, resolute, shrewd, and coordinated.

TYPES OF ATTACKS

Attacks are of two basic types: hasty and deliberate. *Hasty attacks* proceed from meeting engagements or successful defenses. In either case, the commander deploys and attacks quickly to gain the upper hand or to keep the enemy from organizing resistance. The commander must be organized to make immediate use of every available asset on the shortest possible notice. Speed of attack will offset a lack of thorough preparation, but from the early moments of the meeting engagement, commanders must commit every available element of combat support to the attack.

The actions taken must always be appropriate to the situation. In some instances attacking with one unit and supporting with two will be more advantageous than automatically adopting the standard opposite configuration. Air maneuver, long-range sensors, extended range artillery, scatterable mines, and nuclear weapons will increase the speed, impact, and effectiveness of hasty attacks.

Deliberate attacks are usually necessary when the defender is well-organized and cannot be turned or bypassed. Thoroughly prepared deliberate attacks are characterized by—

- **High volumes of fire.**
- **Good intelligence.**
- **Extensive preparation of attacking troops.**
- **Well-developed deception plans.**
- **Complete exploitation of electronic warfare.**
- **Unconventional warfare.**
- **Psychological operations.**

The attacker must be organized in depth to provide operational flexibility. Reserves must be in position and prepared to replace lead units or to exploit success wherever it is achieved. Corps and divisions plan to attack the enemy throughout their areas of influence by blocking the movement of his reserves, destroying his command posts, neutralizing his artillery and preventing the escape of targeted units.

Counterattacks and *spoiling attacks* stand somewhere between hasty attacks and

deliberate attacks. They are based on reasonable assumptions about the enemy and on the battlefield conditions. Once the conditions are met or nearly met, the commander launches the attack if it supports his overall mission. He coordinates the attack and prepares the force better than for a hasty attack.

A counterattack or a spoiling attack is usually part of a defense or a delay. Each attempts to destroy the attacking enemy or to regain key terrain. When the balance of power on the battlefield quickly changes, the commander can boldly exploit the situation by counterattacking to seize the initiative. All necessary maneuver and support should be preplanned to permit rapid execution and maximum impact.

The same principles apply to both hasty and deliberate attacks. The effect sought on the objective is the same. The differences lie in the amount of planning, coordination, and preparation prior to execution—in other words, how thoroughly the principles can be applied, not whether they apply. Therefore, because the hasty attack may be the rule rather than the exception, commanders, staffs, and units should be trained to react quickly. Commanders must seek to achieve as much as a well-planned and well-executed deliberate attack can achieve despite the constraints of time and information. In practice, a clear distinction seldom exists between a hasty attack and a deliberate attack. Once commanders decide to attack, any time taken to prepare, plan, issue instruction, and realign allows the defender additional time to react and makes his defeat more difficult.

PLANNING, PREPARING, AND CONDUCTING ATTACKS

The success of the deliberate attack depends on the skill of commanders, staffs, and leaders at all echelons in accomplishing the many necessary preparations during the time allowed.

Planning for Attacks. When the force receives a mission, the commander and his staff initiate the planning for an attack. They develop tasks required to accomplish the mission. To facilitate planning, coordination, unity of effort, and control, they usually translate the mission into specific objectives for seizing control of the area or destroying the enemy. Commanders use mission-type orders to describe the intent and the overall mission of the force clearly. They minimize restrictions on subordinates' freedom of action.

Each commander must always have a plan for exploitation so that the force does not pause or lose momentum after seizing the objective. Each must plan to fight through the enemy's resistance and to exploit successes relentlessly. The plan should facilitate rapid dispersion of concentrated units or introduction of fresh forces to exploit success.

In designating objectives, the commander must consider the mission, the enemy situation (including his dispositions in depth), troops available and their combat effectiveness, the terrain, the weather, and the time and space factors. After selecting objectives, the commander can determine the scheme of maneuver, allocation of available forces, fire support plan, combat support, and combat service support.

The *scheme of maneuver* seeks to gain an advantage of position over the enemy, to close with him rapidly, to overrun him if possible, and to destroy his ability to resist. The attack may strike against the enemy's front, flank, or rear and may come from the ground or the air or a combination of both. The commander determines the specific form of maneuver or the combination of forms after considering METT-T and weather. He selects a scheme of maneuver that promises to seize the objective most rapidly and also to facilitate subsequent operations. Surprise and indirect approaches are important in the scheme of maneuver. When a geographically indirect approach is not available, the com-

mander can achieve a similar advantage by doing the unexpected—striking earlier, in greater force, with unexpected weapons, or at an unlikely place.

The scheme of maneuver identifies where the main effort occurs. All of the force's available resources must operate in concert to assure the success of the main effort. The plan of attack must also contain provisions for exploiting success whenever it occurs. Commanders must avoid becoming so committed to the initial main effort that they neglect opportunities. Commanders must be prepared to abandon failed attacks and to exploit any unanticipated successes or enemy errors.

In some cases the situation may be so obscure that commanders will not designate a main attack initially. General George S. Patton recommended assessing the situation four hours after a division attacked to determine whether to continue or to shift the main effort elsewhere.

Commanders determine allocation of available forces concurrently with the scheme of maneuver. They concentrate attacking forces against enemy weaknesses. They can weight the main attack by positioning reserves, by assigning a narrower zone to the main attack force, or by assigning priority of fires to the main attack. The main attack normally gets priority from close air support, attack helicopters, combat engineers, electronic warfare, combat service support, and NBC defense units. The nuclear fire plan and the plan for deep attack will also be designed to weight the attack.

Supported with nuclear or chemical weapons, small forces attacking at high speed may achieve the same success as larger forces supported with conventional fires. Nuclear or chemical preparatory fires may so reduce the enemy's strength that deep, multiple, and equally weighted attacks are possible.

The commander influences the action by shifting firepower assets such as air and artillery. The reserve is the commander's principal means of influencing the action decisively once the operation is under way. The reserve reinforces success in the attack or maintains attack momentum. The reserve prepares for a number of specific contingencies which may arise during the attack. Commanders position the reserve near the area to which it will most likely be committed and reposition it as necessary to assure it can react promptly.

The reserve's strength and composition vary with the contemplated mission, the forces available, the type of offensive operation, the form of maneuver, the terrain, the possible hostile reaction, and the situation. When the situation is relatively clear and enemy capabilities are limited, the reserve may be small. If the situation is vague, the attacker should lead with probing forces and retain his freedom of maneuver until a gap, a flank, or a weakness appears. When the situation is so obscure that it must develop before the commander commits himself to a main effort, the reserve may consist of half of the available maneuver force.

Commanders should make a distinction between true reserves and initially uncommitted forces with subsequent missions. An initially uncommitted force may have the mission of moving through a penetration another unit has made and seizing a deeper objective. This mission differs from both the reserve mission and the follow and support mission normal to an exploitation. A reserve force has no objective prior to its commitment; a follow and support force does. It supports the attack of the element it is following by maintaining the lines of communications and defeating or containing bypassed enemy pockets of resistance.

Rear area protection is a concern at all echelons. It is a particular concern of attacking corps and divisions, which must allocate forces and other combat resources appropriate to the threat. Lines of communications, reserves, and displaced support

elements are the logical targets of the enemy's defensive battle in depth. Air attack, saboteurs, irregular and regular stay-behind forces, or bypassed enemy units will all present problems during the attack. Rear area combat operations are treated at length in chapter 14.

Commanders develop the *fire support plan* for the entire force in general and the assault elements in particular. This plan also covers the reserve when it is committed. Commanders must decide whether or not to fire a preparation. That decision is based on the likelihood of surprising the enemy; knowledge of the enemy's strength and dispositions; nuclear, biological, and chemical protection; available ammunition; and the results desired.

The fire support plan allocates nuclear weapons and fires to subordinate units, nuclear weapons for preparation, and numbers and types of weapons to be held in reserve or in general support. Uncommitted nuclear weapons in reserve give the commander an additional, powerful means of influencing the course of the operation once their release has been granted. Likely locations for enemy reserve forces and weapons remain under surveillance. Certain areas may be so critical to the operation's success that they warrant specifically allocated weapons and rapid, prearranged procedures to call for fires. Commanders must evaluate predicted obstacles caused by conventional, nuclear, and chemical fires as they affect the movement of friendly troops.

The *deep battle plan* supports the scheme of maneuver. Enemy reserves, fire support elements, command and control facilities, and other high-value targets beyond the line of contact are possible targets for attack. The primary means of attack are—

- **BAI.**
- **Long-range artillery.**
- **Attack helicopter units.**
- **Electronic countermeasure systems.**
- **Special forces.**
- **Ranger units.**
- **Airmobile units.**
- **Airborne units.**

Separately or in combination, these means can block enemy reinforcement, protect the attacking force against counterattack, and disorganize enemy fire support, air defenses, and logistic support. They can slow the reactions of the defender by jamming communications and destroying command posts. Airmobile and airborne forces can divert forces, confuse the enemy, or seize key terrain deep in the enemy's rear area.

Preparing for Attacks. Time is essential and must be intensely managed. Senior commanders at any echelon should use no more than one third of the available preparation time for planning and issuing orders. Subordinates must have time to conduct necessary reconnaissance and coordination and to follow troop-leading procedures throughout the force.

Attack orders include the measures for coordinating and controlling operations. Control measures describe and illustrate the plan, maintain separation of forces, concentrate the effort, assist the commander in the command and control of his forces, and add flexibility to the maneuver plan. At a minimum, they prescribe a line of departure, a time of attack, and the objective. In addition, they may assign zones of action and name axes of advance, directions of attack, routes, phase lines, checkpoints, and fire control measures. Such control measures should give subordinate commanders maximum freedom yet insure a coordinated effort.

Whenever possible, commanders should issue orders face to face to avoid misunderstanding. Subordinate commanders must know what the command as a whole is expected to do, what is expected of them, and what adjacent and supporting commanders are expected to do. Subordinate commanders and staffs must have pertinent information and as much time as possible to prepare their

plans. Warning orders that contain as much information as practical are vital in preparing for attack.

Coordination begins immediately on receipt of a mission and is continuous throughout the operation. When time allows, the commander and/or his staff should review plans of subordinates, giving additional guidance as needed to insure an overall coordinated effort.

In the final analysis, *the success of the operation depends on proper understanding and aggressive execution at battalion level and below.* Soldiers will attack with the required confidence, aggressiveness, and resolve when they understand their own tasks within the scheme of the overall plan and when they know what their comrades on the ground and in the air will do.

SOLDIERS MUST BE KEPT AWARE OF THE OVERALL PLAN

In preparing for offensive operations, commanders must integrate support and tactical plans. They must also insure that their CSS operators are kept fully informed during the battle. The success actually achieved will depend in part on the initiative and innovation of CSS planners and operators.

In the offense, commanders should generally position CSS facilities as close as possible to the tactical units they support. This reduces distances over which units must travel to receive support. Only CSS elements providing essential support (trucks with ammunition and POL) should move forward during the period just prior to the attack. If possible, such movements should occur at night.

When the plan calls for the attacking unit to pass through a defending unit, CSS planners should seek assistance from the defending unit. It may be able to assist by providing POL, medical aid, or other support.

Offensive operations use large amounts of POL, but the selected course of action influences the amount of POL required. Units that travel over rough, broken ground will consume more POL than similar units that travel over a smooth terrain. By requesting

outside assistance in topping off combat vehicles prior to an attack, the CSS operator can keep his own bulk POL transporters full so they will be available to refuel combat units after the attack starts.

Ammunition consumption will normally be high, but several factors can influence the amount and types that will be needed. If the commander adopts a course of action which strikes the enemy in a weakly defended sector, consumption may be relatively light. Units moving over open terrain may be well exposed to enemy aircraft and use large quantities of antiaircraft ammunition.

By estimating how much ammunition and POL each unit of the command will consume, CSS planners can prepare push package shipments. These will be automatically dispatched to supported units if communications break down.

The repair parts required to support an attack will vary, depending on the selected course of action. More repair parts will be required to support an attack over rough terrain.

A CSS unit on the move cannot normally provide support. In planning displacements of CSS units, CSS planners must insure continuous support. This is particularly necessary with regard to medical support.

Water can be as critical a commodity as ammunition. Combat takes a tremendous amount of energy and substantially increases the human body's requirement for water. Vehicles operating under constant mechanical strain also use large amounts of water. Planners must consider water sources along the route of advance. Operations in desert areas can be limited by the sources of water and means to transport it.

Communications between headquarters of tactical units and CSS units are critical. The tactical unit's headquarters must keep the CSS operators informed. This means that CSS units must have sufficient radios, particularly because CSS units operate from a number of dispersed locations (supply points and/or maintenance contact teams).

Planners must select and use supply routes carefully. When possible, trucks moving supplies forward should use secondary routes to avoid detection. They should also avoid setting a pattern which could disclose the locations of units being supported.

Combat units should carry as much materiel as possible into battle because disruptions in the supply system can occur. The CSS planners and commanders should review the authorized stockage list and the prescribed load list of each unit to insure that transportation carries only combat essential items.

Just prior to the attack, units move rapidly into attack positions. This movement must be thoroughly coordinated and planned in detail to preserve surprise. Concentration of the force should take place quickly and should make maximum use of cover and concealment, signal security, and deception. Actions that will alert the enemy to the coming attack must be avoided since deception is vital to success.

The attacking force organizes to cope with the environment—to attack across obstacles and rivers, during snow or rain, at night, or on nuclear or chemical battlefields. Engineers, NBC reconnaissance units, and air defense artillery and aviation assets must support maneuver throughout the attack.

Conducting Attacks. The attack must be violent and rapid to shock the enemy and to prevent his recovery until the defense has been destroyed. The attacker must minimize his exposure to enemy fires by using maneuver and counterfire, avoiding obstacles, maintaining security, insuring command and control, and remaining organized for the fight on the objective.

Commanders must be well forward for psychological reasons as well as for good control of their units. By commanding near the source of combat information, they are

able to make assessments and issue instructions. While on the move, forces communicate primarily by radio. Commanders must zealously guard this means of communications and demand discipline, passing only essential information. They can facilitate coordination by monitoring the reports of adjacent units.

A force attacks under a variety of circumstances. It attacks most often as a result of a meeting engagement that follows a movement to contact, from defensive positions after defeating an enemy attack, or through an attacking or defending force. The first two of these cases will most often result in a hasty attack.

When a hasty attack fails and the commander decides to resort to a deliberate attack, he insures that the force does not become disorganized or vulnerable to counterattack or nuclear and chemical attack. Positive command and control at this juncture are imperative. Portions of the force must take up hasty defensive positions; other parts of the force are directed to assembly areas. Rapid dispersion is essential, but it must be orderly enough to allow the attack to continue after a brief period of reorganization, consolidation, planning, and coordination.

Attack often begins with a forward passage of lines, an operation in which one friendly unit moves forward through positions held by another. It must be well planned and coordinated to insure minimum congestion and confusion. When possible, passage should be through elements that are not in contact.

The respective subordinate unit commanders coordinate specific details of the passage. Normally, the overall commander assigns boundaries to designate areas through which subordinate elements will pass. Such boundaries usually correspond to those of the stationary force. The unit in place mans contact and passage points, supplies guides, and provides information concerning the enemy, minefields, and obstacles.

To insure continuous support without increasing battlefield clutter, the stationary unit may provide the initial logistic support. Once started, the attacking unit moves through as quickly as possible to minimize the vulnerability of the two forces. The moving force must assume control of the battle as soon as its lead elements have passed through the stationary force. Artillery supporting the stationary force and its direct fires should be integrated into the fire support plan of the attacking unit.

Although indirect approaches are best, the attack may require a powerful and violent direct assault of enemy-occupied key or decisive terrain. The purpose of the assault is to destroy the enemy force or to seize the ground it has occupied. Synchronized fires, maneuver, and combat support are imperative to achieve superior combat power at the point of the assault. Artillery preparation, suppressive fire, isolation of the enemy force, concentration of combat power, and overrunning the enemy all combine to destroy the defending force.

Commanders concentrate all available firepower on the enemy-occupied positions at the beginning of the assault. These fires shift to targets beyond the assault objective as troops move on to the objective. This requires detailed planning, precise execution, and considerable discipline in the fire support force as well as in the assault force. Dismounted assault forces should move as close behind their own fires as possible; armored forces should assault under overhead artillery fire.

As the attacker reaches his assault objective, he must overcome enemy resistance with violent, concentrated firepower and a rapid advance. Speed during this phase of the attack is absolutely essential to reduce casualties and to avoid becoming stalled in the enemy's fields of fire. The assault must move completely across the enemy-occupied position. Fortified positions on the assault objective are then attacked from the flank or rear after the assaulting force has passed around them.

A coordinated effort to suppress enemy field artillery, air defense, and command and control supports assaulting forces. The enemy forces in depth posing the greatest threat to the attacking force are nuclear or chemical delivery systems, command and control facilities of the force being attacked, reserve forces, or fire support units. They are jammed by combat electronic warfare intelligence units, attacked by artillery or air, or blocked by other maneuver forces during the assault.

Once an enemy-occupied position is taken, the force must disperse rapidly and initiate the exploitation. Exploitation occurs either by continuing the attack with the same force or by passing another through it. Infantry attacks on fortified defenses are normally exploited by armor and mechanized forces. Besides giving the enemy time to reorganize, any pause in operations increases the force's vulnerability to counterattack or to nuclear or chemical counterfires.

OTHER TACTICAL CONSIDERATIONS

Use of Terrain. Attacking forces should select avenues of approach that permit rapid advance, allow for maneuver by the attacking force, provide cover and concealment, permit lateral shifting of reserves, allow good communications, resist constriction efforts by enemy engineers, and orient on key terrain.

Battalion task forces and company teams advance from one covered and concealed position to the next. Divisions and corps move along lines of communications that provide for rapid advance of all combined arms and supporting forces. To sustain momentum, tank and mechanized task forces must move forward; so must field and air defense artillery, engineers, and combat service support units.

Terrain chosen for the main effort should allow rapid movement into the enemy's rear area. Commanders should normally identify and avoid terrain that will hinder a rapid advance; however, an initial maneuver over difficult terrain may be desirable if the enemy can be surprised. Commanders should personally reconnoiter the terrain, particularly terrain where the main effort is to be conducted.

As they move forward, combat elements should provide as much mutual support as possible. However, rapidly moving forces should not generally be held back to preserve a uniform rate of advance. Elements may seize intermediate objectives to provide mutual support and protection for an adjacent unit moving on a more exposed route.

Key terrain along the route of advance must be either seized or controlled by fire. When present, decisive terrain becomes the focal point of the attack.

Flank Security. The attacking force commander should not ignore the threat to his flanks, which increases as the attack progresses. He must assign responsibility for flank security to attacking units or designated security forces. To maintain forward momentum, it may sometimes be necessary to dispense temporarily with flank protection. The speed of attack itself offers a degree of security because it makes defensive reactions less effective.

Obstacles overwatched by air or ground cavalry or other security forces can improve flank security. When flank obstacles are emplaced, the commander should be mindful of how they affect his maneuver options.

Smoke Operations. During offensive operations, smoke degrades enemy observation. Smoke placed on or near enemy positions blinds gunners and observers. Delivered between friendly and enemy forces, it screens friendly maneuver.

Smoke may also deceive the enemy as to the attacker's intentions. For example, smoke may attract the enemy's attention to one part

of the battlefield while friendly units attack on another.

Protection from Air Attack. Cloud cover or limited visibility conditions in conjunction with a well-planned, ground-based air defense effort are a great advantage to an attack. Local air superiority during corps-, division-, or brigade-size attacks is highly desirable.

In the attack, SHORAD units protect critical assets such as supporting artillery, combat trains, and/or other potential targets designated by the division commander. As the maneuver elements move forward, HIMAD units should relocate forward to extend medium-altitude coverage for attacking forces.

Breaching Obstacles. When facing an organized defense, the attacker should expect to encounter obstacles. Assisted by engineer units with leading attack elements, forces should bypass, breach, or cross natural obstacles identified by map or ground reconnaissance.

An attacker should bypass obstacles whenever possible. Unable to bypass quickly, he should begin breaching operations at once. Even while breaching operations are under way, the search for a bypass must go on. Since obstacles are usually covered by fire, it is important to act quickly to bypass or to breach.

An *assault breach* usually occurs under fire, with little opportunity for reconnaissance. Any pause to reorganize or to conduct detailed reconnaissance would weaken the attack's momentum. When possible, combat engineers moving with leading companies perform the breach while tanks and infantry overwatch. Because engineers cannot be everywhere, however, all units must be trained, organized, and equipped to conduct hasty minefield breaches. In an assault breach, rapid breaching devices clear lanes to a width that will allow combat forces to continue the advance.

Combat engineers may conduct a deliberate breach if time permits detailed reconnaissance and planning. Normally, in a deliberate breach, they will clear obstacles completely.

River-Crossing Operations. Commanders must plan to quickly cross whatever rivers or streams are in the path of advance. A river crossing requires special planning and support. The size of the obstacle and the enemy situation will dictate how to make the crossing. Regardless of how they cross the river, attackers should do so without losing momentum. Only as a last resort should the attacking force pause to build up forces and equipment. *FM 90-13 deals with the subject in detail.*

Attacks During Limited Visibility. Darkness and other periods of limited visibility offer great advantages to the attacker. At such times attacks can—

- **Achieve surprise.**
- **Exploit success.**
- **Maintain momentum.**
- **Rupture strong enemy defenses.**

Modern night vision devices make night combat more feasible and effective than ever before. Because it lights the battlefield for both sides, artificial illumination is appropriate only when night vision devices are not available in sufficient quantities or when ambient light levels are very low. Sources of illumination such as searchlights provide targets for the enemy.

The side equipped with passive devices has a significant advantage. The degree of advantage gained by using illumination depends on the availability of night vision devices to both attacker and defender. When ambient light levels are high, passive night vision devices will reduce many of the effects of darkness. However, visibility will still be impaired enough to reduce detection and engagement ranges, length of bounds, and movement on covered and concealed routes.

Snow, rain, fog, or smoke present special problems in navigation, target acquisition, and identification. Special training, use of appropriate sensors, and careful planning can overcome these difficulties.

When a defender is disposed in positions that afford good long-range fields of fire, the last 3,000 meters of the attack approach may produce unacceptable losses. Under these circumstances, attackers may delay for a short period to take advantage of darkness, bad weather, or fog.

Combat techniques in limited visibility are similar to those in a deliberate attack during daylight. Attackers need detailed knowledge of enemy dispositions. The maneuver force can often get closer to an enemy position by capitalizing on the enemy's inability to acquire and to engage long-range targets as well as on reduced mutual support between enemy positions. Night attacks against strongly defended positions should cover relatively short distances (1 to 2 kilometers from the line of departure to the objective). Leaders at all levels should have the opportunity to reconnoiter the area of the attack as far forward as possible during good visibility. Wire will often be the primary means of communications until the assault begins or surprise is lost. Visual aids for recognition may assist in control of forces. Colored lights or luminous strips may help. Objectives will usually be smaller than normal, but they must be sufficiently prominent to insure easy location.

Nuclear weapons fired at night will dazzle friendly troops. When friendly forces use nuclear fires at night, they should give adequate warning and coordinate with the operations of other friendly units. Attackers can use nonpersistent chemical agents when nuclear fire is unacceptable.

EXPLOITATION AND PURSUIT

Exploitation and pursuit proceed directly from the attack and are initiated from attack dispositions. Exploitation is the bold continuation of an attack to maximize success. Pursuit is the relentless destruction of retreating enemy forces who have lost the capability to resist.

EXPLOITATION

Exploitation forces drive swiftly for deep objectives, seizing command posts, severing escape routes, and striking at reserves, artillery, and combat support units to prevent the enemy from reorganizing an effective defense. Exploitation forces should be large and reasonably self-sufficient. Well-supported by tactical air, air cavalry, and attack helicopters, they should be able to change direction on short notice. The commander must provide his exploiting forces with mobile support, including air resupply to move emergency lifts of POL and ammunition.

Planning for exploitation begins during the preparation for the attack. To avoid losing critical time, the commander tentatively identifies forces, objectives, and zones for the exploitation before his attack begins. Subordinates watch the enemy's defenses for indications of disintegration. When the opportunity to exploit occurs, commanders must issue warning orders, group forces, establish control measures, and arrange combat service support quickly.

Commanders of committed forces must act fast to capitalize on local advantages. Corps and divisions should aim for an early and rapid transition from attack to exploitation. Most exploitations will be initiated from the front rather than directed from the rear. When possible, the leading forces of the attack should retain the lead for the exploitation.

Commanders normally designate exploiting forces by issuing fragmentary orders during the course of an attack.

Assigned missions include seizing objectives deep in the enemy rear, cutting lines of communication, isolating and destroying enemy units, and disrupting enemy command and control. The exploiting force commander must have the greatest possible freedom of action to accomplish his mission. He will take the initiative and move aggressively and boldly. His objective—a critical communications center, a mountain pass, or key terrain that would significantly contribute to destruction of organized enemy resistance—may often be some distance away. At other times, the objective may simply be a point of orientation.

Exploitation should be decentralized. The major commander maintains sufficient control to alter the direction of the command or to prevent its overextension. He relies on his subordinates to find the fastest way to their objectives, to deploy as necessary to fight, and to seize all opportunities to damage the enemy or to accelerate the pace of the operation. The major commander uses minimum control measures, but issues clear instructions concerning seizure of key terrain and the size of enemy forces which may be bypassed.

The exploiting force commander must be careful not to dissipate combat power in achieving minor tactical successes or in reducing small enemy forces. His aim is to reach the objective with the maximum strength as rapidly as possible. Control is vital to prevent overextension of either the exploiting force or the logistics required to sustain it, especially if the enemy is capable of regrouping unexpectedly to attack the command. Available fires target enemy forces that cannot be bypassed or contained. Rapid advances provide security from nuclear attack by keeping enemy forces off balance and degrading their intelligence and surveillance capabilities. Exploitation continues day and night as long as the opportunity remains.

To sustain the exploitation and to insure that supplies and support reach the force safely and on time, commanders must give specific attention to the control of logistic units and convoys. Commanders must call them forward and guide them around bypassed enemy positions and obstacles.

Maneuver. Exploitation forces normally advance rapidly on a wide front toward their objectives. Leading elements maintain only those reserves necessary to insure flexibility of operation, continued momentum in the advance, and essential security. Armored and mechanized task forces are best suited for exploitation on the ground. Airmobile forces are extremely useful in seizing defiles, crossing obstacles, and otherwise capitalizing on their mobility to attack and cut off disorganized enemy elements. They can also seize key terrain such as important river-crossing sites or vital enemy communications nodes along the exploiting force's route or in the enemy rear. Attack helicopter units can interdict and harass enemy armored forces retreating slowly.

Exploitation actions are speedy, bold, and aggressive in reconnaissance, prompt to use firepower, and quick to employ uncommitted units. The force clears only enough of its zone to permit its advance. It contains, bypasses, or destroys those enemy pockets of resistance too small to jeopardize the mission. It reports bypassed enemy forces to adjacent units, following units, and higher headquarters. It attacks from the march and overruns enemy formations or positions strong enough to pose a threat to the mission. If the enemy is too strong for leading elements of the exploitation force to destroy and cannot be bypassed, succeeding elements of the force will mount a hasty attack.

Follow and Support Forces. In exploitation and pursuit operations, follow and support forces—

- **Widen or secure the shoulders of a penetration.**
- **Destroy bypassed enemy units.**
- **Relieve supported units that have halted to contain enemy forces.**

- **Block the movement of enemy reinforcements.**
- **Open and secure lines of communications.**
- **Guard prisoners, key areas, and installations.**
- **Control refugees.**

The follow and support force is not a reserve. It is a committed force and is provided the appropriate artillery, engineer, and air defense artillery support. In division operations, brigades may have missions to follow and support; in corps exploitations, divisions may follow and support other divisions.

Fire Support. Field artillery units should always be available to fire into and beyond retreating enemy columns. In some cases field artillery battalions will be attached to exploiting brigades. Nuclear or chemical weapons may be useful for destroying enemy artillery and reserves, closing routes of escape, and engaging suitable targets of opportunity, including enemy nuclear delivery means. With sufficient nuclear or chemical fire support, the exploitation can be launched shortly after the attack itself.

Security. The exploiting force depends primarily on its speed and enemy disorganization for security. Overextension is a risk inherent in aggressive exploitation. While senior commanders must be concerned about overextension, they must guard against being overcautious as well. They must rely on aggressive reconnaissance by air cavalry units and Air Force systems. In addition, IEW units organic to exploiting divisions can seek out enemy counterattack forces and jam enemy command and control and intelligence nets.

Air Defense. Adequate mobile air defense units should accompany exploiting forces. Air defense arrangements for the initial attack should remain effective for the exploitation. SHORAD systems continue to move with the advancing maneuver forces. They also move with and protect convoys, trains, and vital command posts. The area air defense commander may choose to position HIMAD systems forward to provide coverage for division and corps as the exploitation gains ground. As formations are extended and assets must cover more area, the air defense coverage becomes less effective. Thus, it is particularly important during an exploitation that Air Force counterair operations establish local air superiority.

Engineer Tasks. Engineers integrated into exploiting maneuver forces help breach obstacles and keep forces moving forward. Engineers also keep supply routes open and unimpeded.

Logistics. Exploitation and pursuit may be limited more by vehicle failures and the need for fuel than by combat losses and ammunition. Transportation and supplies to sustain the force become increasingly important as the exploitation progresses. As supply lines lengthen, security of routes will also become a problem. The largest possible stocks of fuel, spare parts, and ammunition should accompany the force so that momentum does not lag for lack of support. When possible, the support troops of larger units should follow the exploiting force echeloned along the main supply route. Maintenance teams with the attacking force repair disabled vehicles or send them to collecting points along the MSR for repair by maintenance units following the main force.

Combat support and combat service support arrangements must be extremely flexible. In deep or diverging exploitations, some combat support and some combat service support units will commonly be attached to maneuver forces.

The Human Dimension. Because troops are frequently tired when the opportunity for exploitation occurs, the commander must exercise aggressive and demanding leadership to keep units advancing. Meeting and overcoming repeated light resistance can actually add to the momentum of well-trained

units even if they are fatigued. When fatigue, disorganization, or attrition has weakened the force, or when it must hold ground or resupply, the commander should exploit with a fresh force. He should insure that it does not congest routes and create a lucrative nuclear target as it moves forward.

PURSUIT

Normally, a pursuing commander maintains pressure on the enemy to prevent the reconstruction of an orderly withdrawal while he simultaneously dispatches forces to encircle or to cut off the enemy. Pursuit requires great energy and resolution on the part of the attacking commander. Fatigue, dwindling supplies, diversion of friendly units to other tasks, and approaching darkness may all be reasons to discontinue the attack, but the commander must insist on continuous pursuit as long as the enemy is disorganized and friendly forces can continue.

Transition. As the enemy becomes demoralized and his defense begins to disintegrate, exploitation may develop into pursuit. Commanders of all units in exploitation must anticipate the transition to pursuit and consider the new courses of action as enemy resistance breaks down.

Successful pursuit requires unrelenting pressure against the enemy to prevent reorganization and preparation of defenses. Pursuit completes the destruction of the enemy force that has lost the ability to defend and is attempting to disengage. A terrain objective may be designated, but the enemy force is the primary objective. The attacker may be able to launch the pursuit after his initial assault if he exploits nuclear fires promptly.

Command and Control. Commanders are located well forward and take decisive action to insure that the momentum of the attack continues. Because of the enemy's disorganization, pursuit allows greater risks than other types of offensive operations. Pursuit operations are aggressive and decentralized. Troops and equipment in the pursuit push to the utmost limits of their endurance during both daylight and darkness.

Commanders must focus their attention forward. They must delegate greater authority than usual to deputy corps commanders and assistant division commanders, as well as to brigade and task force executive officers, entrusting them to push support forward aggressively.

Maneuver. In the pursuit, direct pressure against retreating forces is maintained relentlessly while an encircling force cuts enemy lines of retreat. The pursuing force attempts double envelopments of the retreating main force when conditions permit. It makes maximum use of airmobile and air maneuver units. During the pursuit, artillery, engineer, and combat service support units will often be attached to the maneuver units they support. Pursuit operations require—

- **A direct-pressure force that keeps enemy units in flight, denying them any chance to rest, to regroup, or to resupply.**
- **An encircling force to envelop the fleeing force, cut its escape route, and, in conjunction with the direct-pressure force, to attack and to destroy the enemy force.**

The *direct-pressure force* conducts hasty attacks to maintain contact and forward momentum until the enemy force is completely destroyed. The direct-pressure force prevents enemy disengagement and subsequent reconstitution of the defense and inflicts maximum casualties. It should preferably consist of armor-heavy forces. Its leading elements move rapidly along all available roads and contain or bypass small enemy pockets of resistance, which follow and support units reduce. At every opportunity, the direct-pressure force envelops, cuts off, and destroys enemy elements, provided such actions do not interfere with its primary mission.

The *encircling force* moves as swiftly as possible by the most advantageous routes to cut off enemy retreat. If necessary, it organizes a hasty defense behind the enemy to block his retreat.

The encircling force must be at least as mobile as the enemy. It must be organized for semi-independent operations. Airmobile and airborne forces are ideally suited for this role. An enveloping force gets to the enemy's rear area and blocks his escape so that he can be destroyed between the direct-pressure and enveloping forces. The enveloping force advances along or flies over routes that parallel the enemy's line of retreat to reach defiles, communications centers, bridges, and other key terrain ahead of the enemy's main force. If the enveloping force cannot outdistance the enemy, it attacks his main body on one or both of its flanks. If an attempt to cut the enemy's escape routes fails, a new enveloping force is immediately dispatched.

An encirclement can completely destroy the enemy. During the exploitation of successful penetrations into the enemy's rear, the commander may see possibilities for cutting off and encircling enemy elements; however, he must not initiate an encirclement prematurely or divert from more important missions. To encircle an enemy force, the pursuing force must overtake the retreating enemy and block his escape. Strong forces should position themselves to block his attempt to break through to the rear. Airmobile forces supported by attack helicopters can perform this mission. Forces must prevent enemy attempts to break out at any point, including forests, broken terrain, swamps, and water. All should be secured or covered against enemy exfiltration. If sufficient combat troops are not available, fire or barriers, including nuclear and chemical fires and scatterable mines, may block gaps. Maneuver and fires of all forces involved in the encirclement must be coordinated. Constant pressure, including psychological operations, will weaken the enemy. He must not have time to reorganize for an all-around defense. If he forms a perimeter, pursuit must repeatedly split it into smaller elements until the encircled force is destroyed or capitulates.

If time is not critical, the commander can keep the encirclement closed, ward off breakout attempts, and weaken the enemy by fire alone. The collapse of a large and encircled enemy force can be accelerated considerably by nuclear or chemical weapons.

PART THREE

DEFENSIVE OPERATIONS

CHAPTER 10

Fundamentals of the Defense

THE DEFENSE denies success to an attacking enemy. For this reason some theorists have labeled defense the less decisive form of war. To win, one must attack. However, the distinctions between defensive and offensive operations of large formations are made primarily on their intended purposes rather than on the types of combat actions they under take. Offensive combat is as much a part of defensive operations as strongpoint defenses or delaying actions.

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HISTORICAL PERSPECTIVE

A successful defense consists of reactive and offensive elements working together to rob the enemy of the initiative. It is never purely reactive. The defender resists and contains the enemy where he must but seeks every opportunity to turn the tables. Early in the battle, such opportunities will be local and limited. As the battle develops, they will become more numerous. This is especially true when the defender uses reactive elements to uncover enemy vulnerabilities and to confuse or to disorganize his force. When the attacker exposes himself, the defender's reserves or uncommitted forces counterattack. The defense that successfully attacks the enemy's plan can ultimately destroy his uncoordinated force.

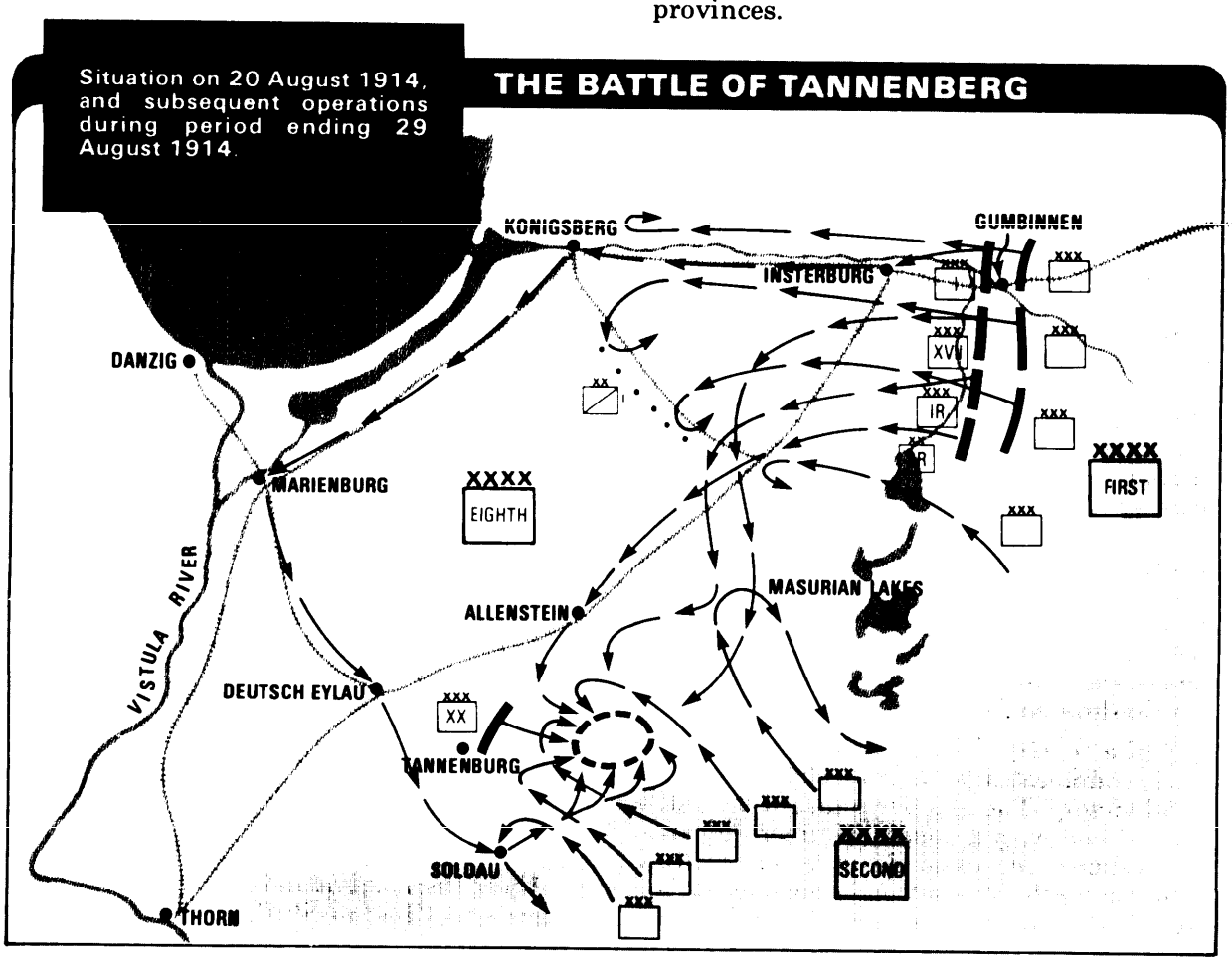
While reactive measures halt the enemy, early counterattacks improve the chances for total victory. The reactive phase of the battle should end with a general counteroffensive. Gettysburg, for example, was an entirely reactive battle. The outcome depended on the attacker's errors, not on the defender's exploitation of them. At the Battle of Kursk in 1943, the defense was better balanced. Early counterattacks strengthened the reactive phase, and the entire defending army ultimately went on the offensive to exploit its gains.

A closer parallel to the fluid conditions, rapid maneuver, and calculated risks of future operations occurred in the Battle of Tannenberg fought in East Prussia in August 1914. While the majority of the German army attacked France, General Max von Prittwitz, commander of the German Eighth Army, defended the province against two Russian armies—Rennenkampf's First Army and Samsonov's Second. After failing to halt the two forces with a series of counterstrokes, Prittwitz notified the high command that he would evacuate the province to set up a defense on the Vistula River. As a result, he was promptly relieved and replaced by General Paul von Hindenburg.

Upon their arrival in East Prussia, Hindenburg and Chief of Staff, General Erich von Ludendorff, adopted a plan conceived by

Chief of Operations, Lieutenant Colonel Max Hoffman, to entrap and destroy Samsonov's Second Army. Leaving only a screen of cavalry to confront Rennenkampf's army, Hindenburg began to concentrate his forces in the south. Five days later he halted, then encircled and destroyed the Second Army near Tannenberg. Samsonov's army broke up in panic, losing 125,000 men and 500 guns from 26 to 31 August.

Turning back to the north, the Germans then concentrated against the Russian First Army, defeating and driving it out of East Prussia. In this defensive campaign, the Germans lost about 10,000 men while imposing losses of 250,000 and effectively ended the Russian threat to their eastern provinces.



OBSOLETE

PURPOSES OF DEFENSIVE OPERATIONS

Defensive operations achieve one or more of the following:

- **Cause an enemy attack to fail.**
- **Gain time.**
- **Concentrate forces elsewhere.**
- **Control essential terrain.**
- **Wear down enemy forces as a prelude to offensive operations.**
- **Retain tactical, strategic, or political objectives.**

The immediate purpose of any defense is to cause an enemy attack to fail. The other listed reasons contribute to purposes beyond the immediate defense.

It may be necessary to gain time for reinforcements to arrive or to economize forces in one sector while concentrating forces for attack in another. In either case, a defense or a delay may achieve these purposes.

In some cases a force may be defending because it cannot attack. The defender then uses his advantages of position and superior knowledge of the terrain to cause the enemy to extend himself. Once the enemy has been weakened and adopts a defensive posture, the defender maneuvers to destroy him with fires or counterattacks.

In other cases, portions of a force may be required to retain key terrain or essential tactical, strategic, or political objectives. In some instances, airmobile or airborne forces must first seize and hold such objectives until a larger force can link with the defender. An underlying purpose of all defensive operations is to create the opportunity to change to the offensive. All activities of the defense must contribute to that aim.

OPERATIONAL CONCEPTS FOR THE DEFENSE

Some military theorists think defense is the stronger form of war because denying success is easier than achieving it. Indeed, the defender does have significant advantages over the attacker. In most cases he not only knows the ground better, but having occupied it first, he has strengthened his position and massed his forces. He is under the cover of his own field artillery and air defense. Once the battle begins, the defender fights from cover against an exposed enemy. He uses the terrain to mask his movements as he gathers forces to block and to attack the enemy. The defender can hold his major forces in reserve until the attack has developed and then strike the extended enemy over carefully selected and prepared terrain within the defensive area. The effects of obstacles, airpower, and conventional weapons on exposed troops and certain aspects of nuclear, chemical, and electronic warfare also favor the defender.

Balanced against these advantages, however, is the attacker's single greatest asset—the initiative. The attacker chooses the time and place of battle. He can concentrate first and surprise the defender by his choice of ground, direction of approach, and time of attack. He can also mislead the defender to slow his recognition of the main attack or distract him to delay his countermeasures.

The attacker tries to shatter the defense quickly and to maintain a fast pace to prevent its reconstitution. The defender must slow the tempo, giving himself time to react before he ultimately isolates and destroys the attacking forces.

The defender prevents the attacker from focusing his full strength at one time and place on the battlefield. Using deception, operations security, and maneuver to appear ambiguous and to confuse the enemy, the defender must divert the attacker's efforts into unproductive ventures and into strikes at nonexistent targets. These dissipate his strength, use his resources, and throw him off balance. Using terrain skillfully and interdicting follow-on forces through deep attack, the defender breaks the attacker's ability to

sustain the momentum. The defender makes it difficult for him to employ fire support assets, to reinforce, to resupply, and to direct attacking echelons. In essence, he destroys the synchronization among the elements of the attacking force.

Initially outnumbered, the defender must take advantage of fighting from stationary, protected positions. Deep attack, the actions of security forces, and detailed fire and barrier plans help contain and control the attack. However, once the defender has controlled the attacker and concentrated forces in the area of the main attack, he gains equally important advantages. He can operate against exposed, precisely located segments of the attacking force. He can attack the overextended enemy with fires from all sides and launch surprise counterattacks on his flanks and rear to destroy the attacking force.

The defender's ultimate task is to overcome the attacker's advantages and to gain the initiative quickly. Napoleon's *Memoirs* contain his principles for conducting defensive campaigns. They can be succinctly summarized: The entire art of war consists of a well-planned and exceptionally circumspect defense followed by rapid, audacious attack.

The key terms of AirLand Battle doctrine—initiative, depth, agility, and synchronization—also apply to any successful defense.

Defensive operations—

- **Seize the tactical initiative locally and then generally as the entire force shifts from defense to attack.**
- **Fight the enemy throughout the depth of his formations to delay and to disorganize him and to create opportunities for offensive action. The defender must organize forces and resources in depth to gain time and space for flexibility and responsive maneuver.**
- **Maintain agility and flexibility in using fire, maneuver, and electronic warfare to set the terms of battle. Just as the attacker commits himself, the defender should change the situation and thereby force a countermove. This overloads the enemy's command and control system and renders his reaction uncoordinated and indecisive. Effective agility can lead to the enemy's piecemeal destruction.**
- **Synchronize all available combat capability in well-coordinated combat actions. Violent execution of flexible plans and aggressive exploitation of enemy weaknesses can halt the attacking force.**

TYPES OF DEFENSIVE OPERATIONS

Types of defensive operations include the defense, the delay, the defense of an encircled force, and rear area protection operations. Other combat activities normally associated with defensive operations include counterattacks, passage of lines, withdrawals, and reliefs to continue the defense. In defensive operations, portions of large corps-or division-size forces may be conducting any of these operations or activities:

- DEFENSE. **The defense is a coordinated effort by a force to defeat an attacker and to prevent him from achieving his objectives. The manner in which this is done is developed in chapter 11.**
- DELAY. **A delaying operation is usually conducted when the commander needs time to concentrate or to withdraw forces, to establish defenses in greater depth, to economize in an area, or to complete offensive actions elsewhere. In the delay, the destruction of the enemy force is secondary to slowing his advance. Counterattacks and defenses by elements of a delaying force may be necessary in such operations. Delay operations are discussed in chapter 12.**
- DEFENSE OF ENCIRCLED FORCES. **Those defending units intentionally and unintentionally bypassed on a nonlinear battlefield must continue to contribute to the overall defense. This is the subject of chapter 13.**
- REAR AREA PROTECTION OPERATIONS. **The rear areas must be defended during any operation. The threats may vary**

from individual acts of sabotage to major regimental attacks and even to division-size airborne or airmobile attacks. Chapter 14 addresses the particulars of rear area protection operations.

- COUNTERATTACKS AND SPOILING ATTACKS. Counterattacks and spoiling attacks may enhance both the defense and the delay. They may occur forward of or within the main battle area. Counterattacks by fire involve maneuvering to engage an enemy's flank or rear. A well-executed counterattack to the flanks or rear of an enemy just as he meets a resolute defense to his front can entirely upset his plan. Companies and larger forces may launch counterattacks to retake critical terrain or to destroy an enemy. They may also assist a friendly unit to disengage. Launched as the enemy gathers his offensive force, a spoiling attack can prevent him from attacking or give the defender additional time to prepare.

- WITHDRAWALS. In a withdrawal, all or part of a force disengages from the enemy for another mission in another area. A partial withdrawal may be necessary in either the defense or a delay. Withdrawals are discussed in chapter 12.

- RELIEFS TO CONTINUE THE DEFENSE. There are two kinds of relief. The relief-in-place is common when units have similar organizations or when occupied terrain must be retained. The area relief is practical when units are dissimilar or when improved defensive terrain is located away from the line of contact.

All coordination, reconnaissance, planning, and control for relief should be simple and efficient. Control, speed, and secrecy can insure simplicity and efficiency. Control, the most important principle, should receive the most command involvement. All relief decisions must consider the time available and allow for advance reconnaissance. The larger the units involved in the relief, the more time will be required for planning and coordination. Both hasty and deliberate reliefs must be concealed from the enemy. Reliefs should be conducted during periods of reduced visibility and when the enemy is least likely to attack. Any change in the defensive plan should normally wait until the relief is complete.

CHAPTER 11

The Defense

KARL VON CLAUSEWITZ characterized the ideal defense as a "shield of blows." At the onset of the attack the defender yields the initiative. However, he uses his prepared positions and knowledge of the ground to slow its momentum and to strike the enemy with repeated, unexpected blows. He defeats the attacker's combined arms, degrades his strength and ability to concentrate, and destroys his force with effective maneuver supported by flexible firepower. He does not have to kill each enemy tank, squad, or combat system; he has only to destroy the ability of the attacking force to continue fighting.

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SCOPE

US Army defensive doctrine is applicable anywhere in the world. The commander chooses a defense to fit his mission, the nature of the enemy, the terrain, and the capabilities of available units. He may elect to defend well forward by striking the enemy as he approaches. He may fight the decisive battle within the main battle area (MBA). If he does not have to hold a specified area or position, he may draw the enemy deep into the area of operations and then strike his flanks and rear. He may even choose to preempt the enemy with spoiling attacks if conditions favor such tactics. In the past, all four methods have proved decisive.

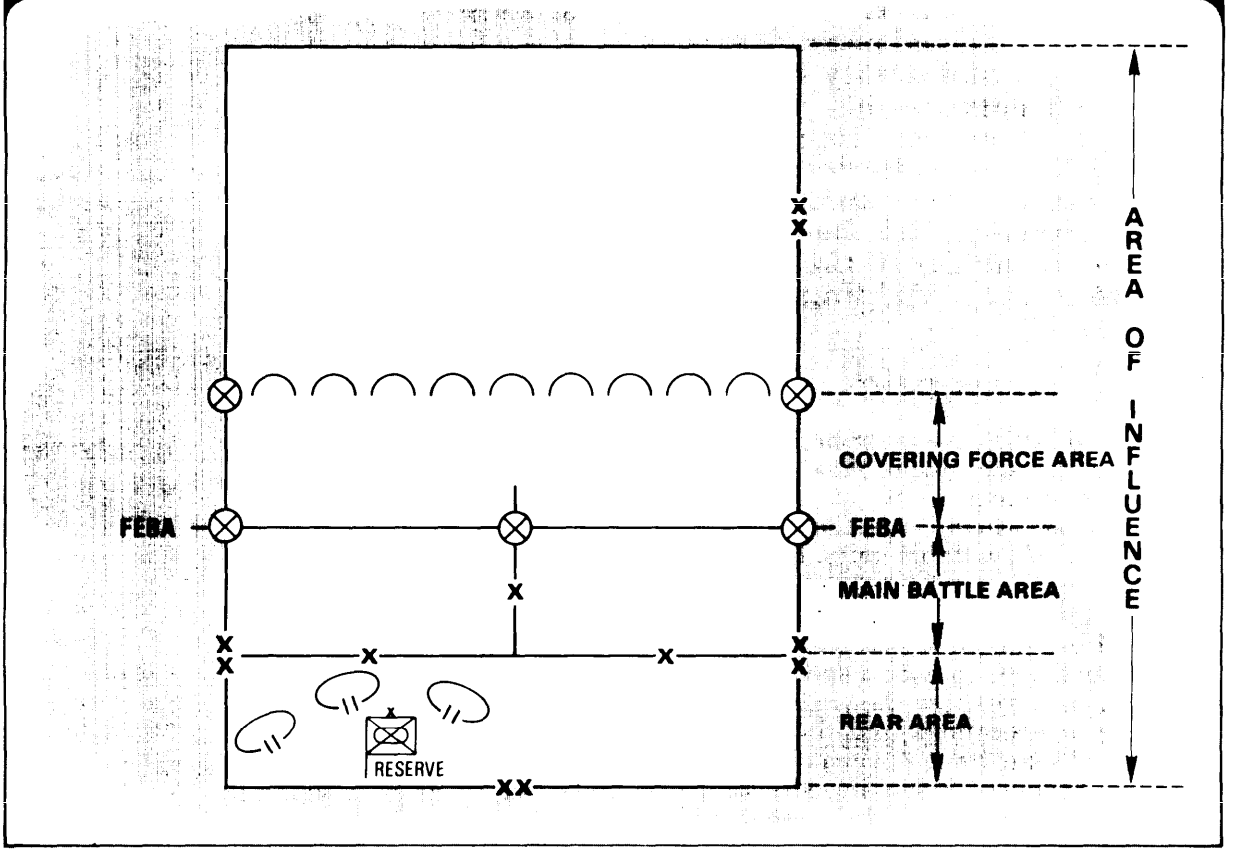
DEFENSIVE FRAMEWORK

Corps and divisions fight a unified air-land defense organized into five complementary elements:

- **A continuous deep battle operation in the area of influence forward of the FLOT.**
- **A covering force operation to support the main effort.**
- **A main effort in the main battle area.**
- **Rear area protection (RAP) operations.**
- **Reserve operations in support of the main effort.**

These elements perform different but complementary functions in the defense. The deep battle robs the attacker of the initiative early and continues to limit his options throughout the battle. Normally established by corps, the covering force serves as the forward security echelon and begins the fight against the attacker's leading echelons in the covering force area (CFA). Covering force actions are designed to facilitate the defeat of the attack in the MBA where the main defensive effort occurs, either at the FEBA or further to the rear. Rear area protection maintains the viability of command and control and support for the overall effort. The primary purpose of the reserve in the defense is to maintain the commander's flexibility. It is best used to strike a decisive blow against the attacker. The commander organizes his defense around these functional elements based on the factors of METT-T. He allocates forces and other resources to these tasks and shifts them as appropriate during the battle.

ORGANIZATION OF THE DEFENSE



CONSIDERATIONS

To plan effective defenses, commanders must consider the five factors discussed below.

Mission. The first consideration in planning the defense is the mission. It defines the area to be defended, and it must be analyzed in terms of the higher commander's overall scheme. Defending broad frontages forces the commander to accept gaps. Defending shallow sectors in which there is little ground to yield reduces flexibility and requires the commander to fight well forward. Narrow frontages and deep sectors increase the elasticity of the defense and simplify concentration of effort, which create a stronger defense. In planning his defensive posture, the commander also considers subsequent missions.

Enemy. The second consideration in planning the defense is the enemy—his procedures, equipment, capabilities, and probable courses of action. Defending commanders must look at themselves and their sectors for weaknesses that the enemy will seek to exploit and then act to counter them. They may also be able to identify probable enemy objectives and approaches to them. In a defense against an echeloned enemy, they must know how soon follow-on forces can attack. If the defenders can delay such forces, they can defeat a strong, echeloned enemy piecemeal—one echelon at a time. If the defenders can force the enemy to commit follow-on echelons sooner than planned, they upset his attack timetable, creating exploitable gaps between the committed and subsequent echelons.

Terrain. The third consideration in organizing the defense is terrain. The defending force must exploit any feature of the terrain that impairs enemy momentum or makes it difficult for him to mass or to maneuver. Defenders must engage the attacker at those points along his avenue of approach where the terrain puts him at greatest disadvantage. Controlling key terrain is vital to a successful defense. Some terrain may be so significant to the defense that its loss would prove decisive. Decisive terrain is usually more prevalent at brigade and lower levels. Terrain itself is seldom decisive in division or corps defense. However, when it is, commanders must make it a focal point of the defensive plan.

Troops. The fourth consideration is the mobility and protection of the defending force relative to the opposing forces. Armor and mechanized forces can move on the battlefield with minimum losses even under artillery fire, while infantry cannot. Once engaged, infantry elements must remain where they are initially positioned and dug in. They disengage when the attack is defeated or when counterattacking forces relieve the pressure on them. However, infantry defenses against enemy infantry attacks in close terrain can be fluid battles of ambush and maneuver.

Time. The fifth consideration in organizing the defense is time. The defense needs time for reconnaissance; for preparing initial, supplementary, and subsequent positions; for fire planning; and for coordinating maneuver, fires, terrain reinforcement, and logistic support. To give MBA forces additional preparation time, the commander may order a high-risk delay by a covering force. Lack of time may also cause a commander to maintain a larger-than-normal reserve force.

OPTIONS

Based on his analysis, the commander assigns missions, allocates forces, and apportions combat support and CSS resources within the framework of the overall defense. He decides where to concentrate his effort and where to take risks. This analysis also establishes the advantages of defending forward or defending in depth.

When he defends in the forward part of the sector, the commander commits most of his combat power and the main defensive effort early. He may do so by deploying forces

forward or by planning counterattacks well forward in the MBA or even forward of it. He may select a defense in depth when the mission is less restrictive, when defensive sectors are deep, and when advantageous terrain extends deep into the sector. Normally, divisions and corps defend a wide sector in depth. Elements in the CFA and forward elements in the MBA identify, define, and control the depth of the enemy's main effort while holding off secondary thrusts. Then counterattacks on the flanks of the main effort seal off, isolate, and destroy penetrating enemy forces.

While METT-T may require forward defense, it is the most difficult to execute because it is inherently less flexible and more dependent on synchronization than defense in depth. The commander's options are not limited to a defense in depth or to a forward defense. The conditions may favor an intermediate form of defense.

DEEP BATTLE OPERATIONS

Deep battle operations in the defense turn the table on the attacker by limiting his options, destroying his plan, and robbing him of the initiative. They can delay the arrival of follow-on forces or cause them to be committed where and when it is most advantageous to the defense. They can also disrupt enemy operations by attacking command posts at critical stages in the battle or by striking and eliminating key elements of an enemy's capability.

Areas of interest and influence extend far enough forward of the FLOT to give the commander time to react to approaching enemy forces, to assess his options, and to execute operations accordingly. The deep battle begins before the enemy closes with the maneuver forces. It goes on during combat in the CFA and the MBA, and it usually continues after the direct contact between forces has ended.

In fighting the deep battle, the commander will maintain a current intelligence picture of enemy forces throughout his area of interest. Yet, he must focus his collection effort on areas and units of particular concern. To conduct a deep attack successfully, the fire support coordinator (FSCOORD), G3, and G2 must cooperate to insure that deep battle actions support the overall concept of the defense.

As enemy formations approach the FLOT, the commander will monitor them, seek high-value targets, and disrupt and delay them. Air-delivered weapons, field artillery fires, tactical nuclear weapons, air maneuver units, and unconventional warfare forces are the chief means of the deep battle. Because they are usually limited in number and effect, commanders must use them wisely and efficiently. Generally, more sensors and weapons become available as the enemy nears the FLOT. Effective employment of maneuver units in deep attack requires careful planning, IPB, and responsive surveillance once operations are underway. For a detailed discussion of the deep battle, see chapter 7.

COVERING FORCE OPERATIONS

In any form of defense, the covering force serves as the forward security echelon. It occupies a sector far enough forward of the FEBA to protect MBA units from surprise, allowing MBA commanders to reposition forces to meet the enemy attack and preventing enemy medium-range artillery fire on the FEBA. The covering force gains and maintains contact, develops the situation, and delays or defeats the enemy's leading fighting forces.

Corps and division commanders may establish a strong covering force as the first echelon of a two-echelon defense. It may battle leading enemy formations, causing the enemy to commit follow-on battalions or regiments and disclose his main effort. During the action, the corps or next higher level of command conducts the deep battle

against follow-on forces and prepares for battle in the MBA.

The size and composition of the covering force depends on METT-T and also on the time that the MBA force needs to organize or to occupy its positions. Normally the covering force is organized around tank-heavy task forces and divisional and regimental cavalry. Ideally, a corps will employ one or more armored cavalry regiments because they are specially organized, trained, and equipped for security missions. A corps may use divisions or separate brigade units instead of cavalry or with cavalry. A light corps may have to use air cavalry, light armor, or airmobile infantry in the CFA. Light covering forces will be able only to harass the enemy and to report his movement as he approaches the MBA. In any case, the covering force will require appropriate additional artillery, engineer, CEWI, ADA, and Army aviation units to perform its mission successfully.

THE COVERING FORCE DEFEATS OR DELAYS THE ENEMY, FORCING HIM TO REVEAL HIS MAIN THRUST AND DENYING HIM ACCESS TO THE MAIN BATTLE AREA

The corps or MBA divisions may control the covering force as a separate force in their own sectors. Brigades should control the covering force only where terrain makes other solutions impractical. Corps or division control depends on the overall plan for defense, the size of the CFA, the number of battalion-size units to be employed, and the time that MBA units have for preparing.

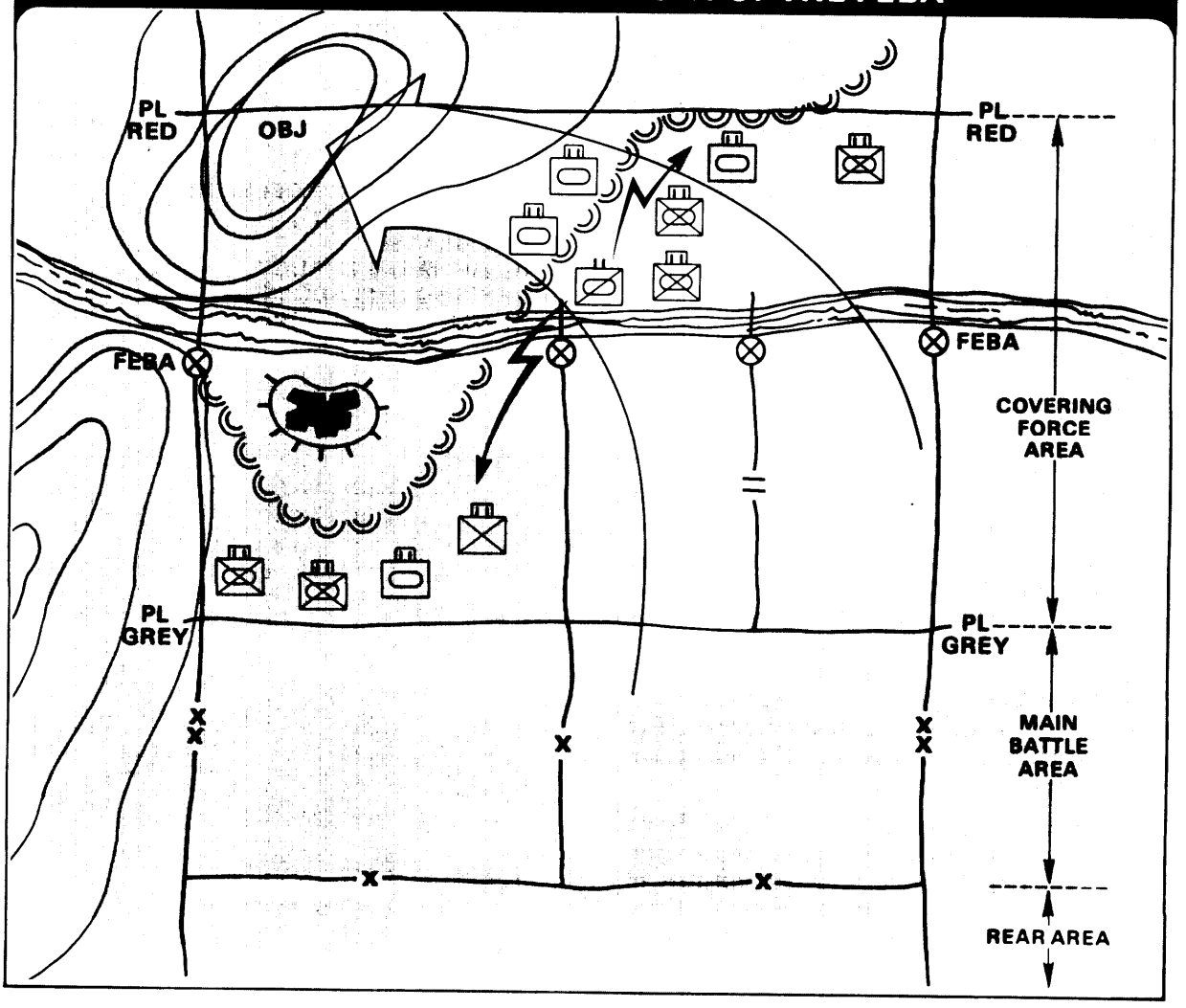
Corps and division operations officers must monitor the covering force battle and maintain coordination between it and the deep battle. Above all, the covering force battle must complement the overall defensive plan. It must damage and mislead the enemy, channel his attacks into desired areas, and cover either the positioning or the relocation of MBA forces.

Covering force battalions and squadrons fight from a series of mutually supporting battle positions that make maximum use of the terrain and the force's long-range fires. Carefully planned indirect fires and obstacles protect these positions. They also help the covering force avoid an inappro-

priate decisive engagement. Normally, the covering force will defend, delay, and attack with its maneuver units. Delay by itself will rarely provide enough protection.

The entire covering force should not withdraw automatically when the first enemy units reach the FEBA. It should adjust to the enemy advance and continue to fight or to screen far forward. Doing so can increase the chances for success even though the attack has penetrated in some parts. Those parts that remain forward can maintain surveillance. They resist the enemy's supporting attacks and reconnaissance effort, upsetting his coordination and allowing the MBA commander to fight one battle at a time. Finally, the covering force can stage a staggered withdrawal. In observing and providing access to enemy flanks, it facilitates counterattack forward of the FEBA. In some cases the covering force can attack first-echelon forces from the rear or drive between echelons to isolate leading enemy units.

COUNTERATTACK IN FRONT OF THE FEBA



HANDOFF

Handoff must occur quickly and efficiently to minimize vulnerability. It also requires close coordination between the covering force and MBA forces. The covering force commander must retain freedom to maneuver until he initiates the passage of lines. The overall commander must establish contact points, passage points, passage lanes, routes to positions, resupply, and fire support coordination prior to the withdrawal of the covering force. Normally battalion-size units of the covering force hand off the battle to the brigades through which they pass. After passage, the covering forces normally move to designated areas in the rear or MBA to prepare for subsequent operations. Those areas must be far enough away to keep the withdrawn units from interfering with operations.

Control of the deep battle passes to MBA divisions as the covering force hands off the battle. This usually occurs in one sector at a time until the covering force has been completely withdrawn. A corps will continue to fight its deep battle after the commander commits MBA divisions to the defense.

MAIN EFFORT

Whatever the concept of operation, forces fight the decisive defensive battle either at the FEBA or within the MBA. The commander positions forces in the MBA to control or to repel enemy penetrations.

The commander assigns MBA sectors on the basis of the defending unit's capability, the terrain within the sector, and the larger unit's mission. The assigned sector usually coincides with a major avenue of approach. The force responsible for the most dangerous sector in the MBA normally receives priority in the initial allocation of artillery, engineer, and close air support. It is the main effort. The commander strengthens the effort at the most dangerous avenue of approach by narrowing the sector of the unit astride it. He may use armored cavalry units or other maneuver forces to economize in rough sectors and to concentrate the major units on the most dangerous approaches, but he must do so without splitting secondary avenues of approach. The defensive plan must be flexible enough to allow changes in the main effort during the course of the battle.

A significant obstacle along the FEBA, such as a river, favors a defense trying to retain terrain. It adds to the relative combat power of the defender. Reserves at all levels destroy forces which have penetrated such obstacles or established bridgeheads. Such attacking forces must be destroyed while they are small. If they are not, they can assist following elements to cross, build rapidly in strength, and rupture the coherence of the defense.

Corps and division commanders—

- **Follow developments in the MBA.**
- **Support important fights with additional nuclear or conventional firepower.**
- **Adjust sectors.**
- **Control movement of committed forces as necessary.**
- **Reinforce MBA units with fresh maneuver forces.**
- **Intervene at decisive junctures in the battle with reserves.**

As the close battle progresses, corps and division commanders continue to fight the deep battle. They monitor events beyond the FLOT and fight follow-on enemy forces to prevent them from outflanking defensive positions or overwhelming committed forces.

The commander may also structure a deep defense with elements deployed within the MBA. He may enhance it by holding out a large mobile reserve and by committing fewer elements to the initial MBA defense. Committed elements in such a defense control the penetration until counterattack can eliminate it.

Large mobile forces may penetrate sections of the MBA. Penetration and separation of adjacent units is likely with nuclear and chemical operations. Nonetheless, MBA forces continue to fight while protecting their

own flanks, striking at the enemy's, and driving across penetrations when possible. Division or corps reserves can defeat some penetrations, but others will pass into the corps rear area.

REAR AREA PROTECTION OPERATIONS

In contemporary battle, protection of rear areas will be very important. Because RAP may divert forces from the main effort, commanders should carefully balance their assets against requirements and prepare to take risks somewhere. For example, they may have to decide between competing needs if the rear area and the main effort both need reserves simultaneously. To make such decisions, commanders require accurate information and nerve.

Rear area command and control and support facilities must be dispersed and redundant. Artillery and obstacles must protect such facilities. Air defense forces should be detailed to protect especially sensitive areas and facilities in the rear if the enemy succeeds in opening flight corridors over the MBA. Reserves must be ready for fluid counteroffensive operations in the rear area—in essence, movement to contact. Airmobile forces, attack helicopter and air cavalry units, Air Force close air support missions, and mechanized forces will be of special value, as will be chemical fires and low-yield nuclear weapons. For a detailed discussion of RAP, see chapter 14.

RESERVE OPERATIONS

The primary purpose of reserves in the defense is to counterattack to exploit enemy weaknesses, such as exposed flanks or support units, unprotected forces in depth, and congestion. They also reinforce forward defensive operations, containing enemy penetrations or reacting to rear area threats.

Commanders should decide on the size, composition, and mission of the reserve as early as possible. Commanders down to brigade will normally try to retain about one third of their maneuver strength in reserve.

Timing is critical to counterattacks, but the commander and his subordinates have little latitude. They must anticipate the lead times for committing reserves. Committed too soon, the reserves may not be available for a more dangerous contingency. Committed too late, they may be ineffectual. Once he has committed the reserves, the commander should form other reserves from uncommitted forces or from forces in less threatened sectors.

In planning a counterattack, the commander must carefully estimate the time and distance for follow-on enemy echelons. Then he must determine which of his units can attack, where they will take positions after the counterattack, and what interdiction or deep attack will isolate the enemy. Counterattacking units seek to avoid enemy strength. The most effective counterattacks seize strong positions from which to fire on the enemy's exposed flanks and rear. If the force is to stay and to defend after counterattack, it must regain good defensive positions before overwatching enemy units can interfere.

Reserves may be air or ground maneuver units. Nuclear weapons may also be reserves if the theater policy permits the commander to use them freely. Reserves may exist at battalion and task force levels, but designated reserves are not usually available at these or lower levels. At these levels counterattacks are conducted by least committed elements, by elements positioned in depth, or by reinforcing elements that a higher headquarters has attached for the purpose. In any case, the commanders must designate artillery units to support the reserves on short notice.

Reserve airmobile forces can respond rapidly. In suitable terrain they may reinforce positions to the front or on a flank. In a threatened sector they may be positioned in depth. Airmobile forces are also suitable for swift attack against enemy airborne units landing in the rear area. Once committed, however, they have limited mobility.

Because of the unique capabilities of attack helicopter units, commanders hold them in depth initially and commit them when needed. They respond so quickly that commanders have a long decision window. The mobility and firepower of attack helicopters often make them the quickest and most effective means for stopping surprise tank attacks and for destroying enemy tanks which have broken through.

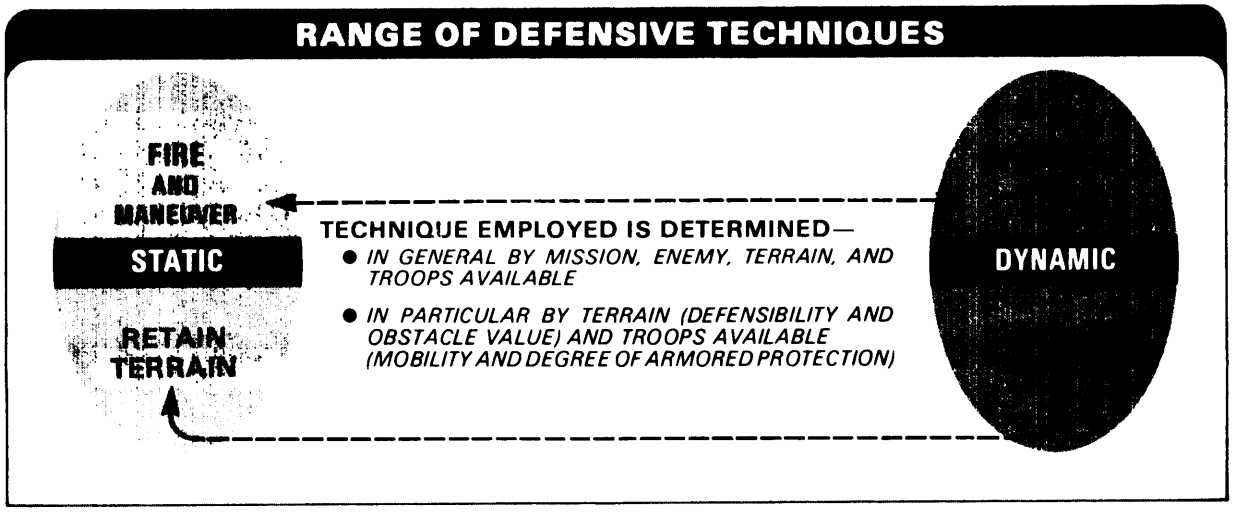
In addition to designating reserve forces, commanders may choose to shift uncommitted subordinate elements to reconstitute a reserve or to concentrate forces elsewhere. The most easily shifted forces are the reserves of subordinate units. Commanders should shift committed MBA forces laterally only as a last resort because of three great risks. First, the attacker can inhibit or prevent such lateral movement with air or artillery interdiction and with nuclear or chemical munitions. Second, when a force is engaged even by small probing or reconnaissance actions, it is neither physically nor psychologically prepared to make lateral movements. Third, vacating a sector, even temporarily, invites penetration and exploitation by alert follow-on forces.

DEFENSIVE TECHNIQUES

Defensive techniques apply to brigades, battalions, and companies. *Army doctrine does not prescribe a single technique for defense.*

The defensive options form a continuum. At one end is the absolutely static defense designed exclusively to retain terrain. It depends primarily on firepower from fixed positions. At the other end is the wholly dynamic defense that focuses only on the enemy. It depends primarily on maneuver to disrupt and to destroy the attacking force. Typically, large-unit operations combine elements of both forms: the static which controls, stops, or canalizes the attacker; and the dynamic which strikes and defeats the enemy's committed forces. Defenses are predominantly static or dynamic depending on the unit's mission, composition, relative strength, mobility and operational environment.

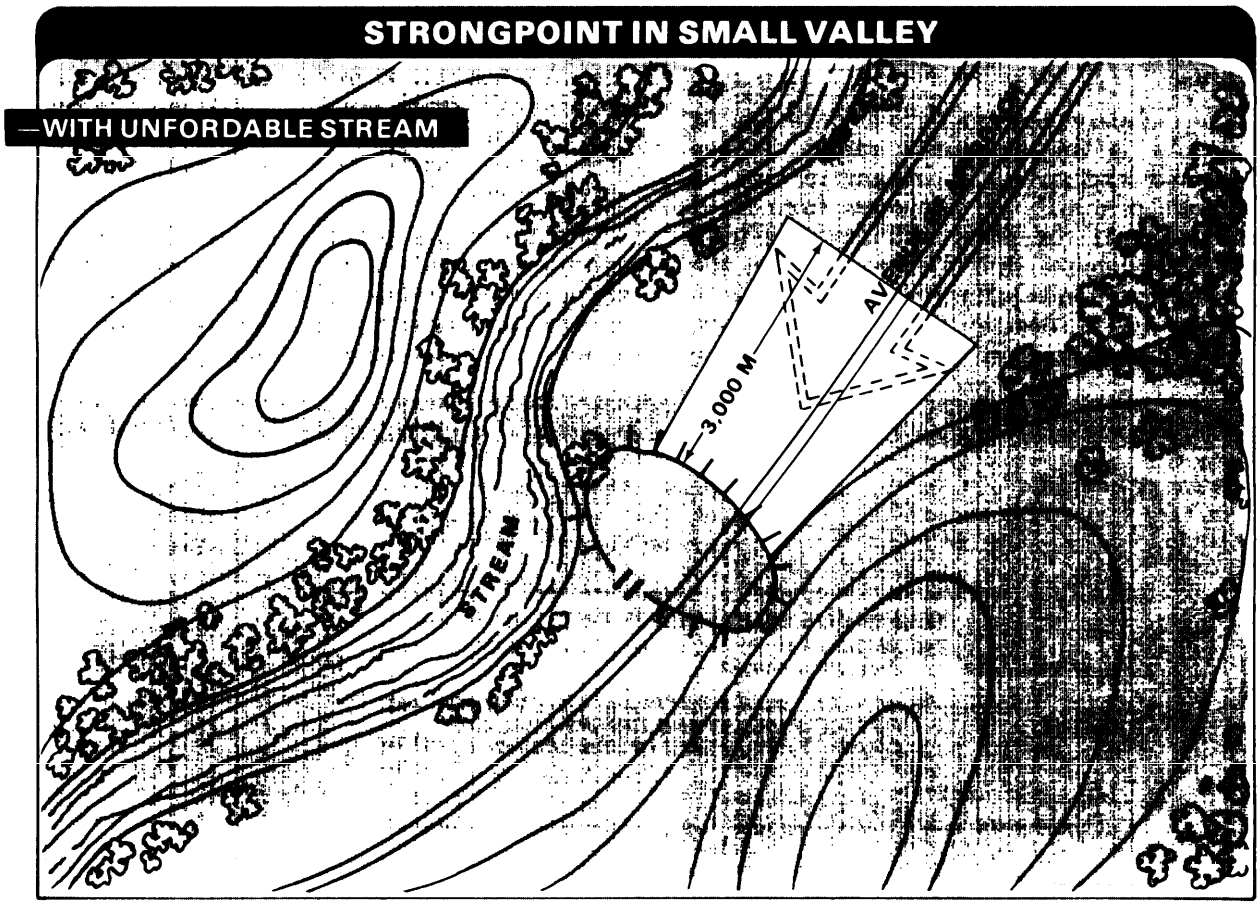
Whatever the plans, commanders must match available defending forces to the terrain. For example, infantry can form static pivots for maneuver and defensive strongpoints in rugged terrain, forests, and urban



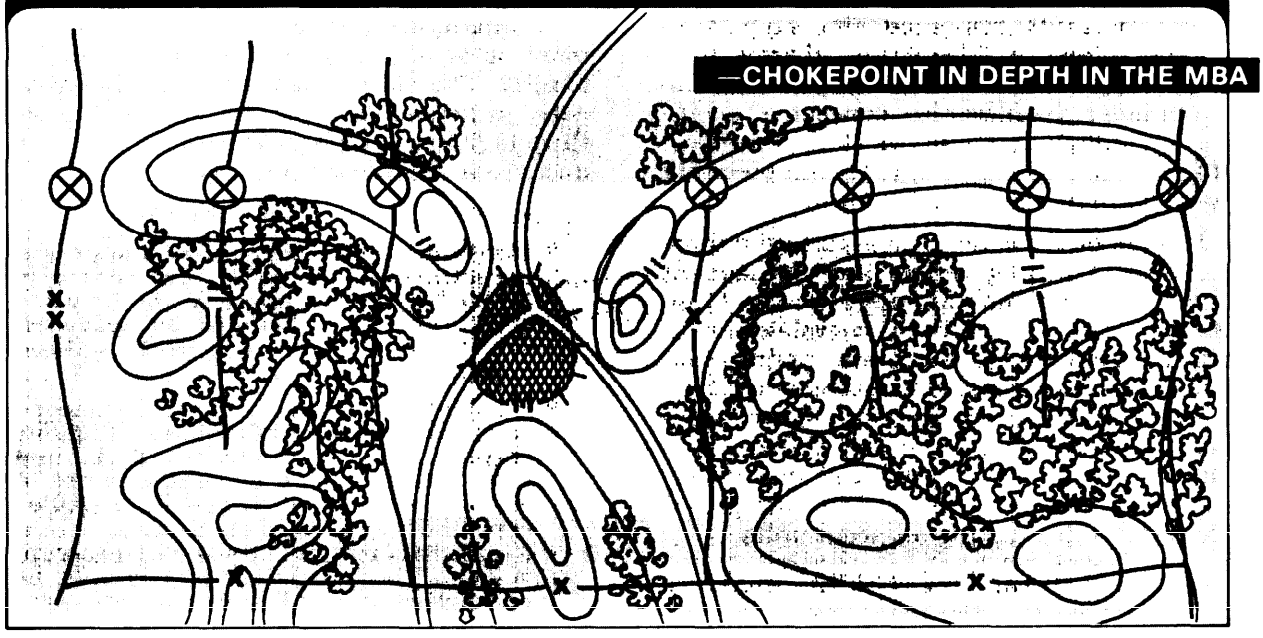
areas. Heavily armored units form the dynamic elements of a defense. They can best defend by moving between islands of resistance and by using them to cover their maneuver or to entrap the enemy.

In a dynamic defensive battle, commanders generally use tanks and overwatching long-range antitank weapons. They use short-range antitank and other infantry weapons in urban, wooded, or rugged areas to defend static positions. Each commander decides on whether and how to cross-reinforce, depending on his battle plans. On some occasions, the brigade commander may decide to use tank and mechanized infantry battalions without cross-reinforcing to make special use of the capabilities of each. For example, he may position a mechanized battalion in a cluster of small villages all within supporting distance of each other across an avenue of approach. The tank battalion forms the dynamic element, counterattacking the flank or rear of the enemy force as it encounters the dug-in mechanized infantry.

Strongpoints are the most static elements of a defense. The strongpoint is essentially a heavily fortified battle position—an antitank nest which enemy forces cannot quickly overrun or easily by-pass. Strongpoints locate on terrain features critical to the defense or at a bottleneck formed by terrain obstacles. Strongpoints astride or along avenues of approach in small urban areas may make it possible to halt a vastly superior force for a considerable time. When nuclear or chemical



STRONGPOINT IN MOUNTAIN PASS



—CHOKEPOINT IN DEPTH IN THE MBA

weapons are in use, strongpoints must be well camouflaged and protected, or forces must occupy them just before the enemy's arrival.

To be effective, the strongpoint must surprise the enemy. It must congest and limit his maneuver. It can set up a counterattack. Commanders can extricate the force in the strongpoint after it has accomplished its mission and before enemy follow-on forces arrive.

In organizing their defenses, corps, divisions, brigades, and battalions will all combine the static and dynamic forms. However, they will probably vary the details of their operations even in executing the same plan.

Once the division commander decides where he intends to employ his brigades, brigade commanders organize tank, mechanized, and infantry battalions for combat on the basis of METT-T. Brigade commanders organize for defense by assigning sectors or battle positions to subordinate battalions or task forces. Sectors give battalion task forces freedom to maneuver and to decentralize force planning. Assigning sectors to battalion task forces on the FEBA in the MBA has four additional advantages. It helps commanders plan fires and terrain-reinforcing barriers. It allows commanders to match teams to terrain. It permits the forward task force to plan a battle in depth, and it improves integration of direct and indirect fires.

To retain control over maneuver and task force positioning, the brigade commander establishes initial battle positions. He does so to concentrate task forces rapidly and to manage them in open terrain with good fields of fire. He controls maneuver outside those battle positions and prescribes the position's primary directions of fire. He assumes responsibility for fire and maneuver planning among several battalions in mutually supporting positions.

Whatever the defensive techniques, the overall scheme should maximize maneuver and offensive tactics. When the enemy has committed his forces, the defender should seize the initiative and counterattack over familiar ground protected by his own positions. He can destroy a halted, disorganized enemy.

DEFENSIVE PREPARATIONS

PLANS AND ORDERS

To coordinate combined and supporting actions, soldiers and leaders of all arms must prepare in detail. As soon as possible, the commander describes his concept of operation in enough detail for his staff and subordinate commanders to understand precisely how he intends to fight the battle.

Time is of the essence in getting the force prepared. Warning orders and subsequent verbal instructions can alert forces. Commanders cannot wait for the complete plan to begin preparations. Maximum preparation time increases defensive effectiveness. If time allows, commanders should receive briefbacks from their subordinates. These insure that orders are understood and that implementing plans match the overall concept and are coordinated among adjacent units.

Deception plans and OPSEC guidance must be a part of the defensive plan. The OPSEC effort should conceal the location of the main defense and the disposition of forces from the enemy. If the attacker finds understrength sectors, he will attack them. Dummy battle positions can deceive the enemy. Preparing and camouflaging positions can, too. Commanders should avoid predictable defensive preparation.

As he plans, the commander must evaluate his vulnerability to nuclear or chemical attack. He must specify the degree of risk he is willing to accept and establish priorities for his NBC defense units. He positions forces and installations to avoid congestion, but he must not disperse to the extent that he risks defeat with conventional weapons. He plans to mass forces at the last moment to avoid a nuclear strike and an enemy exploitation of it. He positions forces and plans and prepares multiple routes so that nuclear or chemical strikes do not hamper maneuver.

COMBAT SERVICE SUPPORT

To anticipate CSS needs, the logisticians must understand how the battle will be fought. Therefore, they must be involved early in defensive planning. This will allow them to plan the support of the defense and to anticipate changing priorities.

Combat service support should—

- **Consider stockpiling limited amounts of ammunition and POL in centrally located battle positions in the forward MBA that are likely to be occupied. Plans should be made to destroy those stocks if necessary.**
- **Send push packages of critically needed supplies on a scheduled basis. Regular shipments of ammunition, POL, and repair parts should be sent forward to eliminate the need to call for supplies repeatedly and to reduce the chance that a lapse in communications will interrupt supply. The receiving unit should be resupplied until it issues instructions to the contrary.**
- **Resupply during periods of limited visibility to reduce the chances of enemy interference; infiltrate resupply vehicles to reduce the chances of detection.**
- **Plan to reconstitute the CSS capability lost to enemy fires. Potential replacements from DISCOM CSS units should be identified as early as possible to reestablish lost capability.**
- **Echelon CSS units in depth throughout the defensive area. When a forward unit displaces to the rear, another should be designated to pick up the work load until the displacing unit is again operational.**
- **Use maintenance contact teams and dispatch them as far forward as possible to reduce the need to evacuate equipment.**
- **Consolidate different types of maintenance contact teams (vehicle, armament, missile) to maximize the use of available vehicles and make sure such teams have adequate communications.**

CHAPTER 12

Retrograde Operations

A RETROGRADE OPERATION is an organized movement to the rear or away from the enemy. It may be forced or voluntary, but in either case the higher commander must approve it. Forces conduct retrograde operations to harass, to exhaust, to resist, to delay, and to damage the enemy. Such operations gain time, avoid combat under unfavorable conditions, or draw the enemy into an unfavorable position. They are also useful in maneuver to reposition forces, to shorten lines of communications, or to permit the use of a force elsewhere.

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TYPES OF RETROGRADE OPERATIONS

The three types of retrograde actions are *delays, withdrawals,* and *retirements.* In delays, units give up space to gain time. They do not lose freedom to maneuver, and they inflict the greatest possible punishment on the enemy. In withdrawals, all or part of a deployed force disengages from the enemy voluntarily to free itself for a new mission. Withdrawals may occur with or without enemy pressure and with or without other units' assistance. In retirements, a force not in contact with the enemy conducts an administrative movement to the rear.

All retrograde operations are difficult, and delays and withdrawals are inherently risky. To succeed, they must be well-organized and well-executed.

DELAYING OPERATIONS

Delaying operations occur when forces are insufficient to attack or to defend and when the defensive plan calls for drawing the attacker into an unfavorable situation. They normally gain time—

- **To reestablish the defense.**
- **To cover a defending or withdrawing unit.**
- **To protect a friendly unit's flank.**
- **To participate in an economy of force effort.**

Delays gain time by forcing the enemy to concentrate repeatedly against successive battle positions. As enemy units begin to deploy for the attack, the delaying force withdraws to new battle positions. The enemy must repeat the same time-consuming deployment at the next position. At the same time, deep attack slows the enemy's advance and prevents him from massing overwhelming combat power against the delaying force.

A delaying force must—

- **Maintain contact with the enemy to avoid being outmaneuvered.**
- **Cause the enemy to plan and to conduct successive attacks.**
- **Preserve its freedom to maneuver.**
- **Maintain operational coherence.**
- **Preserve the force.**

A delaying force can—

- **Harass, exhaust, weaken, and delay enemy forces.**
- **Expose or discover enemy weaknesses.**
- **Avoid undesirable combat.**
- **Gain time for the remainder of the force.**
- **Conform to movements of other friendly troops or shorten lines of communications.**
- **Cover the deployment, movement, retirement, or retreat of friendly units.**

Although it will likely be outnumbered, the delaying force must seize the initiative whenever possible to conceal a weakness or to disrupt enemy plans. To provide the required time, units with a delay mission may attack, defend, screen, ambush, raid, or feint. A commander who is delaying may defend initially. He may shift to the delay only after the enemy has concentrated overwhelming combat power against his initial positions. He can then gain time by occupying succeeding battle positions and conducting short counterattacks until he runs out of space. If space is limited, he may have to accept greater risks to accomplish his mission. A commander's orders may require him to delay the enemy forward of a certain line until a certain time. To do so, he would have to accept a decisive engagement.

Cavalry units train and organize especially for delaying operations. When available, they should execute the delay.

DELAY FROM SUCCESSIVE POSITIONS

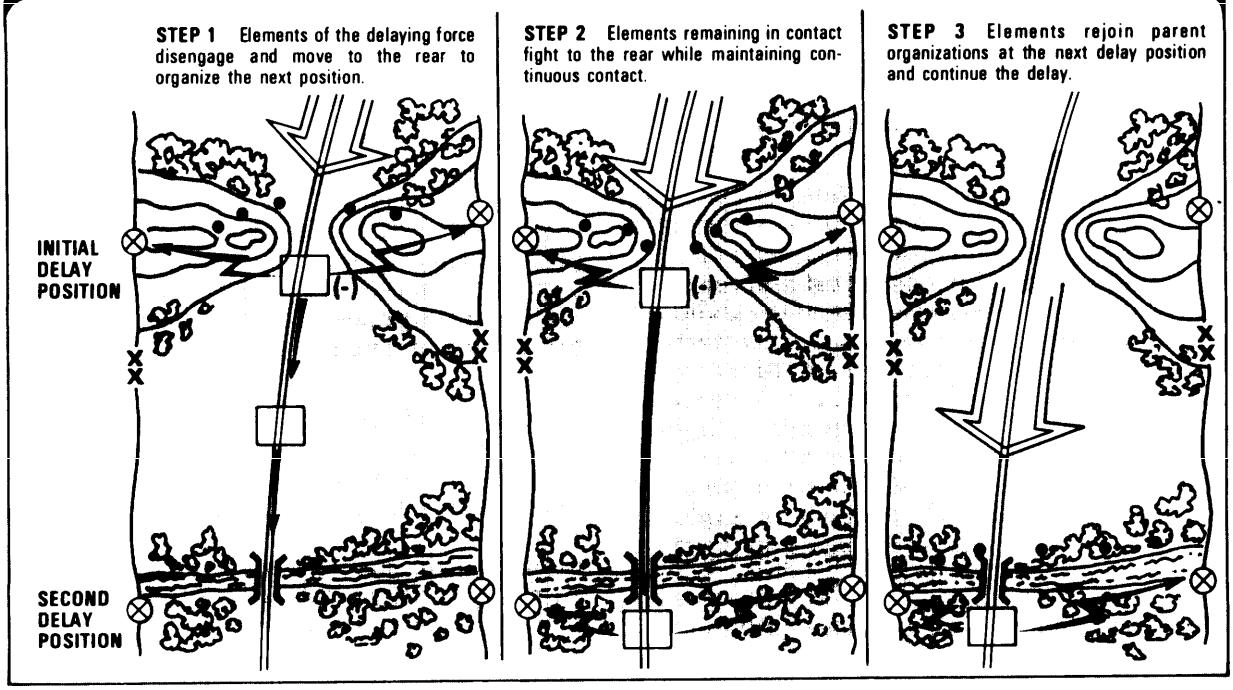
Delay from successive positions occurs when the sector is so wide that available forces cannot occupy more than a single tier of positions. Maneuver units delay continuously on and between positions throughout their sectors. This method is simple to control. Delay from successive positions is useful in less dangerous sectors. But it is easier to penetrate than a delay from alternate positions because the force has less depth and less time to prepare.

DELAY FROM ALTERNATE POSITIONS

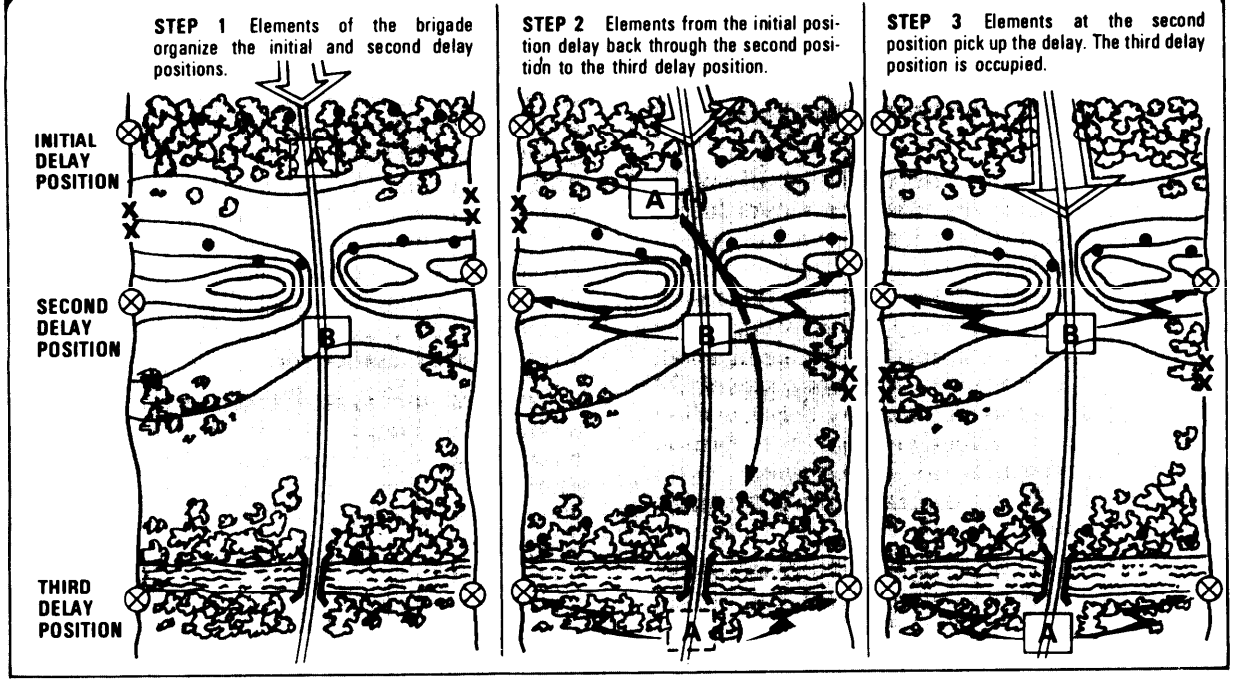
Delay from alternate positions involves two maneuver units in a single sector. While the first is fighting, the second occupies the next position in depth and prepares to assume responsibility for the operation. The first force disengages and passes through or around the second. It then prepares to resume the delay from a position in greater depth, while the second force takes up the fight. Delay from alternate positions is useful in particularly dangerous avenues. This method offers greater security than delay from successive positions. But it requires more forces and continuous coordination of fire and maneuver, and it is less certain to maintain contact with the enemy.

As the enemy's main effort becomes clear, commanders may add forces to threatened sectors and withdraw them from uncontested areas. But any delay maneuver must be alert for opportunities to damage the enemy with short, sharp offensive actions. Such actions keep the enemy on guard and lengthen the delay.

DELAY FROM SUCCESSIVE POSITIONS



DELAY FROM ALTERNATE POSITIONS



DELAY PREPARATIONS

Orders. The time available determines the extent of preparations. It is not always possible to complete preparations before the delay starts. Consequently, commanders prepare continuously and adapt plans as situations develop.

The order for the delay outlines the entire operation and describes its initial phase in detail. The commander issues supplementary orders during the battle to adjust and coordinate the delay. Missions assigned to subordinate elements and their sequence of execution are often more restrictive than in other types of operations. Sufficient initial guidance will permit a subordinate commander to fight effectively even if he is out of contact with his commander. Each subordinate commander, however, needs enough freedom to exploit any advantage which develops at his level.

Planning. The delaying force commander usually organizes his operation by identifying delay positions in depth throughout his area of responsibility. These positions normally follow natural lines of defensible terrain across the sector. Times may be assigned to delay positions to indicate the minimum acceptable delay in each area. In imposing time limits on the delay, commanders must carefully weigh the implied risks.

Because sectors in a delay are usually wide, commanders must organize maneuver forces for independent operations. Every subordinate commander of the delaying force must understand his tasks and restrictions. Artillery and engineer support will usually be provided to the battalion or squadron level. Attack helicopter units are also especially valuable as reserves in a delay because they are fast and effective against tanks. Generally, regimental or division commanders should centralize control of attack helicopter units.

The commander plans for offensive action as part of his basic delaying maneuver. He assigns responsibility for contemplated counterattacks to specific units. Unless reserves are prepared to strike and preliminary plans for air, artillery, and engineer support are ready, the delaying force will miss opportunities.

Approaches

Maneuver elements fight delaying actions in parallel sectors. Sectors coincide with enemy avenues of approach. When avenues of approach diverge or pass from one sector to another, adjacent units must coordinate to maintain control of the battle. Responsibility for enemy avenues of approach is never divided.

Flanks and gaps between units present special problems. If coordination between adjacent units is weak or if one unit creates a gap by delaying too rapidly, the enemy may be able to bypass or outflank the delaying force. Liaison parties are exchanged between adjacent units of different commands. Air and armored cavalry units cover gaps, protect exposed flanks, or engage enemy forces which have penetrated forward elements.

Obstacles

In organizing their positions, delaying forces exploit natural obstacles. The delaying commander formulates a barrier plan to impede the enemy from using high-speed approaches, to facilitate the defense of positions, and to enhance the effects of fires and maneuver. The barrier plan must be realistic about time and available materiel, and it must be integrated with the delay plan. Direct or indirect fire must cover all obstacles. Obstacles must be centrally managed and carefully recorded to keep from interfering with friendly maneuver.

Commanders must identify ground and air avenues for friendly forces and mark them as axes for possible counterattacks. They must identify defiles and other constrictions. Battle positions should guard these areas. They must also identify routes that reinforcements, artillery units, command posts, and CSS elements will use and keep them under control and free of obstacles. Alternate routes should be available so that friendly forces

can bypass them if they are closed or contaminated.

River Crossings

River crossings during the delay require detailed planning. The commander must initially position as much of his combat support and CSS as possible across the river. He must protect the existing bridges he plans to use, and he must install any necessary engineer bridges in advance. The delaying force must be strong enough to hold the enemy forward of the crossing area long enough for uncommitted forces to cross and to establish overwatching defensive positions. In unusual cases, it may be preferable to destroy permanent bridges and to cross delaying maneuver forces over engineer bridging installed shortly before use.

Organization. Simplicity in organizing is the key to control. Because delaying operations are widespread and fluid, command relationships must be clearly defined. Changes should be minimal once the operation is underway.

Most available maneuver forces deploy to the initial delay position. To permit their rapid employment over good routes, reserves take positions well forward in covered areas. Attached field artillery, engineers, and military intelligence units will often provide the kind of direct support normally used in the attack or the defense.

Artillery units of the force take forward positions to deliver fire on the enemy as soon as he is detected. Artillery supports each battalion-size maneuver force directly, but the force artillery headquarters must retain the capability to mass fire. Nuclear fires are planned throughout the delay. Because wide sectors may limit the ability to mass all artillery assets, delaying forces often have more than the normal allocation of artillery. When assets are available, one battalion of artillery should directly support each committed maneuver battalion or squadron.

Engineer Support

Engineers concentrate on reinforcing the natural structure of the battlefield to obstruct enemy approaches and to facilitate friendly maneuver. They must begin work as soon as the plan is formulated and continue throughout the operation. As the battle progresses, they must divert from the less threatened to the more threatened sectors.

The force commander must employ engineers in depth and amend the barrier plan as the situation develops. He must designate the commander responsible for securing and executing each barrier. Commanders must set realistic priorities for engineer effort and monitor its progress to prevent it from dissipating. Commanders should provide engineer support for each major committed unit. They should also plan similar support for the reserve on its commitment. All units must know which barriers, axes, and crossing sites are kept open for their movements.

Attack Helicopter Support

Attack helicopters strike enemy tanks along, behind, or beyond the FLOT. When the enemy engages on narrow axes, attack helicopters can significantly contribute to the delay, moving over flanking air axes to engage follow-on forces. Initially held in reserve at or above brigade level, attack helicopters support battalion, task force, or squadron commanders as needed.

Air Defense Artillery Support

ADA authorities usually retain central control and assign tactical missions to support subordinate commands. ADA assets in the delay protect reserves, command posts, forward arming and refueling points, and maneuver choke points such as bridges and defiles. Air defense units must stay abreast of the ground tactical situation so they can anticipate requirements and displace as the delaying force moves to the rear.

Signal Support

Additional signal support may be necessary to support communications across the wide frontages that are characteristic of delaying operations.

Combat Electronic Warfare Intelligence Support

CEWI gathers information, enhances deception, and conducts electronic warfare operations. The military intelligence battalion assets of a division may be attached to a brigade delaying force. Corps assets may reinforce the military intelligence units of a delaying regiment or division.

Chemical Unit Support

Chemical units provide smoke for maneuver units and decontaminate troops and equipment. Normally, decontamination units provide general support to the force.

Logistic Support

Planning for CSS must reflect the nature of delaying operations. To insure uninterrupted service, maximum protection, and minimum displacement, CSS installations should locate well to the rear. They will maintain maximum dispersion consistent with control and local security. High priority items, such as nuclear or chemical munitions, may require added protection to prevent their loss or capture. Plans must be made for their emergency destruction. To reduce congestion and interference with combat units, commanders should have CSS units displace early, normally in limited visibility.

Because delaying units redeploy rapidly, commanders often attach supporting elements to the maneuver force. Because delaying actions usually consume large amounts of fuel and ammunition, troops may carry ammunition forward to fighting positions and, if possible, will use fuel from local sources.

Because maintenance and recovery problems are complicated, forward support elements of maintenance battalions furnish contact teams to committed units. Additional maintenance personnel may augment these elements.

When possible, maintenance personnel will repair equipment on site. Disabled vehicles will be collected well forward for repair or evacuation. When recovery is impossible, equipment must be destroyed to prevent capture. With the exception of medical equipment and supplies, which must be abandoned, all other materiel will also be evacuated or destroyed.

To avoid destroying or evacuating supplies unnecessarily, commanders must control their flow into forward areas. When commanders contemplate a delay, they must plan for early evacuation of excess supplies and logistic facilities. Normally they should preposition supplies along routes of withdrawal. Doing so will reduce the enemy's ability to interfere with supply operations, simplify resupply, and permit early withdrawal of supply units.

Medical evacuation requirements will be unusually demanding in the wide sectors of a delay. Commanders planning delays should consider augmenting field ambulance capability.

DELAY COMMAND AND CONTROL

The dynamic nature of the delay places a premium on the commander's ability to stay abreast of his situation and to understand what his options are as the operation progresses. Each commander must be aggressive in obtaining information and reporting it. Even during active combat, staffs must seek information actively and report essential information to the commander immediately. Division and corps commanders must pass gathered information to the delaying unit.

Each commander must know the status and location of his own units, flanking units, and enemy units. To enhance coordination each will use prominent terrain features, redundant communications, rehearsals, simple maneuver schemes, and liaison parties. Wide frontages and multiple attacks will make it impossible for the commander to be present at every significant action. The intensity of combat will limit his mobility. Yet, he must know the condition of his own forces, his logistic posture, and the obstacle plan well enough to control the operation.

Commanders must closely monitor and control radio communications during the delay. They should use wire communications between command posts, to reserves, and to delay positions that are particularly important. They should set up dummy stations to deceive the enemy about strength and mission.

DELAY EXECUTION

Divisions and smaller units maneuver using delay from successive positions, delay from alternate positions, or a combination of the two. At least a portion of the delaying force maintains constant contact with the enemy. Long-range fire, maneuver, and direct fire cause the enemy to deploy, to reconnoiter, to maneuver, or even to halt. Nuclear or chemical fires and short, violent counterattacks or ambushes disorganize and inflict casualties on him. Spoiling attacks as the enemy prepares to attack can also substantially delay his advance.

Beginning the Delay. If no enemy contact occurs, reconnaissance forces will aggressively seek it on a wide front. They will repel enemy reconnaissance forces and determine the direction in which the enemy is moving. At this point the delay begins.

A delaying force maintains continuous contact with the enemy but avoids a decisive engagement unless the mission demands it. The delaying operation, which requires careful planning, should resemble a dynamic defense. Yet it must be flexible enough to adjust to enemy maneuver. When the enemy discovers he is facing a delay, he will normally attempt to close and to penetrate. Early intelligence of enemy movements permits the defense to adjust and minimizes enemy success.

Maintaining Control and Coherence. Control and security during a delay derives from planning. The commander must insure its continued coherence by—

- **Minimizing gaps between forces.**
- **Maintaining surveillance of gaps.**
- **Insuring that displacing forces occupy intended positions.**
- **Maintaining unit integrity, especially of smaller units.**
- **Executing all elements of the barrier plan properly.**
- **Insuring that reports are timely and accurate.**
- **Maintaining contact with the enemy.**
- **Acquiring intelligence about the area of interest continuously and aggressively.**
- **Maintaining a reserve.**

Contesting the Initiative. A successful delay requires commanders to take the initiative whenever possible, throwing the enemy off stride and disorganizing him with—

- **Direct and indirect fires that are violent and coordinated.**
- **Counterattacks and spoiling attacks.**
- **Timely nuclear and chemical fires.**
- **Skillful deception.**
- **Aggressiveness.**
- **Effective offensive air support.**

Fighting the Deep Battle. Skillful offensive air support and long-range fires can add appreciably to the effectiveness of a delay. Tactical air reconnaissance, BAI, and CAS can help preserve the delay's coherence, complicate the enemy's movement, and create the conditions for counterattacks. Intelligence on enemy movements in the delaying force's area of interest can assist the commander in executing his maneuver and fire support plans.

Concluding the Delay. The delay can be concluded under several conditions, most probably when enemy forces have halted the attack or when the delaying force has achieved its mission and has passed through another force. If the attacking force has halted because of attrition or logistic considerations, the commander of a delaying force can withdraw for another mission or maintain contact. The higher commander

may choose to attack through a delaying force. In this kind of operation, timing for such an attack is usually critical. To facilitate it, the delaying force must assist in the forward passage of lines and provide knowledge of the enemy and terrain.

Passage of Lines Under Pressure. If the delaying force withdraws through a defending force, it must pass through lines to the rear and hand off the battle to the defending force. The success of the delay's final stage requires—

- **Planning routes.**
- **Coordinating passage points.**
- **Recognizing signals.**
- **Exchanging liaison parties.**
- **Supporting with fires.**

All this is especially difficult in limited visibility. Transition should therefore occur just forward of the new defense in such a way as not to reveal its location and organization.

In many instances it will be preferable to pass delaying units to the rear in sectors not under direct attack. Commanders may do so by maneuvering delay forces away from the enemy's front just before it reaches the main defense. If the delaying force can lead an aggressive enemy into the defense, it can damage him heavily.

WITHDRAWAL OPERATIONS

When the commander finds it necessary to reposition all or a part of his force, he conducts a withdrawal. The deployed force voluntarily disengages from the enemy. The operation may occur with or without enemy pressure and with or without assistance by other units.

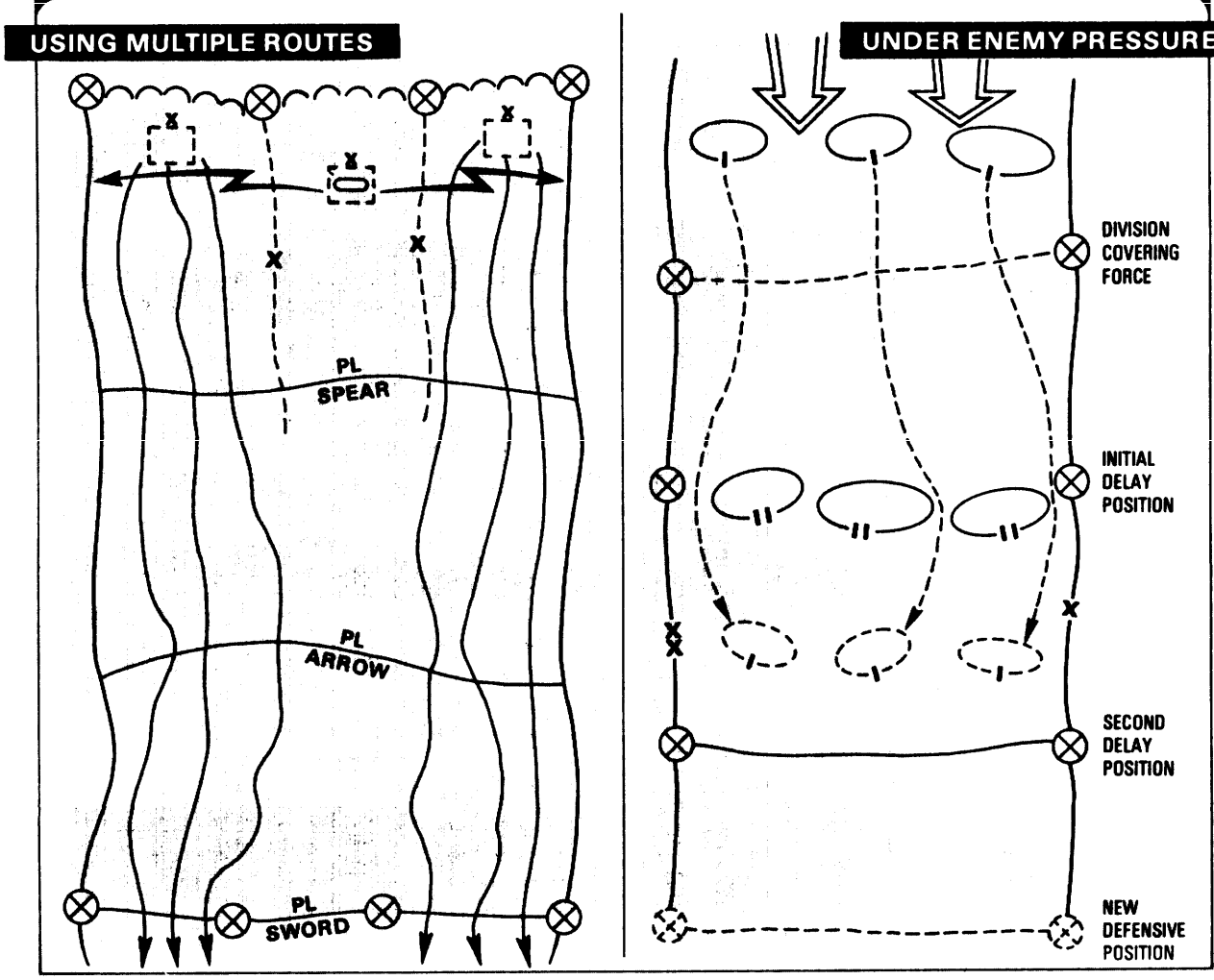
Without enemy pressure, withdrawing requires effective security and depends primarily on speed and deception. Stealth or a nuclear or ground attack may be necessary to divert the enemy's attention. Commanders must have contingency plans in case the enemy detects the withdrawal and attacks. Successful withdrawals normally occur at night or during poor visibility. They also occur in difficult terrain under friendly air superiority even though poor visibility and difficult terrain complicate friendly control. Smoke and concealed routes can reduce the enemy's ability to observe friendly movements, but commanders must anticipate enemy interference by fires and maneuver in depth.

Under enemy pressure, withdrawing depends on maneuver, firepower, and control. All available fires, perhaps even nuclear fires, support the withdrawal of closely engaged friendly forces. Forward elements move to the rear by aggressive small-unit delaying tactics. Rearward movement must be tightly coordinated and controlled.

When simultaneous withdrawal is not practicable, the commander must determine an order of withdrawal. If he withdraws the most heavily engaged units from the areas of greatest enemy pressure first, the enemy may encircle or destroy major elements of the command. If he withdraws the least heavily engaged units first, he may lose all or a major portion of the most heavily engaged units. Commanders must decide what action best preserves force integrity while accomplishing the mission.

Reserves deploy well forward to assist withdrawing units by fire or ground attack. While units are withdrawing under pressure, reserves can launch spoiling attacks to disorganize, to disrupt, and to delay the enemy. Reserves may also cover the withdrawal or extricate encircled or heavily engaged forces. Army aviation units secure flanks, delay enemy armor, maintain command and control, and transport troops and materiel.

WITHDRAWAL OPERATIONS



Plans and orders for a withdrawal should include—

- **New positions to be occupied and new missions.**
- **Organization for combat.**
- **Zones or routes of withdrawal.**
- **Provisions for security.**
- **Plans for fire support.**
- **Provisions for breaking contact when the withdrawal is under enemy pressure.**
- **Deception measures.**
- **Times and priorities for withdrawing units.**

RETIREMENT OPERATIONS

A retirement is a rearward movement by a force not in contact with the enemy. It is administrative in nature and execution, but commanders should have contingency plans if there is any chance of a meeting engagement.

OBSOLETE

CHAPTER 13

Defense and Breakout of Encircled Forces

TO DENY THE ENEMY PASSAGE through a vital choke point following breakthrough, a commander may intentionally order a force to remain in a strong position on key terrain. He may assign it to hold the shoulder of a penetration. He might also leave a unit in position behind the enemy or give it a mission with a high risk of being entrapped. During defense or delay operations, units or adjacent elements of different units may be unintentionally cut off from friendly forces. Whenever such an encirclement occurs, the encircled commander must understand the mission and the higher commander's plan clearly so that he can continue to contribute.

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OPTIONS

An encircled force must act rapidly to preserve itself. The senior commander must assume control of all encircled elements and assess the all-around defensive posture of the force. He must determine whether the next higher commander wants his force to break out or to defend the position. He must reorganize and consolidate expeditiously. If the force is free to break out, it should do so before the enemy has time to block escape routes. If it cannot break out, the senior commander must continue to defend while planning for and assisting in linkup with the relieving force.

DEFENDING

In assuring an effective defense and contributing to the combat effort, the commander of the encircled force has many simultaneous responsibilities:

- REESTABLISH THE CHAIN OF COMMAND. The commander must assure unity of command. He must reorganize fragmented units and place troops separated from their units under another unit's supervision. He must establish a clear chain of command throughout the force.

- ESTABLISH A VIABLE DEFENSE. The commander must quickly establish an all-around defense on defensible terrain. The force may have to attack to seize that ground. It must improve its fighting positions rapidly and continuously (see graphic on next page).

- ESTABLISH A RESERVE. If armor-heavy units are available, the commander should use them as a reserve and position them centrally to take advantage of interior lines. If only infantry forces are present, then the commander should designate small local reserves to react to potential penetrations.

- REORGANIZE FIRE SUPPORT. The commander must reorganize all artillery in the encirclement and bring it under centralized control. He must reestablish fire nets and coordination measures rapidly. If mortars are available, he must make provisions to mass their fires in dangerous areas. He must distribute artillery and mortars throughout the enclave to limit their vulnerability to counterfires. He must assess the availability of fire support from outside the encirclement.

- REORGANIZE LOGISTIC SUPPORT. The commander must assess his logistical posture quickly. He must centralize control of all supplies. The force must ration strictly and practice supply economy. If possible, parachute drop or helicopter lift will resupply the encircled force. The force should establish a centrally located medical facility and evacuate wounded troops if an air supply line is open. If the force must break out without taking all of its wounded, the commander must leave behind adequate supplies and medical personnel to care for them. The force should evacuate those wounded who can move with it without hindering its chances for success.

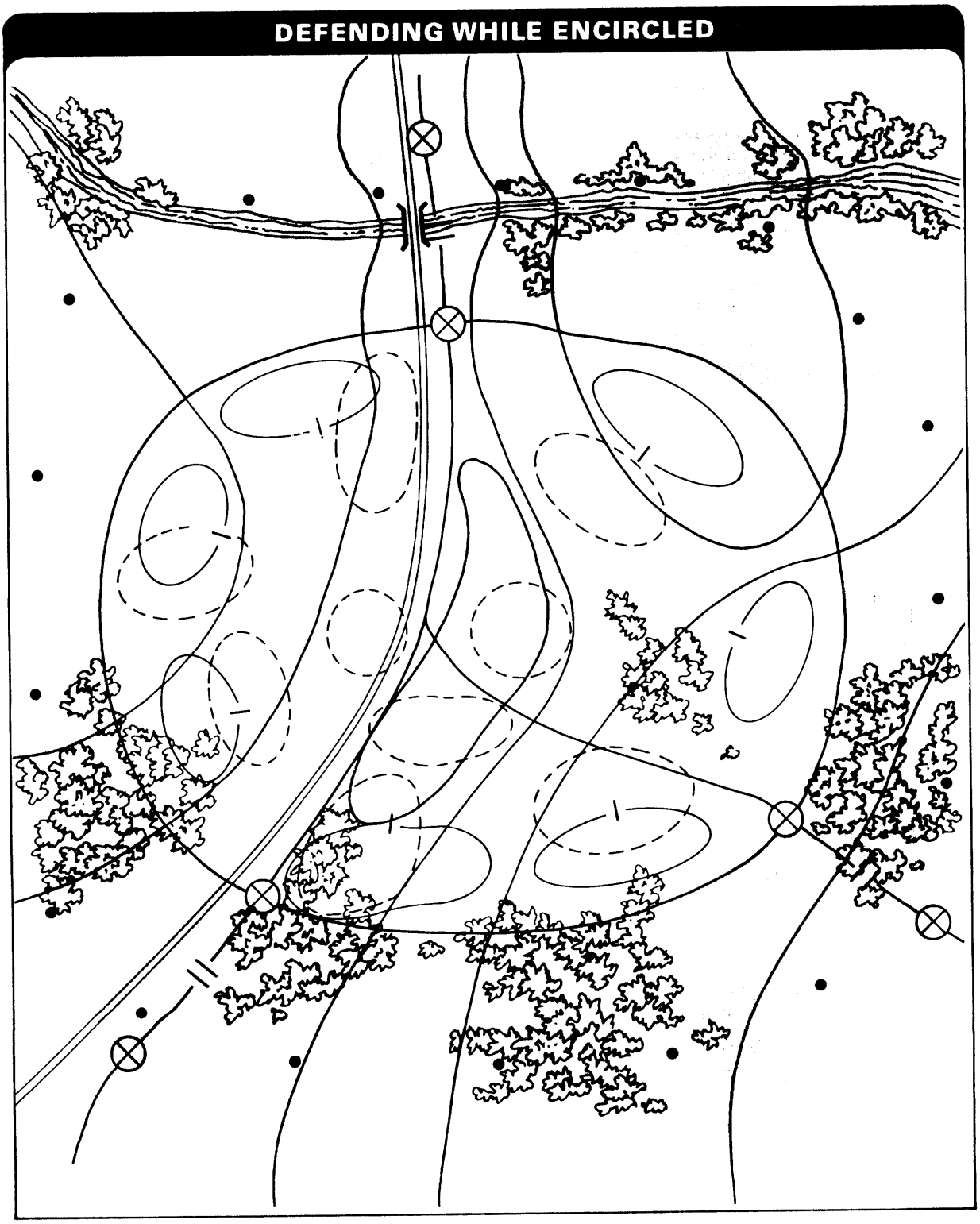
- ESTABLISH SECURITY. The commander should position security elements as far forward as possible to provide early warning. He should initiate vigorous patrolling immediately. He must establish local security throughout the force and insist on passive security measures.

- REESTABLISH COMMUNICATION. The commander must rapidly reestablish communications with higher headquarters and lateral communications with adjacent units. He must receive instructions and remain informed about the battle outside the encirclement. Encircled units can supply information on the enemy's rear area and deliver important counterstrokes. When relief and linkup are imminent, good communications are essential.

- LIMIT NUCLEAR OR CHEMICAL DAMAGE. Encircled forces are particularly vulnerable to enemy nuclear weapons and chemical agents. If the enemy gives positive indications of employing these weapons, the encircled force should establish increased nuclear and chemical defense readiness. A decision to break out earlier than anticipated can be crucial to the survival of the force.

- CONTINUE THE DEFENSE. Enemy forces may attempt to split an encircled force by penetrating its perimeter with armor-heavy units. An energetic defense, rapid reaction by reserves, and antitank weapons in depth within the encirclement can defeat such attempts. As the defensive force weakens in the battle, it may have to reduce the size of the perimeter. The defense must maintain coherence at all costs.

- MAINTAIN MORALE. Soldiers in the encirclement must not regard their situation as being desperate or hopeless. Commanders and leaders at all levels must maintain the confidence of soldiers by resolute action and positive attitudes. To suppress rumors, they must keep soldiers informed.


DEFENDING WHILE ENCIRCLED

BREAKING OUT

The attack to break out of an encirclement differs from other attacks only in that the force must maintain a simultaneous defense in other areas of the perimeter. The commander of the encircled force must recognize the essentials of breakout discussed below:

- DECEIVE THE ENEMY. If it is not possible to break out immediately, the commander must attempt to deceive the enemy by concealing his preparations and redispositions. He must also make it appear that the force will make a resolute stand and await relief. Dummy radio traffic that may be monitored or landlines that might be tapped are good means of conveying false information to the enemy. The breakout should not take the obvious route toward friendly lines unless there is no other alternative.

- EXPLOIT GAPS OR WEAKNESSES. Early in the encirclement there will be gaps or weaknesses in the encircling force. Patrolling or probing actions will reveal them. The attack should capitalize on them. The resulting attack over a less direct route or over less favorable terrain may be the best course of action if it avoids enemy strength and increases the chance for surprise.

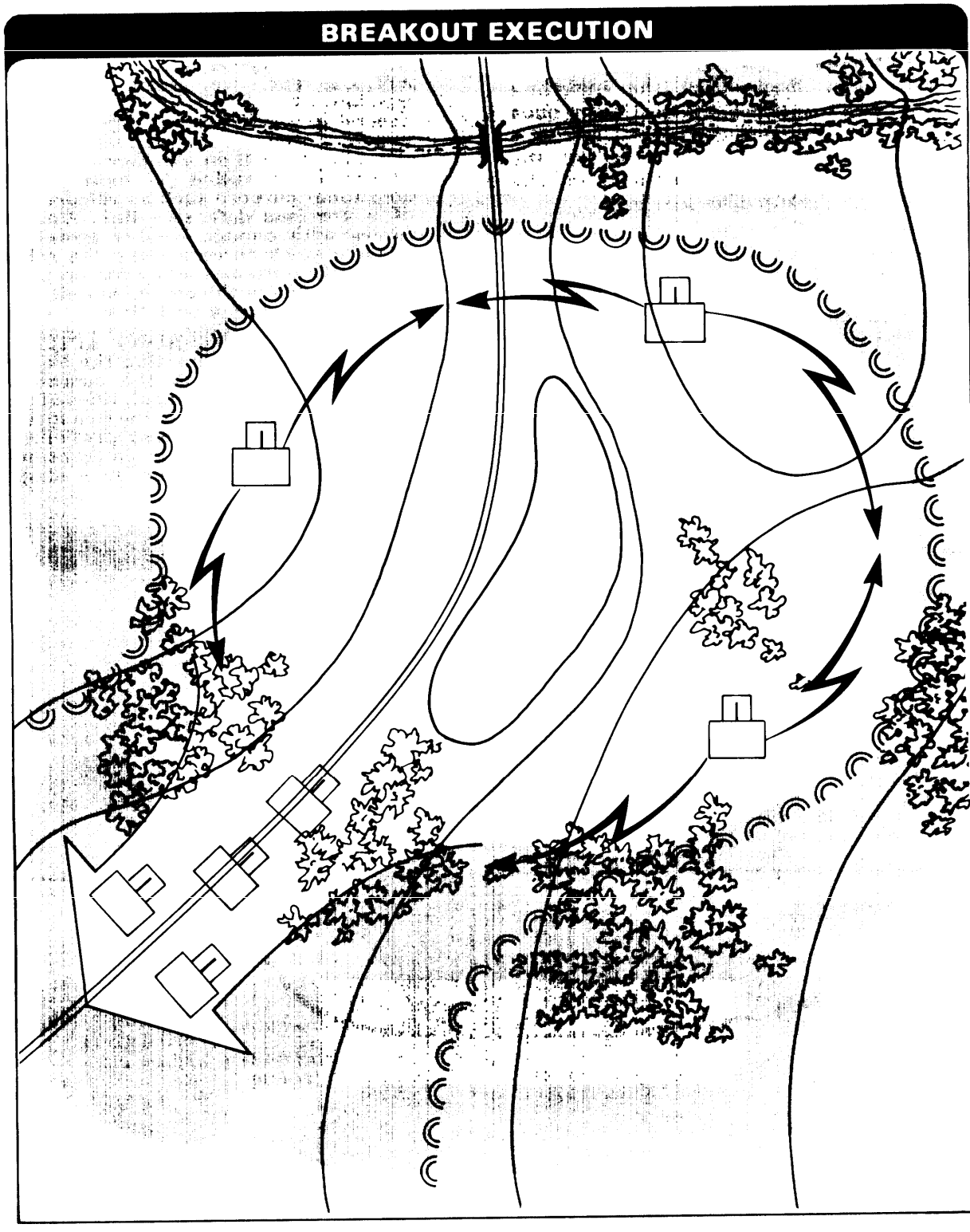
- EXPLOIT DARKNESS AND LIMITED VISIBILITY. Darkness, fog, or severe weather favors the breakout. Encircling force weapons are less effective in these conditions, and the enemy will have difficulty following the movements of the breakout force.

- ORGANIZE THE BREAKOUT FORCE. The commander must reorganize the force so that tank-heavy units, if available, lead the attack. The remainder of the force must fight a delaying action or defend the perimeter during the initial stage of the breakout. After penetrating the encirclement, the main body moves out of the area, preceded by the attacking force and covered by a rear guard. The commander must integrate CSS elements into the formations for the breakout. If the commander has sufficient forces, he may organize a diversionary attack just prior to the real breakout attempt to draw off enemy forces.

- CONCENTRATE COMBAT POWER AT THE BREAKOUT POINT. The commander must make every effort to produce overwhelming combat power and to generate momentum at the breakout point. Perimeter forces must integrate smoothly into the breakout column. The encircled force must take risks on other parts of the perimeter to insure the success of the breakout. Forces left in contact must fight a vigorous delaying action on the perimeter so that no portion of the force is cut off. The perimeter force must be unified under one commander. Supporting fires must concentrate at the breakout point. Once the breakout occurs, the rear guard action may get priority for fires. However, above all else, the force must maintain the momentum of the attack, or it will be more vulnerable to destruction than it was prior to the breakout attempt (see graphic on next page).

- COORDINATE WITH SUPPORTING ATTACKS. A nearby friendly force can assist the breakout by launching a supporting attack to divert enemy attention and assets from the breakout effort. The breakout attempt should occur just after the enemy reacts to the supporting attack.

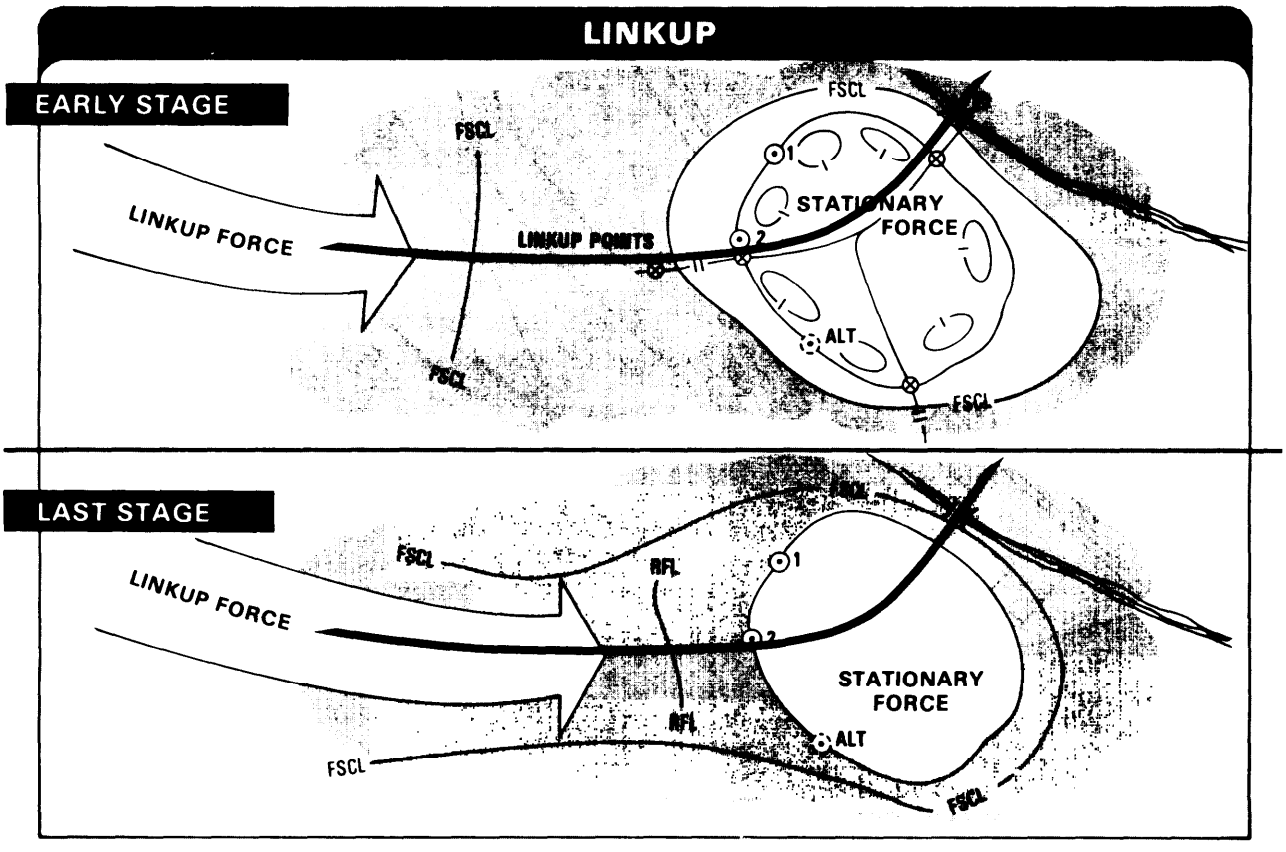
- CONSIDER EXFILTRATION. If the breakout attack appears too risky and a relief operation is not planned, the only other way to preserve a portion of the force might be through organized exfiltration. An exfiltration effort is preferable to capture. It can distract the enemy from his main effort and produce intelligence for the main force. This tactic organizes the encircled force into small groups under small-unit leaders and exfiltrates them during periods of limited visibility through gaps in the encircling forces. Equipment that cannot be taken is left behind and incapacitated in an inconspicuous way. The wounded are left with supplies and medical attendants. Some portion of the force may have to remain to create a diversion.


BREAKOUT EXECUTION

LINKING UP

If a breakout is not possible or desirable, another force may attack the encircling enemy forces to effect linkup. During such attacks the encircled force may act as a blocking force. The commander of the encircled force must understand the requisites for linkup discussed below:

- COORDINATE PLANS FOR LINKUP. Relief attacks require thorough preparation because they must be coordinated with the actions of the encircled force. At a minimum, coordination must be established for command relationships between forces and responsibilities of each force during the operation, command and staff liaison, schemes of maneuver, fire control measures, communications plans, actions following linkup, and logistics support required by the encircled force.
- ORGANIZE AND CONDUCT THE RELIEF ATTACK. The size, composition, and mission of the relieving force will depend in part on the enemy situation and the distance to the encircled force. It will also depend on whether the relief attack is intended to achieve an additional purpose such as restoration of a previous defensive line. Assault forces with enough combat power to achieve quick success make the relief attack. The attempt will often occur at night. Normally the encircled unit will support the attempt with fire.
- COORDINATE SUBSEQUENT ACTIONS. The headquarters directing the linkup operation establishes the command relationships and responsibilities of the two forces. After linkup, the two forces can combine under the control of either commander, or both forces can continue to operate separately under a single higher commander.



CHAPTER 14

Rear Area Protection

JUST AS WE PLAN TO FIGHT in the enemy's rear area, so he plans to fight in ours. The enemy will carefully coordinate his attacks in our rear areas with his actions in the main battle area. He will use agents, saboteurs, terrorists, airborne and airmobile forces, as well as bombing and shelling to disrupt our logistical bases, lines of communications (LOC), and critical communications facilities. Enemy forces will probably target nuclear and chemical storage facilities and delivery systems; command and control headquarters; radar, electronic warfare, and air defense artillery sites; airfields; ports; logistic installations; and even key civilian industrial and utility installations. The object of these rear area attacks is to destroy critical links, to cause disruption, and to degrade the capability of forces dedicated to support or reinforce the main effort.

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FUNDAMENTALS

Rear area protection (RAP) operations protect rear areas (division, corps, and echelons above corps) and insure that the support being provided to the main effort is not interrupted. RAP prevents enemy incursions into rear areas, minimizes the impact of incursions which do occur, and limits damage caused by natural disaster or enemy attack. RAP applies to both bases and base clusters. Bases are unit or multiunit defensive positions with definite perimeters. Base clusters are combat support and CSS rear area units, which are grouped for RAP or mission-related purposes but which have no definite perimeters.

Rear area threat divides into three levels. Level I includes activities of enemy agents, sabotage by enemy sympathizers, and activities of terrorist organizations. Level II includes diversion, sabotage, and reconnaissance conducted by tactical units smaller than battalions. Level III includes airborne operations, airborne insertions, and amphibious operations, all of which are battalion-size or larger. In addition, rear area threats include conventional, chemical, and nuclear shelling and bombing, as well as natural disruptions such as floods, fires, and earthquakes.

RAP operations must not degrade the primary missions of CSS units, nor must they require any more assistance from combat forces than absolutely necessary. The keys to rear area protection operations are sound

planning, early warning, and sufficient rapidly deployable forces and resources. Accordingly, they should provide—

- **Available forces to meet and to defeat enemy actions in the rear area. Such forces must be based on balancing all battlefield needs throughout the area of influence.**
- **A system of graduated responses beginning with rear area units that defend themselves against small-scale enemy incursions and that gain time against large enemy forces until reinforcements arrive.**
- **Rear area protection planning and execution at all echelons of command and staff.**

The commander also takes whatever offensive actions are necessary to inhibit the enemy from launching attacks against the rear area. In concept, such actions parallel counterair operations which not only destroy penetrating enemy aircraft but their airfields as well. Therefore, the commander considers using preemptive strikes to destroy or to disrupt the enemy's capability to launch attacks against rear area units and facilities. These are an integral part of deep attack planning.

COMMAND AND CONTROL

The commander is responsible for insuring that RAP planning and execution is totally integrated into the command's overall effort. The commander's staff plans, directs, and coordinates RAP operations. Major staff functions for RAP include rear area combat operations, area damage control, civil-military liaison, and base defense liaison. The operation officer at the command headquarters supervises the integration of RAP into all plans and operations. Intelligence officers include rear area data in the intelligence preparation of the battlefield.

Much of the day-to-day coordination is conducted in the rear. Civil-military liaison, carried out in the rear area, coordinates host-nation interface. Base defense liaison, also carried out in the rear area, provides RAP planning assistance to units and bases. The military police (MP) headquarters plans and coordinates rear area combat operations. The engineer headquarters plans and coordinates area damage control. Command and control is maintained through command channels.

At corps and below, the G2 is responsible for identifying RAP intelligence requirements. The military intelligence (MI) group or battalion CEWI provides the intelligence to satisfy the requirement. At echelons above corps, the theater Army MI officer identifies intelligence requirements which the theater Army MI brigade satisfies. Intelligence support elements from the MI brigade are in direct support of the MP command. They assist in identifying RAP intelligence requirements and in establishing priorities with the MI brigade for real-time intelligence.

Rear area combat operations counter and neutralize attacks using a combination of combat, combat support, and CSS forces and assets. Enemy attacks are countered by unit and base defense measures, quick reaction MP forces, and combat units. Unit and base defense measures are the responsibility of the respective unit and base commanders. MP reaction forces supplement unit and base efforts if the enemy force exceeds the capability of those units. Combat units are used when the enemy force exceeds MP capability.

Area damage control (ADC) counters and minimizes natural and man-made damage using a combination of engineer, ordnance, MP, chemical, civil affairs, maintenance, medical, signal, supply, and transportation forces and assets. Units and bases develop an organic ADC capability for the same reason that they develop a base defense capability. Engineers coordinate ADC assistance when damage exceeds unit and base capabilities.

At the division, the G3 integrates RAP planning and execution and directs necessary action from the division main command post. Normal command communication nets are used to receive and to provide necessary information concerning RAP to the division operations center. The division MP provide limited rear area combat operations support and response forces against Level II enemy forces. The G3 plans and coordinates the response used against Level III enemy forces. This response mission is assigned to a subordinate combat force for execution. The division engineer battalion provides area damage control support.

At the corps, the G3 integrates RAP planning and execution and directs necessary action from the corps main command post (CP). Much of the day-to-day coordination is conducted from the rear CP. The civil-military liaison and base defense teams are located in the corps rear CP. The rear area combat operation and area damage control centers are located with the MP and engineer headquarters, respectively. COSCOM units report relevant rear area information to the COSCOM headquarters, which in turn passes it to the appropriate staff (MP, engineer, and corps G3). Other rear area units follow the same procedure through their respective commands. The G3 keeps the commander appraised of the situation and requests additional assets when required. When combat forces are assigned to eliminate a Level III enemy force, the combat commander assumes command of all elements countering the enemy force and reports through the G3 to the corps commander.

At the theater Army, when host-nation support is not viable, the commander conducts RAP operations and planning in much the same manner as the corps does. The overall responsibility for RAP for US forces and installations within the communications zone rests with the theater Army commander. The theater Army Deputy Chief of Staff for Operations and Plans (DCSOPS) accomplishes the general planning, monitors progress, and provides central guidance. The MP command coordinates rear area combat operations, and the engineer command coordinates ADC. Assistance is coordinated through command channels.

Subordinate MP and engineer units are linked for coordination with TAACOMs, area support groups, and units and installations. The TAACOM commander insures that each unit and installation is adequately covered by RAP plans and resources. In those cases where operations take place in a foreign nation whose sovereignty remains viable, RAP is the responsibility of the host nation. The theater Army DCSOPS integrates RAP and host-nation support. The MP command coordinates rear area combat operations with the host nation. The engineer command coordinates ADC with the host nation. TAACOMs, area support groups, and units and installations, as well as MP and engineer commands, are linked for coordination with appropriate host-nation commands.

PLANNING AND EXECUTING REAR AREA COMBAT OPERATIONS

RAP operations must anticipate enemy attacks and plan for the defense and reinforcement of sensitive areas. For the minimum disruption to friendly operations, responses to such attacks must be rapid and strong. Every effort must be made to defeat enemy forces while they are in the air or on the landing site. Once landed and dispersed, they pose a much greater threat to friendly forces.

Depending on the size of the enemy, rear area combat operations are conducted by three different forces, alone or in combination: the base defense force, the response force, and the combat force.

THREAT LEVELS AND FRIENDLY RESPONSES

THREAT LEVEL	DESCRIPTION	FRIENDLY RESPONSE
Level I:	Agents, saboteurs, terrorists.	Base defense forces.
Level II:	Diversionary operations and sabotage by tactical units.	Military police.
Level III:	Airborne, airmobile, or amphibious forces (battalion-size or larger).	Combat forces.

BASE DEFENSE FORCE

Well-planned and tenacious base defense is the keystone of effective rear area combat operations. The base defense force operates primarily against saboteurs, terrorists, and special operations teams (Level I). When attacked by diversionary forces or the reconnaissance elements of tactical units (Level II), base defense forces fix, isolate, or contain the attack until MP or other forces can respond. Bases may also be attacked by battalion-size or larger enemy forces. In such cases, base defense forces establish a base of fire, such as small arms and antiarmor fires, and coordinate any available indirect fires. They will isolate, limit, or delay the enemy attack until reinforcements arrive.

RESPONSE FORCE

When enemy forces (Level II) exceed base defense capabilities, MP forces respond. MP routinely provide surveillance of likely avenues of approach and landing or drop zones. They also provide early warning of indications of rear area enemy activity. MP identify, intercept, and destroy small enemy forces before they can close on their objectives. In the event of a major (Level III) enemy incursion, MP determine the size and intent of the enemy force, delay and disrupt its progress, and assist combat forces to defeat it.

COMBAT FORCE

Base defense and response forces are not normally capable of countering battalion-size airborne, airmobile, or amphibious (Level III) incursions. Such major incursions are the primary responsibility of a combat force. This force can be a brigade-size unit assigned from within the command specifically for this purpose, a transient unit, or host-nation forces. It can be the corps armored cavalry regiment that has returned from performing covering force or other missions. It can also be a brigade from one of the divisions or a newly arrived unit in the theater, such as a separate brigade that is awaiting rotation into the main effort. During the early stages of conflict and when combat units are unavailable to perform this mission, host-nation forces may play a critical role in assisting rear area protection.

The combat force operates under the control of the commander and is responsive to direction from the operations officer. It is positioned to facilitate its assigned mission. Once a combat force is inserted against an enemy in the rear area, the commander of that force coordinates the execution of that response and reports, through the operations officer, to the commander.

AREA DAMAGE CONTROL

The lethality and range of modern weapon systems and the enemy's concept of striking deep make rear areas as vulnerable as the troops of committed units. Therefore, to minimize disruption and to insure that they sustain the main effort, *all rear area units*

must plan and train for ADC operations, just as they plan and train for rear area combat operations. ADC operations include preventive and control measures taken prior to, during, and after an enemy attack, major accident, or natural disaster. ADC limits damage, seals off affected areas, saves lives, and salvages equipment. Thus, the primary objectives of ADC operations are to minimize a unit's vulnerability and to facilitate its ability to survive and reconstitute when damage does occur.

Rear area units and bases cannot always depend on dedicated support from outside resources. Even if outside resources are available, weapons of mass destruction may alter the terrain and impede their timely arrival. Therefore, commanders plan and train for damage contingencies using organic manpower and equipment.

RESPONSIBILITIES

Unit and base commanders plan for and supervise base defense measures (RACO and ADC) and identify requirements beyond organic capability. Vulnerability analysis is conducted for each base. RAP situation reports are forwarded through command channels and to supporting engineers and MP. When collocated, commanders coordinate defense and requirements.

Combat support and CSS commanders coordinate the positioning of their units and facilities and their defensive requirements with the operations staff. These requirements are used to develop rear area protection plans and to establish priorities for the defense of vital command and control and logistic facilities.

When damage or enemy incursions do take place, situation reports and requests for assistance are made through command channels and to supporting engineers and the MP. Commanders insure that each base and base cluster has a viable base defense plan. Commanders must also insure that RACO coordination with MP and ADC coordination with engineers are adequate.

MP commanders are responsible for planning and coordinating all three levels of response and for conducting Level II rear area combat operations. They review base defense plans to insure adequacy while minimizing mission degradation. MP provide response forces when the enemy attack exceeds unit and base defense capability. MP fix, isolate, and contain Level III enemy forces, coordinate the requirement for combat forces with the command operations staff, and assist the combat force. MP also aggressively patrol the rear area to deter enemy attacks.

Engineers command, plan, and coordinate ADC operations. They execute ADC missions beyond unit and base capability. They also review unit and base ADC plans to insure their adequacy.

For a comprehensive discussion of RAP operations, see FM 31-85, FM 100-15(TEST), and FM 100-16.

PART FOUR

JOINT, CONTINGENCY, AND COMBINED OPERATIONS

CHAPTER 15

Joint Operations

THE ARMY WILL SELDOM FIGHT ALONE. Because US military operations normally involve more than one service, joint operations will be the rule rather than the exception. Command and control of joint forces will conform to the provisions of the Joint Chiefs of Staff Publication 2. Each service's doctrine and applicable joint doctrine will prescribe tactical employment.

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ORGANIZATION AND COMMAND AND CONTROL

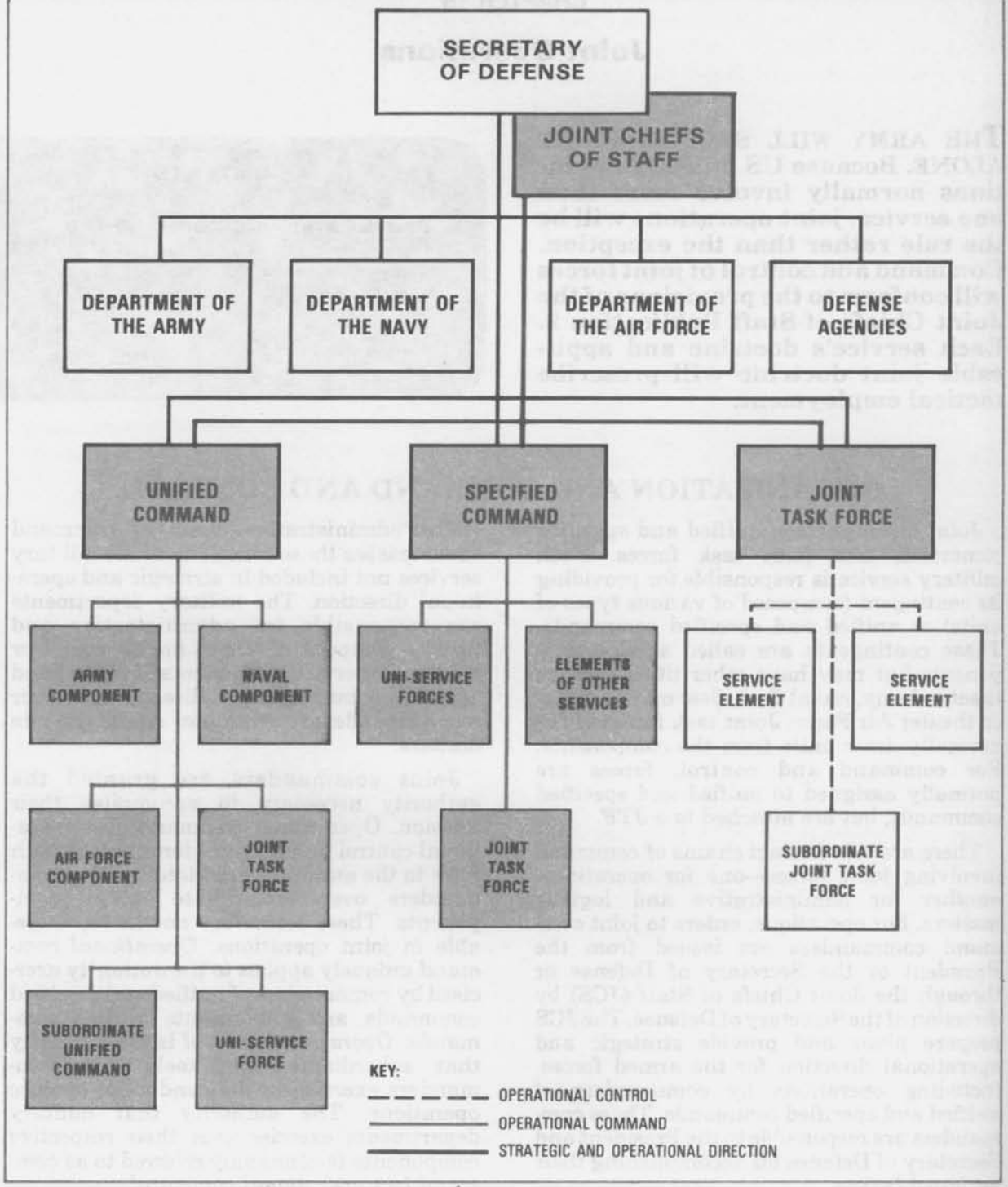
Joint forces include unified and specified commands and joint task forces. Each military service is responsible for providing its contingent (composed of various types of units) to unified and specified commands. These contingents are called service components but may have other titles such as theater Army, naval fleet, fleet marine force, or theater Air Force. Joint task forces (JTF) normally draw units from the components. For command and control, forces are normally assigned to unified and specified commands, but are attached to a JTF.

There are two distinct chains of command involving joint forces—one for operations, another for administrative and logistic matters. For operations, orders to joint command commanders are issued from the President or the Secretary of Defense or through the Joint Chiefs of Staff (JCS) by direction of the Secretary of Defense. The JCS prepare plans and provide strategic and operational direction for the armed forces, including operations by commanders of unified and specified commands. These commanders are responsible to the President and Secretary of Defense for accomplishing their assigned tasks.

The administrative chain of command encompasses those functions of the military services not included in strategic and operational direction. The military departments are responsible for administrative and logistic support of their forces wherever employed. Service components of unified and specified commands deal directly with their respective departments on single service matters.

Joint commanders are granted the authority necessary to accomplish their mission. Operational command and operational control in joint force terminology both refer to the authority exercised by joint commanders over subordinate service components. These terms are not interchangeable in joint operations. *Operational command* uniquely applies to the authority exercised by commanders of unified and specified commands and subordinate unified commands. *Operational control* is the authority that subordinate joint task force commanders exercise in the conduct of specific operations. The authority that military departments exercise over their respective components is commonly referred to as *command less operational command.*

TYPES OF JOINT FORCE ORGANIZATIONS



Operational command and operational control include four specific elements of authority for joint commanders:

- **Composition of subordinate forces.**
- **Assignment of tasks.**
- **Designation of objectives.**
- **Authoritative direction necessary to accomplish the mission.**

The critical factors that determine the structure of a joint organization formed to conduct a contingency operation are—

- **Missions and tasks assigned to the commander.**
- **Nature and scope of the operation.**
- **Forces available.**
- **Duration of the operation.**

The organization should provide for centralized direction, decentralized execution, and common doctrine, while at the same time maintaining the identity of the separate service components.

The commander in chief (CINC) of the unified command develops operation plans (OPLAN), operation plans in concept format (CONPLAN), and operation orders (OPORD). As the supported commander (supported CINC), he has responsibility for a specific geographical area.

UNIFIED COMMAND

A unified command is established and designated by direction of the President. The command is organized under a single unified CINC and has a broad continuing mission. The CINC is responsible to the Secretary of Defense for accomplishing his broad and continuing mission and operates under the strategic and operational direction of the JCS.

A unified command is composed of assigned forces of two or more services. These forces, as service components, are under the operational command of the unified commander. The CINC exercises operational command authority through service component commanders. When tasked by higher authority, he may establish a subordinate JTF to conduct specific missions. Under emergency conditions, the CINC has the authority to use all facilities and supplies of assigned forces to accomplish his mission.

SPECIFIED COMMAND

A specified command is similar to the unified command. It is also established and designated by direction of the President. The commander is responsible to the Secretary of Defense for accomplishing a broad, continuing mission. One of the major differences between the unified and specified command lies in composition. A specified command is primarily a single service command, but may have elements of other services assigned. The specified command, as a joint command, receives strategic and operational direction from the JCS.

JOINT TASK FORCE

A JTF may be constituted and designated by the Secretary of Defense or by the commander of a unified command, specified command, or an existing JTF. Normally it performs missions having specific, limited objectives or missions of short duration. It dissolves when it has achieved its purpose. The joint task force commander is responsible to the commander, known as the establishing authority, who created the JTF. The JTF is composed of elements of two or more services operating under a single JTF commander. The JTF commander has operational control over the entire force and may have direct command of his own service component. He will usually augment his own staff with representatives from the other services. He exercises logistic coordination or control only as necessary to meet his subordinate commanders' logistic needs.

SERVICE COMPONENT

Each service component commander is responsible for recommending the proper employment of his forces and for accom-

plishing operational tasks assigned by the joint commander. He is also responsible for his service in matters of—

- **Internal administration and discipline.**
- **Training in own service doctrine, techniques, and tactics.**
- **Designation of specific units to meet joint requirements.**
- **Logistics functions normal to the component.**
- **Tactical employment of service component forces.**
- **Service intelligence matters.**

CHAPTER 16

Contingency Operations

IN SUPPORT of national policy, the NCA directs contingency operations involving US forces overseas. Usually such operations are urgent. The size of a contingency force, its mission, and the area of operations vary. While plans exist for many situations, detailed prior planning is not possible for other, unforeseen conditions. This chapter describes the organization, deployment, and use of Army elements as part of a contingency force.

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CONSIDERATIONS

The decision to commit US military forces to a contingency operation involves many factors, most of which are nonmilitary. Military planning should provide for the most effective use of forces committed to a contingency. Military planners seek—

- **To provide multiple options to the NCA, fully recognizing that military operations are subordinate to national objectives.**
- **To use the most current and authoritative guidance available.** *They should know what US political authorities are prepared to do before hostilities occur in responding to threats to national interests.*
- **To inform civilian authorities of the risks associated with proposed plans.**
- **To judge what additional resources would effectively reduce those risks.**

Military planners must analyze nine considerations involving total force readiness, availability, and appropriateness:

- **MISSION. The mission analysis determines the tasks. A large force may have to deter or to defeat surrogate forces of an enemy state that attempt subversion or invasion. It may have to face direct intervention by an enemy state. A small force may deploy to perform one of many specialized missions. The mission may call for deployment to a distant area or for operations in specialized terrain.**
- **ADEQUACY. A trained force adequate to the task should be available.**
- **DEPLOYABILITY. The means to deploy the necessary force in the required time frame should be available.**
- **SUPPORTABILITY. The means to support and to sustain the force long enough to accomplish the mission should be available.**
- **AFFORDABILITY. The forces and other resources for one mission must be weighed against those for vital missions elsewhere.**
- **FORCE LEVELS. Light forces are easy to deploy and to support. Once on the ground, however, they may not be adequate to the task—particularly if they face tank-heavy forces or if they operate over great distances. Heavy forces are much more difficult to deploy and to support. If the operation is far from CONUS, it may be impossible to commit a heavy force in time to accomplish the mission. Planners weigh the considerations in each case to arrive at a proper mix of forces.**
- **USE OF INDIGENOUS FORCES. An indigenous force may be available for all or a part of the mission. Its capabilities and the support required to sustain it enter into planning considerations. Combined with a small US combat force or appropriate US logistic and fire support, an indigenous force may be**

sufficient. Under these circumstances, US forces can operate under either a US national command or a combined command.

- **USE OF NUCLEAR WEAPONS. A relatively small, rapidly deployable force with nuclear weapons may be assigned a contingency mission. This force might succeed as a deterrent while a larger, conventional force might deploy too late.**
- **USE OF CHEMICAL WEAPONS. A force must take special precautions to survive chemical attacks. The force must train continuously in its employment area and in gathering intelligence if it is to be combat effective and to survive. Contingency forces should also train to use chemical weapons if the NCA directs their use.**

COMMAND AND CONTROL

The command and control needs in contingency operations might lead to forming a JTF from assets within the unified command responsible for the contingency area. A JTF could also be organized and deployed under the control of the United States Readiness Command (USREDCOM). This CONUS-based unified command is charged with the strategic deployment of Army and Air Force general purpose forces from the United States to support military operations worldwide. The gaining unified command could be responsible for employing the JTF, or the NCA might retain control of the JTF through the JCS or USREDCOM.

STRATEGIC DEPLOYMENT

The commander of the United States Army Forces Command (FORSCOM) is also CINC of the United States Army Forces, Readiness Command (USCINCARRED). He supports USREDCOM. Readiness Command forces may fill Army requirements in a deploying JTF or augment Army components of unified commands overseas. Army forces normally deploy on receipt of a JCS deployment order, but they may also receive some movement instructions from JCS warning or alert orders. Transportation by sea is under supervision and monitoring of the Joint Deployment Agency (JDA).

During deployment planning, the gaining Army component commander insures the arrival of Army units into the operational area in accordance with the CINC's concept of operations. The Army component commander develops a tactical scheme for Army forces to determine the types and numbers of forces required. Subsequently, using the backward planning technique, the Army component commander develops his deployment plan in close coordination with the other services. The location, nature, and intensity of the conflict will determine the composition of units needed and how they will be phased during deployment.

EMPLOYMENT

The scope and nature of the contingency influences both force organization and operations. Economy of force, mobility, surprise, and bold, aggressive actions should achieve decisive results. In keeping with the AirLand Battle doctrine, operations should have flexibility, imaginative leadership, thorough planning, and skillful, decentralized execution. Support from the other services is essential to the success of the Army mission in joint operations.

Commanders at appropriate levels maintain contingency plans for rapid force deployment. At the time of deployment and under guidance from NCA, they modify these plans to fit existing conditions. The Army component for a contingency operation may consist of any size Army force—a small specialized element, a battalion or a brigade, a corps or a multiple-corps force.

In planning to function as part of a joint force in a contingency operation, the Army component commander considers operations, tactical environment, and support.

Operational considerations involve—

- **The joint force mission and the Army component's tasks.**
- **Assumptions under which the planning was conducted.**
- **The joint commander's concept of the operation.**
- **The probable or actual composition and size of ground, air, and naval forces of the joint force with any allied force.**
- **Command relationships within the joint force.**
- **Specific operational aspects including fire support (all services), communications, nuclear and chemical warfare guidance, intelligence, psychological operations, and unconventional warfare.**

Tactical environment involves—

- **Enemy capability for ground, air, naval, electronic, nuclear, biological, and chemical operations.**
- **Enemy capability for unconventional and psychological operations.**
- **Geography, weather, and terrain in the operational area.**
- **The political situation and civil-military responsibilities.**
- **Language requirements.**
- **In-country facilities.**

Support operations involve—

- **Maximizing use of local resources.**
- **Limiting supplies to essentials.**
- **Limiting maintenance to initial direct support (limited general support for some systems).**
- **Formulating a realistic medical evacuation policy.**
- **Maintaining and securing minimum stockage levels.**
- **Phasing in additional CSS capabilities with follow-up elements as required.**

Force planners normally seek to maximize combat capability and to reduce support to the bare essentials. A contingency force relies heavily on strategic airlift for rapid deployment and resupply from CONUS. Early air superiority, continuous tactical air support, logistic resupply by air, and maintenance of air lines of communications are essential to such an operation's success. Sea lift of outsized equipment, armored units, and bulk supplies may be necessary. Additionally, the Army component of a joint force will have to provide certain combat service support commodities, services, and facilities to other service components in the operations area.

A lack of adequate communications and intelligence may hamper the initial phase of contingency force operations. Limited knowledge of the enemy may initially dictate that initial combat actions consist of a movement to contact or a reconnaissance in force. Forces should establish long-range communications early to insure an effective flow of information for decision making.

Contingency planning requires an all-source intelligence system organized to meet the needs of the commander of the deploying force. The intelligence planning process should be continuous and aggressively managed. It should develop, maintain, and update a data base keyed on worldwide contingency requirements, with emphasis on likely areas of employment. This data base incorporates IPB. Upon alert notification, the intelligence officer focuses his effort on the specific objective area. *He should rapidly provide the commander only that information critical to the combat operation.*

Maintaining the intelligence data base permits commanders to identify intelligence gaps. These become immediate collection requirements in a crisis. Updating the data base and satisfying intelligence gaps requires active coordination between the contingency force and national intelligence systems. National intelligence systems with early deployed units play a key role in filling the commander's intelligence needs. After deployment, they continue to supplement the contingency force's organic collection assets in the objective area.

Army forces in contingency operations should be more mobile than their potential enemy. To achieve superior mobility, they may need to include mechanized, armored, and aviation units. Although costly, mobility enhances the commander's ability to fight.

OBSOLETE

CHAPTER 17

Combined Operations

IN ADDITION to preparing for contingency operations as part of a joint US force, the Army must be prepared for combined operations with forces of allied nations. US Army forces will operate in Europe under NATO and in Korea as part of the United States-Republic of Korea (US-ROK) Combined Forces Command. In these areas, they will operate under procedures and principles developed, practiced, and standardized in peacetime. In other potential combat theaters such as Japan, agreements on principles and procedures are either nonexistent or only partially developed. Such theaters are the most demanding because US and allied forces may combine after hostilities begin. To enhance the combined effort, US commanders should be familiar with any established arrangements. They should also be flexible in adapting to local conditions where such arrangements do not exist.

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NATO

ORGANIZATION

The 15 NATO nations mutually insure their security and freedom. Article 5 of the North Atlantic Treaty states, *"The parties agree that an armed attack against one or more of them in Europe or North America shall be considered as an attack against them all."*

The principal military commands of NATO are Allied Command Europe (ACE), Allied

Command Atlantic (ACLANT), and Allied Command Channel (ACCHAN). The ACE is responsible for the defense of all NATO territory in Europe except Britain, France, Iceland, and Portugal. It is also responsible for all of Turkey, as well as for the air defense of Britain. The ACLANT is responsible for the North Atlantic area from the North Pole to the Tropic of Cancer, including Portuguese coastal waters. The ACCHAN exercises control of the English Channel and the southern North Sea.

The United States, the Federal Republic of Germany, the United Kingdom, the Netherlands, Belgium, Luxembourg, and Canada provide forces in ACE's central region. In the southern region of ACE, forces from the United States join forces from Italy, Turkey, the United Kingdom, and Greece. The northern region of ACE includes military forces from Germany, Norway, and Denmark. Each national force may operate outside its own territory; however, each NATO nation retains sovereignty within its territorial boundaries and controls political, civil, and economic activity.

The United States European Command (USEUCOM) is the senior US military headquarters in Europe. The USEUCOM develops plans to support NATO's strategy of flexible response. It has operational command over component forces assigned by the JCS in peacetime.

For smaller contingency operations, USEUCOM maintains specially tailored force packages for rapid deployment throughout the command. These include Air Force fighter squadrons, an Army airborne battalion combat team, and a Marine amphibious unit (MAU) composed of a battalion landing team and a composite helicopter squadron.

National combat and combat support forces are phased into NATO commands on alert of impending hostilities. National commands relinquish operational command of these forces to NATO. A similar transfer of authority occurs for post D-day augmentation forces arriving from outside Europe. National commands prepare the units for combat and then transfer operational command to NATO. However, each nation

LEGEND

AAFCE — Allied Air Forces, Central Europe

AMF — Allied Command Europe, Mobile Forces

CINCENT — Commander in Chief, Allied Forces, Central Europe

CINCNORTH — Commander in Chief, Allied Forces, Northern Europe

CINCSOUTH — Commander in Chief, Allied Forces, Southern Europe

COMAIRSOUTH — Commander, Allied Air Forces, Southern Europe

COMBALTAP — Commander, Allied Forces, Baltic Approaches

COMCENTAG — Commander, Central Army Group, Central Europe

COMFOURATAF — Commander, Fourth Allied Tactical Air Force, Central Europe

COMLANDSOUTH — Commander, Allied Land Forces, Southern Europe

COMLANDSOUTHEAST — Commander, Allied Land Forces, Southeastern Europe

COMNAVSOUTH — Commander, Allied Naval Forces, Southern Europe

COMNON — Commander, Northern Norway

COMNORTHAG — Commander, Northern Army Group, Central Europe

COMSONOR — Commander, Southern Norway

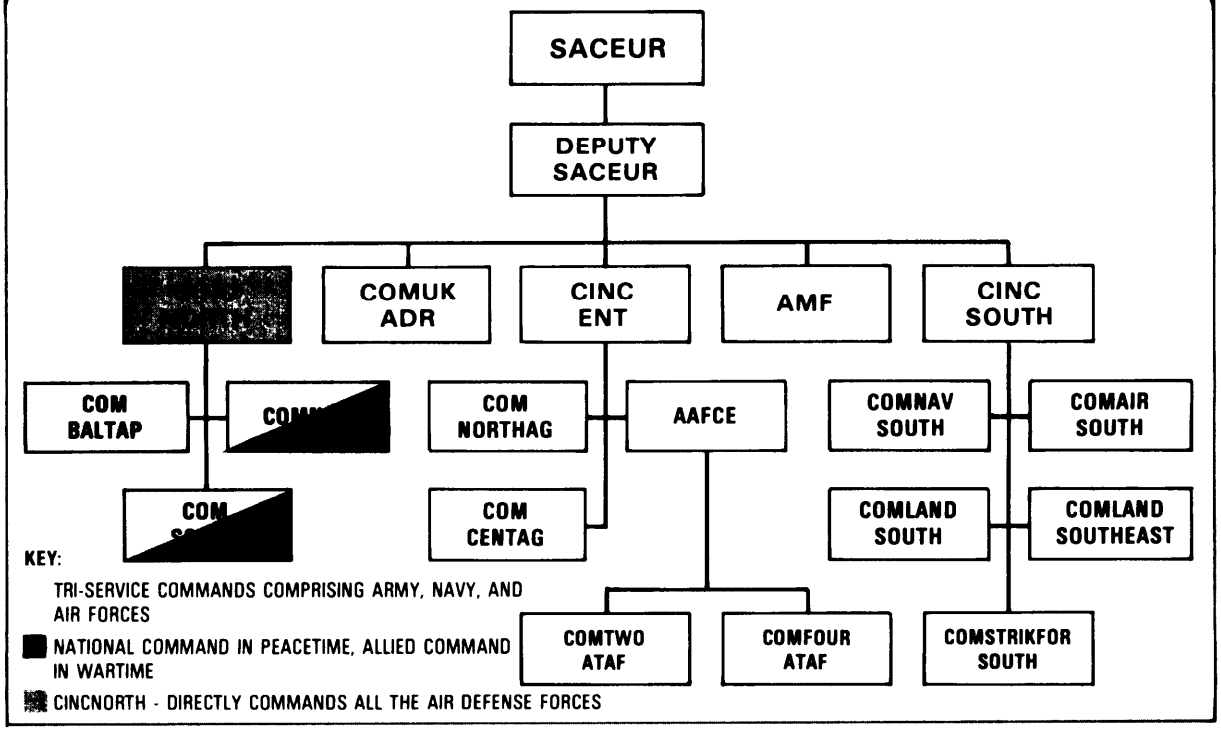
COMSTRIKFORSOUTH — Commander, Naval Striking and Support Forces, Southern Europe

COMTWOATAF — Commander, Second Allied Tactical Air Force, Central Europe

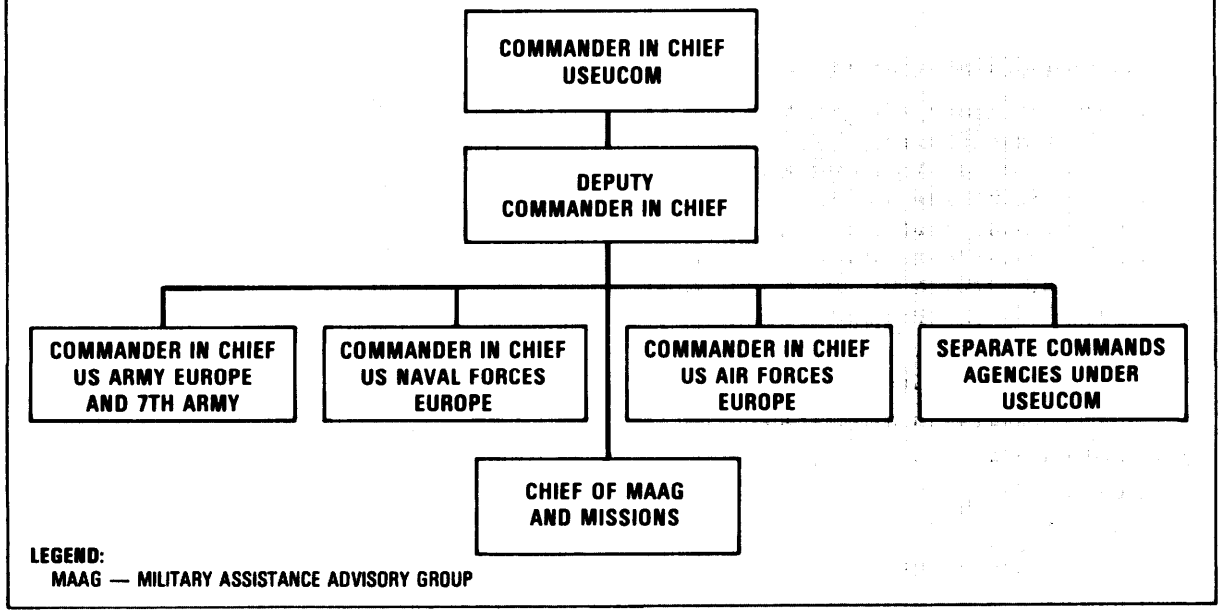
COMUKADR — Commander, United Kingdom NATO Air Defense Region

SACEUR — Supreme Allied Commander Europe

ALLIED COMMAND EUROPE: ORGANIZATION



UNITED STATES EUROPEAN COMMAND: ORGANIZATION



retains responsibility to provide combat support and combat service support to its forces.

The implications of this command relationship vary with the echelon of command. At the higher echelons of NATO command and staff, attention focuses upon adhering to NATO procedures, coordinating allied forces, and integrating effort effectively. Subordinate echelons are concerned only with certain routine NATO procedures and the coordination of allied and US forces in operations and support.

Standardization Agreements (STANAG) help to alleviate differences among allied forces by establishing procedures and guidelines. As STANAGs are adopted, they become part of each nation's unilateral procedures, incorporated into appropriate national doctrinal and procedural publications.

The ultimate goal is interoperability in both equipment and methods of operations, allowing multinational forces to operate smoothly and effectively together. Allied tactical publications establish a basis for a common understanding of doctrine among nations and provide NATO commanders with guiding principles.

OPERATIONAL FACTORS

Overview. In Europe, the ground forces of both the Warsaw Pact and NATO are supported by modern, highly capable air forces. Warsaw Pact forces are equipped with standardized weapons and have a common doctrine. The NATO elements are much more diverse. Areas requiring attention with regard to NATO rationalization/standardization/interoperability (RSI) are—

- **Command and control.**
- **Field standing operating procedures.**
- **Coordination.**
- **Liaison.**
- **Language.**
- **Combat organization.**
- **Combat plans and orders.**
- **Fire support relationships.**
- **Communications.**
- **Intelligence.**
- **Combat service support.**
- **National territorial forces.**
- **Environment.**

Command and Control. Various nations place combat and combat support forces (except intelligence and communications) under NATO command. NATO usually establishes operational command. Logistic responsibility remains with the nation concerned. At corps level and below, most forces will be in a national organization. Cross-attachment of different national maneuver units is seldom practical below brigade level. Each host nation also has overall responsibility for rear area protection in its national territory. The US elements in the area behind the corps rear boundary are responsible only for self-protection and coordination with appropriate host nation authorities.

While the United States maintains positive control of US nuclear weapons during peacetime, NATO will exercise wartime operational command of forces and delivery vehicles. Because the NATO strategy of flexible response has nuclear options at various levels of conflict, NATO forces should be capable of operating effectively on the nuclear-chemical-conventional battlefield. Command and control and communications support for theater nuclear forces are essential. To be as flexible as possible, command and control procedures must be kept current, and communications, especially situation reporting and message handling, must be upgraded continuously.

Field Standing Operating Procedures. Prearranged field SOPs and lists of commonly used terms and symbols in the language of the nations concerned are necessary for effective operations. Peacetime multinational training exercises develop these. They should become part of the SOP for NATO forces.

Coordination, Liaison, and Language. Boundaries between forces of different nations are particularly vulnerable. All allied actions in areas adjacent to them must be closely coordinated and have detailed liaison. NATO must also establish operational procedures to insure mutual and responsive tactical air, attack helicopter, and artillery support. Contingency plans will adjust boundaries and restructure forces.

In a multinational operation, recognizing friendly and enemy forces takes on increased importance. NATO should develop and exercise standard procedures for battlefield recognition.

Forces in a multinational structure need effective liaison. Liaison team members should be bilingual and know the organization, procedures, and equipment of the forces with which they will operate.

US forces should be able to communicate in the language of the forces with which they operate. Besides requiring skilled interpreter-translators in the usual positions such as intelligence and liaison, battalion and higher commanders will need enough language capability to communicate with adjacent and supporting commanders. Multiple language word lists for such units as artillery should help alleviate the communication problem. All personnel should have training in the particular language so they can recognize road signs, take directions, and effect simple coordination.

Combat Organization. NATO forces must thoroughly understand the organizations, procedures, and functions of national tactical units. For example, other national forces normally operate under the brigade base concept, which is similar to the US separate brigade. Such brigades may have combat support and CSS elements as part of their normal structure. When a US brigade is under operational command of an allied division, US combat support and CSS must be provided by the parent US division or by other US supporting units.

Cross-attachment seldom occurs below brigade level. Placing battalions or smaller elements under the operational control of other national forces is possible, but doing so increases coordination requirements. This is particularly evident in liaison teams, communications, fire support, and CSS.

Combat Plans and Orders. Although all NATO nations use standard formats for plans and orders, commanders should take into account differences in tactics, terminology, and graphics. When issuing orders to others and preparing to execute orders from others, commanders must insure mutual understanding through interpreters and liaison teams and by personal contact.

Fire Support Relationships. In general, NATO has standardized fire support coordination techniques. Advance planning and training reduce the language problems when support crosses national lines. Preplanning can reduce reaction time for tactical air support and conventional, nuclear, or chemical fire support. Additional aids to planners include bilingual liaison teams, STANAGs, field SOPs, and multiple language lists of key words.

Communications. To succeed in multinational operations, allied forces will have to communicate well. Using the terms in allied communication publications will reduce transmission time and misunderstanding. US personnel must be trained and ready to use them.

Differences in equipment may also create some difficulty. For example, US radio secure voice equipment is not compatible with all allied radio equipment. Some allied wire secure equipment is not compatible with US wire equipment. If equipment is not compatible, commanders must make local provisions among all allied units to exchange for the equipment necessary.

Intelligence. An effective NATO intelligence system depends upon support from national forces. Each allied nation has

intelligence data that major NATO commanders need. NATO intelligence channels with a liaison element and automated data processing capability can best disseminate intelligence. The liaison element can use Army component and other national data bases, such as the National Security Agency and nationally controlled signal intelligence, HUMINT, CI, and imagery intelligence operations. Provided with dedicated, secure communications facilities, the liaison element can furnish timely, appropriate responses to NATO. This relationship is particularly significant when US commanders at any level share a common boundary with other national forces.

Combat Service Support. Each nation must assure CSS to its own forces, but efficiency and economy require maximum mutual support among nations. In the past, US forces have relied primarily on their organic support. Now, however, they rely more heavily on the highly developed European national support structure. US elements should be prepared to obtain common supply items from allied units or to provide items to them. Each nation must provide its unique items to elements cross-attached to other nations. Host nation support will integrate into operational planning only if firm commitments are made in advance.

National Territorial Forces. The US combat service support commander coordinates his activities with the host nation's. In the ACE central region, German Territorial Forces provide some host nation support to US and other NATO allies. The Territorial Forces' responsibility begins at the corps rear boundary and extends to the national boundary. Their primary missions include—

- **Insuring logistic and engineer support of NATO forces within the scope of national agreements.**
- **Supporting NATO forces with local resources.**
- **Insuring cooperation between NATO forces and civil defense authorities.**
- **Assuming responsibility for security, damage control, military movement control, and NBC reporting and warning.**

Organizations similar to the German Territorial Forces exist in virtually every NATO nation. Although most US forces will deploy in Germany, US commanders in other NATO regions will have to familiarize themselves with local forces. In most, if not all, cases, such forces will handle relationships between US forces and the civil authorities.

Environment. US forces operating in Europe will encounter widely diverse terrain and climate conditions.

The Central Environment

US units must be capable of operating effectively in the central region of ACE, as well as on both its northern and southern flanks. US commanders and troops must be prepared to fight in the cold and wet environment of West Germany. Although there are warm, sunny days in summer and snow occurs in winter, low overcast with rain prevails. During fall, winter, and early spring, the fog frequently does not lift until midday. On about one third of fall and winter mornings, visibility is less than one kilometer.

The cloud layer over Western Europe is typically low with easterly movement. Because ceilings are 1,000 feet or less during the December-February period, commanders can expect reduced close air support. Attack helicopters may fly missions only one day out of three.

Urbanization of Germany has a major impact on military operations. Hundreds of towns and cities have populations over 50,000. Small villages have grown together along interconnecting valleys. While built-up areas are natural strongpoints and offer protected facilities for command posts, they restrict visibility, fields of fire, and maneuver capability.

The Northern Environment

The Northern European Command (NEC), also known as Allied Forces Northern Europe (AFNORTH), is comprised of Norway, Denmark, the Federal Republic of Germany north of the Elbe River, and adjacent seas. Within the northern region, two areas have primary strategic significance—northern Norway and Denmark. They are critical in preventing the Warsaw Pact from projecting seapower from east to west to disrupt sea lines of communication for the central region.

Norway is 1,769 kilometers long with a coastline exceeding 27,000 kilometers, including fjords and the largest of its 150,000 islands. Its climate varies considerably. *Troops will need special winter equipment and training to handle the 8-month freeze.* Fog, gales, and turbulence will hinder airmobile and air transport operations. Conditions best for winter operations prevail from February to April. Because road and rail networks are almost nonexistent in central and northern Norway, heavy rains after the spring thaw will hinder operations. Most favorable conditions for land operations occur in early summer. During any season concealment will be poor since only 10 percent of the region is wooded.

Denmark covers the Jutland Peninsula and over 500 islands, 100 of which are inhabited. The surrounding waters make Denmark's winters relatively mild. Some ice and snow persist, but rain and fog are the main limiting factors.

Amphibious operations are possible about 300 days a year. Air operations are possible only about 200 days a year. This area is open to amphibious, airborne, or airmobile assault. Faced with a far greater threat of air or sea envelopment here than in the central region of ACE, commanders must be especially flexible.

The Southern Environment

Allied Forces Southern Europe (AFSOUTH) includes Italy, Greece, Turkey, and the Mediterranean Sea. It stretches from Turkey's eastern border with the Soviet Union to the Strait of Gibraltar, and from the Alps south to the African littoral. AFSOUTH guards NATO's southern flank and its access to the Middle East. The three combat areas where US forces may serve are northern Italy, northern Greece/Turkish Thrace, and eastern Turkey. The Mediterranean Sea dominates regional defense planning and serves as the connecting link among the three land combat areas.

Northern Italy is separated from NATO's central region by neutral Switzerland and Austria, and from Greece by nonaligned Yugoslavia and Albania. In the northern and eastern border areas, the rugged Alps dominate, dropping off sharply to the Veneto-Friulana Plain to the south. The mountainous terrain requires specially equipped and trained troops. The plains and the Po River Valley generally pose no major obstacles to conventional mechanized operations.

The terrain in northern Greece is mountainous. Initially it favors the defense, but the coastal plains area south of the mountains and Turkish Thrace to the east restrict defense in depth. If forces breach defensive positions in the mountains, only the densely populated areas of the Turkish Straits will restrict lateral movement and maneuver space. Defenders in this area must guard against amphibious attacks in the Turkish Straits/Black Sea coastal areas.

Eastern Turkey's severe climate, limited lines of communication, and rugged mountains are major factors influencing military operations. The winters are bitterly cold with temperatures often dropping to -30°C, and snows are deep. Mountains with peaks up to 5,000 meters surround a series of high, sparsely populated plateaus. Terrain favors the defender, permits defense in depth, and generally restricts movement into and through the area. However, the limited lines of communication for resupply and reinforcement and the distance of the area from other NATO countries make defense difficult.

THE PACIFIC COMMAND

ORGANIZATION

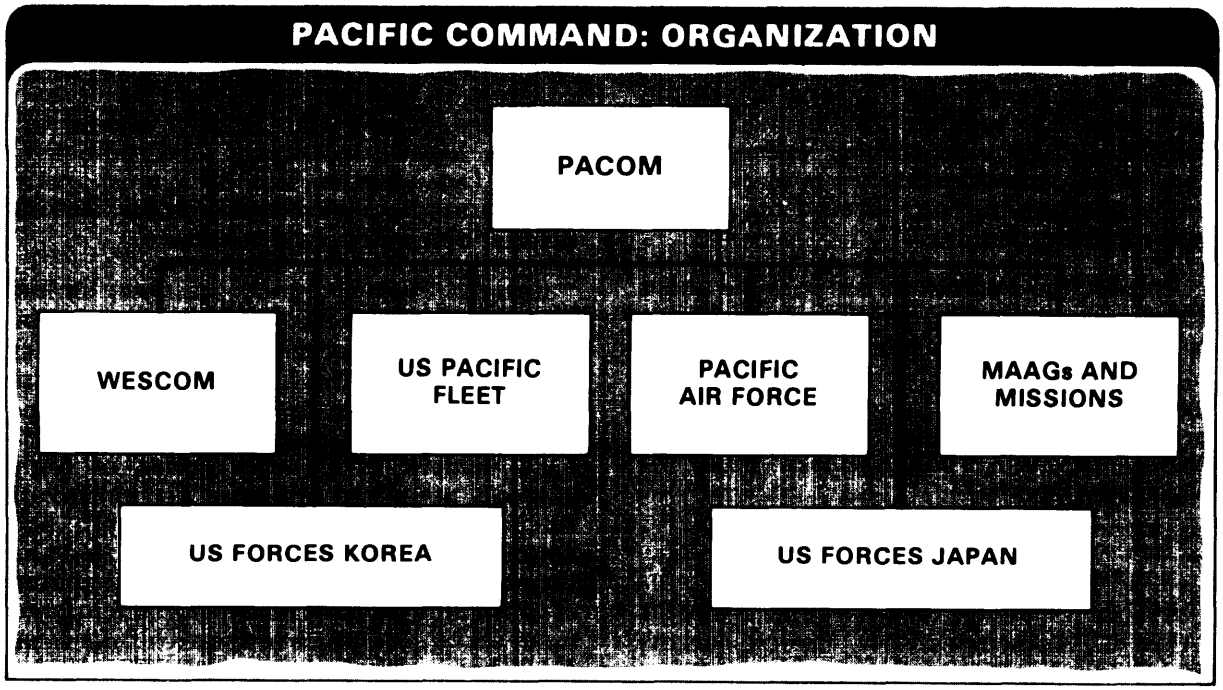
The United States unified command with the largest geographical area is the Pacific Command (PACOM). Covering approximately 100 million square miles, it extends from the west coast of the Americas through the Pacific to the east coast of Africa and the Indian Ocean and from the Aleutian Islands to the South Pole.

All US armed forces in the Pacific are under the Commander in Chief, Pacific (CINCPAC). CINCPAC defends the United States against attack throughout the Pacific Ocean, Indian Ocean, and northeast and southeast Asia areas. Operational command of forces assigned to the PACOM is exercised through the CINCPAC component commands and subordinate unified commands. The CINCPAC component commands are Pacific Air Forces (PACAF), Pacific Fleet (PACFLT) and US Army Western Command (WESCOM). Subordinate unified commands are US Forces Korea and US Forces Japan.

PACOM develops plans to support both general war and regional contingencies. US forces are forward deployed in Diego Garcia, Guam, the Philippines, the Republic of Korea, and Japan. Major Army commands (MACOM) in the PACOM area are the WESCOM, the Eighth US Army (EUSA) in Korea, and the US Army Japan (USARJ).

Combat, combat support, and CSS forces may augment forward deployed PACOM forces upon alert of impending hostilities in PACOM regions. In Korea or Japan, operational command of these forces will be assigned to the subordinate unified commanders. Where no subordinate unified command exists, they will be assigned to joint task force commanders for contingency operations.

As in NATO, important differences in capabilities, doctrine, and equipment exist among various national forces in PACOM. But few STANAGs currently exist. Therefore, subordinate unified commands must continuously coordinate with allied forces in operations and support. CINCPAC is also responsible for coalitions between US and allied forces in PACOM outside of Japan and Korea.



OPERATIONAL FACTORS IN KOREA

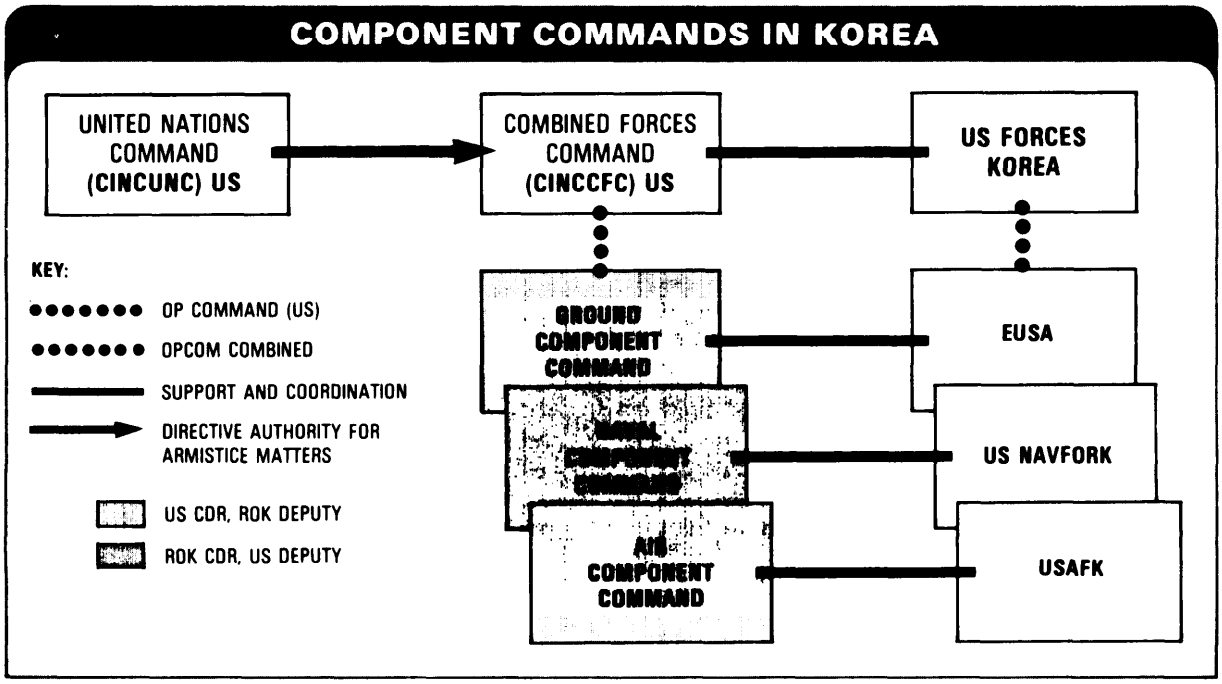
Overview. United States forces in Korea are part of a command structure which has developed since the Korean War. The three major commands in Korea are the United Nations Command (UNC), the United States Forces Korea, and the Combined Forces Command (CFC).

The UNC was established in response to a series of United Nations (UN) Security Council resolutions passed immediately after the North Korean attack against the Republic of Korea (ROK) on 25 June 1950. These resolutions called upon UN member nations to provide assistance to the ROK, requested that any forces provided be placed under a "unified command," authorized that command to fly the UN flag, and called upon the United States to provide a commander.

Unlike other UN peacekeeping forces, the United Nations Command is not under the direct control of the United Nations. Instead, the United States, acting as the executive agent for the UN, exercises strategic direction and guidance through the JCS to whom the US Commander in Chief of the United Nations Command (CINCUNC) reports. The US withdrew most of its forces from the UNC in 1957. CINCUNC's former operational control of committed ROK military forces transferred to the Commander in Chief of the Combined Forces Command (CINCCFC) in 1978. However, CINCUNC retains a nontransferable responsibility for implementing the 1953 Armistice Agreement which ended the overt hostilities of the Korean War.

The statutory basis for stationing US forces in Korea is the 1954 Mutual Defense Treaty between the United States and the Republic of Korea and the 1967 Status of Forces Agreement. Commander US Forces in Korea (COMUSK), a subordinate unified command under CINCPAC, exercises operational command over EUSA, US Naval Forces Korea (NAVFORK), and US Air Forces Korea (AFK).

The chief instrument for the defense of Korea is the Combined Forces Command. Commander in Chief, Combined Forces Command exercises combined operational command and/or control over all forces



defending Korea. CFC provides credible deterrence to prevent aggression and to defeat the aggressor force should deterrence fail.

Considerations unique to operations in Korea include—

- **North Korean threat.**
- **Environment.**
- **Command and control.**
- **Coordination, liaison, and language.**
- **ROK Army (ROKA) combat organization.**

North Korean Threat. The 1953 Armistice Agreement ended the Korean War, but *no permanent political agreement has ever replaced it.* ROK and US forces face North Korean forces along the 151-mile demilitarized zone (DMZ). The North Korean forces pose an extremely powerful challenge. They have expanded significantly, particularly since 1972. They are positioned well forward in an attack posture. Because North Korea is closed, secretive, and harshly policed, intelligence collection is difficult. Thus, North Korea could launch an attack with little warning, using large commando as well as conventional forces.

Environment. Korea is a rugged, mountainous peninsula with short, hot, and humid summers and long, cold winters. The heavy rains that occur from June to September often cause damaging floods. An extensive rice paddy agriculture and flooded river beds reduce vehicular trafficability during the summer. The mountainous terrain tends to channel vehicular movement.

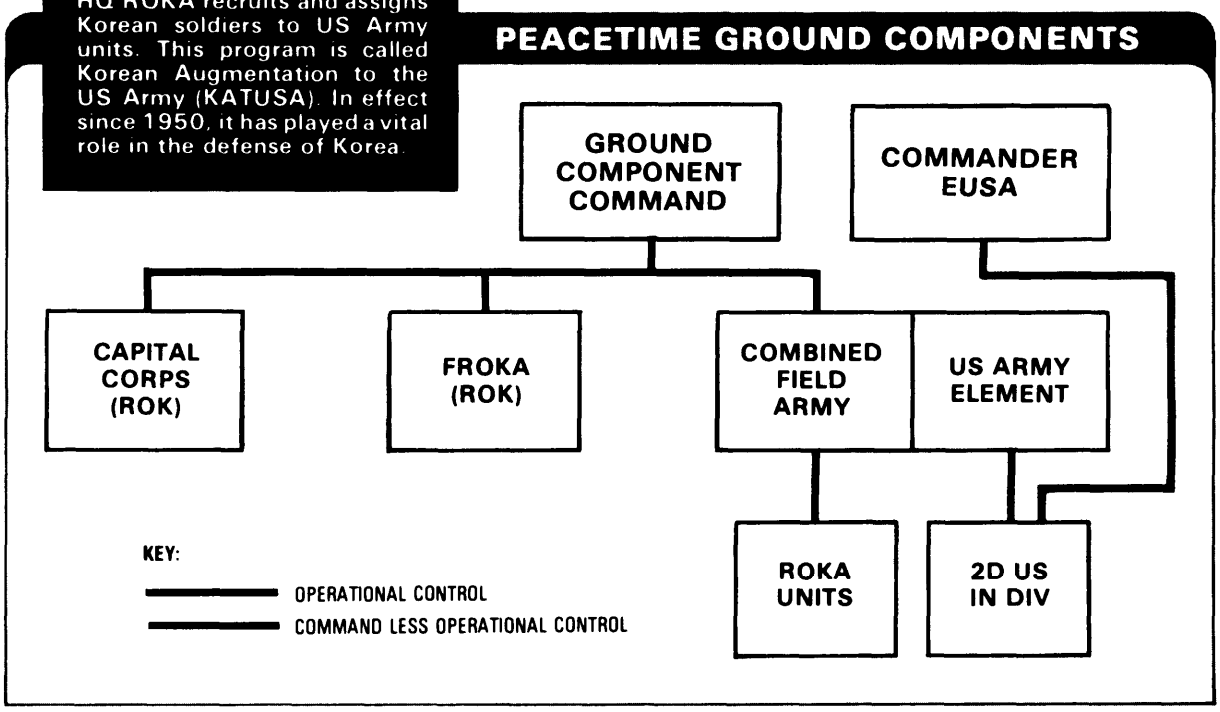
The terrain favors light infantry operations. But two major avenues of approach in the western portion of the demilitarized zone are suitable for mechanized and armored forces. These avenues lead directly to Seoul, the capital of the Republic of Korea. The administrative, historical, economic, commercial, and psychological heart of the country, it contains 8 million people, one fifth of the country's population. Located just 40 kilometers from North Korea, Seoul is an obvious objective of any North Korean attack. Its defense, therefore, must begin as far north as possible in the western sector of the demilitarized zone.

Command and Control. Korea is unique in that the CINCCFC exercises operational command of committed forces in peacetime. The CFC receives its strategic direction and operational guidance from the US-ROK Military Committee. The committee receives its strategic direction and guidance from the national command and military authorities (NCMA) of the two nations. The CINCUNC, who retains sole authority for implementing the Armistice Agreement, has directive authority over CINCCFC for Armistice Agreement matters. So, CINCUNC continues to retain sole responsibility for maintaining peace and the terms of the Armistice Agreement, while CINCCFC is responsible for defending the ROK.

The CINCCFC exercises combined operational command through ground, air, and naval component commands. There is no counterpart relationship in CFC. US officers with ROK deputies command the ground and air components, while an ROK admiral with a US deputy commands the naval component. ROK and US officers fill alternate staff positions within the CFC down to the branch chief level.

The CFC ground component commander has operational control over the three headquarters responsible for the ground defense of Korea: Capital Corps, Combined Field Army, and First ROK Army (FROKA). Capital Corps and FROKA consist entirely of Republic of Korea elements. The Combined Field Army, responsible for the critical western sector of the DMZ, is a combined headquarters commanded by a US lieutenant general. A US Army element of the Combined Field Army exercises operational control over the 2d US Infantry Division, the major US ground combat unit in Korea. This command structure provides for the combined defense of Korea while insuring that CINCUNC

HQ ROKA recruits and assigns Korean soldiers to US Army units. This program is called Korean Augmentation to the US Army (KATUSA). In effect since 1950, it has played a vital role in the defense of Korea.



fulfills the important armistice-related responsibilities.

Coordination, Liaison, and Language. Very few Americans know enough Korean to function in the Korean Army. Coupled with cultural and doctrinal differences, this poses potential problems for combined operations in Korea. Thus, the CFC structure in Korea requires high level coordination between US and ROK forces. The Combined Field Army Headquarters and Combat Support Coordination Teams in Capitol Corps and FROKA serve to facilitate day-to-day working relationships. US units currently stationed in Korea train extensively for interoperability; units deployed to Korea should be aware of these difficulties.

ROK Army Combat Organization. Although it has some mechanized and armored units, the ROK Army is a light infantry force. A typical ROKA infantry division contains a division headquarters, three infantry regiments of four battalions each, an artillery group, a tank battalion, and supporting units. A mechanized infantry division consists of a division headquarters and three mechanized infantry brigade headquarters. From among the division's three mechanized infantry, three motorized rifle, and three tank battalions, various mixes are attached to the mechanized infantry brigade headquarters for specific tasks. In addition, there is a self-propelled artillery brigade and an armored reconnaissance battalion, as well as supporting units.

OPERATIONAL FACTORS IN JAPAN

Overview. The 1960 Treaty of Mutual Cooperation and Security provides for US and Japan mutual aid to resist armed attack.

In Japan, US Forces Japan (USFJ) serves as the subordinate unified command to CINCPAC. Since it will serve as the supported US command in the event of limited war in Japan, it conducts combined operations with the Japanese Self-Defense Force (JSDF). US Army Japan is the forward

deployed Army component of USFJ. The USARJ will conduct combined ground operations with the Japanese Ground Self-Defense Force (JGSDF) in support of USFJ-JSDF joint operations. US combat, combat support, and CSS forces may augment USARJ upon alert of impending hostilities in Japan.

Some similarities exist in US Army-JGSDF organization, doctrine, and equipment. The following operational areas require special attention:

- **Environment.**
- **Command and control relationships.**
- **Coordination and liaison.**
- **Language.**
- **Combat organization.**
- **Combat plans and orders.**
- **Communications.**
- **Intelligence.**
- **Combat service support.**
- **Japanese National Police Agency (JNPA).**

Environment. Japan consists of five major islands—Hokkaido, Honshu, Shikoku, Kyushu, and Okinawa. Japan's climate parallels US east coast climate as it varies from Maine to Georgia. Smog and haze frequently surround industrial centers.

Steep mountains and hills dominate Japan. The population is crowded into habitable areas. On the southern islands, cross-country mobility is difficult because of mountains and congested urban areas. These areas favor light infantry forces. Mechanized and armored forces can operate on Hokkaido because it is not as built up as the rest of Japan.

Command and Control. The command and control of US and Japanese forces will remain under the respective national command authorities. Because there is no supreme commander, close coordination and cooperation between US and Japanese forces are necessary. Operational control may apply during limited periods or in specific situations. Coordination centers will provide coordination among national combat, combat support, CSS forces, and Japanese host nation support. The US elements behind the corps rear boundary are responsible for self-protection in coordination with appropriate host nation authorities.

Coordination, Liaison, and Language. To conduct effective operations, US and Japanese forces must resolve differences in field training operation procedures, reporting systems, terms, and symbols. Peacetime training exercises will identify and resolve these problems. Bilateral liaison teams will coordinate such matters as boundary changes and fire support coordination centers between adjacent units.

US forces should be able to communicate in Japanese. Host nation interpreters and/or translators attached to US battalion and higher level commanders will assist in alleviating the communication problem.

Combat Organization. The JGSDF is primarily a light infantry force with divisions structured on a regimental base concept. Communication difficulties and differences in doctrinal procedures will limit cross-attachment between US Army and JGSDF units. No JGSDF corps headquarters exists, but the JGSDF Army HQ is equivalent to the US Corps HQ and may command from two to eight divisions.

Combat Plans and Orders. The JGSDF uses the US Army five-paragraph field order format for plans and orders. However, tactics, terminology, and graphics differ considerably, and commanders should insure mutual understanding of required actions. They will often have to rely on graphic displays, such as overlay operation orders.

Communications. US Army and JGSDF will use allied communication publications

for operational conformity. Communication STANAGs are not yet available. Interoperability between US Army and JGSDF is limited. At the tactical level, little interoperability exists between radio teletypewriter sets, and none exists between multichannel systems. Single channel VHF/FM radios are interoperable nonsecure over a limited portion of the frequency spectrum. They are not interoperable in the secure mode. Initially, liaison teams with secure communications capability will have to facilitate combined operations.

Intelligence. Significant differences exist between US and Japanese military systems for collecting and disseminating intelligence. Coordination centers and liaison elements equipped with dedicated secure communications will furnish timely intelligence exchange.

Combat Service Support. Each nation is responsibile for CSS to its own forces, but efficiency and economy require maximum mutual support. Host nation support allows US forces to reduce support and strategic airlift assets. US and Japanese forces should be prepared to conduct common supply exchange. Firm host nation commitments, established in advance, will facilitate operational planning.

Japanese National Police Agency. The JNPA will assist US and Japanese forces during combined operations. It has four primary responsibilities:

- **Rear area security.**
- **Rear area damage control.**
- **Administrative military movement control.**
- **Civil defense coordination.**

COMBINED OPERATIONS IN OTHER CONTINGENCY AREAS

US forces have not planned and coordinated with indigenous forces and other potential allies in many of the world's potential combat theaters. Commanders should be prepared to establish workable arrangements rapidly in these areas even after hostilities begin. Every situation will be unique. The possibilities for cooperating and integrating efforts will depend upon the allies involved and the nature of the operation. Yet successful common missions will require maximum integration. Experience in Western Europe, Korea, and Japan indicates that integration and standardization procedures may vary, but certain factors are common. Recognizing these factors and planning for them will be critical to the success of any combined operations.

APPENDIX A

References

REQUIRED PUBLICATIONS

Required publications are sources which users must read in order to understand or to comply with FM 100-5.

FIELD MANUALS (FM)

100-1	The Army
101-5-1(HTF)	Operational Terms and Graphics

RELATED PUBLICATIONS

Related publications are sources of additional information. Users do not have to read them to understand FM 100-5.

ARMY REGULATIONS (AR)

105-86	Performing Electronic Countermeasures in the United States and Canada

FIELD MANUALS (FM)

3-87(HTF)	NBC Reconnaissance and Decontamination Operations
5-100(HTF)	Engineer Combat Operations
6-20(HTF)	Fire Support for Combined Arms Operations
7-7(HTF)	The Mechanized Infantry Platoon/Squad
7-8(HTF)	The Infantry Platoon/Squad (Infantry, Airborne, Air Assault)
7-10(HTF)	The Infantry Rifle Company (Infantry, Airborne, Air Assault)
7-20(HTF)	The Infantry Battalion (Infantry, Airborne, Air Assault Ranger)
7-30(HTF)	Infantry, Airborne, and Air Assault Brigade Operations
8-10	Health Service Support in a Theater of Operations
11-50(HTF)	Combat Communications Within the Division
11-92(HTF)	Combat Communications Within the Corps
17-47(HTF)	Air Cavalry Combat Brigade (ACCB)
17-50(HTF)	Attack Helicopter Operations
17-95(HTF)	Cavalry
19-1	Military Police Support Divisions and Separate Brigades
21-40	NBC Defense (to be revised as FM 3-100)
24-1(HTF)	Combat Communications
31-22	Command, Control, and Support of Special Forces Operations
31-71	Northern Operations (to be revised as FM 90-11)
31-85	Rear Area Protection (RAP) Operations (to be revised as FM 90-14)
33-1	Psychological Operations: US Army Doctrine
34-10(HTF)	Military Intelligence Battalion (CEWI) (Division)
41-10	Civil Affairs Operations
44-1(HTF)	US Army Air Defense Artillery Employment
44-3(HTF)	Air Defense Artillery Employment: Chaparral/Vulcan
44-23(HTF)	Air Defense Artillery Employment, Redeye
44-90(HTF)	Air Defense Artillery Employment, Hawk
71-1(HTF)	The Tank and Mechanized Infantry Company Team
71-2(HTF)	The Tank and Mechanized Infantry Battalion Task Force
71-3(HTF)	Armored and Mechanized Brigade Operations
71-100(HTF)	Armored and Mechanized Division Operations
71-101(HTF)	Infantry, Airborne, and Air Assault Division Operations
90-2(HTF)	Tactical Deception
90-3(HTF)	Desert Operations
90-4(HTF)	Airmobile Operations
90-5(HTF)	Jungle Operations
90-6(HTF)	Mountain Operations
90-10(HTF)	Military Operations on Urbanized Terrain (MOUT)

90-13(HTF)	River Crossing Operations
100-10	Combat Service Support
100-15(TEST)	Larger Unit Operations (to be revised as FM 100-15
100-26	Air-Ground Operations System
100-27	USA/AF Doctrine for Tactical Airlift Operations
101-5	Staff Officers' Field Manual: Staff Organization and Procedure (will be revised as "Staff Organization and Operations" - HTF)
101-10-1	Staff Officer's Field Manual: Organizational, Technical, and Logistical Data

TRAINING CIRCULARS (TC)

100-33	Division Electronic Warfare Operations (to be superseded by FM 34-40)

STANDARDIZATION AGREEMENTS (STANAG)*

2003	Patrol Reports
2008	Bombing, Shelling, Mortaring, and Location Reports
2014	Operation Orders, Annexes to Operation Orders, Administrative and Logistics Orders
2017	Orders to the Demolition Guard Commander and Demolition Firing Party Commander
2019	Military Symbols
2020	Operational Situation Reports
2022	Intelligence Reports
2036	Land Minefield Laying, Marking, Recording, and Reporting Procedures
2041	Operation Orders, Tables and Graphs for Road Movement
2047	Emergency Alarms of Hazard or Attack (NBC and Air Attack Only)
2067	Straggler Control
2070	Emergency War Burial Procedures
2077	Order of Battle (Non-NATO Troops)
2079	Rear Area Security and Rear Area Damage Control
2082	Relief of Combat Troops
2088	Battlefield Illumination
2091	Population Movement Control
2096	Reporting Engineer Information in the Field
2099	Fire Coordination in Support of Land Forces
2101	Principles and Procedures for Establishing Liaison
2103	Reporting Nuclear Detonations, Radio-Active Fallout, and Biological and Chemical Attacks and Predicting Associated Hazards
2104	Friendly Nuclear Strike Warning to Armed Forces Operating on Land
2113	Destruction of Military Technical Equipment
2868	Land Force Tactical Doctrine - ATP-35
2889	Marking of Hazardous Areas and Routes Through Them
2904	Airmobile Operations - ATP-41
3204	Aeromedical Evacuation
3345	Data/Forms for Planning Air Movements
3463	Planning Procedures for Tactical Air Transport Operations for Free Wing Aircraft
3465	Safety, Emergency, and Signalling Procedures for Military Air Movement Fixed Wing Aircraft
3466	Responsibilities of Air Transport Units and User Units in the Loading and Unloading of Transport Aircraft in Tactical Air Transport Operations
3570	Drop Zones and Extraction Zones—Criteria and Marking

*STANAGs are available, upon request, from Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

3700	NATO Tactical Air Doctrine - ATP-33
3736	Offensive Air Support Operations - ATP-27
3805	Doctrine and Procedures for Airspace Control in the Combat Zone - ATP-40

MISCELLANEOUS PUBLICATIONS

JCS 8	Doctrine for Air Defense from Overseas Land Areas
JCS 2	Unified Action Armed Forces (UNAAF)

PROJECTED RELATED PUBLICATIONS

These related publications are scheduled for printing. Upon print, they will be distributed automatically via pinpoint distribution (DA Form 12-11A and 12-11B, subject area) and* will not *be available for requisition from USA AG Publications Center, Baltimore, until indexed in DA Pam 310-1.

FIELD MANUALS (FM)

3-100	NBC Operations (to supersede FM 21-40)
5-101	Mobility
5-102	Countermobility
5-103	Survivability
17-50-3	Joint Air Attack Tactical (JAAT) Operations
19-16	Counterterrorism
34-1(HTF)	Intelligence and Electronic Warfare Operations
34-20(HTF)	Military Intelligence Group (CEWI) (Corps)
34-30(HTF)	Military Intelligence Company (CEWI) (Armored Cavalry Regiment/Separate Brigade)
34-65	OPSEC Support
34-81	Weather Intelligence in Support of Army Tactical Operations (to supersede FM 31-1)
63-1	Combat Service Support Operations,Separate Brigade
63-2	Combat Service Support Operations,Division
63-3	Combat Service Support Operations,Corps
63-4	Combat Service Support Operations,Theater Army Area Command
90-8(HTF)	Counterguerilla Operations
90-10-1(HTF)	An Infantryman's Guide to Urban Combat
90-11(HTF)	Winter Operations (to supersede FM 31-71)
90-14(HTF)	Rear Area Combat Operations (RACO) (to supersede FM 31-85)
100-15(HTF)	Corps Operations (to supersede FM 100-15 (TEST))
100-16	Echelons Above Corps
100-2-1	Soviet Army Operations and Tactics

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Saxe, Marshall de. *"Reveries on the Art of War."* In *Roots of Strategy,* edited by Brigadier General Thomas R. Phillips, pp. 177-300. Harrisburg, PA: The Military Service Publishing Company, 1955.

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APPENDIX B

The Principles of War

THE UNITED STATES ARMY published its first set of principles of war in a 1921 Army training regulation. These principles were in large measure drawn from the work of British Major General J. F. C. Fuller, who developed a set of principles of war during World War I to serve as guides for his own army. In the ensuing years, these original principles of war adopted by our Army have undergone minor revisions and changes, but have essentially stood the tests of analysis, experimentation, and practice. For the United States Army today, the principles of war are—

- OBJECTIVE
- OFFENSIVE
- MASS
- ECONOMY OF FORCE
- MANEUVER
- UNITY OF COMMAND
- SECURITY
- SURPRISE
- SIMPLICITY

OBJECTIVE

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

As a derivative of the political aim, the strategic military objective of a nation at war must be to apply whatever degree of force is necessary to allow attainment of the political purpose or aim for which the war is being fought. When the political end desired is the total defeat of the adversary, then the strategic military objective will most likely be the defeat of the enemy's armed forces and the destruction of his will to resist. It is essential, however, that the political purpose be clearly defined *and* attainable by the considered application of the various elements of the nation's power. Not until the political purpose has been determined and defined by the President and Congress can strategic and tactical objectives be clearly identified and developed. Once developed, the strategic objectives must constantly be subjected to rigorous analysis and review to insure that they continue to reflect accurately not only the ultimate political end desired, but also any political constraints imposed on the application of military force.

Just as the *strategic* military objective focuses on the political ends, so must *tactical* military operations be directed toward clearly defined, decisive, and attainable *tactical objectives* that ultimately assist in achieving the strategic aims. Similarly, intermediate tactical objectives must quickly and economically contribute, directly or indirectly, to the purpose of the ultimate objective. The selection of objectives is based on consideration of the overall mission of the command, the commander's assigned mission, the means available, and the military characteristics of the operational area. Every commander must clearly understand the overall mission of the higher command, his own mission, and the tasks he must perform and the reasons therefore; he must consider each contemplated action in light of his mission, and he must communicate clearly to his subordinate commanders the intent of the operation upon which the command as a whole is about to embark.

OFFENSIVE

Seize, retain, and exploit the initiative.

While the principle of the objective requires that all efforts be directed toward a clearly defined *common goal,* the principle of offensive suggests that offensive action, or maintenance of the initiative, is the most effective and decisive way to pursue and to attain that common goal. This is fundamentally true in both the strategic and tactical senses. While it may sometimes be necessary to adopt a defensive posture, this should be only a temporary condition until the necessary means are available to resume offensive operations. An offensive spirit must be inherent in the conduct of all defensive operations—*the defense must be an active, not a passive one.* This is so because offensive action, whatever form it takes, is the means by which the nation or a military force captures and holds the initiative, achieves results, and maintains freedom of action. It permits the political leader or the military commander to capitalize on the initiative, impose his will on the enemy, set the terms and select the place of confrontation or battle, exploit weaknesses and react to rapidly changing situations and unexpected developments. No matter what the level, strategic or tactical, the side that retains the initiative through offensive action forces the foe to react rather than to act.

MASS

Concentrate combat power at the decisive place and time.

In the *strategic context,* this principle suggests that the nation should commit, or be prepared to commit, a predominance of national power to those regions or areas of the world where the threat to vital security interests is greatest. For nations such as the United States, which have global security interests in terms of politico-military alliances and commitments and resource dependencies, the accurate and timely determination of where the threat to vital national interests is greatest is becoming increasingly more difficult. In today's volatile world, the nature and source of threat often change in dramatic fashion. It is therefore incumbent upon military strategists to anticipate the most likely areas of concern and to develop suitable contingency plans. Since every possible contingency or trouble spot cannot be anticipated, much less planned for, it is absolutely essential for Army planners and Army forces to retain flexibility of thought and action.

In the *tactical dimension,* this principle suggests that superior combat power must be concentrated at the decisive place and time in order to achieve decisive results. This superiority results from the proper combination of the elements of combat power at a place and time and in a manner of the commander's choosing in order to retain the initiative. The massing of forces, together with the proper application of other principles of war, may enable numerically inferior forces to achieve decisive battle outcomes.

ECONOMY OF FORCE

Allocate minimum essential combat power to secondary efforts.

As a reciprocal of the principle of mass, economy of force in the *strategic dimension* suggests that, in the absense of unlimited resources, a nation may have to accept some risk in areas where vital national interests are not immediately at stake. This means that, if the nation must focus predominant power toward a clearly defined primary

OBSOLETE

threat, it cannot allow attainment of that objective to be compromised by unnecessary diversions to areas of lower priority. This involves risk, requires astute strategic planning and judgment by political and military leaders, and again *places a premium on the need for flexibility of thought and action.*

At the *tactical level,* the principle of economy of force requires that minimum means be employed in areas other than where the main effort is intended to be employed. It requires, as at the strategic level, the acceptance of prudent risks in selected areas in order to achieve superiority in the area where decision is sought. Economy-of-force missions may require the forces employed to attack, to defend, to delay, or to conduct deception operations.

MANEUVER

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

In the *strategic sense,* this principle has three interrelated dimensions: flexibility, mobility, and maneuverability. The first of these involves the need for flexibility in thought, plans, and operations. Such flexibility enhances the ability to react rapidly to unforseen circumstances. Given the global nature of US interests and the dynamic character of the international scene, such flexibility is crucial. The second dimension involves strategic mobility, which is especially critical for an insular power such as the United States. In order to react promptly and to concentrate and to project power on the primary objective, strategic airlift and sealift are essential. The final strategic dimension involves manueverability within the theater of operations so as to focus maximum strength against the enemy's weakest point and thereby gain the strategic advantage.

In the *tactical sense,* maneuver is an essential element of combat power. It contributes significantly to sustaining the initiative, to exploiting success, to preserving freedom of action, and to reducing vulnerability. The object of maneuver is to concentrate or to disperse forces in a manner designed to place the enemy at a disadvantage, thus achieving results that would otherwise be more costly in men and materiel. At all levels, successful application of this principle requires not only fire and movement, but also flexibility of thought, plans, and operations, and the considered application of the principles of mass and economy of force.

UNITY OF COMMAND

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

This principle insures that all efforts are focused on a common goal. At the *strategic level,* this common goal equates to the political purpose of the United States and the broad strategic objectives which flow therefrom. It is the common goal which, at the national level, determines the military forces necessary for its achievement. The coordination of these forces requires unity of effort. At the national level, the Constitution provides for unity of command by appointing the President as the Commander in Chief of the Armed forces. The President is assisted in this role by the national security organization, which includes the Secretary of Defense and the Joint Chiefs of Staff at the

highest level, and the unified and specified commands and joint task forces at the operational levels.

In the *tactical dimension,* it is axiomatic that the employment of military forces in a manner that develops their full combat power requires unity of command. Unity of command means directing and coordinating the action of all forces toward a common goal or objective. Coordination may be achieved by cooperation; it is, however, best achieved by vesting a single tactical commander with the requisite authority to direct and to coordinate all forces employed in pursuit of a common goal.

SECURITY

Never permit the enemy to acquire an unexpected advantage.

Security enhances freedom of action by reducing friendly vulnerability to hostile acts, influence, or surprise. At the *strategic level,* security requires that active and passive measures be taken to protect the United States and its Armed Forces against espionage, subversion, and strategic intelligence collection. However, implementation of such security measures must be balanced against the need to prevent them from severing the link between the American public and its Army. In addition, they should not be allowed to interfere with flexibility of thought and action, since rigidity and dogmatism increase vulnerability to enemy surprise. In this regard, thorough knowledge and understanding of enemy strategy, tactics, and doctrine, and detailed strategic staff planning can improve security and reduce vulnerability to surprise.

At the *tactical level,* security is essential to the protection and husbanding of combat power. Security results from the measures taken by a command to protect itself from surprise, observation, detection, interference, espionage, sabotage, or annoyance. Security may be achieved through the establishment and maintenance of protective measures against hostile acts or influence; or it may be assured by deception operations designed to confuse and dissipate enemy attempts to interfere with the force being secured. Risk is an inherent condition in war; application of the principle of security does not suggest overcautiousness or the avoidance of calculated risk.

SURPRISE

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

To a large degree, the principle of surprise is the reciprocal of the principle of security. Concealing one's own capabilities and intentions creates the opportunity to strike the enemy unaware or unprepared. However, *strategic surprise is difficult to achieve.* Rapid advances in strategic surveillance technology make it increasingly more difficult to mask or to cloak the large scale marshaling or movement of manpower and equipment. This problem is compounded in an open society such as the United States, where freedom of press and information are highly valued. However, the United States can achieve a degree of psychological surprise due to its strategic deployment capability. The rapid deployment of US combat forces into a crisis area can forestall or upset the plans and preparations of an enemy. This capability can give the United States the advantage in both a physical and psychological sense by denying the enemy the initiative.

Surprise is important in the *tactical dimension* for it can decisively affect the outcome of battle. With surprise, success out of proportion to the effort expended may be obtained. Surprise results from going against an enemy at a time and/or place or in a manner for which he is unprepared. It is not essential that the enemy be taken unaware, but only that he become aware too late to react effectively. Factors contributing to surprise include speed and alacrity, employment of unexpected forces, effective intelligence, deception operations of all kinds, variations of tactics and methods of operation, and operations security.

SIMPLICITY

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

In both the strategic and tactical dimensions, guidance, plans, and orders should be as simple and direct as the attainment of the objective will allow. The strategic importance of the principle of simplicity goes well beyond its more traditional tactical application: it is an important element in the development and enhancement of public support. *If the American people are to commit their lives and resources to a military operation, they must understand the purpose which is to be achieved.* Political and military objectives and operations must therefore be presented in clear, concise, understandable terms: simple and direct plans and orders cannot compensate for ambiguous and cloudy objectives. In its military application, this principle promotes strategic flexibility by encouraging broad strategic guidance rather than detailed and involved instruction.

At the *tactical level,* simplicity of plans and instructions contributes to successful operations. Direct, simple plans, and clear, concise orders are essential to reduce the chances for misunderstanding and confusion. Other factors being equal, the simplest plan executed promptly is to be preferred over the complex plan executed later.

Glossary

AAFCE — *Allied Air Forces, Central Europe*
ACCB — *air cavalry combat brigade*
ACCHAN — *Allied Command Channel*
ACE — *Allied Command Europe*
ACLANT — *Allied Command Atlantic*
ADA — *air defense artillery*
ADC — *area damage control*
ADP — *automatic data processing*
AFNORTH — *Allied Forces, Northern Europe*
AFSOUTH — *Allied Forces, Southern Europe*
ALOC — *air lines of communication*
alt — *alternate*
amb — *ambulance*
AMF — *Allied Command Europe, Mobile Forces*
APOD — *aerial port of debarkation*
APOE — *aerial port of embarkation*
AR — *Army regulation*
ASF — *aeromedical staging facility*
ASIC — *all-source intelligence center*
ASP — *ammunition supply point*
ATP — *ammunition transfer point*

BAI — *battlefield air interdiction*
bde — *brigade*
BSA — *brigade support area*

CAS — *close air support*
catk — *counterattack*
cdr — *commander*
CEOI — *Communications-Electronic Operation Instructions*
CEWI — *combat electronic warfare intelligence*
CFA — *covering force area*
CFC — *Combined Forces Command*
CFL — *coordinated fire line*
ci — *counterintelligence*
CINC — *Commander in Chief*
CINCCFC — *Commander in Chief, Combined Forces Command*
CINCENT — *Commander in Chief, Allied Forces, Central Europe*
CINCNORTH — *Commander in Chief, Allied Forces, Northern Europe*
CINCPAC — *Commander in Chief, Pacific*
CINCSOUTH — *Commander in Chief, Allied Forces, Southern Europe*
CINCUNC — *Commander in Chief, United Nations Command*
clr sta — *clearing station*
CMO — *civil-military operations*
COMAIRSOUTH — *Commander, Allied Air Forces, Southern Europe*
COMBALTAP — *Commander, Allied Forces, Baltic Approaches*
COMCENTAG — *Commander, Central Army Group, Central Europe*
COMFOURATAF — *Commander, Fourth Allied Tactical Air Force, Central Europe*
COMLANDSOUTH — *Commander, Allied Land Forces, Southern Europe*
COMMZ — *communications zone*
COMNAVSOUTH — *Commander, Allied Naval Forces, Southern Europe*
COMNON — *Commander, Northern Norway*
COMNORTHAG — *Commander, Northern Army Group, Central Europe*
COMSONOR — *Commander, Southern Norway*
COMSTRIKFORSOUTH — *Commander, Naval Striking and Support Forces, Southern Europe*
COMTWOATAF — *Commander, Second Allied Tactical Air Force, Central Europe*
COMUKADR — *Commander, United Kingdom NATO Air Defense Region*
COMUSKOREA — *Commander, United States Forces, Korea*
CONPLAN — *operational plans in concept format*
CONUS — *Continental United States*
COSCOM — *corps support command*
CP — *command post*
CPOC — *Corps Personnel Operations Center*
CRC — *control and reporting center*
CSA — *corps storage area*
CSH — *Combat Support Hospital*
CSR — *controlled supply rate*
CSS — *combat service support*

DAO — *division ammunition officer*
DARCOM — *United States Army Materiel Development and Readiness Command*
DCSOPS — *Deputy Chief of Staff for Operations and Plans*
DISCOM — *division support command*
div — *division*
DLA — *Defense Logistics Agency*
DMMC — *division materiel management center*
DMZ — *demilitarized zone*
DS — *direct support*
DSA — *division support area*
DSU — *direct support unit*

EAC — *echelons above corps*
E&E — *evasion and escape*
EEFI — *essential elements of friendly information*
EEI — *essential elements of information*
EMCON — *emission control orders*
EMP — *electromagnetic pulse*
ESM — *electronic warfare support measures*
EUSA — *Eighth US Army*
EW — *electronic warfare*

FARP — *forward arming and refueling point*
FEBA — *forward edge of the battle area*
FIST — *fire support team*
fld — *field*
FLOT — *forward line of own troops*
FM — *field manual*
FORSCOM — *United States Army Forces Command*
FRAGO — *fragmentary order*
FROKA — *First ROK Army*
FSCL — *fire support coordination line*
FSCOORD — *fire support coordinator*
FSE — *fire support element*

GRREG — *graves registration*
GS — *general support*
GSA — *General Services Administration*
GSR — *ground surveillance radar*
GSU — *general support unit*

HIMAD — *high-to-medium-altitude air defense*
HTF — *how to fight*
HUMINT — *human intelligence*

ICD — *imitative communications deception*
IEW — *intelligence and electronic warfare*
IPB — *intelligence preparation of the battlefield*

JAAT — *joint air attack team*
JCS — *Joint Chiefs of Staff*
JDA — *Joint Deployment Agency*
JGSDF — *Japanese Ground Self-Defense Forces*
JNPA — *Japanese National Police Agency*
JSDF — *Japanese Self-Defense Force*
J-SEAD — *joint suppression of enemy air defenses*
JTF — *joint task force*
JUWC — *Joint Unconventional Warfare Command*

KATUSA — *Korean Augmentation to United States Army*

LD — *line of departure*
LOC — *lines of communication*

MAAG — *Military Assistance Advisory Group*
MACOM — *major Army command*
MASF — *mobile aeromedical staging facility*
MAU — *Marine Amphibious Unit*
MBA — *main battle area*
MED — *manipulative electronic deception*
METT — *mission, enemy, terrain, and troops*
METT-T — *mission, enemy, terrain, troops, and time available*
MI — *military intelligence*
MMC — *Materiel Management Center*
MOPP — *mission oriented protection posture*
MOUT — *military operations on urbanized terrain*
MP — *military police*
MRO — *materiel release order*
MSR — *main supply route*

NAI — *named areas of interest*
NATO — *North Atlantic Treaty Organization*
NAVFORK — *Naval Forces Korea*
NBC — *nuclear, biological, chemical*
NCA — *national command authority*
NCMA — *national command and military authorities*
NEC — *Northern European Command*
NICP — *national inventory control point*

OAS — *offensive air support*
obj — *objective*
OIR — *other intelligence requirements*
OPCON — *operational control*
OPLAN — *operational plan*
OPORD — *operational order*
OPSEC — *operations security*
OSRC — *Overseas Replacement Command*

PAC — *Personnel and Administration Center*
PACAF — *Pacific Air Force*
PACFLT — *Pacific Fleet*
PACOM — *Pacific Command*
P&A — *personnel and administration*
PERSCOM — *personnel command*
pkg — *package*
PL — *phase line*
PNL — *prescribed nuclear load*
PNS — *prescribed nuclear stockage*
POL — *petroleum, oils, and lubricants*
PS — *personnel service*
PSYOP — *psychological operations*

RACO — *rear area combat operations*
rad — *radiation absorbed dose*
RAOC — *rear area operations center*
RAP — *rear area protection*
REC — *radio electronic combat*
repl — *replace*
res — *reserve(s)*
RFL — *restrictive fire line*
ROK — *Republic of Korea*
rqn — *requisition*
RRD — *replacement regulating detachment*
RSI — *rationalization/standardization/interoperability*
RSR — *required supply rate*
RSTA — *reconnaissance, surveillance, and target acquisition*

SACEUR — *Supreme Allied Commander, Europe*
SEAD — *suppression of enemy air defenses*
SHORAD — *short-range air defense*
SIDPERS — *Standard Installation/Division Personnel System*
SIGINT — *signals intelligence*
SOP — *standing operating procedure*
spt — *support*
sta — *station*
STANAG — *Standardization Agreement*

TA — *theater Army*
TAACOM — *Theater Army Area Command*
TAPOC — *Theater Army Personnel Operations Center*
TC — *training circular*
TI — *target of interest*
TOE — *table(s) of organization and equipment*
TSA — *theater storage area*

UN — *United Nations*
UNAAF — *Unified Action Armed Forces*
UNC — *United Nations Command*
USAFK — *United States Air Forces Korea*
USARJ — *United States Army Japan*
USCINCARRED — *Commander in Chief, United States Army Forces, Readiness Command*
USEUCOM — *United States European Command*
USFJ — *United States Forces Japan*
USREDCOM — *United States Readiness Command*
US2ID — *United States Second Infantry Division*
UW — *unconventional warfare*

WESCOM — *United States Army Western Command*
WSRO — *weapon system replacement operations*

ZI — *zone of interior*

OBSOLETE

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