OPERATIONS OF ARMY FORCES IN THE FIELD

SUPERSEDED BY
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OPERATIONS OF ARMY FORCES IN THE FIELD

FM 100-5, 6 September 1968, is changed as follows:
1. This change substitutes a new Chapter 7, Air Movements and Airborne Operations, for the old Chapter 7, Airborne Operations. It changes the title of chapter 10 from Air Operations to Airspace Utilization and Coordination. Paragraphs 4-34.1 and 4-34.2 are added. Paragraphs 4-34, 5-25, 10-2, 10-3, and 10-5 are changed. Appendix A, References, is revised to delete some field manuals and to add others, and the index has been revised.

2. New or changed material is indicated by a star.
3. Remove old pages and insert new pages as indicated below.

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4. File this change sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army:

W. C. WESTMORELAND,
General, United States Army,
Chief of Staff.

Official:

VERNE L. BOWERS,
Major General, United States Army,
The Adjutant General.

Distribution:

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*This manual supersedes FM 100-5, 19 February 1942, including all changes.
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By Order of the Secretary of the Army:

OFFICIAL:

KENNETH G. WICKHAM,
Major General, United States Army,
The Adjutant General.

Distribution:
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CHAPTER 1
STRATEGY AND MILITARY FORCE

Section 1. GENERAL

1–1. Purpose and Scope
a. This manual is a guide for operations of U.S. Army forces in the field. The doctrine contained herein applies to all levels of command in a theater of operations, and particularly to levels above division. Military operations are actions, or the carrying out of strategic, tactical, service, training, or administrative military missions. They encompass all combat activity, including movement, supply, attack, defense, and maneuvers needed to gain the objectives of any battle or campaign. The discussion of military operations is necessarily broad in scope but provides a basis for common understanding and the conduct of training. The procedures discussed herein are flexible.
b. The contents of this manual are applicable to the following levels of conflict:
(1) General war, to include consideration of the employment of and protection from nuclear, biological, and chemical (NBC) munitions; and operations in NBC environments.
(2) Limited war.
(3) Cold war, to include stability operations.
c. This manual is in consonance with the following international standardization agreements, which are appropriately identified by type of agreement and number at the beginning of each chapter in the manual: STANAG 2082, SEASTAG 2082, and SOLOG 49R, Relief of Combat Troops; STANAG 2088, SEASTAG 2088, and SOLOG 128, Radiological Hazards; STANAG 2088 and SOLOG 108, Battlefield Illumination; STANAG 2099 and SEASTAG 2099, Fire Coordination in the Land/Air Battle; STANAG 2101, SEASTAG 2101, and SOLOG 104, Principles and Procedures for Establishing Liaison; and STANAG 2104 and SOLOG 130, Friendly Nuclear Strike Warning to Armed Forces Operating on Land.
d. Users of this manual are encouraged to submit recommendations to improve its clarity or accuracy. Comments should be keyed to the specific page, paragraph, and line of the text in which the change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation. Comments should be forwarded direct to the Commanding General, U.S. Army Combat Developments Command Institute of Combined Arms and Support, Fort Leavenworth, Kansas 66027. Originators of proposed changes that would constitute a significant modification of approved Army doctrine may send an information copy, through command channels, to the Commanding General, U.S. Army Combat Developments Command, Fort Belvoir, Virginia 22060, to facilitate review and followup.

1–2. Terminology
Terms used in this text are in accordance with the Army, joint, and general dictionaries.

1–3. National Objectives
a. Each nation establishes broad objectives, the attainment of which further its national interest. These objectives serve as the bases for the formulation of policies designed to control governmental actions, including internal functions and external relations.
b. No two nations have precisely the same objectives. In a given set of circumstances each will react according to its needs. National objectives may bring a nation into conflict with other nations whose goals differ. Conversely, these objectives may lead a nation into alliances with other nations whose aims are similar.
1-4. National Strategy
National strategy is the long-range plan through which a nation applies its strength toward the attainment of its objectives. A national strategy, in its broadest sense, is applicable to either peace or war. It encompasses and employs all the elements of national power—political, economic, psychological, sociological, and military—and exploits other national assets, such as geographic location and spiritual and cultural attitudes. Although it is flexible and adaptable to the contingencies of the moment, a national strategy is basically stable. Its character rarely changes as long as it results in progress toward the ultimate objectives of the nation concerned.

1-5. U.S. National Objectives and National Strategy
In brief, the national objectives of the United States are to insure its security and freedom and to establish and maintain worldwide conditions of peace, security, and justice. U.S. national strategy is to attain these objectives through peaceful measures; it rejects aggression as an acceptable course of action. The United States emphasizes deterrence of war; however, it is capable of waging war at any level of conflict should deterrence fail.

1-6. Military Strategy
a. Military strategy is the art and science of using the armed forces of a nation to secure the objectives or the national policy by applying force or the threat of force. It directs the development and use of the military means that further national strategy through the direct or indirect application of military power. Military strategy is derived from and is an integral part of national strategy in either peace or war.

b. Because the purpose of war is to attain national objectives, military strategy must be geared to these objectives. Although military considerations enter into the development of national strategy, in the final analysis national objectives shape both national and military strategy. In consequence, a nation's military operations must complement and be compatible with its national objectives.

Section II. NATURE OF CONFLICT

1-7. Categories and Characteristics of Conflict
Conflicts between nations may vary from mere disagreements and conflicts of interest to basic and irreconcilable differences in national ideologies and objectives. The former are often subject to resolution by arbitration or concession and do not necessarily result in hostilities between the nations concerned. The latter type of conflict may be considered a form of war whether characterized by the employment of military force or by the application of national power short of military force.

1-8. The Spectrum of War
The spectrum of war encompasses the full range of conflict—cold, limited, and general war—and reflects the nature and magnitude of violence involved in each form. At one end of the spectrum is cold war, in which military force is employed up to the point of open armed conflict involving regular military forces. The other end of the spectrum is general war in which unrestricted military force is applied. The central portion of the spectrum is limited war in which the wide range of conflicts between cold war and general war occurs. The U.S. Army must be capable of conducting operations under each or all of these forms of war in all geographic areas of the world.

1-9. Cold War
Cold war is a state of international tension wherein political, economic, technological, sociological, psychological, paramilitary, and military measures short of overt armed conflict involving regular military forces are employed to achieve national objectives. Cold war includes the complete scope of actions, other than limited or general war, that can be used in a power struggle between contending nations or coalitions. The contending powers may seek an advantage in many ways, employing not only political, economic, and psychological
strengths, but military strength as well. Military forces have important cold war functions and can directly or indirectly contribute to the attainment of national objectives. Reserves may be mobilized or active forces deployed to deter another nation from use of force. Military forces may be used to encourage a friendly government in difficulty, to stabilize an unsettled area, to maintain or restore order, to assist in nation-building activities, or to protect personnel and property. Although the basic characteristic of cold war is the absence of overt armed conflict between the military forces of the contending nations, the dividing line between cold war and limited war is neither distinct nor absolute. Regular military forces may be required to conduct cold war operations that involve incidents.

1–10. Limited War

Limited war is armed conflict short of general war, exclusive of incidents, involving the overt engagement of the military forces of two or more nations. Limited war is characterized by conscious restraint on the part of the belligerents with regard to one or more of its aspects: e.g., objectives, weapons, locale, or participants. The scope, intensity, and duration of limited wars may vary widely, depending on the degree of restraint applied. The term "limited" does not imply that this type of war is small from the standpoint of geographic area or the number of military forces involved, or that the results of such a conflict are of minor consequence when viewed from a national or international level. It is impossible to locate with precision the point at which relaxation of restraints will transform limited war into general war. The upper limits of limited war are not exceeded until one belligerent concludes that it is in his national interest to discard all restraints.

1–11. General War

General war is armed conflict between major powers in which the total resources of the belligerents are employed and the national survival of a major belligerent is in jeopardy. It is characterized by a lack of restraints and may include the use of NBC operations against the homeland of the major belligerents. General war is the category of conflict most likely to be undertaken in response to a direct and immediate threat to national survival.

Section III. THE NATURE OF MILITARY POWER

1–12. General

Military power is that element of national power which is designed to apply force in the implementation of national policy and in the attainment of national objectives. The effectiveness of military power is measured by its capability to support the national objectives. Military power is subordinate to and must be compatible with national policies and objectives. Military forces, the operating element of military power, must be capable of exerting physical force in a manner and on a scale that will insure the attainment of these goals.

1–13. Characteristics of Military Forces

Military forces consist of men organized, equipped, and trained to conduct military operations. They reflect the objectives of their nation and its international commitments and the nature of the threat it faces. Thus, no two nations provide themselves with precisely the same types of forces or organize for combat in precisely the same manner. In nations where the predominant threat is internal, the forces may be organized principally to maintain order and promote stability. Allies and members of coalitions often attain some degree of standardization in weapons and materiel, in general organization, and in doctrine. They may even rely on one another for certain specialized functions; e.g., nuclear weapon support or logistic support.

1–14. U.S. Military Power

a. In the pursuit of its national objectives, the United States has worldwide commitments to other nations. As a consequence, its Armed Forces must not only be capable of insuring the security of the United States, but must also be designed to—
(1) Deter aggression at any level;
(2) Defeat aggression wherever and in whatever form it may occur; and,
(3) Support both military and nonmilitary programs of the United States and, selectively, those of its allies.

b. To meet these broad and complex requirements, the United States must maintain land, sea, and air forces that can—
(1) Defeat aggression short of general war in a manner that reduces the risk of the conflict expanding to general war. A portion of the forces that provide this capability is deployed overseas; the remainder is held in strategic reserve in the United States. The latter reinforces the deployed forces or intervenes rapidly in threatened areas where U.S. forces are not regularly stationed. Whether deployed or held in strategic reserve, all forces must be capable of operations with or without NBC weapons.
(2) Deliver devastating nuclear attack upon any aggressor, even after sustaining the first strike in a general war. Strategic nuclear strike forces are the primary offensive element of this capability; air defense forces, protecting the key population and production centers, are the active defensive element. To gain and maintain control over the people and land areas necessary to achieve U.S. objectives, balanced ground, sea, and air forces either in being or readily mobilized must be available to follow up advantages gained from the initial nuclear attack.
(3) Meet the logistic requirements created by the various forms of war by strategically positioning stockpiles of supplies.
(4) Sustain themselves in combat, building up rapidly to required levels by mobilizing high-quality reserve forces and employing a sound training base.
(5) Assist, through the Military Assistance Program, in developing military strength and economic and political stability of selected friendly nations.

1–15. Employment of Military Forces
a. General. Military force may be employed in any form of conflict. Force, or the threat of force, is common in relations between nations when major conflicting objectives are involved. However, military forces cannot effectively apply force, or credibly threaten to apply it, unless they can do so selectively. The type and degree of force available must be compatible with the nature and setting of the conflict at hand and the objectives sought. Forces, strategy, doctrine, and weapons should possess flexibility that enables them to serve national policy in any contingency and at any selected level of conflict. However, limitations on the degree of force applied do not diminish the force and vigor with which military operations are executed.

b. Flexibility and Adaptability in Employment.
(1) U.S. military forces must be able to operate effectively across the entire spectrum of war, in any area where conflict may occur, and under any foreseeable restraints, employing military power selectively in accordance with assigned missions and prescribed limitations. The force applied must be sufficient to achieve the assigned objectives. U.S. military forces must, therefore, be capable of operating concurrently and effectively throughout the world in one or more situations short of general war while retaining a capability for conducting general war. The forms of conflict involved in these situations may vary widely, as follows:
(a) Cold war situations in which tension or violence might at any time increase in scope to a more intense form of conflict.
(b) Limited wars in many combinations of locale, intensity, duration, and participants. These may be nonnuclear war, with little or no threat of nuclear conflict; nonnuclear war, in which nuclear operations are a clear and imminent threat; or limited, tactical nuclear war. In each case, U.S. military forces will be employed in a manner best calculated to achieve the national objectives and to prevent limited war from spreading to general war.
(c) General warfare growing from limited war, or initiated with a sudden nuclear weapon exchange.
(2) A wide range of political and military considerations determines the limitations on the use of military force in war. Normally, it
will be impossible to predict the precise nature of these limitations and to determine with certainty whether NBC weapons will be available to the military commander. It is impractical, however, to develop new types of forces or weapons after the enemy has initiated their use, or national authority has modified original restraints. U.S. military forces must be able to adapt to any form of conflict instantly. They must, therefore, have an existing multicapability. They must be organized, equipped, and trained for immediate and successful employment with or without NBC weapons. The following doctrine applies to the employment of multicapable forces:

(a) The disposition of any military force depends on the commander's assessment of the threat, to include the danger of nuclear attack, the requirements of the mission, and the means and time available to effect the disposition required. Evaluating the risks involved, the commander determines the extent to which the force will disperse, and the location and state of readiness required of his nuclear delivery means.

(b) Basic limitations on the use of military force, such as the use of NBC or other weapons, may be imposed at the national level. Nevertheless, within such limitations, field commanders are allowed some latitude. To exercise this discretion properly, these commanders should be thoroughly conversant with the national objectives underlying whatever restraints have been applied.

(c) Control of weapons capable of delivering nuclear fires is decentralized to the lowest level consistent with efficiency and in compliance with national restraints.

c. Readiness.

(1) The destructive power of modern weapons and the speed with which they can be employed have increased the importance of readiness. All active and reserve forces and their materiel must be maintained in a readiness condition commensurate with their assigned readiness capability.

(2) Accurate, complete, and timely intelligence is vital both to readiness and to success in military operations. Detailed intelligence on actual or potential theaters (areas) of war must be available to commanders at all levels and must include intelligence on enemy dispositions, composition, strength, recent and present significant activities, peculiarities and weaknesses, capabilities, and probable courses of action. Timely and thorough assessments of these factors are of particular importance in cold and limited wars. It is essential to avoid surprise by sudden changes in the scope, type, or intensity of conflict. Contingency planning should be complete and current, with particular attention given to base development in undeveloped areas of the world.

(3) The readiness of combat forces for deployment can be increased by prepositioning certain items or complete unit equipment in strategically advantageous locations.

d. Employment in Combined Military Actions.

(1) In combined military actions, two or more nations commit their military and other strengths to the attainment of a common objective. These objectives are generally similar to, if not identical with, the national objectives of the participating nations.

(2) The success of combined military actions depends on mutual purpose, mutual confidence, and sound organization and planning. These require the existence of flexible and diverse military power. Both membership and particularly leadership in multinational actions normally require the commitment of military forces that can contribute materially to meeting the threat under any of a wide variety of circumstances.

Section IV. THE NATURE AND ROLE OF LAND FORCES

1-16. General

Land forces are organized, trained, and equipped for sustained combat operations in the land environment. This environment consists of the earth's land surfaces and the contiguous water boundaries and layers of air. Land forces, therefore, include ground units and cer-
tain ground/air systems and waterborne elements.

a. The Department of Defense is organized on the premise that land, sea, and air power are interdependent elements to be applied under unified direction and command toward the attainment of U.S. objectives.

b. Land power is the power to exercise direct, continuous, and comprehensive control over the people living on the land. In peace, land power is the basis of the stability and internal security essential to a free society. In war, the ultimate and decisive act occurs when one nation imposes its will on another. The ultimate aim of both sea and air power is to influence the situation and operations on land; land power makes permanent the otherwise transient advantages gained by air and naval forces.

c. The nature of the environment in which a military force operates has a marked effect on its philosophy and doctrine. The land is a surface of infinite variety that is complicated by vegetation, by climatic extremes, and by the presence of man. The problems of land combat, therefore, are not susceptible to simple solution; no formula or rule of thumb can be applied in all circumstances. There is, therefore, no simple dogma or slogan that captures the essence of land power. Planning for land operations is inevitably complex, detailed, and hedged with provisions for various contingencies. Similarly, the tactics and organization of land forces are complicated and cannot readily be evaluated by mathematical methods. An effective military force must be adaptable to the environment in which it operates, to the enemy it faces, and to the national policy it serves.

1-17. The Role of U.S. Land Forces

The fundamental purpose of U.S. military forces is to preserve, restore, or create an environment of order or stability within which the instrumentalities of government can function effectively under a code of laws.

a. Cold War.

(1) Worldwide stability, law, and order are important to the attainment of U.S. national objectives. The nonmilitary foreign assistance programs of the United States are designed to foster freedom in such an atmosphere. U.S. Armed Forces support these programs by conducting complementary military assistance, operations, and military civic action or by assisting host countries in such activities.

(2) Land forces are particularly adaptable to establishing and maintaining stability, to handling disorders, and to providing support of legal authority. Land forces in overseas areas are a real and credible deterrent to war and a means by which the United States can assist its allies in dealing with disorders inspired and directed by hostile states. Over and above their physical contribution, these forces play an important role in the psychology of deterrence. The presence of armed and disciplined men inhibits violence as no other manifestation of national power can. These forces are also a tangible, visible guarantee that the United States honors its international commitments. U.S. land forces deployed under collective security arrangements are a visible example of this mutual trust and confidence upon which collective security—an essential ingredient of U.S. security—depends. A strategic reserve of land forces must be available to perform similar functions in areas where U.S. land forces are not regularly stationed or to supplement those already located in overseas areas.

(3) U.S. land forces also play a predominant part in the U.S. military effort to encourage and assist indigenous armed forces in their nation-building role. The armies of most emerging nations are not merely security forces, but are forces in the forefront of the modernization process within their countries. Such programs assist in the prevention and suppression of insurgency. In those nations not faced with a real external threat, this may be the primary mission of the national armed forces concerned. U.S. land forces organize advisory and support efforts for such armies accordingly and assist in the planning and execution of military civic action and other aspects of internal development programs.

b. Limited War. Limited aggression presents a double problem. On one hand, aggression must be opposed promptly and forcibly. On the other hand, force must be applied in a manner that reduces the risk of the conflict expanding
into general war. Military objectives always stem from national objectives; thus, military operations must be conducted within the limits established by national policy. The flexibility and versatility of land forces offer the United States a variety of military measures from which to select a course of action both appropriate to the aggression and compatible with the national security interests. From a reinforced company to a force of several Army corps, a land force can field self-contained units organized for the tasks that may face the United States and its allies. These forces can be provided any of several major capabilities and may be—

1) Basically armor or infantry.

2) Heliborne, airborne, or amphibious assault forces.

3) Provided nuclear fire support to supplement their conventional fires.

4) Provided the combat support and combat service support that make them capable of sustained combat operations.

c. General War.

1) General war normally is conducted in two phases. Either phase may precede the other or both may be initiated concurrently. One phase involves unrestricted nuclear weapon exchange. The other consists of operations in which each belligerent attempts to impose his will on the enemy by consolidation and exploitation of any advantage to bring the conflict to conclusion on his own terms.

2) The United States and its allies must be prepared to fight a general war and to conclude it on terms most advantageous to the free world. This requires equal attention to both phases, for while effectiveness in the nuclear exchange is important, it is the consolidation and exploitation phase that will be conclusive. Any advantage gained in the nuclear exchange phase would be dissipated should the United States and its allies be unable to capitalize on it. Also, and equally serious, a potential enemy might come to believe, to the detriment of the deterrent, that he could recoup or counterbalance losses caused by the nuclear exchange through unopposed conquest in the subsequent phase.

3) Land forces play a significant part in deterring a general war. For example, the U.S. Army's air defense weapons reduce U.S. vulnerability to enemy long-range strike forces. The Army's deployed forces, in conjunction with allied forces, stand between potential aggressors and critical resources, serving notice that there will be no easy conquests following a nuclear exchange. The strategic reserve of land forces lends weight and authority to the deterrent effect of U.S. and allied land forces throughout the world.

4) In the event of general war, the military forces of the United States and its allies must be capable of devastating retaliation against the aggressor, while at the same time minimizing domestic damage and aiding in the process of recuperation; of withstanding conventional aggressor forces in their inevitable surge toward key strategic areas; and of undertaking military operations that will establish the degree of control over hostile populations necessary to conclude the conflict on terms compatible with U.S. and free world interests. In all these actions, armies will play a major role and in some they will be the decisive force. Air defense forces will reduce damage to key control, population, and production centers. Both active and reserve forces will aid and support civil authority in national recuperation. Armies will provide the backbone of the defense of the free world perimeter, denying to the aggressor and securing for the free world those resources that will later facilitate decisive operations. This initially defensive mission is all important, for control of residual resources of the post-strike world, natural and manmade, will be essential to survival. In combination with control of strategic areas and routes, these resources will give the decisive advantage to whichever belligerent controls them. Land forces provide a means of insuring that required resources, routes, and areas are available to the United States and its allies.
CHAPTER 2
THE OPERATIONAL ENVIRONMENT

Section I. GENERAL

The operational environment not only influences the manner in which military forces are employed, but also the size, composition, and command and organizational structure of these forces.

a. The elements comprising the operational environment involve a wide range of conditions and circumstances within which military forces must be capable of operating effectively. It is the intangibles in or resulting from the wide environmental spectrum that make it impossible to reduce the conduct of military operations to a series of precise axioms and simple directions.

b. The operational environment imposes certain limitations on the freedom of action of commanders at all levels. These restrictions are normal and occur in all forms of military operations. The restraints imposed in general war, however, are less frequent and less specific than those imposed in limited or cold war.

d. While subsequent chapters of this manual set forth broad principles and concepts for the conduct of military operations, the application of these principles and concepts is qualified by the operational environment that prevails at a given time. Their application requires employment of sound professional military knowledge and judgment.

Section II. ELEMENTS OF THE OPERATIONAL ENVIRONMENT AND THEIR EFFECTS

2-3. National Policy

a. National policy translates national objectives into broad courses of action. It affects assignment of objectives to military forces, the size and composition of the forces, the resources with which the forces are provided, and the manner in which they are employed, to include the constraints within which they operate. National policy also influences relations with allied military forces, the command and organization of combined forces, and relations with local populations and governments.

b. National policies are frequently tempered by international coalitions, alliances, and
agreements and by the additional influence of opinions and attitudes of neutral nations. The influence of these extranational factors may be reflected in confinement of the theater (area) of operations, limitations in military objectives, or restrictions in the employment of certain weapons.

2-4. The Theater (Area) of Operations
a. The physical features, population density and distribution, climate and weather of the theater (area) of operations affect the organization and composition of military forces and the manner in which they are employed.

b. The size, composition, and organization of forces are affected by the size and configuration of the theater (area) of operations, which may vary from an island or archipelago to a large, continental landmass. Closely allied to size and configuration are the resources available in the theater; the existing highway nets, rail systems, port facilities, and airfields; and the length of lines of communications. Other important factors include the density and distribution of the population and the number and location of critical areas that must be held to insure control. These interrelated factors determine the number of troops that can be employed and sustained, as well as the proportion of combat to combat support and combat service support forces. This, in turn, affects the organizational and command structure. The configuration of the terrain and the extent and type of vegetation in the operational area influence the type of forces assigned, especially where these factors present difficulties in the operation, support, and maintenance of heavy equipment or require that special equipment be issued the troops.

c. Such factors as natural obstacles and extreme conditions of weather and climate reduce the operational capabilities of troops and increase the difficulty of supporting them. For this reason, modification of the operational concepts in chapter 5 and the tactical principles in chapter 6 is frequently necessary to meet local conditions. Paragraphs 6-40 through 6-49 contain a detailed discussion of battle under special conditions.

2-5. Local Government and Population
The local government and population in the theater (area) of operations exert considerable influence on the operational environment and their attitudes, actions, and capabilities facilitate or hinder military operations. The requirements of the population for food, medical support, and assistance in rehabilitating the government and reestablishing municipal operations, such as water supply, sanitation, and power must be planned. Where the population is actively sympathetic to the enemy, it may become necessary to commit a significant number of combat troops to rear area security. Civil affairs and psychological operations units provide the commander with additional means of controlling and influencing the population.

2-6. Opposing Forces
a. Missions. The missions assigned their respective military forces by opposing belligerents may be similar or widely divergent. Each may seek the ultimate subjugation of the other and the destruction of his warmaking potential. In general war, there is relatively little restraint in the means employed by the belligerents. In situations short of general war, one belligerent may seek the destruction of the other, or seek to restore some prior situation, such as location of an international boundary; or each belligerent may seek to gain control of a limited area or to deny the area to the other. In other situations, where dissident elements in a country are supported covertly by an external power in their attempts to overthrow the government, military forces may be employed to maintain internal security and to help eliminate the root causes of disaffection among the population. The threatened government may seek military assistance from other nations; this assistance may be provided unilaterally or by an international organization. In every situation, the means employed by military forces and the manner of conducting operations are influenced by the missions assigned the opposing forces.

(1) Enemy forces may consist of loosely organized bands of irregular forces, massive
formations of paramilitary forces provided with minimal equipment and marginal combat and combat service support, highly trained armed forces with ample combat and combat service support, or combinations of any of these. To operate effectively against the specific enemy force encountered, U.S. forces must have a high degree of flexibility to permit changes in tactics, organization, and procedures.

(2) U.S. forces assigned to an area may vary from relatively small advisory organizations or task forces to large land, sea, and air forces. The U.S. Army element in the friendly force structure may vary from a division or less to one or more army groups with the necessary combat, combat support, and combat service support. The command and organizational structure will vary directly in complexity with the size of the force and the extent of participation by other Services and allied forces.

2-7. Influence of Weapon Systems

a. Nuclear, biological, and chemical weapon systems exercise an intensive influence on the conduct of operations. When the authority to employ these munitions is granted, the combat power available to commanders is increased tremendously. Nevertheless, the concept of coordinated fires and maneuver continues to apply, and sufficient troops must be in place to exploit the advantages of these munitions. The results of an engagement may be determined in far less time than would otherwise be required. These factors, moreover, dictate special measures to reduce the vulnerability of friendly forces and installations and of civilian populations. Dispersion, mobility, decentralization of control, rapid exploitation, and reduction of reaction time are primary considerations.

b. The availability to either force of nuclear weapons (often referred to as mass-destruction weapons) and biological or chemical agents, which may affect personnel over large areas, exercises considerable influence on the operational environment. The degree of influence depends on the imminence of employment. In some situations, the likelihood of employment may be of major concern in the development and execution of operation plans. Again, the threat may be so remote that it is of small concern. Operation plans must be based on the situation at hand with due regard to probability of a sudden change in the operational environment brought about by the decision to initiate nuclear warfare or to employ biological or chemical munitions.

c. Further discussion of the effects of mass-destruction and mass-casualty weapons on the operational environment is contained in paragraphs 6–3 through 6–6.
CHAPTER 3
COMMAND
(STANAG 2101, SEASTAG 2102, AND SOLOG 104)

This chapter addresses the subject of command and covers the relationships and responsibilities inherent therein. The sections below discuss the commander, the chain of command, command and staff relationships, decisionmaking, planning and execution, and joint and combined operations.

Section 1. THE COMMANDER

3-1. General
The authority vested in an individual to direct, coordinate, and control military forces is termed "command." This authority, which derives from law and regulation, is accompanied by commensurate responsibility that cannot be delegated. The commander alone is responsible for the success or failure of his command under all circumstances.

3-2. Authority
In discharging his responsibility, the commander exerts authority to direct those actions and to establish those standards that insure accomplishment of his mission. In so doing, the soundness of his judgment and the principles and techniques that he employs determine the effectiveness of his leadership.

3-3. Leadership
Leadership is a personal and intangible quality that is a combination of example, persuasion, and compulsion. It is an extension of the commander's self, his personality, and his character. In exercising leadership, the commander must devise means to project his character and personality to create a positive impression on the individuals and units of his command. The basic concept of leadership envisions a leader guided by a continuing consideration of leadership traits and principles, his own strengths and weaknesses, individual and group characteristics of subordinates, and the circumstances and physical environment that prevail.

3-4. Personal Characteristics
High moral purpose is an indispensable characteristic of leadership in the American system. Leadership characteristics and traits include bearing, physical and moral courage, decisiveness, dependability, endurance, enthusiasm, initiative, integrity, judgment, justice, knowledge, loyalty, tact and unselfishness. The commander's demonstration of these characteristics and traits in his daily activities helps to inspire and to earn the respect, confidence, willing obedience, and loyal cooperation of his command.

3-5. The Human Element
Despite advances in technology, man remains the most essential element on the battlefield. The commander must be acutely sensitive to the physical and mental condition of his troops, and his plans must take account of their strengths and weaknesses. He must make allowance for the stresses and strains the human mind and body are subjected to in combat. His actions must inspire and motivate his command with the will to succeed under the most adverse conditions. He must assure his troops that hardship and sacrifice will not be needlessly imposed and that their well-being is of primary concern to him.

3-6. Employment of Subordinates
The accomplishments of the command are the sum of the accomplishments of its component elements. Each subordinate commander and
staff member is an effective instrument in the hands of the commander. The degree of skill and understanding with which the commander employs his subordinates is reflected in the operations of his command. Subordinates must be carefully trained and motivated, and full advantage must be taken of their individual qualities and capabilities.

3-7. Techniques
   a. The successful commander insures mission accomplishment through personal presence, observation, and supervision. However, he does not oversupervise. While his direct personal touch with subordinates is essential to effective command, he must establish policies within which his staff can take action during his absence. He fosters initiative and self-confidence in subordinate commanders by permitting them appropriate latitude within the scope of their responsibilities.

   b. Modern warfare demands prompt action, decentralization, and a high degree of individual initiative. Detailed instructions must frequently give way to broad direction that subordinates can interpret and implement.

Section II. CHAIN OF COMMAND

3-8. General
   The successive commanders through which command actions are channeled form the chain of command that extends downward from superior to subordinate. Effective military operations demand strict adherence to the chain of command. Violation of the chain of command usurps the prerogatives of the intermediate commander concerned and abrogates his authority without a commensurate lessening of his responsibility.

3-9. Bypassing the Chain of Command
   Under unusual or extreme conditions, such as the imperative need for speed of action or when communication with intermediate units is lost, the commander may bypass echelons of the chain of command. The senior commander bypassing the chain of command assumes responsibility for the order he has given to a subordinate commander. In such an event, the normal chain of command must be reestablished at the earliest opportunity and the intermediate commanders informed of the action taken.

3-10. Initiative
   On occasion, the loss of communications may preclude a subordinate commander’s receiving specific orders or direction. In this event, he is expected to deduce the action required based on his knowledge of the existing situation and act on his own initiative.

3-11. Continuity of Command
   Commanders at all echelons must make adequate provision for uninterrupted perpetuation of the chain of command. The succession of command must be prescribed for all contingencies, ranging from the temporary absence of the commander to the loss of the commander and staff.

Section III. COMMAND AND STAFF RELATIONSHIPS

3-12. Purpose of the Staff
   The staff provides advice and assistance to the commander in his exercise of command. For detailed discussion of staff organization and procedures, see FM 101-5.

3-13. Staff Functions
   a. The staff embodies no authority within itself. Its authority derives from the commander and must be exercised in his name.

   b. Details belong to the staff. The commander addresses his attention to the broad essentials critical to the problem at hand. He relies on his staff to develop the detailed considerations required for his estimates, plans, and orders.

   c. The staff acts within the policies and concepts established by the commander. In the absence of policy, the staff refers to the commander for guidance. If the commander is una-
available to provide guidance, the staff bases its actions on an interpretation of what the commander's policy would be.

d. The advice provided the commander by his staff is calculated solely to further accomplishment of the mission. Complete honesty of opinion and frankness of presentation are essential. Staff recommendations must carry the courage of conviction until the commander makes his decision. Thereafter, full and complete staff effort is devoted to supporting the decision.

3-14. Staff Relationships

a. Maximum efficiency is achieved when the commander and his staff function as a single entity in an atmosphere of mutual confidence and respect. In establishing this relationship, however, the commander must preserve his identity. He must remain sufficiently detached to retain his perspective and to insure prompt response to his orders.

b. In its relations with subordinate commands, the staff operates in a spirit of service, cooperation, and assistance. It translates the commander's decision into timely, concise, and understandable directives. It keeps abreast of the situation, circumstances, and problems confronting the command and advises the commander accordingly. By so doing, the staff serves the troops as well as the commander. In establishing the relationship between his staff and subordinate commanders, the commander must insure that prerogatives for direct dealing by subordinate commanders are not usurped by the staff.

c. Proper staff relations with higher and adjacent headquarters contribute materially to operational efficiency. Frequent contact and full exchange of information among staffs assist in mutual understanding, in keeping commanders abreast of the overall situation, and in apprising the commanders of future plans on which they can take timely and appropriate action.

3-15. Liaison

a. Liaison is that contact or communications maintained between elements of the Armed Forces to insure mutual understanding and unity of purpose and action. It is often aided by exchange of personnel since this facilitates exchange of information. Liaison also is maintained to insure cooperation and understanding between commanders and staffs of headquarters or units that are working together and to insure tactical unity and mutual support of adjacent combat units.

b. Liaison can be achieved by one of the following or a combination thereof:

(1) Personal contacts between commanders and staffs.
(2) Exchange of liaison officers or liaison detachments.
(3) Agreement on mutual support between adjacent units.

c. Establishment of liaison is facilitated by planning, by assignment of boundaries and determination of responsibility for the boundaries themselves, by definition of points where physical or visual contact will be established, and by agreement on positioning of reserves.

d. Liaison should, when possible, be reciprocal between higher, lower, and adjacent units. Liaison must be reciprocal when a unit is placed directly under the command of a combined headquarters, or a headquarters of a different nationality, and when units of battalion size or larger of different nationalities are adjacent.

e. When liaison is not reciprocal, responsibility for establishing it is governed by the following principles:

(1) From left to right.
(2) From superior to subordinate.
(3) From supporting to supported.
(4) From national command not assigned to a combined command to field army or other major tactical command as applicable.

Section IV. DECISIONMAKING

3-16. General

Decisionmaking is a fundamental responsibility of command. All military operations are based on decisions. The sequence of activities
of the commander and his staff in making military decisions is delineated in FM 101-5. Sound decisions contribute to successful operations. While decisions are required in all areas of military activity, this section addresses itself only to major decisions incumbent on a commander under operational conditions.

3-17. Bases for Decisions
Decisions are based on the requirements of the mission, the courses of action open to the commander, and consideration of the factors that bear on the two. Certain of these factors may be clearly defined while others may be clouded by inaccurate, incomplete, or even a total lack of information.

3-18. The Mission
In arriving at a decision, the commander’s basic consideration is the mission. The mission is usually stated in terms sufficiently broad to permit the commander considerable freedom in determining his course of action. As the operation progresses, modifications and changes in mission may be anticipated. As the situation becomes more fluid, the mission may be correspondingly broadened, with increased reliance placed on the initiative of subordinate commanders.

3-19. Other Considerations Affecting the Decision
As they relate to the mission, other important considerations affect the commander’s decision. Among these are characteristics of the operational area and dispositions and relative combat power of opposing forces. (Further discussion of combat power is contained in paragraphs 5-12 and 5-13.) In developing the information required to evaluate these considerations, the commander relies on the advice of his staff. His staff provides him detailed information obtained from higher, lower, and adjacent units.

3-20. Intangibles of Battle
In arriving at a decision, the commander is confronted with certain intangibles. Among these are troop morale, unit effectiveness, and the enemy’s capability and will to resist. Although no precise method exists for gaging these factors, they have a direct bearing on the commander’s decision.

3-21. A Decisionmaking Process
a. The process by which the staff evaluates the pertinent factors of the mission and the situation, formulates possible courses of action, and presents a recommendation to the commander is termed “the staff estimate of the situation.” The process by which the commander applies his own knowledge and considers the recommendation of his staff in arriving at a decision is termed “the commander’s estimate of the situation.”

b. The decision must be reevaluated constantly and changed in the light of new directives or instructions, additional information, and other factors that are developed as the battle progresses. Thus, the estimate of the situation by both the commander and his staff is a continuing process.

c. For detailed discussion of the estimate of the situation, see FM 101-5.

3-22. The Decision
The commander’s decision is the result of a subjective analysis of all factors involved. Its soundness is a reflection of the commander’s professional competence, experience, intelligence, perception, and strength of character.

Section V. PLANNING AND EXECUTION

3-23. Planning
a. When the commander’s decision is made, plans are prepared to implement it. These plans provide guidance or form the basis for appropriate orders to subordinate commanders.

b. Planning is a progressive and continuing process. During the course of the current operation, plans and alternate plans are developed for future operations, as well as plans for all foreseeable contingencies. The planning process must not, however, interfere with the conduct and supervision of the current battle.
3–24. Execution
Intelligent and diligent execution is essential to the plan's success. Once undertaken, the execution of the operation assumes paramount importance and must receive the close and immediate attention and supervision of both the commander and his staff. The commander must sense critical actions as the battle progresses and bring to bear thereon the full effect of his leadership and authority.

Section VI. JOINT AND COMBINED OPERATIONS

3–25. General
a. Joint operations are those in which two or more Services of the Department of Defense participate. Combined operations are those in which the armed forces of two or more allied nations participate. Both types of operations may be embodied in a single operation.

b. The successful conduct of joint and combined operations requires coordination of effort and sound direction of participating forces. The principles of command and organization for joint forces are contained in JCS Pub. 2, Unified Action Armed Forces (UNAAF). The command and organizational structure for combined forces is determined by international agreement between the nations concerned (DA Pam 310–35 and DA Pam 310–36).

3–26. Unity of Effort
The requirement for unity of effort in joint and combined operations is best achieved by the designation of a single commander. This commander must be provided authority and resources commensurate with his responsibilities.

a. Joint and combined forces are characterized by certain inherent differences that exist in the military systems of the component forces. Among the Armed Forces of the United States, certain divergencies exist in doctrine, techniques, and customs. Similar variations are encountered in combined forces. Differences in political systems, religion, language, cultural backgrounds, and philosophies add complexity to the operations.

b. The commander of a joint or combined force must recognize and appreciate those divergencies and variations that may cause misunderstandings and differences of opinion. He must combine tact with determination and patience with enthusiasm to insure maximum operational efficiency of the force. If necessary, he must subordinate his methods and procedures to the common unity. In combined operations, the commander must also insures that limited interpretations of national interests are not permitted to prevent proper decisions. He must insist on the exercise of command through established channels regardless of the difficulties imposed by procedural differences and language barriers.

3–28. Staff for Joint and Combined Forces
a. Commanders of joint forces are provided a joint or augmented staff in accordance with the provisions of JCS Pub. 2.

b. In combined forces, a combined staff may be established, or the staff of the commander of the largest allied force may be augmented to give balanced representation to the other allied forces assigned.

3–29. Combat Service Support for Joint and Combined Forces
a. Combat service support for Service components of a joint force is primarily the responsibility of the parent Service. The degree of combat service support provided one Service component by another is directed by the Secretary of Defense, the Joint Chiefs of Staff, a unified or specified commander, or as mutually agreed among the component Services concerned. A component commander may provide all, or part, of the common combat service support for all theater components.

b. Combat service support for national forces is a responsibility of the nation concerned. Within the provisions of U.S. national policy and international agreements, allied forces in a theater (area) of operations may be provided U.S. combat service support. Within these agreements and policy, the theater commander specifies the degree of support to be provided and the procedures to be followed.
CHAPTER 4
ORGANIZATION AND CHARACTERISTICS OF THE ARMY IN THE FIELD

Section I. GENERAL

4–1. Scope
This chapter deals with the Army in the field under operational conditions and in a theater (area) of operations. The Army in the field includes all elements of the Department of the Army organized, equipped, and trained for deployment to a theater (area) of operations. It does not include headquarters, commands, installations, or activities located in the continental United States (CONUS), except as the United States may become a theater (area) of war.

4–2. Doctrinal Basis
The doctrine in this chapter is based on JCS Pub. 2 and JCS Pub. 3.

4–3. Territorial Organization
a. Theater (Area) of War. The theater (area) of war is that area of land, sea, and air which is, or may become, involved directly in the operations of war. It is subdivided in accordance with the nature of the operations planned or in being.

b. Theater (Area) of Operations. The theater (area) of operations is that portion of a theater (area) of war necessary for military operations, either offensive or defensive, pursuant to an assigned mission, and for the administration incident to such military operations. More than one theater (area) of operations may comprise a theater (area) of war. The geographic limits of a theater (area) of operations are established by the President, through the Secretary of Defense, and with the advice and assistance of the Joint Chiefs of Staff.

c. Zone of Interior. The zone of interior is that part of the U.S. national territory not included in the theater (area) of operations.

d. CONUS. CONUS is the U.S. territory, including the adjacent territorial waters, located within the North American continent, between Canada and Mexico.

e. CONUS Armies. The CONUS armies are basically territorial commands charged with primary functions associated with the development and employment of the national mobilization and training bases. Included in these primary functions are organization, training, and equipping of Army forces for the conduct of sustained combat operations. Additionally, the CONUS armies must plan for and conduct operations, as required, in ground defense, civil disturbances, disaster relief, and civil defense survival and recovery operations.

4–4. Employment of Army Forces
Army forces may be employed in operations involving only the Army, in operations involving two or more of the Armed Forces of the United States (joint operations), in operations involving the armed services of two or more allied nations (combined operations), or any combination of the above.

Section II. ORGANIZATION OF THEATER (AREA) OF OPERATIONS

4–5. General
a. While there is no standard organization for a theater (area) of operations, the theater is normally divided geographically into a combat zone and a communications zone (COMMZ). The combat zone is that area required by combat forces for the conduct of operations. It is the territory forward of the field
army rear boundary. The COMMZ is the rear part of a theater (area) of operations that is behind and contiguous to the combat zone. The GOIVMZ contains the lines of communications, establishments for supply and evacuation, and other agencies required for the immediate support and maintenance of the field forces. Initially, a theater (area) of operations may consist of a combat zone, with combat service support provided by facilities and installations in the zone of interior or offshore bases.

A theater (area) of operations may be under the command and control of a combined headquarters formed by coalition agreement. Another method of providing command and control is through either a unified or specified command established by the United States.

c. The authority that establishes a theater (area) of operations will designate the commander, assign the mission, determine the force structure, assign or direct the assignment of forces, designate the area of responsibility or function, and may designate a second-in-command.

d. The organization of the theater (area) of operations may require the establishment of subordinate commands by the theater commander. When this is required, areas of responsibility of subordinate commands should be clearly delineated.

4-6. Organizational Considerations

a. The task of organizing a theater (area) of operations may be complicated by differences in national policies of the nations involved and by differences in concepts between the U.S. Service components assigned. The staff organization established must include personnel with wide knowledge and experience in their own Service and thoroughly familiar with the methods, capabilities, and characteristics of other Service or national forces assigned.

b. The command structure established must be simple and must insure a manageable span of control with a minimum number of command echelons. While a single individual may frequently act concurrently as commander of a uni-Service force, a joint force, and/or a combined force, a U.S. unified commander may act also as the commander of a Service component or subordinate unified command when authorized by the establishing authority.

4-7. Organizational Principles

a. The command structure established must insure centralized direction of the entire operation, but must also insure the maximum degree of decentralized execution to provide flexibility and freedom of action to subordinate commanders.

b. Clear lines of control and positive delineation of command responsibility should be established in the theater (area) of operations.

c. Operational commands should be organized to accomplish specific tasks without duplication of effort and overlapping of functions.

d. The organizational structure of combat service support units should be oriented on and designed to support combat operations.

e. Combat service support should be organized to provide maximum common, joint, or cross-servicing within a national force.

f. Combat service support of national forces should normally be provided on a national basis.

4-8. Organization of Subordinate Commands

a. To accomplish its assigned mission, the major command may require subordinate commands.

b. When the mission assigned a subordinate command requires the capabilities inherent in more than one U.S. Service, it is essential that unity of command be insured by the designation of a single commander. The organization under this commander may take the form of a subordinate unified command or a joint task force. When the capabilities of the armed forces of more than one nation are required, a combined command may be established or coordinated operations may be conducted.

c. Unity of effort in subordinate commands should be insured by the provision of clear-cut direction from the theater commander to Service components thereof by the theater commander upon their assignment, and by agreement by all services. The staffs of subordinate
4-9. Organization of the Combat Zone
   a. The combat zone should include sufficient maneuver area to permit deployment of all elements of the major combat force and establishment of essential combat service support facilities without congestion.
   b. The forward limits of the combat zone should extend to the distance necessary for the commander to exploit fully all means under his control.
   c. Major force commanders must be provided the means and authority to direct land, sea, and air operations against the enemy and to control the population in their operational areas. Procedures and facilities must be provided to regulate air traffic over the combat zone and ground traffic in the combat zone.

4-10. Organization of the COMMZ
   a. The COMMZ contains the principal combat service support installations and lines of communications facilities for the theater (area) of operations. It provides the connecting link between the combat zone and the zone of interior.
   b. Combat service support activities frequently have combat support aspects; conversely, some elements whose major function is combat support, such as air defense artillery units, may be located in the COMMZ. The COMMZ should include sufficient area for the location, without congestion, of required installations or units. It may be located on the same landmass as the combat zone or in whole or in part on an offshore base.
   c. Routine details of combat service support not involving theater policy are handled directly by the Service components with their support structure in the zone of interior.
   d. Port and air terminal operations normally are assigned to uni-Service commands, with necessary augmentation from other Services.
   e. For detailed discussion on joint logistics see JCS Pub. 3.

4-11. Mutual Support
   a. General. Army field forces operate as a team with other U.S. and allied forces of the theater (area) of operations. Economy and efficiency dictate minimum duplication of effort among Services. Functions that can be performed by one Service for the other Services should normally be performed by that Service. Service cooperation is in accordance with the policies announced by the Secretary of Defense, the Joint Chiefs of Staff, and commanders of unified commands or joint task forces.
   b. Army Support. Army support to other forces in the theater (area) of operations includes long-range artillery and missile fires, operations against land objectives, intelligence, rear area protection, air defense, communications, combat service support, and civil affairs and other support as directed by the commander.
   c. Naval Support. Naval support includes air support from carrier striking forces and land-based Navy or Marine aircraft; air defense by manned aircraft or surface-to-air missiles; assault shipping; antisubmarine protection, mine-sweeping, maintenance of sea lines of communications, and surface protection of coastal flanks; naval gun fire and missile support; Marine Corps combat support; and combat service support as directed by the theater commander.
   d. Air Force Support. Air Force support includes close air support, interdiction with missiles and aircraft, reconnaissance, battlefield illumination, air defense, intertheater and intratheater airlift, weather service, and combat service support as directed by the theater commander.

4-12. Support From Other Government Agencies
   a. State Department. A State Department political adviser is sometimes provided for the staff of the senior commander in a theater (area) of operations. In those situations in which the State Department has primary responsibility for policy concerning political activities and civil affairs, the U.S. ambassador exercises these responsibilities. For additional information, see FM 41-5 and FM 100-20.
b. Other Agencies. The senior military commander also normally receives support from the Central Intelligence Agency; Agency for International Development which exercises continuous supervision and general direction over nonmilitary assistance programs and is responsible for coordination of the military and economic assistance programs; the U.S. Information Agency; and other U.S. Government agencies as appropriate.

c. Civilian Resources. Resources from the civilian population and economy must be used in every legal manner consistent with national policy. It must be anticipated that the enemy will use these resources to the maximum extent practicable. For doctrine pertaining to the employment of civilian resources, see FM 41–5 and FM 41–10. For doctrine pertaining to control of the population and resources and their denial to the enemy, see FM 31–23.

d. Country Team. The country team is headed by the chief of the diplomatic mission and includes in-country representatives of U.S. Departments and Agencies, except U.S. military forces operating in the field under an area commander. The country team assists the host country in preparing the internal defense and internal development plan. This plan forms the basis for a coordinated U.S. effort. The chief of the military assistance advisory group is the Department of Defense representative to the country team and in this capacity is responsible for recommendations and coordination concerning military assistance to the host country.

Section III. ORGANIZATION OF ARMY FORCES

4–13. General
Army forces assigned to a theater (area) of operations include appropriate control headquarters and necessary elements of the several arms and services. The latter consist of combat, combat support, and combat service support elements. These forces are combined in accordance with the requirements of the mission and the nature of the operation. The characteristics of various Army units and the principles of organizing them into efficient forces are discussed in succeeding paragraphs.

4–14. Allocation of Forces
The numbers and types of forces provided subordinate commanders in the theater is dependent on the mission. These forces may be assigned, attached, or placed in support of the command concerned.

a. Forces for which there is a continuing demand are usually assigned.

b. Forces required for specific tasks or for a limited period of time are normally pooled at higher echelons and attached as required.

c. Forces whose capabilities exceed the requirements of a single command or whose attachment to a subordinate command would unduly burden the commander thereof are held under centralized control and placed in support of one or more subordinate commands.

4–15. Multicapable Forces
The organization of Army forces must provide the capability to conduct successful operations in all forms of conflict as well as in a wide range of environments without major change in organization and equipment. This multicapability is provided by combining units capable of providing effective intelligence; mobility; firepower; command, control, and communications; and combat service support. Special structuring of forces and the provision of special equipment may be required under certain functional or environmental conditions.

4–16. Larger Army Operational Commands
The army group, the field army, and the corps are the largest Army operational commands. Exceptionally, the theater army may be assigned an operational mission. None of these has a fixed composition; each is organized to accomplish specific missions, and each can serve as the nucleus of a joint or combined force. Details on the conduct of operations of larger units are contained in FM 100–15.

4–17. The Army Group
An army group normally is organized to direct the operations of two or more field armies. Its responsibilities are primarily tactical and include planning and allocation of means.
4–18. The Field Army
The field army headquarters directs tactical operations and provides for combat service support of assigned and attached units. The field army consists of a headquarters, headquarters company, and special troops; a variable number of attached corps; a field army support command (FASCOM); a variable number of divisions normally attached to corps; and other attached combat, combat support, and combat service support units. A field army may be organized with a small number of divisions without using the corps echelon.

4–19. The Corps
The corps is essentially a large task force consisting of a variable number of divisions and other combat and combat support units. Frequently, corps will be reinforced by the attachment of combat service support elements. A corps so reinforced approaches the capabilities and characteristics of a small field army and is referred to as an independent corps. When operating as part of a field army, a corps is primarily a tactical organization and normally has few combat service support responsibilities, receiving such support directly from the FASCOM.

4–20. The Division
The division is the basic Army unit of the combined arms and services. Like the army group, field army, and corps, the division is organized for the environment and the accomplishment of specific missions. It has both tactical and combat service support functions. The division normally conducts operations as part of a larger force, usually the corps; however, it is capable of independent operations for relatively short periods of time, or for prolonged periods when augmented with additional support forces. The division obtains flexibility through the grouping of its components to meet tactical and strategic requirements and through its capability to vary its organization for combat. Exceptionally, it may serve as the framework of a combined or joint force. Army divisions are designated as infantry, mechanized infantry, armored, airborne, and airmobile. These divisions are capable of operating independently or in conjunction with one another in all forms of war. Additional details on division operations are contained in FM 61–100.

a. Infantry Division. The infantry division is capable of sustained ground combat under all conditions of weather and terrain. It is formed by the assignment of a predominance of infantry units. It readily conducts airmobile or airlanded operations. Appropriately reinforced with ground or air transport means, the infantry division can conduct highly mobile operations.

b. Mechanized Infantry Division. The mechanized infantry division is formed by the assignment of mechanized infantry and tank units, with a predominance of mechanized infantry units. This division is capable of covering extended frontages and relatively deep zones of action and of operating in widely dispersed formations. The organic vehicles of the subordinate units of the division provide a high degree of tactical mobility. This division is more sensitive to terrain than the infantry division. The bulk and weight of the armored vehicles of the mechanized infantry division are disadvantages in strategic movement. The mechanized infantry division is organized for deployment to theaters (areas) of operations that permit the exploitation of their inherent capabilities of ground mobility and armor protection. While the shock effect and firepower of the mechanized infantry division may be somewhat less than that of an armored division, the mechanized infantry division is especially suited for operation in conjunction with the armored division.

c. Armored Division. The armored division is formed by the assignment of armor and mechanized infantry units, with the former predominating. The armored division is capable of covering extended frontages and relatively deep zones of action and of operating in widely dispersed formations. The organic vehicles of the subordinate units of the division provide a high degree of tactical ground mobility. This division is more sensitive to terrain than the infantry division. The bulk and weight of the armored vehicles of the armored division are
-disadvantages in strategic movement. The armored division is organized for deployment to theaters (areas) of operations that permit the exploitation of their inherent capabilities. They are primarily powerful offensive forces, normally having a higher ratio of tank units than the mechanized infantry division.

d. Airborne Division. The airborne division is especially trained and equipped for airborne assault and air-landed operations. Air transport means must be provided in these roles. While the airborne division has a greater degree of strategic mobility than other divisions, their capability for tactical mobility is relatively restricted, and appropriate reinforcements are required to provide them capabilities for sustained combat comparable with those of infantry divisions. Airborne forces are particularly vulnerable to enemy armor attack due to limited antitank protection means.

e. Airmobile Division. The airmobile division is especially trained and equipped for airmobile operations. This division is characterized by flexibility and responsiveness in the accomplishment of tactical missions. It is capable of providing surprise action at widely separated points on the battlefield in either successive or concurrent airmobile attacks. It is particularly adaptable to reconnaissance and security missions, raids, feints and demonstrations, operations against irregular forces, and overobstacle assault operations. As part of a larger force, it is effective, if suitably reinforced, in other offensive and defensive operations and in retrograde operations. For sustained combat, the division requires augmentation of its land and air vehicular transportation and supporting forces. Airmobile forces are particularly vulnerable to enemy armor attack due to limited antitank weapon firepower.

4-21. The Army Missile Command

a. An Army missile command is a mobile organization designed primarily to furnish nuclear fires in support of land forces of allied nations. A missile command may also be employed by the theater or other appropriate command to provide nuclear fires in support of U.S. ground forces in designated critical areas.

b. In fulfilling its mission, each missile command provides fire support, liaison, language interpretation and translation, target acquisition, target analysis, signal communications, intelligence, internal security, and limited combat service support. When a missile command operates with allied forces and is removed from U.S. support facilities, it may require augmentation to provide additional combat service support, local security, air defense, and intelligence support.

c. The commander of the missile command keeps the supported force commander informed of the capabilities of his command and makes recommendations concerning its employment. Within the limitations prescribed by U.S. and theater policy, the missile command provides fires requested by the supported force commander.

4-22. Combat Service Support Commands

The principal organizations designed to provide broad combat service support are the theater army support command (TASCOM), the FASCOM, the independent corps support command (COSCOM), and the division support command (DISCOM). The particular composition of each type of combat service support command depends on its mission. The headquarters of the command, as well as the headquarters of major subordinate mission and area commands, brigades, and groups, provides command and control elements and a minimum number of trained logisticians and other combat service support staff personnel. Assigned and attached operational battalions, companies, and detachments insure performance of the assigned mission. The capability of being modified to meet the requirements of varying missions is a valuable characteristic of these commands. For additional discussion on combat service support commands, see the FM 54-series.
Section IV. COMBAT ELEMENTS

4-23. General
a. A combat element is distinguished by its ability to employ fire and maneuver to close with the enemy in combat. Its mission may be to destroy or capture the enemy; secure or deny terrain; protect a larger force; or gain information. It uses both direct and indirect fires. Combat elements are trained, organized, and equipped to operate in direct contact with the enemy. The infantry, mechanized infantry, airborne infantry, tank, and airmobile infantry battalions and the armored and air cavalry squadrons are the basic elements from which combined arms teams are organized. These teams include infantry, armor, artillery, signal, and combat engineers and may include air defense artillery, intelligence, and aviation units.

b. The mission and operational environment dictate the organization of the combat elements of a force. Force composition should be adaptable to a variety of environments without major change. Unit composition may include combat elements of a single type or various combinations of types. The composition of combat elements in a larger force may be modified by attachment or detachment as required.

c. The fighting units take the greatest risks and endure the greatest hardships. Combat forces require the highest order of leadership, training, discipline, endurance, tenacity, and esprit de corps. The relative contribution of combat forces to the success of the Army in combat far exceeds their proportion of Army strength. In combat all other components of land forces exist to support these forces.

4-24. Basic Missions
A combat element is designed to perform either infantry, tank, or cavalry missions. These missions may overlap, or a force designed for one mission may perform another. A combat element possesses the following characteristics in varying combinations and degrees:

a. Mobility, varying from the individual soldier on foot, through complete mechanization, to complete air mobility.

b. Firepower, varying from small individual weapons, through crew-served weapons of various sizes, to tank armament and armed aircraft. Combat elements may have organic or attached nuclear delivery means.

c. The capability to communicate rapidly and effectively with superior, subordinate, and supporting elements and with adjacent combat units.

4-25. Infantry
a. The basic infantry mission is to close with and destroy the enemy by fire, maneuver, and shock effect. The essential characteristic of infantry combat elements is the ability to fight on foot in all types of terrain, under all conditions of weather, and to move and fight with any means of mobility provided. Infantry provided naval or air transport can conduct amphibious, riverine, airborne, or airmobile operations. A high degree of training is required to achieve and maintain these capabilities.

b. Besides basic infantry missions, mechanized infantry can, in conjunction with tanks, perform an armor mission.

c. Infantry secures, holds, or controls ground by physical occupation or by the use of firepower. Infantry can maneuver in adverse weather and over terrain impassable to armor. The ability of infantry to move in small, inconspicuous formations in all types of terrain enables it to take advantage of covered routes of approach and variations of the ground to overcome strong positions, to infiltrate the enemy position, or to perform long-range patrol activities. Its characteristics make it suitable for use in operations in developing areas. Without protection, infantry is particularly vulnerable to the effects of nuclear weapons. It reduces this vulnerability by avoiding detection through the use of cover, concealment, camouflage, deception, dispersion, and appropriate communications and electronic security measures.

d. See the FM 7-series for additional details.

4-26. Armor
a. General. Armor conducts highly mobile
land environment warfare, primarily offensive in nature and characterized by a predominance of mounted combat through the use of ground vehicles and aircraft. Armor forces include tank, armored cavalry, and air cavalry units. Armor combat forces are particularly well suited for offensive operations that capitalize on their ability to close with and destroy the enemy, to exploit the success of other units, or to exploit the effects of nuclear, biological, and chemical (NBC) weapons. These forces can concentrate or disperse rapidly over extended distances in combat-ready formations, and their organization for combat and direction of effort can be quickly changed. Armor habitually applies the combined arms concept; rarely will tank elements operate without infantry for extended periods. Armor units can fight in all phases of war, in all forms of combat, and under adverse conditions of weather and terrain by organizing combined arms forces to meet specific situations. Armor forces require a large amount of combat service support, principally in maintenance and in supply of ammunition, fuel, and lubricants.

b. Tank Units. The mission of tank units is to close with and destroy enemy forces, using fire, maneuver, and shock effect in coordination with other arms. Because of their inherent firepower, mobility, armor protection, and shock effect, tank units can participate in all forms of operations and all types of maneuver. Tank units are capable of maneuvering under fire, destroying enemy armor, exploiting breakthroughs and effects of mass-destruction weapons, providing organic nonnuclear fire support, supporting mechanized infantry and infantry, and conducting combat operations under limited visibility conditions. Tank units can fight in all types of weather and terrain; however, maneuver is restricted in jungles, forests, and mountainous terrain. Although the tank units' vehicles and equipment provide excellent ground mobility, their bulk and weight entail a significant strategic lift requirement.

c. Cavalry Units. The basic missions of cavalry units are reconnaissance, surveillance, security, and use in economy-of-force roles. To accomplish these missions, cavalry forces must possess a higher degree of mobility than related friendly and enemy combat forces. Cavalry units can fight mounted, in ground or air vehicles, or dismounted.

(1) Armored. Because of its varied capabilities, armored cavalry is an important information-gathering means. The command and control facilities of armored cavalry units make them sound structures around which to organize task forces. In performing their basic missions, cavalry units may reconnoiter, screen or protect larger units, act as part of the reserve, maintain contact with the enemy or between friendly forces, defend, delay, conduct raids in the enemy rear, or make harassing or diversionary attacks.

(2) Air. The air mobility of air cavalry units greatly extends and improves their reconnaissance, security, and surveillance capabilities and permits the rapid transport of lightly armed elements with little regard for terrain restrictions. Air cavalry, in conjunction with armored cavalry elements equipped with lightly armored amphibious vehicles, provides a special capability for operations in developing areas.

d. See the FM 17-series for additional details.

Section V. COMBAT SUPPORT ELEMENTS

4–27. General

a. Although combat elements are the primary source of combat power of a force, combat support elements provide essential contributions to the accomplishment of the combat mission. Combat support is that operational assistance furnished directly to combat elements and may be a major source of combat power. It facilitates the combat task of applying pressure against the enemy and is peculiar to the combat mission. Each force structure includes combat support units appropriate to its requirements.

b. The allocation of combat support units must be carefully controlled to insure economical and efficient use. Normally, combat support
elements are assigned at force level and either attached to, or placed in support of, subordinate units to perform required tasks.

c. Some units have the sole mission of providing combat support, such as field artillery units. Others may perform both combat support and combat service support missions; e.g., transportation units. For this reason, distinction between the missions of combat support and combat service support is not precise. Discussion of combat support elements in succeeding paragraphs is limited to those whose primary mission is combat support.

d. At each echelon of command, the plan for employment of combat support must be integrated with plans for employment of the combat elements. These plans must insure that combat support is both appropriate and responsive to the requirements of the combat elements.

4-28. Field Artillery

a. Field artillery, organized basically into battalions, provides the principal surface-to-surface fire delivery systems of the Army.

b. Field artillery units are equipped with cannon, free rockets, or guided missiles. They support the combat elements by neutralizing or destroying with fire those targets most likely to hinder accomplishment of the mission.

c. Within the division, organization of the field artillery is relatively fixed, although it can be varied by attachment of additional units. Artillery support is normally provided by placing units in support of, or attaching them to, the combat elements.

d. At corps and field army levels, there is no organic field artillery. Fire support is provided by attaching or assigning the numbers and types of field artillery units required by the situation and the mission. Corps and field army artillery may be retained in support of the entire force, or it may be employed to reinforce subordinate elements of the force. When division artillery is insufficient in numbers or types to provide the necessary fire support, elements of the corps artillery may be attached to the divisions.

e. Field artillery is more effective when control is centralized at the highest level consistent with its capabilities and the requirements of the mission. When control is thus centralized, maximum flexibility is achieved, and maximum support to each subordinate element of the command is provided.

f. In mobile operations, stability operations, and particularly when the enemy employs nuclear weapons, the increased dispersion of forces, the quickened tempo of action, and the decentralization of control of maneuver elements may militate against centralized control of field artillery. This is especially true with respect to weapons of shorter range. As the level of usage of nuclear weapons increases, or as the battle becomes more fluid, a corresponding requirement is normally created for decreasing centralized control, resulting in attachment of field artillery to the combat elements.

g. For additional details on field artillery tactics and techniques, see FM 6–20–1 and FM 6–20–2.

4-29. Air Defense Artillery

a. Air defense artillery consists of weapons and equipment for combating air targets from the ground. Air defense artillery provides the principal means for active air defense by the Army. The composition, in terms of units, of air defense artillery echelons above battalion is flexible and is determined by the requirements of a specific situation.

b. Air defense artillery materiel includes surface-to-air missile systems, fire distribution systems, and automatic weapon systems.

c. The Army air defense artillery fire unit is the key element for effective air defense in combat. It must have the capability to accomplish autonomously all the following engagement functions:

   1) Detection of potential airborne targets.
   2) Identification of unknown flying objects.
   3) Interception of enemy aircraft.
   4) Destruction of the hostile air threat.

d. Air defense artillery is most effective when it operates under the doctrine of centralized direction and decentralized execution. Control is exercised primarily by standing op-
erating procedure; however, extensive communications are required to permit timely response to command requirements and for exchange of operational information.

e. Air defense artillery weapons and concerted effort of organic automatic and small-arms fire can provide local, limited protection for ground forces.

f. Certain air defense artillery missiles and automatic weapons have a surface-to-surface capability. However, diversion from their primary role of air defense is dependent on the air defense situation.

g. See FM 44-1 for additional details on the employment of air defense artillery units.

h. Details on the integration of air defense artillery into the overall air defense system, is discussed in paragraphs 10-12 through 10-22.

4-30. Signal
Signal elements provide communications-electronics support for Army forces in the field. Communications-electronics support embraces design, development, installation, operation, and maintenance of electronic and electromechanical systems associated with the collecting, transmitting, storing, processing, recording, and displaying of data and information associated with all forms of military communications, to exclude the responsibility for information and data systems and equipment that has been otherwise assigned. Signal elements provide communications to Army forces down to brigade level and to other commands as required. This support is provided by electronic communications means and by messenger. Communications at combat brigade and lower levels are provided by organic communications elements. The signal function also includes provision of photographic support. Combat support photography includes still and motion-picture services (except reconnaissance and military intelligence photography), photography from Army aircraft, and processing services for operational, technical, information, and intelligence purposes. For additional details, see FM 11-20, FM 11-40, and FM 24-1.

4-31. Engineer
Engineer combat support includes the performance of construction and destruction tasks that improve the mobility, combat effectiveness, and defensive strength of friendly forces while impeding the mobility of the enemy and contributing to his destruction. Engineer combat support includes the following tasks:

a. Support of gap and river crossings, amphibious, denial and barrier, camouflage, and tactical cover and deception operations.

b. Construction and maintenance of routes of communications.

c. Provision of water supply, terrain intelligence and evaluation and surveys and mapping.

d. Construction, restoration, and maintenance of Army aviation facilities, roads, bridges, ports, and field fortifications.

e. Employment of conventional and atomic demolition munitions.

f. Provision of area damage control and disaster relief operations.

Engineer units are trained to fight as infantry when required by the commander. For additional details, see FM 5-1 and FM 5-26.

4-32. Army Aviation
Army aviation combat support includes aerial fire support; observation, surveillance, reconnaissance, and target acquisition; airlift for air mobile operations; command and control, liaison, and communications; and Army air traffic control over the ground combat area. To provide maximum flexibility, some aviation units are pooled at a higher level and allocated to subordinate units as required. For additional details, see FM 1-5, FM 1-60, and FM 1-100.

4-33. Chemical
Chemical combat support includes technical advice and assistance to commanders and staffs in the employment of, and defense against, biological and chemical agents, flame, smoke, and radioactive fallout. It includes tactical support in the employment of smoke-generating equipment for the production of large smoke screens to obscure enemy observation and conceal friendly activities. For additional details, see FM 3-10, FM 3-10A, FM 3-10B, FM 2-12, FM 3-50, FM 20-33, and FM 21-40.
4-34. Intelligence

Intelligence is the product resulting from the collection, evaluation, analysis, integration, and interpretation of all available information which concerns one or more aspects of foreign nations or areas and which is immediately or potentially significant to the development and execution of plans, policies, and operations. It includes current and future enemy capabilities, vulnerabilities, and probable courses of action. The commander’s decision is strongly influenced by intelligence. Intelligence and operations must be integrated. The intelligence effort of the command must provide the timely intelligence required to make decisions, prepare plans, conduct operations, and avoid surprise. Priority is given in the intelligence effort to those aspects of the situation that represent the greatest prospect of success and the greatest threat to accomplishment of the mission. Systematic procedures and effective communications are essential for collection of information and use of intelligence. Intelligence is of importance to all elements of the command and to higher and adjacent commands.

a. Combat Intelligence. Combat intelligence is knowledge of the enemy, the weather, and the terrain used in planning and conducting tactical operations. Combat intelligence seeks to reduce the unknown aspects of the enemy and the operational area. It contributes to accuracy of evaluation of risks and successful application of combat power. Logical conclusions concerning the area of operations and enemy capabilities and vulnerabilities permit the determination of their probable effect on courses of action. See FM 30-5 for additional details.

b. Strategic Intelligence. Strategic intelligence is that intelligence which is required for the formulation of policy and military plans at national and international levels. Its sources may provide information of particular significance in tactical operations and psychological operations. Strategic intelligence and combat intelligence are closely related; the primary difference is in the level of production and utilization. Strategic intelligence is oriented on national objectives and is usually produced slowly by study and assembly of a large volume of detailed information. Combat intelligence usually involves rapid evaluation and interpretation of current information.

c. Political and Economic Intelligence. Political and economic intelligence are components of strategic intelligence. Political intelligence deals with domestic and foreign relations of governmental organizations, while economic intelligence deals with the extent and utilization of the natural and human resources and the industrial potential of nations. Political and economic factors are important considerations in planning military operations and are of particular importance in cold and limited war. These factors especially influence the aspects of intelligence, civil affairs, psychological operations, and combat service support and may, in many circumstances, influence decisions pertaining to maneuver and fire plans.

d. Technical Intelligence. Technical intelligence is that knowledge concerning foreign technological developments and the performance and operational capabilities of foreign materiel which have, or eventually may have, a practical application for military purposes. Technical intelligence is the end result of the processing of technical information. The intelligence effort must consider technical intelligence as part of the overall effort, both for immediate tactical applicability and for strategic importance. See FM 30-16 for additional details.

e. Terrain Intelligence. Terrain intelligence is processed information on the militarily significant natural and manmade characteristics of an area. Terrain intelligence may be classified either strategic or combat intelligence. Included in strategic terrain intelligence are descriptions and analyses of beaches, water terminals, rivers, towns, and major terrain features; transportation and communications systems; and cross-country movement conditions, soils, types of rocks, underground installations, climate and weather, vegetation, state of ground, and hydrography. These studies provide field commanders with initial intelligence concerning the theater (area) of operations on the outbreak of hostilities. Combat terrain intelligence is produced for use in planning and conducting tactical operations within a specified area. It is based on locally secured information and is concerned primarily with the effects of weather and terrain on the particular operations of the unit.

f. Police Intelligence. Police intelligence is one of the elements of intelligence available to the commander. Police intelligence is processed information relating to criminal activities (criminal intelligence), police law enforcement and security, and incidents that disrupt law and order (police operational intelligence). Special development and processing of police information can directly con-
tribute to military intelligence in the early detection of insurgent activities, infiltrators, and enemy activities in the rear area.

8. Counterintelligence, Signal Security, and Operations Security. Counterintelligence (CI), signal security (SIGSEC), and operations security (OPSEC) are measures taken to deny information to the enemy. They include integrated defensive and offensive measures designed to reduce, neutralize, or destroy the effectiveness of the enemy’s intelligence collection effort, whether this effort is conducted from controlled or denied areas. They are a fundamental requirement for surprise and security. All personnel must be thoroughly trained in the importance of CI, SIGSEC and OPSEC, and the measures contributing to their effectiveness.

8h. Target Acquisition. Acquisition of targets is one of the more important intelligence tasks. Target acquisition is that part of intelligence activities which involves accurate and timely detection, identification, and location of targets in sufficient detail for the purpose of target analysis, target evaluation, and effective employment of weapons. Target acquisition results from applying information collected from all sources and agencies for this specific purpose.

8i. Air Intelligence. Information concerning enemy air activity is of such criticality to friendly operations and is of such a transitory nature that special provisions must be made for its collection, processing, and dissemination. Continuously active channels of communications must be available to report information on enemy air activity to air defense command posts, where it is screened and processed for relay to air defense artillery units to enhance active countermeasures. Other friendly units in the area must be notified so that appropriate active or passive air defense measures may be initiated.

8j. Reconnaissance. (1) Reconnaissance is a mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or a potential enemy and data concerning the weather, terrain, and other environmental factors of a particular area. It is also directed toward locating or verifying the locations of friendly units. Accurate knowledge of the location of all friendly troops operating in the commander’s zone of responsibility is necessary for effective employment of complex weapon systems.

(2) Most units have reconnaissance capabilities; however, certain elements are specifically organized for reconnaissance operations. To be fully effective, reconnaissance operations require freedom of maneuver, a favorable mobility differential over the enemy, and effective communications. Reconnaissance efforts are directed toward gaining and maintaining contact. Information is obtained by stealth, if possible; however, it may be necessary to fight to get information. Reconnaissance operations are facilitated by use of electronic equipment.

8k. Reconnaissance by Fire or in Force. Reconnaissance by fire or in force may be used when stealth is not essential. Reconnaissance by fire is used against suspected enemy locations to destroy camouflage and cause the enemy to reveal himself by movement or by returning the fire; it has the important advantage of speed. Reconnaissance in force is a limited-objective operation by a sizable force to discover and test the enemy’s dispositions and strengths or to develop other intelligence. The commander directing such an operation must be prepared to exploit success. He must, however, consider that either the reconnaissance in force or by fire may disclose his own dispositions and provoke a strong enemy reaction.

8l. Air Reconnaissance. Air reconnaissance is the acquisition of intelligence information of military significance employing aerial vehicles in visual observation or the use of sensory devices. Air reconnaissance is capable of providing rapid coverage of large areas; however, it may be limited by enemy defensive measures and weather conditions. An effective intelligence system requires the availability of timely air reconnaissance responsive to the requirement of each echelon.

8m. Counterreconnaissance. Counterreconnaissance includes all measures taken to deny or neutralize enemy reconnaissance. Offensive counterreconnaissance seeks out and destroys the enemy reconnaissance forces. Defensive counterreconnaissance denies, by combat if necessary, enemy access to certain areas. Counterreconnaissance forces are echeloned in depth and oriented and adjusted to friendly dispositions.
**Compass Surveillance.** Combat surveillance encompasses all techniques of accomplishing a continuous (all-weather, day and night), systematic watch by visual, electronic, and photographic means over the battle areas to provide timely information for tactical ground operations. Combat surveillance is the integration of all available means of battlefield surveillance, including air reconnaissance. It is capable of rapid and continuous coverage and is characterized by immediate responsiveness to the needs of the tactical commander.

**Agencies.** All individuals and units have an intelligence function. This function is organic to combat and combat support elements and is inseparable from operations. Specialized intelligence units also provide the commander with information on the enemy, the weather, and the terrain. Military intelligence units provide trained specialists for support of tactical units. U.S. Army Security Agency units provide communications and electronic intelligence. For additional details, see FM 5-30, FM 30-5, FM 30-9, FM 30-10, FM 30-16, FM 30-18, and FM 32-10.

**Long-Range Patrols.** The infantry long-range patrol company is especially organized, trained, and equipped to perform the combat support functions of reconnaissance, surveillance, and target acquisition in the dispatching unit's area of interest. These companies, when authorized by the Department of the Army, are provided to corps and field army and may be placed in support of subordinate elements. Details on employment of long-range patrol companies are contained in FM 31-18.

**Electronic Warfare**

Electronic warfare (EW) support is military action involving the use of electromagnetic energy to determine, exploit, reduce, or prevent hostile use of the electromagnetic spectrum. There are three divisions within EW: electronic support measures (ESM), collection of EW intelligence; electronic countermeasures (ECM), jamming and deception; and electronic counter-countermeasures (ECCM), protection.

**Section VI. COMBAT SERVICE SUPPORT ELEMENTS**

**4–36. General**

a. Combat service support elements are those elements whose primary missions are to provide service support in a theater (area) of operations. They may be part of, or prepared to become part of, the theater, command, or task force formed for combat operations.

**4–34.2. Signal Intelligence**

As the battlefield environment grows more sophisticated, tactical commanders are provided with ever-increasing numbers of electronic and electro-optical devices to aid in the execution of command and control functions, to obtain intelligence and information, and to perform routine administrative operations. This results in an increasing number of electronic and electro-optic devices being used for various communications and non-communications functions. The enemy's use of these devices may be detected, analyzed, and exploited as a source of signal intelligence (SIGINT). The product derived from SIGINT operations is one of the most valuable single sources of information available to the tactical commander. Information pertaining to SIGINT operations and to USASA units that perform these operations may be found in FM 32–1 and FM 32–10.

**4–35. Special Forces**

a. The basic mission of Special Forces is unconventional warfare. Special Forces are strategic forces employed under the direction of designated unified, specified, and subordinate unified command; joint task force; and contingency force commanders. They provide such commanders with a capability to conduct unconventional warfare operations to further national objectives and to facilitate accomplishment of the mission of the force.

b. Special Forces groups are allocated to strategic regions of the world in response to national requirements and objectives. These organizations are multicapable and mission oriented and possess a flexibility that permits structuring for a particular mission or area of deployment. Deployment for operations may involve only selected individuals or detachments possessing special capabilities, or it may require one or more Special Forces groups. Special Forces units may be used to train, organize, supply, direct, coordinate, and control indigenous forces in guerrilla warfare and stability operations. In a theater (area) of operations, Special Forces may be employed on independent missions or in support of the operations of other forces or agencies.
b. Combat service support elements perform those functions that are essential to the conduct of sustained combat operations. These functions include personnel and administrative, chaplain, finance, civil affairs, legal, maintenance, medical, military police, supply, transportation, construction, field services, and other logistic services. The distinctions between combat service support, combat support, and combat operations are not absolute. Moreover, all units have certain combat service support functions that they must perform in accomplishing their major missions.

c. Organizational and operational doctrine for combat service support operations is contained in FM 100-10, FM 101-5, FM 101-10-series, FM 54-series, and FM 3-1 (Test).

d. When considering combat service support, the commander must be fully cognizant of the functions of rear area protection and their direct impact on the accomplishment of the overall combat service support mission. Rear area protection is given detailed coverage in chapter 6, section VI.

4–37. Combat Service Support Units and Organizations

a. Combat Zone. In the combat zone, combat service support to divisional forces is provided by the DISCOM. Corps nondivisional troops and the DISCOM are provided combat service support by FASCOM elements, namely the corps support brigade and, in some instances, the area support brigade. Additionally, cellular teams (TOE 500- and 600-series) are provided when necessary.

b. COMMZ. In the COMMZ, combat service support is provided by units assigned to the TASCOM. These units are provided as necessary to support the missions assigned to TASCOM's subordinate command.

4–38. Control of Combat Service Support Activities

Control of combat service support activities within the field forces involves three major considerations—command responsibility, techniques of control, and facilities.

a. Command Responsibility. All commanders are responsible for control of the combat service support activities and organizations assigned or attached to their commands. This responsibility encompasses the adequacy and timeliness of combat service support provided their subordinates, as well as timely presentation of valid requirements to higher echelons. The corps, when operating as part of a larger force, rarely has combat service support units assigned or attached to it. Command responsibility for combat service support at the corps level is normally limited to establishing priorities for allocation of combat service support resources provided by the field army support command.

b. Techniques of Control. The effectiveness of control of combat service support activities is largely dependent on the various techniques of communications, packaging, recording, reporting, data analysis, data display, and decisionmaking. Knowledge by the commander of current techniques of control of combat service support activities is essential not only for effective control, but also for the establishment of valid plans and requirements.

c. Facilities. Facilities include medical treatment installations, storage installations, ports and beaches, airfields, railways, waterways, and transportation means. Effective control of combat service support activities in the area of operations is largely dependent on the facilities available for receipt, storage, protection, and distribution of supplies and the availability of personnel. Effective control of personnel support activities in the area of operations is also dependent on the facilities and personnel available for insuring continuous collection, evacuation, treatment, and rapid disposition of the sick and wounded and for uninterrupted and rapid movement of personnel replacements to their units of assignment. Generally, the absence of indigenous facilities in less developed areas of operations will limit the quality and quantity of available combat service support until the needed facilities have been provided. Similarly, with the dispersion of combat forces and the increased use of nuclear weapons by the enemy, less reliance should be placed on indigenous and fixed facilities for purposes of combat service support. Consequently, other alternatives must be exploited and developed to decrease dependence on indigenous and fixed facilities.
4-39. Characteristics of Combat Service Support Elements

Combat service support elements must possess operational flexibility and the ability to function under varying environmental conditions. They must take advantage of the latest technological advances and managerial aids to increase the support capability.

a. Fixed Capabilities. Combat service support organizations have finite capabilities, usually translatable into time, space, or tonnage limitations. In emergencies, and for short periods of time, exceptional support efforts can be demanded and expected.

b. Vulnerability. While generally capable of defending their own installations, combat service support organizations are highly vulnerable to determined enemy attack. This vulnerability is in direct proportion to the degree of dispersion required for effective operations. On the other hand, concentration of combat service support activities for protection against ground action may reduce their support capability and increase their vulnerability to enemy attack by conventional and nuclear fires. These conflicting conditions and their impact on accomplishment of the combat service support mission require careful evaluation and command decision of the degree of vulnerability and risk that can be accepted.

c. Planning Factors. Realistic planning factors should be used to determine the requirements for combat service support elements.

4-40. Environmental Considerations

a. Environmental considerations affecting tactical operations exert equal or greater influence on combat service support operations. Proper planning and execution reduce the effects of nuclear attacks. Particular emphasis is placed on achieving flexibility and mobility in the combat service support system and on concealing, dispersing, or protecting facilities and installations.

b. Combat service support forces may range from those organized to support a small, independent task force in a cold war situation, through those organized for limited war, to those required for large-scale support of combat forces in general war. A high order of organizational flexibility is required to satisfy the wide variety of possible combat service support requirements.

c. Combat service support activities that are established and operated in peacetime must be fully compatible with those required under wartime conditions. Transition from peacetime to wartime conditions, as required by any change in operational environment, is accomplished with minimum change in concept, organization, and procedures.

4-41. Dispersion

a. The dispersion of tactical forces, both laterally and in depth, requires a corresponding dispersion of combat service support facilities to provide adequate support. Dispersion of combat service support facilities is also required as a measure to reduce the effectiveness of NBC weapons.

b. Rapid movement of combat and combat support forces and the relative immobility and dispersion of combat service support facilities may result in considerable separation between combat and combat support forces and the various combat service support facilities. Areas between installations may be extensive and infested with enemy guerrilla forces, bypassed enemy groups, and brigands. Only that degree of control that is required for the operation of installations and the movement of personnel and supplies between them is exercised over these areas. The ability to cope with problems of dispersion and distance is a key factor in accomplishing the combat service support mission.

c. The effects of attacks by NBC weapons may be reduced through the provision of multiple, small installations; the establishment of alternate key facilities; the proper arrangement of materiel being stored; the use of camouflage and dummy positions; target analysis of the installation location plan; the attainment of maximum dispersion consistent with control and risk; the utilization of protective features to include terrain, barricades, revetments, and underground shelters; and the provision of adequate planning for RAP.
CHAPTER 5
THE PRINCIPLES OF WAR AND OPERATIONAL CONCEPTS
(STANAG 2088, STANAG 2099, SEASTAG 2099, AND SOLOG 108)

Section I. PRINCIPLES OF WAR

5-1. Scope
This chapter deals with the principles of war and operational concepts that must be considered in the conduct of military operations. Combat power, related factors, and subsidiary and supporting operations are treated in detail. This chapter establishes a basis for discussions of various military operations in succeeding chapters.

5-2. General
The principles of war are fundamental truths governing the prosecution of war. Their proper application is essential to the exercise of command and to the successful conduct of military operations. These principles are interrelated and, depending on the circumstances, may tend to reinforce one another, or to be in conflict. Consequently, the degree of application of any specific principle will vary with the situation.

5-3. Principle of the Objective
Every military operation must be directed toward a clearly defined, decisive, and attainable objective. The ultimate military objective of war is the defeat of the enemy's armed forces. The objective of each operation must contribute to the ultimate objective. Each intermediate objective must be such that its attainment will most directly, quickly, and economically contribute to the purpose of the operation. The selection of an objective is based on consideration of the mission, the means available, the enemy, and the operational area. Every commander must understand and clearly define his objective and consider each contemplated action in light thereof.

5-4. Principle of the Offensive
Offensive action is necessary to achieve decisive results and to maintain freedom of action. It permits the commander to exercise initiative and impose his will on the enemy, to set the pace and determine the course of battle, to exploit enemy weaknesses and rapidly changing situations, and to meet unexpected developments. The defensive may be forced on the commander, but it should be deliberately adopted only as a temporary expedient while awaiting an opportunity for offensive action or for the purpose of economizing forces on a front where a decision is not sought. Even on the defensive, the commander seeks every opportunity to seize the initiative and achieve decisive results by offensive action.

5-5. Principle of Mass
Superior combat power must be concentrated at the critical time and place for a decisive purpose. Superiority results from the proper combination of the elements of combat power. Proper application of the principle of mass, in conjunction with the other principles of war, may permit numerically inferior forces to achieve decisive combat superiority.

5-6. Principle of Economy of Force
Minimum essential means must be employed at points other than that of the main effort. This principle is the reciprocal of the principle of mass. Economy of force does not imply husbanding, but the measured allocation of available combat power to the primary task as well as to supporting tasks, such as limited attacks, defense, cover and deception, or even retro-
grade action, to insure sufficient combat power at the point of decision.

5-7. Principle of Maneuver
Maneuver is an essential ingredient of combat power. It contributes materially in exploiting successes and in preserving freedom of action and reducing vulnerability. The object of maneuver is to dispose a force in a manner that places the enemy at a relative disadvantage and thus achieves results that would otherwise be more costly in men and materiel. Successful maneuver requires flexibility in organization, combat service support, and command and control. It is the antithesis of permanence of location and implies avoidance of stereotyped patterns of operation.

5-8. Principle of Unity of Command
The decisive application of full combat power requires unity of command. Unity of command obtains unity of effort by the coordinated action of all forces toward a common goal. While coordination may be attained by cooperation, it is best achieved by vesting a single commander with the requisite authority.

5-9. Principle of Security
Security is essential to the preservation of combat power. Security results from the measures taken by a command to protect itself from espionage, observation, sabotage, annoyance, or surprise. It is a condition that results from the establishment and maintenance of protective measures that insure a state of inviolability from hostile acts or influences. Since risk is inherent in war, application of the principle of security does not imply undue caution and the avoidance of calculated risk. Security frequently is enhanced by bold seizure and retention of the initiative, which reduces the enemy’s capability to interfere.

5-10. Principle of Surprise
Surprise can decisively shift the balance of combat power. By surprise, success out of proportion to the effort expended may be obtained. Surprise results from striking an enemy at a time and place and in a manner for which he is unprepared. It is not essential that the enemy be taken unaware, but only that he becomes aware too late to react effectively. Factors contributing to surprise include speed, cover and deception, application of unexpected combat power, effective intelligence and counterintelligence (to include communications and electronic security), and variations in tactics and methods of operation.

5-11. Principle of Simplicity
Simplicity contributes to successful operations. Direct, simple plans and clear, concise orders reduce misunderstanding and confusion. Other factors being equal, the simplest plan is preferred.

Section II. COMBAT POWER

5-12. General
a. Combat power is a combination of the physical means available to a commander and the moral strength of his command. It is significant only in relation to the combat power of the opposing forces. In applying the principles of war, the development and application of combat power are essential to decisive results.

b. The development of combat power relates directly to the principles of mass and economy of force. The application of combat power is qualified by the intelligent application of the remaining principles of war.

c. The degree of combat power attained reflects the commander’s imaginative planning and leadership and the organization, training, and discipline of his forces as well as their morale, esprit de corps, available firepower, mobility, communications, condition of equipment, and status of supply. The successful application of combat power requires vigorous execution.

5-13. Fire Support
a. The availability and proper use of fire support are important factors in the application of combat power. Supporting fires are
used to neutralize or destroy those targets that are most likely to hinder accomplishment of the mission. They provide a commander with a powerful means of rapidly influencing the course of battle; of adding depth to the battlefield by using counterfires and by attacking hostile reserves and rear installations; and of isolating the battlefield by restricting the enemy’s movement in rear areas and by disrupting his command, control, and transportation facilities.

b. At each echelon of command, the plan for employment of fire support must be integrated with the plan for employment of the maneuver elements. These combined plans must insure the application of appropriate combat power and the responsiveness of fire support to the requirements of the maneuver elements.

c. The types of fires are as indicated in (1) through (4) below.

(1) Nuclear fires provide the commander his most powerful fire support means. They are available in a wide range of yields. A nuclear airburst produces blast, thermal radiation, and nuclear radiation and will probably produce induced residual radiation. Surface bursts produce the same effects to a lesser extent and also produce radioactive fallout, which creates large areas of radiological contamination. Surface and upper air winds in the vicinity of the target area, along with the weapon yield, determine the extent and shape of the fallout pattern. Governing considerations in the use of a surface burst are—

(a) The effect on enemy personnel and mobility.

(b) Danger or friendly forces and restriction of mobility.

(c) The effect on the civilian populace and its attitude toward friendly forces.

(2) High-explosive fires are used separately or to complement nuclear fires. High-explosive fires vary from mortar rounds to aerial bombs of several tons. High-explosive fires produce their effects through blast and fragmentation.

(3) Incendiary fires are effective against personnel and many types of materiel and installations. These munitions are used separately or to supplement other fires.

(4) Biological and chemical agents can be used to achieve casualty effects when nuclear fires are not used or, like high-explosive fires, to complement nuclear fires. Chemical agents can be employed against personnel without destroying materiel and facilities. Casualties vary from immediate to delayed and from lethal to mild incapacitation. Biological and chemical agents can be employed against personnel well protected from other fires.

d. Supporting fires may be delivered by a number of means, which are discussed in (1) through (6) below.

(1) Guided missiles generally are restricted to the delivery of nuclear fires. Missiles are less vulnerable to weather and enemy countermeasures than manned aircraft. Guided missiles vary in range, accuracy, velocity, and vulnerability to weather and enemy countermeasures.

(2) Free rockets are capable of delivering high-explosive, chemical, and nuclear fires. These missiles are generally characterized by higher mobility, less accuracy, and less range than guided missiles.

(3) Cannons are capable of delivering all types of fires. They are characterized by flexibility in employment, accuracy, the ability to shift fires quickly, a high rate of sustained fire, and the ability to mass large volumes of fire from dispersed positions under all conditions of weather and terrain. Cannons have restricted mobility in difficult terrain, relatively short ranges, and comparatively heavy tonnage requirements for ammunition.

(4) Mortars have capabilities similar to cannons. They differ from cannons primarily in their higher trajectory, shorter minimum and maximum ranges, and greater volume of fire per tube. They are readily moved by air and can be emplaced in positions inaccessible to ground vehicles. They are useful in providing large volumes of fire in support of combat forces.

(5) Manned aircraft are capable of delivering all types of fires. Their ability to attack
from any direction and to establish visual contact with the target provides great flexibility in delivery. Aircraft are limited, however, by vulnerability to enemy countermeasures, adverse weather conditions, and delivery errors inherent in some munitions. Since they are not always under the operational control of the ground force commander, they may not be completely responsive to his requirements.

(6) Certain air defense artillery weapons can be used in the surface-to-surface role. Diversion from their primary role of air defense is dependent on the air defense situation.

Section III. RELATED FACTORS

5-14. General

Certain factors bear directly on combat power. When properly applied, and in consideration of the principles of war, these factors insure full development and decisive application of combat power.

5-15. Terrain

a. Terrain is an important factor in the application of combat power. Proper utilization of terrain—
   (1) Provides observation while denying this opportunity to the enemy.
   (2) Creates favorable opportunities for the employment of weapons to generate maximum combat power.
   (3) Provides cover and assists in concealing the activities of the friendly force, thereby contributing to its security.
   (4) Assists in the development of mass through economy of force.
   (5) Provides the lines of communications essential to decisive maneuver and the support thereof.
   (6) Can force the enemy to operate in unfavorable areas.
   (7) Provides favorable avenues of approach for offensive operations.
   (8) Permits the commander to control the battle.

b. The significance of terrain varies with the echelon of command and the nature of the operation. The commander evaluates the terrain in conjunction with his mission and seeks to use the terrain to his advantage.

c. The control of high ground permits observation over the surrounding area and denies such observation to the enemy. It provides favorable positions for line-of-sight weapons. It is also significant in view of the line-of-sight characteristics of modern communications and electronic surveillance equipment. The occupation of high ground usually places the friendly force in a favorable tactical position in relation to the enemy. Control of high ground is not necessarily dependent on its occupation. Under suitable conditions, high ground may be neutralized or denied the enemy by fire or by the employment of chemical agents, radiological effects, and smoke.

d. Such major barriers as rivers, lakes, mountains, forests, and swamps exert a significant influence on military operations. Cross compartments interfere with the progress of offensive operations and generally favor the defense. Obstacles, including those artificially created, may form barriers and permit defense with minimum forces, while forcing the attacker to develop greater relative combat power. Conversely, favorable avenues of approach facilitate offensive action and permit the application of combat power through maneuver.

e. The significance of terrain in counterguerrilla operations differs from that in operations against regular forces. In the latter, the defender places greater importance on high ground, observation, and long-range fields of fire. The guerrilla, however, places greater importance on cover, concealment, and restrictions of terrain and seeks to take advantage of these. Generally, the counterguerrilla force must orient operations on the guerrilla rather than on the seizure of particular terrain.

f. Tactical use of terrain in a nuclear environment may vary from that in a nonnuclear environment where only conventional weapons are used. A detailed discussion of the influence of terrain on nuclear weapon effects is found in FM 101-81-1.
5-16. Government and Population

a. The attitude, behavior, structure, and disposition of the government and population of a theater (area) of operations are important considerations in the application of combat power. Ideological, cultural, religious, and governmental patterns affect the planning and execution of military operations and have a direct bearing on military requirements and the utilization of military resources.

b. The presence or absence of hostile attitudes may affect the disposition of combat and combat support forces and the requirement for their use in a rear area security role. Apathy, indifference, doubt, or suspicion, as opposed to a spirit of cooperation, adversely affect the availability and reliability of intelligence information and the use of local labor and resources.

c. Population disposition and densities may adversely affect the fire plan, particularly the use of nuclear, biological, and chemical weapons. The impact of mass civilian casualties and refugee columns may seriously impede the conduct of military operations.

5-17. Climate and Weather

a. Climate and weather have a significant effect on all types of military operations. Weather affects observation, trafficability, control, performance of personnel, functioning of materiel, air support, and the range and effects of weapons. Both climate and weather affect combat service support requirements. As with terrain, the commander seeks to take advantage of climate and weather in developing and applying combat power in the pursuit of his objectives.

b. Information on current weather conditions and climatology in the operational area is provided by the Air Weather Service to assist the commander in operational planning. Small, mobile weather support teams are normally attached to units of division size or larger to provide this service.

5-18. Coordination and Control

a. The effective application of combat power requires full coordination of effort throughout all echelons. Coordination is a basic function of command and is particularly significant in deriving full advantage from fire and maneuver. Coordination of all fire support means insures the maximum benefit from available firepower resources and enhances the effectiveness of maneuver.

b. Coordination of effort requires adequate means of control. The various control means applied by commanders to insure the maximum efforts of the command are directed toward the rapid and economical accomplishment of the mission. Control means available to commanders include—

(1) 

Orders. Orders must be timely, simple, clear, and concise. Mission-type orders are used to the greatest practicable extent and should provide the commander's concept or intent to insure that subordinate commanders, acting on their own initiative, direct their efforts to attainment of the overall objective. Issuance of warning or fragmentary orders permits subordinate commanders time for planning and preparation. Liaison officers are used, when required, to insure that orders are understood or that coordination is accomplished.

(2) Communications. Signal communications must be flexible and capable of supporting maximum operational requirements. Provision of communications support is based on such fundamental principles and considerations as reliance on alternate signal means and locations, restriction of signal means to uses for which intended, and maximum communications security. Increasing use of equipment generating electromagnetic radiation necessitates the establishment of priorities for specific needs and a command decision in cases of frequency incompatibility.

(3) Command and control facilities. Command posts form the nerve centers of all units and provide physical facilities for exercise of control. Command posts must be mobile, capable of continuous operation, and secure from enemy action. The location of command posts must facilitate communications with higher, adjacent, and subordinate headquarters.

C. Other measures employed by the commander in maintaining control are—

(1) Objectives. Objectives are assigned to provide unity of effort, to phase an operation,
or to facilitate a change in direction. Objectives assigned should be easily identified. Their destruction or capture must be possible within the time and space limitations imposed and must be within the capability of the force to which they are assigned.

(2) Phasing. At the higher echelons of field command—corps and field army—it is normal to phase operations based on the expected duration, complexity, the friendly or enemy situation, terrain, or the scope of the mission. A phase is a distinct period of an operation, at the conclusion of which the nature and characteristics of the action change. As an aid in planning and controlling an operation, phasing is used to simplify a lengthy action. Phasing is normally necessary when a commander is unable to visualize the operation through its completion or contemplates a major organizational change. Phasing of an operation may be described in terms of time (e.g., preparatory fire phase), distance (e.g., attainment of an intermediate objective or phase line), terrain (e.g., crossing of an obstacle), or the occurrence of a specific event (e.g., commitment of the reserve).

(3) Phase lines. Phase lines are established to control progress of units, to coordinate an operation, and to assist in executing contingency plans. Phase lines are normally keyed to easily recognizable terrain features.

(4) Checkpoints. Checkpoints are useful for orientation and for making situation reports in the clear. Checkpoints may be used to supplement phase lines or in lieu of phase lines.

(5) Boundaries. Boundaries are used to fix area responsibility, delineate areas of operations, and assist in the coordination and control of fires and maneuver. Boundaries extend forward to the depth required to coordinate fires and to depict the proposed plan of maneuver. Boundaries are extended rearward to the extent necessary to insure sufficient maneuver room for the force and adequate space for combat support and combat service support units.

(6) Axis of advance. An axis of advance is a line of advance assigned for purposes of control; often it is a road or a group of roads or a designated series of locations extending in the direction of the enemy. A commander assigned an axis of advance may maneuver his troops and supporting fires freely to either side of the assigned axis to bypass obstacles or to engage or bypass enemy units, providing such maneuver does not interfere with adjacent units and the unit remains oriented on its objective. The commander of a force advancing on an axis must inform higher headquarters of any deviation from the axis.

(7) Direction of attack. A direction of attack indicates the specific route along which the commander issuing the order wants a subordinate commander to center his main attack. The unit is restricted and required to attack as indicated and is not normally allowed to bypass the enemy. Because the direction of attack is a restrictive control measure, it should be used only when necessary. The direction of attack is used primarily in counterattacks or to insure that a supporting attack makes the maximum contribution to the main attack.

(8) Fire support coordination line (FSCL). The FSCL is a line established by the appropriate ground commander, normally the corps commander, to insure coordination of fire not under his control, but which may affect current tactical operations. The FSCL should follow well-defined terrain features. The establishment of the FSCL is normally coordinated with the appropriate tactical air commander and other supporting elements.

(9) Fire coordination line. The fire coordination line is a line between two forces beyond which fire may not be delivered without coordination with the affected forces.

(10) No-fire line. The no-fire line is a line short of which artillery units or ships do not fire except on request of the supported commander, but beyond which they may fire at any time without danger to friendly troops.

(11) Contact point. In land warfare, the contact point is an easily identifiable point on the terrain, where two or more units are required to make contact.

(12) Coordinating point. The coordinating point is a designated point at which, in all types of combat, adjacent units or formations must make contact for purposes of control and coordination.
5-19. Vulnerability and Risk

a. Vulnerability is the susceptibility of a force to damage by enemy action. The extensive area of destruction resulting from nuclear weapon attack requires special attention to the reduction of vulnerability. Such measures as deception, dispersion, cover, concealment, movement, speed of reaction, electronic countermeasures, air defense, counterbattery fires, intelligence, and control may assist in reducing vulnerability. However, measures to reduce vulnerability to one form of attack may increase vulnerability to other forms of attack. They may also detract from the effectiveness of the force and endanger accomplishment of the mission. Dispersion increases vulnerability to infiltration and defeat in detail. Mobility and the offensive are effective means of reducing vulnerability.

b. Risk is inherent in war and is involved in every mission. Risk also is related to gain; normally, greater gain involves greater risk. Risk is common to both action and inaction. In a nuclear war, the destructive power of nuclear weapons multiplies the magnitude of both risk and gain, and the consequences of mistakes are greater. Although the commander avoids unnecessary risks, accomplishment of the mission is his most important consideration. He carefully evaluates each course of action in terms of relative vulnerability and risk. If the risks are unacceptable, he must revise the plan. The commander must recognize risks to be assumed by subordinate commanders in accomplishing their missions.

Section IV. SUBSIDIARY AND SUPPORTING OPERATIONS

5-20. General

Certain subsidiary and supporting operations are significant in relation to all types of military operations. Subsidiary operations are designed to support the basic operation and to contribute to the development and application of combat power.

5-21. Civil Affairs Operations

a. General. The military commander employs civil affairs (CA) operations to obtain essential civilian cooperation and support or to reduce civilian interference with his assigned mission. CA operations involve the relationship between the military forces and the civilian authorities and population of the country or area in which these forces are employed. CA operations may involve the performance by military forces of some or all of the functions normally performed by civil government.

b. Capabilities and Limitations. CA operations are employed to insure maximum utilization, within limits set by national or theater policy, international agreement and the laws of land warfare, of local resources, including materiel, facilities, and labor. They enhance rear area protection with minimum diversion of combat forces by promoting effective relationships with the local authorities and people to reduce subversion, espionage, sabotage, and guerrilla activity. These hostile activities pose a major threat or problem to a modern army when they are supported, actively or passively, by a significant fraction of the local population. CA operations alone cannot accomplish all these objectives, but are dependent on successful accomplishment of psychological operations (PSYOP), intelligence, and counterintelligence activities, other rear area protection measures, and the attitude and conduct of all U.S. and allied military personnel toward the civilian populace.

c. Support of the Field Army. CA operations are designed to utilize resources available from civilian communities and to reduce the problems caused by refugee movements, civilian mass casualties, and the requirements of international law for the provision of minimum requirements of civilian supply and the protection and treatment of noncombatants.

d. Support of Unconventional Warfare Operations. During the later stages of UW operations, CA personnel may be introduced into unconventional warfare operational areas to assist Special Forces personnel in the conduct of civil-military relationships. As friendly forces assume control over these operational areas,
CA personnel assist in the procurement of local supplies and facilities, the recruitment of personnel, the demobilization and rehabilitation of former guerrillas, and the preparation of the local population for self-government. CA personnel assist intelligence agencies in the gathering of information.

e. Support of Cold War and Stability Operations. CA activities in support of cold war and stability operations are discussed in chapters 12 and 13, respectively.

f. References. For additional details on CA operations, see FM 41–5 and FM 41–10.

5–22. PSYOP

a. General. The military commander conducts PSYOP as a coordinated element of strategy to influence the attitude and behavior of the people in ways that will help accomplish his mission. The lines of persuasion he employs must be carefully selected to contribute to the military objective and must be consistent, timely, and credible. Accordingly, he coordinates these lines with other agencies of government and with related activities of the command, including cover and deception, counterintelligence, communications security, censorship, command information, character guidance, public information, community relations, and CA. The effects of PSYOP are cumulative. PSYOP are planned and coordinated to support all operations. For detailed discussion of PSYOP, see FM 33–1 and FM 33–5.

b. Propaganda and Psychological Measures. PSYOP include the planned and directed use of propaganda and psychological measures to influence people so that they will behave in the desired manner. Propaganda is any form of communication designed to influence the opinions, emotions, attitudes, or behavior of any group, in order to benefit the sponsor either directly or indirectly. It is prepared and disseminated by PSYOP units, assisted by other elements of the command as directed. Psychological measures are military, political, economic, and social actions, that are conducted primarily for their psychological impact to assist in accomplishing the command mission.

c. Capabilities and Limitations. PSYOP are conducted to reduce the morale and combat efficiency of enemy troops and to promote dissatisfaction and defection. They may be used also to assist in stabilizing the civil population to preclude interference with tactical operations. They support the cover and deception plan. They are employed to abet and coordinate resistance against a hostile regime, to influence neutrals, to sustain the morale of allies, and to counter enemy subversion and propaganda. They cannot by their own force accomplish military objectives; they can only support accomplishment of objectives. Their employment is limited by security requirements, policy restrictions, inadequacies of communications media, language barriers, prejudices of the audience, and enemy countermeasures. Many of these limitations are overcome by farsighted measures based on effective specialized intelligence and evaluation.

d. Support of the Field Army. PSYOP in support of the field army are designed primarily to reduce the combat effectiveness of enemy forces and must be immediately responsive to the tactical situation. Operations are mobile and decentralized and provide direct support to tactical units. Psychological opportunities, determined through the continuous evaluation of intelligence are quickly exploited. Close cooperation and coordination are required between operations, intelligence, and PSYOP staff officers to insure maximum effectiveness.

e. Support of Unconventional Warfare Operations. PSYOP support all phases of unconventional warfare. Prior to the infiltration of Special Forces teams, PSYOP originate outside the planned operational area and are employed to create and develop resistance. Following the infiltration of Special Forces teams, these operations are supplemented by the PSYOP conducted by guerrilla forces. Specially trained propaganda teams may be infiltrated to assist operations of resistance elements. During exploitation and consolidation, PSYOP may assist CA efforts to insure an orderly transition, culminating in the demobilization of guerrilla forces and the establishment of a stable government.

f. Support of CA Operations. CA operations are supported by PSYOP to promote maximum
cooperation from the civil populace. In areas subject to enemy subversion, PSYOP in support of a friendly government are one of the first effective means that the military commander has for maintaining stability. During hostilities, PSYOP help to prevent espionage, sabotage, and enemy unconventional warfare operations.

★g. Support of Cold War Operations. In cold war, PSYOP assist in achieving the force objective and are conducted to win the support of the population. Unobtrusive demonstration of military power, efficiency, good will, and sincere interest in mutual security are some of the activities which may be conducted in support of cold war operations. PSYOP are undertaken in close coordination with the civilian agencies of government and public information media. Indigenous military forces are trained and assisted in operations designed to counter enemy subversion and gain public support. Details on PSYOP support of cold war operations are contained in chapter 12.

h. Support of Stability Operations. PSYOP support of stability operations is discussed in chapter 18.

5-23. Electronic Warfare Operations

Electronic warfare (EW) is that division of the military use of electronics involving actions taken to prevent or reduce an enemy's effective use of radiated electromagnetic energy and actions taken to insure effective friendly use of radiated electromagnetic energy. EW also involves actions taken to search for, intercept, locate, record, and analyze enemy radiated electromagnetic energy for the purpose of exploiting such radiations in support of military operations. This EW information is used for threat detection, warning, avoidance, target acquisition, and homing. EW is an integral part of operations. It can reduce the enemy commander's control by impairing or denying his means of communications and use of electronic emitters at a critical time, or it can mislead him by transmitting deceptive data. Tactical commanders conduct EW in conjunction with fire and maneuver to accomplish their missions. Commanders of unified and specified commands are responsible for planning and conducting EW operations in support of objectives, missions, and tasks assigned by Joint Chiefs of Staff (JCS). Authority to employ electronic countermeasures (ECM) may be delegated to subordinate commanders of unified and specified commands or joint task forces. Commanders at all echelons have authority to employ electronic support measures (ESM) and electronic counter-countermeasures (ECCM). Army tactical commanders exercise operational control over all assigned and attached EW resources.

5-24. Denial Operations and Barriers

a. General. A denial operation is designed to prevent or hinder the enemy's use of or benefit from an area, personnel, facilities, or materiel. Denial operations are basically strategic in concept. A barrier is a coordinated series of obstacles designed or employed to canalize, direct, restrict, delay, or stop the movement of an opposing force and to impose additional losses in personnel, time, and equipment on the opposing force. Barriers are basically tactical in concept. Both denial operations and barriers have as their common objective reduction of the rate of advance and diminution of the combat power exerted by the enemy against friendly forces.

b. Denial Operations. Denial operations are designed to prevent or hinder enemy occupation of, or benefit from, areas or objects having strategic value. The theater commander establishes policies governing denial operations in the theater and delegates planning and execution to the Service component commanders and to subordinate joint force commanders. The conduct of denial operations in the combat zone is based on theater denial policies and plans. Denial operations may vary in scope from those of a "scorched earth" policy to those that place a temporary limitation on enemy use of an area or facility. Denial targets of tactical significance usually are assigned to the tactical commanders (divisions) for preparation and execution and include such targets as major bridges, tunnels, and dams. Other types of denial targets, such as industrial plants, airfields, and ports, may be assigned to special engineer demolition teams or to other special units operating under the control of field army or higher headquarters. General and special staff responsibilities for denial operations are similar to those for the employment of barriers, wherein the G3 has primary general staff responsibility and the engineer special staff responsibility. In retrograde operations, engineer units support tactical units by planning, preparing, and executing denial targets—usually demolition—with conventional explosives or atomic demolition munitions. All troops participate in certain aspects of denial operations by destroying or removing organic equipment and supplies to prevent capture.

c. Barriers.

(1) The basic principle underlying the em-
Employment of barriers in tactical operations is that of augmenting the combat effectiveness of available forces to the maximum extent. The employment of barriers is not restricted to any one type of tactical operation nor to any one type of barrier. Barriers may incorporate the use of chemical agents when authorized. Although barriers are defensive by nature and have their greatest application in defensive and retrograde operations, they can be gainfully employed in the offensive. Skillful knitting of natural and artificial obstacles into barriers changes the military characteristics of the terrain, increases the commander's chances of gaining relative superiority in mobility, achieves, security and economy of force, and permits more effective massing of combat power for offensive action. Well-designed and well-located barriers compel the enemy either to concentrate his forces to break the barriers—thus presenting a lucrative target to friendly nuclear and nonnuclear fires—or to bypass the barriers.

★ (2) On the battlefield, the commander will seldom have enough time, labor, materials, transportation, or equipment to construct all the obstacles he desires. This is particularly true in the defense because of the requirements generated by construction of field fortifications, organization of the ground, combat service support operations, and related tasks. As an example, to assist in meeting these requirements, the commander should consider use of aerially delivered mines.

★ (3) An overall priority must be accorded the barriers, and individual obstacles must be given an order of priority for construction. Priorities are generally determined on the basis of a particular obstacle's contribution to accomplishment of the unit's mission. Generally, these priorities are from front to rear, with initial efforts directed toward the placing of obstacles to protect a critical flank, block likely enemy avenues of approach, or deny access to certain key terrain. All obstacles must be under friendly observation, covered by fire and integrated into the unit's fire support plan to be fully effective.

★ (4) In the forward portions of the combat zone, personnel and materiel resources are normally committed almost exclusively to the tasks of combat and combat support. An ideal barrier is therefore rare, except where natural obstacles are completely effective in themselves or require little improvement or augmentation with artificial obstacles. Extensive barriers are necessary in the rear portion of the combat zone to block deep enemy penetrations or envelopments, to assist in forming massed enemy targets, and to provide space for the timely employment of counterattack forces.

★ (5) In planning the employment of barriers, sufficient fire-protected, obstacle-free areas must be provided to insure that essential movements of friendly forces in the battle area, execution of counterattacks, and combat service support activities are not unduly impeded.

d. References. Additional details on denial operations and barriers are contained in FM 31–10.

★5–25. Tactical Cover and Deception

a. Tactical cover and deception contribute to security and surprise and enhance the likelihood of operational success by misleading the enemy and causing him to react in a manner advantageous to the friendly force. Tactical cover and deception may be used to compensate for relatively inferior combat power and to permit economical use of men, materiel, and time. The commander employs tactical cover and deception to disguise or conceal his true dispositions, capabilities, and intentions, and to further his passive air defense effectiveness.

g. Tactical cover and deception plans are an
integral part of all operational planning. In developing these plans, the commander must visualize and understand the enemy viewpoint, and he must take into consideration the impact on his own operations should the deception fail. The plans adopted must be such that, if unsuccessful, they will not cause the operation to fail. Coordination of tactical cover and deception plans with higher, adjacent, and lower units is essential to insure against compromise of other operational or deception plans.

c. All units undertake measures to conceal their positions and operations from enemy visual, photographic, sonic, and electronic detection. Technical assistance in the planning and execution of tactical cover and deception may be provided by specially trained units available in the field army.

d. For detailed discussion of tactical cover and deception, including levels of authority, see FM 81-40.

5-26. Interdiction

a. The purpose of interdiction is to deny or hinder enemy use of areas or routes. Successful interdiction restricts enemy movement and interferes with the command and control of his forces. It hinders or prevents enemy movement into, out of, or within the commander's area of interest. It contributes to security by preventing sudden and unfavorable changes in relative combat power.

b. Interdiction is accomplished by the use of fires, combat troops, guerrilla forces, and denial operations and barriers. Chemical agents and high-yield nuclear weapons provide an area-interdiction capability against large, poorly defined targets.

c. A successful interdiction effort is characterized by thorough and imaginative planning, timely and accurate intelligence, and coordinated execution. Continuous surveillance of the area of interdiction is necessary to assess the effectiveness of the effort and to develop new targets. The enemy may be expected to adopt measures designed to thwart the interdiction effort. The availability of resources and the capability of weapon systems will rarely permit complete interdiction. The application of resources to interdiction must be weighed against the overall requirements of the mission.

d. Interdiction plans must be designed to insure timely contribution to accomplishment of the mission and must concentrate on targets that have a significant effect on the combat power of the enemy forces directly opposing the command concerned. Each successively higher echelon focuses its interdiction effort at a greater range. Higher echelons integrate and expand the interdiction effect of subordinate elements.

5-27. Battlefield Illumination

Battlefield illumination is the lighting by artificial means of the zone of action of ground combat and combat support troops. The principal requirement for battlefield illumination is to overcome the limitations imposed on friendly forces by the absence of light. The following principles apply:

a. The use of battlefield illumination is a command responsibility.

b. Battlefield illumination in support of friendly forces should be provided wherever and whenever needed, in the intensity of illumination required, and throughout the period of time required.

c. Battlefield illumination should, wherever possible, be provided by an independent source of illumination to allow units full use of their weapons.

d. Illumination should be provided by the highest level practicable to conserve the illuminants available to lower echelons.

e. Each ground unit engaged in combat that has a specific need for illumination should have organic means sufficient to meet its normal illumination requirement until this mission can be assumed by a higher echelon.

f. Alternative means of illumination should be provided, if available.

g. All battlefield illumination must be coordinated to prevent disclosure to the enemy of the operations of adjacent friendly units. Coordination will normally be accomplished by the commanders having operational control of the illumination means and may necessitate restrictions being placed on the units' organic means.
h. Once artificial daylight is provided supported troops, it should continue without interruption until the need for illumination is satisfied. This type of illumination completely eliminates night vision and, if interrupted, renders supported troops incapable of seeing until night vision is restored.

i. The habitual use of battlefield illumination under any given circumstances may tend to reveal prematurely the intention of friendly forces. Care must be exercised to prevent establishing a set pattern of operational procedures. Conversely, the use of illumination techniques as part of deception plans may be profitable on occasion.

j. Battlefield illumination should be planned and coordinated with the use of infrared equipment in such a way that no damage will be caused to the infrared equipment by exposure to direct, intense white light; that it will be reduced to the minimum when infrared operations are being conducted; and that rapid changes from infrared to battlefield illumination, or vice versa, can be performed.

k. For additional details on battlefield illumination, see FM 20–60.