FM 100-15

CORPS OPERATIONS

Headquarters, Department of the Army

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CONTENTS

PAGE

PREFACE xii
INTRODUCTION xiii
CHAPTER 1 THE CORPS 1-1
THE CORPS' ROLE IN OPERATIONS 1-1
The Corps as Part of a Larger Ground Force 1-3
The Corps as a JTF Headquarters 1-3
The Corps as the ARFOR or JFLCC Headquarters 1-4
ORGANIZATION OF THE CORPS 1-5
Corps Headquarters 1-5
Corps Units 1-7
Divisions 1-7
Light Infantry Divisions 1-7
Armored and Mechanized Infantry Divisions 1-7
Airborne Division 1-7
Air Assault Division 1-8
Separate Maneuver Brigades 1-8
Armored Cavalry Regiment (ACR) 1-8
Aviation Brigade 1-8
Corps Artillery 1-9
Military Intelligence (MI) Brigade 1-9
Engineer Brigade 1-9
Air Defense Artillery (ADA) Brigade 1-9
Signal Brigade 1-9
Chemical Brigade 1-10
Military Police (MP) Brigade 1-10
Civil Affairs (CA) Brigade 1-10
Psychological Operations (PSYOP) Tactical Support Battalion 1-10
Corps Support Command (COSCOM) 1-10

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Finance Group 1-11
Personnel Group (PG) 1-11
JOINT FORCE CAPABILITIES 1-11
US Air Force 1-11
US Navy 1-12
US Marine Corps 1-12
Special Operations (SO) 1-13
CHAPTER 2 FUNDAMENTALS OF CORPS OPERATIONS 2-1
FORCE PROJECTION 2-1
BATTLEFIELD VISUALIZATION 2-1
BATTLEFIELD FRAMEWORK 2-3
Area of Operations (AO) 2-3
Area of Interest (AI) 2-3
Battle Space 2-4
Organizing the Battlefield 2-4
Deep Operations 2-5
Close Operations 2-6
Rear Operations 2-7
BATTLEFIELD OPERATING SYSTEMS (BOS) 2-8
Intelligence 2-8
Maneuver 2-11
Armored and Mechanized Infantry 2-11
Light Forces 2-12
Reconnaissance and Security 2-12
Aviation 2-13
Fire Support 2-15
Field Artillery (FA) 2-15
Electronic Attack (EA) 2-16
Air Support 2-16
Weapons of Mass Destruction 2-18
Nuclear Weapons 2-18
Nuclear Mitigation Techniques 2-19
Biological Weapons 2-19
Chemical 2-19

Joint Suppression of Enemy Air Defense (J-SEAD) 2-19
Air Defense (AD) 2-19
Mobility and Survivability 2-21
Combat Service Support (CSS) 2-23
Command and Control (C^2) 2-24
SPECIAL OPERATIONS FORCES (SOF) 2-25
Special Reconnaissance 2-25
Direct Action 2-25
Unconventional Warfare (UW) 2-25
Foreign Internal Defense (FID) 2-26
Psychological Operations (PSYOP) 2-26
Civil Affairs Operations 2-27
PUBLIC AFFAIRS (PA) 2-28
CHAPTER 3 THE CORPS IN FORCE-PROJECTION OPERATIONS 3-1
MOBILIZATION 3-3
PREDEPLOYMENT ACTIVITY 3-4
DEPLOYMENT 3-6
Unit Preparation 3-7
Movement to Ports of Embarkation 3-8
Strategic Lift 3-8
Reception at Ports of Debarkation 3-9
Onward Movement 3-9
ENTRY OPERATIONS 3-9
Examples of Forcible Entry Operations 3-10
Types of Forcible Entry Operations 3-11
Phases of Forcible Entry Operations 3-12
Planning, Preparation, and Deployment 3-12
Assault 3-15
Force Buildup 3-16
Stabilization of the Lodgement 3-16
Follow-On Forces 3-16
Transition 3-17
OPERATIONS 3-17
WAR TERMINATION AND POSTCONFLICT OPERATIONS 3-17

War Termination. 3-17
Postconflict Operations. 3-17
REDEPLOYMENT AND RECONSTITUTION. 3-17
Redeployment. 3-17
Reconstitution. 3-18
DEMOBILIZATION 3-18
CHAPTER 4 BATTLE COMMAND 4-1
THE COMMANDER'S ROLE 4-1
Tenets of Army Operations 4-3
Initiative 4-3
Agility. 4-3
Versatility. 4-5
Tempo 4-5
Split-Based Operations. 4-5
ORGANIZATION 4-6
Command Group (CG). 4-6
Tactical Command Post 4-7
Main Command Post 4-8
Command Post Headquarters Cell. 4-9
Current Operations Cell. 4-9
Plans Cell 4-10
Intelligence Cell. 4-10
Fire Support Cell 4-10
Corps Deep Operations Coordination Cell 4-10
Combat Service Support Cell 4-11
Command and Control Warfare (C^2W) Cell. 4-11
Rear Command Post. 4-12
Rear CP Headquarters Cell 4-12
Rear CP Operations Cell 4-13
Rear CP CSS Cell 4-13
Assault Command Post. 4-13
Future Battle Command Support Centers 4-13
BATTLE COMMAND EXECUTION. 4-15
Communications and Automation Systems 4-15

Planning, Executing, and Coordinating Operations 4-18
Planning. 4-18
Executing. 4-19
Coordinating 4-19
JOINT BATTLE SYNCHRONIZATION. 4-20
The Battlefield Coordination Element (BCE). 4-20
Corps Staff and Joint Service Interface. 4-21
Joint Task Force Operations 4-23
Joint Staff Directorates 4-25
J1, Manpower and Personnel Directorate 4-25
J2, Intelligence Directorate. 4-25
J3, Operations Directorate 4-25
J4, Logistics Directorate. 4-26
J5, Plans Directorate. 4-26
J6, Command, Control, Communications, and Computer Systems Directorate. 4-26
Joint Special Operations 4-27
Command and Control 4-27
Joint Fires 4-28
CORPS MULTINATIONAL OPERATIONS. 4-29
INTERAGENCY OPERATIONS 4-31
ARMY AIRSPACE COMMAND AND CONTROL (A^2C^2). 4-32
COMMAND AND CONTROL WARFARE (C^2W) 4-34
Counter C^2 4-34
C^2 Protection 4-35
HAPTER 5 OFFENSIVE OPERATIONS 5-1
FUNDAMENTALS OF CORPS OFFENSIVE OPERATIONS 5-1
Characteristics of the Offense 5-1
Surprise 5-1
Concentration 5-1
Tempo 5-2
Audacity 5-2
Forms of Tactical Offense. 5-2
Movement to Contact 5-2
Attack 5-4

Hasty Attack 5-5
Deliberate Attack 5-5
Exploitation 5-5
Pursuit 5-6
Forms of Maneuver 5-7
Frontal Attack 5-7
Envelopment 5-7
Penetration 5-8
Turning Movement 5-10
Infiltration 5-10
Special Purpose Operations 5-11
PLANNING CORPS OFFENSIVE OPERATIONS 5-12
Operations in Depth 5-12
Organization of the Offense 5-12
Deep Operations 5-12
Reconnaissance and Security Operations 5-13
Main and Supporting Attacks 5-14
Reserve Operations 5-14
Rear Operations 5-15
PREPARING FOR CORPS OFFENSIVE OPERATIONS 5-16
Intelligence 5-16
Maneuver 5-16
Fire Support 5-18
Air Defense 5-18
Mobility and Survivability 5-19
Combat Service Support 5-19
Command and Control 5-20
EXECUTING CORPS OFFENSIVE OPERATIONS 5-20
The VII Corps' Plan for Operation Desert Storm 5-20
VII Corps' Execution 5-20
TRANSITIONING TO THE DEFENSE 5-24
CHAPTER 6 DEFENSIVE OPERATIONS 6-1
FUNDAMENTALS OF CORPS DEFENSIVE OPERATIONS 6-1
Characteristics of the Defense 6-1

Preparation 6-1
Security 6-1
Disruption 6-2
Mass and Concentration 6-2
Flexibility 6-2
Forms of Defense 6-2
Mobile Defense 6-2
Area Defense 6-3
PLANNING CORPS DEFENSIVE OPERATIONS 6-3
Organization of the Defense 6-3
Security Force Operations 6-4
Screen Mission 6-4
Guard Mission 6-4
Cover Mission 6-4
Deep Operations 6-6
Close Operations 6-6
Mobile Defense 6-6
Area Defense 6-7
Reserve Operations 6-8
Rear Operations 6-9
PREPARING FOR CORPS DEFENSIVE OPERATIONS 6-9
Intelligence 6-9
Maneuver 6-9
Fire Support 6-11
Air Defense 6-11
Mobility and Survivability 6-11
Combat Service Support 6-12
Command and Control 6-12
EXECUTING CORPS DEFENSIVE OPERATIONS 6-13
TRANSITIONING TO THE OFFENSE 6-14
CHAPTER 7 RETROGRADE OPERATIONS 7-1
DELAY 7-2
WITHDRAWAL 7-3
RETIREMENT 7-4

CHAPTER 8 OTHER OPERATIONS 8-1
RIVER CROSSING 8-1
Offensive Crossing 8-1
Retrograde Crossing 8-3
ENCIRCLEMENT OF A FRIENDLY FORCE 8-3
Breakout Operations 8-5
Defend Encircled 8-5
Exfiltrate 8-6
ENCIRCLEMENT OF AN ENEMY FORCE 8-6
LARGE-UNIT MOVEMENT 8-7
RECONSTITUTION 8-10
PASSAGE OF LINES AND RELIEF IN PLACE 8-12
Passage of Lines 8-12
Forward Passage of Lines 8-13
Rearward Passage of Lines 8-13
Relief in Place 8-14
LINKUP OPERATIONS 8-15
CHAPTER 9 OPERATIONS OTHER THAN WAR (OOTW) 9-1
THE CORPS' SUITABILITY FOR OOTW 9-2
OPERATIONS OTHER THAN WAR PRINCIPLES 9-2
The Objective 9-2
Unity of Effort 9-3
Legitimacy 9-3
Perseverance 9-4
Restraint 9-4
Security 9-4
CORPS MISSIONS IN OOTW 9-5
Arms Control 9-5
Attacks and Raids 9-5
Combatting Terrorism 9-6
Disaster Relief 9-6
Humanitarian Assistance 9-6
Nation Assistance and Support to Counterinsurgency 9-6
Security Assistance 9-7

Foreign Internal Defense (FID) 9-7
Noncombatant Evacuation Operations (NEO) 9-7
Peace Operations 9-8
Peacekeeping Operations (PKO) 9-8
Peace Enforcement Operations (PEO) 9-8
Recovery Operations 9-8
Shows of Force 9-8
Support to Civil Authorities 9-9
Support to Counterdrug Operations 9-9
OOTW CONSIDERATIONS 9-9
Special Operations 9-10
Information Operations 9-10
Intelligence 9-10
Sharing Intelligence 9-11
Human Intelligence (HUMINT) 9-11
Maneuver 9-11
Fire Support 9-12
Air Defense 9-12
Mobility and Survivability 9-13
Combat Service Support 9-13
Funding 9-13
Transportation Services 9-13
Combat Health Support 9-14
Personnel Services 9-14
Resources Control 9-14
Legal Services 9-14
Battle Command 9-14
Command Considerations 9-15
Planning Considerations 9-15
CHAPTER 10 INFORMATION AGE TECHNOLOGIES AND CORPS OPERATIONS 10-1
A FUTURE BATTLE 10-1
FUTURE IMPROVEMENTS 10-2
BOS IMPLICATIONS 10-2
FUTURE APPLICATIONS 10-3

APPENDIX A CORPS TASK ORGANIZATION AND PLANNING CONSIDERATIONS A-1
CORPS TASK ORGANIZATION CONSIDERATIONS A-1
CORPS PLANNING CONSIDERATIONS A-2
US Air Force A-2
Theater Air Control A-2
Counter Air A-2
SEAD, J-SEAD, and Air Interdiction A-3
Close Air Support, Reconnaissance and Surveillance, and Airlift A-3
Airspace Command and Control A-4
US Navy and US Marine Corps A-4
Naval Surface Fire Support Considerations A-4
Supporting Naval Air Missions and Tasks A-5
Fleet Marine Forces (FMF) A-6
US Army A-9
Corps ADA Brigade A-9
Corps Aviation Brigade A-11
Corps Chemical Brigade and Battalion A-12
Corps Combat Service Support A-14
Corps Engineer A-19
Corps Field Artillery A-22
Corps Military Intelligence A-23
Corps Military Police A-24
Corps Signal Brigade (Mobile Subscriber Equipment) A-26
Special Forces (SF) A-27
Rangers A-27
Civil Affairs (CA) A-28
Psychological Operations (PSYOP) A-28
APPENDIX B COMMAND POST/CELL FUNCTIONS B-1
TACTICAL, MAIN, AND REAR COMMAND POSTS B-1
Tactical Command Post B-1
Main Command Post B-1
Headquarters Cell B-1
Current Operations Cell B-1
Plans Cell B-2

Command and Control Warfare Cell B-2
Intelligence Cell B-3
Fire Support Cell B-3
Deep Operations Coordination Cell B-3
Fire Support Cell B-3
Deep Operations Coordination Cell B-3
Combat Service Support Cell B-3
Rear Command Post B-4
Headquarters Cell B-4
Combat Service Support Cell B-4
Operations Cell B-4
ASSAULT COMMAND POST B-5
FORWARD AND REARWARD COMMAND POSTS B-5
Forward Command Post B-5
Rearward Command Post B-5
APPENDIX C REAR OPERATIONS C-1
REAR COMMAND C-1
TERRAIN MANAGEMENT C-1
SECURITY C-2
Intelligence C-2
Base and Base Cluster Self-Defense C-3
Response Force Operations C-4
Tactical Combat Force Operations C-5
Fire Support C-6
Air Base Defense C-6
SUSTAINMENT C-7
MOVEMENTS C-7
Tactical Movements C-7
Administrative Movements C-8
GLOSSARY ACRONYMS AND ABBREVIATIONS Glossary-1
REFERENCES References-1
INDEX Index-1

PREFACE

This manual is a guide for employing US Army corps in war and operations other than war (OOTW). It addresses corps combat operations and the integration and coordination of combat, combat support (CS), and combat service support (CSS) as well as other joint and multinational functions applicable to any theater. It discusses concepts and principles unique to the corps. However, except when necessary, it does not address specific tactics, techniques, or procedures (TTP).

The primary users of this manual are the corps commander and his staff, senior service and staff college students, major subordinate corps units, and echelons above corps (EAC). Sister service commanders and staffs will also find this manual useful in planning and conducting joint operations.

The manual is filly compatible with Field Manual (FM) 100-5 and is consistent with current joint and multinational doctrine. It assumes that the user has a fundamental understanding of the concepts in FM 100-5, FM 100-10, FM 101-5 (authorized draft (D)).

Field Manual 100-5, the primary US Army doctrinal manual, implements Allied Tactical Publication (ATP) 35-(B) (Standardization Agreement (STANAG) 2868). Field Manual 100-15 addresses US Army doctrine at the corps level and is filly compatible with ATP 35-(B) (STANAG 2868). It also complies with STANAGs 2079 and 2104 and Quadripartite Standardization Agreement (QSTAG) 189.

The proponent of this publication is Headquarters (HQ), US Army Training and Doctrine Command (TRADOC). Send comments and recommendations on Department of the Army (DA) Form 2028 directly to Commandant, US Army Command and General Staff College (CGSC), ATTN: ATZL-SWW-D, Fort Leavenworth, KS 66027-6900).

Masculine nouns and pronouns do not refer exclusively to men.

INTRODUCTION

During the European wars that followed the French Revolution, Napoleon gained a pronounced advantage over his opponents by grouping combined arms divisions into formations. These formations, called corps, were capable of dispersed maneuver and independent action. The speed, versatility, and agility of Napoleon's corps changed the nature of land warfare and forced other armies to adopt similar organizations. Since then, and in spite of vast changes in weapons and equipment, the corps has remained a standard unit in western armies.

Corps have been important in US Army operations since the Civil War when Generals Sherman, Thomas, Jackson, and Longstreet made their names as corps commanders. Corps have continually demonstrated their value as maneuver forces of the field army and as forces capable of significant independent action. In World War I (WWI), World War II (WWII), and the Korean War, the corps served as the Army's principal ground maneuver force.

Generals Patton and Stilwell successfully conducted independent operations with corps in Africa and Asia during World War II, while Generals Collins, Haislip, Middleton, and Gerow, among others, led corps that fought the battles of western Europe under command of Field Armies. General Almond's X Corps carried out the critical amphibious landing at Inchon and regained the initiative for United Nations (UN) Forces in Korea. During the Vietnam War, field forces performed corps functions. They had regional authority and considerable administrative and logistic responsibilities. They also maintained the traditional tactical concerns normal to a corps.

Early in the 1970s, the US Army realigned and reduced headquarters layering to improve command and control (C2). The corps assumed most of the field army's administrative and logistic functions. The realignment established the headquarters of a unified command, a specified command, a combined command, or a joint task force (JTF) above the corps in the operational chain. A theater Army, if established, would provide combat service support for deployed US corps.

In the 1980s, the corps had organic armored and mechanized divisions along with an armored cavalry regiment (ACR). Whatever its mission or exact composition, the corps was to conduct the following critical functions:

- Maintaining surveillance over an area to the corps' front to provide an accurate picture of the enemy as he is deployed 96 hours movement time from the forward line of own troops (FLOT) extending as far as 300 kilometers (km) from the FLOT.

- Fighting the enemy throughout the area of influence, 72 hours movement time from the FLOT or from corps objectives.

- Supporting the battle with CS and CSS forces.

- Sustaining the battle by drawing together forces to carry the fight to successive enemy echelons.

Today, corps must possess the flexibility required to execute current warfighting doctrine and be capable of projecting the forces necessary to support unforeseen operations. They must be able to conduct simultaneous operations instead of the sequential operations against an echeloned threat they were expected to face during the cold war era.

Chapter 1

THE CORPS

THE CORPS' ROLE IN OPERATIONS

Corps are the largest tactical units in the US Army. They are the instruments by which higher echelons of command conduct operations at the operational level. Higher headquarters tailor corps for the theater and the mission for which they are deployed. They contain organic combat, CS, and CSS capabilities to sustain operations for a considerable period (when employed as part of a larger ground force).

Corps may be assigned divisions of any type the theater and the mission requires. They possess support commands and are assigned combat and CS organizations based on their needs for a specific operation.

Separate infantry brigades, ACRs, field artillery brigades (FAB), engineer brigades, air defense artillery (ADA) brigades, and aviation brigades are the nondivision combat units commonly available to the corps to weight its main effort and to perform special combat functions. Signal brigades, military intelligence (MI) brigades, military police (MP) brigades, civil affairs (CA) brigades, chemical brigades, and psychological operations (PSYOP) battalions are the combat support organizations commonly available to the corps.

Other special operations forces (SOF) may support corps combat operations as necessary. The corps CSS organizations are the personnel group, the finance group, and the corps support command (COSCOM).

Future corps operations will possess several key characteristics. Operations will be joint and, often, multinational in nature. They will reflect a need for tailored forces employed in force-projection operations, likely in response to short-notice crisis situations. They will be conducted across the full range of military operations from war to operations other than war (OOTW).

There may be times when the corps must provide resources to support operations that do not otherwise involve corps headquarters. The corps then acts as a force-provider. The corps may at times have considerable assets committed to other commands to support major and lesser regional contingencies around the world.

The corps retains significant responsibilities as the parent organization for these deploying forces while these forces are under the operational control (OPCON) or tactical control (TACON) of another commander. The organization of the corps has evolved to reflect these characteristics.

During World War II, the corps served almost exclusively as a tactical headquarters giving the field army great latitude in shifting divisions to rapidly concentrate combat power. During the Cold War, the corps' responsibilities expanded to include logistics and administrative support to subordinate units. The corps was still primarily a tactical headquarters charged with synchronizing combat operations in support of operational objectives.

Today's corps will most likely find itself conducting force-projection operations as part of a tailored joint force. When the mission calls for a preponderance of land power, the corps may perform duties as a joint task force (JTF) headquarters.

Corps operations are habitually combined arms operations. The corps possesses the organic

CONTENTS

THE CORPS' ROLE IN OPERATIONS 1-1
The Corps as Part of a Larger Ground Force 1-3
The Corps as a JTF Headquarters 1-3
The Corps as the ARFOR or JFLCC Headquarters 1-4
ORGANIZATION OF THE CORPS 1-5
Corps Headquarters 1-5
Corps Units 1-7
JOINT FORCE CAPABILITIES 1-11
US Air Force 1-11
US Navy 1-12
US Marine Corps 1-12
Special Operations (SO) 1-13

capability to synchronize these activities across all of the battlefield functional areas. As such, corps are uniquely suited to be Army Forces (ARFOR) headquarters or the joint force land component commander's (JFLCC) headquarters of the joint task force.

Corps usually link the operational and tactical levels of war. They may link operational and strategic levels of war as well. As such, they have the key role of translating the broad strategic and operational objectives of higher echelons into specific and detailed tactics to achieve those objectives.

Corps plan and conduct major operations and battles. They synchronize tactical operations including maneuver, fires of organic artillery, naval fires, supporting tactical air, and actions of their CS and CSS units. Doing so brings together the effects of these separate activities throughout the depth of the battlefield.

Corps also act as the force provider for other headquarters tasked to control an operation. Whether the corps is the supporting or the supported command, it should receive mission-type orders.

Today's corps is the central point on the battlefield where the commander synchronizes combat power to achieve tactical and operational advantage over the enemy. Critical corps roles include—

- Planning and conducting operations with other elements of the joint force to achieve campaign objectives.
- Integrating available Air Force (AF), Navy, and Marine combat, CS, and CSS units, along with interagency support in land operations, including joint efforts in intelligence, target acquisition, target attack, electronic warfare (EW), suppression of enemy air defenses (SEAD), and CSS.
- Collecting intelligence, anticipating enemy activities and intentions, and planning future actions.
- Planning and conducting simultaneous operations in depth.
- Nominating targets for nuclear weapons employment in support of campaign objectives.
- Planning and conducting effective deception operations-according to the higher echelon's deception plan.

Operational planning concentrates on the design of campaigns and major operations. Campaign plans set broad, long-term goals, such as control of a geographic area, reestablishment of political boundaries, or defeat of an enemy force in the theater.

The corps accomplishes its goals in phases in most cases. Thus, the campaign plan normally provides a general concept of operations for the entire campaign (lasting weeks or even months) and a specific plan for only the first phase of the campaign. Major operations are the coordinated elements of a campaign. The outcome of a major operation will decisively impact the conduct of a particular phase of the campaign.

Tactical operations include battles and engagements as parts of campaigns and major operations. Divisions, brigades, and smaller units may fight engagements either as part of a battle or as separate actions. Battles are larger than engagements and may involve numerous engagements over a large area that take days to resolve.

Planning and executing tactical-level battles is a major role of the corps. The corps commander must clearly understand the intent of the commanders above him. Doing so will help him plan and execute battles that will achieve operational objectives. The corps must simultaneously conduct close, deep, and rear operations as well as plan for future operations.

When conducting simultaneous operations, the corps must synchronize one or several collateral operations with the main effort. Collateral operations consist of major activities within the scope of any combat operation. Examples of possible collateral operations are intelligence, counterfires, deep/joint fires, special operations, joint suppression of enemy air defenses (J-SEAD), humanitarian assistance, and deception. These operations may draw on the same resources and normally require special planning, synchronization, and unity of command and control.

A single organization under corps control usually plans and executes these operations. They may be operations for which the corps is either best suited to control or for which the corps should assume responsibility because of the specific situation.

There are several reasons why the corps may want to assume this responsibility. The collateral

operation may involve coordinating joint functions, employing scarce resources, focusing on attainment of critical objectives, or allowing subordinate maneuver units to focus on other operations.

The commander assigns collateral operations as specific tasks in the operation order (OPORD) keyed to the overall concept of operations. Although collateral operations require their own internal concept of operations, their concepts must be consistent with the corps commander's overall concept of operations.

A corps headquarters may function as the Army service headquarters of a subordinate joint force, the JFLCC headquarters of a JTF, or as the JTF headquarters itself. In such cases, the corps is responsible for both operational and tactical planning and operational and tactical execution of the campaign. The centerpiece of the corps' operational responsibilities is participation in the development of a supporting joint campaign plan. (See Joint Publication (JP) 5-00.1 for a detailed discussion.)

By its nature, the corps will always fight as part of a joint force, working closely with its sister services. The nature of current world politics, in addition to US treaty commitments, means the corps may fight as part of a multinational force. The implications of these joint and combined operations are no different from those FM 100-5 and FM 100-7 discuss, but are of particular significance to the corps.

The Corps as Part of a Larger Ground Force

The corps may be located in or deployed to a theater to fight as a component of a larger ground force. This situation occurs when a significant military threat exists in a specific geographic region or because of treaty obligations.

Currently, V Corps is forward-deployed in Europe, and I Corps is Continental United States (CONUS)-based, yet under the Combatant Command of the US Pacific Command (PACOM). Under these conditions, the corps normally operates as part of a multinational force and is under the control of a multinational command structure.

Coalition forces usually have specific areas of operations (AOs) and missions that should be relatively well-defined even before the outbreak of war in their theater. Such corps may have the advantage of having a larger logistic base composed of a combination of US and host-nation (HN) resources. The corps may be required to provide logistic support to other US forces or allies.

While major subordinate elements normally locate with a forward-deployed corps, there may still be some deployment of CONUS-based forces to support the corps. The time-phased deployment of these augmentation forces is of major concern and must be well-integrated into both tactical and sustainment planning.

Corps with missions to respond to worldwide situations frequently fight as the largest ground formation in the theater, possibly with the corps commander serving as the JTF commander. These corps plan for employment in theaters of likely hostilities.

The threat, which corps will encounter, is often poorly defined. Enemy forces may range from irregulars to mechanized forces with a high degree of technological sophistication to forces that are asymmetrically modernized.

Corps are capable of deploying anywhere in the world. For this reason, they must consider employment of light, special operations, and armored maneuver forces, capable of both rapid deployment and the ability to conduct operations in a variety of situations. Corps may require augmentation of selected CSS forces to perform sustainment operations.

The Corps as a JTF Headquarters

A joint task force is composed of Army, Navy, Marine Corps, and Air Force assigned or attached elements or two or more of these services. It is constituted and so designated by the Secretary of Defense, by a combatant commander, or by the commander of a subordinate unified (subunified) command or an existing JTF. (See JP 1-02.) Normally, a JTF is established for a specific purpose or task. Usually the task is limited in scope and duration and there is little need for centralized control of logistics.

The corps commander, as the commander, JTF (CJTF), is subordinate to the establishing authority and must look to him for guidance, strategic direction, and missions for the joint force. In turn,

the CJTF exercises OPCON or TACON of assigned forces.

The CJTF also forms a joint staff and establishes joint boards and centers, as necessary, to command and control the force. This ensures that the staff is representative of the joint force, and it provides a structure for planning and executing joint operations.

The corps may require augmentation to transition to this joint staff structure. Augmentation maybe in the form of a deployable joint cell to provide initial assistance or a major augmentation of personnel and equipment based on the JTF's size and composition.

The establishing authority is responsible for providing augmentation to the JTF. However, the corps commander, as the CJTF, must make his augmentation requirements known. (Chapter 4 contains details of corps augmentation for JTF operations.)

The corps as a JTF can conduct either tactical- or operational-level operations. The mission, not the size of the force, determines at which level the JTF functions. When the focus is on conducting joint operations to attain theater-strategic objectives, the JTF serves as an operational headquarters. However, the commander must fully understand both the tactical and operational-level environments to ensure a supportive relationship exists between his plans and operations and those of subordinate and higher headquarters.

The CJTF takes guidance from the establishing authority and assigns objectives and tasks for the various components of the force. If planners have not developed a supporting campaign plan, the JTF may have to produce one.

In any case, as an operational-level commander, the CJTF must identify the conditions the force needs to attain strategic goals (ends). He must also detail the sequence of activities, from deployment or mobilization through redeployment or demobilization (ways), that will achieve those conditions. Finally, he must identify the resources (means) the force will need to apply to the effort.

Although the commander applies the military element of power, he also considers those interagency, political, economic, informational, and other resources that may be available and appropriate for the task at hand. The CJTF must understand the strategic and regional environment, including US policies, treaty commitments, status of forces agreements (SOFA), coalition parties' interests, and so on.

These influences affect campaign and operational planning and the establishment of rules of engagement (ROE) for the joint force. While conducting operational-level planning, the JTF synchronizes the activities of land, air, maritime, special operations forces, space, and combined forces toward military objectives that achieve the strategic end state.

Planners must include political, economic, informational, and interagency considerations in the planning process and synchronize the execution of operations. Joint task force campaign plans must sequence these activities to achieve strategic objectives.

The Corps as the ARFOR or JFLCC Headquarters

The CJTF establishes the organizational structure of the JTF and exercises OPCON of all assigned and attached forces. Joint Publication 5-00.2 outlines specific guidance for options for conducting JTF operations.

One option for organizing a JTF and exercising OPCON is by creating service component commands. As the name implies, a JTF-level service component command generally consists of forces from only one service that are assigned or attached to a JTF. When a corps is placed under the OPCON of a JTF, the CJTF may designate the corps as the ARFOR headquarters giving it Title 10, *Posse Comitatus Act*, responsibilities and, in most cases, OPCON of a number of assigned or attached forces.

When designated as the commander, ARFOR (COMARFOR), or the JFLCC, the corps has the following additional responsibilities:

- Coordinating with other JTF-level component or fictional commands.
- Coordinating with the service component command headquarters of the JTF establishing authority for administrative and logistic support.
- Planning and conducting operations in compliance with CJTF guidance and detailed plans.

- Providing liaison personnel to CJTF, other component commanders, and supporting commanders, as necessary or as directed by the CJTF.

Corps are uniquely suited to be the ARFOR or JFLCC headquarters in a JTF. They are optimized for executing battle command functions the higher headquarters of ground maneuver forces requires. They can coordinate sustainment activities for significant numbers of assigned or attached forces.

Corps can also perform joint and multinational force coordination and liaison. In most cases, a corps headquarters can be the ARFOUR or JFLCC headquarters in a JTF without significant personnel augmentation.

With the exception of small operations of limited scope and duration, the corps headquarters cannot simultaneously function as the JTF headquarters and the ARFOR headquarters. If ARFOR requirements are relatively small, the corps headquarters may function in both capacities. Operations Just Cause and Restore Hope are recent examples of a single headquarters performing both functions.

ORGANIZATION OF THE CORPS

The corps consists of a headquarters and a mix of combat, CS, and CSS units. The headquarters plans, directs, controls, and coordinates corps operations while employing its unit to accomplish its missions.

Corps Headquarters

The corps headquarters consists of the corps commander, the deputy corps commander, and the corps staff, including liaison elements assigned to work with the corps. The corps commander—

- Interprets and translates his superior commanders' intents into his own intent and concept of operations.
- Derives the corps' mission.
- Provides planning guidance to focus the work of the staff.
- Sets objectives.
- States his intent.
- Determines the concept of operations.
- Assigns missions to subordinate units.
- Designates the main effort.
- Task-organizes the corps for combat.
- Influences the battle by assigning missions.
- Establishes priorities.
- Assigns areas of operations.
- Allocates resources.
- Synchronizes operations within his battle space.

His intentions and objectives guide the actions of his subordinate commanders and the corps staff during operations.

The deputy corps commander extends the corps commander's span of control in areas and functions the commander designates and that mission, enemy, terrain, troops, and time available (METT-T) factors require. The deputy commander's specific duties vary from one corps to another as well as over time. However, he is normally responsible for monitoring or controlling several functions critically important to the corps operation's success. Typical duties include being the rear operations commander or controlling a specific aspect of the close operation.

The corps staff consists of coordinating and special staffs, under the control of the chief of staff (CofS), and the personal staff, which reports directly to the corps commander. Liaison elements from outside organizations work with various corps staff sections. Liaison may be provided to, provided by, or be reciprocal with the following:

- Subordinate units.
- The US Air Force (USAF).
- The US Marine Corps (USMC).
- The US Navy (USN).
- Special operations forces.
- Echelons above corps.
- The battlefield coordination element (BCE).
- Allied or coalition forces.
- Host nations.
- Government agencies.
- Nongovernment agencies.

The chief of staff supervises all activities of the coordinating and special staffs in compliance with the corps commander's intent. The corps staff provides the commander with accurate and timely information, prepares analyses and estimates, and recommends courses of action (COA).

Once the corps commander decides what is to be done, the staff translates the commander's decisions and intent into instructions and orders, issues the orders, and ensures the execution of those orders. The staff must anticipate future developments and requirements as much as possible to ensure that the corps retains the tactical initiative. Field Manual 101-5 (D) discusses specific responsibilities of coordinating, special, and personal staffs.

There are several key aspects of corps staff activities that are different from lower echelons. First, because of the increased interface with multinational forces, HN agencies, and sister services, there are large numbers of liaison elements from these agencies working at the corps; their coordination with the corps staff is of great importance.

Second, the coordination of USAF, USMC, USN, and SOF support is especially critical at the corps level. The corps staff must be sure they gain maximum benefit by fully integrating available close air support (CAS), air interdiction (AI), tactical air reconnaissance and aerial battlefield surveillance (TARABS), EW, counter air operations, tactical airlift, naval gunfire, air and missile support, and sea lift into the operation.

Third, the corps must continuously plan into the future to anticipate battlefield conditions and then move forces and assemble resources in time to successfully fight the enemy. To plan continuously, the staff must anticipate conditions that may exist several days ahead. Figure 1-1 depicts a typical corps staff organization.

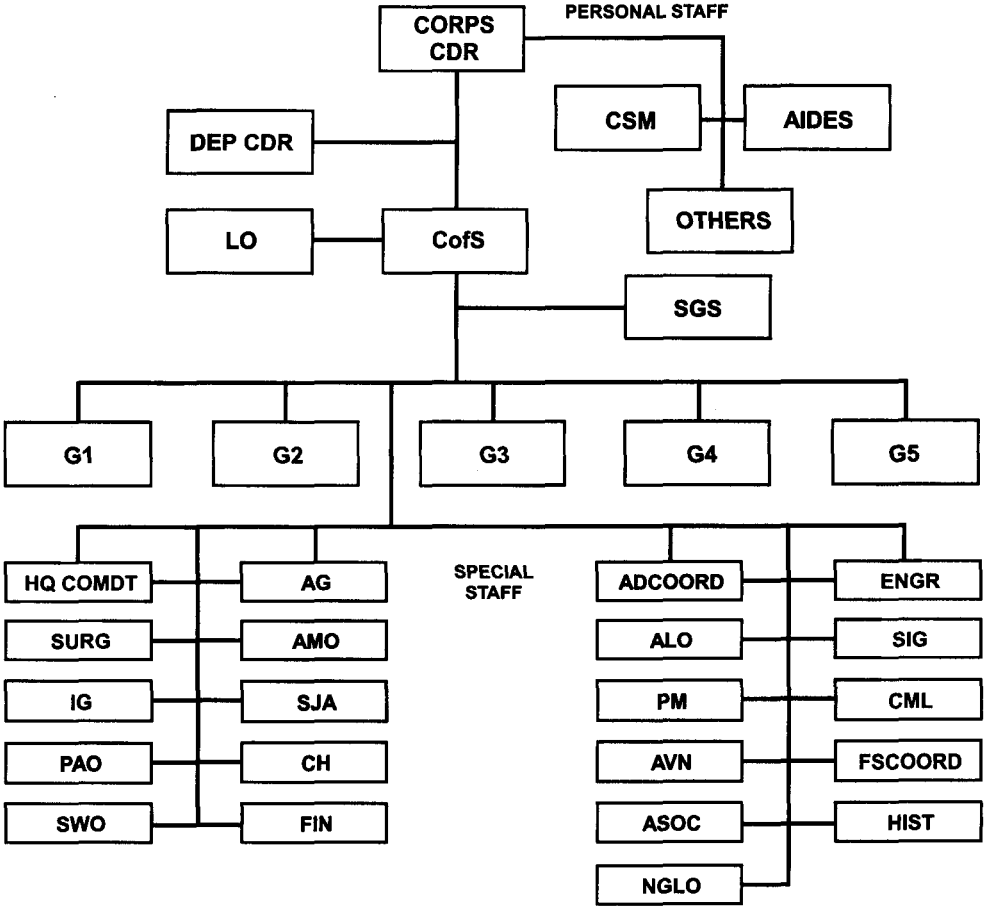


Figure 1–1. The corps staff

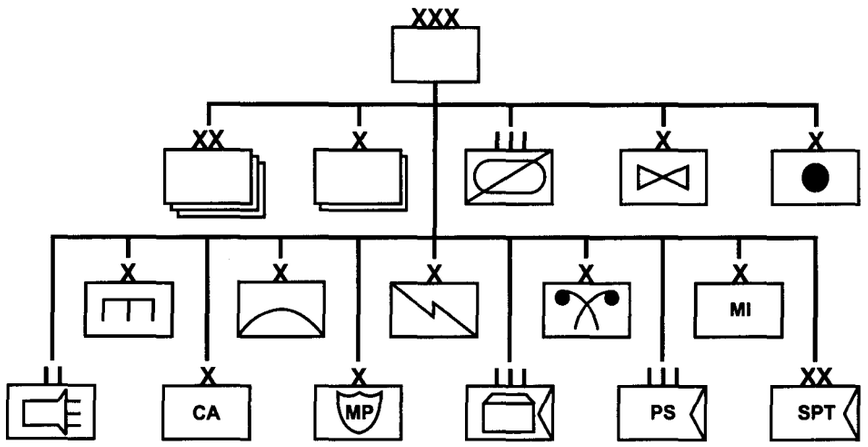


Figure 1–2. Typical corps organization

Corps Units

There is no standard corps organizational structure. Figure 1-2 shows a typical corps organization. Most corps will have a similar structure, although the specific number, size, and types of units will vary.

Divisions

Divisions are standard combined arms organizations that commanders may tailor according to METT-T conditions. Divisions can perform any tactical mission and are largely self-sustaining. They are the basic maneuver units at the tactical level and perform major corps tactical operations. They occasionally function as operational-level headquarters, but can conduct sustained battles and engagements and OOTW.

A corps normally has from two to five divisions of any type and combination. Light infantry, armored, mechanized infantry, airborne, and air assault (AASLT) divisions are all at present in the US force structure. Each type of division has unique capabilities and limitations. (See FM 71-100 for further discussion.)

Light Infantry Divisions. Light infantry divisions add an important dimension to the strategic mobility of Army forces. Their rapid strategic deployability enable them to arrive in a crisis area before a conflict begins. On short notice, they can rapidly reinforce forward-deployed US forces. They are also available for worldwide contingencies, including in regions that lack a developed support infrastructure.

Light infantry division operations are flexible in both tactical deployment and organization for combat, but are limited in tactical mobility unless augmented. Light forces habitually operate as combined arms teams with organic engineers, artillery, aviation, and air defense. When suitably augmented and task-organized for the mission, they are capable of executing brigade, battalion, and company-size operations. They can also be reinforced with, or can themselves reinforce airborne, air assault, special operations, armored, or mechanized forces.

Armored and Mechanized Infantry Divisions. Armored and mechanized divisions are mobile, ground-gaining forces with significant armor-protected firepower. They operate most effectively in terrain where they can move quickly and use long-range, direct-fire weapons to their best advantage. They seek to rapidly concentrate combat power against the enemy on the mobile battlefield.

Armored and mechanized divisions are somewhat limited in exploiting their mobility in restrictive terrain, such as cities, mountains, and heavily forested areas. While all force-projection operations require use of strategic-lift assets, the deployment of armored and mechanized divisions may require more careful planning in order to achieve desired arrival sequences.

Airborne Division. The airborne division can rapidly deploy anywhere in the world to establish US

presence and to seize and secure vital objectives. The division conducts vertical assaults by airdrops in the enemy's rear to secure key terrain or to interdict the enemy's routes of resupply or withdrawal, The division must depend on the USAF for airlift, CAS, and aerial resupply.

Once on the ground, the division is essentially a dismounted force with limited wheeled and rotary-wing mobility. The airborne division can be used in a developed theater, especially to add depth to the offense and defense. It is particularly well-suited for force-projection operations and can rapidly deploy in situations calling for early presence buildup of combat forces.

Air Assault Division. The AASLT division conducts rapid-tempo tactical operations over extended ranges. It combines strategic and operational mobility with an extremely high degree of tactical mobility within its AO.

The AASLT division can fight by projecting significant combat power by transporting infantry, field artillery (FA), and other combat and CSS units using organic helicopter assets. It can also rapidly concentrate, disperse, and redeploy its forces, making it a highly responsive mobile force.

Aviation is the prime mover, and aircraft are integrated with ground forces. In addition, AASLT operations generally involve insertions and extractions under hostile conditions, as opposed to mere air movement of troops to and from secure locations about the battlefield. The division normally relies on air or sea lift for strategic mobility but does possess a capability to self-deploy its organic multiengined aircraft to locations in Central and South America and the Caribbean.

Separate Maneuver Brigades

Except for their size, separate armored, infantry, light infantry, and mechanized infantry brigades have essentially the same characteristics as their corresponding types of divisions. Separate maneuver brigades have organic cavalry, engineer, AD, FA, MI, MP, and CSS units.

Separate maneuver brigades help reinforce maneuver divisions but are capable of operating as independent units. However, they are not capable of sustained operations unless augmented. (See also FM 71-3 and FM 7-30.)

Armored Cavalry Regiment (ACR)

The ACR performs reconnaissance, security, and economy of force operations for the corps. The regiment has organic air and armored cavalry units that can operate as combined-arms teams over wide areas and serve as reconnaissance or security forces.

The regiment also has organic AD, FA, engineer, MI, chemical, and CSS units. The regiment may conduct offensive, defensive, or retrograde operations. It is capable of independent operations but lacks infantry, a force artillery headquarters, and military police. The regiment may require augmentation in these areas. (See FM 17-95 for details.)

Aviation Brigade

The corps aviation brigade provides the corps commander with a highly flexible maneuver force capable of performing a variety of combat, CS, and CSS missions across the entire range of military operations. Aviation units can rapidly maneuver to provide the decisive component of combat power throughout the depth of the battlefield during day, night, or adverse weather conditions. The aviation brigade can operate independently or, when properly augmented, become the controlling headquarters for other combined arms elements conducting ground operations.

The corps aviation brigade consists of an attack regiment with three attack helicopter (AH)-64 attack battalions and an aviation group that consists of an assault battalion, a command aviation battalion, a CS aviation battalion, a medium helicopter battalion, a light utility helicopter (UH) battalion, and the air traffic services battalion.

Primary missions of the corps aviation brigade include attack; air assault; air movement; target acquisition; reconnaissance and security; air traffic services; enhanced command, control, and communications (C^3); forward arming and refueling point (FARP) operations; and command and staff support. Other missions include limited casualty evacuation, combat search and rescue (CSAR), downed aircraft recovery, rear area reconnaissance and surveillance, and aerial mine delivery.

Corps Artillery

Corps artillery contains all of the field artillery cannon, guided missile, and multiple-rocket battalions not organic to maneuver units. Corps artillery may also contain target acquisition units with artillery locating radars.

The cannon artillery and missile and rocket battalions are normally field artillery brigades allocated as needed to reinforce the fires of artillery units supporting committed maneuver units. They might also remain under corps control to provide general support (GS) fires. Artillery at corps is used to add depth to the battle, to support rear operations, and to influence the battle at critical times.

Military Intelligence (MI) Brigade

The MI brigade contains operations, tactical exploitation, and aerial exploitation battalions as well as a brigade headquarters. These units conduct intelligence and electronic warfare (IEW) functions in GS of the corps. They augment the intelligence and counterintelligence (CI) capabilities of the corps' subordinate units.

The brigade collects and analyzes information from multiple sources, such as communications intercept, enemy prisoner of war (EPW) interrogation, imagery exploitation, and weather forecasts. Its collection capabilities, combined with its information links from theater and national sensors, provide the corps with the ability to "see deep" into enemy rear areas.

The operations battalion provides a support element to the corps headquarters. Sections of the battalion assist the G2 in intelligence and CI planning, management, analysis, production, and dissemination. They also assist the G3 in EW, operations security (OPSEC), and deception planning.

Engineer Brigade

The engineer brigade controls corps engineer units not organic to maneuver units. The brigade provides mobility, countermobility, survivability, topographic engineering, and general engineering support to the corps and augments engineer support of the divisions and other subordinate units.

The engineer brigade may contain combat engineer battalions, engineer battalions (combat heavy), and separate engineer companies, such as CS equipment, assault float bridge, topographic, and tactical bridge companies. Engineer groups are also found in the engineer brigade when the size of the brigade requires the use of these intermediate control headquarters.

Air Defense Artillery (ADA) Brigade

The ADA brigade contains weapons systems designed to protect the force from aerial attack, missile attack, and surveillance at all altitudes. Subordinate battalions employ a combination of missile systems supported by an identification, friend or foe (IFF), capability.

Corps AD battalions usually conduct tactical operations in support of corps priorities, but may also be tasked to reinforce division AD units. Corps AD priorities include forces, facilities, and functions crucial to the success of the corps' concept of operations.

The commander coordinates and synchronizes corps air defenses with both division defenses and those that EAC forces provide. The EAC air defense forces usually include aircraft of US and allied air forces; long-range, high-altitude missile systems of theater surface-to-air missile (SAM) units; and the supporting radar and C^2 network of the theater-integrated AD organization.

Signal Brigade

The signal brigade installs, operates, and maintains voice and data communications within and between corps C^2 facilities. The signal brigade also maintains an extensive area network that connects all elements of the corps.

When supporting split-base operations, the signal brigade provides communications to link corps elements at the sustaining base to corps units at intermediate staging bases and in the objective area. When the corps is the JTF or ARFOR HQ, the signal brigade installs communications links to USMC, USAF, USN, and special operations component commands.

In OOTW, the corps signal brigade provides links to HN, UN, allied forces, and government and

nongovernment agencies, as required. In disaster relief operations, the corps signal brigade may assist in restoring critical civilian communications.

Theater tactical communications assets normally deploy in support of each corps JTF or air component commander (ACC) to augment the corps signal brigade. These assets provide range extensions and automatic switching, and they support EAC, CS, and CSS units. The corps signal brigade terminates communications links from theater tactical networks.

Chemical Brigade

The chemical brigade commands, controls, and coordinates CS operations of attached chemical units. It also provides command and administrative and logistic support to attached chemical battalions. The brigade commander recommends nuclear, biological, and chemical (NBC) mission priorities to the corps commander. The brigade provides smoke generator; NBC reconnaissance; and NBC decontamination support (less patient decontamination) in the corps area.

Brigade chemical battalions support corps units in specified command or support relationships. The brigade also evaluates and determines corps decontamination, NBC reconnaissance, and smoke requirements.

Military Police (MP) Brigade

The MP brigade usually has from three to six MP battalions and provides battlefield circulation control (BCC), area security, EPW and civilian internee operations, and law-and-order support to the corps. It conducts reconnaissance and surveillance, to ensure security of main supply routes (MSR), and area reconnaissance of other key areas in the corps' rear.

In support of rear operations, this brigade normally provides the initial Level II response force to counter threats that exceed base and base cluster defense capabilities. It can assist tactical combat forces in Level III responses. This brigade can be designated as a tactical combat force for Level III threats, operating independently or augmented according to METT-T.

The MP brigade augments the organic MPs of committed maneuver units as required. The corps MP brigade with USAF elements may conduct joint operations during air base defense activities.

The brigade maintains close liaison with HN civil and military police and often provides civil-military operations (CMO) support. Joint and multinational operations with HN civil and military police might occur during MP brigade missions.

Civil Affairs (CA) Brigade

The CA brigade, in support of the corps, normally consists of a brigade headquarters and headquarters company (HHC) and from three to five CA battalions. Under the corps G5's supervision, the brigade headquarters analyzes the corps' mission for CA requirements, prepares the CA annex to corps plans and orders, and establishes liaison with joint service and other CA organizations.

The brigade headquarters company contains four technical support teams. Each team contains government, economics, public facilities, and special functions sections. These sections provide CA technical advice and assistance to unit commanders throughout the corps area.

A CA battalion is normally attached to each division and the COSCOM. Under the staff supervision of the division G5 or the COSCOM CMO officer, the battalion plans, coordinates, and supervises CA activities as directed.

Psychological Operations (PSYOP) Tactical Support Battalion

Corps PSYOP support normally consists of a PSYOP tactical support battalion with from one to three PSYOP tactical support companies. The battalion provides the corps with a corps PSYOP support element (CPSE). This element provides interface with a PSYOP task force (POTF) or a joint PSYOP task force (JPTOF).

Each tactical support company normally is in direct support (DS) of a division, separate brigade, or ACR. Tactical support companies provide product development and tactical dissemination.

Corps Support Command (COSCOM)

COSCOM is the corps' principal logistic organization. It provides supply, field services,

transportation (mode operations and movement control), maintenance, and combat health support (CHS) to the divisions and to nondivision corps units. The COSCOM is not a fixed organization and contains a mix of subordinate units as required by the corps' size and configuration.

Within the COSCOM are fictional control centers; a materiel management center (MMC); the movement control center (MCC); a medical brigade; a transportation group (when three or more functional transportation battalions are assigned); and corps support groups. These elements provide supply (less Class VIII), maintenance, and medical transportation and services to division and nondivision units.

Sustaining forces in any major regional contingency (MRC) or lesser regional contingency (LRC) requires the mobilization of selected reserve component (RC) units and personnel. Commanders can organize these mixed active and RC packages into modules tailored to the overall composition of the force. (See Chapter 3 for details.)

Finance Group

The finance group commands, controls, and coordinates the finance operations of all corps finance battalions. It provides administrative and logistic support to assigned finance battalions. The finance group normally has from two to six finance battalions.

Finance battalions provide finance support to all corps divisional and nondivisional units. Finance support includes commercial vendor services and contracting support, military pay, disbursing, funding, accounting, travel pay, civilian pay, and non-US pay (for EPW, local hire labor, and so on).

Personnel Group (PG)

The PG mission is to sustain corps and EAC personnel readiness and to exercise C^2 over personnel units. The PG manages critical personnel systems and synchronizes the corps' personnel network through the personnel management center (PMC) formed from adjutant general (AG) and personnel operations. The personnel group normally commands a headquarters detachment, personnel service battalions (PSB), replacement companies, and the corps band.

Personnel service battalions are responsible for critical tasks associated with the following systems: data base management of personnel accounting and strength reporting, casualty operations management, and personnel information management. They are also responsible for the following essential personnel services: identification document, personnel evaluations, promotions and reductions, officer procurement, and soldier actions.

The PSB exercises C^2 over from two to six identical personnel detachments and a modular postal company. This modular structure enables commanders to tailor their organizations to support specific missions in accordance with METT-T.

JOINT FORCE CAPABILITIES

US Air Force

The USAF's contributions to joint operations include a range of missions and capabilities that meet Department of Defense (DOD)-mandated service responsibilities and functions. Missions that most directly affect corps operations include—

- Counter air—to gain control of the aerospace environment.
- Air interdiction—to delay, disrupt, divert, or destroy an enemy's military potential before it can be brought to bear effectively against friendly forces.
- Close air support-to support surface operations by attacking hostile targets near friendly surface forces.
- Special operations—to influence the accomplishment of strategic or tactical objectives normally through low-visibility, covert, or clandestine military actions.
- Airlift—to deploy, employ, and sustain military forces.
- Reconnaissance and surveillance-to collect information from airborne, orbital, and surface-based sensors.

The USAF also performs specialized tasks to enhance the execution of its missions. Tasks that most often enhance corps operations include—

- Aerial refueling-to extend the range, payload, and flexibility of air operations.

- Electronic combat (electronic warfare performed by aerospace forces) to control selected parts of the electromagnetic spectrum in support of combat operations.
- Warning, command, control, and communications—to provide warning and characterization of an actual or impending enemy attack, and the C^2 of forces through the sustained ability to communicate with those forces.
- Intelligence—to acquire, correlate, analyze, and apply intelligence data to provide essential information for deciding how, when, and where to engage and attack the enemy.
- Weather service—to provide timely and accurate environmental information to support the decision process for employing forces in combat operations.
- Medical evacuation—to provide timely aeromedical evacuation to clear corps hospital of those patients exceeding hospitalization limits.

US Navy

The USN participates in joint operations and conducts a wide range of operations and tasks. Department of Defense-mandated USN directives that most closely affect corps operations include—

- Providing naval forces (including naval air) to conduct amphibious operations.
- Providing sea-based air defense.
- Providing CAS and naval support for land operations.
- Providing sea movement of personnel and cargo through the Military Sealift Command (MSC).

During the planning phase and in the initial execution phase of amphibious operations, C^2 facilities afloat are available to enhance or complement corps operations. Other Navy resources available to corps operations include—

- Intelligence.
- Electronic warfare.
- Naval gunfire support.
- Aerial reconnaissance and photography.
- Airborne early warning.
- Air transport.
- Offensive and defensive air operations beyond CAS.
- Special operations.
- Naval construction regiment.

The joint force commander's (JFC) apportionment decision provides the basis for naval aviation support to the corps during joint land operations. The JFC may apportion excess naval aviation sorties to various missions or geographic areas to ensure unity of effort in the overall mission. The joint force air component commander (JFACC) normally plans, coordinates, and tasks these sorties.

US Marine Corps

Like the other services, the USMC conducts operations to fulfill functional areas as mandated by DOD. Operations that may complement or contribute to a corps' effort include conducting land operations essential to prosecute a naval campaign and conducting amphibious operations for which the USMC is the proponent service.

In addition to fulfilling its functional responsibilities, USMC resources may complement or enhance corps operations by providing—

- Air and naval gunfire liaison companies (ANGLICOs) in support of US and allied divisions and subordinate elements.
- Offensive air support, including CAS, deep air support, and airborne EW and communications countermeasures.
- Antiair warfare to gain and maintain air superiority.
- Assault air support.
- Air reconnaissance.
- Electronic warfare.
- Airspace management within the AO.
- Special operations.
- Intelligence.

The USMC's tactical aviation is an organic element of each Marine Air-Ground Task Force (MAGTF). The MAGTF commander retains OPCON of MAGTF air assets during joint land

operations. MAGTF air assets normally support the MAGTF. Air sorties in excess of MAGTF direct-support requirements are provided to the JFC—

- For tasking by the JFACC.
- For the support of other components of the joint force.
- For the joint force as a whole.

This reapportionment and/or reallocation of USMC tactical aviation sorties occurs when the JFC determines they are required for higher priority missions and to ensure unity of effort in accomplishing the overall mission.

Special Operations (SO)

Specially organized, trained, and equipped military and paramilitary forces conduct special operations to achieve military, political, economic, or psychological objectives by generally unconventional means in hostile, denied, or politically sensitive areas. Special operations forces conduct missions throughout the full range of military operations either independently or with general purpose forces.

Special operations differ from operations by general purpose forces by—

- Their degree of acceptable physical and political risk.
- Their employment and operational techniques.
- Their relative independence from friendly support.
- Their dynamic interdependence on detailed operational intelligence and indigenous assets.

Special operations forces allow the unified or joint force commander to perform critical, relatively small-unit missions that directly strike or engage the aim or object of his operational design.

Special operations forces accomplish missions and tasks by director indirect modes of employing military power and resources. The direct mode describes applications of military power designed to coerce or force the subjugation of an adversary's will. It includes strikes and maneuvers that cause destruction, disruption, or denial of military capabilities.

The indirect mode describes applications of military resources designed to train, advise, or assist interagency activities, nations important to US interests, or surrogate forces pursuing US interests. The indirect mode of special operations encompasses engagements and economies of force that deter an adversary's use of force or that promote peace.

Special operations forces consist of four interdependent elements: special operations command and control headquarters (SOCCH), operational bases, SOF supporting units, and SOF tactical units. SOCCH integrates SO and SOF for unified or joint commanders. SOF operational bases are versatile, deployable organizations that command and control SOF tactical units for unified or joint commanders. SOF supporting units conduct relatively independent special operations. SOF tactical units are relatively small units with specialized, often unconventional, combat skills.

There are several characteristics that distinguish special operations direct and indirect employment from those of general forces. Special operations—

- Are specific tactical operations conducted by certified small units with unique talents who directly strike or engage strategic and/or theater aims or objectives.
- Planning begins at unified, joint, or interagency levels for SO execution requiring extensive, rigorous rehearsal, and training by small units.
- Execution occurs within a specifically tailored C^2 architecture.
- Frequently include cover, clandestine, or low-visibility operations and may be combined with overt operations.
- Often occur at great distances from operational bases and employ sophisticated communications systems and means of insertion, support, and extraction to penetrate and return from hostile, denied, or politically sensitive areas.
- Occur throughout the range of military operations in war, conflict, and peacetime environments.
- Influence the will of foreign leaders to create conditions favorable to US strategic aims or objectives.

- Are often high-risk operations, have limited windows of execution, and require first-time success.
- Require theater and, frequently, national-level intelligence support.
- Often require a detailed knowledge of specific cultures and languages of a country or region.

See Chapter 4 for SO planning considerations and a more-detailed account of sister services capabilities.

Chapter 2

FUNDAMENTALS OF CORPS OPERATIONS

In combat a corps must be able to simultaneously and continuously execute operations in depth. This requires careful planning and detailed coordination in order for the corps to bring to bear all available resources at decisive times and places on the battlefield.

Commanders must understand force-projection operations, battlefield visualization, the battlefield framework, and the basic capabilities of each battlefield operating system (BOS). Commanders must also understand the complementary and reinforcing effects of combined arms and joint capabilities to apply Army operations doctrine.

FORCE PROJECTION

Future contingencies will most likely occur in regions of the world where the US does not have significant ground forces. Force projection is the demonstrated ability to rapidly alert, mobilize, deploy, employ, sustain, and recover to again operate anywhere in the world. It is the key military element of power projection.

As a member of the joint team, the Army corps is often the organization of choice to deploy from CONUS and/or forward presence locations and to conduct operations associated with lesser regional contingencies or operations that may develop into a major regional contingency.

The corps is ideally suited for force-projection missions. It has the fill extent of C^2, combat, CS, and CSS assets with which to assemble an appropriate mix of units to execute any force-projection operation.

Because the corps is not a fixed force, it can be tailored to any contingency worldwide. Therefore, the corps brings tremendous versatility and lethality to a warfighting commander-in-chief's (CINC's) total force. It can execute the full range of land combat operations and OOTW. Also, when properly tailored, it can execute both simultaneously. (See Chapter 3 for details.)

The CINC may assign the corps commander various command responsibilities within a force-projection operation. For example, the corps commander may be the commander of the senior tactical level headquarters in the theater and may be directly subordinate to an Army EAC headquarters. The corps commander may also function as the commander of an operational-level headquarters, such as a JTF, a JFLCC, or an ARFOR headquarters. (See Chapter 4.)

BATTLEFIELD VISUALIZATION

Battlefield visualization is a key aspect of battle command and is the process whereby the commander develops a clear understanding of his current state, envisions a desired end state and,

CONTENTS

FORCE PROJECTION 2-1
BATTLEFIELD VISUALIZATION 2-1
BATTLEFIELD FRAMEWORK 2-3
Area of Operations (AO) 2-3
Area of Interest (AI) 2-3
Battle Space 2-4
Organizing the Battlefield 2-4
BATTLEFIELD OPERATING SYSTEMS (BOS) 2-8
Intelligence 2-8
Maneuver 2-11
Fire Support 2-15
Air Defense (AD) 2-19
Mobility and Survivability 2-21
Combat Service Support (CSS) 2-23
Command and Control (C^2) 2-24
SPECIAL OPERATIONS FORCES (SOF) 2-25
Special Reconnaissance 2-25
Direct Action 2-25
Unconventional Warfare (UW) 2-25
Foreign Internal Defense (FID) 2-26
Psychological Operations (PSYOP) . . . 2-26
Civil Affairs Operations 2-27
PUBLIC AFFAIRS (PA) 2-28

Battlefield visualization is vital in battle command. The commander develops a clear understanding of the current state, envisions the desired end state, and visualizes the sequence of activity that will move his force to the end state.

subsequently, visualizes the sequence of activity that will move his force from its current state to the end state. Once a commander has been assigned an area of operations (AO), he begins to visualize the operation he will conduct before any mental constraints (for example, boundaries, phase lines (PLs), and fire control measures) are emplaced.

The first aspect in the commander's visualization is gaining an understanding of the current state of his unit and that of the enemy. This includes gaining an awareness of his own and the enemy's status, including combat readiness, logistic status, location, speed of advance, tempo of operations, known vulnerabilities, and probable course of action.

Environmental factors for both the enemy and the friendly force are also included. Environmental factors include terrain and weather as well as human factors such as morale and fatigue. Less tangible influences are cultural, religion, and similar factors.

The second aspect of the commander's vision is his ability to clearly discern a desired end state. This initially involves foreseeing a feasible outcome to the operation that would result in mission success and would leave the unit postured for the next mission.

The third aspect of battlefield visualization is the commander's ability to envision a sequence of actions (an intellectual war game) that would cause his force to arrive at the desired end state. Included in the commander's visualization are the contingencies (branches) and follow-on missions (sequels) his force might encounter.

Ultimately, the commander articulates his battlefield vision to his subordinates and staff through the commander's intent statement. The commander's intent guides the development of the concept of operations.

The ability to visualize a battlefield is an essential leadership attribute. It is learned and attained through training, practice, experience, wisdom, and available battle command technologies. It is critical to accomplishing the mission.

Battlefield visualization is fundamental to establishing a battlefield framework. A battlefield framework for any operation results from, and is a natural extension of, this process.

BATTLEFIELD FRAMEWORK

A battlefield framework helps commanders relate friendly forces to one another and to the enemy in terms of time, space, and purpose. The concept of a battlefield framework is not new, but the proliferation of military and advanced technology and the influence of joint doctrine has caused the battlefield framework to evolve.

The battlefield framework is relevant to any battlefield, including those in OOTW. The following discussion applies primarily to conventional combat operations.

The battlefield framework consists of four interrelated components: area of operations (AO), area of interest (AI), battle space, and a specific battlefield organization. As a result of the battlefield visualization process, the commander can translate his vision into this framework.

The commander mentally establishes an area in which he must focus intelligence-gathering means, This will ensure he is aware of factors that may have a near-term impact on the operation. This is called the area of interest.

The commander next determines the three-dimensional area in which he seeks to dominate the enemy. This volume is referred to as the commander's battle space.

Finally, the commander lends structure to his assigned AO through a specific battlefield organization. This organization includes using boundaries, phase lines, and similar measures.

Figure 2-1 graphically depicts two battlefield components: the AO and the battlefield's organization within an AO. The other two components, battle space and AI, are not shown. They are mental constructs commanders use to form an orderly arrangement of the battlefield in order to gather information and dominate the enemy.

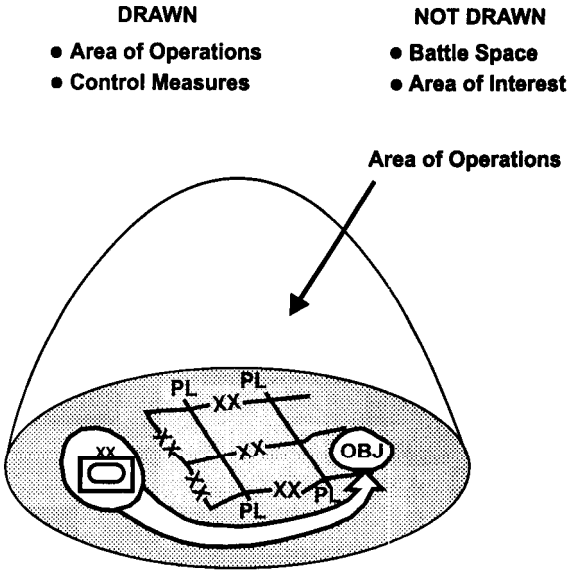


Figure 2–1. Battlefield framework representation

Area of Operations (AO)

A commander is assigned an AO by his higher commander. An AO is a three-dimensional volume prescribed by boundaries on the ground. It also includes the airspace above.

The size of an AO depends on METT-T, but it must be large enough for the commander to accomplish his mission and protect the force. Boundaries may require frequent adjustment based on the actual and projected rates of maneuver and the operational environment.

Commanders can use AOs to divide large areas into smaller geographical areas in which tactical-level battles are fought. However, because of technological advances and the capabilities of current battlefield systems, an assigned AO may not necessarily allow the commander to employ his organic, assigned, and supporting assets to their fullest capabilities.

Area of Interest (AI)

The AI is a geographical area from which the commander requires information and intelligence in order to execute successful tactical operations and

to plan for future operations. Because staffs need time to process information and to plan or synchronize operations, the tactical commander's AI is usually larger than his battle space and AO.

Normally, the AI includes any threat or characteristic of the battlefield environment that will significantly influence a commander's current or future mission. The AI also includes areas adjacent to the AO (forward, flanks, and rear) in which enemy actions and the environment will affect current and future battles. Each commander determines his own AI.

Battle Space

Battle space is the volume of area in which the commander seeks to dominate the enemy. It is through battlefield visualization that he decides where, when, and how he will dominate the enemy within his battle space.

A commander's battle space expands and contracts in relation to the ability to acquire and engage the enemy with joint or multinational forces. It can change as the commander's vision of the battlefield changes. It is influenced by time, tempo, depth, and synchronization.

A higher commander does not assign battle space. Although battle space is not shown on a map or computer monitor, it usually extends beyond the commander's AO and may overlap with the battle space of other commanders. At the tactical level, the area in which a commander dominates an enemy (his battle space) is normally smaller than his AI.

Key considerations in determining the size of battle space include the depth and resolution of supporting intelligence, the commander's concept for employing both organic and supporting weapons, and the disposition of the opposing force.

Organizing the Battlefield

Areas of operation help commanders quickly prioritize and focus resources and efforts. Commanders organize their battlefield with control measures to assign responsibilities, to coordinate fires and maneuver, and to control other activities.

Commanders consider all aspects of the three-dimensional battle and apply the minimum standard control measures to organize their AOS. They use only those measures necessary to ensure the safety of the force while allowing for the initiative and agility of subordinate commanders.

Battles and engagements are at times linear with deep, close, and rear components. (See Figure 2-2.) Although these components may be noncontiguous, they are not separate and distinct activities. They are synchronized efforts throughout the entire depth of the battlefield.

Three closely related sets of activities-deep, close, and rear-characterize operations within an AO. Commanders fight throughout the depth and breadth of their AO using deep, close, and rear operations simultaneously in a way that will appear to the enemy as one continuous operation.

Simultaneous operations in depth seek to attack the enemy concurrently throughout the depth of the battlefield. They also seek to mass both effects and forces when and where necessary to accomplish the mission.

In executing simultaneous operations in depth, the corps commander strives to paralyze the enemy's ability to act by—

- Dominating the enemy, either directly or indirectly, through attack or the threat of attack; by conducting fires, electronic warfare, combined arms maneuver; or by a combination of all of these actions throughout three dimensions-horizontal, vertical, and time.

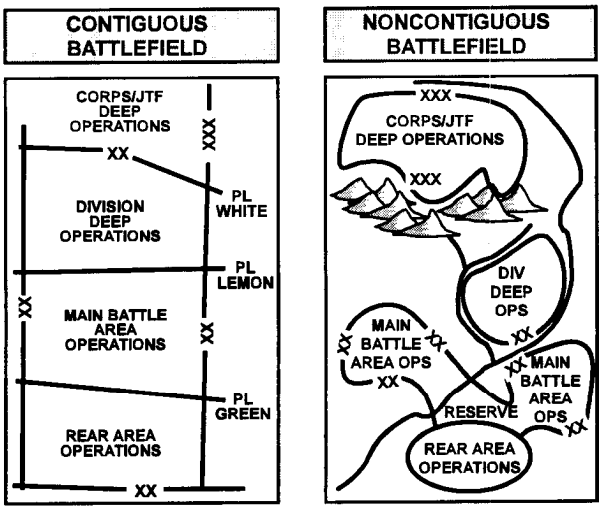


Figure 2–2. Battlefield organization

- Attacking, either directly or indirectly, enemy centers of gravity and critical functions to destroy the cohesion of the enemy plan, such as the ability to generate and sustain combat power.
- Denying the enemy such sources of combat power as his ability to maneuver or to provide fire support.
- Seizing, holding, or denying key terrain.
- Interdicting enemy lines of communications (LOC).
- Seizing and retaining the initiative while controlling the tempo of operations.

A key aspect of simultaneous operations in depth is tempo. Commanders control their tempo and strive to control the enemy's tempo. Commanders determine the best sequence of operations that will maintain the initiative and achieve a tempo of operations to reach the desired objective. In deciding on the required tempo, commanders consider many factors (the command structure, geography, logistics, public opinion, civilians, enemy reinforcement capabilities).

A changing enemy situation complicates sequencing decisions for operations. Therefore, the sequence that commanders choose should not close future alternatives, but should be flexible enough to accommodate change.

Simultaneous operations in depth directly impact the enemy's cohesion. Units are not restricted to fighting three sequential operations, nor do they conduct operations in depth solely to establish favorable conditions for the close fight.

Deep operations, combined with simultaneous close operations, might be decisive in one operation. In another, deep operations might set the conditions for future decisive close operations. Quickly arriving at decisive operations is the aim.

When executing simultaneous operations in depth, the corps commander establishes procedures to set priorities and to request assets from EAC. He then prioritizes distribution of resources to subordinate units to help them conduct their own operations.

The METT-T factors determine the relationship between assets committed to close, deep, and rear operations. The commander must see the entire AO and react promptly to developments anywhere within it.

Deep Operations

Corps deep operations are directed against enemy forces and functions beyond the close battle. They may be separated from the close battle in time or space or both. The commander can execute deep operations by combining maneuver, fire support, and/or command and control warfare (C^2W) supported by intelligence.

By design, deep operations dominate the enemy by—

- Nulliying his firepower.
- Disrupting his C^2.
- Disrupting the tempo of his operations.
- Destroying his forces.
- Preventing reinforcing maneuver.
- Destroying his installations and supplies.
- Breaking his morale.

When conducting simultaneous attacks in depth, the corps employs long-range intelligence-acquisition and targeting assets, including EW and joint assets. The corps uses these to track enemy forces, to complicate their operations, and to determine the effects of corps strikes in depth.

The corps normally conducts deep operations against the enemy's uncommitted forces or resources to prevent him from using them where and when he wants on the battlefield. Goals of deep operations include—

- Limiting the enemy's freedom of action.
- Altering the tempo of operations in favor of the corps.
- Denying the enemy the capability to concentrate his forces.
- Isolating the close fight.
- Destroying the enemy's will to fight.

Whether in the offense or defense, deep operations perform one or more of the following functions:

- Interdicting enemy LOCs.

- Preventing the enemy's counterattack or his employment of follow-on forces.
- Destroying units and critical targets.
- Cutting off routes of withdrawal.
- Providing the commander with information and intelligence about enemy capabilities in depth.

The systems normally available to the corps for deep operations are ground maneuver units, FA (including rockets, missiles, and cannon artillery), AI, AH units, AALST forces, airborne forces, PSYOP, CA units, and EW assets.

To ensure unity of effort and fully integrated use of capabilities in deep operations, a single organization within the corps must be responsible for synchronization of all aspects according to the commander's guidance. This organization is the deep operations coordination cell (DOCC). (See Chapter 4 for details.)

When planning a deep operation, the targeting methodology is a critical element (Figure 2-3). The decide, detect, deliver, and assess target methodology enables the commander and staff to take the initiative in selecting high-payoff targets (HPTs) before they actually present themselves in the target array.

Each function occurs both simultaneously and sequentially. Although not a separate function, target tracking is inherent throughout the targeting process. The staff must plan target tracking simultaneously with the development of the intelligence collection plan (decide).

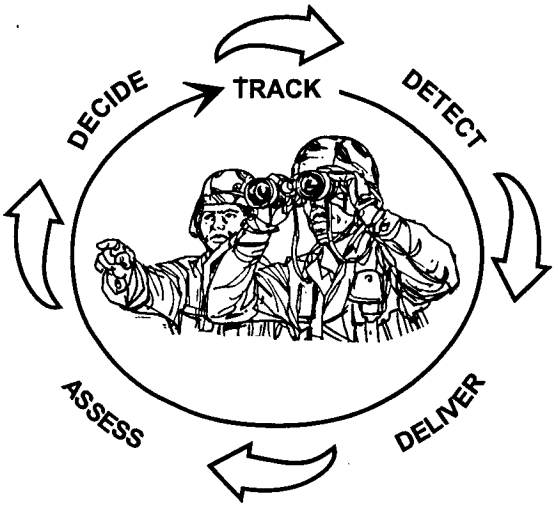


Figure 2–3. Targeting methodology

Target tracking occurs during the targeting function of detect, and it supports the targeting functions of deliver and assess. The decide, detect, deliver, and assess targeting methodology is applicable for air or ground assault as well as for delivery systems such as tactical air, attack helicopters, and electronic attack (EA).

Joint standardized control measures are used in the deep operations coordination process. They are a flexible system of managing ground and air operations. An important control measure for deep operations is the fire support coordination line (FSCL). The FSCL is a line that the appropriate ground commander establishes to ensure coordination of fires and interdiction not under his control but which might directly affect his current tactical operations.

The FSCL is a permissive fire support coordinating measure. When consulting with superior, subordinate, supporting, and affected commanders, the appropriate land force commander establishes and adjusts the FSCL within his boundary.

Forces attacking targets beyond an FSCL must inform all affected commanders in sufficient time to allow necessary reaction to avoid fratricide, both in the air and on the ground. Fire support coordination lines facilitate the expeditious attack of targets of opportunity beyond the coordinating line.

Supporting elements may attack targets beyond the FSCL, if the attack will not produce adverse effects on or to the rear of the line. The FSCL is not a boundary; the synchronization of operations on either side of the FSCL is the responsibility of the establishing commander out to the limits of the land force's boundary.

The decision on whereto place, or even whether to use, a FSCL requires careful consideration. All involved in the decision must understand that it is a permissive fire control measure used to expedite fires. It does not delineate AOs. Its greatest utility is in facilitating the attack of time-sensitive targets. (See JP 3-0 and JP 3-03 for in-depth discussions.)

Close Operations

Corps close operations include the battles and engagements of its major maneuver and fire support

units together with CS and CSS activities presently supporting them. The corps' close operations usually include the deep, close, and rear operations of its committed divisions, separate maneuver brigades, or cavalry regiments.

Not all activities that are part of close operations necessarily take place near the line of contact (LC). An example would be counterfires directed against enemy artillery supporting enemy forces in contact. Conversely, not all activities taking place near the LC are part of close operations. For example, target acquisition may be seeking to locate deep targets even though intelligence resources may be in the same area where close operations are taking place. (Security operations, such as covering and screening forces, are part of close operations.)

Close fights occur where, when, and against whichever enemy units commanders choose to commit assault formations. Concentrating the effects of combat power in support of ground forces becomes the commander's focus in close battles.

Reconnaissance and security are critical to battles and engagements. In general, reconnaissance and security are two different missions. However, at the tactical level both are closely related. Units conducting reconnaissance provide a degree of security. Units conducting security missions use reconnaissance techniques.

Reconnaissance is the precursor to engagements with the enemy. Reconnaissance actions yield information on the disposition of an enemy's force and intent as well as environmental conditions.

Effective reconnaissance allows the commander to gain and maintain contact with the enemy as well as to direct friendly units into the fight. Reconnaissance units orient their movement on the reconnaissance objective, which is either the enemy or the terrain. Reconnaissance units may have to fight for information, but they usually avoid decisive combat.

Security, on the other hand, protects and conserves the combat power of friendly units. Security is an inherent part of all military operations. At the tactical level, security actions protect the command against surprise attack and hostile air and ground observation. All units conduct security actions while specific units may be tasked to conduct security missions (such as screen, guard, and cover).

Only one unit conducts the main effort. Normally, the commander visualizes the ultimate defeat of the enemy force by his main effort. In this regard, a commander shifts and applies combat power as necessary to reinforce his main effort. Designating a main effort provides the focus that each subordinate and supporting commander uses to link his actions to the action of those around him.

The main effort is the part of a commander's concept that permits initiative but maintains direction and cohesion. Supporting the main effort requires synchronization of combat, CS, and CSS resources.

Reserves give a commander options and flexibility and provide an edge against uncertainty. They exploit successes, gain opportunities, and expedite victories. Commanders can use reserves to weight the main effort to maintain momentum, provide security, and defeat enemy counterattacks. Reserve actions are not solely in response to unforeseen enemy actions.

Close combat is normally required for decisive and lasting effects on the battlefield. It is also the type of combat that places soldiers at greatest risk.

Rear Operations

The corps conducts rear operations to assure freedom of maneuver and the continuity of operations, including sustainment, clear C^2 arrangements, and dedicated fire support. The corps must synchronize the rear operations functions of terrain management, security, sustainment, and movements with the corps' close and deep operations, in keeping with the corps commander's concept and intent.

While G3s and S3s are responsible, overall, for terrain management, commanders of rear command posts (CPs) usually position supporting units in rear areas. Once in position, these units become a base (a unit or multiunit position with a definite perimeter) or part of a base cluster (a mission grouping of bases and/or security requirements that lack a clearly defined perimeter).

Rear area operations include security operations to ensure sustainment is not interrupted. Three levels of responses to threat activities serve as guides for planning rear operations. Rather than focusing on the size or type threat, these levels focus on the nature of friendly actions needed to defeat the threat:

- Level I threats can be defeated by base or base cluster self-defense measures.
- Level II threats are beyond base or base cluster self-defense capabilities but can be defeated by response forces, normally MP units with supporting fires.
- Level III threats necessitate a command decision to commit a corps combined arms tactical combat force (TCF) to defeat them. An MP brigade, properly augmented, may be designated as the TCF.

Continuous reconnaissance and timely intelligence-collection and dissemination are essential for successful rear operations. Based on a thorough intelligence preparation of the battlefield (IPB) and CI risk assessments, rear operations planning must include—

- Base and base cluster self-defense.
- A response to defeat Level II attacks that exceed base and base defense cluster capabilities.
- The commitment of a TCF to defeat a Level III threat.

Rear area operations include planning and directing sustainment. Synchronizing these actions with the concept of operations is critical to the success of close and deep operations. Rear operations also ensure that sustainment is not degraded by and does not limit the force commander's freedom of maneuver and continuity of operations.

Movement control includes planning, prioritizing, deconflicting, and executing movement plans, both internal and external (other US forces and host nation) to a unit. Staff G3s and S3s are responsible, overall, for directing the movement of tactical units through or within AOs.

Rear CPs are generally responsible for administrative moves and for prioritizing and deconflicting movements within rear areas as well as planning for sustainment of tactical movements within the division rear.

The commander must give one specific individual normally the deputy corps commander, the responsibility and authority to control all aspects of corps rear operations. His responsibilities include—

- Command and control of units task-organized for rear operations.
- Coordinating and synchronizing corps rear operations with close and deep operations in keeping with the commander's intent.
- Planning, organizing, directing, and coordinating assigned and attached units to accomplish sustainment, terrain management, movement, and security.

NOTE: See Appendix C for a detailed discussion.

BATTLEFIELD OPERATING SYSTEMS (BOS)

Commanders and organizations perform major functions within each level of war in order to successfully execute operations. These major functions are called operating systems. (See TRADOC Pamphlet (PAM) 11-9.)

The first level of war is the national military and theater strategic level. Operating systems at this level include major functions that civil and military organizations and unified, joint, and multinational strategic forces perform in order to successfully execute strategic plans and theater campaigns.

At the operational level, operating systems include the major functions that joint and multinational operational forces perform in order to successfully execute the unified commander's subordinate campaigns and major operations.

At the tactical level, operating systems include major functions the force performs to successfully execute operations (battles and engagements) in order to accomplish the operational commander's objectives.

These fictions, occurring on the battlefield, are the BOS. The BOS include intelligence, maneuver, fire support, air defense, mobility and survivability, CSS, and C^2. They provide a structure for integrating and synchronizing critical combat activities on the battlefield.

NOTE: Specific considerations related to corps offensive and defensive operations are in Chapters 5 and 6, respectively.

Intelligence

The corps is the primary echelon that processes and analyzes current intelligence from strategic-,

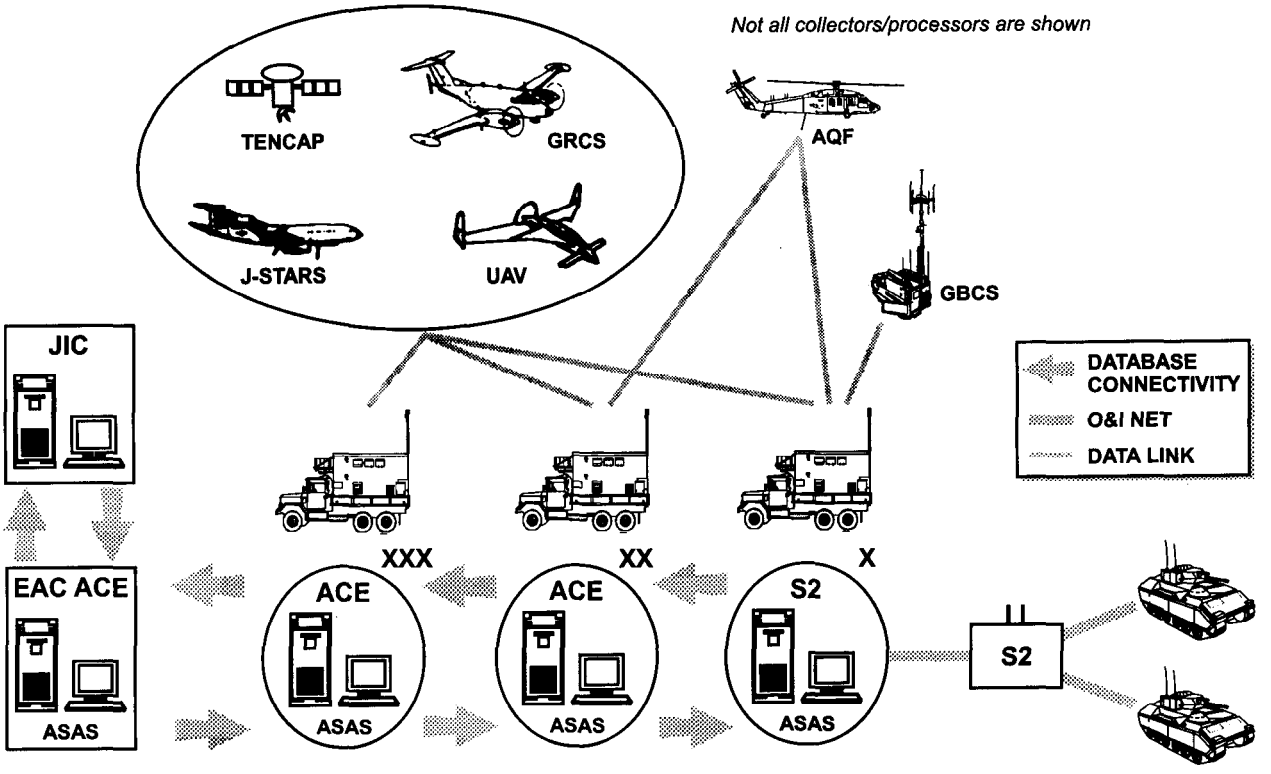


Figure 2–4. Intelligence flow

operational-, and tactical-level sources. The corps then disseminates key products to tactical forces.

The corps commander drives the intelligence effort. He steers the focus of the intelligence system by clearly designating his priority intelligence requirements (PIR), targeting guidance, and other intelligence requirements. He ensures that the intelligence BOS is fully employed and synchronized with the maneuver BOS and the fire support BOS (Figure 2-4).

The commander must also realize that intelligence resources are finite and that competing requirements can dissipate the power of intelligence. Therefore, he must prioritize requirements in order to support his intent and concept of operations.

The analysis control element (ACE) is the synergistic focus of military intelligence at the corps level. Under the G2's operational supervision, the ACE focuses the intelligence system on products and services commanders need to plan and execute operations across the battlefield.

The ACE develops and tracks critical targets, performs all-source analysis, manages collection, produces and maintains IPB products, and disseminates combat information and intelligence. Intelligence operations provide information on terrain, weather, and the enemy and how they interact to affect operations.

The topographic engineer company provides the G2 with analyses of the effects of terrain and weather on combat operations. The USAF weather team that supports the corps provides weather data. The staff weather officer (SWO) and his team provide staff weather, forecasting, and observing support to the corps and, with the G2, help interpret the effects of weather on friendly and enemy operations.

Intelligence preparation of the battlefield is the commander's responsibility and helps reduce the uncertainty about the effects of the enemy, weather, and terrain on operations. The IPB provides the framework for identifying what information the

intelligence system must collect, analyze, integrate, and present to support situation and target development and decision-making processes. All appropriate staff elements, coordinated by the G2, execute IPB to achieve the commander's stated requirements.

The corps MI brigade directly supports the corps commander and the G2 by providing multidisciplined IEW support to the entire corps. The brigade provides the commander and G2 a robust organic intelligence collection, processing, and dissemination capability. In addition, it provides the linkages to joint and national capabilities. Collectors organic to the corps MI brigade include—

- The Guardrail Common Sensor (GRCS).
- The unmanned aerial vehicle-short range (UAV-SR).
- Long-range surveillance (LRS) units.
- Counterintelligence and interrogator personnel.

The GRCS is a fixed-wing, airborne-intercept and direction-finding (DF) system capable of providing near-real time target information on enemy communications and radar systems. The UAV-SR has a maximum range of 300 kilometers and provides video or forward-looking infrared (FLIR) imaging for reconnaissance, surveillance, or battle damage assessment (BDA). Long-range surveillance, interrogation, and CI personnel are capable of supporting the corps or reinforcing the capabilities of subordinate commands.

Through a variety of automated processors the corps can process and disseminate intelligence from theater and national sensors. The all-source analysis system (ASAS) is the processing and dissemination backbone. The ASAS is augmented by special-purpose processors and communications, as necessary.

The joint surveillance target attack radar system (J-STARS) ground station module (GSM) receives and analyzes moving-target indicators (MTI). It can receive and exploit imagery from national-level synthetic aperture radar (SAR) imagery.

The modernized imagery exploitation system (MIES) can receive and exploit imagery from national-level sensors in near-real time. It can then disseminate secondary imagery to customers via such systems as TROJAN SPIRIT and the mobile integrated tactical terminal (MITT).

The electronic processing and dissemination system (EPDS) can also receive, process, and disseminate signal intelligence (SIGINT) data from national and theater systems. In addition, through the ADA brigade, the corps can receive airborne warning and control system (AWACS) data.

A mechanism to help the corps pull necessary information from EAC theater or joint and/or national agencies is the corps military intelligence support element (CMISE). Personnel from the theater MI brigade form this element. The CMISE assists the corps' organic intelligence elements.

Through the CMISE the corps can establish and maintain access with EAC intelligence data bases and organizations. The CMISE allows the corps to leverage these resources, and it bridges the gap between EAC intelligence organizations and echelon corps and below users.

Corps electronic warfare involves communications and noncommunications intercept and DF activities and both electronic jamming and electronic deception missions. The MI brigade possesses no organic jamming capability. As such, corps EW planners must rely on subordinate and joint EA systems to execute the corps' EA concept.

Electronic deception missions are integral to the overall deception plan the G3 develops and coordinates. Execution and synchronization of electronic jamming and deception missions require extensive coordination between the G2 and G3.

Intelligence support to corps deep operations seeks to develop information on enemy activities that can affect future corps close operations. This collection effort must support the decide, detect, deliver, and assess process.

Based on the commander's PIR and concept of operations, the overall collection effort must focus on named areas of interest (NAI) and target areas of interest (TAI) to support corps actions such as firing deep artillery missions and launching deep ground maneuvers or air strikes.

Intelligence support to the corps' close operation includes not only the collection of enemy information important to the corps, but also the augmentation of subordinate unit intelligence-collection

capabilities. Operational control or attached MI companies, platoons, or teams provide direct support to divisions, the ACR, or separate brigades. Because of their longer collection ranges, aerial surveillance assets are normally retained in general support of the corps to support the main effort or a critical area of the battlefield.

Intelligence objectives in the corps' close operation key on information to help subordinate units conduct successful battles and engagements. Those objectives also key on information necessary to execute corps-level combat activities such as counterattacks, spoiling attacks, reinforcement, and reallocation of resources.

The staff prioritizes the collection effort to focus on NAIs and TAIs, seeking to identify specific enemy formations and activities to trigger corps actions. Intelligence support of the corps' rear operation focus on possible enemy activities that could interfere with the corps' ability to support combat operations.

Human intelligence (HUMINT) is usually a major source of this information. Other sources, such as higher, adjacent, and subordinate units, will also provide essential information.

Maneuver

Maneuver includes movement to gain positional advantage over the enemy combined with all fires directed to suppress, neutralize, and destroy the enemy. Maneuver should avoid enemy strengths and create opportunities to bring greater firepower to bear on the enemy.

Corps maneuver elements are its divisions, separate maneuver brigades, the cavalry regiment, and the aviation brigade. Maneuver is most effective when it employs surprise by approaching the enemy from an unanticipated direction.

The objective of maneuver at the corps level can be to—

- Move to exploit weaknesses or vulnerabilities in enemy dispositions.
- Move to a position of advantage to bring additional firepower to bear on the enemy.
- Move to exploit the effects of fires (both lethal and nonlethal) on the enemy.
- Close with and strike the enemy the decisive blow when preconditions have been met.

Armored and Mechanized Infantry

In the corps' close operation, armored and mechanized infantry maneuver elements close with and destroy enemy forces. Firepower, protection from enemy fire, and the speed of armored units create the shock effect necessary to disrupt or defeat the enemy.

Mechanized infantry has the same mobility as armored forces, but less firepower and protection. Armored and mechanized infantry units are particularly effective in conducting mobile combat against armored and mechanized threats in open terrain.

The corps allocates armored and mechanized maneuver elements based on the overall corps mission along with a consideration of the abilities of these elements to effectively employ their combat systems, given the terrain and expected enemy capabilities and actions.

Armored and mechanized infantry forces can also perform as part of the security operation. They can effectively conduct cover, guard, or screen missions in both the offense and the defense. In addition, armored and mechanized infantry maneuver elements are particularly appropriate for incorporation into the corps' reserve or as a striking force. As such, they can strike the enemy at the critical time and place to throw him off balance and to seize or retain the initiative. The elements can also effectively reinforce critical areas or react to rear area threats involving mechanized and armored forces.

Employing armored and mechanized infantry maneuver elements in the corps' deep operations will almost certainly be complex and involve significant risks. A deep operation will probably require at least a brigade and probably a division-size force to attack well beyond the corps' ability to support it with responsive artillery, attack aviation, and CSS. Therefore, maneuver forces in deep operations will probably require additional resources and augmentation to operate for up to several days.

Although using armored and mechanized infantry maneuver in deep operations is complex and risky, it can, if properly executed, be devastating to the enemy. To place an armored and mechanized maneuver force in the enemy's rear area (where it

can destroy such high-value targets (HVTs) as artillery, reserves, follow-on forces, C^2 centers, and logistic facilities) can be the stroke that tips the close operation in the corps' favor.

The commander will not normally dedicate armored and mechanized forces to the corps' rear operation until such time as a significant Level III threat develops or is expected to develop. Because fighting in the rear area can divert combat power from the main effort, commanders must carefully weigh the need for such diversions against the possible consequences and prepare to take calculated risks in rear areas.

A consideration that may lessen the risk is to designate the MP brigade, augmented according to METT-T, as the rear area tactical combat force. However, armored and mechanized assets routinely perform this role. In addition, armored and mechanized forces that are part of the corps reserve, or otherwise committed, may have rear operations contingencies.

Light Forces

The commander uses light forces, in the same respect as armored and mechanized forces, in the corps close operation to close with and destroy the enemy. Light forces can effectively perform against a heavy threat in restrictive terrain such as built-up areas, thickly wooded areas, or in mountains. However, they require augmentation with antiarmor weapons, field artillery, CAS, attack helicopters, ADA, and engineers. Commanders should not employ light forces in open terrain against heavy forces.

Light forces are ideal for moving undetected over short distances, such as when establishing an initial security force or when infiltrating an enemy's defensive positions. They are also essential to countering enemy infantry in any terrain, and are particularly effective when ground transportation or helicopter support increases their mobility.

When provided with transportation support and augmented with antiarmor and artillery assets, the corps can employ light maneuver forces to follow and support armored and mechanized forces. For operations in an NBC threat environment, light forces require augmentation by corps NBC reconnaissance and detection assets.

Light forces can be effective in corps deep operations when they are quickly inserted in the enemy's rear using airborne or air assault, or when they allow themselves to be bypassed and remain undetected as the enemy advances. These forces are most effective in small groups in the enemy rear, conducting limited raids, sabotage, harassment, denying key terrain, and providing information.

Light forces are especially suited for opposed entry operations during force projection. These initial forces can either conduct simultaneous operations in depth to accomplish all the objectives of the deployment and entry operation or seize a lodgement area as part of a more encompassing campaign plan.

When rapidly transported to the location of the threat, light forces can be effective in the corps' rear operation. Their ability to fight in restrictive areas, such as in cities and logistic complexes, is of great benefit. Their light antiarmor weapons and helicopter transportability are ideal for countering most rear area threats.

Reconnaissance and Security

Reconnaissance is the precursor to all military operations. It provides information on terrain and the enemy to all commanders and staffs. Reconnaissance may be mounted, dismounted, or aerial and accomplished by either technical or human means (or a combination of both). The commander may task any element assigned to or supporting the corps to perform reconnaissance operations.

Security operations focus on corps forces and facilities and provide reaction time, maneuver space, and protection to the corps. As with reconnaissance , any element assigned or supporting the corps might perform security operations. The three types of security missions are screen, guard, and cover. (See Chapter 6.)

The ACR is especially effective at conducting corps reconnaissance and security operations. It can find the enemy, develop the situation, and conduct combat operations similar to an armored and/or mechanized maneuver brigade. Its organic aviation, as well as other CS and CSS, make the regiment an independent, brigade-size force, ideal for covering force and security operations as well as a potent antiarmor counterattack force.

The light cavalry regiment (LCR) is capable of rapidly deploying by strategic airlift to conduct operations in support of force projection. The regiment can be tailored or task-organized, based on METT-T, and can provide incremental force packages to support a deploying corps during the initial stages of force-projection operations. It can also provide task-organized squadrons for employment by light divisions.

The commander can use the ACR in an economy of force role, but it may require infantry augmentation to conduct combat in restrictive terrain. The ACR is equipped and trained to operate over a significantly greater geographic area than are other brigade-size maneuver elements. The LCR can also attack, defend, and delay in secondary areas to allow the corps commander to concentrate combat forces elsewhere.

The commander can use the ACR with an armored and/or mechanized division to form an extremely potent deep attack force for the corps. While limited as a deep attack force, the LCR can be used to direct and control deep fires.

Both the ACR and LCR can perform against an armored or mechanized rear threat. They also have the mobility to react quickly to air landings. However, their lack of infantry limits their effectiveness in close terrain or urban areas.

Aviation

Corps aviation elements support the close operation by conducting combat, CS, and CSS functions in combined arms operations. During combat operations, the aviation brigade performs attack, reconnaissance and security, AASLT, air combat, CAS, and C^2 missions.

When used as a maneuver element, aviation must be employed as a combined arms force. As such, it requires augmentation in the form of intelligence, fire support, engineer support, and so on.

Aviation elements conduct CS operations by providing fire support, target acquisition, and aerial adjustment of indirect fires, by conducting air movement operations, and by emplacing scatterable mines. Aviation units can conduct CSS operations through the air movement of personnel, equipment, and supplies.

Attack helicopter units provide the corps with an extremely mobile combat force capable of engaging enemy armored vehicles during both day and night operations. These units are normally under corps control to be employed at the key time and place to support the corps' scheme of maneuver. They are most effective when they can engage enemy formations—

- While moving on roads or in open terrain.
- During the hours of darkness.
- With CAS and artillery during joint air attack team (JAAT) operations.
- When they are already engaged with friendly ground forces.

Commanders do not employ attack helicopter units pure (without fire support) and not normally in less than a battalion-size force. They may be under the OPCON of a committed division. This is one method the corps has of weighting the main effort or reinforcing a critical sector.

The corps may retain control of aviation elements in certain cases, such as when the corps controls the covering force in the defense or when the corps conducts flank or advanced guard operations in offensive operations. Attack aviation units must always be integrated into a combined arms team or be augmented to form a combined arms team.

Combat support operations in close operations may include—

- Providing assault helicopter support to infantry conducting air assaults to seize key terrain or facilities.
- Providing mobility to light artillery.
- Providing aerial communications platforms or relocating signal nodes.
- Emplacing scatterable mines to block enemy penetrations, turn enemy formations, or protect the flanks of corps counterattacks.
- Supporting critical C^2 activities.

Combat service support tasks in corps close operations involve the airlifting of critical materiel and personnel needed to support the corps battle. This includes airlift support for—

- Logistics-over-the-shore (LOTS).

- Movement of troops and personnel.
- Resupply.
- Movement of critical high-priority Class IX supplies.
- Retrograde of reparable items.
- Pre-positioning of fuel and ammunition.
- Movement of maintenance contact teams.
- Low-density, high-cost munitions when time, distance, situation, or the condition of roads inhibit ground transportation.

Airlift should be part of the distribution system and not used just for emergency or immediate movements. The G3 should allocate airlift assets to support CSS activities. If higher priority missions need these assets, they can be withdrawn.

Appropriate corps staff elements must estimate effective and timely procedures for the joint planning and coordination of Army aviation operations. The focus of Army aviation in deep, close, and rear operations requires continuous dialogue to synchronize joint and multinational warfighting capabilities.

Joint planning and coordination are required to minimize conflicts, duplication of effort, and fratricide. Aviation operational planning considerations include, but are not limited to, the following areas:

- Thorough IPB (terrain analysis, route engagement area (EA), battle position selection).
- Intelligence (reconnaissance, target acquisition, mission planning, execution).
- Command and control procedures (forward/rearward passage of lines, battle handover, FLOT penetration, control measures required, communications support).
- Fire support.
- Airspace deconfliction.
- Sustainment requirements (Classes III and V, recovery procedures, transportation, reconstitution.
- Joint synchronization (CAS, J-SEAD).
- Engineer support (pick-up zone (PZ), landing zone (LZ), FARP preparation).

In deep operations, the mobility and firepower of attack helicopters is most effective when concentrated against enemy flanks or against armored and artillery units moving in the area beyond the FLOT. The corps may use its attack helicopters to destroy enemy formations in depth that could possibly disrupt or unhinge the close operation within the next 72 hours. These assets are particularly well-suited for night operations.

The degree of sophistication and the aggressiveness of enemy AD systems are major factors when conducting deep aviation operations. The operation's depth and duration are also critical.

In all cases, planning for corps aviation deep operations must be thorough and comprehensive. The specific threat AD environment the corps commander faces will dictate the relative importance of each of the planning considerations.

To ensure success in a high-threat AD environment, corps deep aviation operations must be fully supported by elements of all the BOS. Long distances traversed over hostile territory will demand heavy emphasis on J-SEAD.

Commanders must carefully synchronize the use of cannon artillery, multiple-launch rocket systems (MLRS), and Army tactical missile systems (ATACMS) to suppress and destroy enemy forces along the route or in the target area. The commander must also plan to use USAF electronic warfare capabilities as part of a deep attack package.

In a more permissive AD environment, or when available reaction time limits planning time for a joint operation, the corps commander may elect to conduct a deep operation with his own attack and CS assets.

Contingency planning facilitated by predictive, timely intelligence will allow the staff to prepare force packages in accordance with the commander's intent. This will allow a quick reaction to an execution fragmentary order (FRAGO) that can set the operation in motion in minutes, rather than hours.

The corps may also use its assault and medium helicopters to conduct air assault of infantry troops in a deep operation or artillery raid. Such operations could include raids into the enemy's rear area or the seizing of critical terrain or facilities in advance of the corps' attack, or attacks by fire using light artillery placed temporarily behind enemy lines.

Deep air assaults will need the same types of protection measures as for deep attack operations.

The use of aviation resources in corps deep operations will almost always result insignificant risk. The commander must carefully weigh this risk against the expected results and their impact on the total corps battle.

A successfully conducted deep operation could be decisive to the corps battle. Because of its unique ability to move quickly over a wide area and to respond quickly during both day and night, the aviation brigade is well-suited for conducting corps rear operations.

Timely receipt of intelligence data presents the opportunity for attack helicopter elements to engage enemy air assault formations before or during insertion. In addition, attack helicopters may be the most responsive means to deal with enemy armored formations in the rear area. The brigade's assault helicopters provide a rapid and effective means of moving ground combat troops to engage threats in the corps rear area.

Fire Support

Fire support at corps level is the collective and coordinated use of FA, EA, Army aviation, USAF, and, when available, USMC and USN air assets in support of the corps battle. Where available, naval surface fire support also supports corps operations. (See Appendix A for planning factors.)

Using Army aviation assets in a fire support role presents unique planning and control considerations. Coordination is required between the aviation brigade and the corps artillery. This coordination normally occurs in the fire support cell or in the DOCC of the main CP.

The commander employs fire support means throughout the depth of the battlefield to complement his scheme of maneuver. Fire support is most effective when its effects are massed.

The commander uses fire support to delay, disrupt, or limit the enemy by destroying, neutralizing, and suppressing enemy weapons, formations, and facilities. Effective integration of fire support into the combined arms operation is a decisive factor in the corps battle.

The corps artillery commander is the corps fire support coordinator (FSCOORD). He is responsible for—

- Recommending fire support priorities.
- Advising the corps commander on the best use of available fire support resources.
- Developing the tire support plan.
- Implementing the approved fire support plan.

The FSCOORD also ensures that—

- Fires support the corps commander's battle plan, including weighting the main effort.
- All aspects of the corps battle receive fire support.
- All fire support means are fully synchronized.
- The fire support effort is sustained throughout the battle.

(See FM 6-20-30 for additional information on fire support of corps operations.)

Field Artillery (FA)

In the close operation the corps will use much of its field artillery to augment the fires of committed divisions and separate maneuver brigades. Normally, each committed division will receive an FA brigade of from three to five cannon or rocket battalions.

Field artillery units will receive tactical missions in support of divisions and other maneuver elements. Reinforcing (R) or general support-reinforcing (GS-R) to division artillery are examples of such missions.

In addition to these artillery battalions, the artillery brigade headquarters, if attached, gives the division an additional artillery headquarters. This facilitates artillery C^2, especially when the division is responsible for a large area.

The corps normally retains some field artillery under its own control for use in a counterfire role during close operations and in execution of corps deep operations. Use of corps-controlled artillery in the close operation could include—

- Counterfires to suppress enemy artillery.
- Creating weak points or gaps in enemy defenses.
- Support of JAAT operations.

- Blunting enemy penetrations or counterattacks.
- Protecting the flanks of a corps counterattack or spoiling attack.
- Suppression of enemy air defenses.

Field artillery will support the corps' deep operation by attacking enemy weapons, formations, supplies, and facilities that are capable of influencing the close operation. Because of the vast array of possible targets in the enemy's rear area, it may be impossible to effectively attack all of them. Therefore, it is important that each target attacked represents the best possible payoff in terms of its relationship to the overall success of the corps battle.

The corps normally retains control of all of its surface-to-surface missiles and some of its multiple-rocket fires rather than allocating them to subordinate maneuver units. However, higher echelons may impose controls over the corps' longer range fire support systems, including the use of corps systems to conduct operational fires or in support of air interdiction.

Field artillery support of the corps' rear operation must include at least on-order missions to provide fire support to the units engaged with Level II or III threats. It may also include pre-positioning some artillery units in the corps' rear that are solely committed to supporting the corps' rear operation.

Electronic Attack (EA)

Electronic attack is one of the three components of electronic warfare (EW). The other two components are electronic warfare support (ES) and electronic protection (EP). Electronic attack uses electromagnetic energy to attack an enemy's combat capability. It combines nondestructive actions to degrade or neutralize targets. Such actions might include electromagnetic jamming and/or deception and directed-energy (DE) devices. They might also include the use of the destructive capabilities of antiradiation missiles (ARMs) and DE weapons systems.

The corps possesses no organic jamming capability. As such, corps EW planners must rely on subordinate and joint EA systems to carry out the corps EA concept. (A J-SEAD operation using USAF and subordinate division EA systems is one example.) In addition, coordination of EA operations with multinational forces may be necessary. (See JP 3-51 for specific procedures.)

Electronic attack in support of the corps close operation involves jamming key enemy C^2, fire support, intelligence, communications, and target acquisition systems. Jamming should occur during critical stages of the battle when degradation and disruption will be of the most benefit to the corps. Examples of electronic jamming in the corps close operation include-

- Disrupting enemy counterattack forces.
- Disrupting enemy command and fire support communications during corps counterattacks or spoiling attacks.
- Disrupting enemy command nets as the corps covering force withdraws through the main battle area (MBA).
- Disrupting enemy ADA communications and target acquisition as part of J-SEAD.

Electronic jamming in support of the corps' deep operation will be limited to critical times and places on the battlefield, as in the close operation. Examples of electronic jamming in the corps' deep operation include—

- Disrupting enemy ADA during attack helicopter or air interdiction of a corps deep target.
- Suppressing enemy air defenses during airborne, air assault, or air extraction operations.
- Disrupting enemy C^2 nets during deep maneuver operations.

Electronic jamming in support of the corps rear operation is limited. One example would be the use of jammers to mask critical corps communications from interception and/or location by the enemy.

Air Support

To achieve the necessary degree of joint coordination, the Army and Air Force provide qualified personnel to work with each others' C^2 organizations. The Army provides a liaison element, the BCE. The BCE works with the supporting USAF air operations center (AOC) on the ground. The BCE works with the tactical air control center (TACC) when afloat, if a naval officer is the JFACC. The supporting USAF provides an air

support operations center (ASOC). The AF also provides liaison elements, called tactical air control parties (TACP), to work with each of the corps.

The BCE understands each corps commander's priorities and guidance and possesses the necessary knowledge of the battlefield situation. It processes each corps' requests for air support, monitors and interprets the land battle situation, and exchanges current intelligence through face-to-face coordination with elements of the AOC. (See Chapter 4 for details.)

Air support of the corps close operation occurs primarily through CAS by USAF, USMC, and USN aircraft. Close air support is defined as air attacks against hostile surface targets in close proximity to friendly forces that require detailed integration with fire and movement of supported ground forces.

Although the corps has control over some of the available CAS sorties, most sorties fall under the control of maneuver units for incorporation into their fire support planning. Shifting CAS sorties from one maneuver unit to another may become necessary to maximize their effect.

The combination of CAS with attack helicopters and artillery can produce a highly effective JAAT. The corps requires support from the USAF with intelligence collection, jamming, and deception to support close operations with airborne standoff systems.

Airlift may also be a part of the air support of the corps' close operation. Airlift may involve the airdrop, extraction, or air-landing of ground forces and supplies when supporting the corps battle or when evacuating casualties.

Air support of the corps' deep operation can include reconnaissance and surveillance, AI, EW, and airlift missions. It may also provide CAS in support of a deep maneuver force.

The USAF or USN aviation conduct air reconnaissance and surveillance operations, which the corps requests, to provide current information on specific targets. Air reconnaissance and surveillance uses visual and/or recording sensors to gain information on the disposition, composition, location, activities, and movements of enemy forces as well as his LOC and logistic activities. This can be an important part of the detection step of the decide, detect, deliver, and assess targeting process.

Air interdiction operations destroy, neutralize, or delay the enemy's military potential before he can effectively use it against friendly forces. Air interdiction occurs at such distance from friendly forces that detailed integration of each air mission with the fire and movement of friendly forces is not required. Accurate and effective attack of targets tensor even hundreds of kilometers into the enemy's rear can have a decisive effect on the corp's battle.

The higher commander may distribute AI assets to the corps commander. Normally, however, the corps commander may only nominate targets for the air commander to attack.

The execution of AI is the responsibility of the air commander alone. Air interdiction in support of the Army commander disrupts the continuity of the enemy's operations. Objectives may include—

- Reducing the enemy's capability to employ follow-on forces.
- Preventing the enemy from countering friendly maneuver.
- Reducing the enemy's ability to resupply his committed forces.

Although it is possible to nominate AI targets by specific unit, time, and place of attack, it is generally more effective to describe to the air commander the desired results or objectives. This use of mission-type targets allows the air commander greater flexibility in planning and executing the attack. However, commanders can recommend or request specific munitions against a target particularly vulnerable to that munition. An example of a mission-type target is, "Delay the 20th tank division east of the Orange River until 271800ZOCT__."

The corps' AI targeting process does not stop with nomination of the targets or mission-type requests. Refinement of target intelligence is continuous from the time the target nomination is made, to when the target is detected and tracked, and until it is finally attacked.

The staff must plan intelligence to support the BDA. The corps and USAF must share close and continuous intelligence, particularly for targets that have limited dwell time or cannot be accurately located until just prior to attack.

The corps requires intelligence and EW support from the USAF for deep operations. The USAF's

multiple systems enhance the corps' operations whether those operations are deep fires or deep maneuver by ground forces or Army aviation.

Army aviation's deep maneuver will receive-

- Electronic warfare support from the USAF.
- Combat air patrol operations support.
- Support from airborne standoff platforms for communications between the helicopter attack force and its parent unit or the corps' main CP.

Airlift may also support the corps' deep operation by transporting an airborne element deep into the enemy's rear or by conducting aerial resupply of a deep maneuver force. Air support of the corps' rear operation may involve airlifting critical supplies or augmentation units and conducting the counter air campaign against enemy air attack. While CAS is not usually distributed to units in the corps' rear, it may be diverted from other missions to help counter a Level II or III threat.

Weapons of Mass Destruction

Nuclear Weapons. The potential for nuclear warfare demands unique considerations for corps operations. Commanders must understand the environment the nuclear battlefield creates. They must factor battlefield nuclear warfare and nuclear target nomination into the design and conduct of operational and tactical plans. The effects of nuclear weapons can—

- Alter the balance between maneuver and firepower.
- Change the battle tempo and the courses of campaigns and battles.
- Hamper communications and diminish the effectiveness of centralized C^2.
- Create a more lethal battlefield environment that would strain support operations.

Political and strategic objectives rather than tactical effects will likely guide the employment of nuclear weapons. Not in all circumstances, but in some, the corps may be involved in planning the use of nuclear weapons. In such situations, the corps will nominate nuclear weapons targets to achieve operational and tactical objectives that support the campaign plan. The corps could use nuclear weapons to-

- Create a window for future offensive action.
- Destroy, slow, or reduce reinforcing forces.

Create the time and space for maneuver against attacking echelons.

- Destroy high-payoff targets.
- Force dispersal of enemy units.

The corps' plan that supports the nuclear planning of higher headquarters is called a nuclear option. An option is the basic element for providing nuclear support. It is a discrete grouping of nuclear targets,

Operational-level and corps commanders formally recommend nuclear targets as part of an option. It has specific yields and is planned for a specific geographic area, during a short time, and for a specific purpose.

Planning an option begins with mission receipt. There are four phases in nuclear-option planning:

1. Prewartime contingency planning, which is based on the type of operation and attendant constraints.
2. Wartime planning, which supplements peace- time planning-and is based on controls and constraints from higher headquarters, terrain, and actual threat intelligence.
3. Refinements to wartime planning, which meet changing situations and are used to **update an** option and are based on the latest **threat** intelligence.
4. Refinements to approved options, which are based on the situation just prior to target nomination.

Corps planners develop each option in concert with the campaign plan and transmit it to higher headquarters for approval. Throughout the process each option is treated as a single entity.

Only the President, as a member of the National Command Authorities (NCA), **can** authorize the **use** (release) of US nuclear weapons. The NCA grants release through the US military chain of command **to** the combatant commander.

A corps commander will not be involved in receiving release messages. He should, however, receive operational messages alerting him to the

requirements for nuclear nominations. If the corps commander feels release of nuclear weapons is feasible, he may ask the CINC to request release.

The corps also receives strike warnings (STRIKWARN) from higher headquarters. The corps uses formal STRIKWARN procedures to warn lower and adjacent units. (Refer to FM 100-30 for details.)

Nuclear Mitigation Techniques. Mitigation techniques fall into three categories: actions before an attack, actions during an attack, and actions after an attack. Actions before an attack include long-range planning, training, and maintenance. Actions during an attack include all protective measures taken to mitigate the effects of a nuclear detonation. Actions after an attack include recovery from the effects and resumption of operations in a nuclear environment.

Biological Weapons. The US has renounced the use of biological weapons. Biological warfare is the intentional use, by an enemy, of biological agents or toxins to cause death and disease among personnel, animals, and plants. More rarely, it can be used to deteriorate materiel. Germs can be delivered directly, such as by artillery or aircraft spray, or indirectly through a vector, such as a flea or tick. Toxins act in the field much like chemical agents. (See FM 3-100 for more information.)

Chemical. The US has renounced the use of chemical weapons. Chemical agents come in varied forms: gas, liquid, or aerosol. They can be delivered by mines, artillery, rockets, bombs, or aircraft spray. Commanders must consider how enemy chemical agent effects may alter their operations. (See FM 3-100 for more information.)

Joint Suppression of Enemy Air Defense (J-SEAD)

The ASOC provides the necessary interface with the USAF to plan, request, and coordinate J-SEAD operations in support of the corps. Elements of the corps play an important role in J-SEAD. The corps plans and conducts localized suppression to protect aircraft that must penetrate the FLOT and maneuver in the enemy's rear area.

Subordinate maneuver units conduct J-SEAD in the corps close operation in support of their own CAS and attack helicopter operations. The corps participates in J-SEAD when corps-level operations require it or when the higher headquarters directs. This could be the case during a corps-level attack helicopter operation, an air assault, or an airborne operation.

J-SEAD at corps level could involve—

- Corps artillery, to fire on enemy air defenses.
- Observation helicopters, to visually locate and adjust fires.
- Corps EW elements, to locate enemy AD radars and communications and to jam communications.

Combat air participation may involve-

- Air reconnaissance and surveillance to locate the enemy.
- Airborne jamming.
- Aircraft to attack enemy AD units.

J-SEAD in corps deep operations supports deep attack helicopter, AASLT, and airborne operations. It also helps protect aircraft conducting AI.

The first step of a successful deep air strike may have to be an early and aggressive J-SEAD. Many of the same resources will participate in close J-SEAD, with combat air probably playing a greater role because of the extended ranges.

A probable Level III threat to a corps rear area might consist of either an airborne or heliborne assault with accompanying ADA systems. Commanders must consider J-SEAD when responding to this threat.

Air Defense (AD)

Air defense includes all measures designed to nullify or reduce the effectiveness of attack or surveillance by hostile aerial platforms to preserve combat power and maintain friendly freedom of action. The Army uses offensive operations, defensive operations, and passive countermeasures to accomplish its objectives. Air defense operations include a careful, thorough IPB and the use of—

- Maneuver forces and SOF.
- Air defense artillery fires.
- Air-to-air and air-to-surface missiles.
- Combat aircraft (Army and other joint forces).

- Indirect fires.
- Jamming.

Passive defense operations reduce force vulnerability, minimize the effects of attack on the tempo of operations, and promote rapid recovery and reconstitution of the force after an attack. Passive defense measures include, but are not limited to-

- Tactical warning.
- Nuclear, biological, and chemical warning.
- Operations security measures.
- Hardening.
- Redundancy and robustness.
- Dispersal.
- Nuclear, biological, and chemical defense.

The corps must integrate air defense vertically and horizontally throughout the depth of the battlefield in all offensive, defensive, and special operations.

Within a given theater of operations, a single commander is responsible for theater air defense. This commander is usually a USAF officer, but he can be from any service. He is the area air defense commander (AADC) who is normally the JFACC within the theater. In large theaters, the AADC may have subordinate regional AD commanders.

The appropriate area or regional AD commander establishes procedures that regulate the corps' AD engagements. All Army weapons systems that engage enemy air forces operate under AD rules and procedures (for example, hostile criteria and weapons control statuses) that an area or region AD commander establishes.

Air defense operations should focus on the major threats to the force. The counter air efforts of the joint and combined arms team can include destroying aircraft in the air or on the ground and countering theater ballistic missiles, cruise missiles, and reconnaissance, intelligence, surveillance, and target acquisition (RISTA) platforms.

Commanders must carefully weigh participation in counter air operations by members of the joint and combined arms teams against their capabilities, effectiveness, and impact on other battlefield functions.

The combined effects of the USAF's counter air capabilities and the corps' ADA brigade are the corps commander's primary AD resources. The corps commander's mission to provide AD resources to his forces is no different than his mission to provide maneuver and fire support resources. He must ensure that his forces at all levels have adequate air defense. He must thicken and bolster those defenses when necessary.

Whether overmatching the corps' main effort with medium-range missiles or augmenting a subordinate division's organic air defense with additional ADA systems, the ADA brigade's key to successful AD operations lies with the ADA commander having a clear vision of the corps commander's intent. He can then adequately support the corps' close, deep, and rear operations.

Joint and combined arms forces conduct ADA brigade operations in support of close operations. They focus on protecting engaged forces and constituted reserves. They apply protection according to the commander's concept of operations and weight it to support the main effort. The ADA brigade also plays a major role in protecting the force from tactical ballistic missiles.

Corps ADA units may perform command or support relationships based on METT-T to augment organic division AD units. They weight the corps' main effort or provide additional protection to a critical area.

The corps keeps significant ADA under its own control in support of the corps operation. Battalions and batteries under corps control conduct specific missions based on the commander's AD priorities. Corps ADA support of deep operations includes—

- The nomination of counter air targets for attack by Army or joint assets.
- Theater missile defense operations to protect friendly forces.
- Denying the use of airspace to the enemy.

Air defense operations in rear operations focus on protecting essential rear area functions. Providing broad area coverage in both the tactical and operational rear areas is the fundamental method of accomplishing the goals of air defense in the rear operations area. The force weights this coverage to provide protection to the facilities and assets the

commander identifies as most critical to his concept of operations. Medium- and long-range air defense systems and joint air component forces provide a significant portion of the required protection.

The ADA commander has two roles. He is the commander of his ADA forces, and he is the air defense coordinator (ADCOORD) at that level. The ADA commander is the proponent for the air defense BOS at his echelon. He integrates all Army AD actions and has total responsibility for AD planning at the tactical level. This includes recommending AD missions for other members of the combined arms team.

The ADA commander ensures that organic, assigned, and supporting ADA units accomplish the tactical-level ADA objectives in support of the corps commander's concept of operations. The corps ADA brigade commander develops the AD plan for corps ADA units. Air defense artillery commanders plan and direct all active and passive defensive counter air (DCA) tasks for their units.

As ADCOORD, the ADA commander and his representatives in the corps main CP are responsible for AD planning. The ADCOORD is an integral member of the corps commander's staff planning process. To develop offensive counter air (OCA) and DCA priorities for recommendation, the ADCOORD, with input from the G2, assesses the air threat and the commander's intent.

The FSCOORD, with the ADCOORD, integrates OCA priorities into the force's targeting process. The ADCOORD recommends active, passive, and other combined arms AD measures in the AD estimate. After approval and staff coordination, the ADCOORD develops the AD annex to the corps plan.

The ADCOORD coordinates with ADA elements at higher and lower echelons as well as with adjacent units. Coordination ensures vertical and horizontal integration of AD coverage throughout the battlefield. For example, the corps ADCOORD integrates corps ADA with theater, division, and adjacent corps ADA forces. This includes integration with joint counter air participants. The division ADCOORD ensures his AD plan interfaces with the corps and adjacent division AD plans. (See FM 44-100 for more information.)

Mobility and Survivability

The corps engineer brigade is the major contributing force to the mobility and survivability operating system at the corps level. Military police contribute to mobility by conducting BCC and area damage control (ADC). Chemical reconnaissance, decontamination, and smoke elements also contribute to survivability.

Engineers enhance the effectiveness of maneuver units by providing—

- Mobility support.
- Degrading the enemy's ability to move on the battlefield.
- Providing protective emplacements and structures.
- Performing general construction and maintenance on roads, airfields, and structures.
- Providing topographic support.

The topographic company provides the corps G2 with terrain products that assist in the IPB process. Topographic engineers also provide survey support to units organic to and subordinate to the corps. They work closely with the corps artillery survey planning and coordination element (SPCE) to ensure that target acquisition and collection assets are on common grid with the delivery assets to effectively respond to high-payoff targets.

Engineer support for the corps' close operation consists primarily of reinforcing division and separate maneuver brigade engineers. The factors of METT-T determine the amount of reinforcement to each division, which could range from an engineer battalion to an engineer group.

Other contributing engineer units having special capabilities may include engineer bridge companies and engineer equipment companies. Corps engineers will also work in division areas on a task or area basis.

The focus of engineer support for mobility in the corps' close operation is on the movement of large tactical units. The corps G3 designates routes for ground forces well in advance of their intended use so engineers can upgrade them as necessary and keep them open.

Corps engineers emplace tactical float bridges and fixed bridges. Engineers also provide combat

engineer support to corps aviation units for their tactical deployment. Bridge companies can also off-load their bridges so they can be used as transportation assets.

Countermobility supports close operations by restricting enemy movement with the least effect on friendly maneuver. Engineers add space and time to the battle by restricting the enemy's ability to maneuver large formations. The aggregate effect of obstacles at the corps level supports the maneuver of its division and brigade-size forces while degrading the enemy's ability to maneuver.

Corps obstacle planning primarily centers on obstacle control. The corps develops obstacle restrictions to ensure that division obstacles do not interfere with the corps' scheme of maneuver and future operations. The corps also provides obstacle emplacement authority to ACRs and separate brigades using obstacle zones. Divisions may not place obstacles within restricted areas without the corps' approval.

The corps engineer provides advice on the employment of all scatterable mines in the corps area in support of the commander's concept for obstacle employment. The use of scatterable mines gives the corps the ability to quickly place an obstacle in the face of an enemy to turn, fix, block, or disrupt his advance or withdrawal. Also, by carefully monitoring and controlling emplacement and self-destruct times, the corps can rapidly attack through a recently created gap in the friendly obstacle system.

The corps commander is the approval authority for the employment of all scatterable mines in the corps area. He may delegate the authority to employ long self-destruct mines down to division and, with the corps' concurrence, the division can delegate it down to brigade level. He may delegate the authority to employ short self-destruct mines down as far as battalion level. The use of these mines must be well-coordinated so that a lower echelon does not inadvertently place an obstacle in the path of a future corps operation.

Engineer survivability support of the corps' close operation consists of aiding corps units in their survivability operations. Units dig in, according to the corps commander's priority, directing typical high-priority efforts toward corps artillery, ADA, aviation, and key C^2 facilities.

Engineers support deep operations in the same manner as for the close fight, but their focus is to keep open ground routes, drop zones (DZs), LZs, and other means of access deep forces need to sustain the fight. This requires rapid clearing of remotely emplaced mines and repair of critical damage. Engineers support the force's countermobility efforts by terrain analysis, countermobility target nomination and advice, and by coordinating all countermobility systems into the deep operation's countermobility plan.

Engineers assist rear operations with terrain analysis and countermobility planning. They install synchronized obstacles to block critical avenues and to deny facilities. They plan and execute situational obstacles, when necessary, to block and isolate threat forces operating in the rear. When time and resources permit, corps engineers perform survivability work in support of the corps' rear operation. This work may involve digging in critical CSS facilities.

General engineering support of the corps' rear operation keeps LOCS open and in good repair. Corps engineers build, maintain, and repair roads and airfields. As time permits, they replace tactical bridges with more permanent fixed bridges. They coordinate with higher echelons and HN agencies to keep railroads, waterways, and transportation nodes in operation.

Combat engineer units have the mission to fight as infantry when committed by the corps commander. In planning to combat a Level II threat in the corps rear, engineer units may provide the commander with an option as a response force. The commander must carefully weigh use of engineers as infantry against the associated loss of effective engineer support.

A commander reorganizing an engineer battalion as infantry must be cognizant of weapons system and protection limitations of engineer units. He must also consider augmentation with mortars, antitank (AT) systems, fire support teams, communications, and so on.

In war and OOTW environmental issues are a major concern of the Army. With emerging new laws and regulations, they will continue to have a growing impact on Army operations. Federal, state, local, and HN governments have laws and

regulations to protect human health and natural and cultural resources from environmental degradation.

Unit leaders must understand the laws and know what actions to take. They must also ensure that unit personnel have the proper training and that they comply with all requirements. (See FM 5-100-15 for a detailed discussion.)

Combat Service Support (CSS)

Combat service support of corps operations consists of manning, arming, fueling, fixing, moving, and sustaining the soldier and his systems. The corps must totally integrate these CSS functions into the planning and conduct of operations to provide the commander a combat multiplier with which he can weight the battle. The commander and his staff must synchronize CSS operations with all other operating systems to provide effective, continuous support when and where necessary.

The finance group, personnel group, and the COSCOM are responsible for providing CSS to the corps. Within the COSCOM are—

- The functional control centers (such as the MMC and the MCC).
- The medical brigade.
- The transportation group (if there are three or more fictional transportation battalions).
- Corps support groups (CSGs), including multifunctional corps support battalions (CSBs).

The COSCOM supports corps units whether they are operating in the division area or corps rear area. It provides a CSB from the CSG forward to provide direct support to corps units operating in the division area. It also provides liaison officers (LNOs) to work with the division support command (DISCOM) and the corps units operating in the division area. The CSG usually assigns LOs who normally collocate with DISCOM headquarters.

The nearest medical treatment facility (MTF) provides medical support for corps units operating in the division area without regard for unit affiliation. The task-organized corps support battalion provides other logistic support tailored to provide supply, services, and maintenance. This element will have attached to it all of the logistic units needed to support corps units as well as the divisions.

In the corps rear area, ammunition and petroleum battalions support divisions with GS ammunition and bulk fuel. The habitual support relationship between corps GS units and corps transportation units ensures timely distribution of ammunition and petroleum to the divisions.

The CSGs will provide supply, services, and DS maintenance to units within their geographic area of responsibility, with one CSG per committed division sector and one supporting the corps rear. The COSCOM's transportation group provides corps-wide transportation.

Nondivisional DS units receive their support (less Class VIII) from functional GS units. Aircraft maintenance units support corps aviation assets. Establishing and maintaining adequate LOC is necessary because of—

- The large volume of supplies and materiel required to sustain the corps.
- The number of casualties requiring movement for more definitive medical treatment.
- Movement of mail and replacement personnel.
- Reparable equipment requiring evacuation.

Air Force support to the corps' logistic operations includes air movement of Class IX repair parts via air LOC (ALOC); movement of high priority, low-density Class V products; and movement of Class III supplies as requested by the corps. (See FM 100-10 and FM 100-16 for discussions of CSS linkages into the corps from higher supporting echelons.)

Host-nation support may provide much of the corps' required logistic support. Organized units or a contractor from the HN civilian sector can provide HN support. The logistics civil augmentation program (LOGCAP) can also augment HN support. Civilian contractor support, either US, HN, or other country, can be provided to either the host nation or directly to the US. LOGCAP is designed primarily for use where no multilateral or bilateral agreements or treaties exist.

In addition to supporting the corps, the COSCOM may need to provide specified support to either a joint or multinational force, normally when the corps is the senior Army command in the theater of operations. The types of support that COSCOM can provide are fuel, food, water, common ammunition

items, field services support, transportation, and combat health support.

Manning, arming, fueling, fixing, moving, and sustaining the soldier and his systems are logistics functions necessary to preserve the fighting strength of divisional and nondivisional units. Close operations are the largest consumer of supplies (especially fuel and ammunition) and producer of casualties and damaged equipment and weapons systems.

The key to success in sustaining the close operation is prior planning. Forward pre-positioning of supplies and CSS units, including medical treatment units, the selection of adequate supply routes and alternates, and measures to protect CSS resources, is critical.

Air Force and Army assets can provide aerial delivery of critical supplies by airdrop, container delivery system (CDS), low-altitude parachute-extraction system (LAPES), or airlanding as well as air evacuation of wounded, on request to support close operations. They must provide continuous, adequate support to forces in the close fight while conserving assets and planning for future operations.

Deep operations may involve providing CSS to a ground force before its organic CSS units link up with it or before the ground force returns to an area that is not subject to interdiction of the LOC. If the corps must provide CSS to the force, arming, fueling, fixing, and providing medical support are major concerns.

The most critical aspect of providing support is to maintain a secure LOC, either air or ground, to ensure the force receives timely and responsive support. Air Force and Army delivery of critical supplies to forces conducting deep operations enhances those operations and helps maintain their tempo. Positioning support units forward may reduce response time.

In most cases, support of deep operations involves the sustainment of aviation and artillery assets. The support of these assets normally will not involve the forward movement of additional corps logistic assets. Corps logistic units routinely operate in the division area to provide support to corps units operating there.

Sustainment of corps rear operations includes the support of CS and CSS units in the corps rear, maneuver units transiting through or temporarily located in the corps rear, and units conducting tactical operations in the corps rear area. Of greater importance may be the potential for disruption of CSS of close and deep operations.

The corps must plan for the protection of key sustainment facilities and the LOCS identified to support committed maneuver units. The commander must position CSS units with redundancy and flexibility in mind and must prepare to relocate units should the tactical situation dictate. Airfields in the corps rear area will allow the delivery of ALOC supplies and replacement personnel as well as provide for evacuating the wounded and noncombatants from the AO.

As with the other operating systems, force-projection operations may require a CSS structure to allow selected logistic management functions to be accomplished from CONUS or from a forward-presence location. By deploying only those functional capabilities absolutely necessary, the corps can use split-based operations as a means of providing CSS to the force.

The deployed CSS cell consists of personnel and equipment in modular components that provide a conduit for electronic transmission of logistic data and message and voice communications traffic. The rear CSS cell continues to support the stay-behind force while concurrently interfacing with deployed cells to provide the required support forward. Split-based operations apply to all logistic functions. Planners assess the capabilities and assets available in the theater and determine how to supplement them without unnecessary duplication.

Command and Control (C^2)

Command and control is the exercise of authority and direction by a properly designated commander over assigned forces in the accomplishment of the mission. Command and control functions occur through an arrangement of personnel, equipment, communications, facilities, and procedures a commander employs in planning, directing, coordinating, and controlling forces in the accomplishment of the mission. (See Chapter 4 for a detailed discussion.)

SPECIAL OPERATIONS FORCES (SOF)

Corps operations impact and are influenced by SOF actions. Within the corps G3 there is a special operations coordinator (SOCOORD) element, This fictional staff cell exists to advise and integrate SOF capabilities by coordinating with SOF elements. Joint Publication 3-05 contains more information regarding this cell's structure and functions.

When the corps headquarters acts as JTF HQ, it generally includes a joint special operations task force (JSOTF) in lieu of a special operations command (SOC). The JSOTF coordinates all SOF, less PSYOP, within the joint operations area (JOA), A joint psychological operations task force normally coordinates and supports the PSYOP campaign plan throughout the JOA. (See JP 3-05 and JP 3-53 for details.)

When working for a JFLCC or a numbered army commander, the corps uses its organic SOCOORD element to stay advised of and to interface with SOF. The corps submits its special operations target and mission requests to the joint targeting coordination board (JTCB).

The SOCOORD simultaneously conducts informal coordination with the special operations command and control element (SOCCE). If the corps' AO encompasses a special forces operating area, a SOCCE may be under the corps' tactical control. This SOCCE serves as a battle command element and operates a tactical operations center (TOC).

Special Reconnaissance

Special reconnaissance operations are reconnaissance and surveillance actions that SOFs conduct to obtain or verify, by visual observation or other collection methods, information concerning the capabilities, intentions, and activities of an actual or potential enemy, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area. It includes target acquisition, area assessment, and poststrike reconnaissance.

Corps commanders have long-range surveillance units (LRSU) to perform similar reconnaissance missions within the corps' area of deep operations. As such, coordination is necessary to avoid redundant coverage.

Direct Action

Special forces (SF) and ranger units, supported by USAF SOF and Army special operations aviation, conduct direct-action operations in enemy-held, hostile, or politically sensitive territory. These operations are normally limited in scope and duration, but may include longer term stay-behind operations.

Direct-action operations are designed to degrade the enemy's C^2, destroy his critical assets, develop desired psychological effects, and preempt enemy operations. They typically involve the attack of critical targets, the interdiction of critical LOC or other target systems, or the abduction or rescue/recovery of selected personnel or sensitive items of materiel.

Direct-action operations are appropriate when the mission requires unconventional warfare (UW) tactics and techniques, area orientation, and language qualification of a special forces element. Ranger direct-action operations (also known as strike operations) favor the use of conventional tactics (raids and ambushes) and specialized techniques by ranger units in platoon, company, battalion, or multiple-battalion strength.

On occasion, direct-action operations may require a mix of rangers and other SOF. In a mix, the SOF serves as an advance party for an operation requiring ranger combat power or rangers providing security for a "surgical" SOF operation.

Unconventional Warfare (UW)

When friendly resistance movements exist in enemy-held, hostile, or politically sensitive territory, SF elements may infiltrate to provide advice, training, and support. The intent of SF UW operations is to develop and sustain these movements and synchronize their activities with conventional military operations.

Properly synchronized UW operations can extend the depth of the battlefield well beyond the corps AO, complement corps close and deep operations, and provide the corps commander with the windows of opportunity he needs to seize the initiative through offensive action.

Unconventional warfare operations normally occur beyond the corps AO, and the theater SOC coordinates and integrates UW operations at EAC. When the battle space of an advancing corps includes a special forces operational area (SFOA), a SOCCE collocates with the corps CP to ensure that all UW operations are closely synchronized with corps operations and to assist the corps staff in planning the linkup between conventional and guerrilla forces.

When OPCON of guerrilla forces passes to the corps commander, he becomes responsible for integrating them into his close operations. He normally exercises TACON through the SOCCE collocated with his command post. The collocated SF commander advises the corps commander of the capabilities and limitations of the specific guerrilla forces under his control.

After linkup, guerrilla forces normally revert to HN control. These forces may demobilize, or they may reorganize as conventional light infantry and be made available to the corps for use in economy of force missions commensurate with guerrilla training and equipment. Possible missions include rear area security of critical installations and LOC choke points and employment as a TCF on the flanks or in the rear area.

Foreign Internal Defense (FID)

Foreign internal defense is participation by civilian and military agencies of a government in any of the programs taken by another government to free and protect its society from subversion, lawlessness, and insurgency. Therefore, FID is an umbrella concept that covers a broad range of activities, always with the primary intent of helping the legitimate host government address internal threats and their underlying causes.

United States forces are not normally committed to combat foreign insurgents. Therefore, FID usually consists of indirect assistance, participation in combined exercises and training programs, or limited direct assistance without US participation in combat operations.

The primary role of SOF in this US government interagency activity is to train, advise, and otherwise assist HN military and paramilitary forces. The goal is to help the host nation to unilaterally assume the responsibility of eliminating internal instability. The FID may require that SOF participate in the following types of activities:

- Advisory and assistance activities that develop and support the HN military, paramilitary, and internal security organization.
- Intelligence activities that support other FID programs.
- Civil-military operations that isolate the insurgent and exploit its vulnerabilities, including the inability to satisfy essential needs of the indigenous population.
- Tactical operations that focus on neutralizing and destroying the insurgent threat.

Psychological Operations (PSYOP)

The mission of PSYOP forces is to plan, conduct, and support PSYOP at the strategic, operational, and tactical levels. They maintain special relationships with designated defense organizations and civilian government agencies (Department of State, US Information Agency, and the US Agency for International Development, among others).

PSYOP staffs and commanders support the corps commander by reviewing, planning, and coordinating military PSYOP activities that impact operational and tactical areas. (See FM 33-1 and JP 3-53 for details.)

A tactical PSYOP battalion normally supports each committed corps and provides a corps PSYOP support element under the G3's OPCON. Tactical PSYOP influences the opinions, emotions, attitudes, and behavior of specified foreign civilian and military targets within the corps commander's AO to achieve immediate and short-term objectives. PSYOP is an effective combat multiplier that commanders should maximize and fully integrate into corps operations.

The corps commander is responsible for monitoring PSYOP programs in support of US national goals and objectives in the corps' AO. A PSYOP program includes products, actions, or a combination of both, designed to produce a desired behavior in a specific target audience. A series of PSYOP programs form the PSYOP campaign that supports the senior commander's overall goals.

The theater CINC must approve any PSYOP actions the corps takes to target specific audiences. The approval process differs slightly during war and OOTW. In either case, the theater CINC may delegate authority for specific portions or products of the PSYOP campaign to a JTF or PSYOP POTF commander. The corps coordinates the approval and dissemination of all PSYOP in the theater with the unified command J3 and remains the responsibility of the CINC.

PSYOP units develop and disseminate propaganda designed to lower the morale and combat efficiency and to fragment the loyalty of enemy forces throughout the AO. They design propaganda to build support among the civil population for friendly combat operations and to reduce or neutralize civil support of enemy combat operations. They counter enemy propaganda aimed at undermining friendly deep operations.

At the corps level, the tactical PSYOP battalion supporting the corps can only disseminate and make recommendations on propaganda. Production is the responsibility of PSYOP units at EAC.

PSYOP units may persuade isolated and bypassed enemy forces to surrender, thus freeing friendly combat forces to continue the attack. PSYOP print and broadcast capabilities can facilitate CA and MP efforts to reduce civil interference with military operations through refugee control and information programs.

PSYOP units cooperate with CA and MP unit operations designed to control the local population and refugees, with the intent of facilitating military operations and obtaining the willing cooperation of the inhabitants. Their efforts may include reorienting and educating the civil population in liberated or occupied territory, providing information on the military situation, and limiting the psychological effects of enemy deep operations in the friendly rear area. Specialized PSYOP units can also support corps EPW camps by helping to control EPWs and collecting intelligence.

PSYOP units have some unique requirements that often can only be supported from outside the normal support channels. These requirements include massive amounts of paper and maintenance of specialized heavy print equipment. To meet these requirements, the corps coordinates support through the Theater Army Special Operations Support Command (TASOSC). PSYOP units have no organic air assets. Air dissemination of leaflets and loudspeaker broadcasts require that the tactical commander allocate air assets to support PSYOP missions.

Because of PSYOP's extreme sensitivity, employing this asset requires care. Target audiences, themes, campaigns, and objectives normally require approval at the CINC level or higher. PSYOP is generally not employed against allied or friendly civilians or military.

Tactical PSYOP units are not normally assigned in support of allied or friendly civilians or military. Tactical PSYOP units can assist the host nation in providing information to its civilian or military population. Training teams can also help allies develop tactical PSYOP capabilities.

Civil Affairs Operations

The CA mission is to support the military commander's relationship with governmental and nongovernmental agencies, other services, forces from other nations, and international agencies. Civil affairs personnel meet with civil authorities and the civilian population, promote mission legitimacy, and enhance the military effectiveness of the force's mission.

Civil affairs units, like PSYOP units, routinely work at the tactical level and are normally assigned at corps and division level. The corps almost always operates in areas of the world where the impact of military operations on the civil population is a significant consideration.

The CA unit most often designated to support a corps is a CA brigade. The brigade consists of organic language teams, functional specialty teams, and tactical planning teams.

From these teams is formed the civil-military cell (CMC). The CMC, usually in the corps rear CP, is manned by both assigned G5 section personnel and supporting personnel.

The CMC assists the G5 in preparing and maintaining the CA estimate, annex, and periodic report as well as numerous overlays and data that the corps tactical operations center (CTOC) cells use. Such data depict locations of foreign nation resources,

key public facilities and monuments, and cultural and/or religious shrines that should be protected.

The CMC also provides the G5 with CMO input to corps orders. It also recommends and prepares CA force-allocation changes. In peacetime, the CMC provides support to the G5 in planning and coordinating the preparation of CA annexes to corps operations plans (OPLANS) and contingency plans. The CMC also helps coordinate exercise activities.

The CA brigade provides CA functional expertise to man the corps civil-military operation center (CMOC). The corps CMOC, under the G5's staff supervision, assists the corps commander and staff. The CMOC serves as the primary interface between the corps and—

- Local civilian populations.
- Humanitarian organizations.
- Nongovernmental organizations (NGO).
- Private voluntary organizations, UN, and other international agencies.
- Multinational military forces.
- Foreign nation authorities.
- Other US government agencies.

When the CMOC receives requests for assistance from these various agencies, it-passes them to the CMC for staff action by the G5.

The commander's mission analyses determines the CMOC's location. However, it should be accessible to the various organizations with which it coordinates.

At the tactical level, CA units facilitate CMO by providing interface between US military forces and HN or foreign authorities or military forces. Civil affairs units help the commander develop COAs that minimize the likelihood and/or effects of civil interference with military operations. They locate and identify significant arts, monuments, and archives throughout the corps area, and they prepare plans and directives to safeguard these cultural properties. They also review plans and operations with respect to applicable laws and agreements and help the commander, as required, to meet his moral and legal obligations.

Civil affairs units locate and identify population centers in the corps AI, and they anticipate population movements that will occur in response to future combat operations. Civil affairs units cooperate with local authorities, MPs, and PSYOP units to plan the movement of displaced local civilians and to minimize interference with close combat operations. The unit's efforts focus on control of dislocated civilians and evacuation of noncombatants from the battle area. During retrograde operations, CA units identify and locate local resources and facilities the force must evacuate or destroy to avoid their use by the enemy.

Civil affairs units identify, locate, and assist in the acquisition of local resources, facilities, and support that the corps requires to accomplish its mission. They coordinate and administer HN support agreements and other forms of foreign nation support. They assist rear area commanders with the control and movement of dislocated civilians through the corps area, the coordination of rear operations plans with local authorities, and the establishment of civil-military relations with existing local civil authorities and agencies.

In enemy territory, or in friendly territory where there is a weak or ineffective civil government, CA units may, at the direction of the NCA, establish a temporary civil administration until existing political, economic, and social conditions stabilize.

The corps G5 must see that CMO are thoroughly integrated into all corps operations. The corps commander will decide after his mission analysis where to place his civil-military cell.

There are operations where CMO will be central to the corps' mission and the G5 will be close to plans, intelligence, and current operations. For example, in extreme situations, it may be necessary for the military to execute some of the functions the US country team normally performs. Higher intensity combat operations may not require the G5 to be immediately present. The G5 needs to be where he can coordinate all CMO and still be appropriately responsive to the commander's guidance and the commander's staff's need for integration.

PUBLIC AFFAIRS (PA)

The PA mission is to fulfill the military's obligation to keep the American people and the members

of the armed forces informed and to help establish the conditions that lead to confidence in America's armed forces and their conduct of operations in peace, conflict, and war.

Corps commanders conduct PA operations that can affect strategic, operational, and tactical levels of war. Such operations require special relationships with joint, combined, interagency, and nongovernmental organizations at various levels.

The commander employs and adjusts PA activities to inform the American public and his force as well as to effectively communicate the policies, resolve, and actions through US and international news media. The staff must coordinate public affairs PSYOP through the planning process and continually exchange information during current operations.

Although PA, CA, and PSYOP each have discrete audiences with tailored messages, there is a growing information overlap between their audiences. The credibility of all three is lost if their messages contradict one another.

Chapter 3

THE CORPS IN FORCE-PROJECTION OPERATIONS

Future conflicts will most likely occur in regions of the world in which the US does not have significant ground forces. When a conflict threatens US national interests, the NCA may direct the regional unified CINC to commit US military forces to resolve the situation. Any US Army corps must be ready to respond to the situation. This capability is referred to as force projection and is the essence of US national military strategy.

The US Army conducts OOTW throughout the world. Combat service support units, in particular, are heavily tasked to support ongoing OOTW missions, although combat and CS units may also be employed.

The nonavailability of corps units in support of OOTW impacts specific forces available to the corps for the execution of OPLANs for other regional contingencies. Units that habitually associate with the corps may not be available for use in a specific force-projection mission. Desert Shield is an example of a successful force-projection operation.

Force-projection operations for Desert Shield were initially based on a CONPLAN and draft OPLAN developed as part of DOD's deliberate planning process. The OPLAN was translated into an OPORD that provided deployment instructions and priorities to Central Command's service components. It provided tasking direction to supporting unified commands. The order also requested support from other government agencies.

Phase I of Desert Shield began on 7 August 1990 and lasted until mid-November. This phase's design was to deploy enough forces to deter further Iraqi aggression; to prepare for defensive operations; and to conduct combined exercises and training with the multinational forces in theater. During this phase, US strategic lift moved an ACR and four divisions into the region. (See Figure 3-1, page 3-2.)

Logistic and administrative units were also moved into the area to support not only Army forces, but those of other US services and nations as well. This effort ultimately involved the deployment of more than 115,000 soldiers (approximately 7,500 from reserve components) and more than 145 Apache attack helicopters, 294 155-millimeter (mm) self-propelled (SP) howitzers, 700 tanks, 1,000 armored personnel carriers (APC), and hundreds of other major items of equipment and thousands of ancillary pieces.

The key to success in such force-projection operations is synchronization of land, sea, air, SOF, and space capabilities. Force-projection operations are inherently joint operations. They usually begin as a contingency operation; for example, as a rapid response to a crisis in either war or OOTW situations.

Field Manual 100-5 describes force-projection operations in eight stages (mobilization, predeployment activity, deployment, entry operations, operations, war termination and postconflict operations, predeployment and reconstitution, and demobilization) (Figure 3-2).

CONTENTS

MOBILIZATION 3-3
PREDEPLOYMENT ACTIVITY 3-4
DEPLOYMENT 3-6
Unit Preparation 3-7
Movement to Ports of Embarkation . . . 3-8
Strategic Lift 3-8
Reception at Ports of Debarkation 3-9
Onward Movement 3-9
ENTRY OPERATIONS 3-9
Examples of Forcible Entry Operations . 3-10
Types of Forcible Entry Operations . . . 3-11
Phases of Forcible Entry Operations . . . 3-12
OPERATIONS 3-17
WAR TERMINATION AND POST-CONFLICT OPERATIONS 3-17
War Termination 3-17
Postconflict Operations 3-17
REDEPLOYMENT AND RECONSTITUTION 3-17
Redeployment 3-17
Reconstitution 3-18
DEMOBILIZATION 3-18

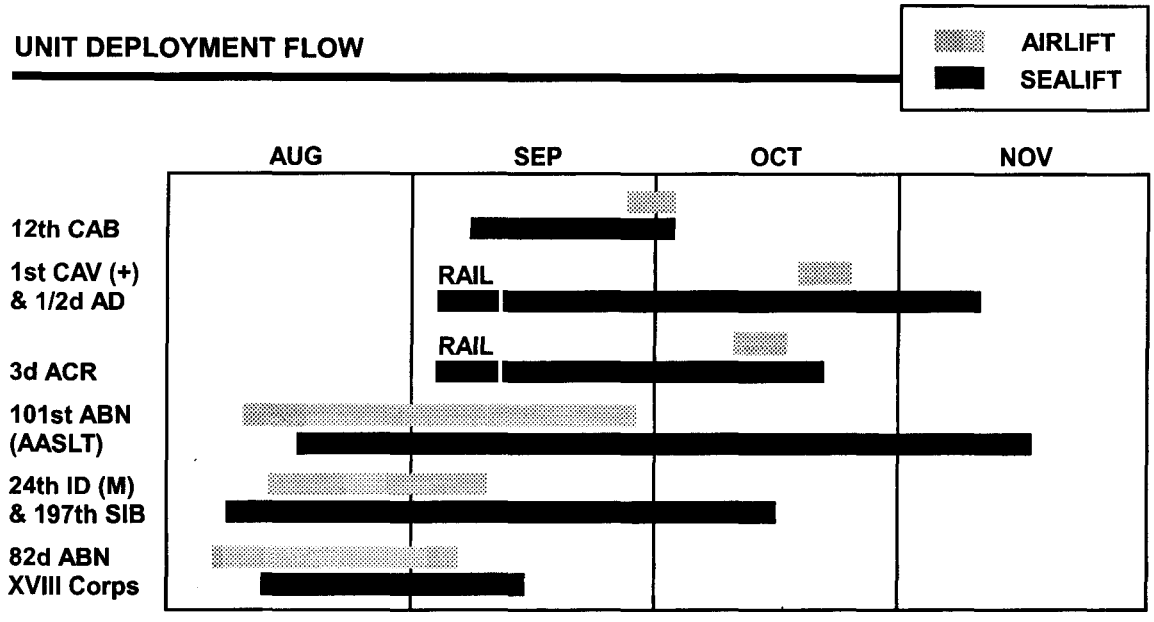


Figure 3–1. Phase I US Army Desert Shield deployments

Before force-projection operations begin, CONUS-based corps belong to Forces Command (FORSCOM). FORSCOM provides conventional Army forces to warfighting CINCs in accordance with plans developed under the Joint Operation Planning and Execution System (JOPES).

The V US Corps is forward-deployed in Europe and has a primary alignment with the European Command (EUCOM). (However, it can be deployed outside EUCOM in a manner similar to the 1991 deployment of the VII US Corps to Saudi Arabia.)

Similarly, the I US Corps has a primary alignment with the Pacific Command (PACOM) and is under the combatant command of the CINC of PACOM (USCINCPAC). In this case, FORSCOM has command less operational control; operational control resides with US Army Pacific (USARPAC).

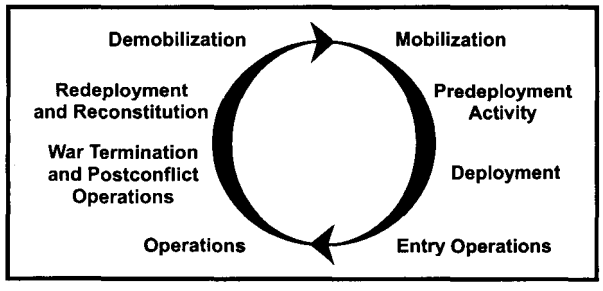


Figure 3–2. The eight stages of force projection

Planning for the employment of forces is a formal process for ensuring the orderly and efficient use of resources in military operations. Currently, JOPES includes deliberate planning and crisis-action planning (CAP).

Commanders-in-chief propose OPLANS as part of this deliberate planning process to fulfill tasks assigned in the Unified Action Armed Forces (UNAAF) plan, the Unified Command Plan (UCP), the Joint Strategic Capabilities Plan (JSCP), or as otherwise directed by the Chairman, Joint Chiefs of Staff (CJCS) (JP 5-03.2).

The CINCs use JOPES to develop joint operation plans for possible contingencies. Before force-projection operations begin, the corps' primary involvement in JOPES is through the review of higher echelon plans. The plans include the corps in the troop list and in the development of corps plans to support and implement higher echelon plans. Corps OPLANS and CONPLANs, in support of the JOPES deliberate planning process, provide a foundation that can ease the corps' transition to force-projection operations.

Before conducting force-projection operations, the corps plans, trains, and maintains. The corps'

mission-essential task list (METL) and readiness standing operating procedures (RSOP) reflect the anticipation that the corps will participate in force-projection operations.

The corps conducts continuous IPB of potential contingency areas and maintains its equipment and contingency stocks at a high degree of readiness. Corps units conduct combat-related, mission-essential training that includes deployment tasks relevant to anticipated unit missions.

If assigned a primary region or country of focus, the corps may conduct more specific training targeted on the threat, culture, language, religion, and geography of the targeted area. Normally the corps will rehearse OPLANs and CONPLANs during command post exercises (CPX).

The Army consists of the active component (AC), the National Guard (NG), the Reserve Component (RC), and the civilian workforce. Today's AC structure requires RC assistance to meet the demands of a major regional contingency.

During combat operations the corps operates with a mixture of AC and RC units. However, in peacetime it does not have command authority over nonfederalized NG or RC units.

The NG, in its role as the militia, is the nation's federal reserve. All NG units are commanded by their respective governors until federalized by Presidential executive order. They can act as either a state or federally activated force to ensure domestic tranquility.

The RC is structured under the Department of the Army. The commanding general (CG) of FORSCOM has command of all assigned RC troop program units (TPUS) in CONUS, except for designated SOF, through the US Army Reserve Command (USARC), which is a major subordinate command (MSC) of FORSCOM.

The Commander, USARC, organizes, equips, stations, trains, and maintains the combat readiness of assigned units. The same laws that control how the AC can be employed in domestic situations that apply to the RC.

Reserve component TPUs located outside the continental US (OCONUS) are commanded by their regional Army service component commands (ASCC) (Eighth US Army, US Army Europe (USAREUR), and USARPAC).

All RC units are assigned to either an Army Reserve Command (ARCOM) or to a functional General Officer Command (GOCOM). An ARCOM, commanded by a major general, is an organization with command of RC units located in a specific area. Most GOCOMs are organized on a fictional (engineer, MP, CHS), rather than a regional, basis.

The corps, with NG state area commands (STARCs) and RC ARCOMs and GOCOMs, approves the METL of RC units having either a formal training affiliation or war-trace alignment to the corps. That process, and the corps' provision of limited training resources to selected RC units, provides the corps an opportunity to influence the training of selected RC units before mobilization.

MOBILIZATION

Mobilization is the act of preparing for war or other emergencies through the assembling and organizing of resources. Corps mobilize after they receive a JOPES alert or warning order transmitted through the Global Command and Control System (GCCS).

The corps mobilization process entails a number of activities to bring corps units to a previously determined state of readiness. Corps-level mobilization activities tend to duplicate corps-echelon activities it conducts during the predeployment and deployment stages of force projection. Activities include—

- Supervising individual equipment preparations that MSCs conduct, including assistance to unit family support groups.
- Supervising MSC preparations for soldier readiness processing (SRP), including preparing A-bags, inventorying and procuring additional shoring and tie-down items, morale and personnel services, personal property storage, preparing personnel manifests, and updating personnel's medical and dental screening and immunization records.
- Reviewing MSC vehicle and equipment deployment preparations, including unit vehicle assembly area preparations, unit area equipment

palletization, vehicle load cards preparation, and weighing accompanying equipment.

The corps supports its MSC's outload activities. It alerts its units and initiates recall and planning procedures (for assembling and organizing the corps' available personnel, supplies, and materiel for active military service) in accordance with the corps' RSOP.

The corps initiates active operations security, marshaling and outload, and communications measures and procedures. While always important, OPSEC is critical during this stage to deny the enemy intelligence he may use against the corps during predeployment and deployment activities and entry operations.

Other steps involved in a national mobilization (such as calling up reserve forces, extending terms of service, increasing the production rates of end items of equipment) are acts of political will and are well beyond the corps', or of any military's, authority to initiate.

The corps' participation in mobilization planning is an integrated process. Joint Publication 4-05 identifies the responsibilities of the Joint Chiefs of Staff (JCS), sister services, CINCs, and other agencies engaged in mobilization planning. The Army Mobilization and Operations Planning and Execution System (AMOPES) is the vehicle by which all Army organizations plan and execute actions to provide and expand Army forces and resources to meet the requirements of unified commands.

Mobilization of RC forces (within CONUS) is the responsibility of the STARCs, ARCOMs/GOCOMs, and installation garrisons; the Continental United States Army (CONUSA); and USARC and FORSCOM headquarters. A corps has no direct responsibilities under the FORSCOM Mobilization and Deployment Planning System (FORMDEPS) to mobilize RC units.

The corps commander, as an installation commander, has RC mobilization responsibilities that normally are passed to the garrison commander upon the alert of the corps. Before deploying into an operational area, the corps commander and his staff should be relieved of all installation responsibilities to supervise and validate mobilizing RC units. This should occur even when the corps conducts split-based operations and a portion of the corps headquarters remains at home station.

When alerted for a contingency operation, the corps may request the activation of specific RC units or capabilities, such as a rear area operations center (RAOC). It may also provide limited assistance to affiliated mobilizing units. Individual mobilization augmentees (IMA) may round out both the corps and installation staffs.

Transfer of authority (TOA) of mobilizing RC units from their STARC or ARCOM/GOCOM to the mobilization station commander occurs when the mobilizing RC unit arrives at the mobilization station. Transferring the command of mobilizing units to the corps generally occurs through the ASCC or ARFOR after the mobilized unit arrives in theater, unless the RC unit mobilizes and completes validation before the corps departs from its garrison location. Some RC units deploy directly from their home station to the theater of operations, given the appropriate urgency of need and readiness levels.

PREDEPLOYMENT ACTIVITY

When an unforeseen event occurs somewhere in the world that requires the use of US military forces, theater strategic- and operational-level commanders conduct crisis-action planning. JOPES CAP procedures parallel those of the deliberate planning process but are more flexible and responsive to changing events.

CAP procedures provide for the timely flow of information and intelligence, rapid execution planning, and the expedient communication of NCA decisions to the CINCs. Concurrent and parallel planning during CAP compresses the planning cycle and facilitates early deployment action the corps and other organizations initiate.

In extremely time-sensitive cases, each CAP phase can be compressed by decisions reached in conference or if decisions are initially issued orally. In such cases, record communications will confirm decisions as soon as possible. Further, a crisis may be so time-critical, or a single COA so obvious, that the first written directive the corps receives might be a deployment or an execute order.

Planners normally complete campaign plans during the execution planning phase of CAP. They are time-sensitive, iterative, and adaptive, depending on the mission and forces assigned.

The theater campaign plan defines the command, control, communications, and intelligence (C^3I) and logistic relationships among the services for the corps. It also defines the sequencing and application of resources and should specify any multinational relationships.

In response to the receipt of a JOPES warning or other message of a force-projection mission through the Worldwide Military Commmand and Control System (WWMCCS) or the Army Global Command and Control System (AGCCS), the corps conducts CAP parallel with that conducted under JOPES at higher echelons. JOPES planners base their decisions on the best available information at the time.

Some decisions are irreversible. Corps intelligence, logistics, and communications preparations must begin as early as possible to allow commanders time to develop adequate plans.

Based on the JFC's guidance for establishing operational capabilities during the initial phases of force-projection operations, the corps commander recommends deployment priorities for his units. Subsequently, the JFC, with the theater CINC, develops required delivery dates from which to adjust or develop the time-phased force deployment list (TPFDL).

The TPFDL includes assigned and supporting forces (USAF airlift control elements; Army terminal operations units) that are to deploy to the operational area. The TPFDL establishes the joint force's lift priorities.

The final approved TPFDL becomes the basis for the corps' development (in cooperation with the Transportation Command (TRANSCOM), state highway regulatory agencies, and commercial transportation mode operators) of its marshaling and deployment schedules

During this stage of force-projection operations, the commander might establish an intermediate staging base (ISB) to pre-position C^3I and logistic assets, based on METT-T. The decision to establish an ISB probably will negate strategic surprise because of global news organizations. Loss of strategic surprise does not necessarily mean loss of the tactical surprise so important to opposed-entry operations.

Rapidly introducing forces into an operational area requires front-end loading by national and theater agencies of continuous. accurate, detailed, and timely intelligence. Therefore, key corps intelligence personnel and equipment must arrive in theater early. One of the first intelligence assets to deploy with the corps is the deployable intelligence support element (DISE).

The DISE provides forward-deployed corps elements the capability of conducting split-based intelligence operations. Corps split-based intelligence operations are key to force projection IEW support. They allow the commander to deploy small, flexible IEW assets tailored to the operation's specific requirements and logistic limitations.

The DISE uses long-haul and broadcast communications systems to access intelligence data bases, organizations, and systems outside the corps' AO. The corps initially relies almost solely on national and joint intelligence assets fed through a higher echelon Joint Intelligence Center (JIC) to the DISE at the corps' assault or main CP.

During multinational operations, the US will probably have the preponderance of intelligence capabilities and will need to provide LNOs to share and disseminate authorized intelligence products. During a force-projection operation, the corps usually needs to augment its HUMINT capability. This is especially true during 00TW because of the increased utility of HUMINT under the circumstances that commonly prevail during OOTW. Allied and/or coalition partners may possess an extensive array of HUMINT and CI assets to assist the corps.

Anticipatory CSS planning during this stage is key to successful execution of later stages. Successful force-projection operations require tailorable, flexible logistics.

The size of the deploying force, the maturity of the theater, HN support capabilities, the availability of in-theater stockage, resources pre-positioned afloat, and the existing theater infrastructure will all affect the logistic task organization. If there are no port facilities available to the corps, it may have to conduct logistics-over-the-shore (LOTS) operations,

which will require early deployment of specialized engineer and logistic units.

Split-based logistic operations from an ISB or from CONUS/OCONUS bases can reduce initial transportation requirements by precluding the transporting of noncritical personnel and equipment or supply stocks into the theater. The corps commander must prioritize his lift requirements consistent with METT-T.

The combatant commander establishes the sequence in which corps units will deploy relative to the movement of forces from the other services and other Army units. Early rulings on sequencing will solidify the TPFDL, resolve the time required to deploy the corps, and initialize the theater distribution plan.

During this stage, the corps task-organizes, echelons, and tailors its forces based on the assigned mission, concept of operations, available lift, and other resources.

Task organization is the process of forming combined arms task forces (TF) with limited self-sustainment capabilities for rapid force projection. The corps uses brigade-size units as the basic building blocks for task-organizing its units for force-projection operations.

Echeloning is the organization of units for movement. The likelihood of combat is the primary consideration when task-organizing and planning the echelonment of the force.

Tailoring is the process of adjusting the echeloned TF based on available strategic lift assets. Additional echeloning and tailoring considerations including pre-positioning equipment), HN capabilities, contract services, establishing an intermediate support base, and other infrastructure assets.

Finally, a key consideration during this stage must be rules of engagement (ROE). ROE are directives that delineate the circumstances and limitations under which US forces initiate or continue engagement with belligerent forces.

ROE reflect the law of armed conflict and operational considerations but are principally concerned with restraints on the use of force. Military commanders develop them giving consideration to the direction and strategy of political leaders. This process must balance mission accomplishment with political considerations while ensuring force protection.

ROE vary in different operations and sometimes change during the operation. Nothing in the ROE, however, should negate a commander's obligation to take all necessary and appropriate action to protect his force.

DEPLOYMENT

Besides the actual movement of personnel and equipment, the deployment stage includes actions that prepare the corps, its equipment, and supplies for movement to the AO and for operations after the movement is complete. Deployment may be deliberate or be in response to a crisis or natural disaster. Deployments may be from CONUS, from OCONUS, or from both.

The corps depends on TRANSCOM as the DOD single manager for strategic lift. Lift may come from sister services, other nations, or be contracted from commercial sources. The corps also depends on joint and/or HN or multinational air defense and intelligence assets until its organic assets deploy into the theater.

Deployment requires local air (and sea if appropriate) superiority. Deployments normally occur in five phases: unit preparation, movement to the port of embarkation (POE), strategic lift, reception at the port of debarkation (POD), and onward movement. Many deployment tasks overlap or occur simultaneously. (See FM 100-17 for details.)

Several factors influence planning for strategic deployment or unit movement by air and/or sea. They include—

- Existing automated unit equipment lists (AUELs).
- Time-phased force deployment data (TPFDD).
- Operation orders.
- The commander's intent.
- Pre-positioned equipment.
- Available lift systems.
- METT-T factors.

Corps deployments are programmed via JOPES, as modified by the supported commander's updated operation plan.

If the corps must respond to a short-notice contingency without existing plans, the staff must prepare plans to quickly assess the corps' status and movement requirements. While lift models and notional data are acceptable for requirements estimation in contingency planning, calculating lift requirements for execution demands actual unit embarkation data. All units must know not only the quantity of personnel and equipment they need to transport, but also their equipment's transportation characteristics (cube, weight, outsize, oversize).

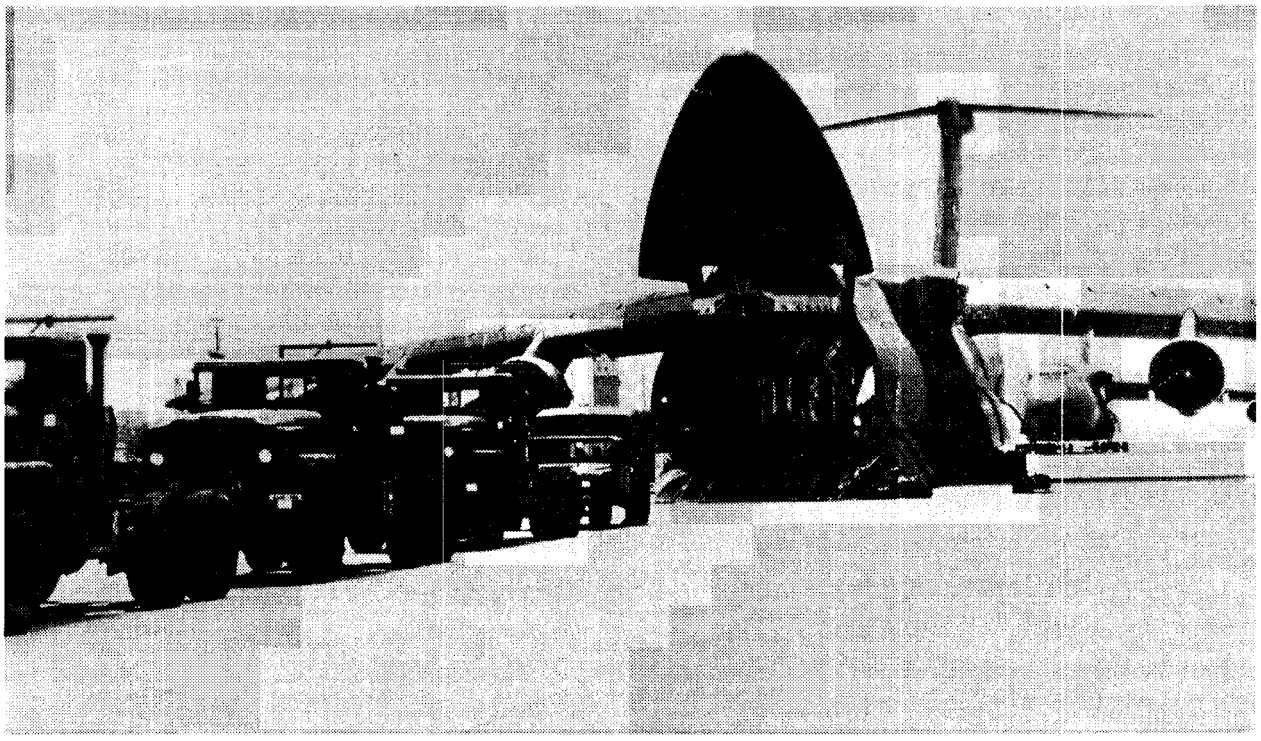
The corps ensures that subordinate units provide the necessary reports using the Transportation Coordinator Automated Command and Control Information System (TCACCIS) to update their unit movement data files. Corps units update their AUEL to deployment equipment lists using TCACCIS. They then submit these lists to the installation transportation office (for CONUS units) or the corps MCC (for OCONUS units) for transmission to the Military Traffic Management Command (MTMC). The MTMC is the ASCC of TRANSCOM. These actions help the staff compute lift requirements and schedule embarkation times.

Unit Preparation

Commanders follow guidance they receive from TRANSCOM and the CINC and/or JFC for task organizing, echeloning, and tailoring units for flow into the theater of operations. Commanders conduct necessary deployment activities and individual and collective training to attain the desired mission capability in the shortest possible time consistent with the planned deployment schedule.

In many cases at the corps level, activities occurring in this phase of deployment are the same as those occurring in the mobilization and predeployment activity stages of force projection. Activities include-

- Tailoring the force for employment.
- Planning and rehearsing the mission.



The corps depends on the U.S. Army Transportation Command as the Department of Defense's single manager for strategic lift.

- Requesting immediate fill of personnel and equipment shortages and cross-leveling within corps units.
- Completing SRP requirements.
- Requesting supply and repair parts shortages on high priority because of deployment status.
- Identifyng and requesting container requirements.
- Reviewing requirements for classes of supply.
- Identiying field service support shortages.
- Gathering and disseminating available intelligence.
- Reviewing LOC throughput capabilities for sufficiency and alternatives.
- Identiying shortages and submitting requisitions to the appropriate Army and DOD agencies.
- Identifying transportation shortfalls and making force-tailoring decisions based on the programmed availability of strategic lift assets.
- Requesting movement clearances.

A critical strategic and operational consideration for force-projection operations, which involve the potential for combat operations, is the early introduction of credible and lethal forces. Planners cannot always count on having sufficient time to build combat power in theater.

When forward-presence or HN forces are adequate for force-protection purposes, the commander may place less emphasis on combat forces and may introduce more CSS units to better assist the deployment and buildup of combat power. For OOTW-type contingencies (not involving likely combat operations), the commander may introduce CS and CSS units early on to provide critical services.

Movement to Ports of Embarkation

Rail is the preferred method for moving all wheeled vehicles from locations over one day's driving distance from the POE and for moving all tracked vehicles to the POE. Military convoy is the preferred method of moving wheeled vehicles to the POE that are within one day's driving distance.

The accepted method for deploying rotary-wing aircraft is to have them fly to the POE (or to the theater of operations if within range). Army fixed-wing aircraft normally self-deploy into the theater of operations.

Installations place individual manpower and forces at the arrival/departure airfield control group (A/DACG) and at the port support activity (PSA) to deploy and sustain designated units deploying to the operational area. Based on TCACCIS data fed into JOPES, TRANSCOM provides movement instructions to the corps. The corps supervises the decentralized execution of these movement instructions by subordinate units as they move to the designated POE via different transportation modes.

Strategic Lift

Strategic lift begins when corps elements leave (by air, land, and sea) the POE; it ends with theater closure. TRANSCOM ensures the in-transit visibility of forces and, with the Defense Logistics Agency (DLA) and the Army Materiel Command (AMC), transports supplies between CONUS and the operational area. In-transit data the unit movement coordinators receive provide the necessary force-tracking details to commanders at all levels.

Corps lead elements need to be able to receive updated intelligence while in-transit. As necessary, the corps modifies its plans en route to meet changing conditions in theater.

The strategic deployment of forces can present special C^2 problems for the planner. Planners can minimize many of these problems by properly using unit deployment plans, clear change of OPCON statements, and the ability to react to changes in mission while en route to the objective area. Normally, the supported CINC obtains combatant command (COCOM) or operational command (OPCOM) of supporting corps units when they leave the departure airfield/port.

Units that deploy a significant quantity of equipment via sealift should anticipate that soldiers will become separated from their equipment during deployment. Therefore, unit commanders need to plan training accordingly. Units should also train on the specific threat, critical individual tasks, ROE, AO, and cultural considerations.

Reception at Ports of Debarkation

This phase only applies to unopposed entry operations or operations subsequent to initial combat operations. It begins when corps units arrive at the POD in the theater base; it ends when corps units leave port marshaling areas. Port clearance is a theater responsibility.

The CINC or JFC develops the theater reception and onward movement plan for arriving forces and for sustainment. Except in the case of forcible entry, critical corps CS and CSS forces will either precede or arrive concurrently with combat forces. They will help process combat forces through the POD and establish marshaling and support areas.

Onward Movement

Onward movement begins with the linkup of personnel and equipment and the conduct of sustainment operations. Corps units reconfigure, receive pre-positioned systems, upload logistic stocks, and conduct sustainment operations at designated marshaling areas. This phase ends when the unit arrives at its forward assembly areas.

If the corps headquarters, with augmentation, is also acting as either a JTF or an ARFOR headquarters, it has significant additional responsibilities during this phase. (See FM 100-7.)

If the corps is already forward-deployed in a theater, either as a result of peacetime stationing decisions or through force-projection operations, follow-on forces do not normally come under the corps' command until they complete their onward movement from the POD to tactical assembly areas within the corps' AO. Until then, they are under the control of the joint or Army EAC headquarters.

ENTRY OPERATIONS

Corps units may conduct entry operations in an opposed or unopposed environment or a combination of the two. Unopposed operations are desired, but if there is any doubt about the situation in the theater, the corps should plan for forcible entry operations. (It is far better to spend time planning for a forcible entry that is not needed than to plan at the last minute for one that was not anticipated.)

Meteorological conditions (weather, tides, moon) impact entry operations more than any other type of operation. Early defeat, destruction, or control of any enemy forces posing an immediate threat to the lodgement area are primary planning factors since force protection remains a key consideration for the commander at all times. The end result of the corps' entry operation must be the establishment of suitable POD to support the accomplishment of the corps' mission.

During entry operations, the corps normally conducts split-based operations. Split-based operations place a significant demand on the corps' signal assets. The corps employs split-based operations to support entry operations until both sufficient space for the operations and security of assets exist within the lodgement area and until sufficient lift is available to permit their introduction into the AO.

When deciding whether to use split-base operations, the commander may choose to project the minimal force necessary into the AO during the earliest stages of a deployment. Another primary consideration for structuring the force must be the early projection of sufficient combat power necessary to conduct decisive operations.

When either the distance, scale, or complexity of a force-projection operation warrants, the corps may establish an ISB. An ISB can ease the flow and support of corps forces into an AO. The force generally establishes an ISB within intratheater airlift support range of the AO.

The corps normally deploys an assault CP into the AO with the corps' lead elements. (See Appendix B.) The corps' main and rear CPs may accompany the main force or, initially, remain in CONUS or at an ISB. Planning, intelligence, and CSS information will be downlinked via multichannel tactical satellite (TACSAT) and other means to and from the assault CP.

The initially deployed assault CP is small and contains minimal personnel in essential functional areas. The assault CP expands into a tactical or forward CP as the situation permits and when sufficient strategic lift is available to bring the complete tactical or forward CP into theater. This usually occurs by the time the trail elements of the lead division close into the theater. The corps' main and/or rear CPS deploy into the AO when sufficient lift becomes available, if required.

The requirement for reliable communications can be simply stated in entry operations. Execution is difficult. Because of differences in equipment and software between the services, other government agencies, other nations, and private organizations, it is doubtful if any large force will be 100-percent equipped with totally compatible communications and data transmission means.

The corps signal staff will need to be innovative in the development of work-around solutions to technical and protocol problems. The establishment of an en route C^2 capability will be critically important.

For entry operations, communications systems must be reliable, survivable, flexible, interoperable, timely, and secure. Modern technology provides communications capabilities far superior to those of the past. Nevertheless, because of the ready availability in the open market of communications jamming and imitative equipment, units may have to conduct forcible entry operations in a severely degraded electronic environment.

Entry operations in an unopposed environment generally support HN or forward-presence forces. This, with HN assistance, is the preferred option for deploying into a theater of operations because it is a low-risk operation and maximizes the capabilities of lift systems.

Early deploying units flow through aerial or sea ports of debarkation (A/SPOD) into assembly areas (AA). Corps units then—

- Prepare to assist HN or forward-presence forces.
- Protect the corps. (Even in apparently benign entry operations force protection of the force remains a critical command consideration.)
- Reconfigure the corps' task organization.
- Build combat capability, assembling sufficient, sustained combat power to win the decisive battle and training and preparing for eventual employment.
- Conduct training.
- Acclimate the soldiers to the environment.

NOTE: See FM 100-7, FM 100-10, and FM 55-1 for details.

A forcible entry requires combat operations to land deploying forces into the theater. (See JP 3-18.) Other than for small-scale raids, the corps is the Army's preferred echelon for conducting forcible entry operations. The corps echelon, alone, has the scope and mix of capabilities necessary for major forcible entry operations.

The forcible entry operation is at greatest risk during the units' movement directly into combat operations. That point is where corps units are most vulnerable and have the least available combat power. Because the corps initially has limited combat power available to it and most of it may be from other service systems, it must quickly generate enough combat power to protect the force and accomplish the corps' mission.

Forcible entry operations require the fill synchronization of joint capabilities. They will normally occur under the theater CINC's combatant command authority (for assigned forces) or OPCON (for supporting command forces). Forcible entry forces may also become OPCON to a JTF.

Examples of Forcible Entry Operations

Examples of forcible entry operations include coup de main, lodgement operations, and raids. A coup de main combines entry and combat operations to achieve the operation's objectives in a single major operation.

In the early morning hours of 20 December 1989, a JTF, organized around the XVIII Airborne Corps, conducted a forcible entry operation in Panama. The operation was called Operation Just Cause.

The complexity and precision of the operation are evident in the mix of forward-deployed and US-based conventional ground and special operations forces simultaneously hitting 27 targets throughout Panama. Although Operation Just Cause was an Army-dominated operation, the USAF made it possible for 4,500 soldiers from the 75th Ranger Regiment, the 7th Infantry Division (Light) (ID(L)), and the 82d Airborne Division to deploy from four US bases and be on the ground within 53 hours of the President's decision to intervene.

The USMC also participated in the operation, contributing a light armored force to screen Panamanian Defense Force escape routes. Once in

theater, the deploying units linked up with the 13,000 soldiers already forward-deployed in Panama to conduct an operation that gained control of the entire country in a matter of days.

The results of this coup de main was the restoration of a legitimate government in a matter of days and with few casualties. The use of rapid, overwhelming combat power can be decisive against a foe and can result in fewer casualties (for both sides) and reduce collateral damage, while still accomplishing the assigned mission.

An entry force conducts simultaneous synchronized operations throughout the depth of the AO to overwhelm the opposing force. The simultaneous neutralization of all opposing forces when accomplishing the assigned mission is the corps' preferred means of conducting forcible entry operations.

If the coup de main becomes unsynchronized for any reason (communications failure, unexpected weather conditions, or early discovery by the enemy) the degree of risk associated with the operation increases significantly. When a coup de main is not possible, corps will typically gain, secure, and expand a lodgement as part of a joint force before conducting further operations.

To establish a military lodgement, friendly forces must seize an airhead and/or beachhead. The intent of a lodgement is to create maneuver room and provide for the continuous entry of follow-on forces and materiel for subsequent operations.

Forcible entry may often be the initial phase of a campaign. Commanders make maximum use of joint capabilities to provide early lethality and security for the force.

Raids are operations, usually small-scale, involving a swift penetration of hostile territory to secure information, confuse the enemy, or to destroy his key installations. Raids end with a planned withdrawal once the assigned mission ends. While the entire corps is unlikely to conduct a raid, the headquarters may plan and support a raid, which tailored subordinate organizations conduct.

Types of Forcible Entry Operations

Types of operations the corps typically uses to conduct forcible entry include airborne, AASLT, and amphibious operations. Within a forcible entry context, airborne forces may be the assault force or they may conduct follow-on operations from a lodgement after it has been secured by other forces.

As an assault force, airborne forces normally reach the objective area by parachute insertion. As a follow-on force, airborne forces may be inserted into the lodgement by many different means (air, land, amphibious, or helicopter insertion).

Air assault forces may also be used as the assault force, or they may conduct follow-on operations into a lodgement area after it has been secured by other forces. As an assault force, AASLT units reach the objective area using helicopters staged from either ships or from an ISB. As a follow-on force, AASLT units may be inserted into the lodgement by means different from their normal helicopter-delivery method (air, land, or amphibious insertion).

Because airborne and AASLT forces are predominately CONUS-based, planners must add aerial deployment to the time required to plan, rehearse, and prepare troops and equipment for the mission. As in Operation Just Cause, commanders can employ airborne and AASLT forces with forward-presence forces in either the same operational area or in adjacent operational areas.

NOTE: See also JP 3-18.1, FM 71-100-3, FM 90-26, and FM 100-27.

The corps may also use amphibious forces as a forcible entry assault force or a follow-on force conducting operations from a lodgement after a buildup of forces. Amphibious assault forces move from the sea into the lodgement area using a mix of landing craft, amphibious vehicles, helicopters, and ground-effect vehicles. A follow-on force can arrive by sea or by air.

Amphibious transports generally have limited speed. If amphibious forces are not routinely deployed within a theater, their limited deployment speed impacts their reaction time. That reaction time may be days in length.

The increased deployment time over airborne and AASLT units is partially offset by the ability of amphibious forces to plan, conduct leader rehearsals, and prepare troops and equipment en route to the assault area. Both Army and I-JSMC units can conduct amphibious operations. (For details see JP 3-02.)

Air assault operations is one of three types of operations the corps typically uses to conduct forcible entries.

Airborne, air assault, and amphibious forces can be components of a JTF within the same operational area or in adjacent operational areas. Operation Overlord during WWII illustrates the simultaneous use of multinational airborne and amphibious forces to secure lodgements for the conduct of follow-on campaigns.

Phases of Forcible Entry Operations

A phase is a distinct period or subdivision of an operation at the end of which the nature and characteristics of the action usually change and another action begins. A corps normally phases its forcible entry operations because of the mission's scope, duration, and complexity. Phasing helps the commander and his staff divide an operation into manageable parts, thus facilitating planning and execution.

Factors influencing phasing include the mission (or purpose), friendly and enemy situations, terrain, CSS, time, and distance. For discussion purposes only this chapter organizes forcible entry operations into six phases: planning, preparation, and deployment; assault; force buildup; stabilization of the lodgement; follow-on forces; and transition. In reality, these phases can be combined or overlapped.

Planning, Preparation, and Deployment

The planning phase of a forcible entry operation encompasses that period of time extending from when the commander issues the initiating directive to the time of embarkation. The distinct designation of a planning phase is more important to the description of forcible entry operations than it is to real-world application since planning continues throughout the operation.

This phase starts with mission receipt. Crisis-action planning procedures that establish command relationships and the organizational structure of the entry force are used as a basis for planning, as is the corps' RSOP. All operating systems establish horizontal and vertical connectivity. Various elements exchange LNOs, and time permitting, the staff identifies and completes special training requirements. The force then conducts rehearsals.

A JTF is a likely organization for conducting a forcible entry operation. If a forcible entry COA appears obviously superior during CAP, the commander can establish a JTF before or during Phase III (COA development). This would allow the designated commander of the JTF, and his staff, to participate in the remainder of the planning process.

Once the NCA selects a COA, the JTF establishing authority provides the approved COA to the JTF. The JTF must then complete its OPLAN.

Warning ends once the NCA issues a JCS alert order. The JCS alert order specifies—

- The purpose for which the joint force is being deployed.
- The designation of the JFC.
- Command relationships.
- The forces available.
- Timing considerations.

The first step, if not already completed, is to develop a planning schedule, establish planning responsibilities, and activate a liaison infrastructure for coordination with other commands.

The corps commander may also be the JTF commander. This is especially true for primarily land campaigns. Joint task forces having a forcible entry mission may be organized around corps headquarters that possess secure en route communications capabilities and the ability to produce and disseminate intelligence and employ joint fires.

The staffing of a JTF headquarters formed around a corps headquarters should follow the force module concept in JP 5-00.2. The corps basic battle command organization should progress to a joint structure using these force modules to provide the required staff augmentation. The corps, if designated a JTF, will receive augmentation from many sources, but the additional resources will primarily come from the headquarters that establishes the JTF.

The corps commander formulates the ground tactical plan to achieve the aim or intent of the overall campaign plan. The ground tactical plan is normally the driving force and rationale for all other planning and activities in forcible entry operations. The ground tactical plan specifies required actions in the objective area that will ultimately accomplish the assault force's mission, and it addresses subsequent or follow-on operations.

Campaign plans are the operational extension of the theater CINC's strategy. They embody the theater CINC's or JFC's vision by depicting a series of related operations through which to obtain strategic objectives.

The CINC normally expresses strategy in general terms of ends, ways, and means, with broad objectives to give direction to the employment of forces. These objectives translate strategic concepts into joint plans for military action by specifying how forces conduct operations to attain theater objectives.

Campaign planning is the primary means of achieving strategic unity of effort and is the basis for the planning of theater operations. In addition, the campaign plan provides the JCS with information it needs for intertheater coordination. (See JP 5-00.1 for campaign planning procedures.)

Joint planning uses a disciplined process using the secure communications capability and the rapid information processing of JOPES. Individuals from each major section of the corps staff must be familiar with the JOPES process. In addition, the corps must maintain access to GCCS both at the home station and while deployed. (Joint Publication 5-O discusses joint operation planning in more detail.)

Under the direction of higher headquarters, the corps commander, with prospective subordinate commanders and supporting commanders, considers those elements of the forcible entry OPORD practicable at this stage. Key to its development is mission analysis, staff estimates (particularly logistics and intelligence), and the commander's concepts for operations, organization, deployment, and CSS. (See FM 101-5 (D) for additional information.)

The objective or mission of the forcible entry operation controls all planning and execution. If METT-T factors prevent the corps from conducting a coup de main, selection of the lodgement area is the key decision the commander must make to allow subsequent actions to take place.

When selecting the site of a lodgement area, the commander and staff must consider several criteria. For example, the area must facilitate mission accomplishment, and there must be sufficient port (air and sea) facilities as well as A/SPODs to supply and maintain our forces. This includes the corps' ability to restore or construct port facilities (including LOTS). It also includes the port's capability for quickly unloading and turning around aircraft and/or ships and dispersing arriving supplies, soldiers, and equipment using local transportation systems (road, rail, inland waterway) within the lodgement area.

Airfield development includes ensuring there are sufficient airfields, or readily developed airfields, to

provide bases for tactical air forces and Army fixed- and rotary-wing aircraft. Planners must consider the corps' capability to repair airfields damaged by combat activities and enemy demolition activities and to construct new facilities. The weighting of this item in picking a lodgement depends on the suitability of sustaining airfields outside the lodgement area to support the corps.

Planners must also consider air, land, and sea limiting factors. Air limiting factors include the amount of friendly air support available during the assault phase of the forcible entry operation and US obtainment of air supremacy. The initial assault must take place within range of effective air support by fixed-wing aircraft operating from ISB or navy aircraft carriers.

Land limiting factors include enemy long-range guns, missiles, and rockets, enemy coastal and LZ defenses, and enemy AD weapons (with their supporting radars and C^2 nodes). There must be sufficient space, with controlling terrain features, to enable US forces to secure the lodgement area and accomplish future operations.

When determining if sufficient space is available, planners must also consider movement rates. The corps must be able to compare movement rates between enemy reserves and US assault forces. The corps must also consider the ground forces' ability to reinforce or relieve airborne or AASLT forces before they exhaust their accompanying logistic support or before the enemy can mass superior combat power against them.

Limiting factors in amphibious operations include enemy surface warfare capabilities, sea minefield, coastal artillery and missile sites, and submarines. Beach conditions (obstacles; trafficability; degree of beach maintenance required; slope; and height, flow, and time of tides) are also limiting factors.

Ideally, there should be spare systems and crews available to provide airlift and sealift to accommodate maintenance failures, provide necessary crew rest, and replace estimated casualties without disrupting the tempo of the operation. The capacities of A/SPOD determine the number of ports required to outload the assault force.

The distances between the departure airfields and the assault area, coupled with the availability of in-flight refueling and the configuration of the aircraft load (airdrop or airland), impact the airlift's carrying capacity. Distance also factors into considerations on how rapidly the initial lift (air and sea) can be turned around to carry subsequent loads into the lodgement area. This impacts the total number of required lift systems.

Determining the appropriate size of the assault force requires force correlation between the assault force and the enemy defenders, taking into account the synchronized effects of precision fires air interdiction, and C^2W. Inclusion of forces from other nations into either the initial assault force or into follow-on forces requires the resolution of the additional command, operational, logistic, and other factors involved in multinational operations.

The staff must make every effort to obtain detailed information on the AO and of enemy activities in the combat area, including location, strength, armament, and the capability of enemy forces to interfere with the operation. The location of AD systems, the composition and types of defense for airfields, DZs, landing fields/beaches, ports, and other military or civil installations, and civilian morale are all important information requirements.

All sustainment planning for a forcible entry operation is based on providing continuous and coordinated logistic support. Realizing that the time needed to procure an item can be a lengthy process and that errors are not easily rectified, coordinated planning at all levels is essential.

The requirement to provide continuous support to the assault force with a support system based primarily either at an ISB or afloat has a significant impact on CSS planning. The initial support is "push" logistics. That is, CSS assets, anticipated during planning, move into the lodgement area in accordance with the landing plan. As the situation stabilizes, the staff initiates a logistic system for subsequent support of base development.

The force must provide adequate and continuous support. Loss of support, even temporarily, may provide the enemy an opportunity to regain the initiative.

Preparations for a forcible entry operation include air, sea, PSYOP, PA, CA, special operations, and deception activities that facilitate the corps' entry. Entry forces attack known enemy formations,

defensive positions, and minefield (ground and sea) by multiple means with the intent of reducing the enemy's fighting efficiency, lowering his effectiveness, disrupting his combined arms synchronization, and splitting his defenses and reserve formations into nonsupporting groups.

Preparation involves training and rehearsing for the mission. It also includes disrupting and/or deceiving enemy satellite, radar, and other intelligence sensor coverage of the ISB and the approach routes into the projected lodgement area. Preparation involves the use of CI and OPSEC to maintain tactical surprise for the operation. Preparations may be spread outside of the lodgement area to aid US deception operations, if required.

Early insertion of SOF and LRSU into the target area is desired to provide a HUMINT source to confirm intelligence derived from technical means. These teams may be either under the control of the corps, as in the case of LRSU, or responsive to requests from the corps commander, as in the case of SOF.

The corps' deployment is based on the commander's deployment concept, which in turn is based on his concept of operations and logistic support, the availability of sea and air transportation, the geographic location of deploying forces, and the requirements and constraints associated with delivery of the corps into the objective area. The concept for deployment provides the basis for developing the deployment plan, arrival and assembly plan, sea and air movement plans, and marshaling plans, as well as the embarkation and loading plans associated with sea movement.

The deployment of a corps into oversea land areas requires the identification of priorities for the introduction of operational capabilities and the establishment of required delivery dates (RDD). These are key to the early conduct of military operations. The process requires careful thought. While a corps commander may desire early introduction of attack helicopter battalions, engineer, base support, and aviation, maintenance units may be required before attack helicopter battalions can be brought in.

Support units and materiel-handling equipment essential to port and airfield throughput may necessarily precede the bulk of the force to be deployed. Planning and coordination are essential in sorting out the best sequencing of required delivery dates **to** avoid congestion while building up combat power in the lodgement area.

Assault

The joint force initiates the assault and secures the airhead and/or beachhead. The assault force's main advantage derives from achieving operational and tactical surprise and the generation of overwhelming combat power at decisive points by the application of all means (joint, multinational, and/or interagency) to defeat, destroy, or neutralize the enemy force.

The corps headquarters must maintain the initiative and prepare to receive follow-on forces to overcome the possibility of an initially superior enemy. Concentration of the effects of our forces and tactical surprise helps to achieve and maintain the initiative. The corps must render ineffective enemy weapons systems capable of jeopardizing the success of the assault.

In the process of conducting simultaneous operations throughout the AO, the corps seeks to overwhelm its opponents throughout the depth and breadth of the corps' AO. Operation Just Cause showed how assault and forward-presence forces can combine their effects to simultaneously attack multiple enemy positions in a coup de main.

Once execution of the plan begins and corps units commit to the assault, the corps avoids radical changes in the scheme of maneuver. However, the plan or order must allow the corps commander sufficient flexibility to take advantage of the developing situation during execution.

Fires in support of forcible entry operations differ from normal tactical fires in that the assault force initially relies. on joint fires until the corps can deploy its fire support systems. Changes in fire support should be planned to provide for possible rapid increase in the size of the corps' AO and should support simultaneous operations in depth.

Planners must consider transition of C^2; changes to supported and supporting relationships; and other C^2 relationships to provide for efficient clearance of fires. They must clarify fire support planning, coordination, and execution responsibility. Major changes affecting the planned movement of any corps forces and their support require adequate

consideration of coordination and synchronization, time, and distance factors.

The corps employs assault forces on terrain that minimizes the impact of enemy obstacles and fortifications on the operation. The corps desires to limit the amount of breaching equipment that the assault force requires. Follow-on engineer forces will replace bridges, clear minefield, conduct route improvement operations, and repair ports (air and sea).

Force Buildup

Before the lodgement can be secured, the force must rapidly build up from an initial small power base. Protection of the lodgement area, and corps units within it, against enemy counterattacks and hostile acts by nonmilitary elements of the local population are the commander's high-priority considerations. He calls forward the reinforcing forces that the mission, ROE, and other circumstances require. All reinforcing forces must be ready for combat soon after arriving in the lodgement area. A coup de main does not have a force buildup phase.

Corps fight a task-organized mix of forces and, as such, have the flexibility to meet a variety of situations and threats. If initial entry forces were unable to conduct simultaneous operations in depth to accomplish all the objectives of the deployment and entry operation, reinforcing forces can help seize or accomplish unfulfilled objectives.

The existence of little or no initial support within the lodgement area may require the corps to develop a large logistic organization within the lodgement area. To accomplish this, the corps may require augmentation of selected CSS functions to perform EAC sustainment operations. As such, the corps could have both operational and tactical responsibilities.

All means of delivery are exploited to full capacity to maximize the force buildup pipeline of units and supplies flowing into and out of the lodgement area. Forces and supplies usually use administrative movement techniques to optimize the capabilities of available lift systems.

Throughput capability is critical during this stage. Units must make provisions to clear follow-on supplies and equipment immediately from off-load points to increase airlift or sealift efficiency.

The establishment of the TPFDD is one of those early decisions that is not easily changed at a later date. Commanders should take great care when determining whether the TPFDD should be altered.

If the TPFDD sequence is to be changed, the associated massive synchronization and coordination requirements may result in the disruption of the flow of units and supplies into the lodgement area. If the situation does dictate changes, the corps staff can coordinate needed changes in the arrival sequence through the theater CINC.

Stabilization of the Lodgement

During this phase actions may include—

- Preempting or defeating enemy counterattacks into the lodgement area.
- Expanding the lodgement.
- Sequencing combat, SOF, CS, and CSS forces into the lodgement area,
- Linking the force with airborne, AASLT, and/or SOF within or external to the lodgement area.
- Conducting air base ground defense (ABGD).
- Evacuating casualties.

Depending on the correlation of forces and the buildup of combat, CS, and CSS units and supplies, the attack continues to either expand the initial lodgement area for additional follow-on forces or to accomplish the final objectives of the forcible entry operation.

In the process of stabilizing the lodgement area, the corps can use any combination of simultaneous operations in depth and synchronized and/or coordinated assault that meets its needs. Typically this involves some melding of offensive actions, forward defense, augmentation of HN forces, and defense of decisive terrain.

Follow-On Forces

The arrival of the follow-on force may simultaneously occur during force buildup or be a separate phase, depending on the tactical plan and the combat situation. The use of follow-on forces to help secure the lodgement may degrade follow-on mission capabilities.

Coup de main operations also have a follow-on forces phase. During this phase, units that initially conduct the entry operation are replaced or augmented by forces more suitable for conducting war termination and postconflict operations. These forces typically include CA, engineer, MP, and CSS specialized functions.

Transition

This phase continues actions initiated in earlier phases and may add actions for the reconstitution and redeployment of the assault force. The joint force establishing authority may reallocate the joint entry force's components to other missions on completion of the entry operation. Alternatively, this phase may mark the end of one phase of a campaign and the start of another campaign phase for the joint force.

OPERATIONS

The operations stage of force projection consists of missions that lead to or directly contribute to the accomplishment of the CINC's campaign objectives. The decisive operations phase may occur immediately upon forcible entry or after a long buildup. There are no notable changes in the types of corps combat operations.

The corps conducts operations in war and OOTW to achieve the higher commander's intent. During war, the corps conducts offensive, defensive, and other operations identified in Chapters 5 through 8 of this manual. During OOTW the corps conducts operations as discussed in Chapter 9.

WAR TERMINATION AND POSTCONFLICT OPERATIONS

War Termination

Successful combat operations are designed to bring an end to the war. When acting as the JTF headquarters, the corps commander may have to determine when the military end state has been reached (with a great deal of assistance from other agencies). The key is to determine when to stop the fighting.

When hostilities cease or a truce goes into effect, corps units transition to a period of postconflict operations. This transition can occur even if residual combat operations are still underway in portions of the AO. As operations approach the military end state, the corps commander must be aware of mission creep (where end state conditions change) that would require a continuation of military operations.

Postconflict Operations

The commander must determine the end state for military operations as early as possible in the planning process. It enhances the commander's ability to anticipate postconflict operational considerations.

This stage focuses on restoring order and minimizing the inevitable confision that follows military operations, reestablishing the infrastructure, preparing for follow-on missions, and protecting the force. It includes such diverse tasks as unit repositioning, controlling EPWS, and taking care of dislocated civilians. Major cows missions will include moving people and equipment (both military and civilian) and providing health services and humanitarian assistance.

The ultimate objective of this stage is the smooth transition of responsibility back to civil authorities. This transition may include the transfer of equipment and supplies to the host nation from corps units. Combat support and CSS assets will be heavily committed during this stage and may be used in lieu of HN capabilities until HN capabilities can be reestablished.

REDEPLOYMENT AND RECONSTITUTION

Redeployment and reconstitution are complex activities and may require contractor and HN support in addition to that which uniformed servicemen and DOD civilians provide.

Redeployment

Redeployment is the preparation and movement of a corps from a theater to its follow-on designated CONUS or OCONUS base or to any other location to meet ongoing requirements. Commanders

contend with all the same challenges as in deployment, balancing METT-T factors against available lift assets. An additional challenge is for personnel and equipment returning to the US to clear customs, Department of Agriculture, and US Public Health Service (USPHS) requirements.

Force protection is as critical during this stage as it is during any other stage of force projection. Redeployment activities must optimize the readiness of redeploying forces and materiel to meet new contingencies or crises. Its phases are-

- Reconstitution for strategic movement.
- Movement to redeployment assembly areas.
- Movement to the POE.
- Strategic lift.
- Reception at the POD.
- Onward movement.

Reconstitution

Reconstitution begins in the theater before redeployment. Activities include rebuilding unit integrity and accounting for soldiers and equipment. Reconstitution continues after arriving in CONUS or the home theater. Units must focus on—

- Reconstitution of units and their assigned equipment to premobilization levels of readiness.
- Regeneration of logistic stockpiles.
- Accountability of mobilized equipment and supplies.
- Accountability of personnel and reconciliation with the standard installation division personnel system (SIDPERS) data base.

DEMOBILIZATION

- Demobilization returns RC units and materiel to their remobilization status or other approved posture. It assures rapid reconstitution and/or subsequent mobilization to meet any other contingencies that may arise. Demobilization consists of the following phases:
- Planning actions in the operational area to dispose of equipment and/or supplies that are no longer needed or to prepare those same items for movement to long-term storage locations.
- Ports of embarkation-to-demobilization stations or POE-to-CONUS demobilization center actions.
- Demobilization station and/or CONUS demobilization center actions.
- Home station or home-of-record actions.

Within a theater of operations, corps ensure their affiliated units complete the required planning, movement, and disposition actions before transferring command of these units to the ARFOR or other competent authority. Outside of an active theater of operations, corps commanders may have extensive responsibilities for demobilization as installation commanders. Demobilization installation responsibilities are—

- Expanded family support and media coverage of welcoming and departure ceremonies.
- The completion of all medical and dental actions and/or examinations, line-of-duty determinations and finance actions, legal and entitlement briefings, and personnel records updates for individual soldiers before their release from active duty.
- Coordinating prescribed load list (PLL) and authorized stockage list (ASL) accounts.
- Coordinating GS and depot-level maintenance for returning equipment and supplies.
- Shipping equipment to home stations, equipment concentration sites, and mobilization and training equipment sites as determined by the CONUSA in coordination with the National Guard Bureau (NGB) and USARC.
- Preparing movement orders for unit members to return to their home station and individuals to their home-of-record.
- Conducting property disposal operations in accordance with instructions received from DLA, AMC, and the Defense Property Disposal Agency (DPDA).

Chapter 4

BATTLE COMMAND

Battle command is the art of battle decision making, leading, and motivating soldiers and their organizations into action. Battle command embodies two vital components-command and control (C^2).

Command consists of the ability to decide and the ability to lead. However, battle command represents a refinement and maturation from the old concept of command and control to one that focuses on the exercise of command and considers control as the subordinate means.

Battle command is the natural expansion of C^2 brought on by changes in the scope, intensity, and tempo of current and future operations. Technology provides an abundance of real-time information that must meet the needs of more ambiguous, less certain threat situations.

This chapter describes the fundamentals of corps-level battle command. It establishes the basis for utilization of the Army battle command system to achieve success in military operations.

THE COMMANDER'S ROLE

Corps battles are the key to tactical and operational success. The commander's personal leadership is the most essential element of combat power and will, therefore, have the most critical impact on the outcome of those battles. (See FM 100-5.)

Leadership requires making decisions, providing the force of will to implement decisions, and taking responsibility for making decisions. Commanders must act without all relevant information, make the best decisions possible, and deal with the consequences thereof.

Lack of available information does not invalidate the responsibility of command. After forces have been put in motion, the commander provides the strength and will to follow through with choices and the wisdom to know when he must make changes and further decisions. The commander's leadership is that element of combat power that molds the corps into a cohesive entity capable of winning battles.

The corps commander is responsible for leading and training the corps in peacetime so it will be prepared for war. Leaders must develop units with this warfighting focus as the cornerstone of all activity.

Future corps operations will always be joint and, in some cases, multinational operations. When the corps commander is the commander of joint or multinational forces, he extends his battle command activities to include the entire force.

The way the corps trains will be the way it operates in war and in OOTW. The corps commander determines what his leadership team and

CONTENTS

THE COMMANDER'S ROLE 4-1
Tenets of Army Operations 4-3
Tempo 4-5
Split-Based Operations 4-5
ORGANIZATION 4-6
Command Group (CG) 4-6
Tactical Command Post 4-7
Main Command Post 4-8
Rear Command Post 4-12
Assault Command Post 4-13
Future Battle Command Support Centers 4-13
BATTLE COMMAND EXECUTION 4-15
Communications and Automation Systems 4-15
Planning, Executing, and Coordinating Operations 4-18
JOINT BATTLE SYNCHRONIZATION 4-20
The Battlefield Coordination Element (BCE) 4-20
Corps Staff and Joint Service Interface 4-21
Joint Task Force Operations 4-23
CORPS MULTINATIONAL OPERATIONS . . 4-29
INTERAGENCY OPERATIONS 4-31
ARMY AIRSPACE COMMAND AND CONTROL (A^2C^2) 4-32
COMMAND AND CONTROL WARFARE (C^2W) 4-34
Counter C^2 4-34
C^2 Protection 4-35

subordinate organizations need to do, establishes or reinforces standards, and trains the corps.

The corps commander identifies and explains the elements, the METL, and the standards he expects the corps to meet. He then ensures that resources and opportunities are available.

The corps commander builds on the principles in FM 22-103 by providing purpose, direction, and motivation to his force. He provides purpose through his vision and focus on warfighting. He provides direction by developing subordinate leaders who can help prepare the corps to perform its mission, sustain it, and successfully apply warfighting doctrine. He provides motivation by empowering competent subordinates and rewarding those who do likewise because he knows that this is a prerequisite for successful operations.

The commander communicates his intent so others understand what they must do, and then allows subordinates to decide how to accomplish their missions. He engineers a command climate by focusing attention on warfighting and competition against standards, not against other units. He sets the standards and exemplifies courage, candor, competence, and commitment.

Mutual trust and confidence is the basis that allows the commander to call on his soldiers to implement his will on the battlefield. By his example, he encourages decentralizing decision making to the appropriate level and allows subordinates to determine the methods to accomplish their missions.

A critical element of the art of battle command is the ability to visualize the battlefield. Battlefield visualization is an essential leadership attribute and is critical to accomplishing the mission. It is learned and attained through training, practice, experience, wisdom, and available battle command technologies. It results from the commander's understanding of his higher commander's intent, his assigned mission, an understanding of the enemy, and his knowledge of friendly force capabilities and limitations.

The corps commander must be able to see how enemy and friendly forces relate to each other over time, space, and purpose and how external factors (such as terrain, weather, and illumination) impact both. In visualizing the battlefield, the corps commander must fully understand his current state and have the ability to foresee an achievable, desired end state.

Battlefield visualization includes the commander's view of what his force is to do and the resources he will need to do it. He envisions a sequence of actions (an intellectual war game) that will cause his force to arrive at the desired end state. The commander includes in his vision the contingencies (branches) and follow-on missions (sequels) the force might encounter when conducting the operation. Ultimately, the commander's battlefield vision evolves into his intent and helps him develop his concept of operations.

The corps commander's intent is a clear, concise statement of the what and why and how much risk is acceptable. His concept of operations—

- Must convey to his subordinates his vision of how to accomplish the mission in a manner that allows those subordinates' maximum initiative.
- Is built around intelligence-gathering and the employment of precision fires as a precursor to decisive maneuver.
- When properly constructed, provides the basis for—
  - Task organization.
  - Scheme of maneuver.
  - Tasks to subordinates.
  - Terrain organization.
  - Synchronization.
  - Identification of critical collateral operations.

The commander's concept includes—

- The overall scheme of operations.
- The necessary interfaces and coordination.
- The sequencing and phasing for the operation.
- His priorities.
- The risks he is willing to take.
- The focus for all subordinate unit operations and extends the corps commander's intent throughout the entire force.

Each subordinate commander, in turn, develops his intent and concept of operations in consonance

with the higher commander's concept. This nesting of intents and concepts provides unity of effort throughout the force to every maneuver and functional unit, with the focus being successful mission accomplishment across the range of military operations.

Success in execution of the concept requires the corps commander's personal attention and perseverance, his ability to recognize the need for changes or modifications to the concept, and his ability to effect the necessary changes.

The commander formulates a new concept or revises it when there is a changing mission or situation. He continuously analyzes his mission and maintains a continuous estimate of the situation, modifying his concept over time as the need arises.

The commander must be able to visualize the large and complex operation of his own force, as well as that of the enemy, and he must be able to project that visualization into the future. The concept must be sufficiently detailed so the staff can develop plans and subordinate commanders can take actions throughout the depth of the AO that support the plan-even in the absence of subsequent guidance.

Commanders must be able to orchestrate all the functions that help them affect their battle space-intelligence, fires, force positioning, resourcing, deception, and timing. In addition, they must have a total mission awareness of the operation. The corps commander's challenge is to establish the command climate that fosters bold, innovative risk-taking and the immediate exploitation of opportunities within the context of his intent.

Tenets of Army Operations

There are five tenets of Army operations: initiative, agility, depth, synchronization, and versatility. *Depth* is the extension of operations in time, space, resources, and purpose. Corps commanders must think in depth in order to conduct today's operations, approve tomorrow's operations, and plan for future operations.

Synchronization is arranging activities in time and space to obtain overwhelming combat power at the decisive time and place. Corps commanders provide a clear statement of intent that subordinate commanders use to arrange branches and sequels to the current operation. The leadership the corps commander exercises most directly influences the remaining tenets—initiative, agility, and versatility.

Initiative

Initiative at the corps level consists of two related, but independent, concepts. The first is initiative as it applies to the offensive spirit. The other is initiative as it applies to decentralization and intent.

Initiative encompasses the principle of war known as *surprise.* Corps achieve tactical surprise by acting in an unanticipated manner. Initiative is applicable in the offense, the defense, and in OOTW.

Setting or changing the terms of battle by action requires a constant effort. This concept of initiative implies that the corps must always have an offensive orientation. The corps must drive the enemy to react to the corps' plan instead of the corps reacting to the enemy 's.

The other concept of initiative requires decentralized decision authority within the corps. The mechanism through which decentralization occurs is the mission order and the corps commander's intent.

The climate set by the commander fosters subordinate initiative. Critical to the implementation of this intent is the team building between the corps commander, the staff, and subordinate commanders, especially in joint and multinational operations.

Division commanders focus their operations on the given mission and operate within the framework of the corps commander's intent. By doing so they have the freedom and responsibility to develop opportunities they might otherwise lose.

Agility

The corps achieves agility through four means:

1. Mental flexibility of the commander and his ability to visualize future operations.
2. A well-trained, forward-thinking corps staff that thinks in sync with the commander.
3. A responsive battle command system.
4. The capability of corps forces to rapidly anticipate and respond to change.

Any degradation of one of these means significantly affects the ability of the corps to react to the rapidly changing conditions when conducting operations. The most decisive factor affecting the corps' agility is the corps commander's mental flexibility and his ability to anticipate future events.

The complexity and scope of corps operations are far greater than those of subordinate units. The corps commander must visualize future operations in time and space to maximize utilization of available assets. He must consider supportability and CSS implications in greater depth than would subordinate commanders. As a result, commanders require accurate information.

Commanders must also be prepared to act without hesitation in an environment of incomplete and conflicting input. Waiting for confirmation or additional details is often the same as deciding not to act. The corps may lose opportunities while seeking additional information.

The commander must also be tenacious. The friction of battle will be tremendous. Loss of communications, inaccurate reporting, use of weapons of mass destruction, loss of a command post, attacks within the corps rear area, and so forth, will work against the commander's will.

Tenacity demands that the corps accomplish the mission. However, tenacity does not imply rigidity. The commander's will must be strong, but flexible. Calculated risk-taking must be the norm, not the exception, if the corps is to be victorious.

Command, and the decision making and problem solving that come with it, do not occur in isolation. The commander's staff and subordinates help develop, modify, and improve the initial versions of plausible COAs. They also help develop future COAs for events that most likely are not yet totally clear.

The commander must develop, train, guide, and demand high standards of performance from all members of his staff. Doing so will ensure a well-trained, smoothly functioning corps staff. This demands realistic, difficult training exercises with all the key players present and performing their staff function as they would in battle.

The ability to think in consort with the commander is more than just understanding the commander's intent. It is a single unity of thought developed through interaction with the commander on a daily basis. The staff must thoroughly understand the commander's thought processes and how he would react in any given situation.

The CofS plays a key role in assisting the commander in developing staff proficiency. Accelerated staff action (rapid, mental, and/or informal execution of steps in the decision-making process) requires a thorough understanding of the process as well as frequent training under realistic stressful conditions. (See FM 101-5 (D) for details.)

Achieving agility requires a responsive battle command system. The commander must be able to command and control from any location on the battlefield. The system must provide timely and accurate information and rapidly transform the commander's decisions into specific directions to corps units. The commander provides the structure for the system by organizing the staff, establishing C^2 facilities, and defining battle command procedures using the organizations, facilities, and processes this manual describes.

The commander must develop the corps' ability to react with speed and instill the aspect of force agility at all levels of command. Agility hinges on the commander's ability to visualize the objective, conceptualize the operation, and make decisions. Physical agility is inculcated at lower levels by stressing the ability to move, concentrate, strike, and sustain the momentum of operations. The commander emphasizes these actions through task organization and training.

At this level, the corps must practice its capability to reorient divisions, change task organization, commit the reserve, or realign support relationships during all types of exercises if it is to perform well in combat. The corps must also train myriad support forces to react to and continuously support reorientation of combat forces. It is this trained and practiced physical and mental agility by all elements of the corps force that will ensure the ability of the commander to synchronize corps activities in rapidly changing circumstances.

Battle command demands that leaders position themselves where they can best command without depriving them of the ability to respond to changing situations. The commander must be able to go where

he can best assess the operation and risks and make the necessary adjustments.

Napoleon positioned himself on high ground overlooking the battlefield so he could directly sense the progress and requirements of the battle. Today's corps commander cannot physically observe the entire battlefield, but the requirement to "see" it remains.

Reports, including periodic situation reports, and other battle information systems, are a means of monitoring the battle. However, a face-to-face discussion with a subordinate commander often tells a commander more about a situation than he could get from his staff in a long briefing.

The commander must be where he can effectively concentrate combat power at the point of decision. There is little value to having the commander in the supporting effort's AO unless the threatened failure of that effort would result in the corps' defeat.

The commander must also position himself where he can best enhance the corps' morale. General Patton often rode to the front in highly visible ground transportation. His return to rear areas was likely to be in aircraft and other less visible means. His readily apparent presence was integral to the fighting spirit of his commands. The ability to see the battlefield, concentrate combat power, and promote command presence drives the corps commander to select his location for each particular case.

Versatility

Versatility is the ability to perform in many roles and environments during war and OOTW. It is the result of well-led, well-trained, and well-equipped forces as well as high standards and detailed planning.

The corps commander provides the impetus for versatile units by understanding the dynamics of force projection. He must anticipate the variety of missions and tasks his forces may need to accomplish. Holding his units to high standards in training, and in actual operations, he ensures that they can successfully conduct many different kinds of operations, either sequentially or simultaneously.

Versatility requires competence in a variety of missions and skills. All commanders must be able to rapidly and efficiently shift focus, tailor forces, and move from one role or mission to another.

The Army no longer emphasizes fighting a well-known enemy on familiar battlefields with massive forward-deployed forces. The Army must strategically deploy tailored force packages with the appropriate battle command apparatus at the moment of need, to fight a previously unforeseen enemy. Therefore, the corps commander must be able to orchestrate all resources available to him to locate, target, and defeat the adversary as rapidly as possible at least cost.

Tempo

Tempo is the rate of speed of military action. Tempo is not synonymous with speed. At times, the commander may wish to slow operations and induce the enemy to hasten his operations.

The corps commander's responsibility is to take all appropriate actions required to dictate the pace of events in his battle space thereby gaining and maintaining the initiative over the enemy. The commander must sustain the initiative and control enemy tempo.

In the age of instantaneous global information exchange, the potential impact of the media on national will and public opinion cannot be overestimated. Therefore, control of the tempo in military operations is vital to their success.

The increased tempo of future operations will be manifested through requirements to move forces rapidly, destroy the enemy quickly, and reset for subsequent operations before the enemy can recover or respond. The commander who can master time will spare his forces while defeating the enemy.

Split-Based Operations

Future corps operations will require a battle command structure supported by selected elements that may never deploy from home station or that may operate strictly from secure base areas. Modern communications equipment enhances access to critical information because less time is spent deploying or moving these links in support of the operation.

Systems that support the battle-command process must be modular and capable of supporting the

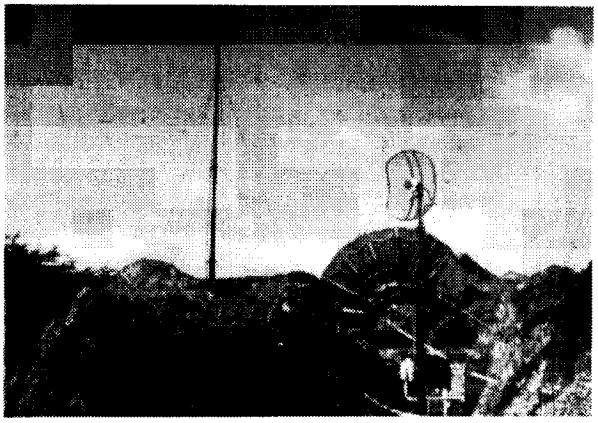
commander from wherever he is on the battlefield. The challenge to commanders and staffs is to configure state-of-the-art communications, sensors, and automation systems into the most suitable and efficient package to provide the relevant information and required interoperability for successfully conducting joint, combined, or interagency operations.

The corps commander and his staff must also have the flexibility to realign the structure and functions of its command posts according to the unique requirements of each mission and other factors inherent in force-projection operations. Such factors might include the availability of strategic lift, opposed or unopposed entry requirements, technological sophistication of HN infrastructure, and the tempo of anticipated operations.

ORGANIZATION

The corps commander exercises C^2 through the Army Battle Command System (ABCS) from three command posts and a command group. A CP provides the means for a commander to exercise control of his forces. Command posts support the corps commander by providing the structural framework to facilitate the planning, directing, controlling, and coordination of corps operations.

Several factors affect where the corps commander positions himself on the battlefield. First, the commander must be where he can effectively see the battlefield. He cannot be a prisoner of a command post. Wherever he is on the battlefield, he must retain access to the information he needs to command and determine the actual location, composition, and organization of the headquarters elements.



Command posts provide the structural framework commanders need to exercise control of their forces; to direct, control, and coordinate corps operations; and to plan future battles.

Many actions that enhance a CP's ability to conduct effective operations may degrade survivability, and vice versa. For example, a rapidly mobile CP may lack the protection of a CP complex located behind heavily fortified positions.

Striking the proper balance between operations and survivability is the key to effective C^2. The commander should also pay attention to factors that are not diametrically opposed (SOPs, qualified personnel, training, and so on).

In many operations, corps CPs are echeloned into a tactical (TAC) CP, a main CP, and a rear CP. The TAC CP controls corps close operations. The main CP synchronizes all corps operations. The rear CP performs rear security operations and sustainment of the entire corps.

To be effective, each CP must operate efficiently as well as be able to survive in a highly lethal environment. In addition to the three CPs, a separate entity called the command group is formed and has specific functions and characteristics.

Command Group (CG)

The command group's primary purpose is to keep the commander informed. When separated from the corps' CPs, the command group normally consists of the commander and representatives from the G3, G2, and fire support element (FSE). When the command group is at one of the corps' CPs, it consists of the commander and whoever is with him at the time.

The command group must be able to receive information and transmit battle decisions from any place on the battlefield. It must be highly mobile to allow the commander to move to the point of decision and to afford an added measure of security. Existing equipment limitations, coupled with time and space considerations, may require equipment augmentation to ensure that the command group can function anywhere on the battlefield.

The command group's primary functions are—

- To make a personal situation assessment.
- To provide leadership.
- To provide intent.
- To provide guidance.
- To make decisions.

Its secondary functions include-

- Alternate means for subordinates to enter the corps communications nets.
- Additional liaison capability (with subordinate units).
- Limited CP capability.
- Command post redundancy.

The group's characteristics are that—

- It consists of the corps commander and selected personnel.
- It is small.
- It can relocate to any position on the battlefield.
- It can maintain continuous communications.
- It relies on its small signature and speed, in addition to collocating with other headquarters, for security.
- It is controlled by the commander.

Tactical Command Post

The TAC CP primarily concentrates on conducting corps close operations. It monitors deep and rear operations only for their effect on close operations.

Because the main CP conducts detailed planning and coordination, the TAC CP can remain small and mobile. This enhances its mobility and minimizes its signature. The TAC CP can operate mounted, but can be dismounted to take advantage of the local environment.

The TAC CP's organization is simpler and more flexible than that of the main CP. It consists of a single cell where current operations, intelligence.

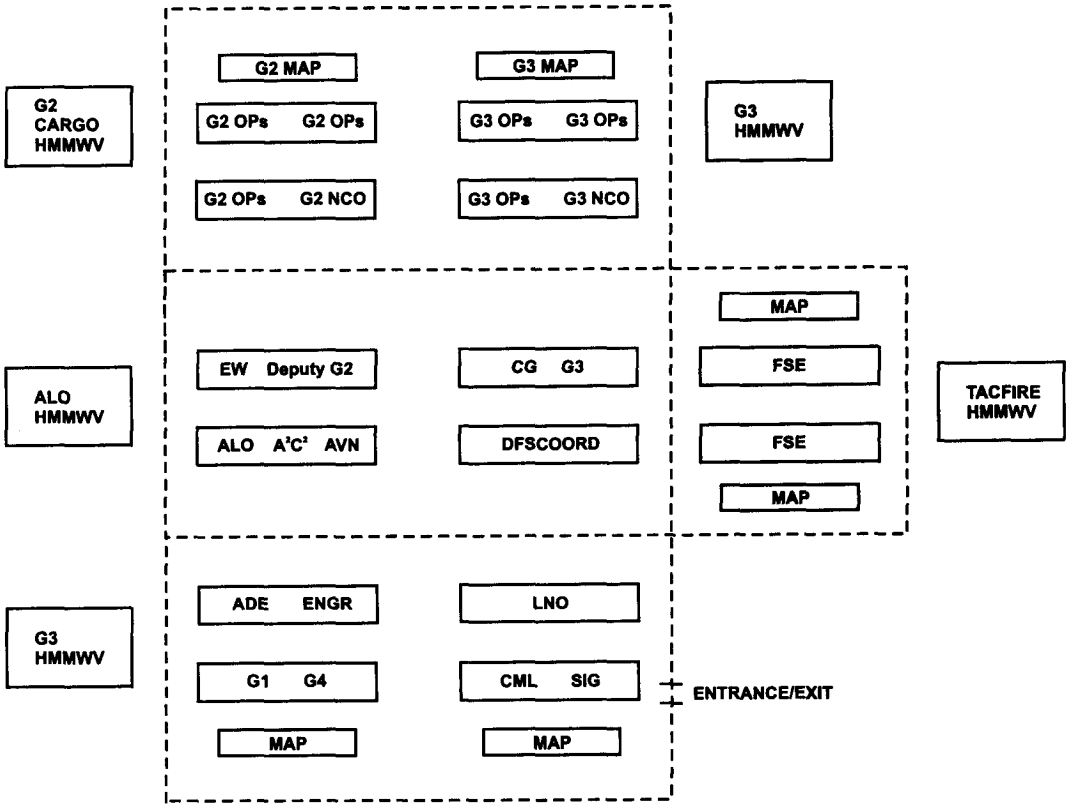


Figure 4–1. Tactical command post

fire support, CS, and CSS elements operate under the corps G3's control (Figure 4-l).

Traditionally, the TAC CP positions well forward in the vicinity of a division main CP. It may locate with or near critical elements, such as the main effort division in the offense or the attacking unit in a mobile defense. Regardless of the TAC CP's location, the commander always locates where he can best command the corps.

The TAC CP's primary functions are—

- To control close operations.
- To synchronize combat, CS, and CSS for close operations.
- To maintain the current close operations situation.

Its secondary functions are—

- To update requirements for CS and CSS for close operations.
- To provide close situation information to the main CP.
- To monitor deep and rear operations.

The TAC CP's characteristics are that—

- It is organized as a single, cohesive cell.
- It can be mounted or dismounted.
- It positions forward.
- It is controlled by the G3.

NOTE: See Appendix B for a more detailed description.

Main Command Post

The main CP synchronizes the battle command system and provides continuity for corps operations. This CP has a broader orientation and is more future-oriented than the TAC CP. It synchronizes the entire corps battle, conducts corps deep operations, and plans all future operations.

The main CP's primary functions are—

- To synchronize corps operations.
- To conduct deep operations.
- To synchronize combat, CS, and CSS units in support of deep operations.
- To plan future (close, deep, and rear) operations.
- To allocate resources.

Its secondary functions are—

- To be the alternate for the TAC CP.
- To be the alternate for the rear CP.

The main CP's characteristics are that—-

- It is organized by cell.
- It is normally positioned in the forward portion of the corps' rear area.
- It is controlled by the chief of staff.

The main CP consists of—

- The corps tactical operations center (CTOC).
- The signal element.
- The life support area.
- The security element.

The main CP is a large organization with attendant mobility and signature problems. It normally locates in the general vicinity of the division rear boundaries. If possible, it locates in a built-up area to hide its signature and take advantage of fixed facilities.

The main CP relocates as needed to enhance its survivability. It must be capable of—

- Displacing while still retaining the ability to perform all of its required functions.
- Echeloned displacement (movement of the entire CP by echelon or movement of each cell of the CTOC by echelon).

Because of the unique signature of massed CPs and their greater vulnerability to acquisition and attack, the corps should disperse the cells of the command posts whenever feasible. In a dispersed configuration, each cell, operating at a separate location, must possess the following distinct characteristics:

- They must be multidisciplined.
- They must be able to conduct continuous operations while displacing (split operations or operating during movement).
- They must be capable of independently entering communications networks.

- They must have an independent power source.
- They must have local security.
- They must possess a command group C^2 capability.
- They must have an interoperable automation and communications capability.
- They must be able to share their data base with other cells.

Because of the size and breadth of responsibilities, the main CP must be functionally oriented to facilitate synchronization. Within the main CP, multidisciplined cells are created to enhance and speed coordination. The cells include the CP headquarters cell, current operations cell, plans cell, intelligence cell, fire support cell, and the CSS cell (Figure 4-2). (Appendix B describes each of these cells in greater detail along with an expansion of the functions each performs.)

Command Post Headquarters Cell

The CP headquarters cell consists of the CofS, the secretary of the general staff (SGS), and command liaison elements that the corps either receives or provides. The CP headquarters cell's primary functions include—

- Coordinating and synchronizing activities of the main CP's cells.
- Providing guidance to the main CP's staff.
- Analyzing situation information to anticipate requirements.
- Providing and accepting command liaison elements.

Current Operations Cell

The corp G3 plans and coordinates current and future operations and allocates resources to divisions fighting the battle. The G3 staff at the main

PLANS CELL

G3	CML (1)
G2	ADE (1)
G4	ENGR (1)
G1 (1)	ALO (1)
G5 (1)	AVN (1)
FSE	EW (1)
MP	SIG (1)
SOCOORD (1)	

FIRE SUPPORT CELL

FSE (2)	EW
TACP (2)	G3 AIR (2)
AVN (2)	G2 (1)
ADE (2)	ASOC
ENGR (1)	CML
NGLO/CP (2,3)	SJA (1)

CP HEADQUARTERS CELL

CHIEF OF STAFF
COMMAND LIAISON

DEEP OPERATIONS COORDINATION CELL

FSE	A^2C^2
AVN	ASOC
G2	ADE
G3	OTHERS

INTELLIGENCE CELL

G2	SWO
FSE (FAIO)	ADE (1)
ENGR (TOPO)	ALO (1)
CML (1)	

CURRENT OPS CELL

G3	ALO
G2	ADE (1)
G1 (1)	FSE(1)
G4 (1)	AVN (1)
CML	ENGR
SIG (1)	SOCOORD (1)

C^2W CELL

PSYOP
DECEPTION
OPSEC
EW
FSE (1)

CSS CELL

G4
G1
SJA (3)
SURG (3)

NOTES:
1. May not be physically located in this cell on a continuous basis; provides input as required.
2. May also provide assistance to the A^2C^2 element under the supervision of the current operations cell.
3. As required.

Figure 4–2. Corps tactical operations center

CP is divided into a current operations cell, responsible for current combat operations, and a plans cell, responsible for planning future operations.

The current operations cell has the primary function of synchronizing current deep, close, and rear operations. It also controls deep maneuver operations; synchronizes combat, CS, and CSS in support of deep operations; and maintains the current corps situation.

Other functions of the current operations cell include allocating resources to current operations based on the commander's guidance, developing branches to current operations, and providing current situation information to higher, lower, and adjacent headquarters as well as the other cells of the command posts. The current operations cell monitors close and rear operations by maintaining communications with the TAC and rear CPs, respectively.

Plans Cell

The plans cell plans future operations as sequels for the current corps operation. It coordinates all combat, CS, and CSS activities with higher and adjacent headquarters. It also synchronizes future operations within the corps during the development of these plans.

The major focus during this planning process is determining a concept for deep operations. The plans cell must monitor the current situation for its impact on future operations and make appropriate adjustments.

Intelligence Cell

The corps G2 is the principal staff officer for all military intelligence and security matters. He advises the corps commander on intelligence, CI, EW, and force-protection issues.

The G2 directs the corps' intelligence effort and focuses intelligence support from outside intelligence organizations. He develops and executes the corps intelligence plan through the corps' intelligence cell.

The intelligence cell requests, collects, and analyzes intelligence information from all sources to produce and distribute combat intelligence. It conducts continuous IPB to support future operations planning and as the basis for target development.

The intelligence cell interacts with the current operations cell to provide enemy situation information that impacts current operations. Interaction with the plans cell ensures that current and anticipated enemy situation information is included in the development and analysis of future operations.

As part of the deep targeting process, the intelligence cell implements the collection plan and notifies the tire support cell and current operations cell when high-payoff targets are detected and tracked. The intelligence cell manages CI activities in support of rear area security, OPSEC, and deception.

Fire Support Cell

The corps fire support cell manages fire support resources under the FSCOORD's supervision. Representatives of aviation, ASOC, ANGLICO, air liaison officer (ALO) and or naval liaison officer (NLO), TACP, EW, and chemical support elements collocate with the fire support cell.

The fire support cell—

- Coordinates CAS, FA support, and EW.
- Develops corps-prioritized interdiction missions and target lists.
- Controls all deep fires as part of the delivery function of deep targeting.
- Coordinates the use of airspace with the corps' Army airspace command and control (A^2C^2 element, which collocates with the fire support cell.
- Coordinates USAF support through the ASOC and/or ALO.
- Interacts with the current operations cell to ensure fire support assets are maximized for current operations.
- Provides representation in the Plans cell to integrate fire support into future operations. Controls lethal and nonlethal deep fires.

Corps Deep Operations Coordination Cell

Deep operations are operations directed against enemy forces and functions not engaged in the close battle. Successful deep operations at the corps level

require the careful and continuous synchronization of activities between the corps' G2, G3, EW officer, aviation brigade, FSE, air defense element (ADE), A^2C^2 cell, ASOC, and other agencies as the requirements of the operation might dictate.

The technique of using an ad hoc targeting cell to focus the activities of all of the participants involved in the planning and execution of deep operations is inefficient and inappropriate for missions of this magnitude. The solution is to use a deep operations coordination cell (DOCC), usually within the main CP. The DOCC's role is to act as the battle C^2 facility, which exists to support the successful execution of deep operations.

In the main CP, the DOCC positions so it can maintain visibility on the status of close and rear operations and continually assess their relationship with deep operations criteria as initially planned. Through the targeting process of decide, detect, deliver, and assess, units select targets and allocate and employ detection assets.

The DOCC confirms and validates targeting data, determines if the original decide criteria for that target remains in place, then allocates the attack resource to engage the target. The DOCC must accomplish the coordination for the allocation of intelligence and EW assets to perform BDA early in the planning process for the deep operation.

Allocation of intelligence-collection assets to the assessment operation may be at the expense of assets needed for ongoing detection operations. The corps commander must continually balance these competing requirements and provide guidance to the appropriate sections, agencies, and units.

The responsiveness of target-acquisition systems and receipt of targeting information directly affect the outcome of any deep operation. With the DOCC in place, the battle C^2 process is continuous, interactive, and driven by the commander's intent, missions, and events.

Combat Service Support Cell

The CSS cell monitors the personnel and logistic situation through communications with the rear CP. A staff judge advocate (SJA) representative monitors the operational law situation from the CSS cell. The CSS cell interacts with the current operations cell to ensure CSS assets and support are maximized for the current operation.

To ensure supportability and integration of CSS into fhture operations, the CSS cell provides representation to the plans cell. During operations when the corps disperses the main CP, the commander incorporates the elements of the CSS cell into the current operations and plans cells to reduce the administrative requirements for providing life support, communications, and security for another location.

Command and Control Warfare (C^2W) Cell

The C^2W cell synchronizes all corps activities to protect friendly C^2 activities while disrupting enemy C^2 activities. This cell contains the G3 deception, EW, and OPSEC sections along with the PSYOP support element from the tactical PSYOP battalion.

Working together, and with the FSE, the various cell elements coordinate their respective efforts to build a synergistic C^2W plan that supports the corps commander's mission and concept of operations. A C^2W officer (for example, the chief of the deception element) leads the cell. Whether or not the cell reports to the G3 directly or through another cell, such as plans, is a matter of command preference.

The major functions of the C^2W cell are-

- To plan the corps' overall C^2W effort.
- To develop counter-C^2 and C^2 protection concepts to support the concept of operations.
- To establish C^2W priorities to accomplish planned objectives.
- To determine the availability of C^2W resources to carry out C^2W plans.
- To recommend taskings to the G3 for C^2W operations.
- To coordinate corps C^2W operations with higher echelons responsible for the overall C^2W campaign.
- To coordinate consolidated intelligence support to C^2W.

Rear Command Post

The rear CP conducts rear operations. The corps commander designates a rear operations commander, normally the deputy corps commander, to command and control the planning and execution of corps rear operations.

The rear operations commander exercises his rear operations responsibilities through the corps rear CP. The corps rear CP normally locates in close proximity to the COSCOM CP for life support, local security, and ease of coordination.

Because of the vast expanse of a typical corps rear area, the rear CP executes rear operations through subordinate rear area operations centers (RAOCs). Area RAOCs execute rear operations functions within areas of responsibility that the corps rear CP assigns to them.

The areas of responsibility and headquarters locations normally coincide with corps support groups and, when possible, MP battalions. RAOCs normally collocate with corps support groups or MP battalions for life support, local security, and ease in coordination.

The rear CP normally provides liaison to adjacent corps rear CPs, area support groups supporting the corps, the main CP, and HN organizations responsible for providing security to the rear of the corps' rear boundary. The CP's primary functions are—

- To command and control rear security operations.
- To perform terrain management of the corps rear area.
- To plan and control rear security operations.
- To sustain corps close, deep, and rear operations.
- To plan and control corps administrative movements.

Its secondary functions are-

- To be an alternate for the main CP.
- To monitor close operations.
- To monitor deep operations.

The rear CP's characteristics are that—

- It is organized by cell.
- It is not 100-percent mobile.
- It is controlled by the rear operations commander.

The rear CP contains three cells. Each cell is functionally organized, but interacts with the others. Cells include the CP headquarters cell, operations cell, and the CSS cell (Figure 4-3).

Rear CP Headquarters Cell

The CP headquarters cell consists of the corps rear operations commander who normally is the deputy corps commander and his supporting staff. It coordinates and synchronizes activities of the operations and CSS cells of the rear CP. The CP headquarters cell provides guidance to the staff of the rear CP and analyzes the situation for its impact on current and future operations.

OPERATIONS CELL

G3 (REAR)	ADA (3)
G2 (REAR)	ALO (1)
G1 (1)	CML (3)
G4 (1)	ENGR (2) (3)
G5 (REAR)	EOD (2) (3)
FSE (3)	MP (2) (3)
AVN (3)	CID (1)
SIG (1)	

CP HEADQUARTERS CELL

REAR OPERATIONS COMMANDER

CSS CELL

G1	IG
G4	SJA
AG	CHAPLAIN
TACP (TALO)	SURGEON
MP (1)	FINANCE
AMO	

NOTES:
1. May not be physically located in this cell on a continuous basis; provides input as required.
2. Part of the corps rear area damage control team.
3. Liaison officer or support team from units organic to the corps.

Figure 4–3. Corps rear command post

Rear CP Operations Cell

The operations cell's primary functions include—

- Planning and controlling rear security operations.
- Terrain management of the corps rear area.
- Synchronizing combat, CS, and CSS in support of rear security operations.
- Maintaining the current situation by monitoring close and deep operations through communications with the TAC and main CPs.
- Completing and continually updating the IPB and risk assessment for the rear area.

Rear CP CSS Cell

The primary functions of the CSS cell are—

- To collect, analyze, and provide CSS information to sustain close, deep, and rear operations.
- To plan and control administrative movements.
- To maintain the personnel and logistic status.
- To control personnel and logistic operations to provide required information to the CSS cell at the main CP.

The corps PMC works within the CSS cell. It consists of the AG and the personnel operations division of the personnel group. The PMC's mission is—

- To sustain corps personnel readiness.
- To synchronize postal and replacement activities.
- To ensure that soldiers. civilians. and joint service personnel receive essential personnel services.

The COSCOM augments the G4 (normally with personnel from the MCC) to perform movement planning functions. (See Appendix B for details.)

Assault Command Post

The corps commander has the option of creating an assault CP based on mission requirements. The intent is for the assault CP to be a flexible and rapidly deployable battle command element capable of conducting operations in a forward-deployed and austere environment.

The actual configuration and level of manning is based on some initial planning factors that the commander determines but that may change with each specific situation. (See Appendix B for more information.)

Future Battle Command Support Centers

Technology changes the way staffs collect, deliver, and present information to commanders. The availability of a common, relevant picture of the battle at every level and across every BOS reduces the requirement for large staffs to gather and collate data.

The current CP structure must be capable of sustaining its functions on a continuous basis while operating with highly mobile forces. It must also have the flexibility and agility to support the commander's needs for controlling current operations and to provide the means to adjust plans for future operations. These considerations drive the need to relook the way corps conduct and resource operations.

The design and arrangement of command posts will change in relation to the requirements of future operations. A forward and rearward CP configuration may be more consistent with the realities of force-projection operations. This arrangement takes full advantage of the technologies available, now and on the horizon, that support battle C^2 for mobile operations. The Army is currently facing the need to consider alternative approaches to CP structuring because of—

- The increase in battlefield automation and satellite-based communications and intelligence systems.
- The constraints on deployment assets.
- The reduction of forces and resources.
- The fast-paced operational tempos.
- The force-based versus theater-based logistics.
- The regional focus.
- Other variables.

A forward and rearward CP structure is defined by two zones, the secure area and the combat zone (Figure 4-4, page 4-14). In the secure area, the

rearward CP and, perhaps, a CONUS sustaining base are relatively safe from high-level threats.

The rearward CP would locate in the theater where threat levels are low but close enough to the forward CP to be able to effectively perform its functions of detailed planning and analysis. In some rare cases, the rearward CP may collocate in CONUS with the sustaining base.

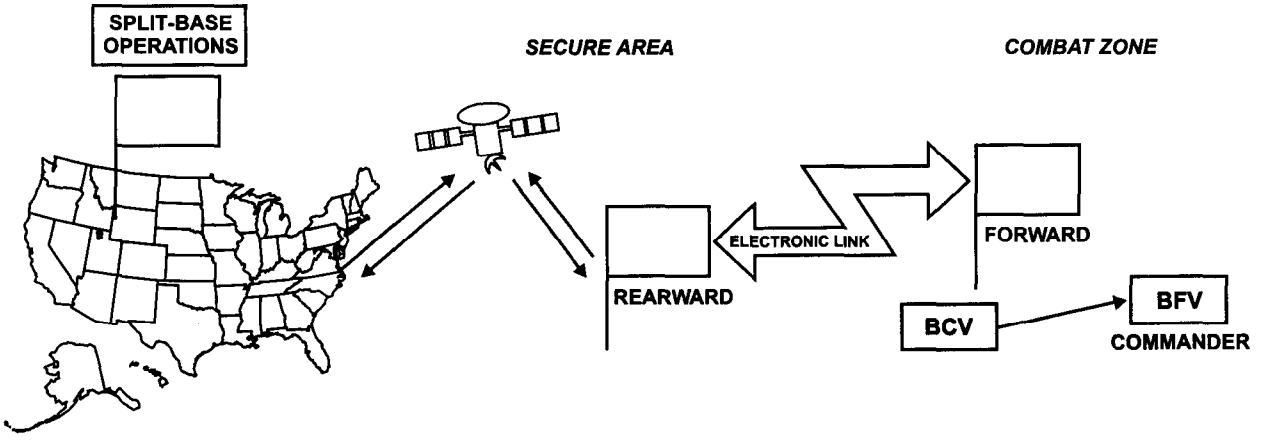
The rearward CP collects, processes, stores, and ships data as required. Large electronic pipelines link it to the sustaining base. The rearward CP, in addition to controlling the rear operations, responds to the forward CP's requests for information and provides products in the form of analyses, targeting, graphics, future predictions, and written plans and orders.

Both CPs require robust automation capabilities; long-haul, high-volume communications; and access to significant amounts of intelligence and logistic data. These CPs lack considerable mobility and must be secure.

The future vision of command posts is for agile, immediately responsive, modular, forward CPs directly supporting the commander's immediate needs for commanding current operations and the means to adjust plans for future operations. The forward CP must be capable of coordinating the development of plans, synchronizing deep operations, and producing intelligence of immediate concern to the commander.

As much as possible, the amount of detailed coordination, analysis, and integration at the forward CP should be limited so it can remain mobile. Detailed staff work can best be accomplished at a static, secure rearward CP. The forward CP is modeled after the current tactical CP and reinforced with additional staff elements, particularly in plans and intelligence.

The forward and/or rearward CP configuration requires the maintenance of reliable communications links between the two CPs, making distance relatively unimportant. Some functions would then



REARWARD CP

FUNCTIONS

- Rear Operations
- Synchronization of Rear Operations with Close and Deep Operations
- Detailed Planning, Coordination, and Analysis
- Robust Intelligence and Logistics
- Information Repository

FORWARD CP

FUNCTIONS

- Close Operations
- Limited Intelligence Production and Analysis
- Limited Planning, Coordination, and Analysis
- Synchronization of Close and Deep Operations

Figure 4–4. Corps forward and rearward command posts

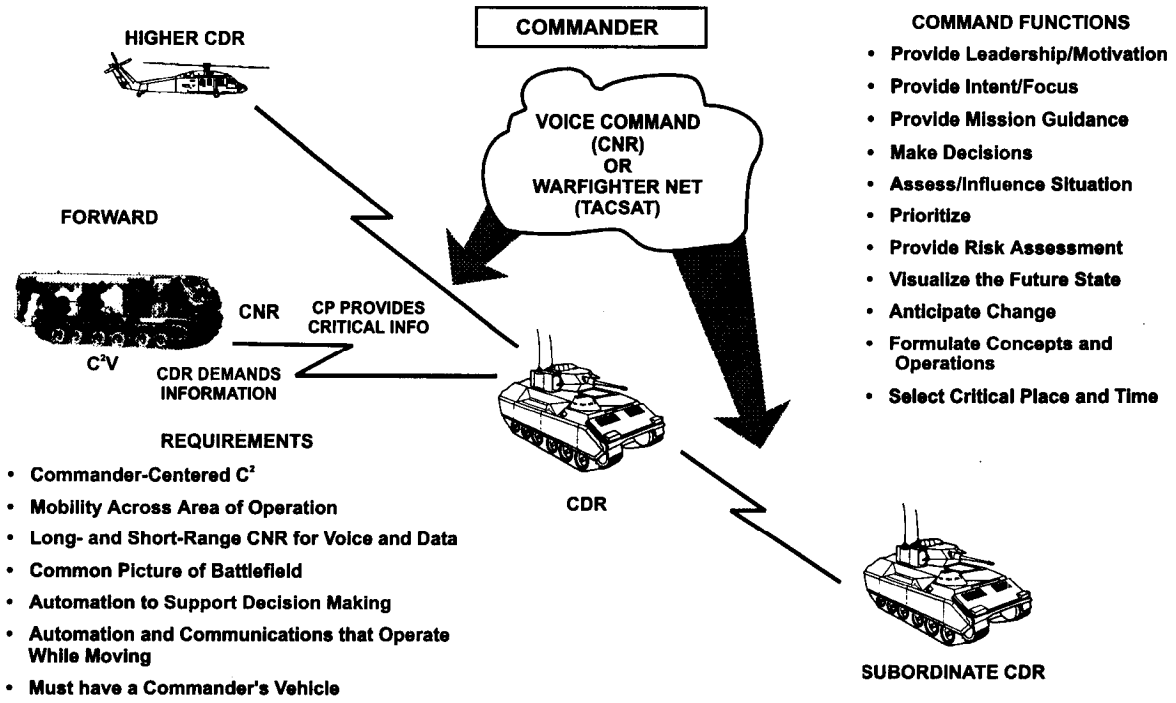


Figure 4–5. Commander's C2 vehicle functions

be able to remain at the home station, and staff actions could then pass electronically to and from the TAC CPs in theater. (This is the idea behind split-based operations.)

The commander must have the freedom to position himself wherever he feels he can best influence the situation in conducting a major operation, usually forward of his command posts. He must have the necessary communications and automation capabilities to remain electronically connected to a number of information sources: his forward CP; higher, adjacent, and subordinate warfighting commanders; and broadcast-sensor information.

Actions are underway to provide the commander's vehicle (CV) with sufficient capability for the acquisition and communication of critical information at all times. The vehicle's integrated communications and automation suite provides the commander access to processed or fused information based on his specific requirements.

Figure 4-5 depicts the linkage of air and ground vehicles to form an integrated battle command system. This system is commander-centered and optimized to accomplish command functions.

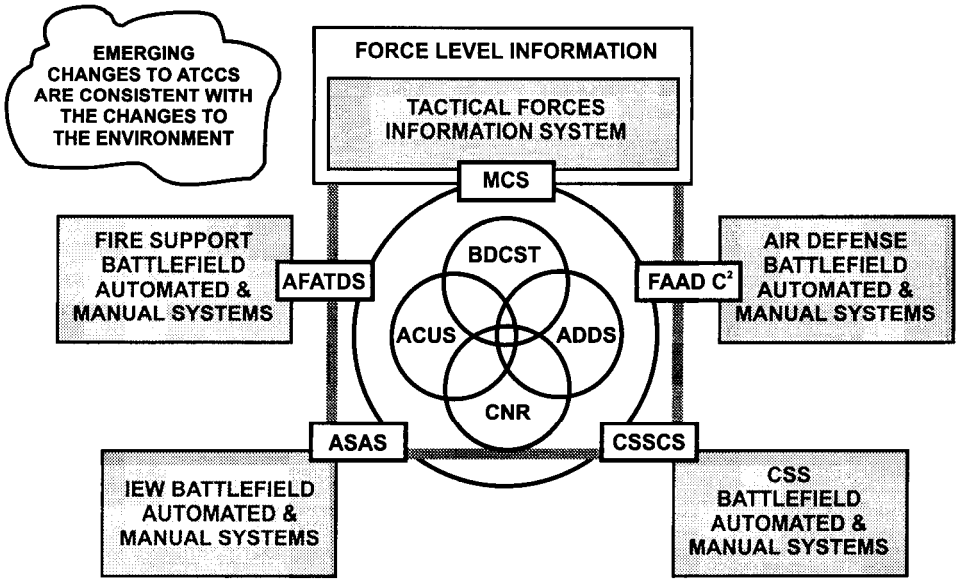
Using a CV will also allow the commander to assemble a small personal battle staff to help him assess the situation and control the operation. The CV is mobile enough to allow the commander to position himself where he can best feel the pulse of the battle, influence the situation, and best invoke his will on the force in battle.

BATTLE COMMAND EXECUTION

Communications and Automation Systems

The corps has a unique role in battle command activities as the integrator of higher level joint and multinational systems with the Army Battle Command System (ABCS) (Figure 4-6, page 4- 16). The ABCS provides the commander and his staff information they need to effectively plan, coordinate, control, and direct operations.

To be effective, the corps' ABCS must link into a network that allows free and timely flow of information. The corps headquarters provides the link



- Fully Integrated Automation and Communications
- Integration of Broadcast Transmissions for Command Information Distribution
- Processing While on the Move
- Functional Area Architecture Changes As Well
- Constant Receipt and Distribution of Combat Information

Figure 4–6. Army Battle Command System

between the ABCS and the battle command systems of the next higher command. The corps is also the link between the ABCS and joint or theater Army C^2 systems for sustainment of the corps.

The ultimate objective of all components of the ABCS is to provide the warfighter and his force free transfer of information throughout the entire architecture on a global basis. Global connectivity requires a seamless communications and automation architecture; one that supports every phase of force projection and is adaptable to the full range of military operations. Corps commanders must be able to exchange relevant information with the CINCs, other service components, US government agencies, allies and coalition partners, authorized commercial agencies, and industry.

The revised ABCS architecture represents the seamless nature of the automation and communications system. The five fictional automation systems are integrated, interoperable, and they share data through exchange of force-level information.

The communications architectures and the interlocking and overlapping spheres, are technically integrated. The larger circle represents the seamless environment. Users connected to this environment transfer information regardless of the communications means.

Broadcast transmissions, as a common information service capability, have been added to the components that make up the ABCS architecture. Broadcast transmissions do not eliminate the need for the other components within the architecture; they mitigate the stress currently placed on them.

The ABCS architecture extends from joint and strategic C^3I systems via the Global Command and Control System (GCCS) through the theater of operations. From there it extends to the operational and/or tactical headquarters, and it culminates in near-real time digital links among the tactical BOS functions at brigade and below. Key components of this system are the Army WWMCCS Information System (AWIS), the Standard Theater Army Command and Control System (STACCS), and the ABCS.

The AWIS provides strategic connectivity, and it facilitates exchange of information on apportionment,

allocation, and logistic support between Army planners and combatant commands. The STACCS provides decision support to tactical and operational commanders, and it is the Army commander's primary link to joint and combined systems, such as the Contingency Theater Automated Planning System (CTAPS) and the Joint Maritime Command Information System (JMCIS).

The ABCS is the integration of five fictional battlefield automated systems that provide situational information and decision support to operational and tactical commanders at corps and below. Current and future components of this system include—

1. The maneuver control system (MCS), which is the primary information and decision support system for the tactical commander and the operational staff. The MCS allows timely control and synchronization of close, deep, and rear operations. Commanders use it to distribute plans and estimates in support of future operations. The MCS must be fully interoperable and should include EAC and subordinate echelon battlefield automation systems.

2. The all source analysis system (ASAS), which is the IEW component. This is a mobile, computer-assisted, IEW processing, analysis, reporting, and technical control system. The ASAS receives and rapidly processes large volumes of combat information and sensor reports to provide timely and accurate targeting information, intelligence products, and threat alerts. The modules in this system continually evolve to improve its ability to process and report information and to interface with other systems.

3. The combat service support control system (CSSCS), which provides critical timely, integrated, and accurate automated CSS information, including all classes of supply, field services, maintenance, CHS, personnel and movements, maneuver, theater commanders, and logistic and special staffs. The CSSCS processes, analyzes, and integrates resource information to support evaluation of current and projected force sustainment capabilities.

4. The forward area air defense (FAAD) command, control, and intelligence (C^2I) system, which provides the automated interface between the FAAD C^2I nodes and weapons systems. FAAD C^2I is the AD component of ABCS at division and below. It integrates with and processes information from ABCS, STACCS, joint, and multinational theater AD operations. Functional applications include rapid dissemination of air battle management information, hostile aircraft cuing to fire units, and exchange of commander's essential information with other subsystems.

5. The advanced field artillery tactical data system (AFATDS), which provides automated integration of the fire support battle C^2 system for planning, coordinating, controlling, and executing joint and combined fires. AFATDS also performs all of the fire support operational functions of automated allocation and distribution of frees based on target-value analysis.

The Army brigade and below (AB^2) architecture is a system of digitally interoperable, BOS-specific, fictional applications designed to provide near-real time situational information to tactical commanders, on the move, down to vehicle or squad level. The AB^2 provides—

- Automated friendly positional location information.
- A display of adjacent units.
- Current tactical battlefield geometry for both friendly and enemy forces.
- Automated situational reporting.
- The capability to disseminate graphic and textual tactical orders.

Users of these automated systems must deal with the danger that not all units will have ABCS automation and that the ability to use the electronic environment may be degraded or even fail. Commanders must make efforts to provide compatible battle C^2 automation equipment to all participants in an operation. Special provisions are often required for joint forces, multinational forces, activated reserve units, and many CS and CSS units. The G3 will establish contingency distribution of automation equipment and training plans to provide limited training, equipment, and access as required.

As the fielding of communications and automation systems expands throughout the Army, the corps commander must be aware of the possibility of having information overload among subordinate commanders and possibly within his own headquarters. The potential for this condition occurring can

be decreased by continual refinement of the hardware and software packages to ensure that flexibility is built into the systems. This flexibility will enable commanders and staffs to tailor information flow to meet the specific requirements of a given operation.

The electronic environment might be degraded in varying degrees of severity from local single-frequency jamming to wholesale destruction of electronics components that are sensitive to electromagnetic pulse (EMP). A set of procedures dealing with the entire spectrum of degradation must be addressed within SOPs for each of the five battlefield fictional area control systems (maneuver, fire support, intelligence and EW, CSS, and AD).

The SOP should address redundancy, records storage, protection, OPSEC, decontamination, messengers, and hardening. The CofS ensures the inclusion of procedures to counteract degradation of the entire system.

Whatever systems evolve over time, the ABCS will always require an integration of fielded and developmental systems. The systems should be capable of being employed in developed and undeveloped theaters, in fixed or semi-fixed installations, and in mobile networks while on the move. The key objective is to functionally link strategic, operational, and tactical headquarters and to interoperate with joint and combined battle command systems across the range of military operations.

Planning, Executing, and Coordinating Operations

Planning

While techniques and procedures may vary, planning and executing the fight are continuous and concurrent activities. The corps commander uses his assessment of current operations and his estimate of the posture of the force in relation to future operations to guide him and his subordinates through planning, preparation, and execution.

The commander's estimate and staff estimate processes are continuous. This concurrent process of maintaining the running estimate is key to keeping the commander armed with viable options. The commander is thereby able to dominate the enemy and set the terms of battle. If the staff properly executes and synchronizes this process, the commander can make timely decisions, consistent with his vision of the intended outcome and postured to perform future operations.

The corps commander's key responsibility is to conceptualize every operation. The commander no longer monitors the decision-making process with periodic input at specified steps along the way. He must now drive the entire process.

From the initial intelligence preparation, through COA development, to the actual issuance of orders and directives, the personal role of the commander is central. Orders need to be simple and timely. The role of the staff is defined and focused by the direction the commander provides.

When time is available before or during an operation the commander and staff follow a formal military decision-making process. Often, in the course of conducting an operation, the need exists to expedite this process to take advantage of an opportunity or changing battlefield condition. The commander and his staff will then employ a shortened decision-making process. (See FM 101-5 (D), Chapter 4, for details.)

The chief of staff must organize to take advantage of the time available to prepare the force with the necessary orders and means to accomplish the mission. He must do all of this in consonance with the commander's concept.

Commanders issue warning orders announcing as much information about the next operation as feasible. This allows subordinate commanders time to begin preparation and reconnaissance. The process of maintaining the running estimate by the battle staff is key to keeping the corps commander armed with viable options.

As information becomes available and is refined, the commander's visualization of the consequences and circumstances to be produced expand the concept of mission analysis and initiates the synchronization effort by the staff. Battle synchronization starts with the commander's concept of operations. The war-gaming process refines it.

The war-gaming process generates branches and sequels essential for rapid response to changing operational conditions and situations. It helps to identify decision points and critical information requirements (CIR). This then drives the corps' intelligence and reconnaissance efforts.

The staff prepares the necessary plans and orders based on the commander's decision. The preparation should be a quick, established procedure. (The format for orders is in FM 101-5 (D)).

Orders will be short and mission-oriented. Limitations to subordinate commanders' freedom will be restricted to those required to ensure a coordinated and synergistic accomplishment of the corps mission. In a time-critical situation, an order may be given orally but will be followed by a confirming written FRAGO or OPORD.

Executing

Control is the activity through which the commander and staff operate to ensure the force accomplishes the commander's will and intent. The commander and staff effect control by establishing orders, directives, SOPs, control measures, monitoring of the situation, and actions to correct aberrations. They also establish control by ensuring a clear division of labor between the corps and its subordinate units.

Effective and efficient execution of the commander's concept of operations requires the commander and staff to issue explicit decisions and guidance concerning which echelons have responsibility and control over various activities within the concept of operations. These decisions and statements of guidance also help synchronize battlefield activities.

The corps employs and transmits control measures through many means. Means could be required reports, graphic measures (boundaries, phase lines, fire support coordination measures, and so on), coordinating instructions, functional area restrictions (ADA weapons status, restricted frequency lists, obstacle restrictions, and so on), SOPs, standing orders, ROE, and other means.

Coordinating

Coordination is one of the major actions the corps staff performs when executing battle C^2. Generally, coordination occurs within the other three functions—plannifig, directing, and controlling.

Corps operations always occur in a joint environment and, at times, involve combined forces or nonmilitary agencies. Success requires close coordination and cooperation among the corps and supporting joint forces.

Joint doctrine must be clearly understood by all participants. Procedures must be well-established to ensure smooth and successful operations.

The coordination requirement is both internal and external to the corps. As a result, coordination of friendly COAs is of concern. The battle C^2 processes of adjacent forces become interdependent and, consequently, slows down the processes. This situation is further compounded in a multinational operation because of the differences in language, organizations, facilities, and processes.

One of the most visible means of effecting coordination is the exchange of liaison officers. The corps should staff, resource, form, train, and exercise liaison elements before committing the corps to any operation.

Liaison teams are a means for the corps to perform coordination, promote cooperation, and exchange essential information. As a minimum, these teams must have reasonable life support capabilities, communications and automation equipment, and transportation. In addition, they must have constant access to essential information and changes in the commander's intent or the concept of operations. Each team should be capable of continuous operations to ensure timely information exchange, coordination, and availability to the commander and staff.

When possible, a corps should exchange liaison teams with higher, lower, and adjacent units. If reciprocal liaison is not possible, a corps must provide liaison with its subordinate elements. When moving through another force's AO, or when conducting a passage of lines, a corps establishes liaison with the element through which it passes.

Coordination is no less important when considering the internal functioning of corps staff elements. Each CP (and the cells within these CPs) interacts, exchanges information, and coordinates on a continuous basis.

Decision-making processes do not consist of sequential steps. A skilled, well-led, and properly prepared staff will appear to flow through the process without hesitation or delays. Their success totally depends on the commander's personal influence and competence.

JOINT BATTLE SYNCHRONIZATION

Corps are capable of responding to worldwide situations and will frequently fight as the largest ground formation in the theater. There must be close coordination between land operations and air operations—

- To synchronize the application of joint combat power.
- To optimize support.
- To prevent friendly interference.
- To achieve success throughout the corps' AO.

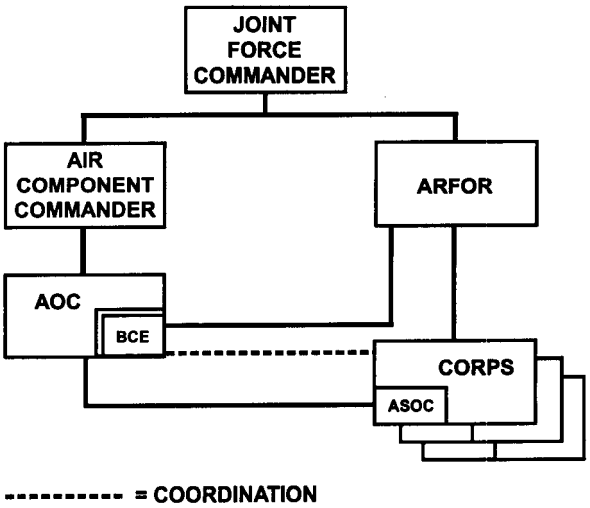


Figure 4–7. Typical battlefield coordinaion element interface

The Battlefield Coordination Element (BCE)

The BCE is the organization that provides the interface between the Commander, ARFOR (COMARFOR), and the ACC. The BCE provides Army representation at the AOC. The AOC is the operational facility in which the ACC and elements of his tactical headquarters operations and intelligence staff agencies have centralized the functions of planning, directing, and employing assets.

Placing LNOs at the BCE significantly improves the BCE's ability to assist the corps. If the corps is the highest Army element in theater, the BCE is assigned to the corps headquarters and collocates with the AOC.

The BCE can be tailored to support the requirements of smaller operations if the entire corps does not deploy. The BCE monitors and analyzes the land battle for the AOC and provides the interface for exchange of current intelligence and operational data and support requirements between the ARFOR, the ACC, and the corps. (See Figure 4-7.)

The BCE has seven sections: plans, fusion, ADA, A^2C^2, intelligence, operations, and airlift (Figure 4-8). The BCE also includes ground liaison officers (GLO) (numbered air force and airlift), air reconnaissance liaison officers (ARLO), and LNOs (one per corps).

The BCE *plans section* coordinates ARFOR requirements for CAS in developing the air tasking order (ATO). The BCE is in the AOC combat plans division. It provides the AOC with the Army scheme of maneuver and priorities for CAS.

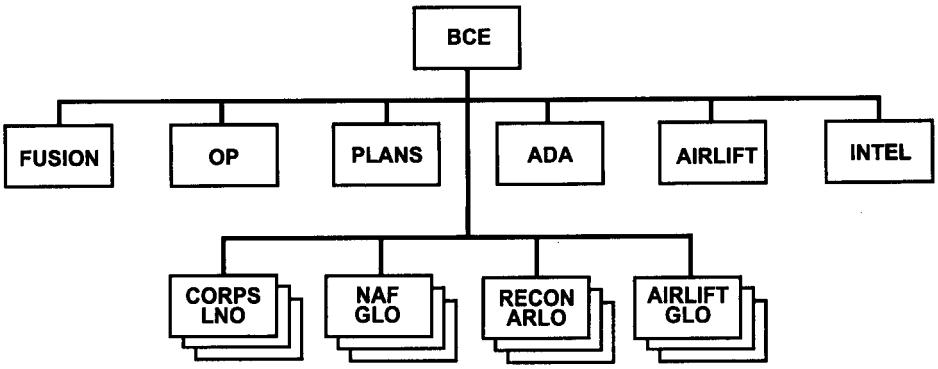


Figure 4–8. Battlefield coordination element organization

The BCE *fusion section* analyzes the most current intelligence and the friendly situation to help refine and validate targets for attack during the execution of the current ATO. It collocates with the enemy situation correlation division (ENSCD) of the AOC. In addition, the fusion section collects BDA data on Army-nominated targets.

The BCE *ADA section* coordinates Army AD activities with the AOC's combat plans and operations sections. It exchanges information with the control and reporting center (CRC), ARFOR air defense headquarters, and the corps ADE. In addition, the ADA section advises the area air defense commander (AADC), who is usually the JFACC, on all Army AD matters and status.

The BCE *A^2C^2 section* coordinates the Army's planned and immediate airspace matters with the AOC combat plans and operations sections for inclusion in the airspace control order (ACO). Such matters include permissive and/or restrictive fire support coordination measures, ATACMS missions, unmanned aerial vehicles (UAVs), special electronics mission aircraft (SEMA), and attack helicopter operations.

The BCE *intelligence section* coordinates with the corps and/or ARFOR G2 sections to obtain Army intelligence reports and collection requirements. It provides the AOC combat intelligence division (CID) with information on the enemy's ground order of battle and helps develop targets.

The BCE *operations section* monitors execution of the current ATO and coordinates changes to ARFOR targets and priorities that occur during the battle. It collocates with the AOC combat operations division. The BCE keeps the AOC updated on ARFOR operations, including providing updated information on interdiction missions and targets. The BCE operations section also stays abreast of the current air situation by monitoring those sorties of interest to Army commanders. Commanders can then ensure that approved interdiction sorties are not cancelled or diverted without consultation with the appropriate headquarters.

The BCE *airlift section*—

- Coordinates and monitors execution of airlift missions in support of Army operations.
- Collocates with the AOC air mobility element.
- Advises USAF airlift elements on ARFOR airlift requirements and intent.
- Reviews scheduled Army missions on the ATO.
- Monitors locations and conditions of LZs and/or DZs.
- Exchanges operational and logistic data with the corps G3 Air and the G4 to facilitate immediate airlift requests for ARFOR.

Corps LNOs to the BCE exchange information with BCE sections and respective corps staff elements. They also provide the BCE with corps priorities for attack.

Corps Staff and Joint Service Interface

The corps staff is organized to efficiently help the commander develop the concept of operations. The staff also helps synchronize the activities of the ASOC, ANGLICO, and/or TACP.

Synchronization of these activities provides the commander ready access to advice on the capabilities and limitations of combat air to support corps operations. Figure 4-9 depicts the functional relationships between these activities and members of the corps staff. Division requests for CAS are forwarded to the corps to be integrated into the corps' overall priorities.

The TACP provides advice and assistance to the corps commander in planning air support for his forces. The corps ALO or NGLO is the senior USAF, USN, or USMC officer in the TACP.

Each member of the TACP provides advice on the capability and availability of fighter and reconnaissance assets to support the corps. They help develop and synchronize EW activities, interdiction missions, target nomination, and pre-planned CAS.

The ASOC is the operational component of the theater air control system designated to coordinate and direct CAS and tactical air reconnaissance (TAR). The ASOC is under the AOC's OPCON. The ASOC normally collocates with the corps staff at the corps' main CP.

The ASOC's primary concern is the exchange of combat data between air and ground forces. Such data includes the coordination and execution of CAS for ground operations. The ASOC controls CAS and TAR sorties.

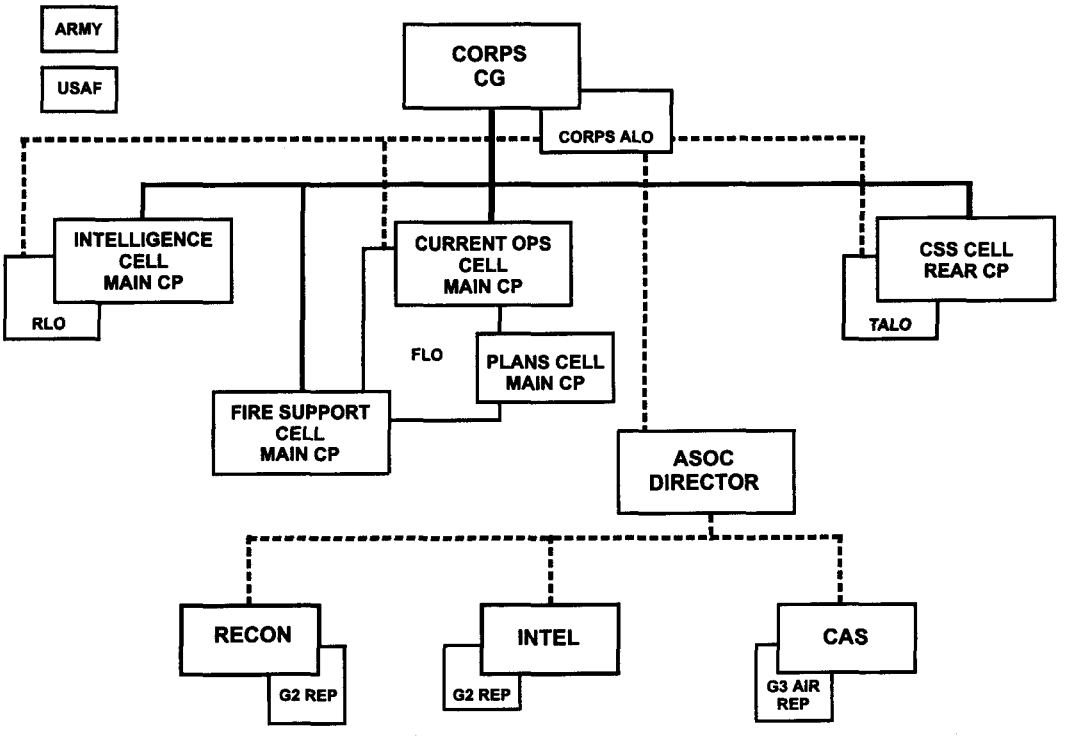


Figure 4–9. Corps staff interface

The TACP reconnaissance liaison officer (RLO)—

- Operates with the intelligence cell of the main CP.
- Advises on USAF tactical reconnaissance resources.
- Coordinates reconnaissance operations.
- Helps the intelligence cell prepare the integrated air reconnaissance plan.
- Helps prepare TAR requests.
- Identifies requirements and initiates requests for EW and air defense suppression missions in support of reconnaissance operations.

A corps G3 air representative collocates with the ASOC. He helps facilitate coordination and communication between the ASOC and the corps.

The corps planning process includes continuous advice from the corps TACP on the capabilities and limitations of CAS. To ensure that CAS is responsive in supporting corps operations, the commander must make known his CAS requirements early in the planning process. To aid in this determination, the corps receives a forecast of interdiction sorties from the BCE plans section.

The ALO at corps helps the G3 plan the employment of forecast interdiction sorties. The corps prioritizes ALO requests then forwards its interdiction target nominations. Nominations will be either fixed targets with precise locations and projected times for attack or be in terms of mission-type orders with desired effects on a general type target at a general location with a projected time for attack.

The TACP fighter liaison officer (FLO)--

- Operates with the current operations cell, the plans cell, and the fire support cell of the main CP.
- Advises on the capabilities of USAF offensive resources.
- Helps develop Army requests for pre-planned fighter support.
- Requests Army J-SEAD support.
- Coordinates with the corps fire support cell and the A^2C^2 element to integrate artillery fire and air missions.

- Coordinates USAF scatterable mining missions with corps engineers.

The TACP tactical airlift liaison officer (TALO)—

- Advises the CSS cell of the rear CP on all aspects of airlift capabilities and limitations.
- Helps the rear CP CSS cell prepare plans and requests for airlift support, airdrops, CDS operations, and LAPES.
- Coordinates with the airlift control center (ALCC) and other airlift agencies for airlift support.
- Advises TACPs on tactical airlift support.

The ASOC tactical air reconnaissance (TAR) section—

- Plans, coordinates, and controls TAR.
- Matches TAR resources with requests from the corps.
- Reviews Army immediate reconnaissance requests for completeness, feasibility, and applicability.
- Coordinates with the ASOC intelligence target analyst and the corps G2 representative.
- Assigns air reconnaissance targets to committed or alert sorties.
- Obtains additional reconnaissance from AOC combat operations.
- Gives reconnaissance mission sightings to the corps main CP intelligence cell and the ASOC sections.

The ASOC intelligence section—

- Processes immediate CAS for target validation and force size and ordnance recommendations.
- Recommends adjustments to pre-planned CAS missions.
- Assesses weapons effects for immediate requests for CAS.
- Recommends matching ground and airborne alert ordnance loads to specific targets.
- Coordinates weapons effects data for pre-planned and immediate CAS attacks.
- Coordinates requests for immediate reconnaissance missions.
- Provides assistance to the FLO and the fire support cell in developing requests for tactical air support and expertise on enemy air and missile capabilities.
- Maintains the air intelligence situation, including enemy surface-to-surface missiles (SSMs), surface-to-air missiles (SAMs), and J-SEAD threat priorities.

A corps G2 representative collocates with the ASOC to facilitate coordination and communication between the ASOC and corps.

The ASOC close air support section—

- Plans, coordinates, and controls CAS operations.
- Matches CAS and forward air controller (FAC) resources with requests from subordinate TACPs.
- Exercises scramble authority (normally delegated to ASOC from AOC) over distributed immediate sorties.
- Diverts pre-planned airborne or assigns ground-alert CAS sorties to fill immediate CAS requests.
- Orders launch of CAS alert sorties by contacting the appropriate wing operation center (WOC).
- Diverts sorties, with the approval of the corps G3, from assigned CAS missions.
- Requests replacement sorties from AOC combat operations to cover diverted missions.
- Helps coordinate the use of Army EW and fires in support of J-SEAD.

Joint Task Force Operations

A JTF includes assigned or attached elements of two or more services. A JTF can be designated by the Secretary of Defense (SECDEF), a CINC, a subordinate unified commander, or by the commander of an existing JTF. A JTF is normally established when a mission has a specific limited objective and does not require overall centralized control of logistics.

Corps commanders and staffs must plan well in advance for the transition from a single service headquarters with joint representation, to a joint headquarters capable of functioning as the

headquarters of a JTF. Joint doctrine establishes the structure, functions, responsibilities, limitations, and guiding principles for JTF operations.

One purpose of this manual is to help Army units develop operational and training plans for conducting activities as a JTF headquarters. Corps commanders and staffs must consult appropriate joint doctrinal publications for JTF operations and activities within the JOPES for both deliberate and crisis-action planning. (See JP 5-03.1 and JP 5-03.11 for detailed guidance.)

To take resources from an existing organization to build an ad hoc element degrades the capabilities of both. It is generally more desirable to establish a JTF or ARFOR headquarters around the nucleus of an established organization.

When the corps is tasked to form a JTF headquarters, it is imperative that all of the staff sections and agencies have joint service representation. The corps staff must transition to a joint staff structure to ensure unity of effort within the task force.

Joint service representation on the staff should be in relative proportion to the service composition of the JTF. This will allow service components to fully participate in all staff processes.

The JTF establishing authority is responsible for providing personnel and resources for the corps when the corps is a JTF. However, the corps commander. as the CJTF, must determine what augmentation requirements he needs for the task at hand and coordinate support through the establishing authority. This augmentation is essential in the transition of the corps to a JTF structure.

The CJTF must tailor augmentation for specific situations. The following areas usually require augmentation:

- Joint and special staff sections.
- Specific functional area augmentation, such as CA, movement control, and PSYOP.
- Headquarters life support functions.
- Communications support.
- Security support for the JTF headquarters.

Combatant commanders usually organize augmentation for the joint staff into packages based on the nature and tempo of developments and the existing capabilities of the headquarters designated as the JTF. These packages fall into three broad categories:

1. Quick response cells to rapidly augment the JTF headquarters with joint and operational area expertise during the early stages of a crisis-action situation. (Figure 4-10 shows a typical JTF staff organization.)
2. Functional area augmentation to provide the JTF with expertise not organic to its staff or to

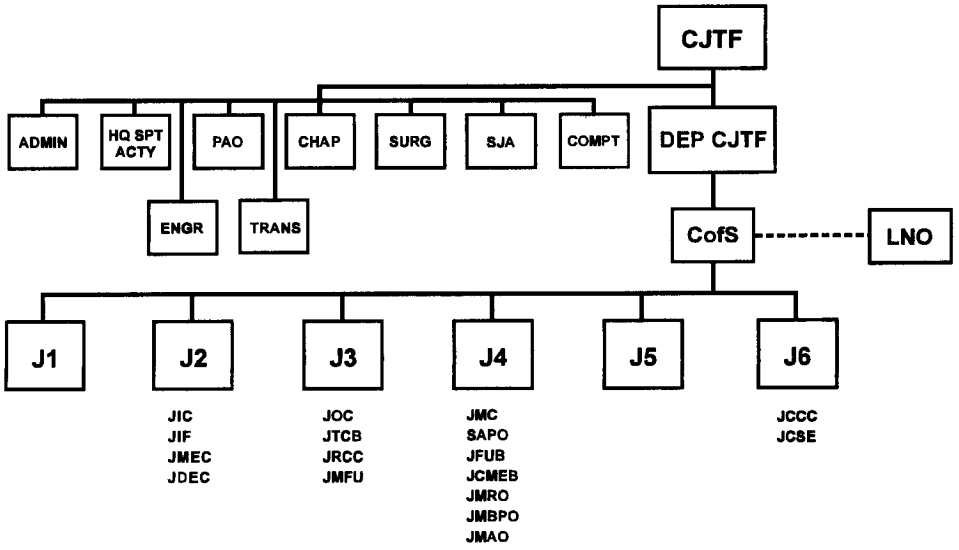


Figure 4–10. Joint task force staff organization

- INTELLIGENCE
- COMMUNICATIONS
- MOVEMENT CONTROL
- MEDICAL OPERATIONS
- LOGISTIC OPERATIONS
- CIVIL AFFAIRS
- ENGINEERS
- PUBLIC AFFAIRS
- COMBAT SEARCH AND RESCUE
- MORTUARY AFFAIRS
- LAW AND ORDER
- PSYCHOLOGICAL OPERATIONS

Figure 4–11. Joint task force staff augmentation (specific functional areas as required)

enhance specific capabilities based on mission requirements (Figure 4-11).

3. Joint staff augmentation to provide the coordinating and special staff sections expertise in joint procedures and service-unique capabilities (Figure 4-12).

Augmentation also facilitates coordination between the JTF staff and the combatant command joint staff, especially with regard to accessing information and capabilities available at the combatant command level.

Joint Staff Directorates

A discussion of joint staff directorates, and the specific centers that the JTF may need to establish on a mission basis, follows.

J1, Manpower and Personnel Directorate. Parent services routinely provide personnel support to JTF subordinate commands. The Jl—

- Formulates joint personnel policies, common services, and procedures that promote equity among the different rating systems, service benefits, postal operations, entitlements, travel, and pay.
- Supervises the administration of military and civilian personnel within the command.
- Supports concurrent noncombatant evacuation operations (NEO), humanitarian relief, life support, and combat operations.

J2, Intelligence Directorate. The J2 provides timely and complete intelligence on the characteristics of the mission area and the enemy, his capabilities, and his intentions. The J2 directs the intelligence staff, and when required, forms and supervises the activities of the JIC.

The JIC provides operational intelligence for the JTF and supplements information to subordinate commands. Usually located near the joint operations center (JOC), the JIC has connectivity to national-level intelligence functions, service component intelligence centers, and the headquarters establishing the JTF.

The J2 establishes and supervises any required fictional intelligence organizations, such as—

- A joint interrogation facility (JIF).
- A joint materiel exploitation center (JMEC).
- A joint documents exploitation center (JDEC).

J3, Operations Directorate. The J3 helps plan, coordinate, and execute JTF operations. He organizes a battle staff containing representatives of all the directorates within a JOC in order to provide consolidated oversight.

The J3 has a plans section to conduct near-term planning of branches to the current operation. If the joint staff is not organized with a J5 plans division, the J3 also performs long-range or future planning

POSITION	GRADE	SERVICE
DIR of PERS, J1	O6	USA
DEP J1	O5	USMC
OPS OFF	O4	USN
OPS OFF	O4	USN
OPS OFF	O4	USA
PLANS OFF	O4	USA
PLANS OFF	O4	USA
OPS OFF	O3	USA
PERS MGMT OFF	O4	USAF
PERS MGMT OFF	O4	USAF
PERS STRENGTH NCO	E6	USA
PERS STRENGTH NCO	E5	USA
ADMIN NCO	E5	USAF
ADMIN NCO	E5	USAF
ADMIN CLERK	E4	USA
ADMIN CLERK	E4	USA
ADMIN CLERK	E4	USA
ADMIN CLERK	E4	USN

Figure 4-12. Example joint task force staff augmentation of Army headquarters (J1 directorate)

and conducts civil-military affairs, including transfer of control to civilian authorities.

In addition to the JOC, the J3 may also supervise—

- A joint targeting coordination board (JTCB) to coordinate targeting guidance and objectives and to develop the joint target list.
- A joint rescue coordination center (JRCC), although the CJTF may task a component commander to perform this function.
- A joint EW staff of component representatives and representatives of the J2 and J6.
- A corps PSYOP support element (CPSE) to plan and develop PSYOP support for the PSYOP campaign plan.
- A joint meteorological forecasting unit (JMFU) to provide weather support.
- Activities associated with MP functions.
- A civil-military cell (CMC) to provide CA and civil-military affairs integration in OOTW.

J4, Logistics Directorate. The J4 plans, coordinates, and supervises supply, maintenance, transportation, general engineering, health services, and other related logistic activities. Each service component of the combatant command is responsible for the logistic support of its respective forces except where the CJTF designates a single service responsibility for a particular logistic function.

The CJTF establishes logistic priorities for the force, assigns terrain and facilities for use as support bases, and designates and maintains LOCs. The J4 supervises the activities of any required logistic-related coordinating centers and boards. These may include—

- A joint movement center (JMC), which coordinates strategic movement with TRANSCOM and ensures effective use of transportation assets.
- A subarea petroleum office (SAPO) formed around elements from the combatant command's joint petroleum office (JPO) to augment the JTF in managing petroleum-related logistics.
- A joint facilities utilization board (JFUB) to manage real estate requirements, unless the JTF engineer is designated a special staff officer and assigned these duties.
- A joint civil-military engineering board (JCMEB) to provide overall direction for civil-military construction efforts and to develop **a civil** engineering support plan (again, the JTF engineer may manage this activity).
- A joint medical regulating office (JMRO) to coordinate the movement of patients in and out of the AO.
- A joint military blood program office (JMBPO) to coordinate the distribution of whole blood within the AO.
- A joint mortuary affairs office (JMAO) to coordinate mortuary affairs actions (normally tasked to the ARFOR).

J5, Plans Directorate. The J5 conducts long-range planning and preparation of the campaign or operations plan. The corps G3, plans division, with augmentation from the combatant command, forms the basis of the J5.

The J5 is responsible for coordinating TPFDD and monitoring force closure. He normally participates in JTCB and EW planning. He may establish a CMC in the joint operations center (JOC) to coordinate CA and civil-military matters. This would ensure proper coordination with any HN government or appropriate US embassy staff essential in OOTW.

J6, Command, Control, Communications, and Computer Systems Directorate. The J6 ensures communications capabilities support the CJTF's operational concept. During planning, the WWMCCS is the primary means of C^2 with higher headquarters.

The WWMCCS is supplemented by secure voice telephone and TACSAT. The WWMCCS intercomputer network (WIN) is the primary means for the corps to input data that will drive the allocation of necessary transportation resources to support force projection.

Continuous access to WWMCCS is essential for effective C^2 and operations planning. This includes access to the system once the JTF deploys to its AO (by deploying a WWMCCS terminal with the headquarters). During operations, WWMCCS remains the primary means of communications with higher headquarters while TACSAT is the main link with assaulting forces.

The J6 is also responsible for frequency management and may form a JCCC to provide overall systems management. The joint communications support element (JCSE) may augment joint task force communications.

Joint Special Operations

The commander of a JTF may create subordinate JTFs to meet specific mission requirements or to simplify C^2 relationships. The JSOTF is an example of such a subordinate task force.

The JSOTF may be specifically established to meet designated operational requirements or it may be formed, for simplicity, around an existing force structure. A JSOTF's organization is similar to a conventional JTF. The JSOTF may have OPCON of all SOF, less PSYOP, assigned to the JTF and or SOF in support of conventional force commanders.

A JPOTF normally plans, coordinates, and executes the theater PSYOP campaign plan. In some cases, the CJTF may elect to create separate JTFs for PSYOP, the JPOTF, and for the joint civil-military operations task force (JCMOTF). The nature of the operation and the objective to be accomplished ultimately determines specific command relationships.

Command and Control

Commanders and staffs must integrate battle C^2 elements early in the deployment flow with the combat forces during force-projection operations. However, the JTF may elect to conduct split-based operations, leaving the majority of the C^2 structure at a fixed base outside the operational area while a small command element closes into the theater of operations. The decision to conduct a split-based operation affects both the JTF staff structure and the physical setup at both locations.

Peacetime planning, CAP, and the execution of joint operations is accomplished through the JOPES. The JOPES translates policy decisions into OPLANs and OPORDs in support of national security objectives.

The JOPES is a continuous process that begins in response to perceived or identified threats to US security interests. It continues through military option selection and COA development, and it results in the development of OPLANs and OPORDs.

Execution of joint operations is the final step. Corps use JOPES during both the deliberate planning process and during CAP. Once deliberate planning is listed in a CINC's deliberate OPLAN as a possible JTF, the corps uses it to develop OPLANs in response to potential contingency situations.

The corps uses the CAP process in fast-developing situations where NCA are considering the commitment of military forces. Although early augmentation to the corps staff usually includes personnel with JOPES expertise from the combatant command staff, the time sensitivity of CAP dictates that the corps have JOPES expertise on its staff.

The deliberate-planning process results in the approval of either an OPLAN or a contingency plan. An OPLAN is a complete and detailed joint plan that normally includes all annexes and TPFDD. A contingency plan is an abbreviated plan that requires expansion, which includes the development of TPFDD files. The deliberate-planning process has five phases:

1. Initiation, where the staff identifies planning tasks.
2. Concept development, where mission analysis and COA development take place.
3. Plan development, where the staff prepares the OPLAN and CONPLAN in detail, including support and TPFDD annexes as appropriate.
4. Plan review, where the CJCS, the combatant commander, and other appropriate agencies assess and validate plans.
5. Supporting plans, where the supporting commands finalize all actions required to support the basic plan.

Crisis-action planning helps adjust existing contingency plans, or develops and executes OPORDs where no plan exists, in response to an evolving crisis. A crisis-action situation where a military force is committed usually requires the rapid projection of combat power to achieve a quick resolution to the crisis. Often, a forcible entry capability will be required. The force may then have to simultaneously fight and continue deployment of

follow-on forces. There are five phases in crisis-action planning:

1. Situation development, where command authorities recognize and report events with possible national security implications.
2. Crisis assessment, where the higher command analyzes potential political, economic, diplomatic, and military implications.
3. Course of action development, where the staff considers alternative responses to the crisis, usually initiated by a CJCS warning order.
4. Course of action selection, where CJCS and the NCA select the COA to be implemented, and the SECDEF issues an alert or planning order.
5. Execution planning, where the staff develops and approves the OPORD for execution on order.

The JTF usually enters the deliberate-planning process once the CINC makes the decision to establish a JTF to support the overall combatant commander's plan. This allows for parallel planning as planners generate and develop various COAs into the OPLAN and/or CONPLAN.

The JTF could enter the deliberate-planning process during the supporting plans phase when the detailed plans for operations in support of the combatant command's campaign plan are finalized. Likewise in CAP, it is desirable that the JTF be designated early during COA development to permit parallel planning-an even more important consideration because of the compressed time lines of crisis action. However, in some cases, planners may conduct corps-level CAP with minimal input from the JTF because of these constraints.

The tactical decision-making process must address the increased impact that political, economic, interagency, and coalition considerations have on the corps when it serves as a JTF headquarters. It must also be adapted to allow for joint formatting and terminology.

On receipt of the alert or planning order, the JTF finalizes the COA and prepares the OPORD while making refinements to the TPFDD. It is essential that the corps begins execution planning as soon as a likely COA becomes apparent. The time between the decision to commit a military force and the actual execution of operations is often short.

Joint Fires

Joint fire support encompasses the process for planning, coordinating, requesting, deconflicting, and employing fire support assets from one service in support of another service's operations. The goal of joint fire support is to balance surface commander's requirements for firepower with available nonorganic assets.

The commander is the key to focusing joint fires. The capabilities of joint fires expand the corps commander's battle space and facilitate simultaneous attack in depth.

In situations where the corps commander is the JFC, he must establish overall guidance for joint fire support. The JFC defines and implements a methodology for joint planning, prioritization of missions and targets, apportionment, and allocation of resources.

The JFC's concept of operations specifies the objectives to be met. He also task organizes the joint force to accomplish the mission, establishes the communications and automation architecture to support joint fire support activities, and establishes constraints and conditions for employment of weapons systems.

In other cases, when the corps commander is not the CJTF, he performs detailed planning and execution of joint fire support operations. His responsibilities include identifying requirements, nominating targets, and employing maneuver control and fire support coordination measures to facilitate joint operations.

Joint fire support operations are inherently complex and often involve competition for limited fire support assets. The corps commander must continually make the corps' target priorities known to the JFC. Liaison officers who are thoroughly briefed on the corps commander's concept of operations can perform this function.

If the corps commander is the CJTF, he decides whether or not to create the JTCB and its composition. If the corps commander is not the CJTF, he must ensure that corps representation on the board is adequate to meet the needs of all subordinate elements of the corps. A JTCB reviews target information, deconflicts targets among members of the joint force, develops priorities and guidance for the JFC, prepares target lists, and allocates resources to weight the main effort. (See also JP 3-0.)

The delivery of joint fires must be synchronized to support the operations plan. Aggressive interface between intelligence and acquisition systems, fire planners, operation planners, and delivery systems in the joint environment ensures that the corps can apply overwhelming combat power at the decisive point. This is the essential element of successful joint operations.

CORPS MULTINATIONAL OPERATIONS

Future military operations will always be joint operations, and, in many cases, they will be conducted in cooperation with other nations as multinational operations. Multinational operations are military actions that military forces from two or more nations conduct, typically within the structure of a coalition or alliance. Existing alliances, established over along time, or ad hoc coalitions, formed as a rapid response to unforeseen crises, can undertake multinational operations.

The key to successful multinational operations is the establishment of mutual trust and confidence between the respective senior commanders of the various military forces. United States commanders who work with multinational forces must know how to coordinate activities among partners with dissimilar objectives and different military capabilities.

Commanders must possess a leadership style that instills confidence and builds harmony between all of the members of the force. All commanders must work to establish rapport, mutual respect, and unity of effort in the face of differing national agendas.

Multinational operations are inherently difficult operations. There is a natural reluctance for commanders of forces of one nationality to place their soldiers under the OPCON, TACON, or TACOM of an officer of a different nationality.

There are problems with language, communications and automation equipment, tactics, and procedures. These problems are lessened by the exchange of LNOs and, when possible, the establishment of International Standardization Agreements (ISAs), standing operating procedures (SOPs), and clearly written, uncomplicated orders.

United States doctrine clearly defines the importance of articulating the commander's intent when developing plans and orders. This practice may or may not be used by non-US multinational commanders. United States commanders must ensure that all members of the multinational force recognize the importance of this requirement in all military operations.

Field Manual 100-8 identifies several potential command and staff structures based on the needs, political climate, international restrictions, and objectives of participating nations. These structures generally fall into the categories of parallel, lead nation, or integrated commands.

In a parallel command structure there is no single commander of all forces. Each nation in the force has a separate command structure. A principal feature of the parallel command structure is the existence of a coordination center (Figure 4-13). As the force matures, the participating nations send staff officers and LNOs to the coordination center to help resolve issues involving sustainment, alert and warning, HN support, movement control, training, and possibly, battle C^2.

An example of a command structure in UN activities is the coalition lead-nation command structure (Figure 4-14). All coalition members are subordinated to a single commander. While this structure has the advantage of unity of command, nations are reluctant to grant this degree of control to a commander from another nation. This problem

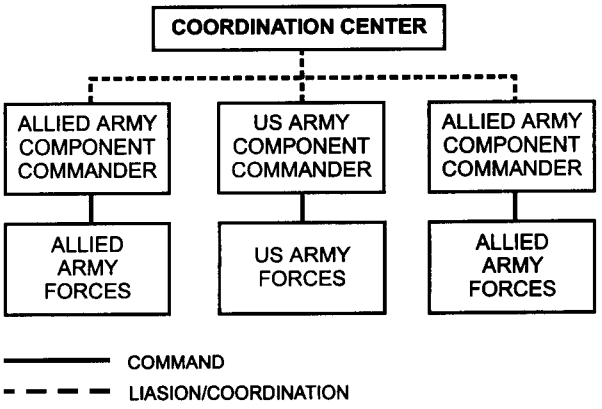


Figure 4–13. Coalition parallel command structure (forces under national control)

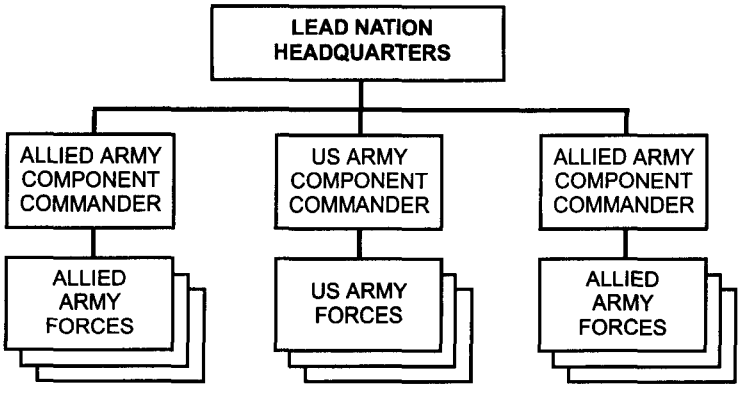


Figure 4–14. Coalition lead-nation command structure

is lessened by ensuring broad coalition representation on the lead-nation headquarters staff.

The North Atlantic Treaty Organization (NATO) is an example of an integrated command structure that provides unity of command in the multinational setting. The commander is selected from one of the member nations; the staff and subordinate commands are multinational representatives. The lead-nation commander decides the staff's ultimate composition. (Figure 4-15 is an example of an integrated structure.)

There are several factors at the operational level that the corps commander must consider as early as possible in planning for multinational operations. In addition to selecting the proper command structure, the commander must ensure that all participants in the operation understand the terminology used to describe command relationships.

The corps commander must have a reasonable understanding of the multinational force's equipment, doctrine, and capabilities. This is essential for developing plans and allocating resources in all multinational operations. Conducting operational fires is difficult in any operation but especially so in multinational operations where common methods of control may not exist and where there are wide differences in capabilities.

The US corps commander may have access to intelligence sources and methods that he cannot share with the partners in multinational operations even if he is subordinate to a non-US commander. This situation certainly strains relationships and complicates attempts to establish trust. Fortunately, much of the coordination and negotiation for sharing intelligence occur at national and strategic levels. (See FM 100-8 for other considerations.)

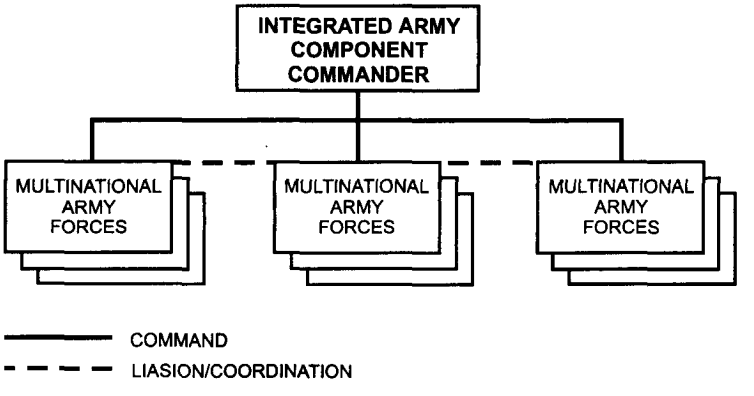


Figure 4–15. Alliance integrated command structure (multinational subordinate formations)

INTERAGENCY OPERATIONS

Defense and promotion of US national interests in war, conflict, and peace require the combined efforts of all the instruments of national power. In war, the military instrument has primacy and is supported by other government and nongovernment agencies. In peace and conflict, the relationship is reversed, but the need for unity of effort assumes even greater importance.

Among government organizations, there is no true unity of command below the level of the President and the National Security Council. That is, no single agency of government can give authoritative direction to other departments and agencies. Command, as it is known in the armed forces, does not exist. Direction by consensus takes its place.

One exception to this general rule is the statutory authority of an ambassador over US government activities in the country to which he is accredited. The law reads in part: *Under the direction of the President, the chief of a mission to a foreign country—(l) shall have full responsibility for the direction, coordination, and supervision of all Government executive branch employees in that country (except for employees under the command of a United States area military commander)* (Title *22,* USC).

The area military commander is generally considered to be a unified CINC who exercises combatant command. His forces are excluded from an ambassador's directive authority. That means that a corps or its major elements deployed for operations is not subject to the ambassador's direction. On the other hand many corps activities in OOTW, such as mobile training teams (MTT) and small exercises, are subject to the ambassador's approval.

There is precedent for a fully integrated interagency organization. During the Vietnam War, the Civil Operations Revolutionary Development Support (CORDS) organization integrated civilian and military personnel from top to bottom.

CORDS was headed by a civilian, with the personal rank of ambassador, who was also the deputy commander, US Military Assistance Command Vietnam (MACV), for CORDS. From national, through province, to district levels, military and civilian personnel alternated in command positions. If a commander was military, he had a civilian deputy and vice versa. CORDS was responsible for pacification, the destruction of the enemy's insurgency infrastructure, and development efforts to alleviate the causes of revolution.

CORDS enjoyed considerable success and contributed to the enemy's decision to abandon insurgency methods for an approximation of conventional war. CORDS owed its existence to the personal direction of President Lyndon B. Johnson and his advisor, Ambassador Robert Comer, who became the first deputy commander, MACV, for CORDS. No organization as formal and elaborate is likely to be established absent similar high-level intervention.

CORDS does, however, provide an example of interagency organizational efficiency, and can serve as a model for military commanders and their civilian agency counterparts. Interagency relationships must be established through negotiation.

Agreements should be in writing, as memoranda of understanding or terms of reference, to ensure understanding and to avoid confusion. Most such agreements are made at the unified command or JTF level.

An Army corps reaches such agreements when it acts as the nucleus of a JTF or as an Army component command. Moreover, local commanders can and should reach cooperative understanding with their civilian agency counterparts. That includes the corps or its elements.

One caution is in order. There are serious legal restrictions on the use of military personnel and equipment, especially in OOTW. Therefore, the commander must consult the SJA when developing cooperative agreements.

Relations with other government agencies and international and private organizations are so important to OOTW that the corps commander should devote a major part of his personal attention to them. He should entrust day-to-day operation to a deputy commander, executive officer, or chief of staff and provide the necessary commander's intent so the designated officer can function effectively.

The commander should make periodic checks on the conduct of operations to assure himself that they are progressing satisfactorily. However, his attention should focus on interagency matters.

The corps commander cannot give orders to other agencies. Instead, he must participate in consensus-building as one voice among equals. He must persuasively present the military view, but he must also be ready to compromise. His preferences will be accepted by other organizations only insofar as he presents them convincingly and in a spirit of cooperation. By doing so, other government and private agency officials will be inclined to accept the commander's expertise in military matters and to listen attentively to his opinions on the overall operation.

In OOTW, the corps', or its deployed elements', mission will be to provide services to other organizations which carry the main weight of mission success. This support may include combat operations for the protection of civilian activity, as in the Somalian humanitarian relief efforts of 1992-1993. It also includes the provision of services and equipment of various kinds, as in Hurricane Andrew in 1992 and the California earthquakes of the early 1990s.

The key to success in interagency operations is liaison. The corps commander (or any Army commander) must identify participating agencies and establish regular liaison. Some may be reluctant to be identified with military activity and must be persuaded that they stand to gain through cooperation. This is especially true of private volunteer organizations that fear being identified with combat operations. The requirements for liaison will usually exceed personnel and equipment strengths authorized in tables of organization and equipment (TOE).

Liaison in interagency operations also requires maturity of judgment in politically sensitive situations. Therefore, personnel assigned this role must be carefully selected. Liaison parties must either be language-qualified or demonstrate their ability to operate effectively through interpreters.

Most civilian organizations, whether government or private, do not have command, control, communications, and computer equipment comparable to the Army 's. What they do have may be incompatible. Therefore, the Army may have to provide equipment and personnel to those agencies in order to effect unity of effort.

The demand on the corps' human and materiel resources will be great. The corps must look to external sources for augmentation and be prepared to take resources from units that do not deploy to support those that do.

Whether the corps is the supported or the supporting force, it must act as a bridge between tactical operations and the interagency requirements of the operational and strategic levels of war. The corps' appropriate attention to the requirements of interagency operations makes an important contribution to the national objective in any political-military environment.

ARMY AIRSPACE COMMAND AND CONTROL (A^2C^2)

The A^2C^2 element performs A^2C^2 for corps operations in the fire support cell of the corps' main CP. The corps' A^2C^2 officer (normally the G3 air) supervises the element and publishes the corps' A^2C^2 plan. The A^2C^2 element integrates C^2 of corps airspace users with the USAF AOC through the Army BCE.

The USAF accomplishes coordination with the corps through the ASOC, which is also at the corps' main CP. The purpose of A^2C^2 is to maximize the use of airspace by CAS, Army aviation, UAVs, ADA, FA, and EW assets.

All A^2C^2 elements (corps, division, maneuver brigade, and battalion) form a vertical and horizontal channel through which the corps commander and his staff coordinate, disseminate, and synchronize airspace control requirements, plans, orders, and information with the tactical plan. (For detailed information see JP 3-52 and FM 100- 103.)

The corps A^2C^2 element consists of designated representatives from selected staff sections and liaison elements to the corps' main CP. Liaision elements include, specifically, the G3 section, ADA element, aviation element, FSE, USAF TACP, and the supporting air traffic service battalion. Designated personnel from these staff and liaison elements collocate to perform fill-time A^2C^2 functions.

Personnel from these elements and sections, who have A^2C^2 staff responsibilities, accomplish two separate tasks. First, they perform their primary staff functions. Second, they help synchronize the airspace requirements of their parent units with the

airspace users of the combined arms team and supporting services.

The A^2C^2 element's primary tasks include-

- Coordinating and integrating airspace user requirements within the corps AO.
- Maintaining A^2C^2 information displays and maps.
- Developing and coordinating airspace control SOPs, plans, and annexes to corps OPORDs and OPLANs and disseminating airspace control orders, messages, and overlays.
- Approving, staffing, and forwarding to the next higher headquarters requests for special use airspace.

The A^2C^2 element at the main CP is the focal point for all airspace control activities related to corps rear operations, deep operations, and the planning for future close operations. Airspace control activities supporting the execution of close operations normally pass through the TAC CP to the A^2C^2 element at the main CP for further action. The TAC CP and the A^2C^2 element maintain close coordination at the main CP to ensure that airspace requirements, which changes to the tactical situation generate, are met in a timely, effective manner.

At the TAC CP there is no formal A^2C^2 element. Designated representatives from selected staff and liaision elements accomplish airspace control functions. At a minimum, representatives include a G3 officer, who is responsible for the A^2C^2 effort and who is assisted by a fire support officer; an aviation representative; an ADA representative; and the USAF liaison officer.

The GLO provides the interface between the Army and supporting USAF units to facilitate the conduct of tactical air support, airlift, and aerial reconnaissance operations. The GLO may be assigned to a specific Army unit or may be part of a liaison group specifically organized to coordinate operations between the services.

The GLO receives his guidance from the Army unit being supported. This may be through direct coordination with the Army unit or through another coordination cell such as the BCE. The exact structure is theater-dependent.

Although assigned to an Army unit, the GLO serves "with duty" at the USAF unit location, and works with the operations or intelligence section of that unit. If the GLO is part of a liaison group, he may not habitually work with the same unit, but will be sent to perform liaison duties for whatever Army unit is being supported.

The corps' primary A^2C^2 focus is on conducting battles in the forward portion of the combat zone, in the corps' rear boundary, and forward. Therefore, airspace control activities must synchronize all airspace users of the combined arms team and supporting services with corps close, deep, and rear operations. Corps airspace control methodology stresses the use of procedural control, relying on standing operating procedures, selected use of theater airspace control measures, and compliance with the theater airspace control plan and SOPs.

If the corps is the JTF headquarters, the commander's and the staffs responsibilities may change. Instead of coordinating and synchronizing Army assets in close, deep, and rear operations, they must synchronize land, air, maritime, SOF, space, and multinational forces. In addition, forces subordinated to the JTF may be organized on a functional basis, such as designating the USAF commander as the JFACC.

The CJTF has many diverse responsibilities in the airspace arena. An Army corps staff has neither the expertise nor capability to effectively plan and coordinate all aspects of joint airspace control.

The CJTF must personally involve himself, with all functional component commanders, in the development of the airspace control plan. The intent is for the senior tactical and operational commanders to express their airspace, ground, and maritime requirements in mutually agreeable terms to meet the JFC's operational objectives.

Traditional relationships may change. Historically, the corps has worked with the USAF for tactical air support and interdiction. In larger unit operations, where the corps was subordinate to an Army EAC headquarters, the BCE worked for the EAC headquarters, and the corps A^2C^2 element reported to the BCE. The corps, as a JTF, may have the BCE assigned or under OPCON.

The change in national military strategy and the Navy's redirection from deep water operations to

littoral operations has also changed the JFACC concept. Historically, the BCE was an Army/Air Force relationship, but relationships are changing. The JFACC may be afloat. The BCE may collocate on board ship with the maritime component commander initially serving as the JFACC, then moving ashore if JFACC responsibilities pass to the USAF.

When the USAF does not provide tactical air support to Army forces, such as in Operation Restore Hope (Somalia), voids in command and support relationships become apparent. In light of these voids, the corps must evaluate its airspace control responsibilities and capabilities, then request support from the combatant commander or the ASCC.

When a corps is the JTF, the ASOC, ANGLICO, GLOs, and TACPs must be included in all phases of crisis-action or deliberate-planning processes. Deployment planning must include GLOs who may have to be recalled. The CJTF may require that the TACPs remain with corps and divisions to provide tactical air support coordination.

COMMAND AND CONTROL WARFARE (C^2W)

For a commander, effective battle command of his forces is key to success on the battlefield. Therefore, he has an inherent responsibility to protect his C^2 systems and to counter the enemy 's. The resulting differential in C^2 effectiveness facilitates friendly operations.

Command and control warfare is the integrated use of OPSEC, military deception, PSYOP, EW, and physical destruction, supported by intelligence to deny information to influence, degrade, or destroy adversary C^2 capabilities, and to protect friendly C^2 against such actions.

Counter-C^2 is the division of C^2W that commanders use to deny adversary commanders and other decision makers the ability to effectively command and control their own forces. Actions to maintain the effectiveness of friendly C^2 despite both adversary and friendly counter-C^2 actions is called C^2 protection.

Counter C^2

Planning for C^2W is also based on the corps commander's concept of operations. It describes how the corps will disrupt the enemy's C^2 capability through deception, PSYOP, EW, and fires. It further describes how the commander will use available information warfare capabilities to enhance his own operations.

Used with OPSEC, deception can feed selected information to an enemy commander's (decision-maker's) information-gathering system; play to his biases, including those toward friendly actions; and get him to see an incorrect picture and act on it. Some of C^2W's specific deception goals include—

- Causing the enemy to employ his forces in ways advantageous to the friendly force.
- Causing the enemy to reveal his strengths, dispositions, and future intentions.
- Overloading the enemy's intelligence and analysis capabilities and creating confusion as to friendly intentions in order to achieve surprise.
- Causing the enemy to expend firepower on false or unprofitable targets.

Commanders can use PSYOP against enemy C^2 to either create or reinforce perceptions. Given that, it becomes obvious that PSYOP is closely integrated with OPSEC and deception in that all seek to portray a picture of reality in a way beneficial to what friendly forces wish to accomplish.

Electronic warfare contains three areas—ES, EA, and EP. All three divisions can be used in information warfare.

Electronic warfare support (ES) gives the commander combat information. When he can intercept enemy communications and locate enemy transmitters, he has the potential to immediately target enemy C^2 systems and forces with fires.

Electronic attack (EA) is one type of fires. For the purposes of the corps, this equates to jamming the enemy's critical C^2 nodes.

Electronic protection's (EP) major mission is to starve the enemy's intelligence. Friendly forces need to pay close attention to communications security (COMSEC) to ensure that vital information is not lost when emitters radiate.

For the purposes of C^2W, destruction of a hostile C^2 function means that function cannot perform permanently or for a given time. With this definition in mind, the commander must clearly communicate his destruction intentions to the FSE so it can spread limited fire support means to cover the most targets. It is important to remember that C^2W will be competing with other targets needing the same weapons systems.

C^2 Protection

The corps commander bases C^2 protection planning on his concept of operations. The process begins when the commander assesses the enemy's intelligence and counter-C^2 capabilities and identifies those corps characteristics vulnerable to the enemy's intelligence and counter-C^2 actions.

The G3 identifies priority characteristics that require special protection as essential elements of friendly information (EEFI). The staff assists the G3 in determining and implementing OPSEC measures that eliminate or reduce vulnerabilities.

The staff must also consider ways to prevent fratricide. Fratricide in this case is the degradation of corps C^2 capabilities by friendly actions intended to counter enemy C^2. Allocating frequencies, implementing deconfliction procedures, or establishing restricted frequency lists are examples of measures that help reduce the occurrence of the problem.

In C^2 protection, OPSEC measures deny targeting information to the enemy. Jamming disrupts enemy communications between his sensors and his fire support systems. Destruction is used in C^2 protection to attack enemy information warfare resources.

Destroying enemy jammers, fire direction centers, and deception units protects corps C^2 capabilities from lethal and nonlethal attack and deception operations. In turn, the corps can use deception to negate enemy targeting and surveillance assets.

Chapter 5

OFFENSIVE OPERATIONS

FUNDAMENTALS OF CORPS OFFENSIVE OPERATIONS

The corps conducts offensive operations to either defeat, destroy, or neutralize the enemy. The preferred method of conducting offensive operations is to find and destroy the enemy at distance in order to set the conditions for decisive maneuver.

The corps commander must leverage every available technological advantage to gain intelligence and to employ lethal and nonlethal fires as a precursor to decisive maneuver. Maneuver forces can then precisely strike the final, decisive blow.

Corps commanders array their forces so subordinate commanders can employ friendly systems at maximum ranges while remaining outside the range of threat systems. This allows commanders to refine the concept of operations, conserve combat power, and minimize risk.

The corps can achieve decisive results by massing overwhelming combat power at the point of attack while avoiding the enemy's main strength. By attacking the enemy's flanks or selecting a location or time of attack when the enemy is most vulnerable, the corps can disrupt the cohesiveness of enemy defenses and force him off his plan, ideally causing him to abandon prepared positions.

Characteristics of the Offense

The central theme of offensive operations is the need to gain and maintain the initiative. Surprise, concentration, tempo, and audacity are the critical characteristics of offensive action.

Surprise

Surprise at the tactical level means that the corps attacks at a time, place, or in a manner the enemy least expects, even when the enemy is anticipating an attack. Achieving surprise requires the corps to develop detailed and timely intelligence concerning the enemy, weather, and terrain. Meanwhile, the corps denies similar information to the enemy by using deception and aggressive OPSEC measures. The corps can enhance the effects of surprise by initiating a sudden, aggressive attack throughout the depth of an enemy's defenses, thus paralyzing his ability to react.

Another way to achieve surprise is to desensitize an enemy's reaction to offensive indicators through a gradual buildup over time that does not cause alarm or frequent repetition of indicators. A sudden or unexpected change, which catches the enemy off guard, in the tempo of operations is another way the corps can achieve surprise.

Concentration

Concentration is the ability to mass the effects of combat power to achieve success without massing large formations. The corps must rapidly mass effects at the point of the attack and maintain sufficient concentration to sustain the momentum of the offensive.

CONTENTS

FUNDAMENTALS OF CORPS OFFENSIVE OPERATIONS 5-1
Characteristics of the Offense 5-1
Forms of Tactical Offense 5-2
PLANNING CORPS OFFENSIVE OPERATIONS 5-12
Operations in Depth 5-12
Organization of the Offense 5-12
PREPARING FOR CORPS OFFENSIVE OPERATIONS 5-16
Intelligence 5-16
Maneuver 5-16
Fire Support 5-18
Air Defense 5-18
Mobility and Survivability 5-19
Combat Service Support 5-19
Command and Control 5-20
EXECUTING CORPS OFFENSIVE OPERATIONS 5-20
The VII Corps' Plan for Operation Desert Storm 5-20
VII Corps' Execution 5-20
TRANSITIONING TO THE DEFENSE 5-24

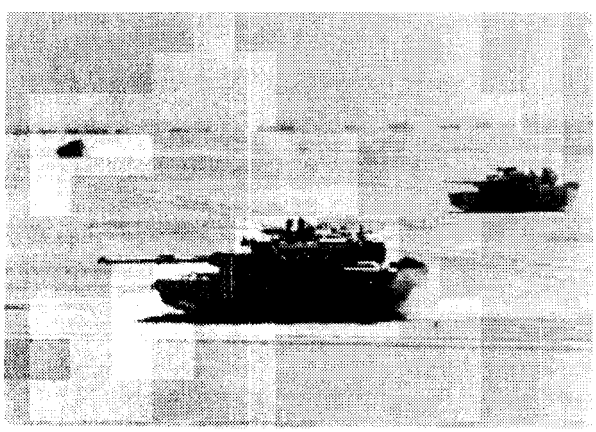
Concentration of forces can make the corps vulnerable to enemy action. Commanders must balance force-protection activities, such as dispersion, concealment, deception, and security, against the requirement to concentrate effects.

The key to concentrating corps combat power is to designate a point of main effort and direct resources to ensure success at that point. In its attempt to weight the main effort, the corps must also ensure it coordinates for joint systems, such as intelligence, close air support, and naval gun fire. Operations must be flexible enough to allow the main effort to shift without losing the effects of mass and momentum.

Tempo

The tempo of offensive operations is the effect the combination of speed of military action and combat power creates. The more rapidly a force can apply combat power throughout the depth of enemy defenses, the greater the tempo will appear.

By controlling and changing the tempo of the attack, the corps can keep the enemy in a reaction mode, off balance, yet still retain the initiative. By conducting relentless operations in depth against the enemy, the corps seeks to deny the enemy the opportunity to regroup while retaining the freedom of action to exploit opportunities as they present themselves. Changes in tempo can also effect surprise and deception.



Tempo is the effect the combination of speed of action and application of combat power creates.

Audacity

Audacity is an inherent component of offensive operations. A simple plan, executed boldly by commanders who understand the intent of commanders two levels above, is paramount if the corps is to take advantage of opportunities the shock effect of the attack will create.

Forms of Tactical Offense

Offensive operations take four general forms: movement to contact, attack, exploitation, and pursuit. Because of the fluid nature of offensive operations, corps units might simultaneously employ different forms of the offense throughout the depth of the battlefield.

Not all offensive operations will necessarily follow a particular sequence or include each type of offense. The corps must be flexible in applying the appropriate form of offensive action as the situation dictates.

Movement to Contact

The purpose of the movement to contact is to develop the situation and gain or maintain contact with the enemy. The characteristics of a movement to contact are centralized planning, decentralized control, rapid movement along multiple axes, and rapid transition of combined arms formations from the march to the attack. The corps focuses its efforts on two priorities: finding the enemy and rapidly developing the situation.

In many cases, a meeting engagement is the result of the movement to contact. The organization of a corps movement to contact normally includes a covering force, an advance guard, and a main body. When the situation dictates, the movement to contact also includes flank and rear security forces. Figure 5-1 depicts a typical movement to contact formation.

In most situations cavalry regiments are ideal for covering-force operations. However, METT-T functions may dictate the use of other corps units. When operating on a wide front, the corps commander may forego the use of a corps-controlled covering force and direct the lead divisions to establish their own covering forces.

The covering force normally finds the enemy force and develops the situation before the main

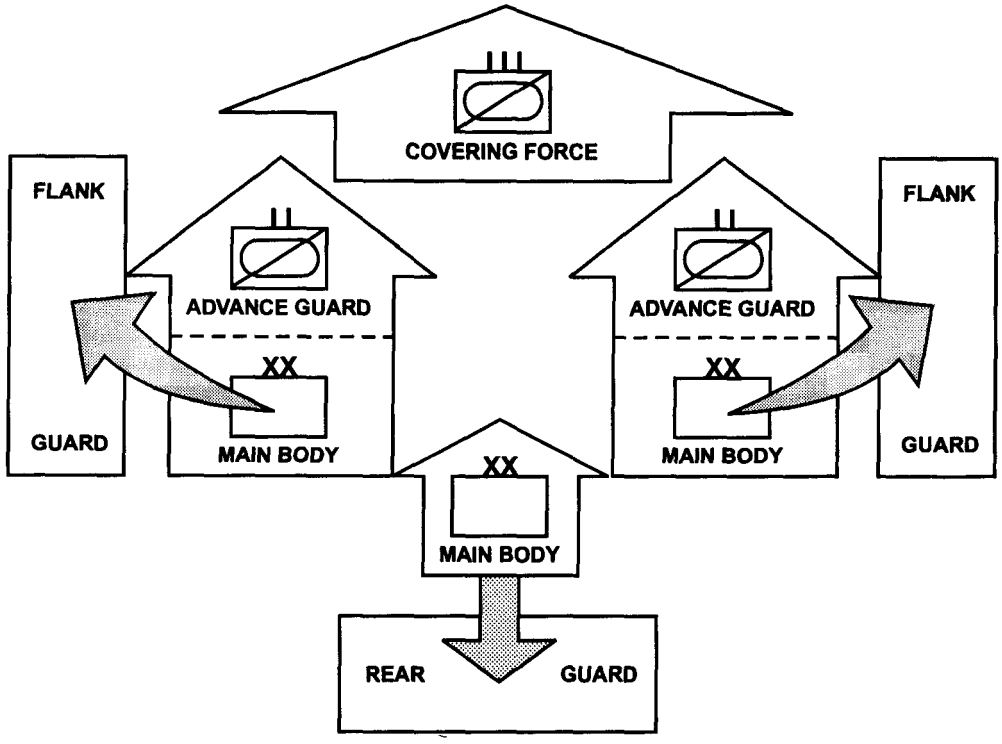


Figure 5–1. Movement to contact

body initiates contact. The covering-force mission statement includes what size force it is to defeat and what size force it is to bypass. If the corps attacks a defending enemy, the covering force usually—

- Sufficiently penetrates the enemy's security forces and main defensive positions to facilitate the main body's attack on the enemy's main defenses.
- Identities the location and deployment of enemy forces in main defensive positions.
- Limits the ability of the enemy's security forces to collect intelligence.
- Disrupts the enemy's deployment and commitment of forces.

Because the covering force operates at extended distances from the main body, it must be self-contained and task-organized with the necessary CS and CSS to allow it to fight independently. The corps normally provides CAS sorties and additional FA, AD, NBC, reconnaissance, aviation, and engineer assets to the covering force.

The main body contains the bulk of the corps' combat power. Commanders must task-organize units and organize march columns to facilitate an immediate attack or, possibly, a hasty defense from the march. When possible, commanders assign multiple routes to subordinate units. Commanders may commit elements of the main body to reduce pockets of resistance that the covering force contained or bypassed.

The main body's leading maneuver elements normally furnish and control the advance guard. The close proximity of the leading maneuver elements during the march, and the possibility that these elements may have to respond to a threat beyond the capability of the advance guard, make this type of C^2 arrangement preferable.

The advance guard must maintain contact with the corps covering force. Either the advance guard or its higher headquarters normally furnishes liaison elements to the covering force. The corps may employ an advance guard in lieu of a covering force.

When the corps controls the advance guard, the corps commander gives specific guidance to the advance guard concerning the size of the enemy force it is to defeat or destroy. Main body forces normally furnish and control flank security for the

same reasons. However, if flank security units are operating under corps control, the commander needs to consider the specific security mission (normally guard or screen) assigned to these units.

Given the probable extensive distances moving corps might cover, a flank screen mission is the norm. Also, extensive distances, especially on the flanks, normally necessitate allocation of aviation and direct support FA assets for these units.

Rear security forces normally operate under corps control. The usually extensive distances, created by corps-controlled CS and CSS COSCOM units operating to the rear of the subordinate divisions in the main body, favor a separate corps-controlled unit.

Normally, the corps TAC CP moves with the leading division. The corps' main CP remains relatively stationary if the corps maintains communications between it and the leading elements. The corps' TAC and main CPs alternate control of the corps' movement to contact as they leapfrog forward. The main CP's initial location and subsequent movement rests on—

- How it can best control the corps' initial movement.
- Its subsequent attack from the march.
- The corps' deep and rear operations.

The TAC CP normally moves with, or immediately to the rear of, one of the leading divisions. The primary consideration in determining the TAC CP's movement and positioning is how it can best control corps close operations from the march and still assume the functions of the main CP when required.

During the movement to contact, units should anticipate a disruption of resupply. They should carry water and Class I and Class III package products on their tactical and combat vehicles. They should also carry enough additional supplies to maintain them through the movement to contact and the ensuing battle.

Depending on the distance, the corps may plan and coordinate a refuel on the move (ROM), supported by both COSCOM and DISCOM assets. In addition to ROM sites, the corps may pre-position CSS units and supplies to support the move. Also, COSCOM may recover and evacuate all equipment left in place. It may also effect movement control with movement control teams or movement regulating teams.

A movement to contact normally terminates on an objective or limit of advance (LOA). It might result in a meeting engagement where friendly forces attempt to fix the enemy with the minimal force while maintaining freedom of action with the maximum combat power.

The covering force, if designated, normally initiates the meeting engagement, develops the situation, and defeats the enemy force within its capability. If the enemy force is stronger than the covering force, the force may have to go over to the hasty defense and await the main body.

Subordinate unit advance guard elements move rapidly forward to reinforce the covering force, seize key or decisive terrain, or seek an exposed enemy flank. If the corps is advancing on multiple routes, main body forces normally attack from the march to defeat or destroy the enemy force. If the enemy force is sufficiently strong and the corps' advance restricted, leading units may occupy attack positions until the corps can generate sufficient combat power.

Search and attack operations are a variation of the movement to contact. The corps conducts search and attack operations by predominantly light forces to counter enemy forces operating in restricted terrain, such as cities, jungles, mountains, and so forth.

This form of offense may also be appropriate in areas where the corps wants to deny enemy movement. The corps may even leapfrog light units ahead to conduct search and attack operations to facilitate movement of the corps' main body through restrictive terrain. Based on METT-T, light units are normally task-organized with aviation and some armored units.

Attack

In most instances, the corps transitions into the attack after making contact with the enemy. The corps applies overwhelming combat power at the point of the main effort rupturing and destroying the continuity of the enemy's defense. The attack must make the enemy abandon his defense or face piecemeal destruction.

The corps, synchronizing organic systems and joint assets, attacks the enemy throughout the depth of his defense keeping him off balance and limiting his freedom of action. The corps accepts risk in its zone of attack, achieving concentration at decisive points and making use of tactical deception in support of the attack.

The corps must meet a variety of threats that will not necessarily follow specific models or templates. Thorough and timely intelligence, or lack of it, will drive the corps commander to choose between a movement to contact and a deliberate attack. Forces conduct hasty attacks as a part of a larger operation, based on battle drill, unit SOPs, and FRAGOs.

Hasty Attack. Hasty attacks are the desired outcome of meeting engagements. They are launched with minimal preparation by either the unit in contact or by follow-on forces. The purpose of hasty attacks is to (one) destroy the enemy before he can concentrate forces or establish an effective defense or (two) fix the enemy using the smallest force necessary. Units maneuver against the exposed enemy flank or rear to gain the initiative and overwhelm the enemy before he can react.

After receiving the IPB, the latest intelligence update, and combat information, the commander initiates the hasty attack using FRAGOs and forces on hand. Simple, rehearsed plans and SOPs from standard formations minimize the loss of synchronization. Maintaining a reserve enhances the commander's flexibility by providing a force to exploit success or react to unforeseen contingencies.

The hasty attack is usually the most risky offensive operation. Information regarding the strength, disposition, and intentions of the enemy will be limited, and subordinate units must seize opportunities and act within the commander's intent to respond to avariety of situations. Consequently, war-gaming situations that the corps might confront is essential.

Because of time constraints that affect external support, the initial CSS package for a hasty attack is normally limited to items that attacking units can carry. To sustain the attack, units use the same resupply procedures as in a deliberate attack.

Deliberate Attack. The corps conducts a deliberate attack when a hasty attack has failed or will not succeed. Deliberate attacks are fully synchronized operations that employ all the assets of corps and joint and/or multinational forces available to the corps.

Deliberate attacks are characterized by the development of detailed intelligence on the enemy and the preparation time to plan and rehearse the attack. Forces normally conduct deliberate attacks from defensive positions.

The corps covers its preparation for deliberate attacks by employing OPSEC measures, engaging in deception, and selecting a time and location for the attack to achieve tactical surprise. Spoiling attacks enhance deception operations and prevent the enemy from concentrating reserves.

During a deliberate attack, CSS emphasizes the resupply of critical items (fuel and ammunition) and the provision of medical and maintenance support. The momentum of the attack may not allow for any other CSS operations. The force needs to establish priorities to weight the main effort and to support shifting the main effort as the operation unfolds. The force must consider the effects of follow-on operations to ensure a swift and smooth transition to the exploitation and pursuit.

When attacking, the corps may use one, or a combination, of the basic forms of maneuver (the frontal attack, the envelopment, the penetration, the turning movement, and the infiltration). Ideally, the corps will attempt to envelop the enemy's flank (or bypass his flank), seize decisive terrain or a decisive point in the enemy's rear, and force him to come out of his positions and react.

If the enemy does not have an assailable flank, the corps may conduct a frontal attack or penetration. The corps also uses these forms of maneuver when conducting an exploitation or pursuit.

Exploitation

Seldom will attacks annihilate a defending enemy force. More often, the enemy will attempt to disengage, withdraw, and reorganize a coherent defense. Exploitation seeks to extend the destruction of the enemy force by maintaining offensive pressure and by exploiting opportunities. The purpose of exploitation is to prevent the enemy from reconstituting an organized defense, counter-attacking, conducting an orderly withdrawal, or continuing to support his operations.

Exploitation is the primary means of translating tactical success into operational advantage. It can be directed by the next higher echelon or initiated by the corps. The following factors usually indicate an opportunity to conduct an exploitation:

- An increase in EPWs, especially in leaders.
- The disintegration of defending enemy units after initial attacks.
- An increase in captured and destroyed enemy equipment.
- The presence of equipment from several units in one formation.
- The lessening of enemy fires.
- The detection by deep surveillance operations of a general enemy withdrawal.

Commanders should follow up every attack without delay. When conducting an exploitation, the corps attacks enemy support systems by—

- Expanding the area of envelopment or penetration.
- Securing decisive terrain deep in the enemy rear.
- Cutting the enemy's major LOC and sources of supply.
- Disrupting enemy reserves and uncommitted forces.
- Synchronizing corps deep operations and joint interdiction to disrupt the enemy's attempts to reestablish a coherent defense.
- Positioning units to support the follow-on mission or subsequent objectives.

Commanders should not expect the units creating the opportunity for the exploitation to perform the exploitation to an extended depth. Other units should replace these units as soon as possible. A mobile force specifically tasked for the purpose should accomplish the full exploitation.

Commonly, there are two missions associated with an exploitation—follow and assume and follow and support. A follow and assume mission commits one force to follow another when conducting an offensive operation. The follow and assume force continues the offensive once the lead force is unable to continue. The follow and support force is not a reserve.

The follow and support mission commits a unit to accomplish any or all the following tasks:

- Destroy bypassed units.
- Relieve in place any direct pressure or encircling force that has halted to contain the enemy.
- Block movement of reinforcements.
- Secure lines of communications.
- Guard prisoners, key areas, and installations.
- Secure key terrain.
- Control refugees.

The exploitation force and the follow and support force maintain direct communications. The corps commander ensures the accomplishment of forward echelonment of CSS elements in a timely manner to support the exploitation.

Since the exploitation continues day and night, the exploiting force requires continuous maintenance and sustainment support. Adequate maintenance support must accompany the exploiting force, and the sustainment of the exploitation requires well-timed movement of assets.

The logistic structure's ability to move forward with fuel, ammunition, and maintenance support often determines the force's limits of advance. Commanders and staffs must plan for and use aerial resupply to help exploitation units sustain the operation, particularly until opening and securing ground LOC.

As the exploitation continues, the corps plans a series of objectives so divisions can orient their movement. The corps also designates routes, zones, and relative dispositions. The corps may designate a limit of advance to control the advance of the divisions. The corps must also look forward to the next operation to ensure that disposition of units and support assets will aid any new schemes of maneuver.

Pursuit

Pursuit normally follows a successful exploitation. Unlike an exploitation, the pursuit focuses on catching and destroying retreating enemy forces

that can no longer organize a coherent defense. Destroying the enemy force is the goal of pursuit, although the commander may also designate terrain objectives.

Pursuit operations usually require a direct pressure force and an encircling force (Figure 5-2). The corps can use tank and mechanized forces for both direct pressure and encircling forces. However, even though tank-heavy forces are normally preferred as encircling forces, the corps may also use airborne and air assault forces.

Attack helicopters are essential. Close air support and interdiction operate along with encircling forces. The corps also synchronizes joint intelligence and attack systems to support the pursuit.

During pursuit operations, the corps may encounter encircled enemy forces and should plan for their defeat. The size of an enemy force the corps may bypass and how it is to deal with such forces must be clear.

Sustainment arrangements must be flexible and capable of rapid response during pursuit operations. Fuel and ammunition commonly are the principal logistic requirements. The corps must plan aerial resupply to augment ground transportation assets hampered by bypassed enemy units, road congestion, and disruption.

Opening and securing LOC suitable to support the transportation of adequate supplies is also essential to a successful pursuit. The pursuit, even more than the exploitation, is a transportation-intensive operation.

Forms of Maneuver

Frontal Attack. A frontal attack strikes the enemy across a wide front over the most direct approaches. The corps should only use a frontal attack when it possesses overwhelming combat power and when the enemy is at a clear disadvantage. This could occur if the enemy has been significantly weakened or if the enemy is defending on an unusually wide front, only part of which is within the corps zone of attack (Figure 5-3). Other reasons for conducting frontal attacks are the lack of an assailable enemy flank, critical time constraints, or the desire to deal a severe psychological blow to the enemy.

Envelopment. To conduct an envelopment, the corps must find or envelop an assailable enemy flank, using a portion of its force to fix the enemy while the remainder conducts the envelopment

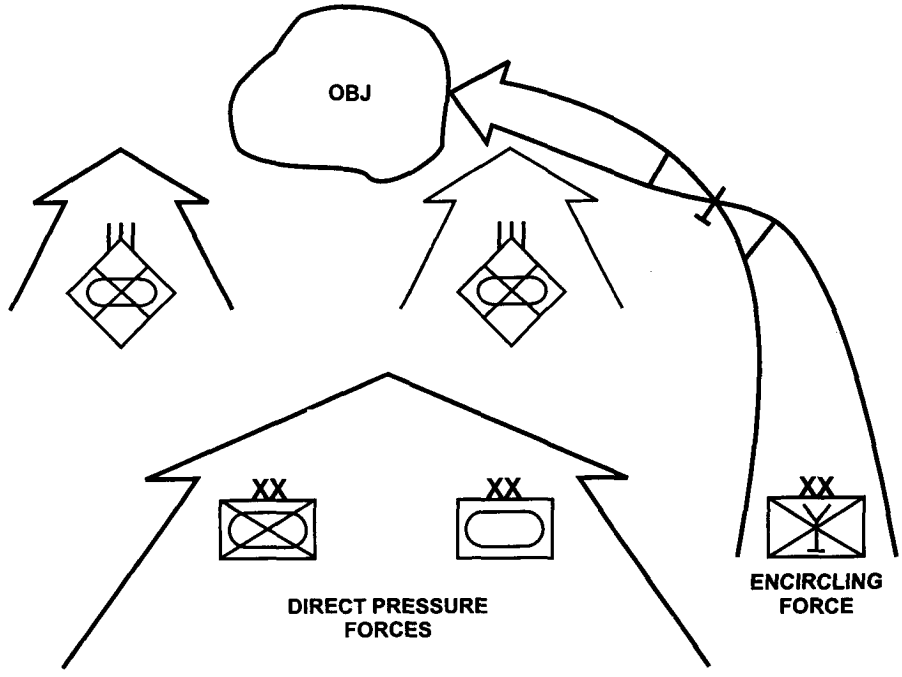


Figure 5–2. An example of a pursuit

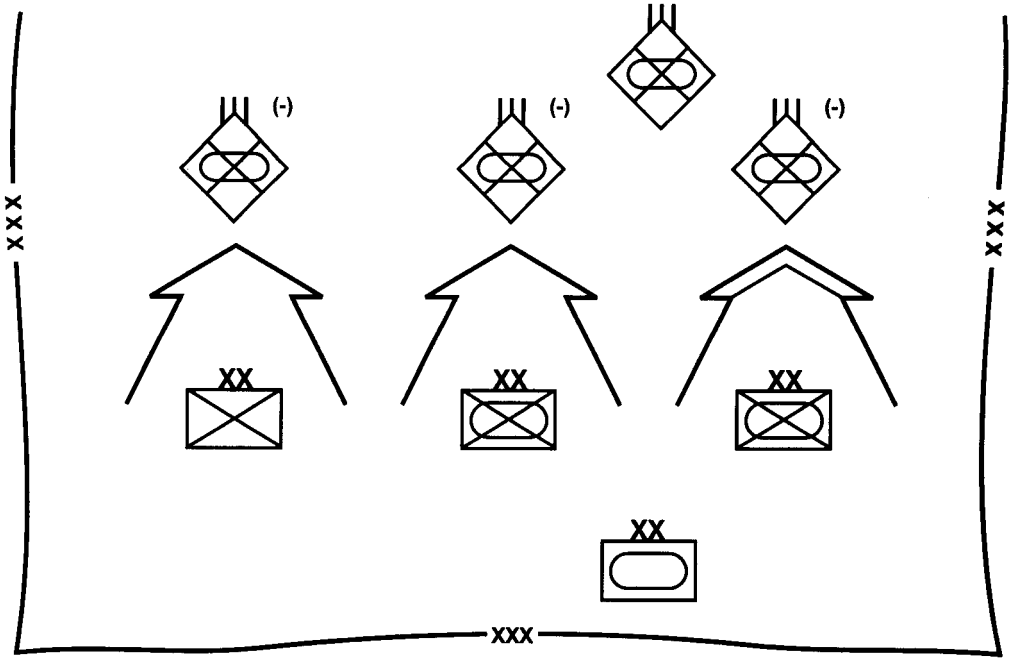


Figure 5–3. An example of a frontal attack

(Figure 5-4). Envelopment occurs either as a result of maneuver against an open flank or as a result of a penetration. In an envelopment, a supporting attack distracts the enemy, fixes him in his main defenses, and tries to get him to commit his reserve prematurely or in effectively (Figure 5-5).

Penetration. Either infantry or armored units, supported by concentrated fires and nonlethal means, can achieve a penetration (Figure 5-6). A corps attacking division can penetrate a defending enemy division by concentrating sufficient combat power against battalion-size defenses or by attacking

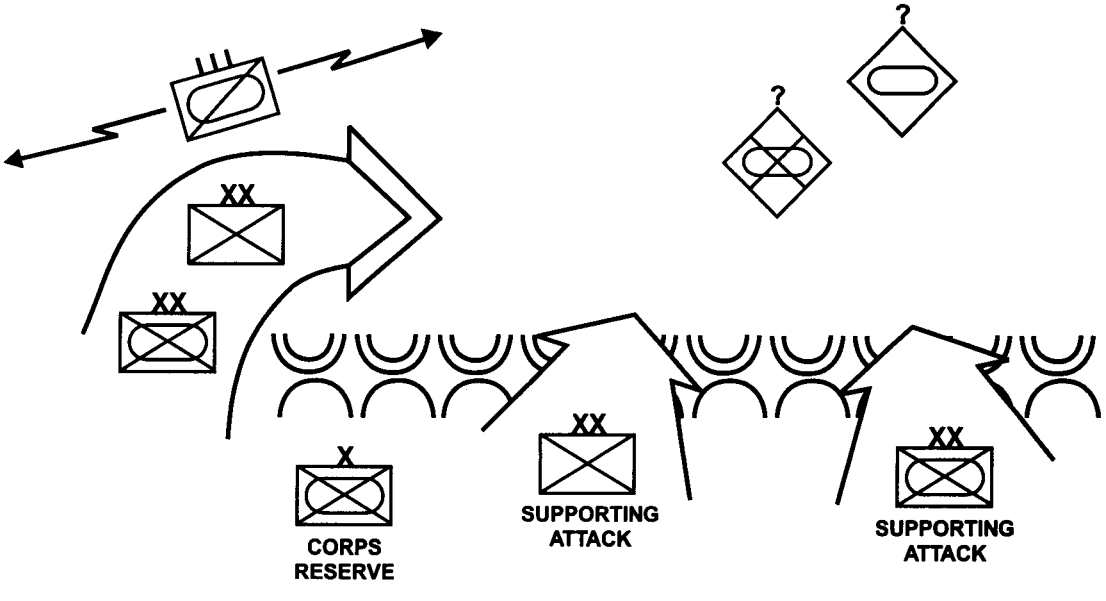


Figure 5–4. An example of a single envelopment

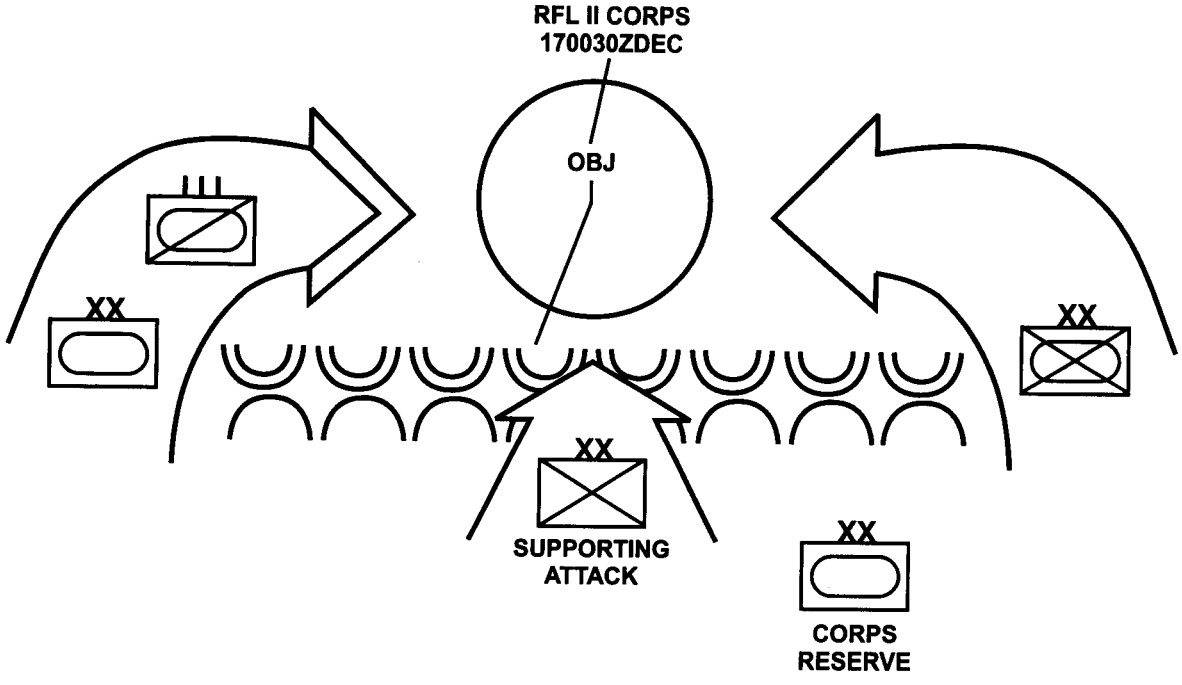


Figure 5–5. An example of a double envelopment

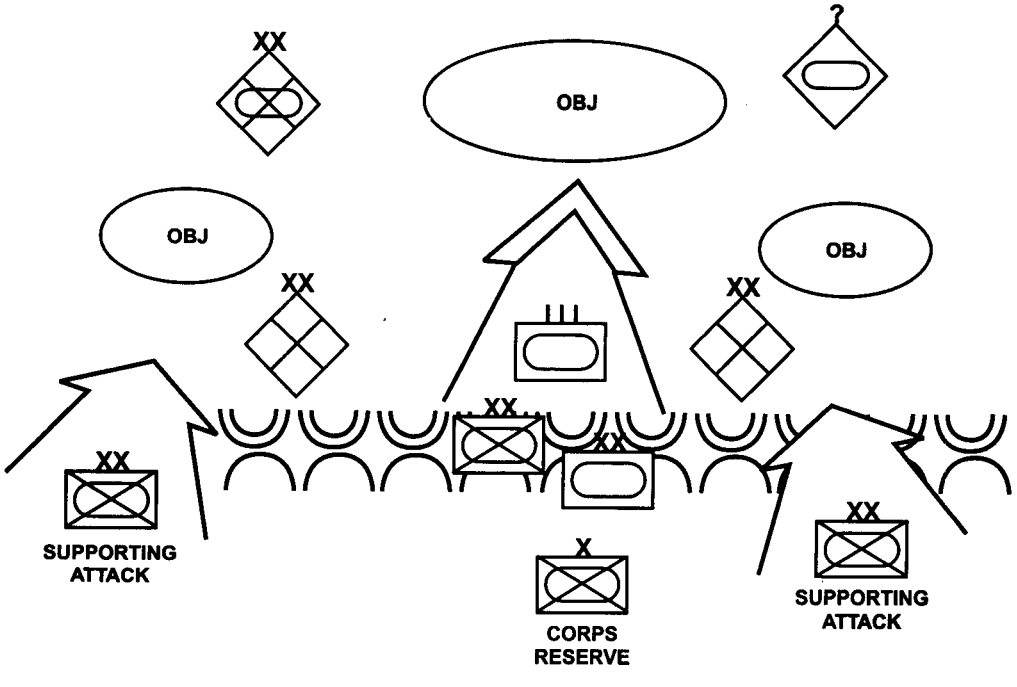


Figure 5–6. An example of a penetration

throughout the depth of the enemy division. (For example, during the breaching operation in Operation Desert Storm, the 1st Infantry Division (Mech) concentrated battalions against enemy platoons.)

Corps supporting attacks and deep operations normally fix or draw off enemy reserves that might react to the zone of penetration, or that are either adjacent to and/or in subsequent positions outside of the assigned zone of the division conducting the penetration. After penetrating the main defensive position, the corps may commit trailing divisions to either further penetrate or envelop subsequent enemy positions.

Turning Movement. The corps may also envelop an enemy by striking deep and seizing decisive terrain in the enemy's rear, cutting his LOC, or isolating his forces. This deep maneuver differs from an envelopment chiefly by the depth of its objectives and by what the commander intends it to accomplish.

In a turning movement, the corps avoids the main enemy force, passes around enemy defensive positions, and secures an objective deep in the enemy's rear to make the enemy's situation untenable (Figure 5-7).

The turning movement forces the enemy to divert major forces to cope with the new threat or to abandon his position. While a supporting attack may be required to fix the enemy in an envelopment, a turning movement does not always require a fixing attack. Because of the great distances between forces, if a fixing attack occurs, each force must be sufficiently strong and mobile to operate independently.

Infiltration. Infiltration is another form of maneuver the corps can use to gain positional advantage and to attack the enemy in depth while avoiding enemy strengths. The corps uses infiltration with other forms of maneuver to unhinge a defending enemy. Light infantry units up to brigade size are best suited to conduct infiltrations.

In some circumstances, armored forces operating in small units conduct infiltrations. Since success requires avoiding detection, at least until the objective is reached, the size, strength, and composition of the corps unit conducting the infiltration is usually limited. Consequently, specific objectives and tasks assigned to this force will also be limited.

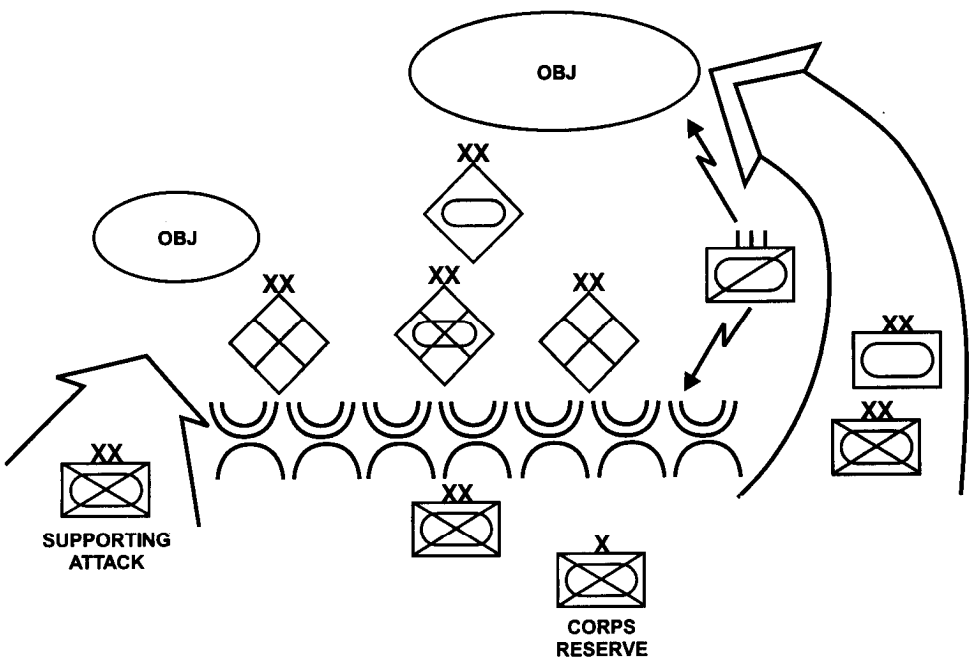


Figure 5–7. An example of a turning movement

Special Purpose Operations

In addition to the forms of the tactical offense, the corps may conduct certain special purpose operations to support a larger offensive or defensive plan. Some special purpose operations are spoiling attacks, counterattacks, demonstrations, feints, and raids. Although subordinate units usually conduct these operations as part of corps-directed operations, the corps might execute such operations as part of an EAC plan.

NOTE: Two other special-purpose operations that this section does not discuss are reconnaissance in force and offensive relief.

The corps conducts spoiling attacks and counterattacks from a defensive posture. The commander either pre-plans these attacks as decisive elements of the defensive plan or conducts them as branch plans in response to an enemy threat occurring during the battle. The entire corps may execute such attacks as part of an EAC plan, or a corps subordinate unit may conduct them as part of the corps' defensive plan.

The corps conducts spoiling attacks to disrupt an expected enemy attack or to disrupt the enemy's concentration and timing. Spoiling attacks can be either hasty or deliberate attacks. The corps must be prepared to exploit success in a spoiling attack. Units critical to the integrity of the defense should not conduct spoiling attacks.

Spoiling attacks are generally most effective when anticipated, planned, and rehearsed. Planners must address the following considerations, especially if ground maneuver units (reserve or committed forces) conduct the counterattack or spoiling attack:

- The position of the attacking force. Units must be located to reduce vulnerability to detection and targeting, yet they must remain where they can effectively attack designated battlefield objectives. Concentration of forces should only occur before arriving at the line of departure (LD), possibly by use of attack positions.
- Routes. Since timing is a critical element of attacks, the attacking unit receives priority on the usage of routes to its LD. Since units normally traverse the assigned AO of a defending MBA unit, these routes must be predesignated. The attacking unit must be able to minimize the time spent on movement because it is most vulnerable to detection and targeting during its movement to the LD. (See Chapter 8 for a discussion of large-unit movement.)
- Passage of lines. If the unit must attack beyond the FLOT of another unit, the preferred method would be for the attacking unit to pass around. If not, then a passage of lines will be necessary. Coordination must be accomplished during the planning stage. (See Chapter 8.)
- Command and control. Control measures, such as on-order boundaries and/or fire control measures, must be pre-planned.
- Command and control warfare activities. Electronic attack, OPSEC efforts, deception, jamming, and PSYOP are integral to the plan. (See FM 100-6.)
- The subsegment mission of attacking units. Commanders plan for and designate this mission before the attack.

Demonstrations and feints are diversionary operations. A demonstration is a show of force in an area where a decision is not sought. An entire corps may execute a demonstration as part of an EAC plan, or designated subordinate units might execute one as part of a corps plan. In either case, positioning units normally conduct a demonstration without making contact with the enemy, and it is often part of a deception plan. (See FM 90-2.)

Feints are a supporting attack to divert the enemy's attention from the main effort. They are usually shallow, limited-objective attacks occurring before or after the main attack. (The 1st Cavalry Division's operations in the Wadi Al Batin before the ground war in Operation Desert Storm is an excellent example.)

Raids are limited-objective attacks into enemy territory for a specific purpose other than gaining and holding ground. Division and smaller-size units normally conduct raids to seize and destroy critical assets or decisive points. The corps may receive the OPCON of SOF units (such as ranger units), attack helicopter units, and AASLT units to conduct raids.

PLANNING CORPS OFFENSIVE OPERATIONS

The corps plans to fight within an area of operations (AO) that a higher headquarters normally assigns. An AO is a geographic area, including the airspace above it, as defined by lateral, rearward, and forward boundaries. The corps structures the battlefield and assigns objectives, boundaries, phase lines, and other control measures within the AO to ensure the successful synchronization of subordinate formations and activities.

The corps ensures that the operations and actions of joint and multinational forces assigned to or supporting the corps are also filly synchronized to bring the maximum combat power to bear in the attack. Normally, the corps assigns specific AOs or zones for offensive operations to define geographic responsibility to subordinate units. Based on the nature of the threat and the mission, these subordinate AOs may be noncontiguous.

Operations in Depth

Corps offensive operations are further structured within an AO between deep, close, and rear operations. The corps fights these three operations simultaneously throughout the depth of the battlefield. The attack should appear to the enemy as one continuous operation.

The boundaries between what is deep, close, or rear are not well-defined lines; they shift over time as the corps concentrates and varies the tempo of the attack to keep the enemy off balance.

The corps structures the battlefield to strike the decisive blow according to the corps commander's vision. In some cases, the corps conducts deep operations to isolate the enemy in the forward area, thus setting the conditions for a decisive operation in the close fight. In other instances, the corps conducts a penetration in the close area only as a means to maneuver forces deep into the enemy's defenses to strike the knock-out blow against forces arrayed in depth.

Organization of the Offense

The corps considers five complementary elements in planning and conducting offensive operations:

- Continuous deep operations in vital parts of the zone of attack.
- Reconnaissance and security operations forward and to the flanks and rear of main and supporting attacks.
- Main attacks with supporting attacks as required.
- Reserve operations in support of the attack.
- Rear operations necessary to maintain offensive momentum.

This organization can serve as a useful vehicle in formulating the corps concept of operations and in facilitating the synchronization of close, deep, and rear operations. The size enemy force and specific support systems targeted as part of corps close, deep, or rear operations are strictly METT-T dependent. The following discussion only cites the most likely case when a corps is confronting a prepared defense in depth.

Deep Operations

The corps might conduct deep operations in either of two ways: isolate the corps' close operations or conduct the main effort of the corps' attack to defeat or destroy the enemy's cohesion, nullify his firepower, disrupt his C^2 destroy his supplies, and break his morale.

Maneuver, combined with both lethal and nonlethal firepower, is the primary tool of deep operations. (The corps uses attack helicopters in deep operations combined with fires.) When conducting deep operations, the corps ensures full integration of joint assets, particularly the effects of joint fires and joint acquisition systems.

If the intent of the corps attack is to fight a decisive close operation, then deep operations must isolate the close area by disrupting and/or severing the enemy's support system and his command and control. To do so, initial corps deep operations focus on—

- Enemy units arrayed in depth behind the enemy main defensive positions, particularly his air defense and artillery.

- Mobile reserve formations, including helicopter units, which could influence attacks in the close area.
- Higher echelon enemy C^2 facilities.
- Key support facilities or infrastructure.
- Nuclear and chemical delivery systems.

Normally, the corps establishes specific responsibilities for subordinate echelon deep operations. Divisions focus on supporting close operations while using supporting corps assets to conduct counterfires.

Corps augment counterfire operations, and attack deeper targets, with ATACMs and attack helicopters. The corps establishes control measures to ease and aid the shifting of responsibilities for deep operations between itself and attacking divisions (advancing to a certain phase line or objective, for instance).

The enemy's counterattack forces are usually high-payoff targets for corps deep operations efforts. The corps identifies enemy formations possessing significant firepower and the mobility to easily influence the outcome of the corps attack if they are not countered.

The corps must disrupt or preclude such forces from interfering with the penetration and/or envelopment of static enemy positions in main defensive positions.

Enemy attack helicopter units also pose a formidable threat because of their ability to mass and maneuver in support of main defensive positions. Ideally, the corps identifies and considers such units for destruction while still in their assembly areas.

The corps jams enemy C^2 nets and disrupts his intelligence-collection efforts to preclude and/or disrupt the flow of information. The corps destroys enemy command posts to disrupt his capability to provide direction and control. These actions degrade the cohesion of enemy defenses and limit his flexibility in altering his defensive scheme. Such actions should be a priority corps effort unless an effective enemy C^2 system is necessary to support a friendly deception.

The corps continually monitors the progress of a pursuit or exploitation against the development of a significant enemy threat by reinforcing enemy formations. During the exploitation and pursuit, corps deep operations normally focus on—

- Isolating the retreating enemy force and preventing its reinforcement.
- Attacking the enemy at critical chokepoints.
- Disrupting, turning, and stopping lead elements of the retreating enemy force.

The purpose of deep operations might extend beyond shaping the close battle and establishing favorable conditions for the close fight. Deep operations might even be the decisive operation against enemy forces. As such, the corps might only conduct close operations to facilitate cross-FLOT operations and to attack the enemy's center of gravity.

Reconnaissance and Security Operations

Before contacting the enemy main body, the corps normally conducts reconnaissance forward of the corps, or it provides security. However, once the corps commits its main body forces, the attacking divisions provide their own security.

In some situations, the attacking divisions or the main effort may control the corps' covering force or reconnaissance assets. Divisions normally designate an advance guard and conduct a flank screen of their most vulnerable flank. This option is usually more feasible from the standpoint of control. However, the corps may elect to provide a separate security force on a particularly sensitive flank bordering the corps' assigned zone.

The introduction of another corps-controlled element between its deep operations area and the attacking divisions only tends to increase the coordination necessary between units and to complicate the control and execution of close operations.

During the exploitation and pursuit, the extended distances and changing rates of advance make it more feasible for the leading elements (exploiting force and encircling force) to control security to the corps' front and forward flanks. The more fluid the corps operation, the more the corps must rely on air cavalry for reconnaissance and attack helicopters for rapid response.

Flank security will be more difficult for the divisions to coordinate and adequately cover. There-

fore, the corps should provide assets to screen its most vulnerable flanks.

The distance on a flank may be too extensive for a single unit. Therefore, the corps may elect to cover the flank of leading echelons and to direct follow and support forces to cover their own flanks.

Main and Supporting Attacks

When attacking an enemy in prepared defensive positions, the corps normally attempts an envelopment to fix the enemy in his main defensive positions, then defeat him in depth. If the enveloping force cannot bypass the main defensive positions, the corps' initial main attack focuses on penetrating a point in the main defensive position while the supporting attacks fix any adjacent forces or mobile counterattack forces that could react to the penetration.

The main effort would typically shift to a trailing corps unit (usually a division) moving through the penetration once that unit assumes control of the zone and begins its attack against enemy defenses in depth. This shift does not normally occur until at least a brigade of the trailing division has passed through the penetration. Of the units attacking enemy defenses in depth, priority generally goes to the unit tasked with defeating a counterattack by large mobile enemy formations.

During the exploitation, the lead exploiting force usually conducts the main attack while follow and support units conduct supporting attacks. In the pursuit, the direct pressure force usually conducts the main attack until such time that the enemy force is destroyed or encircled. Once the enemy is encircled, the corps' main and supporting efforts are contingent on the concept to reduce the encirclement. (See Chapter 8.)

Reserve Operations

The corps reserve is not committed to a particular COA. It does not have a planned, subsequent mission. Its commitment solely depends on the flow of the battle. The corps commander establishes its planning priorities for likely contingencies. In addition to reserve forces, there are trailing units that, although initially unengaged, are committed to a subsequent COA.

Reserves provide the commander flexibility to exploit success or to react to contingencies through offensive action. They reinforce or maintain. the momentum of the attack by—

- Exploiting success when the opportunity arises.
- Countering enemy counterattacks against committed units.
- Sustaining the attack of a committed unit.
- Countering rear threats.

A contingency for the use of the reserve should be part of the corps plan. "Be prepared" tasks are given to the reserve to aid planning and execution. Planners must also consider the aspects of time and space when positioning these forces.

Normally, corps planning focuses on probable large-scale enemy counterattacks against committed divisions. If a corps contingency calls for the reserve to be prepared to attack and defeat the counterattacking enemy force, the reserve should possess at least comparable combat power. If the reserve lacks combat power and the commander only intends to block the counterattack, the reserve force conducts a hasty defense.

The reserve's command and control is another important consideration. If the reserve makes contact with the attacking enemy force before that force can influence the committed division, the corps may opt to retain control of the reserve. If not, the corps may place the reserve under the committed unit's control (OPCON/ attached). The key issue is who can best control the possible convergence of the two friendly units and the coordination of their fires.

The commander may also commit the reserve to sustain the momentum of the attack of a committed unit. If so, there are three basic options for its use:

1. The reserve continues the attack as a separate force under corps control and is given responsibility for the remainder of the assigned zone of the committed unit.

2. The reserve is placed under the control of the committed unit.

3. The reserve assumes control of the committed unit and the entire zone of attack.

To exploit success, the commander can commit the reserve at any stage of the battle. However, in

most instances it will be committed during the later stages of the battle once it achieves the majority of the corps' subordinate unit objectives. The reserve will then probably be given a separate zone of attack and an objective resulting from the flow of the battle (a target of opportunity).

If there is low risk to the rear, the reserve may also perform a be-prepared mission to respond to Level III threats as the corps' tactical combat force. This chapter later addresses special considerations regarding the composition and the size of this force.

The corps should make prior provisions for designating another reserve once the commander commits the initial reserve force. This is especially important if commitment occurs during the early stages of the battle and the reserve becomes decisively engaged.

During exploitation or pursuit, corps units operate at greater distances and normally move much more rapidly than during an attack. Extended distances make it difficult for a corps-controlled reserve to provide responsive support to either leading element (exploiting force or encircling force) during these operations unless they are air mobile (attack helicopter or air assault) forces.

The usual necessity to position a follow and support force or a direct-pressure force immediately behind the lead elements makes it difficult to locate a corps ground reserve in a position to support either the exploiting or encircling force. Consequently, a greater decentralization of assets and control of the battle to these lead elements is usually necessary.

The exploiting or encircling force should be sufficiently weighted so reserves can obtain maintenance at their level. They can then sustain their attacks and/or exploit success.

Rear Operations

The fluidity and quick tempo of corps offensive operations pose challenges to corps rear operations planning. The forward movement of units and sustainment (both being essential parts of rear operations) are critical if the corps is to maintain the initiative necessary for successful offensive operations.

The enemy looks for opportunities to counter the corps' attack. It will strike deep into the corps' rear in an attempt to rob the corps of initiative, flexibility, and agility.

If the corps' offense is to be successful, it must keep LOCs open to sustain its attacking maneuver units. It must also detect and defeat enemy forces that intend to interrupt the corps' rear operations effort.

Level II threats during offensive operations will most likely be enemy special operations teams, long-range reconnaissance units, and bypassed enemy elements. These threats' primary objectives are C^2 and logistic facilities and disrupting and/or interdicting LOCs.

Where possible, corps rear MP brigade assets screen friendly C^2 facilities and critical sites from threat forces. The corps also establishes a rear operations plan for base or base cluster defense to counter the initial contact with threat forces.

The MPs provide follow-on forces to engage and defeat Level I and II threats. The corps commander might designate an MP brigade as the TCF responsible for Level III threats.

The brigade is augmented according to METT-T factors. The most likely Level III threat to a corps rear during offensive operations is a large, mobile force or bypassed units intent on—

- Severing or disrupting the corps' C^2.
- Disrupting or destroying CSS to committed units and CSS facilities.
- Interdicting MSRs and supply points.
- Destroying CP facilities, airfields, aviation assembly areas, and arming and refueling points.
- Interfering with the commitment of corps reserves.

The corps designates a TCF, usually of at least brigade size, to contend with such a threat. Limited reaction times and extended distances require the TCF to be extremely mobile and capable of moving by air and/or by ground.

The TCP must be able to destroy armor protected vehicles and dismounted infantry as well as being able to suppress enemy ADA systems. Consequently, the TCF typically consists of infantry, attack helicopter, and air cavalry elements with engineer and FA support. The TCF may also possess

armored, mechanized, or motorized infantry units if the situation dictates.

The corps should anticipate the possibility of a counterattack into its rear by a ground maneuver force from an adjacent enemy unit not within the corps' zone of attack. This is likely if the corps' zone of attack overlaps the lateral boundaries of two defending enemy units. Given this situation, a brigade-size TCF may only be able to contain or block such a force's attack. It may then be necessary to defeat or destroy the force by either diverting assets from committed units or obtaining EAC support.

The key consideration before diverting any corps assets from the decisive operation is whether the corps can still accomplish its mission given the threat to its rear. Although the corps may be able to sustain the temporary loss of support from its rear, it cannot sustain the loss of its decisive operations. (See also Appendix C.)

Plans for offensive operations must contain provisions for control of captured or constructed airfields in the corps' zone. Normally, the corps can operate two airfields until control of the airfields passes to other services. Air base defense remains the corps' responsibility unless it is assumed by a higher headquarters, a sister service, or a host nation. (See Appendix C for further discussion.)

PREPARING FOR CORPS OFFENSIVE OPERATIONS

Intelligence

In the offense, the IEW effort helps the commander decide when and where to concentrate overwhelming combat power. Collection assets answer the corps commander's PIR and other information requirements, which flow from the IPB and the war-gaming process. Information required may include—

- Enemy centers of gravity or decisive points.
- Location, orientation, and strength of enemy defenses.
- Location of enemy reserves, fire support, and other attack assets in support of defensive positions.
- Close air support and aviation assets for defensive areas, air avenues of approach, and likely enemy engagement areas.
- Key terrain, avenues of approach, and obstacles.

The G2 identifies rear area threats, such as enemy special operations forces and partisan activities, that may interfere with C^2 and sustainment aspects of the corps attack. He also synchronizes intelligence operations with combat operations to ensure all corps IEW collection means provide timely information in support of current operations. He recommends specific reconnaissance tasks for the ACR, realizing the commander may task the regiment to conduct a security or attack mission.

In keeping with the commander's PIR, the G2 tasks collection assets to support the targeting process (decide, detect, deliver, and assess). Collection assets locate and track high-payoff targets and pass targeting data to fire support elements.

The capabilities of joint, multinational, and national assets are synchronized into corps operations. A focused approach in allocating collection assets maximizes the capability of the limited number of assets available to the corps.

Maneuver

The corps may conduct an initial attack as part of a forcible entry operation after it arrives in the theater of operations. Once in theater, corps units preparing to attack remain dispersed until immediately before the attack.

At the prescribed time, the corps concentrates attacking units sufficiently to mass their effects at a specific point in the enemy defense. This achieves decisive results by appropriately weighting the main attack and main effort.

To achieve tactical surprise, this concentration occurs under strong OPSEC measures and within the parameters of the corps' deception plan. If the corps must move a considerable distance to gain contact or attack the enemy, it conducts an approach march to close with the enemy force.

When the intelligence picture is incomplete or dated, the corps may conduct a movement to contact, employing its reconnaissance assets to find the enemy and determine his dispositions. If the mission

dictates, the ACR and division cavalry squadrons develop the situation.

In a movement to contact, the ACR and division cavalry squadrons usually conduct a detailed reconnaissance of their respective zones. Once the corps commander initiates contact and determines enemy dispositions, he maneuvers divisions into the fight to take advantage of the terrain and to exploit enemy weaknesses.

The movement to contact may be particularly applicable during OOTW when fighting against unsophisticated threats in restrictive terrain where corps IEW systems are less effective. There, the corps G2 would be increasingly dependent on HUMINT resources, including ground reconnaissance.

When the corps develops thorough and timely intelligence on the enemy, the corps commander normally conducts a deliberate attack. Although a subordinate unit's deliberate attack plans are detailed, the corps' plan must retain flexibility to facilitate branches and sequels.

Corps units should vary the tempo of operations, concentrate rapidly to strike the enemy, then disperse and move to subsequent objectives. These actions will keep the enemy off balance and preclude his effective employment of weapons of mass destruction. Before the main attack, the corps may conduct a feint, demonstration, or reconnaissance in force to deceive the enemy and/or test his dispositions.

The corps might employ both heavy and light forces when preparing for offensive operations. To capitalize on each type's unique capabilities while minimizing their limitations, the corps must determine—

- The appropriate level where mixing should occur.
- The tasks they are to accomplish.
- The appropriate command or support relationships.
- The required amount and type of augmentation and/or support they are to provide to the force.
- The CSS concept.

Corps augmentation normally is required if heavy forces are attached to light forces. Command relationship considerations are an essential factor in ensuring the feasibility of task organizing between heavy and light forces.

The preferred employment option at the corps level is to employ light divisions as a division under corps control. The corps should ensure that the light division's mission capitalizes on its unique capabilities. Light infantry can—

- Conduct an initial penetration to facilitate a subsequent attack by heavy forces.
- Conduct military operations on urbanized terrain (MOUT).
- Respond to rear area threats.
- Attack over restrictive terrain.
- Conduct economy of force operations.

Light forces, given the factors of METT-T, may require augmentation to increase their effectiveness, especially with regard to their antiarmor capability and mobility needs. The corps should assign light units' missions based primarily on command estimate considerations.

Light forces can be attached to heavy forces or vice versa. However, light units should not be so overburdened with augmentation that they lose their unique capabilities.

A heavy brigade normally is placed OPCON to a light division. Normal CSS accompanies any attached or OPCON forces.

The support concept must ensure that the losing organization retains its ability to support its remaining forces. This is particularly true in the case of the light division since its DISCOM is an austere organization not easily divisible into) brigade support packages.

When the corps employs heavy and light forces together they must be used so that light forces dominate the close terrain. By controlling close terrain, light units prevent enemy light forces from effectively using it to interfere with the corps' offensive action.

Friendly light forces can deny enemy heavy forces easy access through close terrain. Doing so forces the enemy to fight dismounted to protect his tanks and to engage friendly infantry. The corps can then use friendly heavy forces to strike the decisive blow at the chosen time and place.

In offensive operations, heavy forces can lose the ability to maneuver when confronted by enemy forces that are dominating key terrain along friendly routes of advance. However, light divisions can conduct dismounted attacks over rugged terrain to close with and destroy enemy forces and seize the terrain. They can also air assault with the covering force to secure the decisive or key terrain to aid the movement of the main body.

Staffs must consider several factors when planning this type of operation. Light forces will need—

- Additional transportation assets to rapidly move the light unit's combat elements into forward assembly areas.
- Additional artillery to enhance the divisions' capability to engage the enemy with indirect fires and to execute counterfires.
- Additional intelligence assets.
- Additional attack helicopter assets.
- Allocation of CAS sorties.
- Additional antiarmored assets to protect against an armored threat.
- Support of light forces once inserted.

Fire Support

Allocating and synchronizing all elements of fire support, especially joint fires and nonlethal systems, complements and weights the corps' main effort. Synchronization also helps the corps control the tempo of the attack. In an attack, fire support assets—

- Conduct intense and concentrated preparatory fires before and during the initial stages of the attack.
- Conduct suppressive fires to isolate the objective of the main attack and to help fix enemy forces during supporting attacks.
- Provide continuous suppression to allow attacking formations to close with the enemy.
- Conduct SEAD missions, some of which are appropriate for nonlethal attack assets.
- Supplement division counterfires to diminish or stop the enemy's ability to effectively employ artillery.
- Execute corps deep operations in concert with other corps assets.
- Deny, through electronic attack, enemy use of critical C^2, fire support, and intelligence systems.

The corps' TAC and main CPs must always know the locations of friendly units. The command must ensure that organic fire support agencies and supporting joint assets clearly understand the ground scheme of maneuver so they can maximize their capabilities for the greatest effect.

Timely execution of joint fires is critical when conducting offensive operations. All fire support providers in support of the corps attack must understand coordination measures and procedures for controlling fires. The FSCL gives sister services greater freedom of action in the area beyond the FSCL and facilitates operations in depth. The FSCL's location is METT-T dependent. Considerations include—

- The location of enemy forces.
- The anticipated rate of the friendly advance.
- The scheme of maneuver, including the maneuver of Army aviation units.
- The desired tempo of operations.

Air Defense

The corps' AD units provide low-to high-altitude air defense coverage throughout the battlefield. Units are arrayed to provide as much overlapping coverage as possible. Coverage focuses on protecting key corps assets in the attack, such as CPs, aviation assembly areas, FA locations, logistic bases, and reserve assembly areas. Forward area air defense assets generally provide static or mobile point defense.

High- to medium-altitude air defense (HIMAD) assets are optimized during AD coverage. As the corps advances, AD coverage also advances in order to ensure umbrella protection remains continuous.

The corps integrates AD systems into the protection that sister services and coalition partners provide. This avoids duplication of effort while providing redundancy in protection to high-priority assets.

The corps' AD brigade provides HIMAD and theater missile defense (TMD) coverage for the corps. Corps ADA brigade FAAD elements augment organic division ADA units based on METT-T. The corps' main effort receives priority coverage, particularly in areas where the attack is vulnerable to enemy air action, such as river-crossing sites and mountain passes.

Air defense assets in an attack must focus on protecting critical assets in order to maintain mass. In some circumstances, such as during an approach march, the corps may establish an ISB for CS and CSS units, including HIMAD assets.

Mobility and Survivability

The corps allocates engineer assets to the main effort to give it a greater mobility capability. The engineer focus is on mobility, then countermobility.

The corps places engineer brigade units forward to augment the divisions conducting the main attack. Engineering tasks include—

- Improving and maintaining LOCs by replacing armored vehicle launched bridges (AVLB) with other types of bridging.
- Improving routes.
- Providing general engineering for follow-on forces and logistic units.
- Augmenting reconnaissance forces in terrain analysis, especially in bridge classification and mobility analysis for routes of advance.
- Emplacing obstacles on the corps' flanks and against likely enemy avenues of approach throughout the corps zone.
- Maintaining key facilities, such as airfields and landing strips.
- Conducting survivability engineer operations to protect key assets, such as aviation assembly areas; petroleum, oils, and lubricants (POL); and ammunition points.
- Protecting other designated critical facilities, in priority.

Keys to effective counterobstacle operations are contingency planning, well-rehearsed breaching operations, and trained engineers familiar with unit SOPs who are integrated into the attack formation. Complex obstacles require detailed engineer estimates and appropriate engineer assets.

Corps planners must anticipate breaching requirements in time to adequately provide breaching units with additional engineer assets, such as plows, rakes, and supplementary artillery for smoke and counterfire. When possible, all units conduct breaching operations in-stride to allow the force to maintain the attack's momentum.

Corps engineer units operating in the corps' rear area (usually conducting general engineering or survivability tasks) also have the potential to serve as a Level II response force to rear area threats. These engineer units require time to assemble because they are normally dispersed when conducting engineer missions on an area basis. They require augmentation in the areas of fire support and antitank capabilities.

Chemical reconnaissance units orient on vulnerabilities that the IPB process identifies. The corps positions decontamination assets to support the scheme of maneuver and arrays smoke units, particularly infrared-defeating assets to counter likely enemy sensors.

Combat Service Support

Responsive support of corps offensive operations requires CSS from forward locations and sustainment assets that are as mobile as the maneuver units they support. Offensive operations require large amounts of POL, and the provision of continuous support depends on open and secure LOCs.

Combat service support units position themselves and their materiel as close to maneuver forces as the situation allows, commensurate with the level of risk the commander is willing to accept. Sustainment locations support the commander's priorities, with the main attack as the principal focus. Transportation units must optimize their assets to rapidly deliver supplies and replacement personnel to maneuver units when needed.

Lengthening LOCs requires frequent forward movement of stocks and sustainment units and the establishment of forward logistics bases (FLBs). The forward movement of sustainment units and stocks must be timed to minimize the impact on support to maneuver units.

The corps can use captured supplies and materiel to supplement corps stocks and to increase the corps' operating and safety levels. A CA area study can pinpoint potential locations of enemy supplies and materiel.

Command and Control

While preparing for offensive operations, the commander continually visualizes the current situation and formulates a plan to get the forces under his command to the intended end state. The commander goes where he can best influence the battle. where his moral and physical presence can be felt. and where his will for victory can best be expressed. understood. and acted on. The commander exercises command from wherever he is on the battlefield.

In the attack. the corps TAC CP usually moves with the division conducting the main effort. The commander moves with the TAC CP and commands the corps from this forward location. The main and rear CPs displace forward into the corps zone as the attack progresses or the situation permits. The commander maintains control of deep and rear operations by either echeloning these CPs so there is no break in continuity or by handing over control to another CP until the movement is complete.

Key to battle command is the ability to communicate. The signal structure must ensure redundant systems are available to allow for communications throughout the corps. The corps also must be able to communicate with adjacent units. supporting joint forces. and if appropriate. HN or coalition forces. A critical component is the exchange of liaison teams to ensure unity of effort and a common understanding of the commander's intent.

EXECUTING CORPS OFFENSIVE OPERATIONS

The VII Corps' Plan for Operation Desert Storm

During Operation Desert Storm. the VII Corps' mission was to attack to penetrate and envelop Iraqi defenses to destroy the Republican Guard forces in zone. After the attack. the VII Corps was to prepare to defend the Northern Kuwait border to prevent the Iraqis from reseizing Kuwait.

The corps' major combat elements were four armored divisions. one mechanized division. an armored cavalry regiment. the corps aviation brigade. and four field artillery brigades employing 145.000 soldiers.

The overall corps plan was drawn up in six phases:

Phase 1. Movement from the ports to tactical assembly areas (TAA). Some VII Corps convoys traveled more than 500 kilometers.

Phase 2. Movement from TAAs to forward assembly areas (FAA) and zones. To enhance the deception that the central command's (CENTCOM's) attack would occur in the east. VII Corps delayed the movement of the corps until only days before the attack.

The corps rehearsed its LD/LC formation as it moved into zone. Distances for corps units ranged from 60 to 160 kilometers. This phase included demonstrations and feints. such as the 1st Cavalry Division's operations at Wadi Al Batin.

Phase 3. Penetration and envelopment of forward defenses. The 1st Infantry Division (Mechanized) (ID(M)) conducted a deliberate breach of the Iraqi defenses west of Wadi Al Batin while the 2d ACR. 1st Armored Division. and 3d Armored Division bypassed enemy positions to the west..

Phase 4. Defeat of the enemy's tactical reserves. The 1st United Kingdom (UK) Armored Division passed through the 1st Infantry Division (Mechanized) and attacked to defeat enemy armored reserves behind Iraqi forward defenses.

Phase 5. Destruction of the Republican Guard.

Phase 6. Defense of Northern Kuwait.

VII Corps' Execution

On 23 February 1991. the 2d ACR bypassed Iraqi defenses to the west and crossed into Iraq in preparation for the corps attack. Attack helicopter-64 and artillery raids intensified in the corps zone. Early on 24 February, the 1st ID(M) penetrated the Iraqi defenses east of the 2d ACR while the regiment pushed 30 kilometers to the north.

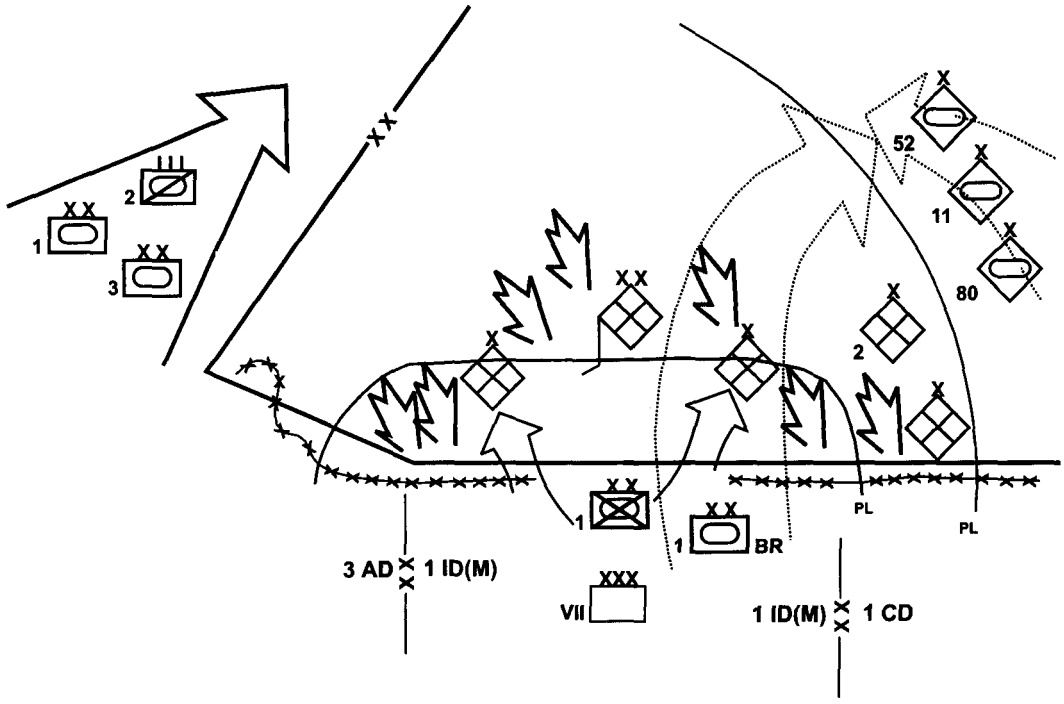


Figure 5–8. Breach and attack to fix Iraqi tactical reserves G-Day, February 24 - G+1, February 25

With increasing evidence of success against the Iraqis, the CINC of CENTCOM accelerated the attack schedule. The VII Corps would attack by 1500 that day. The 1st and 3d Armored Divisions would follow the zone cleared by the 2d ACR while the 1st ID(M) conducted a deliberate breach of the Iraqi defenses (Figure 5-8).

The 1st UK Armored Division conducted a forward passage of lines through the breach lanes and conducted an envelopment against the western flank of the Iraqi tactical reserves behind their forward defenses. The 1st Cavalry Division conducted a movement to contact from the 1st Division breach to the Wadi Al Batin.

At daybreak on 25 February the corps resumed the attack. To increase the momentum of the attack, the 1st Armored Division was committed on the 2d ACR's left flank. By midday, the ACR was in contact with **a** brigade of the 12th Armored Division. Within the hour, the 1st and 3d Armored Divisions were in contact with dug-in infantry from the Iraqi 26th Infantry Division.

Simultaneously, the 1st ID(M) occupied the beachhead line and was passing the 1st UK Armored Division. At this point, VII Corps had completed the destruction of the front-line **units of the Iraqi** 26th Division and was commencing the envelopment of the Iraqi 52d Armored Division to the east.

By evening, the 1st Armored Division was 100 kilometers inside Iraq, engaging a dug-in infantry brigade first with Apaches, then ground forces, near Al-Busayyah. The 2d ACR continued its offensive cover, destroying company-size elements of the Iraqi 50th Brigade, 12th Armored Division.

By midnight, the 1st UK Armored Division completed its forward passage through the 1st ID(M). The corps' main effort then switched to the main enveloping force.

On 26 February, the 75th and 42d Field Artillery Brigades shifted to support the 1st and 3d Armored Divisions, and the 1st Cavalry Division was released to the corps. The 1st Cavalry division raced 250 kilometers in 24 hours, attempting to join the corps' attack on the Republican Guard.

In the early morning, the 1st Armored Division stormed Al-Busayyah, destroying enemy forces and supply stocks (Figure 5-9). The 1st UK Armored

1st Bde detects elements of 26th Inf moving, morning of 25 Feb.

3d Bde attacked that unit as rest of 1st AD moves toward Al-Busayyah, afternoon of 25 Feb.

1st and 2d Bdes engage and overrun 26th Inf units as 4th Bde attacks deep (251400 Feb).

1st and 2d Bdes close on town and wait for dawn assault.

After-dawn attack, 26 Feb; TF 6-6 Inf mops up.

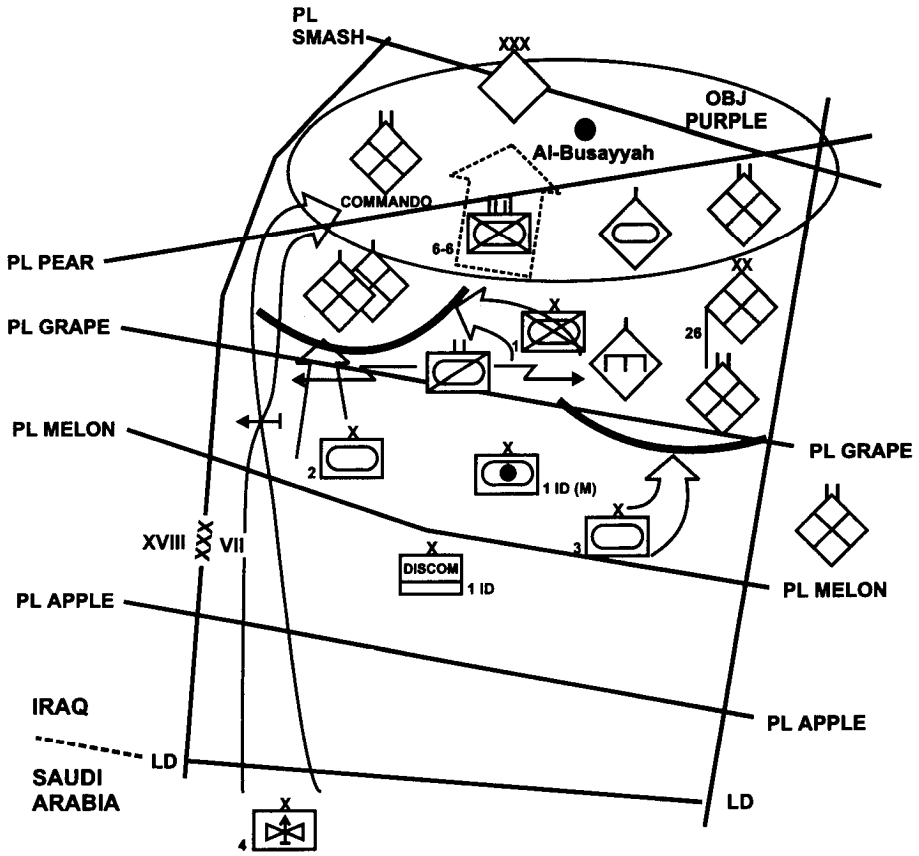


Figure 5–9. The 1st Armored Divison's destruction of the 26th Infantry and the fight for Al-Busayyah G+1, February 25 - G+2, February 26

Division continued its flank attack against the tactical Iraqis reserve northeast of the breach site.

By afternoon, the corps' main effort, starting with the 2d ACR, came in contact with the Tawakalna Division of the Republican Guards initiating the Battle of Wadi Al Batin (Figure 5-1 0). The 2d ACR developed the situation in the 73 Easting engagement and was directed to pass through the 1st ID(M).

The 1st Armored Division deep operations went after elements of the Iraqi Adnan Division, while 3d Armored Division deep operations were focused against the reserves of the 9th Brigade, in which they were in contact. Corps deep operations went after the Iraqi 10th Armored Division in two separate attacks. Central Command Air Force (CENTAF) interdiction assisted in isolating the Republican Guards by hitting targets near the Kuwait City-Basra highway.

Early on the morning of 27 February, the VII Corps completed destruction of the Tawakalna Division and continued to press the attack to destroy the remaining Republican Guard Divisions. The 1st and 3d Armored AH-64s ranged ahead of their divisions, employing search and attack techniques.

By midmorning, the corps came in contact with the Medina Division and remnants of the Iraqi 10th and 12th Armored Divisions in an engagement that came to be called Medina Ridge. The corps was deployed with four divisions on-line. The corps commander desired to conduct a double envelopment with the 1st Cavalry Division and 1st ID(M), but because of the tactical situation, he delayed the double envelopment for 24 hours.

Late in the day, the corps destroyed or had in full retreat remaining Republican Guard forces. By the evening, the 1st ID(M) cut the Kuwait City-Basrah highway. The VII Corps' attack covered 90 kilome-

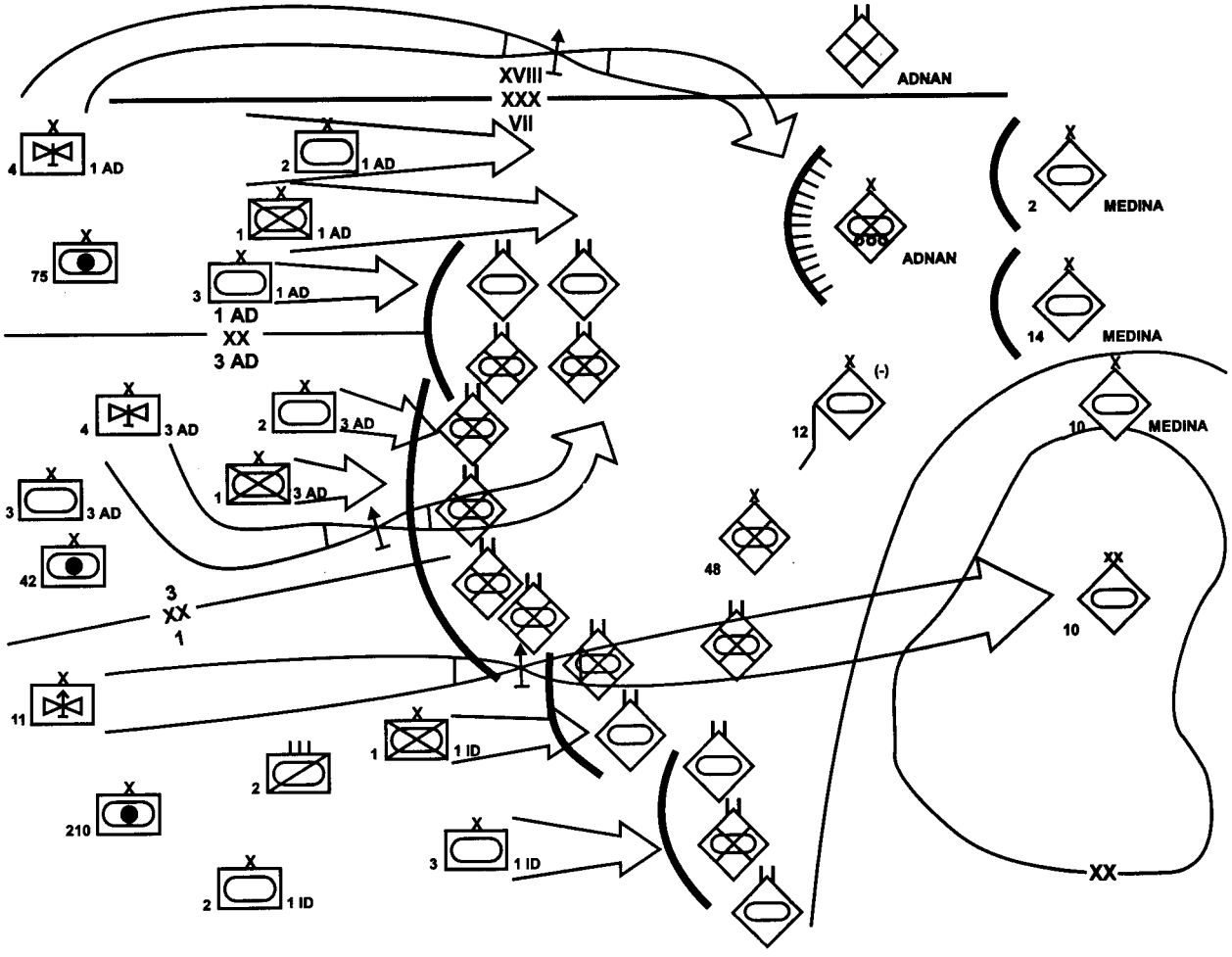


Figure 5–10. The VII Corps' battle for Wadi Al-Batin G+2, February 26 - G+3, February 27

ters in 90 hours, destroying five armored divisions. Only the Hammurabi Division escaped nearly intact.

At 0800 on 28 February, the cease fire went into effect without the double envelopment having been executed. The reasons for the corps' overwhelming success included surprise, speed, and applying overwhelming combat power at the point of the attack.

Almost immediately after declaring the ceasefire, the corps began humanitarian relief operations. It also continued its tactical operations of force presence as well as preparations to resume the offense, if necessary. The corps' humanitarian relief operations—

- Provided food, including 1.1 million meals, 115 tons of bulk foodstuffs, 2. 1 million gallons of bulk water, and 640,000 bottles of water.
- Provided medical care to approximately 17,000 people.
- Patrolled occupied populated areas.
- Built and maintained refugee camps.
- Provided additional supplies, including fuel, insecticide, tents, medical supplies, and water storage facilities.

TRANSITIONING TO THE DEFENSE

If a corps reaches its culmination point in an offensive operation, it may be forced to defend—

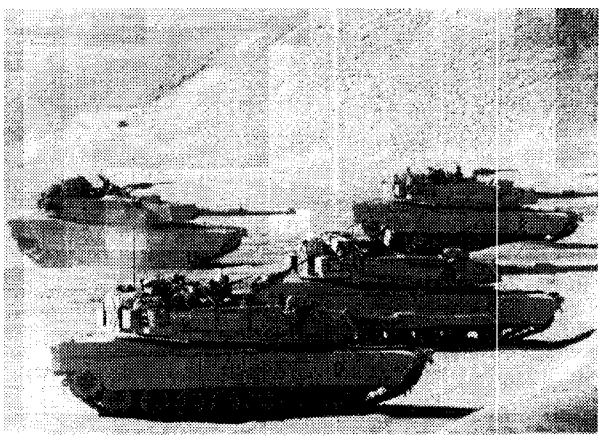
- To buy time.
- To hold specific terrain to facilitate other operations.
- To keep enemy forces occupied in a specific area.
- To build forces.
- To allow for resupply and regeneration of depleted units.

There are two options available to a commander when transitioning to the defense. First, prepare hasty defensive positions, generally along the line of the forward-most advanced forces while pushing a covering force forward to secure enough terrain to establish a security area. Second, move back to defensible terrain to allow room for a security or covering force area on terrain that has already been secured.

The first option could result in additional losses of personnel and resources. Also, the security area may lack sufficient depth to preclude engagement of MBA forces by the majority of enemy artillery. Therefore, in most cases, the second option is the better of the two.

Commanders can pull the bulk of the forces back to defensible terrain and establish an MBA on more familiar ground. If feasible, the newly established forward edge of the battle area (FEBA) can be established beyond range of the majority of enemy artillery. The FLOT would remain the LC along which a covering force or security force would be deployed.

Regardless of which option a commander selects, attacking units are to maintain their general positions until dark. All moves and adjustment of the lines occur under cover of limited visibility. If the situation demands immediate movement in daylight, units are to move only under the protection of artillery, aviation, and other supporting weapons.



In the offense, commanders must remain mentally agile and anticipate a transition to the defense.

Chapter 6

DEFENSIVE OPERATIONS

FUNDAMENTALS OF CORPS DEFENSIVE OPERATIONS

Defensive operations are actions the force performs to cause an enemy attack to fail. They help the corps—

- Gain time.
- Concentrate forces elsewhere.
- Wear down forces as a prelude to offensive operations.
- Retain tactical, operational, or strategic objectives.

The corps generally defends only until it gains sufficient strength to attack. During force-projection operations, forward-presence forces may only defend until sufficient reinforcing forces arrive in theater. Deploying units may also need to conduct defensive operations to support a planned buildup of additional combat power in theater.

A key element of successful defensive operations is to find and destroy the enemy at distance before committing decisive maneuver. The goal is to prevent the enemy from having sufficient combat power to strike a decisive blow and to facilitate a friendly transition to the offense. Corps defensive operations typically consist of five complementary elements—security operations, deep operations, main battle area, reserve operations, and rear operations.

Characteristics of the Defense

The basic characteristics of corps defensive operations include preparation, security, disruption, mass and concentration, and flexibility. The two primary forms of defense are mobile defense and area defense. Other forms are deliberate defense and hasty defense.

Preparation

In a deliberate defense, corps elements arrive in the AO before the enemy. This usually allows them the time necessary for adequate preparation. (Even in a hasty defense, corps units should enjoy a small advantage in preparation.)

During preparation, units conduct a thorough reconnaissance of the AO. They then prepare the terrain and their defensive positions to best defend against the enemy. The purpose of the corps' deception plan and aggressive OPSEC is to deny or deceive the enemy as to true friendly intentions. All units rehearse plans and contingencies.

Security

During decisive operations, the corps normally designates a security area, which has a covering force to provide early warning and to disrupt initial attacking enemy forces. However, not all situations dictate the need for a centrally controlled security zone. If not, the corps may delegate control of the security area to subordinate units to ensure adequate OPSEC.

In addition to the ACR conducting the corps' security operations, all units implement security

CONTENTS

FUNDAMENTALS OF CORPS DEFENSIVE OPERATIONS 6-1
Characteristics of the Defense 6-1
Forms of Defense 6-2
PLANNING CORPS DEFENSIVE OPERATIONS 6-3
Organization of the Defense 6-3
PREPARING FOR CORPS DEFENSIVE OPERATIONS 6-9
Intelligence 6-9
Maneuver 6-9
Fire Support 6-11
Air Defense 6-11
Mobility and Survivability 6-11
Combat Service Support 6-12
Command and Control 6-12
EXECUTING CORPS DEFENSIVE OPERATIONS 6-13
TRANSITIONING TO THE OFFENSE 6-14

measures within their AOs through deception and OPSEC. As technology proliferates, the corps' ability to protect the force and retain OPSEC becomes more difficult because of—

- The threat of short and midrange ballistic and cruise missiles use, especially during the early stages of force-projection operations.
- Widespread proliferation of advanced technology systems.
- Greater media access, which provides near-real-time information to potential adversaries.

Disruption

The corps disrupts the attacker's tempo and synchronization to prevent him from massing his combat power at the point of attack by—

- Employing all precision fires, both lethal and nonlethal, before the enemy arrives in the MBA.
- Defeating or misleading enemy reconnaissance forces.
- Conducting deep operations that destroy critical support infrastructure, fire support assets, C^2 nodes, and AD sites.
- Disrupting or destroying key formations or their timely introduction into the battle.
- Conducting C^2W operations that strike at the heart of enemy C^2 systems.
- Coordinating with the joint team to synchronize joint assets. Conducting spoiling attacks that preempt enemy attacks.

The attacking enemy must never be allowed to set. Even if he makes temporary gains in an area defense, the friendly force must counterattack the enemy's penetration before he can consolidate his gains. Commanders must also plan to mitigate the disruptive effects of enemy attacks, especially against weapons of mass destruction.

Mass and Concentration

The corps seeks to mass the effects of overwhelming combat power at the decisive point to defeat the enemy attack. In mobile defense, the striking force is the principal vehicle by which the corps commander generates the effects of overwhelming combat power. In area defense, the corps selects EAs where it can defeat the enemy by massing the effects of overwhelming combat power from mutually supporting positions. Committing the reserve is one way of quickly generating mass.

The threat may force the corps to repeatedly mass to counter new enemy thrusts. The commander then employs economy of force measures in less critical sectors to generate mass at decisive points. Obstacles, security forces, and fires help reduce risks from economy of force measures.

Flexibility

Tactical flexibility stems from detailed planning (particularly in IPB), a clear and concise commander's intent, and rehearsals. Flexibility enables the commander to quickly shift the corps' main effort without losing synchronization.

Constituting and utilizing a reserve in every operation allows the commander to gain initiative and preserve flexibility. Selecting a COA that facilitates a number of branch plans or contingencies also enhances flexibility. Centralized planning and decentralized execution allow subordinate commanders to act independently within the commander's intent. Last, the corps' defensive plan must facilitate a rapid transition to the offense.

Forms of Defense

The two primary forms of defense are mobile and area defense. They apply at both the tactical and operational levels of war. The major difference between the two is the orientation of the defense. The mobile defense orients on the destruction of the enemy force. (See Figure 6-1.) The area defense orients on terrain retention.

Mobile Defense

The mobile defense employs a combination of fire and maneuver, offense, defense, and delay to defeat enemy attacks. It includes—

- Forces conducting an area defense or delay to shape the enemy penetration.
- A mobile striking force.
- A reserve, if resources permit.

MOBILE DEFENSE	AREA DEFENSE
Orients on the enemy force (destruction or defeat).	Denies the enemy access to designated terrain for a specified time.
Conducts area defense with the minimum force.	Defends with the maximum force.
Striking force comprises up to two-thirds of the combat power.	Reserve comprises up to one-third of the combat power.
Includes fire and maneuver.	Includes interlocking fires.
Requires greater mobility than the enemy.	Requires mutually supporting positions, forward and in depth.
Striking force attacks the enemy at the decisive point.	Defeats enemy in the engagement area through overwhelming combat power.

Figure 6–1. Characteristics of the defense

The mobile striking force conducts the decisive attack against a penetrating enemy force. The mobile striking force should possess greater combat power than that of the enemy force it is seeking to defeat or destroy and be capable of equal or greater mobility. The mobile striking force generally utilizes an indirect approach. It strikes the rear or an exposed flank of the enemy force, bringing to bear the effects of overwhelming combat power.

The corps commander allocates the minimum force to the area defense. He allocates the maximum available combat power to the mobile striking force whose mission it is to destroy or defeat the enemy that is attacking area defense forces.

Simultaneous with the attack of the striking force, corps deep operations continue to attack the enemy throughout the depth of his forces with both lethal and nonlethal systems. Mobile defenses generally require considerable depth.

The corps trades terrain for maximum effect to divert attention from the friendly main force and to overextend the attacker. Allowing the attacker to gain terrain diminishes his ability to react to the striking force.

The mobile defense may be a high-risk defense; therefore, the higher headquarters must know what form of defense subordinate units are using.

Area Defense

The corps conducts an area defense to deny the enemy access to designated terrain or facilities for a specified time. Commanders organize the area defense around a static framework of defensive positions (forward and/or in-depth), seeking to defeat enemy forces with interlocking fires and synchronized joint fires. Subordinate units conduct an area defense as part of the corps' mobile defense, employing local counterattacks against enemy units penetrating between defensive positions.

The depth of the defense varies according to the situation. Commanders position their forces in platoon, company, and battalion battle positions on suitable terrain with specific orientation and direction of fire or in sectors. Occasionally, depending on METT-T factors, a commander might direct the construction of a strongpoint. The corps commander generally retains a reserve of up to one-third of his combat power.

PLANNING CORPS DEFENSIVE OPERATIONS

Organization of the Defense

The AO must be large enough to allow the corps and subordinate units to conduct operations in

depth. The corps commander may organize the AO in a linear manner or have units operate in noncontiguous AOs per METT-T. In either case, commanders generally organize their defensive sectors into five complementary elements:

1. A security operation forward and to the flanks of the corps' MBA.

2. A continuous deep operation against specific targets and/or organizations within the corps' sector.

3. The MBA.

4. Reserve operations in support of the MBA.

5. Rear operations necessary to ensure continuity of support.

This defensive organization does not dictate a sequential operation, rather it facilitates simultaneous operations in depth, tactical responsibilities, and a better understanding of the battlefield. The close fight is usually the decisive fight, but not always. Deep operations might, therefore, be decisive.

Security Force Operations

The corps typically conducts security force operations to its front (forward of the FEBA) and flanks. The security force generally operates under corps control, but may be delegated to subordinate MBA units within their assigned sectors. However, security operations normally provide support where the corps commander intends to defeat or destroy the enemy.

Security force operations normally support the commander's intent of where he wants to defeat or destroy the enemy. Traditionally, this is the close operation. However, the commander must also synchronize security force operations with all aspects of operations in depth. It may be the corps' first opportunity to seize the initiative from the attacking enemy.

In addition to identifying the main effort and attritting lead echelons, the security force's mission might be to shape the enemy's penetration. Security operations are similar for both mobile and area defense, except that in the mobile defense, the corps commander normally retains control of the covering force to ensure unity of effort in shaping the penetration. The corps commander then assigns the security force screen, guard, or cover missions.

Screen Mission. The corps commander assigns the security force a screen mission when covering a large area. The screen, deploying forward of the FEBA, provides the least degree of security. Missions include—

- Providing early warning to MBA units to protect them from surprise and provide time for them to reposition forces to meet the enemy attack.
- Delaying and harassing the enemy with supporting indirect fires.
- Destroying enemy reconnaissance elements within its capability to deny the enemy information regarding friendly MBA defensive positions.

The screening force is a combined-arms force consisting of a mix of ground and air maneuver units. If the screen is under corps control, the ACR is the unit best suited to conduct this particular mission. Otherwise, a composite combined-arms organization should be formed.

Guard Mission. The guard mission accomplishes all tasks of a screen mission and prevents enemy engagement of the main body through combat operations. The guard force operates within supporting range of the main body.

Cover Mission. The cover mission accomplishes all the tasks of a guard mission except that it operates as a tactically self-contained force, apart from the main body. Typically, the corps controls the covering force. When it delegates control of covering force operations to subordinate MBA divisions, they usually employ brigade-size elements in that role.

A covering force conducts operations to either defend against or delay an attacking enemy force. The covering force's mission dictates whether it will conduct a delay or defense.

When a commander uses a strong covering force with adequate depth, the covering force can expect to fight a major engagement. It might also defend rather than delay, which would cause follow-on enemy forces to commit themselves to a particular action, thus disclosing their main attack.

If the covering force's mission is to defend, tasks include the specific enemy force it is expected to

defeat or to destroy before battle handover. In a delay operation, the corps commander will state whether the covering force is to delay forward of a specific terrain feature for a specified time (high risk) or whether preservation of the force (low risk) is of primary importance.

Tasks inherent to a covering force might include-

- Forcing the enemy to prematurely deploy and commence his attack.
- Identifying the enemy's main effort.
- Reducing the enemy's strength by either destroying specific maneuver units and/or stripping away essential assets (FA, ADA, engineer units, for example).
- Shaping the penetration of the enemy's attack.

In many situations, the ACR is well-suited to conduct corps covering force operations. In some situations, such as those involving irregular forces in restrictive terrain, the covering force may require other type forces capable of conducting covering force operations. Such forces would include maneuver divisions or a division-size force consisting of ground and aviation brigades. The corps uses its organic surveillance means, reports from the covering force, and higher level intelligence inputs to determine (or confirm) the axis and strength of the enemy main attack.

If possible, the covering force causes the enemy's lead divisions to become decisively engaged while attempting to penetrate the covering force area (CFA). This may reveal the intended location of the main attack and will alter the rate at which enemy forces close on the MBA.

The covering force might also cause the commitment of follow-on forces by either defeating or destroying lead units. If possible, the CFA should be deep enough that the enemy's artillery would have to displace to subsequently range MBA forces. This action would significantly lessen the effectiveness of enemy preparatory fires and reduce the number of artillery weapons immediately available to the enemy commander as the MBA battle is joined.

Deliberate targeting of specific elements of the attacking formation by the covering force aids MBA defense. It destroys the enemy force's combined arms integrity and damages his ability to react once he arrives in the MBA. Specifically, priority targets for the covering force often include enemy reconnaissance units, AD systems, CL vehicles, obstacle breaching equipment, and NBC-capable delivery systems.

Destroying accompanying AD systems in the CFA improves the capability of attack helicopters and USAF aircraft to attack in depth. Destruction of AD radars, which electronic intelligence systems locate, denies the enemy the capability to direct his own AD systems. Destruction of enemy obstacle clearing assets reduces his breaching capability before arrival in the MBA. Both the physical destruction of key CL equipment and the nonlethal electronic attack against key enemy C^2 elements disrupt the enemy's ability to synchronize current and future operations.

The corps enhances unity of effort when it controls the covering force. Considerations include the form of defense, the size of the sector, the commander's ability to communicate with subordinate units, the availability of controlling headquarters, and the number of units operating in the area. When the corps controls the covering force, subordinate MBA units maintain liaison with units operating to their front. In this situation MBA units should—

- Monitor covering force radio nets to get a picture of the battle.
- Establish and maintain liaison with covering force units forward of their positions.
- Prepare for actions at the battle handover line (BHL).
- Maintain liaison during passage of covering force units.

Commanders should only delegate control of the covering force to subordinate units by exception. Having separate MBA unit-controlled covering forces tends to slow reporting and to fragment the corps commander's overall view of the battle. Separate control also makes a coordinated covering-force fight harder to conduct and divides the attention of MBA commanders between the covering force and the MBA fight.

Normally, additional combat, CS, and CSS units augment the covering force. Typical support includes additional FA, aviation, engineer, AD, NBC,

reconnaissance, and smoke generator units. Separate brigades conducting covering force operations require less augmentation than division brigades, as the latter lack organic CS and CSS assets. Screen operations do not require extensive augmentation because they derive support from the main body.

Only CSS assets immediately essential to the operation (fuel, ammunition, medical, and limited maintenance) position themselves forward in the CFA. Such assets withdraw when no longer required or the risk of their loss becomes unacceptably high.

Combat service support for the covering force with a defend mission requires pre-positioning supplies, forward positioning of maintenance, and large quantities of obstacle materials and ammunition. A delay mission requires less time for terrain preparation, but pre-positioning supplies at subsequent delay lines or positions is still critical to support the planned operation.

A key aspect of any security force operation is battle handover. To aid in control of handing the battle over to the MBA unit, the corps establishes a PL designated as the BHL. The MBA commander . and the security force commander coordinate the location of the line and recommend its location to the higher commander. However, it remains the corps commander's responsibility to establish the line.

The MBA commander controls the ground forward of the FEBA out to the BHL. He places security forces, obstacles, or fires in this area to canalize the enemy and facilitate the withdrawal of security force elements.

The BHL is also where control of the battle passes from the security force to the MBA force. Typically it is forward of the FEBA. Main battle area forces can then bring direct fires to bear on the enemy to facilitate security force activities, such as disengagement, withdrawal, or passage of lines.

Security force and MBA units coordinate specific passage lanes and other details. When possible, the boundaries of security force units coincide with those of MBA units.

When directed to do so, the security force hands over the battle to MBA forces, then moves to a designated area and prepares for future operations. This normally will be a position deeper in the MBA or in the corps rear where there will be time to rearm, refuel, or reconstitute, if necessary. The security force passes through MBA units as quickly as possible to minimize their vulnerability to indirect fires.

Security to the corps flanks during the defense is the inherent responsibility of the committed maneuver units within their AO. However, the corps may task a specific unit to provide security if the corps flank is significantly vulnerable. The corps may also task a specific unit to provide security if the corps has accepted risk in the MBA with an economy of force operation not having sufficient forces to perform the flank security mission. A flank security force's typical missions in the defense are either screen or guard missions.

Deep Operations

Many of the aspects of corps deep operations in offensive operations (Chapter 5) also apply in corps defensive operations. Overall, corps deep operations in the defense help achieve depth and simultaneity and secure advantages for future operations. Deep operations disrupt the enemy's approach to and movement in the MBA, destroy high-payoff targets, and deny or interrupt vital components of enemy operating systems. Some key high-payoff targets will be the enemy's trailing or reserve echelons, HIMAD sites, key C^2 nodes, and key infrastructure.

As in offensive operations, the deep fight may be decisive—defeating or deterring the enemy before he can reach MBA forces. The corps controls deep operations similarly to its control of offensive operations. However, it might designate the FSCL closer to the FEBA to better facilitate joint fires.

Close Operations

Ultimately, the MBA force's mission is to defeat the enemy attack or to destroy the attacking enemy force. Missions cover the entire spectrum of operations-defending, delaying, attacking, or performing in an economy of force role. Units also conduct forward and rearward passages of lines. However, they normally avoid being bypassed unless it fits within the corps commander's intent.

Mobile Defense. The corps conduct a mobile defense when it orients on the enemy force as opposed to retaining terrain. METT-T conditions may

dictate that the corps conducts a mobile defense in two instances: when defending a large AO against a mobile enemy force, or when defending against an enemy force with greater combat power, but less mobility. A mobile defense incurs great risk, but also stands a greater chance of inflicting a decisive defeat and even destroying the enemy force.

Both corps and divisions conduct mobile defenses. When the corps conducts one, subordinate units generally conduct an area defense or delay to shape the penetration or attack as part of the corps striking force. Commanders generally do not assign the mission of a mobile defense to subordinate units except in an economy of force role.

The corps commander may choose to shape the battlefield by defending in one sector, to deny terrain to the enemy while delaying in another to create the illusion of success. This perceived enemy success in the delaying sector may create an opportunity for the striking force to attack. The corps may also entice the advancing enemy into an engagement area by appearing to uncover or weakly defend an area into which the enemy desires to move.

Critical to the mobile defense's success is the commander's vision of the battlefield and the time and place he chooses for the striking force to attack. Visualization of the battlefield includes a decisive point. That is, an advantage point on the battlefield where the commander foresees allowing the enemy to proceed in order for the striking force to accomplish its mission.

A force-oriented objective or engagement area usually indicates a decisive point. The staff synchronizes the corps' activities in time and space to sufficiently mass striking force effects at the right time and place.

The striking force is a self-sufficient, task-organized, combined-arms unit. It is a committed force, not a reserve. The object of a striking force's attack normally is to inflict a decisive defeat on the enemy.

Maneuver (fires coupled with movement) can achieve decisive defeat. It is also possible to decisively defeat the enemy by massing fires from a position that allows excellent observation and fields of fire.

Spoiling attacks help break up the enemy's momentum, disrupt his timetable, cause him to shift his forces, or just buy time for friendly forces. A striking force's components should include the maximum combat power available to the commander at the time of the attack. At a minimum, it should have equal or greater combat power than the force which it must defeat or destroy. Fire support assets can offset maneuver force shortfalls.

When conducting a mobile defense, the corps commander may need to commit his reserves to help defending units shape the battlefield. Attack helicopters are ideal for this role. The commander must not commit his striking force except to deliver the decisive blow to the enemy force. The striking force becomes the main effort upon commitment.

The corps designates obstacle-restricted zones that allow subordinate units flexibility and guidance. Corps topographic engineering provides the needed terrain products to support the IPB process. Specific terrain analysis products assist in maneuver planning and in designing obstacle systems to complement maneuver plans. Priority of effort for the mobile defense is to mobility for the striking force and to countermobility for units conducting an area defense. Engineers prepare necessary strongpoints and help units improve survivability positions.

Area Defense. The corps conducts an area defense when the orientation of the defense is to deny the enemy designated terrain for a specified time. In an area defense, the corps commander allocates sufficient combat power against enemy avenues of approach to achieve a reasonable chance of success, even without the commitment of the reserve. He assumes risk in less threatened sectors and allocates forces in an economy of force role. Maneuver within an area defense usually consists of repositioning within defensive positions or sectors and counterattacks.

Commanders conducting an area defense plan for counterattacks by their reserves. They plan spoiling attacks and counterattacks to disrupt the enemy and to prevent him from massing or exploiting success. They also conduct contingency planning to counter assumed enemy penetrations of forward defenses.

The priority of effort for engineer operations in the area defense is survivability and/or countermobility operations. Units concentrate on terrain reinforcement and emplacing obstacles to turn, fix, block, or disrupt enemy forces. As in the mobile defense, engineers also prepare required

strongpoints and help units improve survivability positions.

Sustained combat in the MBA normally generates the largest requirement for supplies and services. In a protracted defense, the corps' ability to sustain its forces significantly influences the battle's outcome. The defense of the MBA requires a mix of forward-deployed and echeloned logistic units to allow for orderly withdrawal or advance.

Combat service support efforts must stress adequate supply of fuel and ammunition, rapid evacuation of wounded, and repair as far forward as possible. The emphasis is on maintaining the corps at the highest level of combat power possible. Only by doing this can the corps hope to have the strength to transition to an effective offense.

Planning considerations and operational techniques to improve CSS to defending units include-

- Selecting ammunition transfer points (ATP) and pre-positioning limited stockages of ammunition in the MBA.
- Displacing from rear areas, on a scheduled basis, push packages of certain critical items (ammunition, NBC defense supplies, POL, and selected repair parts) so interruptions in communications do not disrupt the flow of supplies.
- Prepackaging Class IV and Class V obstacle material (normally requisitioned items) into brigade-size push packages to expedite delivery.
- Conducting resupply operations during periods of limited visibility "to reduce chances of enemy interference.
- Echeloning CSS units in depth throughout the defensive area to allow for continued limited support.
- Employing and dispatching maintenance support teams as far forward as possible to reduce unit evacuation requirements to a minimum and to fix the force as far forward as possible.

Reserve Operations

The corps retains a reserve in either form of defense. The reserve is an uncommitted force available for commitment at the decisive moment. It provides flexibility for the commander through offensive action. The reserve is more difficult to resource in the mobile defense because so much of the corps' combat power is allocated to the striking force.

The reserve can be as large as one-third of the combat power, but normally not smaller than a brigade-size element. If needed, the reserve is the corps commander's principal means of influencing the close fight. It is usually supported with additional assets (artillery, CAS, attack helicopters, IEW assets, engineer, chemical, CSS).

Once the commander commits the reserve, it generally is the corps' main effort. Once a reserve becomes committed, the commander designates another reserve.

Reserves must be available to counterattack by fire or by fire and maneuver. The corps commander's intent should specify whether the reserve is to counterattack by fire or assault the objective or enemy force. The reserve must remain agile in order to respond to a penetration that has occurred earlier than, or at a different location than, that visualized by the senior commander.

Ideally, units launch local counterattacks immediately after attacking forces enter the position and have not had time to reorganize and establish themselves or maintain the operational tempo that allowed them to penetrate. Since this period is relatively short, the force must judiciously deliver counterattacks on the local commander's initiative. The object is to block the enemy penetration, defeat the enemy attack, eject the enemy force, and restore conditions necessary to support the senior commander's concept and intent.

The reserve's normal composition includes armored, mechanized, and/or aviation forces. However, the reserve may also include AASLT forces supported by attack helicopters and CAS if the concept for their employment calls only for a relatively short operation, a quick linkup by heavy forces, or an extraction.

The reserve may also employ light forces in restricted terrain. The corps aviation brigade HQ can be the reserve HQ for short periods when properly augmented.

The timely movement of reserves from their AAs to the point of commitment can be a major planning and execution problem. Although the main CP is responsible for reserve movement, deconfliction

between maneuver and CSS movements in the corps rear is the rear CP's responsibility.

Rear Operations

The success of corps defensive operations may hinge on its success in conducting rear operations. Threat operations, ranging in size from individual saboteurs to enemy airborne or air assault insertions in the corps' rear, will target key corps units, facilities, and capabilities. These threat activities, especially at smaller unit levels, may even precede hostilities.

Corps defensive planning must address the early detection and immediate destruction of threat forces attempting to operate in the corps' rear. The operation may require additional emphasis on rear operations based on the form of defense. (See Appendix C for a discussion of corps rear operations planning considerations.)

The degree of risk the force accepts during a mobile defense invariably passes to the rear operations commander. This risk increases the threat to support forces and may impact their ability to continue operations at the anticipated level.

PREPARING FOR CORPS DEFENSIVE OPERATIONS

Intelligence

The corps G2 maximizes preparation time to fully employ and synchronize the corps' IEW architecture. Organic corps collection systems for a filly deployed MI brigade can detect and track enemy units out to approximately 200 kilometers. Beyond that, the corps relies on EAC, joint, and some national systems downlinked into the corps' HQ. The corps almost totally relies on EAC, joint, and national systems during the early stages of force-projection operations.

In the mobile defense, intelligence requirements focus on ascertaining precise enemy location, strength, and intent. The G2 must find the enemy's main avenue of approach and the location of his follow-on forces. Answers to these intelligence requirements allow the corps commander to properly array his forces in an economy of force role to defend or delay, shaping the battlefield for the counterattack by the strike force. This affords him the time necessary to precisely commit the striking force. The striking force commander must receive near-real time updates during the movement to contact to ensure he engages the enemy force at the desired time and place.

Intelligence in the area defense focuses on identifying where and when the corps commander can most decisively counterattack the enemy's main effort or exploit enemy vulnerabilities. Intelligence and EW support identifies, locates, and tracks the enemy's main attack. It provides the commander time to allocate sufficient combat power to strengthen the defense at the point of attack. Intelligence also identifies friendly vulnerabilities and key defensible terrain.

Maneuver

The corps commander's intent and the nature of the threat determine whether the corps conducts a mobile defense or an area defense. In many cases, the corps' mission statement specifies whether the corps is to conduct a force-oriented or terrain-oriented defense. If the corps is also a JTF headquarters or JFLCC, then the CJTF should have the flexibility to determine the form of defense. The corps must specify to its subordinate units whether they are to conduct a force- or terrain-oriented defense.

In the defense, the corps typically organizes the battlefield into deep, close, and rear AOs. Two additional concerns within close operations are security and reserve operations. Corps units might operate in noncontiguous AOs, which preclude a linear organization. This is normally the case when the corps' striking force executes a deep maneuver as part of a mobile defense. Deep operations initially focus on any of the following:

- Selective high-payoff targets.
- Isolating approaching enemy forces from its higher headquarters.
- Supporting forces.
- Attrition of enemy combat power.

In the MBA, the corps commander assigns defensive sectors. based on METT-T, to the units conducting an area defense or delaying against the

penetrating enemy force. These are the forces that shape or defeat the enemy.

In a mobile defense, the commander may want to yield ground quickly to allow the enemy to think he has been successful or to entice him to a decisive point where the striking force can attack him. The corps commander may also select EAs where he desires to destroy the enemy. Commanders also use EAs to orient maneuver and fires for deep operations.

The striking force constitutes the maximum combat power available to the commander at the time of the attack. In a corps, this is normally a multiple-division force, under the corps commander's control. It can be as large as two-thirds of the combat power available to the corps at the time of the attack.

Before the main battle, the striking force withdraws to attack positions and prepares for the decisive attack. It may deploy all or some of its elements to-

- Deceive the enemy as to the force's purpose.
- Occupy dummy battle positions.
- Create a false impression of unit boundaries (especially when operating with armored-light forces or multinational forces).

Deep maneuver by the striking force includes major logistic considerations, such as potentially establishing a forward logistic base (FLB). Deep maneuver by the striking force may be a component of the corps' deep operations.

The attack by the striking force should be part of a devastating attack in depth by the corps to isolate the penetrating enemy force and to defeat or destroy it, if possible. When facing a large penetrating enemy force, corps operations in depth may repeatedly isolate portions of the enemy force and attack them with the striking force.

An area defense is similar to a mobile defense except that its execution is more static. The reserve in an area defense is a combined-arms force that may be as large as one-third of the force. Spoiling attacks and counterattacks in an area defense disrupt the enemy and contain expected enemy penetrations. Subordinate commanders must also retain a reserve to rapidly contain, defeat, or block enemy forces before they can consolidate any gains.

An underlying purpose of all defensive operations is to create the opportunity to transition to the offense. Therefore, all contingency corps must be able to fight the heavy-light mix. Light infantry forces will likely conduct early deployment and secure the lodgement for follow-on armored and mechanized forces.

In an area defense, light infantry forces can defend in restricted terrain and along linear terrain features. They provide the TCF when adequate ground or air transportation is available.

If commanders anticipate contact with enemy armor, light infantry units should construct a strongpoint defense. Light infantry possesses an extremely limited capability to conduct counterattacks to restore a position or to repel a penetrating enemy force.

In a mobile defense, light forces generally conduct some form of area defense (including the strongpoint) to shape the penetration. The corps can air-insert light infantry as part of the striking force.

Assigning correct command and support relationships is critical to successful C^2 of armored-light operations. This applies equally to combat, CS, and CSS units. However, augmenting a light force with CS and CSS assets from an armored formation may well create a heavy-light mix without task-organizing maneuver forces. For instance, using a corps FA brigade with self-propelled guns and rocket artillery systems in support of a light division raises many of the same considerations as attaching an armored brigade to a light division.

When combat assets are provided to a light force, they are normally assigned a support relationship that lessens the CSS burden on the light force. This ensures that the commander who provides the assets retains the flexibility to shift assets as the situation dictates. An armored brigade, normally OPCON to alleviate CSS responsibility, is the unit of choice to task-organize with a light division. Light forces are normally attached to armored units.

Combat service support assets are generally left under the parent headquarters' command and assigned a mission to support the light or armored-light force. As with CS assets, there are circumstances that dictate organizing CSS assets to the light force. In such cases, attachment is generally the best option.

The corps uses standard control measures when employing a mixed force. When coordinating with a light unit, the heavy unit commander must consider the differences in rates of movement, equipment, and operating procedures.

In some situations, commanders will have to change normal coordination procedures. The heavy unit will usually be responsible for coordinating with and providing liaison to light units because of the light units' lack of ground or air transportation.

Fire Support

Whether in an area defense or mobile defense, fire support weights the main effort. In an area defense the main effort is where the defense is responsible for covering the enemy's main avenue of approach. The main effort in a mobile defense is the striking force. One consideration in a mobile defense is the defending force's ability to provide continuous and massed fire support to the striking force.

When the striking force is to attack beyond conventional artillery range, the commander plans for the forward displacement of artillery assets or the incorporation of artillery into the striking force. Fire support assets can be critical when off-setting a lack of maneuver assets in the striking force.

Commanders must employ fire support assets with decisive effects once the striking force initiates contact with the penetrating enemy force. A significant percentage of CAS sorties should also support the striking force. Nuclear weapons, if employed, obviously can severely disrupt the enemy force before the striking force initiates contact.

Deliberate planning and massing of fires is difficult for the striking force in a mobile defense. Both the striking force and the enemy must move to the point of engagement. Therefore, determining the precise point of battle is more difficult than in an area defense where the friendly force is static and the point of engagement is planned. Commanders must take precautions to prevent incidents of fratricide as the striking force nears the EA while supporting air is conducting interdiction and CAS.

Air Defense

In the area defense, the commander seeks to place an AD umbrella over his command with particular emphasis on critical nodes. He normally accomplishes this with static placement of AD assets.

In the mobile defense, the movement of the striking force complicates this, especially when it must attack beyond the range of AD coverage. Based on threat capabilities, the commander must prioritize his assets to protect both the static defending forces and the striking force.

HIMAD assets generally remain deployed behind the static forces unless the striking force is attacking a deep objective. Then, HIMAD assets may need to jump to a forward base, if established. Forward area air defense assets should thoroughly integrate into maneuver assets of both the striking force and the defending force. Commanders must also consider counter air operations for defense of the striking force.

Mobility and Survivability

The corps' topographic unit provides detailed terrain analysis that, when used with the concept of maneuver and other staff products, provides guidance for obstacle planning. In the mobile defense, the corps places greater restrictions on obstacle emplacement by its subordinate units.

When necessary, the corps assists subordinate units in forward staging of Class IV obstacle material and Class V mines and demolitions. Corps engineer assets also provide most of the general engineering in the corps rear area to improve LOCs, support areas, infrastructure, and so on.

As with fire support assets, engineer assets resource both the striking force and the more static defending forces in a mobile defense. Priority of effort for the striking force is to mobility and then countermobility operations. The priority of effort for defending forces is survivability and/or countermobility.

The corps ensures that subordinate obstacle plans limit enemy maneuver while still permitting the rapid attack of the striking force. Remotely delivered mines are critical to completing the obstacle plan in shaping the battlefield in front of the attacking enemy force.

The striking force may attack through a short-duration, scatterable minefield after the mines have self-destructed. The striking force must ensure the axis of advance is clear or conduct an in-stride breach, if necessary.

Commanders should task-organize engineer units with reconnaissance elements in front of the striking force. Highly mobile engineer forces should be well-forward and integrate into the striking force's leading maneuver formations.

Follow-on engineers conduct route improvement, replace assault bridges with other bridges, and expand obstacle breaches. Engineers with flank units focus on countermobility to impede potential enemy counterattacks. Corps engineers in the corps rear area perform general engineering functions.

Military police contribute to mobility by conducting battlefield circulation control (BCC). Military police also enhance battlefield survivability by conducting area security and defeating rear area threats during response-force operations.

Chemical personnel contribute to survivability, perform vulnerability assessments, and recommend actions to commanders. For example, obscurants defeat threat sensors and aid in deception planning as well as in camouflage and concealment.

Combat Service Support

The greater the distance the striking force attacks from main defensive positions, the greater the amount of supplies the force will need. The defending force will require significant quantities of barrier material and ammunition; the striking force will require greater amounts of fuel, ammunition, and maintenance.

Medical evacuation from the striking force area poses significant challenges. When the striking force is at a significant distance from the support bases, CSS units must secure an FLB. The commander must designate his priorities for CSS and consider any changes in priorities and when they might occur.

Command and Control

When conducting a mobile defense, the corps generally retains control of the covering force operation, the area defense, and the attack by the striking force to ensure synchronization and unity of effort. The corps commander provides the striking force commander the decisive point, objective, or EA where the corps commander desires the striking force to destroy the enemy. The corps commander provides the anticipated size and composition of the penetrating enemy force as well as provide complete supporting graphics (especially obstacle emplacements).

When the penetrating enemy force reaches the decision point to commit the striking force, the commander provides updated information on any changes, even as the striking force is moving to attack the penetrating enemy force. The signal support system will be challenged to meet the demands of a fluid mobile defense,

Accepting risk is a critical aspect of a mobile defense. The defending force retains the bulk of the combat power in the striking force. The corps commander only allocates sufficient forces for the area defense to shape the battlefield.

The risks are twofold. First, static or defending forces usually are insufficient in strength to defeat the enemy alone. Therefore, the mobile defense's success depends on the successful commitment of the striking force. Second, the force may not be able to entice or maneuver the enemy into the area the defending commander intends. This might preclude the decisive employment of the striking force.

In an area defense, subordinate echelons normally exercise a greater degree of autonomy than in the mobile defense. Depending on the size of the sector, subordinate echelons may control the bulk of the reserves. The corps may only retain a small, highly mobile reserve.

Subordinate commanders fight their engagements within their AOs, and the senior commander retains a reserve to assist the most threatened sector. There usually is less risk because commanders should have adequate forces to defend the AO and stand a reasonable chance of defeating the enemy, even without committing the reserve. They usually accept greater risk in less critical sectors.

EXECUTING CORPS DEFENSIVE OPERATIONS

On 8 August 1990, the XVIII Airborne Corps assault CP and the lead elements of the 82d Airborne Division deployed to Saudi Arabia initiating Operation Desert Shield. The corps deployed three divisions within 60 days (82d Airborne, 101st Air Assault, and the 24th ID(M)).

The remainder of the corps (3d ACR, 1st Cavalry Division, 75th Field Artillery Brigade, and the 212th Field Artillery Brigade) arrived by 1 November. The corps defense increased in capability with the arrival of each unit in theater. As additional units arrived, corps plans (called Desert Dragon I, II, and III) were revised.

Desert Dragon I was the initial corps lodgement defense to protect the A/SPODs at Dhahran and Ad-Dammam with a reinforced airborne brigade. Desert Dragon II expanded the lodgement area to include the port of Al-Jubayl to protect the arrival of the 7th Marine Expeditionary Brigade (Figure 6-2).

In Desert Dragon I and II, the lodgement defense was heavily outnumbered by the Iraqis armored forces. The airborne brigades optimized four factors to enhance their defensive combat power:

1. They situated their defenses at points along the coast roads closely bordered by sabkhas (coastal salt flats), which minimized off-road maneuver by enemy armored forces.

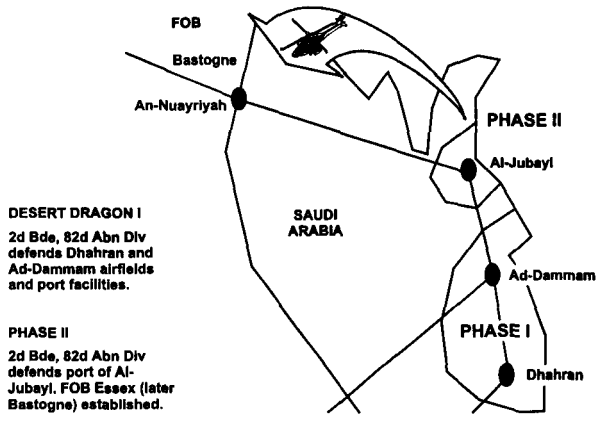


Figure 6–2. The XVIII Airborne Corps' area defense of the corps lodgement

2. They optimized their direct-fire range advantage over the Iraqis with tube-launched, optically tracked, wire-guided (TOW) missiles and Sheridan tanks.

3. The defense was supported by attack helicopters and USAF CAS interdiction.

4. The soldiers were disciplined and sufficiently confident in their units to withstand the shock of an armored attack.

Shortly after the arrival of the lead elements of the 24th ID(M), the corps transitioned to Desert Dragon III. This also signaled an end to any reasonable chance of success for an Iraqi attack into Saudi Arabia. The plan took its final form with the arrival of the 1st Cavalry Division.

The corps would conduct a mobile defense in sector with a division-size striking force (Figure 6-3). A provisional Arab mechanized division, designated the Eastern Area Command, would conduct the initial defense of Saudi Arabia forward of the corps covering force. The Marines would conduct an area defense of the Al-Jubayl coastal region.

The 101st Airborne (Air Assault) Division, augmented by the 3d ACR and the 12th Aviation Brigade, would conduct covering force operations in AOs Carentan and Normandy. The 24th ID(M) was to conduct an area defense within the MBA. The 82d Airborne Division conducted an area defense of critical installations and facilities.

The 1st Cavalry Division was designated as the corps striking force (called the reserve at that time) with the principal mission to counterattack into flanks and rear of the trailing echelon brigades and divisions, presumably the Republican Guard forces. Corps deep operations would focus on attacking select high-value targets as well as follow-on Iraqi echelons in order to attrit and disrupt them.

On 17 January 1991 corps units transitioned to offensive operations. Attack helicopters from the 10lst Airborne (Air Assault) Division conducted a deep attack in conjunction with joint forces and destroyed a critical ground control intercept radar in Western Iraq to open the air campaign of Operation Desert Storm.

The corps remained in eastern Saudi Arabia until shortly before the initiation of the ground offensive

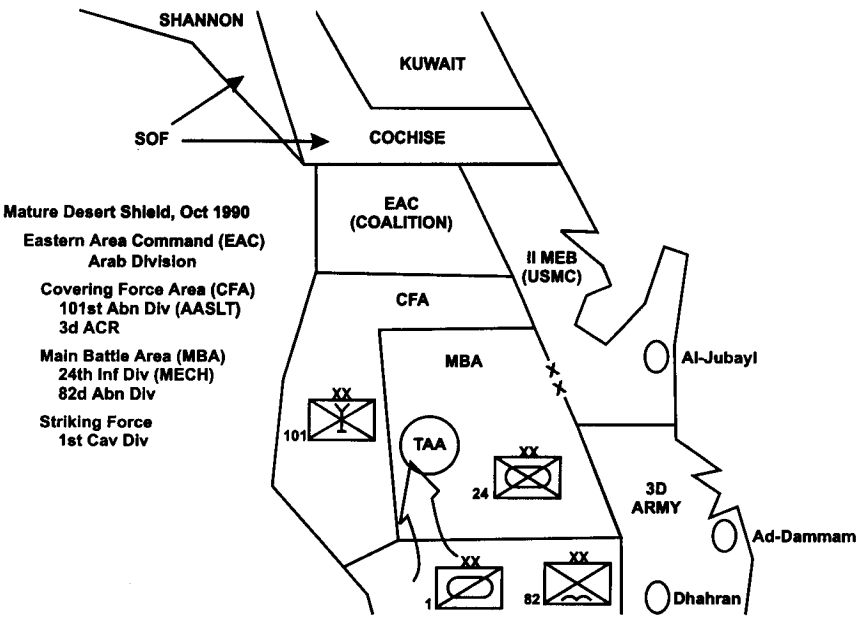


Figure 6–3. The XVIII Airborne Corps' mobile defense, mature Desert Shield

in order to deceive the Iraqis as to the true location of the coalition's attack.

TRANSITIONING TO THE OFFENSE

Planning considerations for transitioning from the defense to the offense are based on the following situation:

- The enemy attack against the corps has reached its culminating point.
- The enemy is transitioning into a hasty defense.
- The corps has sufficient assets to accomplish its assigned offensive mission.

Commanders plan for a sequel to offensive operations in advance, preferably before the defensive battle begins. The transition must be timely and rapid to keep the enemy from establishing prepared defenses and/or receiving reinforcements. In many instances, the attack against such an enemy will complete his defeat and/or destruction.

In a mobile defense, transitioning to the offense for the corps generally follows the striking force's attack. In an area defense, the corps designates a portion of its units to conduct the attack, depending on the concept the corps adopts to achieve attack objectives.

The attack may consist of units not in contact (corps reserves and newly assigned units) or units currently in positions along the LC (defending MBA units) or both. Using units not currently in contact is the preferred option, since defending MBA units may still be decisively engaged.

Another consideration of using units not in contact occurs when they are operating in noncontiguous AOs. The corps would then rapidly mass the effects of overwhelming combat power with the main effort. This might require the commander to adopt economy of force measures in some AOs while temporarily abandoning others in order to generate sufficient combat power. (See Chapters 5 and 7 for planning considerations for the commitment of these units.)

If units in contact also participate in the attack, the corps commander must retain sufficient forces in contact to fix the enemy. He concentrates for the attack by reinforcing select subordinate units (divisions and separate brigades) so they can execute the attack and, if necessary, maintain the existing defense. He can also adjust the defensive boundaries of subordinate units so entire units (preferably brigade size, but no smaller than battalion) can withdraw and concentrate for the attack.

Chapter 7

RETROGRADE OPERATIONS

A retrograde operation is an organized movement to the rear away from the enemy. The force executes retrogrades to accomplish one or more of the following:

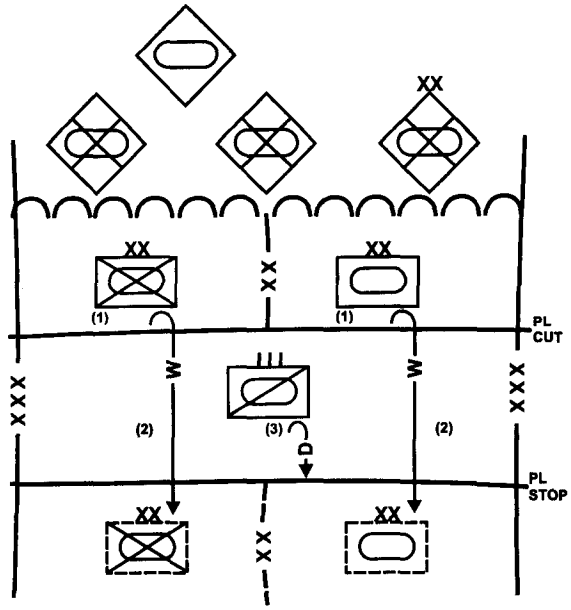
- To disengage from combat.
- To avoid combat under undesirable conditions.
- To draw the enemy into an unfavorable situation.
- To gain time without fighting a decisive engagement.
- To place friendly forces in a more favorable position.
- To permit the use of a portion of the force elsewhere.

The corps may be required to conduct retrograde operations in combination, sequentially, or subsequent to an offensive or defensive mission. A retrograde may be forced or voluntary. In either event, the higher commander must approve it. There are three types of retrograde operations:

1. Delay, where the unit gives up space to gain time.
2. Withdrawal, where all or part of a deployed force voluntarily disengages from the enemy to free itself for a new mission.
3. Retirement, where a force not in contact with the enemy conducts movement to the rear.

Corps retrogrades normally involve more than one of these three types. A combination of these types usually is necessary, either simultaneously by adjacent units or by one developing into the other. For instance, a withdrawal from action may precede a retirement, or a force executing a delaying action may cover a retirement (Figure 7-1).

As in other operations, the commander's concept of operations and intent drive planning for retrograde operations. Each type of retrograde operation has unique planning considerations, but considerations common to all retrograde operations are risk, the need for synchronization, and rear operations.



NOTES:

1. Withdrawal. The mechanized and armored divisions defend forward of PL Cut until the ACR is in place to their rear. They then withdraw to PL Cut where the battle is handed over to the ACR.
2. Retirement. Having broken contact with the enemy, the heavy divisions retire to the rear of PL Stop.
3. Delay. The ACR delays the enemy between PL Cut and PL Stop to provide time for the heavy division to reestablish the defense.

Figure 7–1. An example of a retrograde operation

The nature of retrograde operations involves an inherent risk of degrading the command's morale. Historical review of unsuccessful retrograde operations indicates that, in many cases, retrogrades turned into routs. This was a result not of enemy tactical operations, but because the command

CONTENTS

DELAY 7-2
WITHDRAWAL 7-3
RETIREMENT 7-4

developed a defeatist attitude. Commanders at every level can minimize this risk by—

- Thorough planning, efficient control, and aggressive leadership at all levels.
- Maintaining an aggressive attitude throughout the command,
- Orienting the entire command on the purpose of the operation.

  Ensuring a constant flow of information from all units.

The complexity and fluidity of retrograde operations and the absolute need to synchronize the entire corps operation dictates the need for detailed, centralized planning and coordination with decentralized execution. To ensure success, units must integrate tactical deception into all aspects of the retrograde. Rear operations planning considerations are also similar for each type of retrograde operation.

Terrain management becomes critical during retrogrades. The corps must identify successive rear boundaries for committed maneuver units. To clearly identify the area of responsibility for a corps in retrograde, coordination between combat zone and communications zone (COMMZ) commanders is essential. Higher commanders must resolve, and make known to the affected commanders, problems concerning the responsibility for the protection, relocation, evacuation, and destruction (less medical) of CSS facilities and other installations, including identifying who has authority to direct such action.

The discussion of terrain management issues drives corps rear security operations. Not only must the corps clearly define who is responsible for the security of units, especially CSS units, it must also coordinate with the COMMZ commander to clearly identify who is responsible for corps units conducting the retrograde once they enter the COMMZ.

Sustainment of retrograde operations poses several challenges. Planning must balance the requirement to sustain subordinate maneuver forces with the requirement for early displacement of corps sustainment facilities. This would both free terrain for operational use by maneuver forces and support the continuing conduct of the retrograde. Again, the corps must coordinate with the COMMZ commander to clearly identify sustainment relationships once corps units enter the COMMZ.

The prioritization of movement C^2, as well as the means of movement, are key to movement planning. Within the context of the commander's concept of operations and intent, the corps must prioritize—

- What is to be moved (for example, light infantry troops versus sustainment stocks).
- The limited ground and air movement means available to the corps.
- The routes over which movements are to take place.

Complicating this most complex requirement is the necessity for the corps to coordinate all corps movements with the COMMZ commander and to request additional movement support and movement priorities within the COMMZ.

DELAY

The corps conducts delay operations—

- To gain time when insufficient forces are available to attack or to defend.
- When the defensive plan calls for drawing the attacker into an unfavorable situation.
- To gain time to establish or reestablish a defense.
- To cover a defending or withdrawing unit.
- To protect a friendly unit's flank.
- To participate in an economy of force or deception effort.

  Delay actions may facilitate a retirement by—

- Covering the deployment, movement, retirement, or withdrawal of friendly forces.
- Harassing, exhausting, weakening, and delaying enemy forces.
- Exposing enemy weaknesses.
- Shaping the enemy penetration.
- Drawing the enemy into a trap.
- Avoiding undesirable combat.
- Conforming to movement of other friendly forces.

A delaying force must—

- Destroy as much of the enemy force as possible.
- Cause the enemy to repeatedly deploy.
- Maintain contact with the enemy but avoid being decisively engaged.
- Maintain operational coherence.
- Preserve the force.
- Seize the initiative when possible.
- Deceive the enemy as to the real nature of the overall operation.

The tactical scheme of the delay is to force the enemy to deploy repeatedly against successive friendly battle positions. Elements of the delaying force attack and defend to trade space for time.

Delays are generally part of security force operations or economy of force roles. Commanders plan and conduct them much the same as a defense, but they are far more difficult. The delaying force must repeatedly fight the enemy, disengage, reposition, and resume the fight.

When the corps conducts a delay, the commander's intent prescribes the conditions by which the corps will trade space for time. Normally, corps elements, typically cavalry units, conduct a delay.

There are two types of delay. Delay in sector requires a unit to slow and defeat as much of the enemy force as possible without sacrificing tactical integrity. Delay forward of a specified line for a specified time or event entails greater risk. The unit must prevent the enemy from reaching a specified line for a specified time or event, regardless of cost. The concept of operations must clearly identify any restrictions.

Deception is important. The delaying force must keep the enemy in doubt as long as possible concerning the location of the successive delaying positions.

WITHDRAWAL

A withdrawal is a planned operation in which a force in contact disengages from an enemy force. Units conduct withdrawals when it is necessary—

- To move away from the enemy to reposition forces on more favorable terrain.
- To conserve resources for future operations.
- To gain time.
- To avoid combat under unfavorable conditions.

All or part of a corps may move to the rear to shorten LOCs or to compensate for the removal or loss of subordinate units. A corps withdrawal combines all types of combat operations. To effect the withdrawal, some divisions may defend, others may delay, and still others may attack.

Withdrawing by daylight generally occurs only when a situation requires rapid action to save the command from disaster. Forces under direct enemy fire or observation lack freedom of action and may sustain heavy casualties in a daylight withdrawal.

To maintain secrecy and retain freedom of action, withdrawals should occur during periods of limited visibility or before the enemy closes with the position. Units should use smoke to conceal both day and night withdrawals. Counterattacks may be necessary to obtain this freedom of action.

The corps commander should make the decision for a night withdrawal sufficiently in advance to permit planning, coordination, and time for subordinate units to conduct daylight reconnaissance. Planning begins with preparation of the plan for the next mission. Once the new plan is drawn up, the staff can make plans for the withdrawal, including—

- The location, composition, and mission of corps security forces.
- The organization of the corps for combat.
- Control measures, including routes, traffic control points (TCPs), and phase lines.
- Fire support.
- Combat service support priorities.
- Nominated nuclear targets, when appropriate.
- Deception operations to preserve the force.

Normally, the corps employs a covering force during a withdrawal to preserve the command's integrity. Therefore, should the enemy force the corps to withdraw, the requirement for strong covering forces is likely. The capabilities of armored and mechanized divisions make them most suitable as covering forces. A division reinforced by corps

combat units, FA, ADA, and engineers can aIso serve as a covering force.

The corps commander prescribes the covering force's mission, composition, and initial location. The covering force may accomplish its mission by delay on successive positions, by delay on alternate positions, or by a combination of the two. It can also attack, defend, feint, or demonstrate.

The main body of the corps disengages and continues its movement rearward. The corps commander then relies on the covering force and organic and supporting reconnaissance to maintain contact with enemy forces. To facilitate coordination of movement, the majority of corps combat and CS units are normally attached to divisions. The corps holds a small reserve. The aviation brigade, when task-organized, is well-suited for this mission.

Early in the withdrawal, units in the forward defense area, except delaying or security elements, disengage from contact with enemy forces. When operating on an extended front, the corps commander frequently attaches corps artillery units to divisions. He may also attach designated corps artillery units to the covering force. Control of these units reverts to corps artillery as soon as practicable.

The corps ADA brigade commander or the regional ADA commander normally hold centralized OPCON of most nondivision ADA. However, the corps commander must ensure that sufficient ADA assets support the covering force.

Corps engineer units have two basic missions during withdrawal. They enhance and maintain mobility of the corps and degrade or counter the enemy's mobility.

The corps' withdrawal plan includes control measures that are necessary to ensure a coordinated operation. The corps establishes lateral boundaries between divisions, phases of the operation, and indicates the amount of desired delay between positions, using phase lines for control, as appropriate. Combat service support during a withdrawal focuses on fueling, arming, and recovering the force. Prioritization is METT-T dependent and may vary from one unit to another.

Withdrawals require extensive movement control provisions that establish priorities of movement and preclude congestion on routes. Detailed traffic control plans are made at all echelons; their execution is decentralized. In support of its withdrawal, the corps plans and conducts EW, cover and deception operations, and obstacle and denial operations.

RETIREMENT

Retirement is a retrograde movement in which a force not engaged with the enemy moves to the rear in an organized manner. It is administrative in nature and execution; however, commanders must consider security and develop CONPLANs to deal with enemy capabilities to employ Level I, II, and III threats into the rear area and along the routes. (See Appendix C.)

If the corps is moving to a new area, it may transition into a movement to contact. Task organization of the corps, as it moves along the retirement route, should ease its transition into the next operation.

Some situations might dictate that a corps conduct a tactical move during a retirement (for example, on a nuclear battlefield when the enemy situation is vague). As in all tactical moves, all-round security of the main body *is* necessary using advance, flank, and rear security forces. Combat service support operations in the retirement increase fuel consumption but decrease ammunition consumption.

Chapter 8

OTHER OPERATIONS

The corps may be required to conduct other operations (such as river crossings, encirclements, movement, reconstitution and so on) in combination, sequentially, or as part of the offense or defense. Such operations are difficult, complex, and often involve risk. Methods for conducting other operations vary according to METT-T factors as they apply to each situation.

RIVER CROSSING

River crossings are a division responsibility and are planned in detail at division level. The corps has specific fundamental planning and resourcing responsibilities for river-crossing operations, especially for deliberate crossings of large water obstacles.

The corps develops its river-crossing plan concurrently with the scheme of maneuver for the overall operation the river crossing supports. The goal of the river crossing, whether an offensive or retrograde crossing, is to move corps units across a water obstacle with the minimum impact on the corps' ability to rapidly generate combat power.

Offensive Crossing

The corps designates the bridgehead for an offensive river crossing and normally depicts it graphically using a bridgehead line or a set of division objectives. The bridgehead is the area on the far bank the corps must secure to continue the offensive. It must provide space for combat, CS, and critical CSS elements necessary for the corps to continue the attack. It must also-

- Be defensible.
- Be large enough to maneuver and deploy the force required to continue the mission.
- Facilitate continuation of the operation.

The bridgehead's depth depends on both terrain considerations and the corps' scheme of maneuver. If the division(s) conducting the crossing also continue the attack beyond the bridgehead, they use a shallow bridgehead.

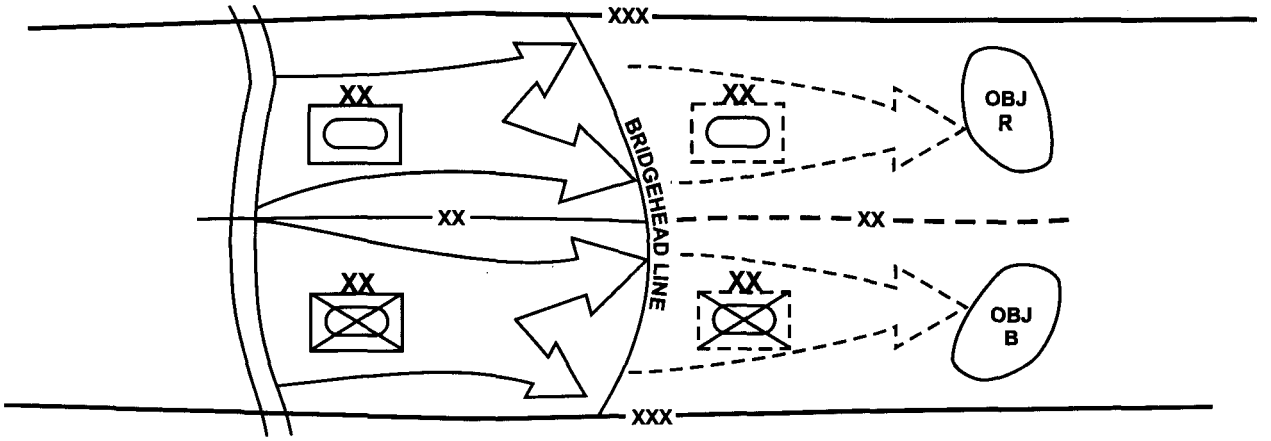
If the corps intends to pass a follow-on division through the bridgehead, it will need more depth. The river-crossing operation is complete once the bridgehead is secure, the necessary elements have moved to the far shore, and the river obstacle no longer limits the continuation of the attack.

In some cases, the division conducting the assault crossing of the river will not have the combat power or will not be organized to fight all the way from the river to the bridgehead line. The corps may then designate a division intermediate objective or phase line where the lead division can pause to reorganize, build up combat power, or where the corps can commit trailing forces.

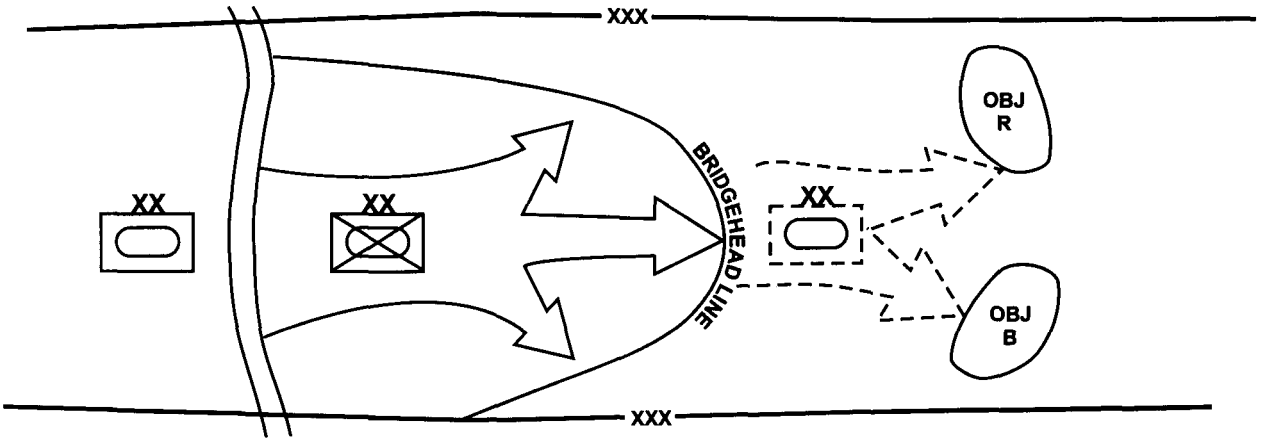
The corps determines if its subordinate divisions will cross the river on a wide front, involving two or more divisions, or on a narrow front, involving one division (Figure 8-1). Generally, a crossing on a wide front is preferred because it projects combat power more rapidly across the obstacle and keeps the corps more dispersed. The corps might cross on a narrow front if the scheme of maneuver requires it or if the corps does not have the equipment it needs to support a wide front crossing.

CONTENTS

RIVER CROSSING 8-1
Offensive Crossing 8-1
Retrograde Crossing 8-3
ENCIRCLEMENT OF A FRIENDLY FORCE 8-3
Breakout Operations 8-5
Defend Encircled 8-5
Exfiltrate 8-6
ENCIRCLEMENT OF AN ENEMY FORCE 8-6
LARGE-UNIT MOVEMENT 8-7
RECONSTITUTION 8-10
PASSAGE OF LINES AND RELIEF IN PLACE 8-12
Passage of Lines 8-12
Relief in Place 8-14
LINKUP OPERATIONS 8-15



Course of action sketch for a corps river crossing on a wide front: two divisions cross the river and secure the bridgehead, then continue the attack.



Course of action sketch for a corps river crossing on a narrow front: one division crosses the river and secures the bridgehead: a second division crosses behind the first division and then passes through the bridgehead to continue the attack.

Figure 8–1. Corps river crossing courses of action

The corps controls much of the special equipment and support units that maneuver units require to conduct river crossings. To support a one-division crossing of a large river generally requires the following corps units:

- Two or more corps combat engineer battalions (one battalion per brigade crossing area).
- One or more engineer assault bridge companies (depending on the river's width and crossing frontages).
- One or more smoke generator and NBC reconnaissance companies (depending on the crossing frontages).

One MP company with augmentation from a corps MP company to support the traffic control plan (at least one platoon per brigade crossing area).

One or more ADA battalions (depending on the crossing frontages and the number of bridge and/or raft sites) and possibly defensive counter air support.

Combat service support for the divisions conducting the river crossing is no different than sustainment operations during the offense or defense. Transportation support for engineer units and bridging material is the primary concern; maintenance of

River crossings are a division responsibility and are planned in detail at the division level.

bridging equipment and fuel requirements are secondary considerations.

Other corps support to maneuver units could include specific intelligence-collection concerning river conditions or helicopter support to a division or brigade conducting air assaults on the far shore. (See FM 90-13 for more information.)

Retrograde Crossing

Planning and executing river crossings during retrograde operations are similar to offensive river crossing operations. However, there are two special considerations.

First, command, control, and coordination are difficult in a retrograde crossing. Delaying, defending, and supporting forces must have explicit missions and tasks. Commanders are to plan and execute deception to conceal the extent of the operation and the sites of the actual crossing. Smoke, electronic deception, and dummy sites reduce the enemy's capability to disrupt the crossing. Units must also apply OPSEC measures.

Second, there may be few retrograde crossing sites that friendly forces control. Therefore, they will be vulnerable to attack early in the operation. Planning and developing additional crossing sites help mitigate this probability.

The force must protect crossing sites. The commander should expect detection and counter it. The enemy's pursuit may well include envelopment tactics to secure crossing sites and to cut off the retrograde force before it can cross. Security forces position early to counter all enemy attempts, including those of battalion-size air assault or airborne insertions.

The commander must get all nonessential CS and CSS across the river early and disperse them in locations that can support the operation. Units may have to destroy bridging equipment they cannot quickly recover and that is in danger of being captured.

When possible, units should recover bridging equipment early and replace it with assault float bridging and unit assets that they can recover quickly. Units might need to destroy existing bridging and other crossing means (such as ferries).

Close coordination with the delaying force is necessary to keep from cutting off friendly forces not yet across. (See FMs 5-102 and 90-13 for detailed discussions.)

ENCIRCLEMENT OF A FRIENDLY FORCE

Encirclement occurs when the enemy has cut all ground routes of evacuation and reinforcement. A unit may become encircled—

- When ordered to remain in a strong position on key terrain to deny the enemy passage through a

vital chokepoint following an enemy breakthrough.

- When given a mission of becoming encircled as part of a larger plan.
- When unintentionally cut off from friendly forces.

Through its own maneuvers, losses, errors, exhaustion, or other cause, a friendly attacking force may find itself in such an unfavorable position that the advantage passes to the enemy. The enemy then has a prospect of success using an encirclement. From the corps' perspective, encirclement is a concern whether it pertains to the entire corps or to a portion of the corps.

Once encircled, the corps commander must clearly understand the mission, if assigned, and the higher commander's plan. Knowing the overall mission and plan helps him determine whether the next higher commander wants his force to breakout or to defend the position.

If the force is free to break out, timing is critical. The corps should attempt to break out before the enemy has time to effectively block escape routes. If the corps cannot break out, the commander continues to defend while planning for linkup or exfiltration.

In all cases, the commander must promptly make his decision to break out, attack deep, defend, or exfiltrate and execute it with resolve. The longer a force remains encircled, the more depleted it becomes, and the more organized and stronger the containing enemy becomes.

If the mission is to defend, the corps must act rapidly to preserve itself. The commander assumes control of all encircled forces and assesses the overall defensive posture of the force. In assuming an effective defense and contributing to the combat effort, the commander has several responsibilities. He must reestablish the chain of command and a viable defense. That is, he must quickly establish an all-round defense on defensible terrain. The force may have to attack to seize the ground. The commander must expeditiously reorganize and consolidate his force.

To establish security, the commander positions security forces as far out as possible to provide early warning. He initiates vigorous reconnaissance, establishes local security throughout, and insists on passive measures. The commander must also rapidly establish communications with higher headquarters and internally between units.

The commander must stay informed about the battle outside the encirclement. This information will help him plan his breakout as well as enable him to provide information about the enemy's rear area to higher headquarters. The commander must also plan procedures for caring for EPWs and civilian refugees.

The commander must also establish a reserve. If mobile forces are available, he establishes a centrally located reserve to take advantage of interior lines. If only light forces are available, he establishes small local reserves to react to potential threats.

The commander is to reorganize fire support under centralized control. He positions ADA and aviation assets throughout the area to limit vulnerability to counterfires. When considering available fires, he includes the possible use of CAS from outside the encirclement.

The defensive commander must also reorganize CSS. After he assesses the corps' CSS posture, he centralizes all supplies and establishes strict rationing and supply economy procedures. If possible, he should arrange aerial resupply and casualty evacuation by aviation and air support. He must also establish centralized medical and graves registration operations.

Other considerations include limiting vulnerability to enemy nuclear or chemical weapons, including planning to break out early based on anticipated enemy use; maintaining morale; or continuing the defense.

The commander can use engineers to improve the defended area to preclude enemy forces from splitting the force through penetrations of the perimeter. An energetic defense and rapid reaction by reserves and the defense in depth can defeat such attempts. As the battle weakens the force, it may have to reduce the size of the perimeter. The force must maintain a cohesive defense.

The encircled commander must also plan subsequent operations. There are two options available. The commander can conduct a breakout in the direction of friendly forces or attack deeper toward

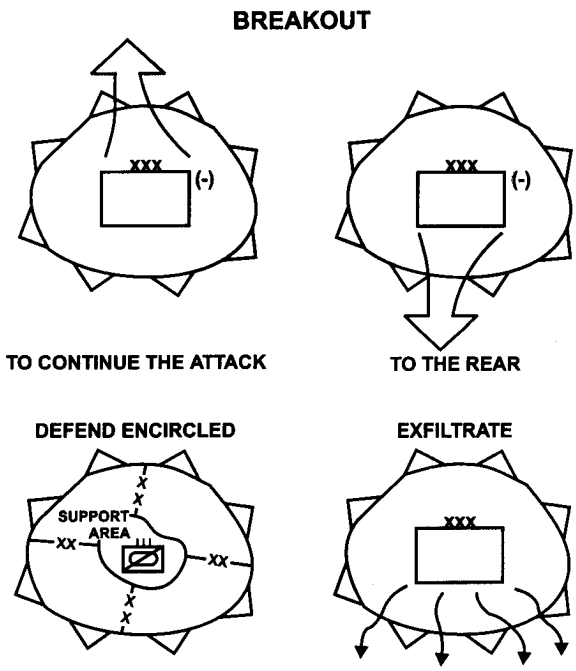


Figure 8–2. Courses of action for an encircled corps

enemy forces and installations. The second option is that the commander can defend encircled or exfiltrate. The commander bases his decision on which option to take on the intent or orders of his higher commander (Figure 8-2).

Breakout Operations

The attack to break out only differs from a deliberate attack in that the force must maintain a simultaneous defense in other areas of the perimeter. With this in mind, the commander must recognize some essentials. The first is that the force must deceive the enemy about preparations, if immediate breakout is not possible, and take advantage of limited visibility to conduct breakout operations.

Early in the encirclement there will be gaps or weaknesses in the encircling force. Intelligence and reconnaissance will reveal them and the attack should capitalize on them. An attack over less favorable terrain may be the best course of action if it avoids enemy strength and increases the chance for surprise. The breakout should not take the obvious route toward friendly lines unless there is no other alternative.

The commander normally reorganizes the force so armor leads the attack while the remainder of the force fights a delaying action or defends the perimeter during the initial stage of the breakout. There must be a sufficient number of engineers to support the mobility of the breakout force.

After penetrating the encirclement, the main body moves out of the area behind the attacking force and is followed by a rear guard. Combat service support elements integrate into the main body. The commander may organize a diversionary attack if sufficient forces are available.

The commander must coordinate internal and external supporting attacks and concentrate combat power, producing overwhelming combat power at the breakout point. Forces left in contact must fight a vigorous delaying action on the perimeter so no portion of the force is cut off.

The commander of perimeter forces must smoothly integrate them into the column. Supporting fires, including air support, should be concentrated at the breakout point. The rear guard may receive priority of fires once the breakout occurs.

If sick, injured, or wounded soldiers must be abandoned because of the method of extraction (such as, exfiltration) or the inability of the force to move them, medical personnel and the appropriate medical supplies and equipment must remain to care for the soldiers. Also, all nonmedical equipment which must be left behind should be incapacitated or destroyed before the force departs. Finally, as part of a breakout toward friendly forces, the commander plans linkup operations.

Defend Encircled

The corps commander may require encircled forces to maintain their positions and defend encircled. Important considerations are-

- The mission of the unit and the mission of the higher headquarters.
- The terrain available for a defense.
- The ability to reinforce or relieve the force before the enemy can eliminate it.
- The mobility differential of enemy forces being greater, allowing the enemy to destroy encircled forces during a breakout attempt.

Exfiltrate

If a breakout appears too risky, and the commander does not plan a relief operation, one way to preserve a portion of the force might be through exfiltration. The same considerations that apply in a breakout regarding personnel and equipment that cannot be expeditiously removed from the area also apply in an exfiltration.

In all cases, the corps must plan how to support the encircled force with commitment of additional forces and fire support, including CAS, Army aviation, and ADA. If the commander orders a breakout, the corps assists with a supporting attack to divert the enemy. If the commander plans a linkup, the corps provides axes and fire support measures for both forces. In doing so, the commander carefully considers air defense ROE.

ENCIRCLEMENT OF AN ENEMY FORCE

The force conducts encirclement operations to deprive enemy forces the freedom of maneuver, thus denying them the capability to defend or delay in an organized fashion. Encircling operations also seek to cutoff evacuation and reinforcement routes. Encirclements may be deliberately planned, or they may result from other offensive operations.

Prior planning is probably the most important consideration of encirclement operations. The encircling command identifies and sets the conditions of the encirclement before it develops in order to deny the enemy as many advantages (such as securing advantageous terrain) as possible before surrounding him.

Encirclements can occur as a consequence of an operational action, a tactical action, or a combination of both. However, its reduction is strictly a tactical action. An encirclement consists of five actions:

1. Penetrating the enemy's defenses.

2. Exploiting and attacking on converging axes.

3. Linking up forces and establishing the inner encirclement.

4. Establishing an outer ring to counter enemy reserves and continuing the exploitation.

5. Destroying the encircled force.

The initial state of the encirclement is the penetration of the enemy's defenses in several sectors. Heavy task forces then quickly advance into the enemy's depths and lock the ring of the encirclement. Following forces accept the inner ring and focus on destroying the pocket while armored task forces continue the exploitation and develop the offensive on the external front.

Encirclement of the enemy is complete only after the creation of an interior ring, an exterior front, and the organization of an air blockade (and naval blockade where applicable). The force must prevent the enemy from resupplying the encircled forces.

Commanders and staff must plan for dealing with bypassed forces, the challenges that EPWs and displaced civilians cause, and force ratio considerations. Once a decision is made to reduce an encirclement, the commander normally uses one of two possible methods of reduction—fire alone or fire and maneuver.

Reduction by fire alone implies that the encircling commander will use fire support as the predominant or sole means of subduing the encirclement. This would include employing improved munitions by artillery, CAS, and possibly, attack helicopters. Reduction by fire alone also provides the encircling force with the advantage of manpower preservation.

Unfortunately, reduction by fire alone has disadvantages. Perhaps the most apparent is the fact that it is ammunition-, weapon-, and time-intensive. Another disadvantage is the inability to guarantee results. Bombardment alone might not be sufficient to compel submission.

Reduction by fire and maneuver uses a combination of fire and ground maneuver forces to attack and destroy the encirclement. It is the surest method of reduction because it forces the enemy to surrender, displace, or face annihilation.

This method also allows the encircling force commander to retain the majority of the initiative. The major drawback of reduction by fire and maneuver is that it reduces the strength of the encircling force through attrition.

Once the commander selects his reduction method, he must determine his reduction technique, or simply, how he will employ that reduction method. Reduction by fire alone contains only one technique—application of overwhelming fire-and requires decisions on selection of munitions, delivery means, and targets. Reduction by fire and maneuver incorporates at least four techniques: reduction by continuous external pressure, divide-and-conquer, selective reduction, and reduction by infiltration.

The first technique, *reduction by continuous external pressure,* is the classic siege. The encircling force contains the encirclement, bombards the pocket with fire, and attacks the perimeter of the pocket in a battle of attrition.

This technique is obviously not the most advantageous technique for the encircling force. In the first place, the encircled force usually has the advantage of the stronger form of combat—the defense. Second, the encircled force usually has the advantage of interior lines, allowing it quickly to transfer forces within its defensive perimeter. Last, as a result of these two defensive advantages, the attacking force can expect to suffer a greater number of casualties in comparison with those the defenders will experience. In comparison with the other techniques, reduction by continuous external pressure has few, if any, advantages unless the encircling force has an overwhelming force advantage.

The technique of *divide-and-conquer,* on the other hand, is a much more viable and less costly operation. It is also the technique German and Soviet armies used against pockets of resistance during World War II. Once the force surrounds and contains a pocket, the encircling force launches a penetration to divide the pocket in two. Another penetration then divides these pockets into smaller ones. These penetrations and divisions continue until resistance subsides. This technique eliminates the pocket's advantage of interior lines.

The third technique, *selective reduction,* attacks the cohesion of the encircled force by focusing on the sequential destruction of specific targets (for example, a situation where the encircled force is strong in AD and artillery assets). The encircling force might focus on eliminating the pocket's AD systems first, then use air and ground forces to eliminate its artillery. Armored attacks on CSS assets and infantry attacks on vulnerable armored formations could follow. The objective being the eroding of the total combined arms strength of the pocket by eliminating specific combat and *CS* elements. Commanders and staffs can use this technique in combination with the other reduction techniques.

The fourth technique, *reduction by infiltration,* moves friendly forces through the perimeter of the encirclement, isolating and reducing small portions of the pocket without external interference.

In addition to selecting reduction methods and techniques, the encircling commander identifies special planning considerations for his entire force as well as for specific members of his combined arms team, including—

- The effects of a pause to reorganize.
- Maneuver and fire support control measures.
- Continuous reconnaissance.
- Encirclement isolation.
- Psychological operations.
- Electronic warfare.
- Use of nuclear weapons.
- Creation and employment of a mobile reaction force.
- Combat service support.
- Dealing with an outside enemy force attempting to assist the encircled force.

LARGE-UNIT MOVEMENT

Commanders must understand the magnitude and importance of corps-size movement. Those movements will be successful when based on anticipation and prior planning, command involvement at all levels, and strict discipline.

Corps, divisions, and brigades will be powerful weapons in any kind of conflict as long as they have the space to move and concentrate quickly in fast-developing situations. They can only do that where the road nets or cross-country conditions allow them to march and maneuver on multiple routes and avenues of approach.

Movements are generally classified into two broad categories-tactical and administrative. However, the distinction is often not clear. The primary consideration in movements is to ensure that forces arrive at the proper place, at the proper time, in effective condition, and in the best formation to accomplish assigned missions.

Joint Publication 1-02 and FM 101-5-1 define an administrative movement as one in which the commander arranges troops and vehicles to expedite their movement and to conserve time and energy when he anticipates no enemy interference, except by air. A tactical movement is a movement within a combat zone when contact with the enemy is possible or anticipated.

The critical difference is in the organization of the moving units. In a tactical movement, the commander organizes elements to facilitate combat while administrative movements maximize transportation resources.

The G3 plans and directs all tactical movements. Under the direction of the G3, the G4, with the COSCOM MCC, plans and coordinates the execution of administrative moves. The forms of tactical movement include tactical road march, approach march, and combat formations.

Detailed plans are necessary for either type movement. The staff must consider the same elements they evaluate in planning combat operations as in planning movements.

Elements having the greatest influence on the disposition of forces are the mission, proximity of enemy ground forces, terrain, and enemy aviation. If the movement is a tactical move, the organization must be combat-loaded or organized. If it is not tactical, planners organize for efficiency.

Planners also include contingencies for actions during the movement, therefore the organization for administrative movements cannot disregard combined arms and combat considerations (C^2, maneuver, fire support, intelligence, engineers, and CSS).

Command and control includes terrain management, A^2C^2, and ROE. Planners also address the scheme of maneuver, timing, security, deception, enemy, weather, organization of forces, and the transportation network, including traffic regulation and control.

For movements, planners must plan for fire support. The corps also acquires and provides the necessary intelligence to allow planning and execution of the move. The engineers build, upgrade, and repair routes and bases needed to support large unit movements.

For CSS, the corps' initial concern is to sustain the movement, primarily by providing adequate refueling and maintenance support. However, the corps must also consider echelonment of assets to best support the follow-on operation, the extent the move will disrupt normal resupply activities, and the impact civilian vehicles and refugees will have on the move.

These considerations exist whether or not the commander anticipates enemy contact during or after completing the movement. There are also several concerns which arise as a result of the size of the task. For example, the staff must analyze the transportation network to ensure it is sufficient to accommodate the anticipated move while allowing the continued support of ongoing operations.

Large-unit movements can heavily impact the operations of other formations. The diversion of assets necessary to accomplish such movements will limit support to other units until completion of the move.

Huge columns of vehicles cutting across virtually all MSRs will make it difficult to accomplish anything more than routine resupply for the duration of the move. Proper march discipline and traffic control should permit infiltration traffic to pass between serial and convoy gaps in the columns, but the amount of such traffic would be limited.

In most AOs, a large-unit move at night will require a time-consuming incremental shifting of forces over multiple nights and multiple routes. Another major consideration is the significant amount of time required for the formations to close into their AAs on arrival at a new location, followed by additional time required to resupply and reorganize.

The movement of large-size formations requires considerable planning and careful control during execution. Planning must be expeditious, giving all concerned sufficient time to prepare.

There must be a complex control and support apparatus in position to facilitate the execution of the move. For corps, these considerations are

similar whether the movement is of a subordinate unit, a unit passing through the corps, or the entire corps conducting the move.

Additional control measures for which the corps is responsible include route designations, ground and air traffic control, and establishing time lines. Corps can move either by rail, water, air, or road marches.

Movement of large forces is more economical by rail, but the staff must conduct an availability study of transportation means, as well as consider the effect on such movements, before making a decision. The lack of fuel, tires, or motor facilities may direct movement of all or a portion of the force by rail. See FM 55-20 and FM 55-65 for in-depth information on rail movements.

The responsibilities of a unit being moved by water are the same as for rail movement. Field Manual 55-65 gives details relative to water movement.

Movement by air is normally the most responsive means. The characteristics of air movement are speed and flexibility. However, adverse weather, limited landing facilities, and enemy air activity can limit air movements. Also, the aircraft available for an air movement may not be able to ship bulky and heavy items. See FM 55-12 for further discussion.

Moving a typical corps by tactical road march entails the movement of at least 25,000 vehicles, assuming the corps has three divisions, an ACR, and supporting troops. The corps would occupy road space of 2,500 kilometers if it marched at the normal interval of 100 meters between vehicles (10 vehicles per kilometer) even without gaps between march units and serials. Pass time at 25 kilometers per hour would be more than 4 days.

To conduct tactical operations, the corps must march on multiple routes at the greatest possible speed, making the most economical use of road space. Economizing road space requires greater vehicle density on the routes in use, a function of shorter intervals between vehicles and minimal gaps between march units and serials. Increasing the number of routes adds flexibility and speed. Condensing intervals and gaps increases risks.

The corps can shorten its movement time and accelerate its deployment by marching in division columns with four routes for each of two leading divisions and by—

- Moving at a daylight rate of march of 30 kilometers per hour (kph).
- Maintaining a 50-meter (m) interval between vehicles.
- Limiting gaps to 2 minutes between march units and 5 minutes_between serials (1,000 m and 2,500 m at 30 kph). On eight routes at that interval and speed, the corps column length and pass time become manageable, and divisions can deploy to fight in a reasonable amount of time.

Under these conditions, the 25,000 vehicles of the corps would occupy about the same total road space of 2,500 kilometers (km) (1,250 km of occupied road space plus 1,300 km for gaps). Distributed over eight routes, the average corps column would be only 320-km long and would pass in 10.5 hours at 30 kph. A reinforced division (6,000 vehicles) marching on four routes would average 155-km per column and would pass in just over 5 hours.

Support for such a move (everything from circulation control to route repair, from fuel resupply to maintenance of vehicles) is an enormous task. In a move across the theater, it is an operational undertaking of great complexity.

In theaters where long-range sensors can expose dispositions at great distance and where self-directing antiarmor munitions and air maneuver can alter circumstances rapidly, fluid movement is crucial, the real essence of "agility." It is supported by well-executed deception operations and effective air and missile defenses. Logistic and route maintenance are also important supports to maneuver and cannot be treated as afterthoughts.

Corps, divisions, and brigades must train, plan, and refine their movement capabilities in peace if they are to fight effectively in the early stages of war. Their staffs should train routinely and repetitively to produce orders on short notice and to adjust road movements in progress.

Neither good staff work nor inventive commanders can be relied on to offset inadequacies in small unit march discipline and training. Standards for tactical marching must be stringent; the ability to march must extend all the way into the companies if a division is to move well. If a single battalion

cannot conform to the march table, its failure can throw off the movement of the brigade and lead to problems for the whole division.

Computer support and good SOPs can simplify march planning. It will only go smoothly if the staff anticipates requirements during planning. Anticipatory reconnaissance of primary and alternate routes and areas, prompt dispatch of competent liaison teams to other headquarters, and standing teams of communicators, traffic controllers, and quartering elements facilitate fast reaction to orders and the best use of available time.

Executing the plan calls for aggressive supervision and deliberate efforts to gain information. Just as commanders observe NAI in other operations, they make deliberate provisions to watch key points or areas during a march. Officers or units specifically detailed to monitor critical points (that is, military police) must report enemy interference, mobility problems on the route, and hitches in movement at critical points.

When it becomes necessary to reroute units, alternate routes must be available and confirmed as suitable by earlier reconnaissance. While rerouting may be unavoidable, it usually affects arrival times in forward areas and can also change the order of march into attack positions or assembly areas. Alteration of the movement plan, then, will be of immediate interest to commanders since they may have to reconsider timing or dispositions.

Guderian's exploitations, the fire brigade actions of Mannstein's armies on the Eastern Front, Patton's thrust across France and the diversion of the III Corps to Bastogne, and the Israelis' shifting of forces between theaters of operations in their wars are landmarks in the history of large-unit movements. Such short-notice repositioning of large forces to obtain a positional advantage and reactions to emergency situations characterized mobile combat operations of the past and will characterize operations of the future. These decisive and dramatic actions were the work of superb and daring commanders. The basis of all of them was mastery of the tactical march linked to the fastest possible transition into tactical action.

RECONSTITUTION

Reconstitution consists of actions to return a unit to an acceptable level of combat power (FM 100-9). The commander determines the level required, based on the unit's mission and available resources. Reconstitution transcends normal day-to-day sustainment activities and consists of two categories: reorganization and regeneration.

Reorganization is the shifting of internal resources within a degraded unit to increase its overall level of combat effectiveness. It includes cross-leveling equipment and personnel, matching operational weapons systems with crews, or forming composite units (joining two or more attrited units to forma single full-strength or overstrength unit).

The overall objective is to improve the combat capability of a unit until more extensive efforts can take place. Since reorganization is internal, it is the most expedient means of maintaining combat power in the early stages of a conflict and in forward units throughout the duration of the conflict. In addition, it forms a basis on which to design regeneration efforts.

Regeneration involves the rebuilding of a corps' subordinate unit through replacement of small units (crew to company), including leaders and equipment; large-scale replacement of personnel, equipment, and supplies; reestablishment or replacement of essential C^2; and conducting mission-essential training for the newly-rebuilt unit. The intensive nature of regeneration usually requires removing the unit from the battle to a secure area.

The force cannot accomplish regeneration using organic resources. Generally, the headquarters that controls the necessary resources, normally two echelons above the unit being regenerated, is responsible for regeneration.

A corps can regenerate combat units by conducting weapons system replacement operations (WSRO). When a corps commander uses WSRO, a combat commander can expect to receive an individual weapons system or multiple weapons systems, which will include basic issue items, basic ammunition loads, and a trained and qualified crew. Usually a brigade can expect to receive WSRO support from the corps.

Planners estimate the assets to accomplish regeneration based on the projected losses they foresaw

during the logistic and personnel estimate process and on the levels of combat power the commander desires. Not all units regenerate after a battle; only those critical to the follow-on mission and that require timely return to combat are regenerated.

Leadership is critical to the success of any reconstitution effort. For the corps commander that means anticipating the need for reconstitution and building it into his plan. He must address both the tangible and intangible aspects of the rebuilding process. A unit requiring reconstitution will have serious problems in the intangible areas of morale, unit cohesion, unit pride, and esprit de corps.

An assessment of the unit's collective perspective of the true reality of the situation must be a part of the prereconstitution assessment. The mental attitude of unit personnel will affect the reconstitution effort. The leadership challenge lies in reestablishing pride, morale, cohesion, and esprit de corps through programs—

- To develop or replace key leaders.
- To assimilate replacements as members of the team.
- To reestablish cohesion and mission performance capability.
- To reestablish or reinforce standardized procedures to facilitate restoration to an effective, cohesive combat unit.

The corps commander's assessment of the intangible aspects of a subordinate unit's combat potential is an important factor in determining the unit's reorganization or regeneration. His personal involvement, and that of other senior leaders in the chain of command, is essential in helping the unit being reconstituted recover its full combat potential.

Planners base the critical planning for reconstitution on loss data in logistics and personnel estimates. Logisticians identify units that expect to suffer heavy losses and units whose follow-on missions require a specified level of readiness. Planners then include the requirements for replacement personnel and equipment in the operation's CSS requirements.

Planners must also select a reconstitution site where it would be reasonably safe from enemy activity and beyond the range of enemy artillery. The site must be large enough to accommodate the unit as well as corps/division assets involved in the reconstitution operation. The corps includes regeneration in its requirements to the ASCC.

Analysts base the decision to reconstitute a unit on reports and on-site assessments of a unit's status in regard to personnel, equipment, and cohesion. The condition of the unit determines the exact nature of reconstitution actions needed to restore the unit and allows planners to refine estimates into requirements.

The staff must critically assess the unit while it is still in contact. This assessment provides the information necessary to determine if the unit requires reconstitution and will provide a basis to determine requirements. Final assessment occurs when a unit is removed from combat. The assessment provides complete information on the unit's requirements for reconstitution.

The type and quantity of supplies and equipment, personnel requirements, and reestablishment of leadership and cohesion are all factors in the time the unit requires for reconstitution. Reconstitution may require several days or several weeks.

The commander must make the decision to reconstitute a unit, and to what readiness level, as early as possible to allow CSS to collect assets and to remove the unit from combat. This may also be the first time when the unit can conduct deliberate decontamination.

Units (brigade or smaller) requiring regeneration support will receive this support from a task-organized element (normally battalion-size). This element's mission is to provide all CSS (including medical, replacement, and decontamination) that the unit being regenerated requires.

Each EAC will provide backup support, as required. The factors of METT-T determine the actual regeneration site. When conducting regeneration, CSS units are diverted from their primary mission. Therefore, CSS planners must prioritize support, both for DS and GS, including distribution of weapons systems since some units receive little or no support during the regeneration period.

PASSAGE OF LINES AND RELIEF IN PLACE

As with any operation involving hand-off of combat responsibility from one force to another, passage of lines and relief operations are extremely complex and involve a degree of risk. To minimize risk and to ensure synchronization of the operation, successful passage of lines and relief in place operations require detailed, centralized planning and decentralized execution.

A passage of lines is an operation in which a force moves forward or rearward through another force's combat positions with the intention of moving into or out of contact with the enemy. A related mission involving similar considerations and planning factors is a relief in place. A relief in place is an operation in which an incoming unit replaces all or part of a unit already in an area.

The corps as a whole may participate in a passage of lines or a relief in place mission as the passing, stationary, relieving, or relieved force. In addition, corps offensive and defensive operations often include passage of lines or relief in place operations involving corps subordinate elements.

An example of a forward passage of lines is when a corps, as an operational reserve, conducts a counterattack through friendly forces in contact with the enemy. An example of a rearward passage of lines is when a corps-controlled covering force passes through and transfers combat responsibility to MBA divisions. An example of a relief in place is when a force in contact, having suffered significant combat losses, transfers responsibility for a zone of operations to a relieving force.

When the corps is involved as part of a larger EAC operation, the EAC normally directs the mission through verbal and/or written mission orders and plans. The EAC, in addition to providing the commander's overall concept of operations and intent, normally provides the following to both corps-level forces involved in the operation:

- The EAC deception plan.
- Priorities for routes; CAS; intelligence collection and dissemination; available EAC- controlled fire support, including AD; and CSS support (if the EAC headquarters is also the land component command (LCC)).
- Control measures, with effective times, including the BHL; the axis of advance and objectives for forward passages; rearward AAs for both forward and rearward passages and reliefs; and airspace control measures.
- Guidance on the passing of control of the zone/sector (for example, TACON or OPCON between involved forces).
- Subsequent mission guidance for both involved forces.
- Additional EAC-controlled forces (for example, engineers, chemical, transportation units, or MPs) to assist in expediting the passage or relief.

The EAC also issues directives to component national and/or service commands detailing priority of CSS for the operation. These commands translate the directives into plans that provide CSS and movement support within the COMMZ. In mature theaters and theaters with a viable HN infrastructure, the ASCC coordinates HN support of the overall operation.

Based on the EAC's concept of operation, intent, and additional guidance, the corps focuses its planning effort in two general areas: coordination with the other force and guidance to subordinate units conducting the passage. These planning efforts occur simultaneously.

Subordinate units of a corps frequently conduct passage of lines or relief in place operations as part of the corps' larger scheme of maneuver. This occurs in both offensive and defensive operations. When subordinate units must conduct these operations, the corps assumes its role as the higher headquarters and provides the same planning considerations and guidance as the EAC headquarters required.

Passage of Lines

A passage of lines is an operation in which a force moves through another force's combat positions with the intent of moving into or out of contact with the enemy. A passage of lines can either be forward or rearward.

Forward Passage of Lines

A forward passage of lines is an operation in which a unit passes through another unit that is in contact with the enemy to continue the attack. The unit in contact remains in place and supports the passing unit until its fires are masked.

After receiving a warning order directing an operation that would require a passage of lines, the passing commander and his staff establish liaison with the unit in contact. Based on METT-T factors, the passing unit normally collocates a command element (TAC or main CP) with the TAC or main CP of the unit in contact. Commanders and staffs of involved units coordinate—

- Exchange of intelligence.
- Exchange of tactical plans, including obstacle plans.
- Exchange of SOPs.
- Plans for reconnaissance by elements of the passing units.
- Security measures during the passage.
- Selection of routes and designation of guides.
- Selection of attack positions.
- Priorities for use of routes and facilities and provisions for movement control.
- When and under what conditions commanders will transfer control of the AO.
- Fire support and other combat support that the unit in contact is to provide.
- What CSS the unit in contact is to provide.
- Exchange of liaison personnel.
- Command relationships between units, including CS and CSS units and facilities and the unit in contact in whose area they may plan to locate.
- Measures to minimize vulnerability to enemy NBC munitions.
- Deception plans.

The passing unit has priority for use of routes to and within the AO of the unit in contact. Traffic control within the AO is the responsibility of the unit in contact until the passing unit assumes control. During the passage, the passing unit augments the traffic control capability of the unit in contact.

Close coordination and understanding between commanders and staff are essential for the smooth transfer of control during forward passage of lines. Before transfer of responsibility, the passing unit may be TACON to the stationary unit in the area affected by the passage.

Both commands should determine a time or identifiable event when responsibility for the area the passage will affect will transfer to the commander of the passing unit. The staff should disseminate this information to the lowest levels of both organizations.

The indirect-fire means of the unit in contact normally support the passing unit. This allows the passing unit's fire support assets to continue the move to firing positions to support the continuation of the attack. After responsibility for the AO transfers to the passing unit, the commander of the passing unit coordinates all fires.

The unit in contact furnishes the following CS and CSS assistance to the passing unit:

- Evacuation of casualties and EPW.
- Civilian and straggler control.
- Use of areas and facilities (for example, water points, medical).
- Route priority and traffic control.
- Evacuation of disabled vehicles.

Support by the unit in contact terminates when the passing unit's maneuver elements move out of direct fire support range. However, artillery fires and other area and long-range weapons may remain in support until either higher headquarters redirects them or when the passing unit coordinates movement passage.

Rearward Passage of Lines

A rearward passage of lines is an operation in which a unit effecting a retrograde movement passes through the sector of a unit occupying a rearward defensive position. Planning procedures for a withdrawal through a rearward position are similar to those for a forward passage of lines.

The commanders and staffs of the units involved coordinate the same details as in a forward passage of lines. The passing unit and the unit in position prepare and carefully coordinate a vehicle recognition plan.

Coordination is critical to the successful execution transfer of control and responsibility between stationary and passing commanders. The area affected by the passage, either in the zone of attack or the sector of defense, becomes the responsibility of the stationary force commander.

Coordination is even more critical when the rearward passage is staggered or incremental across the sector or AO. This transfer of control might require that the passing commander relinquish control of certain elements that may remain in contact at the time of the transfer of responsibility.

The unit in position furnishes the passing unit all possible assistance, including combat, CS, and CSS assistance. Fire support by the unit in position is critical to the passing unit, especially when covering the withdrawal of elements left in contact during a delay.

Relief in Place

A relief in place is a combat operation in which one unit replaces all or part of another unit. A relief in place normally occurs when the unit to be relieved is defending.

The relieving unit usually assumes the same responsibilities and generally deploys in the same configuration as the relieved unit. Command and control of a relief in place operation is facilitated by close coordination by all commanders involved through the collocation of unit CPs.

If forward elements are capable of defending the AO, it is preferable to execute the relief in place from rear to front. This facilitates movement and terrain management.

Relief-in-place operations are categorized as hasty or deliberate. Considerations common to both are secrecy, speed, and control.

A relief must be concealed from the enemy for as long as possible. Accordingly, at first warning that a relief operation is required, units to be relieved should initiate a plan for deception and OPSEC.

Once initiated, relief operations are vulnerable to enemy attacks. Any unnecessary delays during execution provide the enemy additional time to acquire, target, and fire mass destruction munitions. Intermingling of forces places increased burdens on C^2 systems.

Hasty and deliberate relief-in-place operations differ only in the depth and detail of planning. Units conduct all relief operations, once initiated, as quickly as possible.

In a deliberate relief, units exchange plans and liaison personnel; conduct briefings and detailed reconnaissance; and publish written orders with detailed instructions. Units plan and execute a hasty relief from oral or fragmentary orders.

The relieved unit designates liaison personnel from combat, CS, and CSS units. Liaison personnel remain with the relieving unit until obstacle, fire support, and counterattack plans are coordinated.

The relieving unit order includes the time of relief, units to be relieved and the sequence, some discussion on future missions, restrictions for advance parties, security, time and place for the issuance of the order, and routine route priorities. Commanders achieve coordination and synchronization primarily through overlay graphics, event sequences, and movement plans.

For deliberate relief operations, the TAC CP, reinforced with selected coordinating and special staff officers, collocates with the main CP of the unit being relieved. When time is short in a hasty relief a smaller advance party, consisting primarily of TAC CP personnel, quickly moves to the main CP of the relieved unit. They conduct liaison functions for other staff agencies, coordinate the relief, and issue FRAGOs. Meanwhile, subordinate units move to designated AOs.

To maintain security, units must make maximum use of the relieved unit's radio nets and operators. Units use the command frequency of the relieved units at all levels to effect relief operations. The relieved units' signal officer remains in charge of communications throughout the relief operation.

For fire support the preferred technique is to relieve artillery last. If possible the relieved units' artillery remains in place until all units have been relieved. If the relief is for the purpose of continuing the attack, both corps' artillery remain in support.

Artillery assets are not relieved weapon for weapon unless limited firing positions are available. Until the change of command, all artillery remains under the relieved commander's control. This requires close coordination with the units to be supported.

The ADA unit has two responsibilities. The first is to support the relief of forward committed forces. The second is to increase ADA coverage over all primary relief routes. Units accomplish these tasks jointly after developing the overall relief plan.

Normally the relieving corps' CPs collocate with the relieved corps' CPs and both commanders (or their designated representatives) remain together during the relief operation. Initially, the unit being relieved may have TACON over the relieving unit, Commanders must determine a time or an event when the transfer of responsibility will occur.

All units in place, regardless of their parent organization, come under the TACON of the designated commander. When possible, commanders send a clear, short, and simple message to all units in the sector acknowledging the transfer of responsibility from one command to another.

It may be necessary to exchange certain weapons, supplies, equipment, and occasionally, vehicles between units. The responsibility of EAC is to identify common supply items for exchange and any other specific equipment that warrants exchange.

It is highly probable that any future conflict requiring a relief will involve the replacement, at some point, of an allied force or of sister service units. Therefore, commanders should consider the following additional points when such reliefs become necessary:

- Dissimilar unit organizations may require special adjustments in assigned sectors.
- Control of fire support may require special liaison (for example, protected target lists, or no fire zones).
- Language difficulties may require the increased use of guides.
- Use of relieved unit communications will require special signal arrangements and use of additional operators.
- Ammunition and equipment incompatibility may make exchange more difficult.
- Deception plans must be believable and must target the appropriate enemy decision-making level.

LINKUP OPERATIONS

The corps might conduct a linkup with another force as part of a larger EAC-directed operation, or it may need to direct a linkup of subordinate units as a phase of a larger corps operation. Normally, linkup operations occur—

- When maneuver forces are attacking on separate but converging axes.
- When an advancing force reaches an objective area previously seized or occupied by airborne, air assault, amphibious, or special operations forces.
- When it is necessary to complete the encirclement of an enemy force (for example, double envelopment) or during the breakout of an encircled friendly force.
- During a counterattack, when the moving force's axis of advance or objective area will eventually overlay or be close to the FLOT of a stationary friendly force.

The headquarters (the EAC or corps) directing the linkup establishes the command relationships between the converging forces both during and after completing the linkup. At some point during the operation or after the linkup, higher headquarters may elect to combine both forces into a single force under the control of either commander, or both forces can continue to operate separately under the control of the higher commander.

Headquarters also directs maneuver and fire support coordination measures to support the operation, clearly establishing the AO for the converging forces, both during and after the linkup. Normally there is a restricted fire line (RFL) between converging forces and as close to the stationary force (if applicable) as possible to allow maximum maneuver space for the moving force.

Higher headquarters will also establish linkup points for the converging forces if time does not permit their mutual establishment by the com-

manders of the converging forces. Higher headquarters also assigns the converging forces' subsequent mission after they complete the linkup.

Converging forces will maintain command and staff liaison during the planning phase and throughout the duration of the operation. Command liaison elements must be capable of continuous operations and sufficiently equipped to communicate with their headquarters.

This is especially critical during a joint and/or combined operation when communications equipment may not properly interface because of technical or security reasons. Converging forces will also need to establish any additional communications necessary to support the operation, including the exchange of signal operations instructions (SOI).

The converging forces jointly establish any additional control measures (including linkup points, if not already established) to support the operation. They also coordinate CS or CSS to facilitate the linkup operation and/or the subsequent mission.

Chapter 9

OPERATIONS OTHER THAN WAR (OOTW)

Army doctrine recognizes that OOTW consists of raids, NEO, peace enforcement, humanitarian assistance, peacekeeping, and nation assistance. Joint publications in the 3-07 series outline joint OOTW doctrine. Field Manual 100-5, FM 100-19, FM 100-20, and FM 100-23 are the Army's primary doctrinal references for OOTW. Operations other than war encompass a wide range of activities where military forces perform actions used for purposes other than the large-scale combat operations we usually associate with war.

Although OOTW often occur outside the US, they also include military support to US civil authorities. Military OOTW usually involve a combination of air, land, sea, space, and special operations forces (as well as the efforts of government agencies and nongovernment organizations) in a complementary fashion.

The US government may apply any combination of national power to achieve national strategic goals whether they are political, economic, informational, or military. In OOTW, military forces typically support or otherwise integrate efforts with diplomatic, economic, and informational agencies or organizations.

When the corps performs OOTW, it will typically use warfighting doctrine found in this and other manuals. The corps commander and his staff must temper doctrine with judgment appropriate for the specific situation. They use METT-T factors during the command estimate process to appropriately task-organize and plan OOTW missions. The corps must stress a unified effort with the other services and with the civil, military, and police agencies of host nations.

Since its founding, the Army has continuously performed missions and tasks not directly related to war. Since the end of the Cold War, American involvement in OOTW has included crisis response in combat situations as well as participation in noncombat activities. Contributions range from engineer well-drilling detachments performing TOE missions in South America to JTFs supporting civil authorities in domestic disaster relief operations.

Operations other than war have also included overseas humanitarian assistance as well as operations of greater risk, such as NEO, in less than benign circumstances. These demands come in addition to the constant requirement to maintain combat readiness in both forward-deployed and CONUS-based units.

CONTENTS

THE CORPS' SUITABILITY FOR OOTW . . . 9-2
OPERATIONS OTHER THAN WAR PRINCIPLES . . . 9-2
The Objective . . . 9-2
Unity of Effort . . . 9-3
Legitimacy . . . 9-3
Perseverance . . . 9-4
Restraint . . . 9-4
Security . . . 9-4
CORPS MISSIONS IN OOTW . . . 9-5
Arms Control . . . 9-5
Attacks and Raids . . . 9-5
Combatting Terrorism . . . 9-6
Disaster Relief . . . 9-6
Humanitarian Assistance . . . 9-6
Nation Assistance and Support to Counterinsurgency . . . 9-6
Peace Operations . . . 9-8
Recovery Operations . . . 9-8
Shows of Force . . . 9-8
Support to Civil Authorities . . . 9-9
Support to Counterdrug Operations . . . 9-9
OOTW CONSIDERATIONS . . . 9-9
Special Operations . . . 9-10
Information Operations . . . 9-10
Intelligence . . . 9-10
Maneuver . . . 9-11
Fire Support . . . 9-12
Air Defense . . . 9-12
Mobility and Survivability . . . 9-13
Combat Service Support . . . 9-13
Battle Command . . . 9-14

Early identification of situations that might require the commitment of corps assets in OOTW missions is essential. Early identification provides additional time to conduct planning and specialized training that METT-T factors and political conditions of specific OOTW missions require. Special operations forces are most suitable for conducting early assessments because of their rapid deployability, interpersonal communications skills, area orientation, and language capabilities.

Doctrine for OOTW emphasizes the overriding requirement to provide security for the force, and the population when appropriate, in the operational area. The threat may be man, nature, or both. Establishing an effective intelligence network to identify situational threats is essential.

For OCONUS operations, corps planning should include the possibility that OOTW forces may become engaged in combat operations. In a parallel planning process within the corps' overall plan for the OOTW mission, the commander and staff should develop CONPLANs that address the need for increased security force protection, possible evacuation, or possible combat operations.

THE CORPS' SUITABILITY FOR OOTW

The operational prerequisite for any response is adaptability. Corps are adaptable because they possess a robust nucleus of combat, CS, and CSS forces with which to accomplish OOTW mission requirements. Since corps are not fixed organizations, the corps headquarters may control assets not habitually associated with the corps' echelon.

The corps headquarters routinely operates with joint and multinational forces. With the corps receiving augmentation from other services and the establishing authority, it can assume an expanded role. For example, it might be a JTF headquarters controlling both joint and multinational forces. The corps headquarters also possesses the organic capability to communicate with higher Army and other agencies as required.

The corps can use many of its operational capabilities, developed for warfighting, in OOTW. These capabilities include a command focus that can operate at both the operational and tactical levels of war. This frees subordinate division headquarters to supervise the tactical operations of their organic units. This also allows the commander to adapt to circumstances that require the corps' main effort to be a CS or CSS operation with combat units in support to provide security.

Corps can conduct split-based operations when required. In addition, when properly supported, corps can operate in either developed or undeveloped theaters under all physical and climatic environments. Finally, a corps' capability to address a variety of threats (rioters, light infantry, and forces of nature) often make it an ideal choice for use in OOTW.

OPERATIONS OTHER THAN WAR PRINCIPLES

Many of the time-tested principles that apply to warfare also apply to OOTW. Other considerations that are equally important include—

- The objective.
- Unity of effort.
- Legitimacy.
- Perseverance.
- Restraint.
- Security.

To be successful in OOTW, corps commanders must understand these principles and apply them to their operations. (For more information see JP 3-07, FM 100-20, and FM 100-5. See also Figure 9-1.)

The Objective

In OOTW, as in war, the corps commander ensures that the mission is translated into clearly defined and attainable objectives. Operations other than war do not always have a tight focus (for example, multiple functions may be involved in a single mission). As a result, the corps commander may not receive a clear, succinct mission. However, his mission statement and intent must clearly translate the political or strategic objective into mission-type orders.

In OOTW, the corps' military objective is often a part of national, political, or humanitarian

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

UNITY OF EFFORT: Seek unity of effort in every operation.

LEGITIMACY: Sustain the willing acceptance by the people of the right of the government to govern or of a group or agency to make and carry out decisions.

PERSEVERANCE: Prepare for the measured, protracted application of military capability in support of strategic aims.

RESTRAINT: Prudently apply appropriate military capability.

SECURITY: Never permit hostile factions to acquire an unexpected advantage.

Figure 9–1. Principles of OOTW

objectives. Therefore, the corps' objective may be a limited one.

Although the corps commander measures success against a stated mission, he must recognize the likelihood of the operation expanding (mission creep). He must guard against a tendency to expand the stated mission in an effort to accomplish more than is appropriate. On the other hand, keeping the political goals and objectives in mind, commanders must understand that the directing authority may expand their goals, objectives, and mission based on perceived successes or setbacks.

Unity of Effort

Unity of effort involves coordination through cooperation and the pursuit of common interests. Unity of command, a principle of war, is essential in any military operation. However, it may not be attainable in OOTW. Often, the environment will be multinational and/or interagency, where a single chain of command does not exist.

In selected OOTW activities, the military will be working for another government agency. Therefore, unity of effort is the practical alternative.

The corps commander must make extraordinary efforts to achieve unity of effort. He must recognize that other national forces may have divergent goals and political objectives.

Consensus building is a primary task and can be aided by understanding all major parties' capabilities and limitations as well as any legal and political requirements and limitations. By establishing an atmosphere of trust and cooperation, commanders can achieve the unity needed to accomplish a specific mission.

Legitimacy

Civilian and military leaders can best establish legitimacy when all parties understand the political, economic, cultural, and military aspects of the operation. Legitimacy in OOTW primarily involves three areas:

- Legitimacy of the government or agency exercising authority.
- Legitimacy for the presence of US forces in an AO.
- Legitimacy in the execution of law-and-order operations.

The legitimacy of the foreign government the US military is to support may play a vital role in domestic public opinion. Legitimacy will also influence the support the indigenous population will provide. Because corps activities in OOTW support political objectives, commanders must be aware of the impact their operations will have on how its public perceives the host government.

How soldiers conduct themselves when not involved in the operation may affect the population's view of the legitimacy of US operations. In cases where a government does not exist, and to avoid unintended legitimization of individuals or organizations, the corps must use caution.

Information affects both political and military objectives. The corps commander must view information as a means to influence the legitimacy of his operations with both friendly and enemy forces.

Military PSYOP, civil affairs, and public affairs are the corps commander's primary means of communicating to foreign and internal audiences his actions and intentions. PSYOP and CA units are

well-suited for both short-term and long-term OOTW missions. The corps commander's cooperation with the media is important—

- To strengthen the legitimacy of the operation.
- To promote both foreign and domestic popular support.
- To provide accurate information to the public.

The American public should view corps involvement in OOTW as legitimate. A corps cannot control this; it obeys the legal orders of the NCA. The corps must act within its means to sustain its legitimacy. The corps' role and conduct must be appropriate to the situation.

When supporting domestic civil authorities, the corps must understand the letter and intent of the laws that govern such support. National guard (NG) units perform state missions at the discretion of their respective state or territorial governor. Regular Army and RC units support domestic civil authorities only under certain conditions. (See FM 100-19.)

Perseverance

The corps should achieve its OOTW objectives as soon as possible. However, the causes of conflict often tend to be persistent and not readily amenable to a near-term solution. Conflict resolution is time-consuming and may require a long-term military commitment. In some situations, conflict may be a semipermanent state. The military's objective will be to lessen the conflict.

Corps elements in OOTW must exercise patience and perseverance to continue the mission for as long as required. In selected operations, such as peacekeeping operations, success may be measured by the ability of the corps to sustain the status quo. If so, the corps' mission is to provide a climate in which other elements of power can work for a solution. Therefore, the corps must be adaptable, patient, and determined for as long as the mission dictates.

Restraint

Once the corps commits to an OOTW mission, it will normally be for a specific, limited purpose in response to an international situation or a domestic emergency. An NCA directive provides the authority for and the limits of military action. Restraints are also found in the mission statement, the TOR, and the ROE (FM 100-20).

Restrictions on types of force, weapons used, and ROE help prevent escalation of the violence in an activity. The commander refines restraints in the mission statement and clearly communicates them to subordinate units. The mission, situation, and laws (domestic and international) shape each operation. The host nation and other countries can also impose restraints.

Military planners normally develop ROE in conjunction with other agencies, services, or national authorities. They must continually review ROE based on the changing situation and update or change them as necessary. The ROE are never substitutes for the commander's inherent responsibility to protect his force. Units and soldiers have the right (duty) to defend themselves.

Security

All operations contain some degree of risk. Therefore, regardless of the mission, commanders must secure their forces. The presence of corps units in any operation around the world will bring about a wide range of actions and reactions. Army commanders must take appropriate measures to ensure hostile factions do not acquire an unexpected advantage.

Commanders and staffs should never believe that nonhostile missions or environments do not contain risk. No matter what the mission, the American soldier outside the US is always a lucrative target for extremist groups (terrorists, criminals, and so on).

Where appropriate, corps units plan for the possibility of combat operations. Seemingly benign situations may possess inherent circumstances that would place US soldiers at risk. Commanders must consider the security challenges inherent in many OOTW missions when planning and executing operations.

The threat in OOTW is not always easily recognizable. Restrictions placed on the corps may limit response options. Force dispersion, diverse activities, and nontraditional tasks soldiers will perform in OOTW make providing force and individual soldier security difficult.

CORPS MISSIONS IN OOTW

The corps will have to execute a broad range of tasks and missions during OOTW (Figure 9-2). Each OOTW will have its own special conditions and requirements. Some will require the fill focus of the corps headquarters and the commitment of nearly all of its assets. However, most OOTW will require only a small portion of the corps assets in a support role. In some instances the corps will be in charge of the operation as a JTF or ARFOR headquarters.

The composition of any corps task organization responding to an OOTW mission will be highly mission-dependent. The levels of combat, CS, and CSS assets required will likewise vary. Such operations will pose a challenge for the corps planning staff.

Corps commanders must synchronize the effects of all available assets at their disposal in order to achieve success. They must maintain a broad perspective as they consider viable alternatives to reach the desired end state. This requires commanders to consider nontraditional roles and activities for assigned and attached forces.

- Arms control
- Attacks and raids
- Combatting terrorism
  - — Antiterrorism
  - — Counterterrorism
- Disaster relief
- Humanitarian assistance
- Nation assistance/support to counterinsurgency
  - — Security assistance
  - — Foreign internal defense
- Noncombatant evacuation operations
- Peace operations
- Recovery operations

Figure 9–2. Representative OOTW activities

Understanding the similarities and differences in the operational requirements for different OOTW helps commanders establish priorities in actual situations. Some OOTW activities, such as attacks and raids, are combat operations and are conducted as normal warfighting operations, but under constrained circumstances. The following paragraphs discuss specialized corps OOTW missions.

Arms Control

Arms control focuses on promoting strategic military stability. It encompasses any plan, arrangement, or process controlling the numbers, types, and performance characteristics of weapons systems.

This also extends to C^2, logistic support, and intelligence-gathering mechanisms. The corps may provide personnel possessing specific skills and materiel to support verification and inspection teams.

Attacks and Raids

Successful attacks or raids can create situations that permit seizing and maintaining the political initiative. Attacks and raids can also place considerable pressure on governments and groups supporting terrorism.

Commanders and staffs plan and execute attacks and raids to achieve specific objectives other than gaining or holding terrain. Attacks and raids damage or destroy high-value targets or demonstrate US capability and resolve to achieve a favorable result.

Raids are usually small-scale operations involving swift penetration of hostile territory to secure information, temporarily seize an objective, or destroy a target, followed by a rapid, preplanned withdrawal. In OOTW, the corps may conduct attacks and raids (outside of an FID scenario), especially if it is also a JTF HQ. In an FID scenario, US commanders will always coordinate lethal and nonlethal attacks by corps maneuver and fire support operating systems with the host nation.

Coordinated attacks usually include air, naval, or special operations forces. Corps involvement in attacks and raids outside of the FID will usually be limited to providing SOF-secure staging and recovery bases, logistics, communications, and other support as required.

Combatting Terrorism

Combatting terrorism has two major components—antiterrorism (defensive) and counterterrorism (offensive). Antiterrorism includes active and passive measures to minimize installation and unit vulnerabilities to terrorist attack. (See JP 3-07.2.) At all times, regardless of their location (for example, home station or when deployed), corps units and personnel practice antiterrorism procedures.

Counterterrorism includes the full range of offensive operations against terrorists or those who support terrorists. The corps rarely conducts counterterrorism operations. However, the corps may have to provide secure base areas, communications, logistic, transportation, specially tailored conventional forces, and other support to SOF and other government agencies engaged in counterterrorism operations.

Disaster Relief

Disaster relief operations promote human welfare and try to reduce the loss of life, pain, suffering, or destruction of property as a result of natural or man-made disasters. The corps, with its subordinate engineer, MP, transportation, medical, and communications commands, may participate in disaster relief operations as part of joint, interagency, and/or multinational teams.

Operations other than war include humanitarian assistance and disaster-relief activities

Field Manual 100-19 is the capstone doctrine for Army disaster relief and other domestic support operations. Generally, the corps headquarters executes disaster relief and other domestic support operations by planning and coordinating the actions of subordinate corps units with appropriate local, state, federal, and nongovemment agencies.

Humanitarian Assistance

Humanitarian assistance operations provide a mechanism by which the corps participates as part of a joint, multinational, and/or interagency force to relieve or reduce the results of natural or man-made disasters or other endemic conditions (human pain, disease, famine, privation) outside the US. The humanitarian assistance the corps provides is limited in scope and duration. The assistance supplements or complements the efforts of HN civil authorities or agencies that have the primary responsibility for providing assistance.

The corps possesses an ability to rapidly respond to emergencies or disasters under austere conditions. The corps can provide the C^3 support necessary to plan and execute the ground portion of any humanitarian assistance operation. It also provides logistic support (medical, field services, transportation, general engineering, and supplies) necessary to relieve the human suffering that results from natural or man-made disasters. The corps may also provide forces to secure an area to allow humanitarian relief efforts of other agencies to proceed. (Operation Restore Hope in Somalia was a humanitarian-assistance operation.)

Nation Assistance and Support to Counterinsurgency

Nation assistance encompasses civil or military assistance actions (other than humanitarian assistance) that the corps performs within that nation's territory during war, conflict, or peacetime. They are usually, but not always, based on mutual agreements between the US and that nation.

Such operations support a host nation's efforts to promote development, ideally through the application of its own resources. The goals of nation assistance are-

- To promote long-term stability.
- To develop sound and responsive democratic institutions.
- To develop supportive infrastructures.
- To promote strong free-market economies.
- To provide an environment that allows for orderly political change and economic progress.

Nation-assistance programs include, but are not limited to, security assistance, FID, and other Title 10, US Code, DOD programs. All nation-assistance actions are integrated through the US ambassador's country plan. See FM 100-20 for additional information.

Security Assistance

Security assistance provides defense materiel, military training, and defense-related services by grant, loan, credit, or cash sales to fkther national policies and objectives. When security assistance is needed to meet urgent operational requirements, the corps may be required to supervise the preparation and transfer of major end items of equipment by subordinate corps units to a foreign nation.

Security assistance operations do not normally impact corps. If they do impact corps, it will normally be through the Security Assistance Training Program (SATP). The two primary subcomponents of this program are the International Military Education and Training Program (IMETP) and the Foreign Military Sales Program (FMSP).

Foreign Internal Defense (FID)

Insurgences are organized movements aimed at the overthrow of a constituted government through the use of subversion and armed conflict. The military, paramilitary, political, economic, psychological, and civic actions a government takes to defeat an insurgency constitute counterinsurgency operations.

Many operations that support governments or insurgent groups are unique intelligence activities and fall under the authority of the Central Intelligence Agency (CIA). The NCA, by exception, can order other US government agencies to participate in these operations in either a lead or a supporting role.

The internal defense and development (IDAD) concept is the basis for American doctrine for counterinsurgency. The IDAD concept integrates military and civilian programs. Military actions provide a level of internal security that permits and supports growth through balanced development.

The IDAD program blends four interdependent fictions (development, neutralization, security, and mobilization) to prevent or eliminate an insurgency. The corps uses its military resources to provide support to a host nation's counterinsurgency operations in the context of FID.

Foreign internal defense is the participation by US civilian and military agencies in any of the four IDAD functions that another government takes to free and protect its society from subversion, lawlessness, and insurgency. Corps do not "do" FIDs; the host nation is always the main effort.

Corps support for counterinsurgency normally is limited to training individuals and/or small units in critical skills. Training normally occurs at the corps' home station, but may involve the use of MTTs to provide training in the supported element's native country or in another country.

All corps units involved in nation assistance, especially MTTs, must remember the need to transfer technical skills and democratic attitudes to their HN counterparts. (At the same time they must maintain their own security.) The technical transfer is vital to the continued maintenance and expansion of projects that corps units initiate.

Noncombatant Evacuation Operations (NEO)

Noncombatant evacuation operations are actions the corps conducts to evacuate endangered US and authorized HN or developing-nation civilian or military personnel. The danger may arise from a hostile enviromnent or a natural disaster. A NEO involves swift, temporary occupancy of an objective; it ends with a preplanned withdrawal. Corps units are to use the minimum amount of force to accomplish the mission.

NEO is normally a joint operation and sometimes involves multinational forces. The corps may actually conduct the operation or provide forces in a support role. (See also FM 90-29.)

Peace Operations

Peace operations encompass three types of predominantly diplomatic activities: preventive diplomacy, peacemaking, and peace building. (See JP 3-O.) It also includes two complementary, predominantly military activities: peacekeeping and peace enforcement.

The corps may find itself as a show of force or a preventive deployment in support of preventive diplomacy. The corps' involvement in military-to-military relations, security assistance operations, as well as preventive deployment and shows of force can assist peacemaking efforts.

The corps can support peace building by performing actions we normally associate with postconflict activities. Examples include road repair that corps engineers conduct, the corps' civil affairs element helping to reestablish the HN government, and the corps' participation in the training of defense forces.

Peacekeeping Operations (PKO)

Peacekeeping operations support diplomatic efforts to establish or maintain peace in areas of potential or actual conflict. They are undertaken with the consent of all major belligerents. By design they monitor and facilitate implementation of an existing truce or cease-fire. They also support diplomatic efforts to reach a long-term political settlement. Strict appearance of neutrality, adequate means of self-protection, and the availability of timely/effective support are critical considerations.

Corps may receive the task of conducting PKO over a considerable time period. The reinforced battalion task force provided to the multinational force of observers (MFO) in the Sinai is an example of peacekeeping operations. (See FM 100-23.)

Peace Enforcement Operations (PEO)

Peace enforcement operations are military intervention operations in support of diplomatic efforts to restore peace or to establish conditions for conducting peacekeeping operations. As the name implies, PEO's intent is to halt violence and restore more normal civil activities. They seek to encourage the resumption of political and diplomatic dialogue. They typically occur at the request of an international organization such as the UN or the Organization of American States (OAS).

Unlike PKO, the consent of all the belligerents will not have been obtained. Typically, one or more of the belligerents will not be in favor of the employment of peace enforcement forces. The warring factions may even militarily engage the participating forces upon their entry into the AO.

Corps must deploy sufficient combat power to present a credible threat, protect the force, and conduct the full range of combat operations necessary to restore order and separate the warring factions if necessary. The corps normally conducts these operations in cooperation with other countries and agencies but they may also be unilateral.

Recovery Operations

Recovery operations involve locating, identifying, and extracting friendly, hostile, and/or neutral personnel, sensitive equipment, and/or items critical to US national security. Hostile forces may oppose recovery operations. Therefore recovery operations require detailed preplanning and rehearsals, especially when operations will be in denied areas.

Corps recovery operations are normally overt and resemble offensive operations. (See Chapter 5.) However, they may also occur in friendly areas, particularly when the HN does not have the technical means (for example, medium-lift helicopters) to conduct such operations themselves.

Shows of Force

Shows of force demonstrate American resolve in a situation vital to our national interests or objectives. Shows of force are strategic; demonstrations are operational or tactical.

Both operations force either a government or a commander to politically or militarily react to US initiative. Operations can take the form of multinational training exercises, rehearsals, forward staging of units, or the buildup of forces within an AO.

Corps involvement in shows of force may range in size and scope. They might include a publicized heightened state of alert at home station to a mobilization, predeployment activity, deployment, and unopposed entry of the complete corps.

Corps planning includes the option that deterrence may fail and shows of force units will become engaged in combat operations. Political concerns

dominate shows of force as they do for all OOTW. The corps coordinates its operations with the affected host nation.

Support to Civil Authorities

Support to civil authorities operations provide temporary support, under law. They normally occur when an emergency overwhelms the capabilities of civil authorities. Support can be as diverse as—

- Temporary augmentation of air traffic controllers or postal workers because of strikes.
- Restoration of law and order in the aftermath of a riot.
- Protection of life and federal property.
- Providing relief in the aftermath of a natural disaster.

The corps' roles and responsibilities divide into four broad categories-disaster relief, environmental assistance, community assistance, and law enforcement support. Field Manual 100-19 provides the capstone doctrine for Army domestic support operations. It identifies linkages and relationships with federal, state, local, and other services. Limitations on military forces providing support to civil authorities include, among others, the *Posse Comitatus Act*.

Support to Counterdrug Operations

Domestic counterdrug operations principally support federal, state, and local law enforcement agencies. Because of US Code restrictions, the corps does not normally participate in domestic counterdrug operations (although subordinate NG units may participate while under state control).

Another aspect of counterdrug operations involves operations with cooperating foreign governments to interdict the flow of illegal drugs at the source, in transit, and during distribution. Support to foreign host nations includes—

- Assistance to their forces to destroy drug production facilities.
- Collaboration with HN armed forces to prevent export of illegal drugs.
- Nation assistance to help develop economic alternatives to drug production, exportation, and distribution.

American military support of foreign counterdrug operations is normally coordinated by the regional CINC, his special operations command, and the various country military assistance groups. Corps involvement normally is limited to supervising the preparation, deployment, and possible sustainment of small specialized units to meet CINC or SOF operational shortfalls.

Corps support of interdiction efforts may center on monitoring and detecting illegal drugs in transit. It also may involve the integration of the C^3I systems of all agencies participating in the interdiction effort by the corps.

OOTW CONSIDERATIONS

Many US government agencies, other than DOD, may participate in OOTW (such as the Department of State (DOS), the Department of Agriculture (DA); the Department of Commerce, the Department of Justice, the Department of Transportation, the Agency for International Development (AID), and the Federal Emergency Management Agency (FEMA)). Because the DOS is a major player in OOTW outside the continental US, the corps commander, if operating as a CJTF, will maintain a working relationship with the chiefs of US diplomatic missions in his area.

American and international nongovernment organizations (NGO) also frequently participate in OOTW missions. The G5/CA staff coordinates these relationships. Examples of US NGO include the American Red Cross and the Save the Children Fund. Examples of international NGO include the International Committee of the Red Cross and Red Crescent and the UN High Commissioner for Refugees.

International organizations may or may not assume the lead in coordinating actions for other nongovernment agencies. Corps staffs should establish contact with all nongovernment agencies to ensure coordinated efforts.

Liaison with joint, multinational, or government and nongovernment agencies are critically important to OOTW mission success. The corps and its

subordinate units will generally need to make an extraordinary effort to exchange liaison at all echelons with diverse organizations. Their actions can help all participating organizations achieve unity of effort.

Civilian organizations, in particular, do not have the communications, data processing, and other equipment to facilitate control to the extent that the corps has. Therefore, the corps may have to provide additional equipment, operators, communications-electronics operating instructions (CEOI), or other support and services to civilian participants.

Just as in war, the corps commander tailors his corps based on OOTW mission requirements. Corps participation might include small units supporting a joint, multinational, or interagency operation. However, the corps might be responsible for the entire mission (possibly as a JTF and/or ARFOR headquarters).

Significant staff augmentation would then be necessary from the Army and other service components and the CINC staff. Whatever the mission and level of participation, the corps task organization for OOTW might be radically different than for normal combat operations because of unique mission requirements. The following discussion highlights some unique OOTW considerations.

Special Operations

PSYOP and CA elements normally support the corps. When an OOTW mission requires the commitment of a corps, just as in war, the corps commander can expect dedicated SOF assets to support his mission as well.

SOF assets perform special reconnaissance, direct action, or other special operations. The support and command relationships between the corps and SOF in an OOTW mission are the same as exist between the corps and SOF in war. (See Chapters 2 and 4 of this manual.)

Information Operations

Use and control of information is as important in OOTW as it is in conventional combat operations. Determining data processing and communications protocols between the numerous agencies (US and other) participating in any OOTW mission is an important task for corps planners and operators. (See FM 100-6 for more information.)

Information-gathering must begin early, before deployment of corps units. The commander may elect to send a task-organized assessment team into the AO to gather information on key issues, or he may establish initial liaison with agencies, HN and multinational forces, and SOF teams operating in the region. Liaison teams deploy as soon as practical.

As the OOTW mission clarifies and the deployment of military forces begins, the demand for information at every level will be intense. The committed force, whatever its size, may need the results of nationally sourced intelligence analysis.

The CJTF will need the benefit of" on the ground" observation, analysis, and recommendations. Every level will want similar information. Decision makers cannot afford to wait for deployments to be complete before getting the necessary information.

Information operations for OOTW are critically important to the overall success of the mission. Special planning areas include influencing the enemy (if there is one), educating and informing the population, supporting media operations, and providing command information.

Intelligence

Operations other than war can involve threats that include large, fully dimensional forces; limited capability forces; natural disasters; or events that are subtle, indirect, and normally, regional. They might develop quickly and may or may not be long-term. Also, OOTW mayor may not involve combat but might have serious implications for safeguarding US interests.

Intelligence assets and operations must be tailored to the often unique demands of OOTW. Greater reliance on intelligence sources, constraints on methods of collection, differing focus and detail of IPB, and shared intelligence all impact intelligence efforts. The nature of OOTW requires that intelligence-gathering and dissemination be fully engaged, flexible, and responsive to the challenges of these missions.

Having the proper mix of raw data-gathering and intelligence analysis can significantly improve the

corps' security posture. As soon as practical after an operation is indicated, corps commanders and planners should determine the specific intelligence requirements the corps will need to support the operation.

The corps' intelligence system must adjust to the particular intelligence needs of specific OOTW missions. Both intelligence planners and operators must be flexible and responsive to challenges of specific OOTW missions.

A blurring of intelligence needs across echelons may occur in OOTW. The NCA might need intelligence normally collected by tactical assets; lower echelons could need strategic intelligence products for effective operations.

Intelligence planners must also consider the corps' ability to receive external intelligence support and to store intelligence data. Additional considerations include the timeliness of collection systems, the availability of open-source intelligence publications, and the possibility of using other agencies as intelligence sources.

Sharing Intelligence

Based on operational experience, downgrading and sharing US intelligence with non-DOD US agencies and military or nonmilitary multinational organizations will challenge commanders and their intelligence staff at all levels. Different countries and agencies handle intelligence products differently. For many reasons, corps intelligence elements share intelligence differently depending on the non-DOD intelligence agency involved.

Effective intelligence operations in OOTW require flexibility among organizations and clear guidance on the handling of sensitive classified intelligence. Different security levels and procedures can result in the less than desirable flow of intelligence products and raw data.

Leaders should provide guidance during the planning stages to preclude misunderstanding and unintentional incidents. Providing corps liaison elements to each organization facilitates the rapid flow of intelligence and minimizes the impact of this historical problem.

Human Intelligence (HUMINT)

Operations other than war rely particularly on access to HUMINT. Both US or HN personnel may contribute to the understanding of the population, its culture and needs, and the operational environment.

In OOTW every individual is a potential source of HUMINT. Contacts with HN citizens, government agency personnel and multinational personnel provide HUMINT of value to commanders. The corps must prepare for the collection, analysis, and dissemination of increased amounts of HUMINT.

Low-level tactical matters can be important to the success of any tailored task force dispatched by corps headquarters in response to an OOTW mission. In the HUMINT area, corps planners must actively request language and culturally qualified counterintelligence, translators, and interrogators from all available sources.

Operations other than war missions, as in war, require an IPB. The IPB process remains consistent regardless of the mission, unit, or echelon. The principle difference between IPB for conventional operations and IPB for OOTW is the focus and degree of detail required.

In OOTW, emphasis is on terrain, weather, and sociopolitical issues, as well as *on* the threat. In some cases, the threat may not be "enemy personnel" but, rather, an underlying condition causing instability. For example, during disaster relief and humanitarian assistance operations, terrain and weather considerations are major concerns. (See JP 3-07.1 and FM 34-130, Chapter 6, for additional information.)

Maneuver

The corps may receive orders to conduct OOTW with little notice. Therefore, commanders should develop and implement training and education programs focusing on joint, multinational, and interagency OOTW for selected individuals and units. Personnel from other US government agencies and nongovemment and international organizations should be invited and funded to participate in these programs when appropriate.

Unit and individual soldier discipline in exercising restraint and an appropriate response are

especially critical during OOTW. For example, the discipline and actions of squads and platoons performing humanitarian relief operations are, in many cases, far more visible than in larger combat operations.

Events of only tactical-level consequence in war may have operational or strategic implications in OOTW. Realistic ROE are critical. Commanders must identify ROE early in the operation's planning process.

In OOTW, as in war, the commander seeks to position his force to effectively execute the mission. The corps' power may be based on combat, CS, and CSS forces or on any combination of the three. It makes no difference whether the enemy is insurgents, rioters, or flood waters.

In some OOTW missions, maneuver planning may consist of positioning logistic units to optimize their capabilities to provide service or supplies for relief operations. As mentioned before, the main effort for the corps may be general engineering functions or providing shelter, food, clothing, and medical care and security.

There are many similarities in planning considerations for combat operations and OOTW. However, the battlefield organization may not lend itself to a close, deep, and rear organization. The commander should try to organize corps operations to comply with HN administrative structure (city or county boundaries, local police districts, or with civilian agency boundaries). In many cases, the means of executing close, deep, and rear operations will change.

Information operations may become the primary means of conducting deep operations. Close operations in many OOTW missions may more closely resemble doctrinal rear operations conducted in support of combat operations. Corps planning should also consider the possibility for noncontiguous AOs and split-based operations.

In addition to providing security and law and order for the corps' organic elements, the commander may need to conduct law-and-order missions in OOTW. In many OOTW missions, local government infrastructure will be incapable of providing the necessary security and law and order for itself or its population. This could be for any number of reasons (hurricanes, tornadoes, insurgences, anarchy, and soon). While military police units are the first considered for law-and-order missions, with minimal training, infantry units may perform extremely well in manning static guard posts, reinforcing police patrols, and crowd control.

Planning considerations include protecting key economic infrastructures, maintaining general law and order, establishing a civil defense effort, and protecting the government infrastructure. When planning for the use of military forces to execute law enforcement operations in CONUS, corps commanders must consider the restrictions that the *Posse Comitatus Act* places on the military.

Fire Support

In OOTW the corps still plans for the use of fires. These will be both lethal and nonlethal, provided by corps, joint, or multinational assets. The political nature and the need to maintain legitimacy for OOTW missions makes careful mission analysis and precise use of lethal or nonlethal fires essential.

The corps must use lethal fires sparingly in offensive operations. In defensive situations, the corps uses what is necessary to protect the force. Precise planning and delivery of fires allows the commander to preclude unwanted collateral damage and avoid possible political ramifications.

The corps will generally employ fire support coordination measures. For example, it may use restrictive fire control measures to minimize potential damage to important cultural structures or dense population areas.

The corps must ensure it carefully synchronizes both restrictive and permissive fire support coordination measures with a ROE analysis. Nonlethal fires may be the primary means of fire support in many forms of OOTW. The corps can use nonlethal fires to confuse, deceive, delay, disorganize, or locate the opposition.

Air Defense

Air defense operations in OOTW are different from conventional AD operations. The layered AD umbrella that exists for the corps on a conventional battlefield may not exist in an OOTW environment. Early warning radars, multiple weapons systems, EAC air defense command facilities, and offensive

counter air operations may not be as readily available.

Rules of engagement in OOTW will probably differ from those of conventional AD operations. For example, the corps will have to develop ad hoc solutions when point defense systems must communicate directly with the theater AD system for sensor support and battle management.

The corps must develop an effective AD system adapted to the conditions of the particular mission's AD circumstances. Because of the proliferation of theater ballistic missiles and low-cost remotely piloted vehicles (RPVs) and UAVs, AD planning by the corps remains a concern in OOTW.

Mobility and Survivability

Engineering capabilities play a key role in many OOTW missions. Although general engineering is usually associated with OOTW missions, the corps may not be assigned specific general engineering tasks. However, even when this is the case, the corps should anticipate executing some general engineering functions. Field Manual 5-114 provides a detailed description of how engineers support OOTW. Planners should consider—

- Sustainment of transportation facilities.
- Sustainment of public utilities.
- Restoration of services in support of HN *or* multinational forces (including restoring destroyed or damaged civil-military facilities and public utilities, waterworks, sewage treatment, telephone, transportation, and hydroelectric systems).
- Countermine operations.
- Use of LOGCAP to employ local contractors.

The corps commander must also consider survivability operations in OOTW and such active measures as hardening facilities and fortification. Some OOTW may require more emphasis on passive protective measures. The corps should even consider protection from weapons of mass destruction as they proliferate and become more likely to be diverted to terrorist groups. In some circumstances, such as during disasters, the commander may have to protect civilians, as well as military, from chemical and/or biological contamination.

Combat Service Support

Combat service support may be central to the success of many OOTW missions. Until establishing the sustainment base, only limited (in size, scope, and duration) combat, and CS operations associated with the OOTW mission can take place. Logistic requirements may dominate the mission and place major demands on support forces.

Planners consider inventory control management, movement control, and distribution requirements when selecting which logistic operations headquarters is to participate in during the OOTW mission. To meet operational requirements, the corps may have to request or contract various types of supplies and support through other than US government logistics agencies. Commanders may have to divert combat or CS units to perform or supplement available CSS units until sufficient reserve CSS units are mobilized and deployed.

Funding

As a senior headquarters in any OOTW mission, the corps must consider resource management implications. Early determination of a mission's fiscal constraints is vital. A commander's understanding of funding implications of OOTW missions precludes the unauthorized expenditure of funds in violation of regulations or laws.

Understanding is also necessary to conduct any trade-off analyses between funding the OOTW mission and maintaining the corps' training and readiness status. Accurate and complete accounting of all funds is vital to the corps' ability to recoup resources from the agency directing the OOTW mission.

Transportation Services

Most OOTW missions will be force-projection operations of some type. Getting the force to the AO requires the same transportation planning and execution skills as any other force-projection operation. Typically, the numbers and types of available aircraft and ships for deployment and sustainment of the corps force will be limited.

Critical transportation factors include managing the corps' list of accompanying line items and retaining movement control over corps units. The corps should establish mode terminal operations to receive, store (preferably in covered warehouses),

load, and distribute equipment, fuel, ammunition, and other materials.

Contracting support is one of the corps logistician's principal tools in accomplishing the mission. Planning should consider resources available in theater, supplies that higher HQ or outside agencies (such as the UN) will provide, and supplies that the corps can contract for, thus avoiding having to transport them into theater. In most OOTW scenarios, contracting support will have to deploy into theater with the corps' initial elements.

Combat Health Support

Combat health support in many OOTW scenarios will greatly expand beyond that usually required to support the corps. Required CHS may include care for civilians and their farm animals as well as US military personnel. The corps medical staff must plan for this eventuality. The success of disaster relief or humanitarian assistance operations may well hinge on the corps's ability to provide medical, dental, veterinary, and preventive health-related services and support.

Personnel Services

Personnel elements are especially important in OOTW because they provide support to commanders and soldiers involved in the operation. For most OOTW scenarios, initial deployment forces in the AO must be able to manage the critical functions of personnel accounting and strength reporting, casualty operations, and postal support.

Elements of the corps' personnel management center will be required to maintain personnel readiness of the deployed force and to synchronize the personnel network. Modular personnel units (PSBs and postal companies) will incrementally deploy to establish the theater data base and to provide personnel support, as the operation and METT-T factors dictate.

The nature of OOTW suggests that most operations will be joint. In the transition to the joint staff, the J1/G1, with assistance from the AG, must help develop the personnel support component of the JTF structure.

Augmentation from EAC personnel staffs and units may be required to ensure integration, task-organization, and resourcing of the other services' personnel systems. There must be provisions to account for non-Army military members, civilians, and even HN personnel. Commanders must also consider coordination requirements with national and international agencies, departments, and officials.

Resources Control

In many OOTW missions the corps will need to assist the HN or local governments in maintaining control of key or critical resources. Resources control involves planning and executing operations that help the HN's local government or multinational force in their efforts to maintain positive control over supplies, materiel, terrain, and the population. Maintaining control will preclude these items being used by opposing elements. In civil disaster situations this could mean restoring local governmental infrastructure and protecting vital utility services until the HN force can assume the mission.

Legal Services

The corps enters OOTW missions as a result of political directives or special circumstances with political or social ramifications. Therefore, corps commanders and staff will need a variety of legal services.

Services may range from providing legal interpretations of the mission to providing legal counsel for redress of claims against the US government or of US claims against other countries. Other areas of legal services include—

- Planning for property and personal grievances under criminal law.
- Filing and processing claims.
- Providing legal assistance.
- Assisting HN governments and military forces regarding terms of status of forces agreements and other international law issues.

Battle Command

Battle command, although fundamentally unchanged, must be adjusted to the varied situations inherent in OOTW. Each OOTW situation is unique. There is no single battle command option

that works best for all. Corps commanders and their subordinates must be flexible in modifying standard arrangements to meet the specific requirements of each situation and to promote unity of effort.

Command Considerations

Operations other than war missions often come with unclear or ad hoc chains of command. The numerous players, not normally in the corps' chain of command, as well as nonstandard task organizations will require adjustments to the corps' C^2 architecture. In addition, mission requirements for OOTW require innovative leadership and staffs to develop appropriate COAs. Although the decision-making process for OOTW is the same as for combat operations, the information within the process may vary widely from that of conventional operations.

Some OOTW missions may require the corps to act as a JTF and/or ARFOR headquarters, which will pose significant challenges for the corps commander and his staff. Normally, the corps separates the two functions. However, it may retain both roles in short-duration, low-risk OOTW missions.

During OOTW, the corps will probably conduct interagency operations to a much greater extent than during conventional operations. When the corps HQ is also the ARFOR, it may act as the executive agent for certain activities and the services for the joint force. The degree to which this applies depends on the particular OOTW mission and the service or agencies involved in the mission. Inmost cases, the CINC and the ASCC augment the corps staff with appropriate expertise to act as the JTF or ARFOR headquarters.

The corps normally executes OOTW as contingency operations. As in any contingency operation, the CINC determines the EAC chain of command.

Regardless of how complex the EAC chain of command may be, the corps commander must still establish clear command relationships between corps units. As the CAP process develops, subordinate commanders should participate through a parallel planning process and help the corps staff develop and staff subordinate unit mission statements (and their perceived end states) up the chain of command.

Planning Considerations

Because the OOTW mission may not warrant the complete commitment of the entire corps, the corps HQ may elect to conduct split-based operations. A forward CP can operate in the AO while the rear CP may operate from its CONUS base.

Although the commander must guard against an expansion of corps missions; the corps' task organization must also allow for the possible rapid transition to combat operations or other OOTW missions. Also, the corps force must not overwhelm potentially scarce transportation assets or the austere theater infrastructure.

Operations other than war require corps combat, CS, and CSS units to operate in concert with US and foreign civilian agencies of government, international organizations, and private organizations. Elements of the corps' support command may play major roles.

The corps must be prepared to accept attachment or OPCON of units from many external sources, including other Army organizations, joint forces, and allied or coalition military services. It may assume OPCON of other US or foreign government agencies. The corps must coordinate with and support public or private civilian organizations.

Because of the often short period of time available to plan and conduct force-projection operations for an OOTW mission, logistic planners must develop comprehensive logistic support packages for use in various OOTW scenarios. Planning should consider the needs of the response force, the corps' available resources, resources provided in the theater of operation by other organizations, transportation restrictions, and supplies that will be potentially contracted.

Planning for the transition out of the OOTW mission and the redeployment and demobilization (if required) of corps units should begin as early as possible. Preferably, this is before beginning the OOTW mission.

Military forces may best conduct refugee control, reestablishing civil order and public services, medical assistance, and other activities during the initial stages of an OOTW mission. Some OOTW missions typically begin with significant military involvement, then move increasingly toward civilian dominance as the potential for armed violence or

environmental threats wane and civil infrastructures and control are reestablished.

The corps' presence and its ability to operate in crisis environments under extreme conditions may give it a prominent role in operations where other agencies are the lead. Corps subordinate units need to work competently in this environment while properly subordinating military efforts to the agency in charge. To be effective, planning and conducting OOTW activities require a variety of perspectives and expertise and the cooperation and assistance of other services, government agencies, and alliance or coalition partners.

Corps doctrine addresses OOTW as an important component of the full range of Army operations. While OOTW do not preclude combat operations, in most cases success will entail use of military capabilities in roles other than traditional combat.

The corps is well-suited to conduct OOTW because its headquarters is capable of the complex management of OOTW. With proper augmentation the corps commander can serve as an ARFOR or JTF commander in OOTW. (See Chapter 4.) The corps controls a wide variety of combat and CSS units. The corps COSCOM contains many of the CSS assets that are essential during OOTW.

Under OOTW conditions, even if assigned the role of a JTF headquarters, the corps still ultimately works for the regional CINC or international force commander. However, the senior DOS official in a country during overseas operations, or the appropriate official in another federal agency during domestic support operations, will direct the overall effort. However, even though that person may have OPCON over corps units, command remains in military channels. If combat arises during overseas operations, the corps may revert to the direct control of the CINC or another appropriate commander (such as the CJTF).

Normal unit training for OOTW focuses on combat-related mission essential tasks, many of which are applicable in OOTW. Once alerted for a mission, units conduct specialized training in accordance with the CJTF's or CINC's directives. This specialized training may require some extended time to complete.

Chapter 10

INFORMATION AGE TECHNOLOGIES AND CORPS OPERATIONS

A FUTURE BATTLE

At 0300, in his command vehicle, the corps commander studies the graphic display of the enemy and friendly situations. Simultaneously, through a digitized link, he consults with his G2 at the main CP and his G3 at the TAC CP. This is the time to strike the decisive blow. Gathering his sububordinate commanders on the video net, he gives the command to attack.

The advanced land combat task force of M1A2+ and M2A3+ rolls across the empty battlespace toward enemy positions 25 kilometers distant. Moving in an open formation, over an area more than 10 kilometers wide and 5 kilometers deep, the task force 's dispersion effectively neutralizes the threat of enemy artillery concentrations. The movement is rapid and "in step, " coursing over the open terrain, converging momentarily to slip through pinpointed passages in restricted terrain, then dispersing again.

Turrets traverse as gunners and commanders scan for the enemy. Images of other task force vehicles shine clearly in the gunner's second-generation forward-looking infrared sights, haloed with a warm amber glow indicating their identification as "friendlies."

There is reassurance from the scanning and traversing—the training and discipline of the unit is clearly evident. But most of the targets to be attacked have already been acquired by UAVs and Comanches. Information is quickly processed and correlated by smart ground center and then burst-communicated to individual shooting vehicles. Inside the tanks and Bradleys, digital processing transforms targets into flashing red symbols mapped onto the terrain in the gunner's sights.

The task force rolls past the smoldering hulks of dug-in enemy vehicles in the security zone. A platoon of Apache Longbow-silent and deadly killers-did this part of the job with "smart" munitions at standoff range.

The task force swerves hard right at a range of 10 kilometers from forward enemy positions guarding the airfield. This is a preventive maneuver the task force commander directs with the aid of onboard computer simulations and decision support processors in the task force's command and control vehicles (C^2Vs). It works. Inaccurate enemy artilleryjire begins to fall along the task force's previous axis.

Simultaneously, the task force begins to converge in width and depth, its trail vehicles speeding up as they come on-line to deliver fires. Movement is coordinated instantaneously between vehicles through automatic exchange of digital information. It is controlled using each vehicle's integrated position/navigation (POSNAV) capabilities.

Battlefield situation information exchange is automatic; the G^2V knows precisely where everything was and where it is supposed to be. The weapons platforms also know; there is no guessing or mistaking identity.

Friendly artillery is fired with pinpoint accuracy from the recently acquired advanced field artillery system guns. Each enemy position takes a "burst" of four of the advanced projos in a time-on-target.

Two of the smaller UAVs circle overhead, providing real-time targeting and battle damage assessment. These miniature

CONTENTS

A FUTURE BATTLE 10-1
FUTURE IMPROVEMENTS 10-2
BOS IMPLICATIONS 10-2
FUTURE APPLICATIONS 10-3

aircraft are loaded with weight-reduced imaging infrared, millimeter wave and optical correlators designed to exchange information with other members of the combined-arms team.

The defender is no match for the violent assaulting force. What he sees seems like pure magic—not a battle—but an almost instantaneous blanket of destruction directed with pinpoint accuracy across his entire force. The M1A2+s and M2A3+s, in a 10- to 15-second wave of firing, take out the enemy's dug-in tanks and AT weapons with one-shot, one-kill precision strikes, completely destroying his direct-fire defense.

It is over in a few minutes.

FUTURE IMPROVEMENTS

Many changes are likely to occur in corps operations as the Army exploits the benefits of information-age technologies. To meet future requirements, the corps must become more capable as it becomes smaller. The ideas in this chapter are not prescriptive; they represent an evolution of how the corps may gather, analyze, distribute, and act on information.

Advances in technology continue to shape the way the Army conducts warfare. The pace of operations is now greater than ever. The age of digitization is shifting how the Army operates. New technology will eliminate-

- Communications that are limited because of line of sight (LOS) restrictions.
- The need for soldiers to navigate by maps and compass.
- Hierarchical information flow.
- Bottlenecked theater communications networks.
- Static command posts.

Cold War C^2 systems of ground-based, grid-networked architectures will no longer meet the needs of the corps' force-projection requirements. Digitization of the battlefield is one of the ways the Army has chosen to transition to the twenty-first century.

As the Army continues to expand the use of digital capabilities to sensors, intelligence fusion systems, communications systems, and logistics activities, the corps will be able to rapidly receive, process, and distribute information with its subordinate units. The goal of digitization is to create a global information network that supports commanders at all echelons. The corps must be capable of supporting joint and multinational operations with secure connectivity between all elements of the force.

Technology gains are beginning to have major effects on how the corps manages, transports, processes, and presents information that supports synchronized activities on the battlefield. Improved voice capabilities (mobile subscriber equipment (MSE), cellular phones, satellite links), imagery directly downlinked to ground terminals, broadcast technologies, facsimile, video, color graphics, global positioning systems (GPSs), digital overlay mapping, and data basing are increasingly more available to lower echelon units.

More information is available faster, processed more quickly, and easier to understand and visualize than ever before. This gives commanders and soldiers rapid access to extremely complete and accurate information. All of these capabilities create opportunities to improve the way the corps plans, prepares for, and executes land operations.

BOS IMPLICATIONS

When digitization is applied across battlefield operating systems, the corps can focus a concentrated effort as a result of the opportunities each BOS provides.

Intelligence provides—

- Increased accuracy and timeliness of intelligence data collection and dissemination.
- Improved operational efficiency through creation of the relevant common picture for the force.

Maneuver provides—

- Rapid depiction of friendly unit dispositions along with associated control measures.
- Precision maneuver through accurate identification of enemy locations.
- Pinpoint navigation through the use of a GPS.

Fire support provides—

- Improved accuracy and timeliness of the targeting process.
- Timely and more accurate fires through improved target location and streamlined fire control processes.
- Improvements in speed and accuracy result in a reduced number of rounds fired per engagement.
- Reduced fratricide and collateral damage through the employment of more precise fires.

Air defense provides—

- An enhanced A^2C^2 process through rapid deconfliction of user requirements.
- Timely and accurate data distribution to support engagement operations.
- Rapid dissemination of AD warnings and alert status.

Mobility and survivability provides—

- Enhanced mobility and survivability planning, execution, and coordination of activities.
- Improved force protection through the prevention of fratricide by better knowledge of obstacles and emplacements.
- Improved operational efficiency through rapid dissemination of data regarding all engineer activities.

Combat service support provides—

- Automatic status reports on vehicles, systems, ammunition, fuel, and other supplies.
- A reduced burden on transportation and distribution systems through timely and accurate forecasting of requirements and pinpoint locations for delivery.

Command and control provides—

- The commander an improved ability to see the same battlefield situation that his subordinates visualize.
- Timely and accurate planning, preparation and dissemination of orders.
- Increased understanding and reduced possibility of errors through rapid exchange of data.
- Improved decision aids such as automated displays and overlays.

FUTURE APPLICATIONS

When properly applied, information-age technology can provide commanders data on the operational and logistic statuses of friendly units (as well as giving him a current picture of the enemy's status). Units can couple friendly and enemy positions and statuses with a graphic representation of the terrain and deliver it electronically to commanders and their staffs. This will give precise knowledge to wage decisive warfare.

The staff can automatically update map displays and graphics, giving subordinate units a "common picture" of the AO. This common picture and situational awareness will permit commanders at all echelons to better control forces, synchronize effects, and achieve decisive victory with minimal casualties.

A digitized force will have significant advantages over conventionally equipped forces. Technology will increase situational awareness; improve the planning, preparation, and distribution of orders; enhance the timeliness and accuracy of reporting processes; and enable precision fires to establish the preconditions for decisive maneuver.

Introducing digital technologies into the Army will not occur simultaneously throughout the force. Within the corps, the integration of digitally equipped units with conventionally equipped units presents unique challenges for commanders and staffs. They must ensure that procedures exist for communicating with and supporting all elements of the force (joint, multinational, government, or nongovernment agencies).

Commanders and staffs can achieve total integration through the exchange of LNOS and by establishing additional voice communications capabilities. Commanders can synchronize operations through battle drills and SOPS. Finally, the staff can process digital information for distribution to conventionally equipped units via compatible means.

Information-age technologies enhance the corps' enormous complementary capability to conduct sustained land combat operations. The corps commander must employ all capabilities to dominate

maneuver, conduct precision fires, protect the force, win the battlefield information war, and sustain combat power.

Through digitization, friendly units will be able to move precisely at great speed and effectively employ weapons of superior range and lethality. Enhancements in command and control, intelligence, target detection, and fire control will allow the corps to conduct decisive maneuver in combination with simultaneous precision fires. The corps will be able to attack enemy information-gathering and processing systems with both lethal and nonlethal means, while improving its ability to rapidly process, distribute, and protect friendly information.

Digitization will also improve early warning and the ability to accurately forecast requirements and provide timely delivery of resources. The corps commander can then protect and sustain the force anywhere in the world. All of these improvements result in the corps' ability to be dominate in future land warfare.

Appendix A

CORPS TASK ORGANIZATION AND PLANNING CONSIDERATIONS

To make accurate decisions, commanders and staff officers must have a firm understanding of the capabilities, limitations, and employment considerations of organic and supporting friendly forces. Commanders and staffs can use the information in this appendix for preliminary planning. They can also use this information to understand and apply various corps assets to the battlefield. This appendix provides generic planning considerations by service and specialty.

CORPS TASK ORGANIZATION CONSIDERATIONS

Although situation-dependent, division (as well as separate brigade and ACR) commanders can expect to receive a portion of the corps' assets to accomplish their assigned missions. A commander of a committed division may receive the following additional support depending on METT-T factors:

- Additional maneuver units (an ACR, a separate brigade, an AH battalion, or a ground maneuver brigade from another division within the corps).
- Air defense artillery assets (an ADA battalion or ADA batteries of guns and/or short-range missiles).
- Chemical assets.
- Engineer assets (an engineer battalion or an engineer group with attached engineer battalions or companies and a bridge company).
- Field artillery assets (an FA brigade with an appropriate mix of FA units).
- Military intelligence assets.
- Military police assets (an MP company).
- Psychological operations assets.
- Signal assets as required to support task organization (a node center or extension switch).
- Civil affairs assets (a CA battalion with both financial specialists and generalists).
- Corps support command assets as required to support task organization, including the following corps support depending on METT-T factors:
  - A DS maintenance company.
  - Missile maintenance support.
  - Aircraft maintenance support.
  - A surgical team.
  - An air ambulance.
  - Transportation.
  - Mortuary affairs.
  - Ammunition support.
  - Port/airfield clearance.
  - A field services company.
- Other combat support (a command aviation company of the corps aviation brigade) and CSS assets (a transportation company) as required.
- Close air support allocation and priority of effort (time, location, target type, or situational considerations).
- Priority of corps GS assets.
- Naval surface fire support and ANGLICO assistance.

A commander of an uncommitted division may receive, with the exception of FA, MP, and CAS

CONTENTS

CORPS TASK ORGANIZATION CONSIDERATIONS A-1
CORPS PLANNING CONSIDERATIONS A-2
US Air Force A-2
US Navy and US Marine Corps A-4
US Army A-9

allocations, the same type of corps augmentation, although allocated units may be smaller. When a previously uncommitted division becomes committed, the corps organization for combat, or a revised or phased task organization, will redistribute the available corps assets and priorities to support mission accomplishment by the division. The command and support relationships of assets allocated to either committed or uncommitted divisions depend on the situation and are designed to meet the specific missions of the division.

CORPS PLANNING CONSIDERATIONS

US Air Force

Theater Air Control

Apportionment—

- Determines how and where to use combat air capabilities.
- Joint force commander assigns a percentage or priority of combat air effort to the various air operations (AI, counter air, CAS).
- Air reconnaissance is generally not apportioned.

Allocation—

- Translates the JFC's apportionment decision into sortie numbers (by type aircraft) available for each operation or task.
- Is the responsibility of the ACC.

Distribution of CAS among the subordinate land maneuver units is conducted by the LCC .

Allotment—

- Is the responsibility of the ACC and must meet the JFC's apportionment and intent.
- Is used in NATO to assign individual aircraft to combined air operations centers (CAOCs) to carry out JFC objectives.
- Is usually accomplished by entire squadrons assigned for a specific period of time (for example 24 hours) or for a particular mission (such as a deep strike).

Counter Air

Counter Air—

- Objective is to gain control of the aerospace environment to achieve air supremacy.
- Operations protect friendly forces, ensure freedom to perform other missions, and deny that freedom of use to the enemy.
- Is conducted in a manner or at a distance to render unnecessary detailed integration with fires and the movement of friendly ground forces.
- Is consistent with the JFC's objectives, and may initially involve the highest priority of all air operations.
- Performs offensive, defensive, and SEAD operations.
- Air component commander determines ratio of forces assigned between counter air operations based on—
  - JFC guidance.
  - Level of enemy air threat.
  - Vulnerability of friendly forces to air attack.
  - Enemy AD capability.

Offensive Counter Air (OCA)—

- Operations are essential to gaining air superiority and should be conducted at the start of hostilities to seize the offensive.
- Are typified by attacks against—
  - Command and control facilities.
  - Munitions and missile storage sites.
  - Aircraft on the ground or in the air.
  - Any target that contributes to the enemy's air power capability.

Defensive Counter Air (DCA)—

- Operations detect, identify, intercept, and destroy enemy air power attempting to attack friendly forces or penetrate friendly airspace.
- Initially may be the mission of emphasis if the enemy has seized the initiative through surprise or friendly political constraints.

- Involves active measures such as using combat fighter aircraft and air defense artillery.
- Involves passive measures, such as—
  - Not involving weapons systems.
  - Radar coverage for early warning.
  - Protective construction (for example, hardened sites).
  - Cover, camouflage, deception, dispersion, and frequent movement of personnel and equipment.

SEAD, J-SEAD, and Air Interdiction

Suppression of Enemy Air Defenses (SEAD)—

- Operations neutralize, destroy, or temporarily degrade enemy AD systems.
- Goal is to allow friendly aviation forces to effectively perform other missions without interference from enemy air defense.

Joint Suppression of Enemy Air Defenses (J-SEAD)–

- May be part of SEAD operations; land force surface-to-surface weapons will complement these efforts.
- Is conducted by the ACC at the theater level against surface-to-air defense systems.
- Are planned and conducted in localized areas by battalion and larger land units to protect aviation and friendly aircraft; localized J-SEAD operations can use FA, attack helicopters, direct fire weapons, and EW.

Air Interdiction (AI)—

- Delays, disrupts, or destroys the enemy's potential before he can use it effectively against friendly forces.
- May—
  - Reduce the enemy's capability to mount an offensive.
  - Restrict the enemy's freedom of action and increase vulnerability to friendly attack.
  - Prevent the enemy from countering an increase in friendly strength.
  - Reduce the enemy's battlefield reserves.
- Attacks are normally executed by the ACC as part of a systematic and persistent campaign in support of the JFC's strategy.
- Includes actions against land force targets nominated by the LCC or the Army corps, which are in a position to have a near-term effect on the corps battle but are not yet in close proximity to ground forces.
- Targets are nominated by corps commanders and are prioritized according to nominations of all corps/service components in theater and the JFC's objectives.
- Requires joint coordination during planning.

Close Air Support, Reconnaissance and Surveillance, and Airlift

Close Air Support (CAS)—

- Are attacks against hostile surface forces that are in close proximity to friendly forces and which require detailed integration into the supported commander's scheme of fire and maneuver.
- To be successful, must be responsive to the ground commander's needs.
- Enhances surface force operations by providing the capability to deliver a wide range of weapons and massed firepower at decisive points.
- Is conducted—
  - To blunt an enemy attack on a friendly position.
  - To help obtain and maintain the land offensive. .
  - To provide cover for friendly movements.
- Targets are selected by the ground commander.
- Is planned, directed, and controlled by elements of the theater air control system.

Reconnaissance and Surveillance—

- Objectives are to collect information from airborne, orbital, and surface-based sensors to identify the enemy's composition, capability, and intent.

- S2/G2 normally handles preplanned requests for aerial reconnaissance; the appropriate TACP handles immediate requests.

Airlift—

- Objectives are to deploy, employ, and sustain military forces by the timely movement, delivery, and recovery of personnel and equipment.
- Through mobility operations, allows the JFC to maneuver fighting forces to exploit an enemy's weakness.
- May be categorized as either strategic or theater; corps requests—
  - For strategic airlift are handled through TRANSCOM channels.
  - For theater airlift are handled through Army logistic channels, with variations for the immediacy of the request.
  - For when movements are known or projected in advance, are handled as planned requests through normal logistic channels as part of the JMC's daily airlift allocation.
  - For when air movement requirements are identified too late for normal coordination, are handled as immediate.
  - Once identified by the Army, are transmitted directly to the AOC, normally by a TALO.

Airspace Command and Control

Coordinating Altitude—

- Is a procedural method to separate fixed-wing and rotary-wing aircraft.
- Is determined by the theater airspace control authority (ACA).
- Normally extends from the corps rear boundary to the FLOT.
- May extend forward of the FLOT.

Airspace Restricted Area—

- Is also known as the restricted operations area (ROA) and/or restricted operations zone (ROZ).
- Is normally activated for DZs, ADA weapons-free zones; and so on.
- Requests are sent through A^2C^2 facilities to the ACA.

Minimum-Risk Route (MRR)—

- At NATO is known as the low-level transit route (LLTR).
- Represents minimum hazard to friendly USAF aircraft transiting a specific area.
- Is recommended by the corps and sent through the LCC to the ACA.
- Normally begins at the corps rear boundary and ends at the FSCL.
- Should be changed frequently to prevent enemy exploitation.
- May extend below the coordinating altitude to increase aircraft survivability.
- Should be active in the corps at any onetime with several inactive alternates.
- Must avoid areas where intense ground combat is projected and where there will be areas of high airspace use, such as—
  - Field artillery areas.
  - Air defense areas.
  - Drop zones.
  - Army aviation operations areas.

High-Density Airspace Control Zone (HIDACZ)—

- Is requested by the maneuver force commander (division or higher).
- Restricts airspace from users not involved with maneuver force commander's operation.
- Returns ADA weapons control authority (within the HIDACZ) to the maneuver force commander.
- Requires ACA approval.

US Navy and US Marine Corps

Naval Surface Fire Support Considerations

Air and Naval Gunfire Liaison Company (ANGLICO)—

- Is a USMC unit specifically designed for support of division-size units.

- Provides control and liaison for the employment of naval surface fire support and USN and USMC close air support.
- Is normally attached to a US Army division for a specific operation.

Tactical Missions include—

- Direct support; for example—
  - A ship in direct support (normally to a battalion) delivers both planned and call-fire missions.
  - Call-fires are requested and adjusted by a shore fire control party of the supported unit or by an air spotter.
- General support; for example—
  - Is assigned to ships supporting units of brigade size or larger.
  - Normally has an air observer who adjusts the fires of a GS ship or it has an LNO who assigns the fires of the ship to a battalion shore fire control party.

Capabilities include—

- Selection of the most favorable gun-target line within the limits imposed by hydrography.
- High rates of fire.
- Accuracy.
- A variety of weapons and munitions.
- High initial velocity and flat trajectory for direct fire against fortifications.

Limitations include—

- Ship/shore communications dependent on radio transmission.
- Changing gun-target lines when the ship is under way.
- Inaccuracies in unobserved fires and initial salvos in areas where navigational aids are lacking or obscured by poor visibility (employing radar beacons ashore can minimize this).
- Limited magazine capacity of fire support ships.
- Firing positions possibly limited by unfavorable hydrographic conditions or the presence of mines.
- Flat trajectories that are relatively unsuitable for the attack of targets in defiladed positions and that restrict the attack of targets close to front-line troops when the gun-target line passes over friendly troops.
- The fact that the dispersion Pattern of the naval gun is elliptical with-the long axis of the pattern along the direction of fire; however, this pattern—
  - Can be particularly effective when fire can be brought to bear on the long axis of an enemy target.
  - Allows fire to be brought close to friendly front lines when the gun-target line parallels those lines.

NOTE: See also Figure A-1.

Supporting Naval Air Missions and Tasks

Strike Warfare includes—

- Close air support.
- Offensive counter air.
- Interdiction.

Antisurface Warfare includes—

- Convoy and shipping protection.
- Antiinvasion operations.
- Antishipping operations and embargo.
- Antisurface action group operations.
- Protection against small boat and terrorist attack.

Antisubmarine Warfare includes attack of submarines and support assets.

Antiair Warfare includes defensive counter air.

Mine Warfare includes—

- Offensive sea mining.
- Defensive operations (mine countermeasures).

Reconnaissance includes—

- Area search.
- Shadowing and surveillance.
- Reconnaissance sweep.
- Postattack reconnaissance and BDA.

SHIP (1)	WEAPONS	MAXIMUM RANGE
Destroyer (2)	5-inch guns	24 km
Guided missile cruiser (3)	5-inch guns	24 km
Guided missile destroyer	5-inch guns	24 km

NOTES:

1. Some naval vessels have tactical land attack missile (TLAM) capability. The theater CINC controls TLAM, and he may allocate TLAM to support a JFC's OPLAN.
2. The destroyer is the most available ship for naval surface fire support and is usually assigned in direct support of a battalion.
3. The guided missile cruisers are primarily assigned an antiair warfare mission. Guided missiles are not considered suitable in the surface fire support role.

Figure A–1. Surface fire support ships

- Armed reconnaissance.
- Electronic order of battle collection.

Command, Control, Communications, and Intelligence (C^3I) includes—

- Airborne early warning.
- Strike coordination.

Electronic Warfare includes—

- Electronic attack.
- Electronic warfare support measures.
- Electronic protection.

Suppression of Enemy Air Defenses includes—

- Attack of enemy C^3I.
- Strike support and protection.

Logistics includes—

- Carrier onboard (COB) delivery.
- Aerial refueling.

Search and Rescue includes—

- Fleet search and rescue.
- Combat search and rescue.

Fleet Marine Forces (FMF)

The largest portion of USMC operating forces are located within fleet marine forces. They are integral parts of the US fleets and are subject to the respective fleet commanders' OPCON.

There are three types of organizations within each FMF: Marine divisions (MARDIVs), Marine aircraft wings (MAW), and force service support groups (FSSG). Elements of the FMFs are task-organized into Marine air-ground task forces (MAGTFs) for combat operations.

Marine Air-Ground Task Forces (MAGTFs)—

- Are combined-arms forces, under the direction and control of a single commander, consisting of ground, air, and CSS elements capable of operating as independent units or as part of a joint or combined task force.
- Include four major elements:

1. A command element (CE) that provides a single headquarters for command and coordination of ground, air, and CSS forces.
2. A ground combat element (GCE) task-organized to conduct ground operations and constructed around an infantry unit varying in size from a reinforced infantry battalion to a reinforced MARDIV.
3. An aviationcombat element (ACE) task-organized to provide all or a portion of the fictions of USMC aviation (normally one per MAGTF).
4. A combat service support element (CSSE) task-organized to provide the MAGTF with the

HEADQUARTERS

Reinforced Squadron	Battalion Landing Team	MEU Service Support Group

AIRCRAFT/LAUNCHERS	MAJOR GROUND COMBAT EQUIPMENT	
4 CH-53D/E	5 Tanks	8 155-mm Howitzers
12 CH-46	8 81-mm Mortars	9 60-mm Mortars
3 UH-1	32 Dragon Trackers	20 50-cal Machine Guns
6 AH-1	8 TOW Launchers	60 M-60 Machine Guns
6 AV-8B	12 AAV	26 MK-19 40-mm Grenade Launchers
5 Stinger Teams	5-9 LAV	

PERSONNEL
USMC: 1,900
USN: 100

NOTE: Actual task organization formed to accomplish specific missions may vary from the organization shown.

Figure A–2. Marine expeditionary unit (MEU)

logistic support necessary to accomplish the MAGTF mission.

The CEs of all the MAGTFs are always staffed. The MAGTFs are only "fleshed out" with a GCE, an ACE, and a CSSE for a specific deployment, exercise, or contingency.

There are three basic types of MAGTFs-the Marine expeditionary unit (MEU), the Marine expeditionary brigade (MEB), and the Marine expeditionary force (MEF). Command elements have been established for 6 MEUs, 6 MEBs, and 3 MEFs. The MAGTFs are task-organized according to the following operational requirements:

- The Marine expeditionary unit (MEU) (Figure A-2)---
  - Which is the most responsive but has the least combat power of all MAGTFs.
  - Which, while normally sea-based aboard from three to five Navy amphibious ships, may be airlifted.
  - Is continuously deployed in the Mediterranean Sea and Pacific Ocean, although it periodically deploys to the Atlantic and Indian Oceans and to the Caribbean Sea for operations of short duration.
  - Is composed of—
    - Approximately 2,000 personnel.
    - ACE commanded by a colonel.
    - A GCE battalion landing team (BLT) consisting of an infantry battalion, reinforced by tank, antiarmor, artillery, reconnaissance, assault amphibious vehicle, and combat engineer units.
  - An ACE consisting of a helicopter squadron (reinforced) containing four types of rotary-wing aircraft and fixed-winged vertical short takeoff/landing (VSTOL) aircraft/Avenger (AV) 8-B.
  - A CSSE, which can provide 15 days of CSS before requiring resupply.
- The Marine expeditionary brigade (MEB) (Figure A-3)—
  - Capable of forward-deploying aboard naval amphibious ships but which will normally be found forward-deployed ashore.
  - Requires from 26 to 32 USN amphibious ships to deploy.
  - May be airlifted.

BRIGADE HEADQUARTERS (1)

Marine Aircraft Group	Regimental Landing Team	Brigade Service Support Group

AIRCRAFT/LAUNCHERS (2)

20 AV-8B	24 CH-53D
24 F/A-18	12 CH-46
8 UH-1	5 EA-6
18 AH-1	47 AAV
13 KC-130	
8 Hawk Launchers	
45 Stinger Teams	

MAJOR GROUND COMBAT EQUIPMENT

30 Tanks (3)	30 155-mm Howitzers (Towed)
24 81-mm Mortars	27 60-mm Mortars
96 Dragon Trackers	138 50-cal Machine Guns
72 TOW Launchers	255 M-60 Machine Guns
109 AAV	114 MK-19 40-mm Grenade Launchers
25 LAV	

PERSONNEL

USMC: 16,000
USN: 700

NOTES:

1. Actual task organization formed to accomplish specific missions may vary from the organization shown.
2. The aviation force shown equals approximately one-third of the total active aviation force assets. This force is not ideal (for example, 24 attack helicopters are the recognized minimum to properly support a MEB).
3. Tanks increase to 58 in FY 96.

Figure A–3. Marine expeditionary brigade (MEB)

– Has more combat power than a MEU.

– Currently transitioning to a MEF (forward) stucture.

– Is composed of—

- Approximately 16,000 personnel.
- ACE commanded by a brigadier general.
- A GCE regimental landing team (RLT) consisting of an infantry regiment, reinforced by an artillery battalion, tank company, combat engineer company, reconnaissance company, assault amphibian vehicle company, light armored vehicle company, and TOW platoon.
- An ACE consisting of a Marine aircraft group (MAG) (reinforced) containing fixed- and rotary-wing aircraft; command, control, and air defense elements; and an air field support detachment.

A CSSE capable of providing 30 days combat support to a MEB before resupply is required.

- The Marine expeditionary force (MEF) (Figure A-4)—

– Is the largest and most combat capable of the three MAGTFs.

– Is capable of a broad spectrum of amphibious operations and subsequent operations ashore.

– Takes from 60 to 70 USN amphibious ships to deploy a MEF.

– May be forward-deployed aboard naval amphibious ships but will normally be found forward-deployed ashore.

– Is composed of—

- Approximately 53,000 personnel.
- A CE commanded by a major general or lieutenant general.
- A GCE that is normally a MARDIV (reinforced).
- An ACE consisting of a task-organized MAW that may include elements of other aircraft wings for additional combat power.
- A CSSE that is normally an FSSG or FSSG (reinforced) and that provides up to 60 days logistic support before resupply is required.

FORCE HEADQUARTERS (1)

Marine Aircraft Wing	Reinforced Division	Force Service Support Group

AIRCRAFT/LAUNCHERS (2)		MAJOR GROUND COMBAT EQUIPMENT	
40 AV-8B	16 CH-53E	70 Tanks	90 155-mm Howitzers
48 F/A-18	32 CH-53D	72 81-mm Mortars	18 155-mm Howitzers (Self-Propelled)
20 F/A-18D	60 CH-46	288 Dragon Trackers	81 60-mm Mortars
8 EA-6	24 UH-1	144 TOW Launchers	435 50-cal Machine Guns
19 F/A-18D	24 AH-1	208 AAV	601 M-60 Machine Guns
12 KC-130	12 OV-10	147 LAV	345 MK-19 40-mm Grenade Launchers
12 Hawk Launchers			
75 Stinger Teams			

PERSONNEL
USMC: 49,700
USN: 2,600

NOTES:
1. Actual task organization formed to accomplish specific missions may vary from the organization shown.
2. The aviation force shown equals approximately one-third of the total active aviation force assets. This force is not ideal (for example, attack helicopters are the recognized minimum to properly support a MEF).

Figure A–4. Marine expeditionary force (MEF)

US Army

The corps does not have a standard organization structure. Figure A-5 shows a typical corps organization. Most corps will have a similar structure, although the specific number, size, and types of units will vary. This section discusses some of the key corps units.

Corps ADA Brigade

The *Corps Patriot Battalion*—

- Provides ADA protection from all types of airborne threats at all altitudes to critical corps assets and maneuver forces.
- Operates during all types of weather both day and night.
- Simultaneously engages multiple targets.
- Functions effectively in an intense electronic countermeasures (ECM) environment.

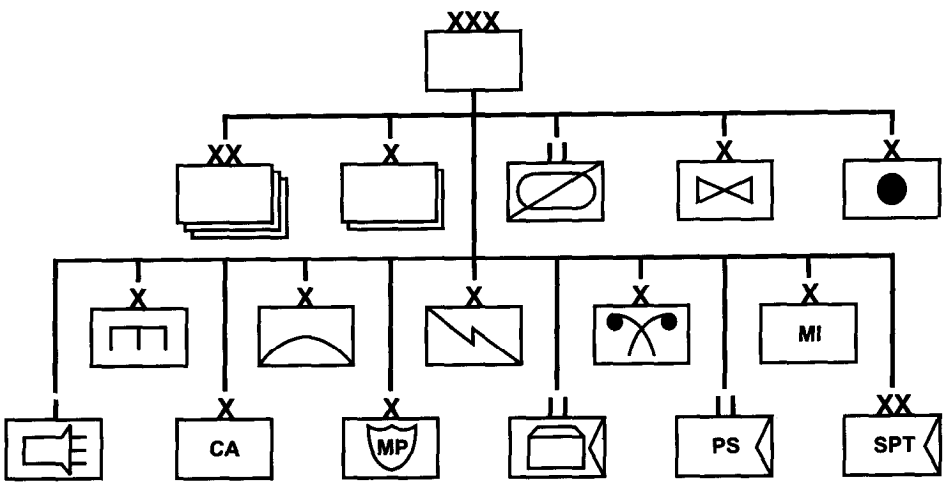


Figure A–5. Typical corps organization

WEAPON	SYSTEM	SLANT RANGE	LAUNCHERS/BN	LOCATION (note)
HIMAD	Hawk Patriot	40 km 50 km	24/Corps Bn 48/Corps Bn	Corps or Division Area Corps or Division Area
FAAD	Avenger	4 km	54/Avenger Bn	Corps, Division, or Brigade Rear Area

NOTE: May provide area AD coverage or may be employed to provide a point defense of critical assets.

Figure A–6. Corps air defense resources

- Presents a significant electronic, visual, and infrared signature.
- Requires extensive logistic support for fuel and missile resupply.
- Establishes launch capability in approximately 30 minutes after movement.

The corps has OPCON of the corps ADA brigade, but the ADA brigade and the Patriot battalion must be employed under weapons control procedures and measures of the AADC. However procedures and measures must support the corps commander's concept of operations and still complement the theater AD mission. (See Figures A-6 and Figure A-7.)

The *Corps Hawk Battalion (National Guard)*—

- Is only fielded in NG units.
- Provides low- to medium-altitude air defense of corps assets against the air-breathing threat.
- Operates during all types of weather both day and night.
- Functions effectively in an intense ECM environment.
- Presents a significant electronic, visual, and infrared signature.
- Requires extensive logistic support for fuel and mis~ile resupply.
- Establishes launch capability in approximately 45 minutes after movement.

The corps has OPCON of the corps ADA brigade, but the ADA brigade and the Hawk battalion must be employed under weapons control procedures and measures of the AADC.

The *Corps Chaparral Battalion (National Guard)*—

- Provides air defense of corps assets against low-altitude air attacks.
- Batteries are mobile and can engage hostile aircraft at night and during some periods of limited visibility.
- Provides little armor protection for crew and material.

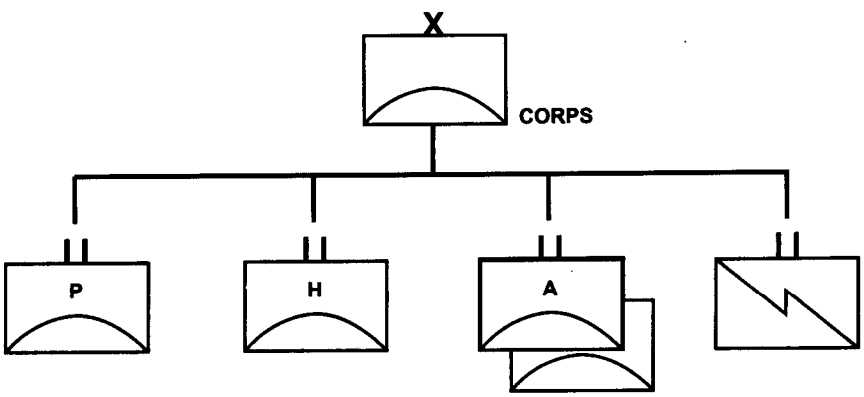


Figure A–7. Corps air defense brigade organization

- Carrier must be stationary for firing.
- Targets must be visually acquired, identified, and tracked before engagement.
- Smoke signature generated during missile firing may reveal the weapon's location or the location of other corps assets.

The Corps *Avenger Battalion*—

- Conducts counter-threat RISTA efforts in the forward area with priority to UAVs, rotary-wing aircraft, and fixed-wing leakers.
- Provides FAAD protection for maneuver forces, LOCs, critical assets, choke points, and reserves.
- Supports both offensive and defensive operations.
- Has day or night engagement capability.
- Has shoot-on-the-move capability.
- Gunner must visually identify aerial platform.

Corps Aviation Brigade

The *Attack Helicopter Battalion*—

- Provides attack helicopter units for rapid employment as part of a combined arms team to destroy enemy forces.
- Is employed as a battalion-size unit only.
- Is employed in mass for maximum effectiveness.
- Offensive effectiveness is greatest against enemy forces in the open, on the move, and in exploitation and pursuit operations.
- Requires detailed planning and extensive coordination, particularly for cross-FLOT operations (must consider risk versus payoff).
- Is OPCON when reinforcing a forward division (the best command relationship).
- Should locate Classes III and V forward to reduce turnaround time and to increase time available in the target area.

The *Assault Helicopter Battalion*—

- Conducts air assault operations.
- Can air assault an infantry battalion in one lift (when UH-60 equipped).
- Is normally used in a DS role.
- Can perform resupply missions in support of FARPs and cross-FLOT operations.
- Can have a turnaround time of as much as 2 hours for a 75-kilometer cross-FLOT insertion.
- Must include security of the force in planning.
- Conducts air movement operations.
- Provides emergency aeromedical evacuation but has no medical personnel unless augmented.

The *Medium Helicopter Battalion*—

- Moves personnel, supplies, and equipment in support of corps operations.
- Can air assault an infantry battalion in one lift.
- Provides combat support of fast-paced operations, such as exploitations and pursuits.
- Moves critical supplies and equipment and provides mass casualty evacuation.

The *Command Aviation Battalion*—

- Provides C^2 and communications aircraft support to the corps.
- Provides reconnaissance and time-critical communications satellite (COMSAT) information in support of corps operations.

The *Combat Support Aviation Battalion*—

- Conducts air movement operations.
- Conducts air assault operations.
- Provides emergency aeromedical evacuation (however, it has no medical personnel unless augmented).
- Moves personnel, supplies, and equipment in support of the corps, subordinate divisions, as well as the corps AVIM battalion and organic attack battalions.

The ***Light Utility Helicopter Battalion—***

- Moves personnel, supplies, and equipment in support of corps and subordinate divisions.
- Allows autonomous operations and simple task-organization within any of the supported division aviation brigades because of the modular design of each company.

- Provides emergency aeromedical evacuation (however, it has no medical personnel unless augmented).
- Conducts air movement operations.

NOTE: See also Figures A-8 and A-9.

Corps Chemical Brigade and Battalion

The *Headquarters and Headquarters Company (HHC), Chemical Brigade*—

- Provides C^2 for two or more chemical battalions.
- Normally is the only one assigned to the corps.

The *Headquarters and Headquarters Detachment (HHD), Chemical Battalion*—

- Provides C^2 for from three to seven chemical companies (NBC reconnaissance, decontamination, mechanized smoke/decontamination, and biological detection).
- Is normally assigned to a corps.

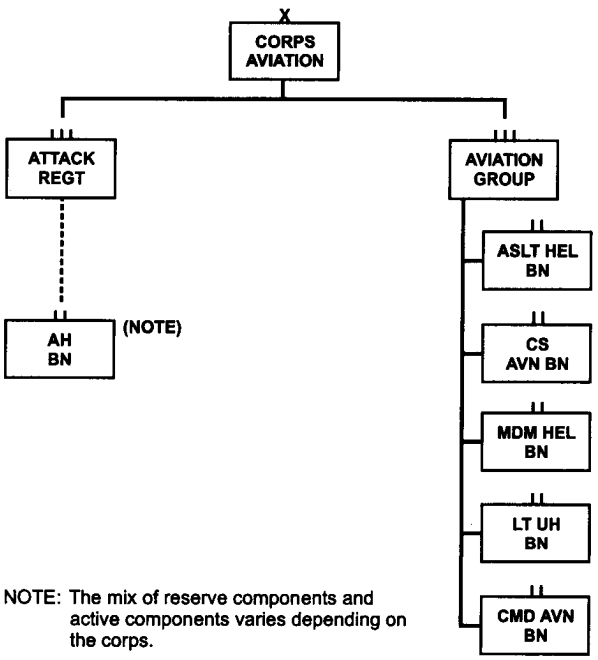


Figure A–8. Corps aviation brigade

The *Chemical Company (Decontamination)*—

- Provides NBC equipment decontamination support to the corps.
- Operates up to five equipment decontamination sites, each capable of decontaminating approximately 52 vehicles per day.
- Normally has two assigned to a corps; one per heavy division.

The *Chemical Company (Reconnaissance)*—

- Provides NBC motorized reconnaissance support to the corps.
- Normally has only one assigned to a corps.

The *Chemical Company (Smoke/Decontamination)*—

- Provides NBC equipment and smoke support to a light infantry division.
- Has four platoons, each able to provide either of the following:
  - Two smoke sites with smoke support 1.7 kilometers wide.
  - Two operational decontamination sites.
  - One thorough decontamination site.
- Is assigned to the corps; one per light division.

The *Chemical Company (Smoke Generator) (Motorized)*—

- Provides smoke support to the corps.
- Provides two platoon smoke sites with a smoke width of 3.4 kilometers per platoon or one company site 6.8 kilometers wide.
- Normally has four or more companies assigned to a corps.

The *Chemical Company (Smoke Generator) (Mechanized)*—

- Provides smoke support to the corps.
- Provides three platoon smoke sites with a smoke width of 1.3 kilometers per site or one company site 3.7 kilometers wide.
- Is assigned to the corps; one per heavy division.

NOTE: See also Figure A-10.

Type Aircraft	Weapon System (1)	Range (m)	Endurance (hr:min)	Average Speed (2) (knots)	Maximum Load
AH-1F	TOW (8 each) 2.75-in Rockets Hydra 70 Rockets 20-mm Cannon	3,750 6,000 8,800 1,500	2:00	100	
AH-64A (3)	Hellfire (16 each) Hydra 70 Rockets 30-mm Cannon	8,000 8,800 3,000	1:45 3:15 (4)	140	
UH-1H			2:00	90	2,000 lbs or 1-Inf Squad
UH-60A UH-60L			2:00	145	6,000 lbs or 1-Inf Squad 8,000 lbs
CH-47D Platoon			3:00	140	20,000 or 1-Inf Platoon
OH-58C	Stinger		2:45	90	
OH-58D(5)	Hellfire (4 maximum) Hydra 70 Rockets 50-cal Machine Gun (1) Stinger (4 maximum)	8,000 8,800 2,000 5,000	2:00	100	

NOTES:

1. Can be armed with any system or combination if maximum rounds are reduced.
2. Low-level flight for planning route to and from target and/or LZ area. Nap of the earth (NOE) flight speed averages 35 knots (65 kph).
3. AH-64 is capable of operating in limited visibility and at night.
4. When fitted with one auxiliary 230-gallon fuel tank.
5. Kiowa Warrior is an armed version of the OH-58D. It can be fitted with a combination of weapons, but it only has two weapons pylons.

Figure A–9. Corps helicopter resources

Chemical Decontamination Considerations include—

- Principles and considerations:
  - As soon a possible.
  - Only that which is necessary.
  - By priority.
  - Cost and benefit of decontamination operations versus natural weathering and decay.
  - Availability of water and hours of darkness for decontamination.
- Vulnerable areas for persistent agents:
  - Enemy observation posts (OPs) and artillery.
  - Critical targets damaged by high explosives (HE) to delay recovery or repair.
  - Enemy fire support C^2.
  - Logistic areas and reserve and staging areas.
  - Second-echelon forces, airfields, ports.
- Equipment decontamination planning times:
  - Operational: 2 minutes per vehicle.
  - Thorough: 90 minutes first vehicle; 10 minutes per vehicle thereafter.
  - Limited night capability.
  - Availability of water.

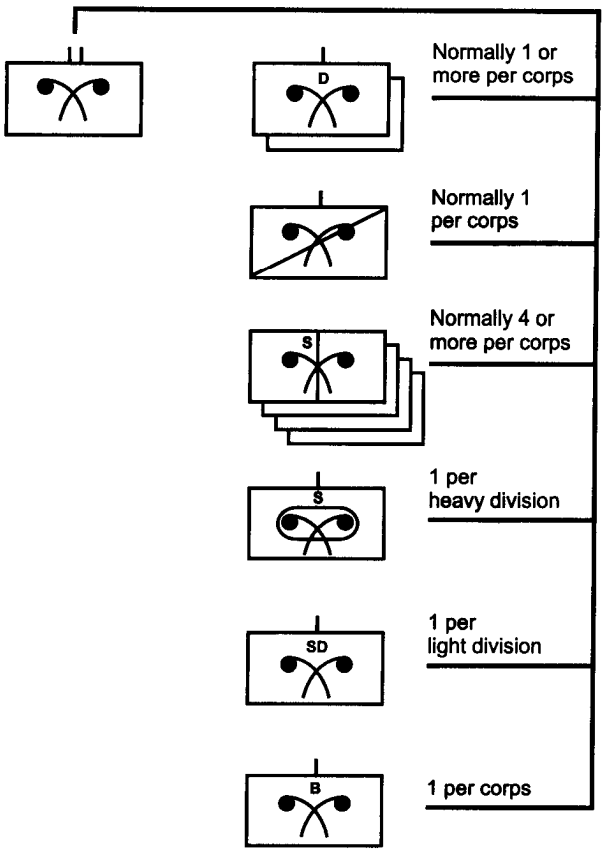


Figure A–10. Corps chemical brigade organization

- Joint and combined considerations:
  - Apprise the support command of NBC warfare requirements for inclusion in the TPFDL.
  - Coordinate with HN, allied, and other component commanders as to their NBC defense and smoke capabilities.
  - Coordinate joint chemical warfare request procedures (CWRP).
  - Check interoperability of NBC reports, alarms, and warnings.
  - Recommend task organization and priorities for NBC defense and smoke support.
  - Exchange NBC SOPS.

Chemical Smoke/Obscurants Considerations include—

- Wind speed and direction, temperature gradient.
- Coverage of static logistic activities.
- Mobility/survivability of motorized versus mechanized units.
- Impact of dust, fog, snow, and rain.
- Visibility:
  - Smoke haze: From 50 to 150 meters.
  - Smoke blanket: 50 meters.
- Effect on both friendly and enemy electro-optic systems and smart weapons.
- Effect on C^2.
- Countermeasures.

Chemical Protection Considerations include—

- Individual: Service NBC attack.
- Unit: Accomplish missions under NBC conditions.

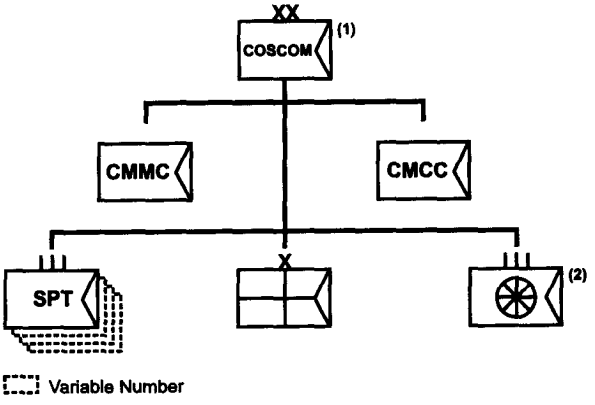
Chemical Contamination Avoidance Considerations include—

- Implement passive defensive measures.
- Warn and report NBC attacks.
- Locate and identify NBC hazards.
- Limit exposure to NBC hazards.

Corps Combat Service Support

Corps Support Command. The COSCOM coordinates logistic elements in support of corps forces or the current operational plans of unified or joint commands. It organizes different types of logistic units into a support package to meet the mission requirements of the supported force. The COSCOM's organization is METT-T dependent and is tailored to perform CS, CSS, maintenance support, transportation support, and CHS (Figure A-11).

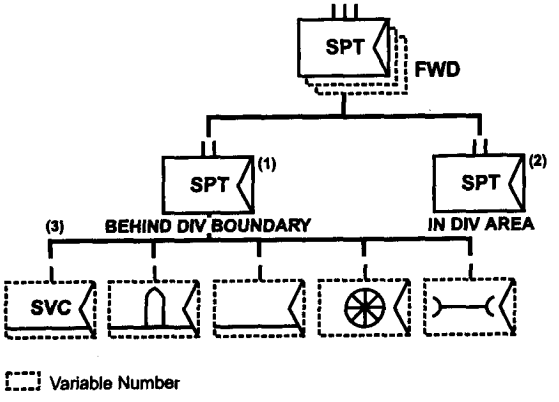
Corps Support Group (CSG) (Forward). A forward CSG consists of multifunctional CSBs that have no fixed structure. Each CSB consists of a headquarters and required fictional companies. One CSB in each forward CSG supports nondivision troops in the division area. Other CSBs of the forward CSG are normally behind the division rear boundary (Figure A-12). They provide—



NOTES:

1. Chemical units, CA units or a CA battalion and PSYOP units may be attached to the corps or the COSCOM.
2. Assigned if three or more functional transportation battalions are included in the force structure.

Figure A–11. Corps support command organization



NOTES:

1. Number of battalions dependent on force structure, geography, and span of control.
2. Direct support units only.
3. Units are assigned based on supported units.

Figure A–12. Corps support group (forward) organization

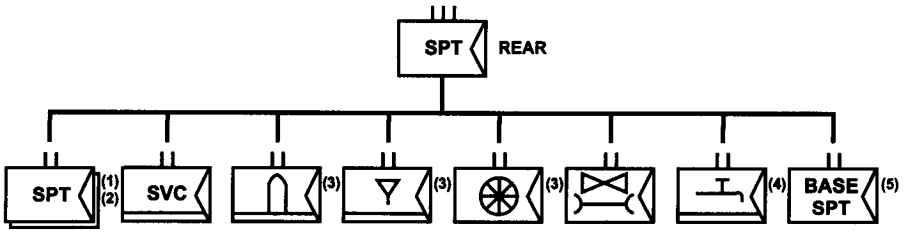
- Direct support to nondivision units in their area as well as GS supply, backup maintenance, and field services to the division.
- Logistic support (less personnel, finance, and CHS) to nondivision forces operating in a division area; support is on an area basis.
- General support supply to the division, separate brigades, or ACR; depending on task organization, this may include GS-level ammunition, petroleum, and general supplies.
- Area support to units in the CSG's area of responsibility behind the division's rear boundary.
- Reinforces DS maintenance and field service support to divisions, separate brigades, and ACRs.
- Is allocated one per division; METT-T determines CSB organization.

Corps Support Group (CSG) (Rear). The rear CSG consists of multifunctional CSBs, which provide area support in the corps rear, and fictional battalions, which provide corps support forces and reinforcing support to forward CSGs (Figure A-13). They also provide—

- Logistic support (less personnel, finance, and CHS) on an area basis to units employed in or passing through its AO, including divisions, separate brigades, and ACRs held in reserve; the rear CSG also supports hospitals and replacement units that normally operate in the rear of the combat zone.
- Reinforcing support to the forward CSGs; the rear CSG's subordinate units maintain the bulk of the corps' GSS base from which to resupply forward CSG GS and DS units.
- Corps support of petroleum, ammunition, transportation, aviation intermediate maintenance (AVIM), airdrop, and mortuary affairs as well as—
  - General support supply units assigned to the rear CSG that provide supplies to DS units.
  - Trucks that may throughput bulk Class III, Class IV, and Class V supplies from the corps' rear area to the division support area (DSA).
  - May also push water forward to support chemical unit requirements in the division AO.

Medical Brigade. The medical brigade commands and controls all corps medical units not organic to divisions, separate maneuver brigades, and cavalry regiments (Figure A-14). It also—

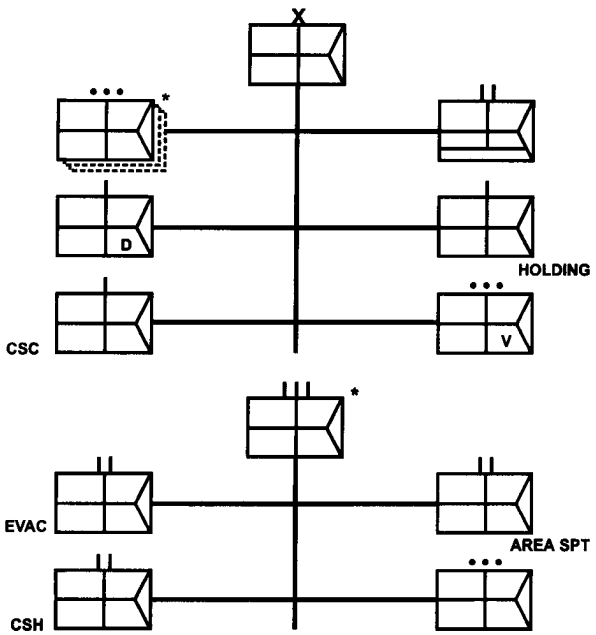
- Controls and provides staff supervision for medical groups; a medical logistic battalion; and



NOTES:

1. Number of battalions dependent on force structure, geography, and span of control.
2. Direct support units only.
3. May be HN support.
4. Attached to support corps requirements in an arid environment.
5. Theater dependent.

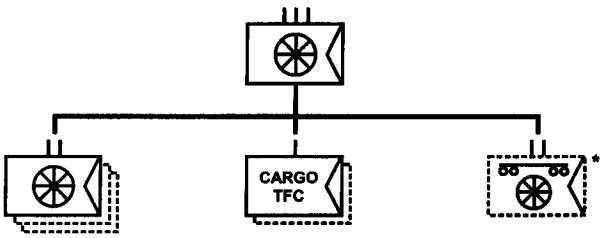
Figure A–13. Corps support group (rear) organization



Variable Number

* May include assigned or attached surgical, preventive medicine, and professional detachments.

Figure A–14. Corps medical brigade organization



Variable Number

* Normally assigned to TA, TRANSCOM

Figure A–15. Corps transportation group organization

dental, combat stress control (CSC), preventive medicine, and veterinary units.

- Provides task organizations to meet medical workload demands.
- Advises the senior commander on medical aspects of combat operations and OOTW.
- Provides for medical regulation of patient movement between medical treatment facilities within the corps and coordination for patient movement out of the corps.
- Provides consultative services and technical advice in preventive medicine (environmental health, medical entomology, radiological health, sanitary engineering), nursing, dental, veterinary medicine, and psychiatry.
- Provides control and supervision of Class VIII supply and resupply movement.

Transportation Group. The transportation group provides transportation support to personnel, mail, cargo, packaged POL, ammunition, and heavy or outsized cargo or vehicles (Figure A-15). Its—

- Transportation railway battalions may be assigned to the corps.

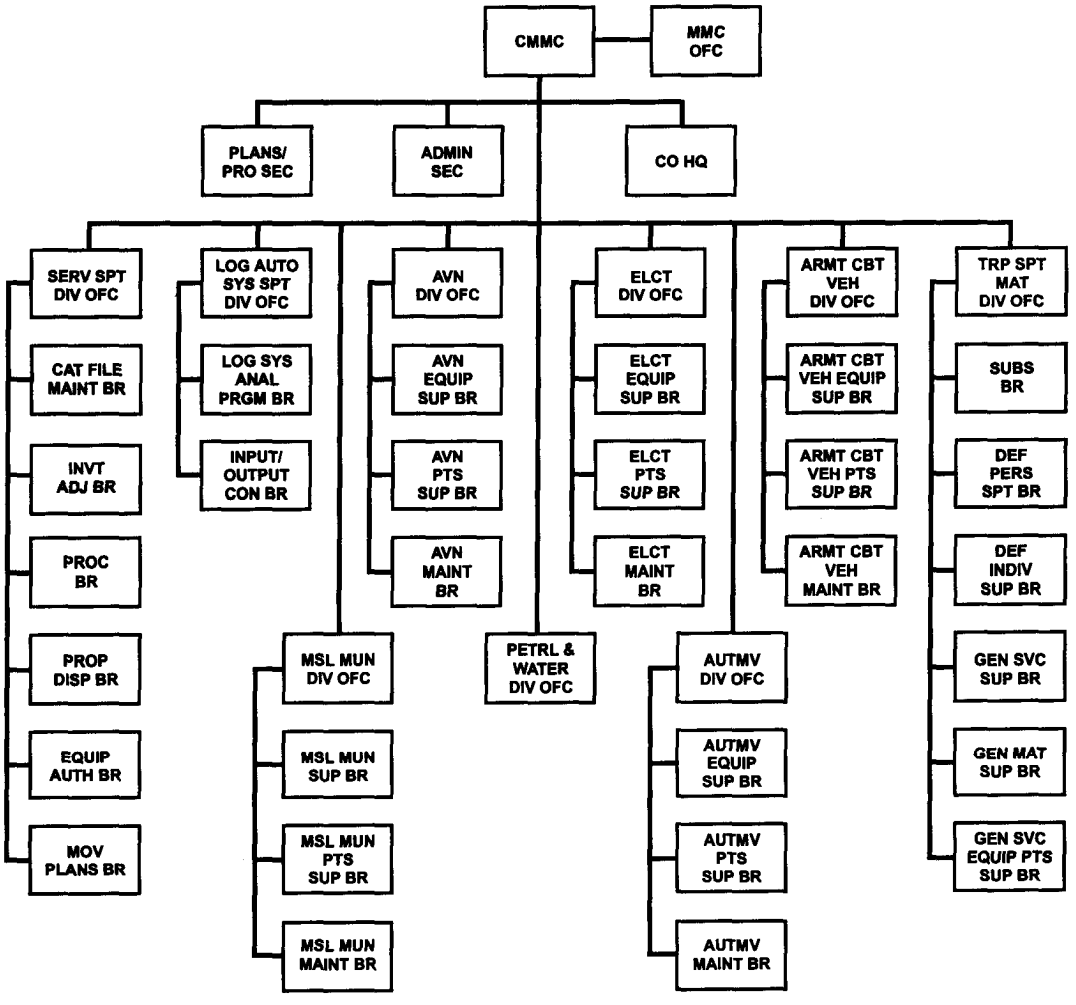


Figure A–16. Corps materiel management center organization

- Transportation battalions provide corps-wide support.
- Transportation cargo transfer companies support mode-change.

Corps Materiel Management Center (CMMC). The CMMC—

- Provides centralized control of all GSS within the corps.
- Maintains asset visibility of selected DS level stocks in Class II, packaged Class III, IV, VII, and IX supplies.
- Manages DS maintenance support operations.

NOTE: See Figure A-16.

Corps Movement Control Center (CMCC). The CMCC—

- Provides centralized movement control and highway regulation.
- Monitors transportation usage.
- Forecasts transportation needs.
- Coordinates transportation support activities with the CMMC.

NOTE: See also Figure A-17.

Personnel Support. Personnel support is a major element of CSS. Personnel services encompass the tactical functions of manning and the personnel service support portion of sustaining soldiers and

their systems. The six personnel support functions include the following:

- The finance group (FG)—
  - Provides C^2 of all finance battalions (FBs).
  - Commander serves as the corps' finance staff officer.
  - Provides finance support to all Army commands and to soldiers located within the corps' boundary; supports joint and combined commands as directed, including—
    - Military pay.
    - Commercial vendor services.
    - Disbursing and funding.
    - Accounting.
    - Foreign national pay.
    - Civilian pay.
    - EPW pay.
    - Contracting support.

NOTE: See also Figure A-18.

- The personnel group—
  - Provides C^2 for PSB, a replacement company, and a band.
  - Provides personnel service support to corps, divisions, and other units on an area support basis.
  - Maintains strength of all area units.
  - Monitors and reports casualties.
  - Recommends priority for replacements and projects future personnel requirements.
  - Provides replacements to area units.
  - Provides postal support.
  - Includes the band.

NOTE: See also Figure A-19.

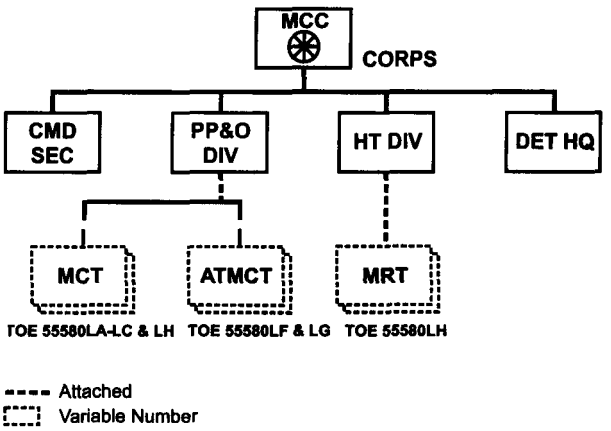


Figure A–17. Corps movement control center organization

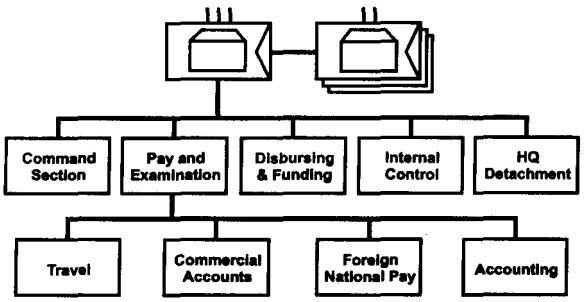


Figure A–18. Finance group organization

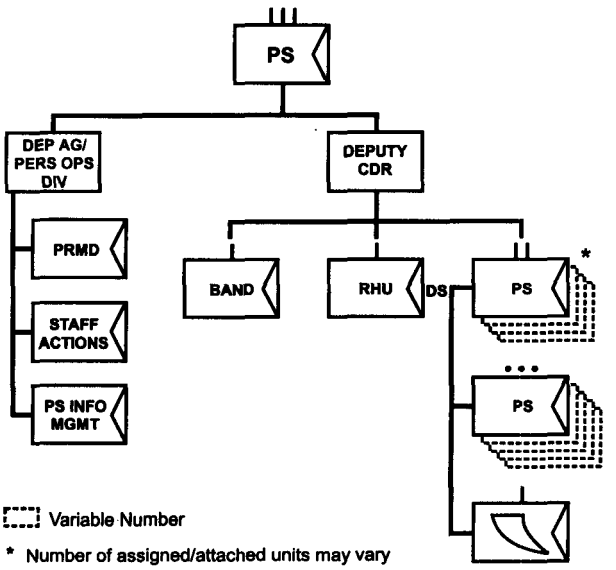


Figure A–19. Personnel group organization

- The public affairs office—
  - Advises and informs the commander regarding PA guidance.
  - Makes staff estimates and assesses PA impact of command actions.
  - Satisfies soldiers' needs for military and domestic information.
  - Coordinates media representatives' logistic needs.
  - Gathers and releases newsworthy information.
  - Explains command operations to the media in easily understandable terms.
  - Provides PA units (press camp headquarters and mobile PA detachments) to assist the corps PAO, and other units without a dedicated PAO, in the performance of command and public information services.
  - Responds to media queries.
  - Distributes command information.
  - Trains "working with the media" to commanders and their subordinates.
  - Acts as a focal point for the commander to interface with media.
  - Uses resources to communicate internally and externally.
  - Helps enhance morale.

Corps Engineer

The *Corps Engineer Brigade*—

- Commands and controls all corps engineer units that are not organic to divisions, separate maneuver brigades, and cavalry regiments.
- Reinforces engineers organic to divisions, separate brigades, and cavalry regiments.
- Controls and staff-supervises theater engineer forces operating in the corps area.
- Provides mobility, survivability, and sustainment engineering support to the corps based on METT-T.
- Tasks and prioritizes the work of a topographic engineer company from the theater topographic battalion placed in direct support to the corps.
- Provides staffing for a corps staff engineer section that supports each corps CP.
- During force-projection operations, could function as the theater engineer and regional contingency engineering manager (RCEM), with augmentation required in the areas of real estate acquisition, construction management, and construction contracting support.

NOTE: See also Figure A-20.

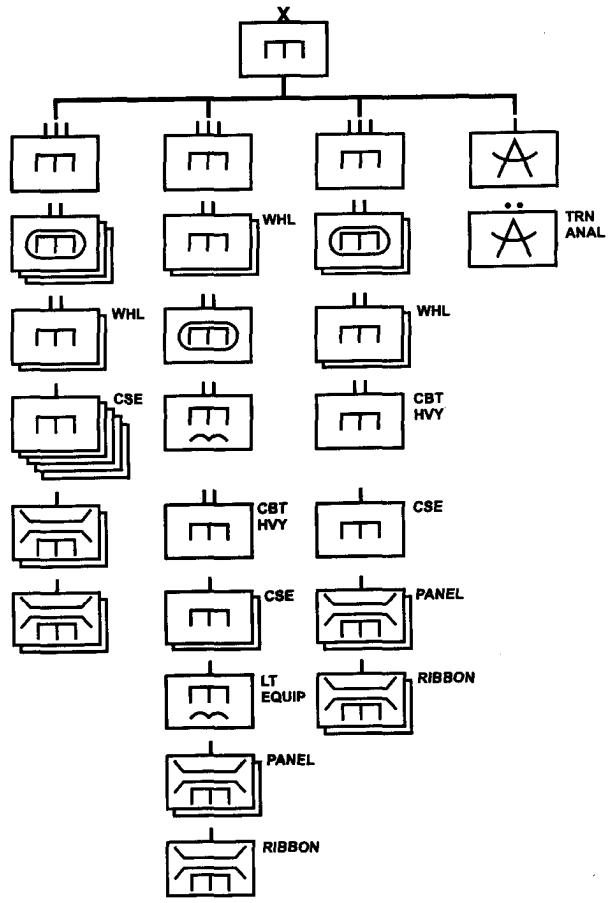


Figure A–20. Corps engineer brigade organization

The *Engineer Group (Combat)*—

- Commands and controls from five to seven subordinate corps engineer units on either an area or functional basis, either far forward in the division and brigade areas or in the corps rear area.
- May become the crossing force engineer headquarters for large-scale mobility operations, including river crossings and complex obstacle breaching.
- May control GS general engineering in corps and division rear areas, focusing on construction of MSR and logistic support bases.
- May be task-organized to support a division when the division's reinforced corps engineer strength exceeds the C^2 capability of the division engineer and his staff.

The *Engineer Battalion (Corps) (Mechanized)*—

- Conducts engineer operations in close combat and will fight as mechanized infantry when required.
- Is used to weight the offensive main effort and can be organized to reinforce armored or mechanized divisions, separate armored or mechanized brigades, and ACR engineers by—
  - Supporting corps RISTA forces, including breaching natural and man-made obstacles and improving trafficability of routes for ACRs, self-propelled field artillery, and logistic units.
  - Constituting the breach force for deliberate armored or mechanized brigade, division or corps-level breaches, preserving organic maneuver engineers for follow-on operations.
  - Following and widening breaches conducted by organic maneuver engineer units or breaching bypassed obstacles.
- In the deliberate defense, can be task-organized to reinforce organic maneuver engineers by—
  - Providing countermobility and survivability support.
  - Emplacing ground-emplaced scatterable minefield and_&nventionaj obstacles, such as road craters and bridge demolitions.
  - Constructing vehicle fighting positions.
- Requires augmentation from engineer combat support equipment (CSE) companies for sustainment engineering and extensive survivability missions.

The *Engineer Battalion (Corps) (Wheeled)*—

- Provides engineer support to corps close and rear operations and can fight as mounted or dismounted infantry when required.
- Executes mobility operations forward of the brigade support areas (BSA) to maintain supply routes used by logistic units, tactical routes, and combat trails.
- Can be task-organized to divisions and separate brigades during the deliberate defense.
- Provides countermobility support to corps close operations to prepare the battlefield for decisive operations, including emplacement of the corps' obstacle plan.
- Provides general engineering support to---
  - Keep LOCs open by building, maintaining, and repairing roads, combat trails, forward airfields, and logistic facilities.
  - Construct logistic bases and conduct technical-skill-intensive sustainment engineering operations with task-organized CSE companies and theater engineer units.

The *Engineer Battalion (Corps) (Light)* and *Engineer Battalion (Corps) (Airborne)*—

- Are strategically mobile to accompany rapidly deploying force-projection forces and are designed to support corps close operations and fight as light infantry when required.
- Reinforce engineers in light airborne, and AASLT divisions; separate light brigades; light cavalry regiments; and special operations forces.
- Contain down-sized engineer equipment capable of being rapidly deployed anywhere in the world.
- Build, maintain, and repair lodgement airfields, logistic bases, and LOCs.
- Construct individual and vehicle survivability positions for initial arriving forces.
- Widen and improve breaches that light division engineer forces create.

- Are normally task-organized with attached engineer light equipment companies.

The *Engineer Battalion (Combat (Heavy)*—

- Executes a wide variety of horizontal and vertical construction missions, often simultaneously.
- Is rapidly deployable by ship, relatively self-sustaining, and able to operate independently in remote areas.
- Constructs and provides rapid repair of facilities such as airfields, roads, bridges, theater of operations structures, and prefabricated structures.
- Manages and assists in the construction of ports, pipelines, wells, power plants, and power distribution networks with augmentation from theater engineer forces.
- Can be task-organized to the corps or division to reinforce their general engineering effort and augment their earthmoving capability.

The *Engineer Company (Light Equipment)* and *Engineer Company (Light Equipment (Airborne)*—

- Support light, air assault, and airborne engineer forces with down-sized, rapidly deployable engineer equipment.
- Are normally attached to corps or division light, air assault, or airborne battalions but can be task-organized to support corps wheeled or mechanized battalions.
- Perform survivability and sustainment engineering missions in support of early deploying force-projection forces to establish forward logistics bases until heavier corps and theater engineer forces arrive.

The *Engineer Company (Combat Support Equipment*—

- Is a rapidly deployable, equipment-intensive company that possesses significant earth-moving capability.
- Is normally attached to corps mechanized or wheeled battalions to augment the battalion's earth-moving capability.
- Can operate independently under the combat engineer group.
- Performs survivability and tank-ditching during deliberate defensive operations in forward brigade areas; general engineering along MSRs and combat trails in other corps close operations areas; and sustainment engineering, survivability, and tank-ditching operations in corps rear areas.

The *Engineer Company (Topographic) (DS)*—

- Builds and maintains the corps topographic digitized terrain data base using the Army tactical command and control system (ATCCS) and various topographic support systems (TSS).
- Provides digitized terrain information to produce products that are available to all command levels from corps to brigade.
- Employs cartographic and reproduction assets that provide corps units with critical terrain data and products (LOS, air and ground masking, air and ground mobility corridors, image maps, intelligence or operations overlays/overprints, modified combined obstacle overlays (MCOO) and so on).
- Interfaces with the G2 ACE at corps and division to enhance the IPB process and aid in the visualization of the battlefield for all corps operations.
- Provides a terrain analysis team to the ACE to conduct ongoing analysis of the effects of terrain and weather on combat operations as an integral part of the continuous IPB process.
- Provides a second terrain analysis team in GS to other corps headquarters.
- Provides to the corps precise TSS that verifies geodetic data that military intelligence and fire support systems use.

The *Engineer Company (Ribbon Bridge)*—

- Employs a dependable, versatile ribbon floating bridge system that can be rapidly emplaced in a combat environment.
- Is normally task-organized with a corps engineer battalion (mechanized or wheeled) or under a combat engineer group as part of river-crossing operations.
- Ensures that ribbon bridge components can be transported by specialized bridge trucks or sling-loaded by helicopters to the bridge site.

- Provides additional logistic haul capability for the corps when ribbon bridge components are downloaded.

The *Engineer Company (Panel Bridge)* and *Engineer Company (Medium Girder Bridge (MGB))*—

- Rapidly emplaces tactical standard fixed bridging, either panel bridges (normally Bailey bridges) or MGB over wet or dry gaps in a close combat environment.
- Emplaces fixed bridging to replace float bridging or to bridge gaps that exceed the AVLB's capabilities.
- Is normally task-organized with a corps engineer battalion (mechanized or wheeled) or under a combat engineer group to support gap-crossing operations.
- Provides additional logistic haul capability for the corps when fixed-bridge components are downloaded.

The *Medium Girder Bridge (MGB) Company*—

- Provides four 30.5-meter (100-foot) Class-60 bridges or two 48.6-meter (160-foot) Class-60 bridges.
- Has sufficient personnel and equipment to simultaneously assemble two bridges.
- Can provide 32 five-ton dump trucks for other missions when bridging is immobilized.

The *Panel Bridge Company*—

- Provides two 24.4-meter (80-foot) Class-50 Bailey bridges or one 58.5-meter (192-foot) Class-60 Bailey bridge.
- Normally receives augmentation from an engineer combat battalion to construct bridges.
- When the bridge is off-loaded, 28 five-ton dump trucks are available for other missions.

Corps Field Artillery

Corps Field Artillery Considerations include—

- Providing FA assets for close support (DS and R) of subordinate elements and keeping enough assets under corps control (GS-R and GS) to influence the close and deep operations at critical times and places.
- Providing adequate FA support for committed combat units; FA support—
  - Is most responsive to maneuver units when in direct support.
  - Provides minimum support for committed units (one FA battalion in direct support of each committed brigade).
  - Includes no more than one FA unit in direct support of a maneuver unit.
  - Is achieved by additional FA units assigned the mission of reinforcing or GS-R to a DS unit.
- Giving weight to the main attack in the offense or to the main effort in the defense, including—
  - Reinforcing or GS-R missions that can be assigned to provide additional responsive fires to maneuver forces.
  - Being positioned and assigned a zone of fire to concentrate fires.
  - Allocating ammunition to provide for more support in critical areas.
- Facilitating future operations, including—
  - Ensuring success in the face of unforeseen events and smoothly transitioning from one phase of an operation to another.
  - Assigning tactical missions and positioning FA and/or ammunition allocations.
  - Assigning on-order missions that allow field artillery to anticipate future needs.
  - Current tactical missions, positioning, and allocations that planners can modify to anticipate future requirements.
- Providing immediately available FA support for the corps commander to influence the action, including—
  - Assigning GS or GS-R missions to FA units making them responsive to the commander.
  - Ensuring GS or GS-R units have adequate positions and ammunition to support the corps commander.

- Providing maximum feasible centralized control, including—
  - A high degree of centralized control in defensive situations to ensure the commander can influence the situation when the enemy has the initiative and his actions are difficult to predict.
  - A lesser degree of centralized control in an offensive situation when the supported force has the initiative that will allow FA commanders wider latitude.

NOTE: See also Figures A-21 and A-22.

Corps Military Intelligence

The *MI Battalion (Headquarters, Headquarters and Operations)*—

- Provides C^2 for brigade headquarters and other units under brigade control.
- Provides the analysis and control company to the G2 for multidiscipline intelligence and CI analysis; intelligence-collection management and synchronization; support to targeting and target development; and IEW technical control.
- Provides logistic and administrative support to subordinate MI units.
- Provides intelligence special purpose communications, automation, and broadcast intelligence terminals to support corps IEW operations.

The *MI Battalion (Tactical Exploitation (TE))*–

- Plans, executes, and sustains CI, interrogation, and LRS operations.
- Provides 16 CI teams in GS of the corps and, when required, DS of subordinate divisions, brigades, and regiments.
- Provides 121 interrogation teams in GS of the corps and, when required, DS of subordinate divisions, brigades, and regiments.
- Provides 18 LRS teams in GS of the corps.

The *MI Battalion (Aerial Exploitation(AE))*—

- Plans and coordinates aerial reconnaissance and surveillance operations.
- Provides 12 RC-12 special electronic mission aircraft, one integrated processing facility, and associated support systems in GS of the corps.
- Provides 16 UAVs, 4 ground control stations, and 2 launch or recovery sections in GS of the corps and, when required, DS of subordinate divisions, brigades, and regiments.
- Intercepts and locates communications and noncommunications emitters using receiver and DF equipment mounted in special electronic mission aircraft and controlled electronically from a ground-based integrated processing facility.
- Provides near-real time signal intelligence analysis and reporting of information collected by operators controlling receivers and DF equipment on board special electronic mission aircraft.
- Conducts day and night imagery collection using electro-optical and infrared cameras mounted in UAVs.
- Provides near-real time imagery analysis and reporting of imagery collected by UAVs.

The *MI Battalion (Tactical Exploitation (TE)) Reserve Component (RC)*—

- Augments the CI and interrogation capability of the MI brigade.
- Provides a document exploitation section.

NOTE: See also Figures A-23 and A-24.

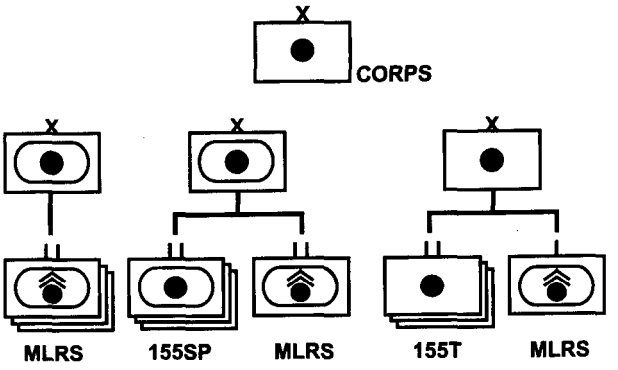


Figure A–21. Corps field artillery organization

Caliber	105-MM	105-MM	105-MM	105-MM	MLRS
Model	M102	M119	M109A2 M109A3 M109A6 (Palidin)	M198	M270
Maximum Range	11,500	14,000	18,100 24,000	18,100	30,00 100 (+) km (ATACMS)
Ammunition	HE Illumination HEP-T APICM APERS WP RAP	HE Illumination HEP-T APICM APERS WP RAP	HE DPICM APICM Smoke RAP FASCAM Copperhead WP Illumination	HE DPICM APICM Smoke RAP FASCAM Copperhead WP Illumination	DPICM
Maximum Rate of Fire/Minute; Number of Minutes	10.3	6.2	4.3 1.0 (A6)	4.3 then 20	12 rds 2 (ATACMS)
Sustained Rate of Fire; Number of Minutes	3	3,30 then 1	1,60 then .5	1 (for charge 8, 1 rd/minute; then 1 rd/3 minutes thereafter.	
Range of RAP (m)	15,100	15,100	23,500 (A2/A30) 30,000 (A6)	30,000	
Fuzes	PD, VT, MT, MTSQ, CP, DELAY	PD, VT, MT, MTSQ, CP, DELAY	PD, VT, MT, MTSQ, DELAY	PD, VT, MTSQ, CP, DELAY	Electronic Time

Figure A–22. Field artillery resources

Corps Military Police

The *Headquarters, MP Brigade*—

- Provides C^2 for from 3 to 6 MP battalions.
- Provides liaison at the corps MCC and the corps rear CP and locates the long-range planning section near the corps main CP.
- Commander also functions as corps provost marshal (PM).
- Coordinates with HN military and civilian police authorities.
- Normally assigns one brigade to the corps.
- Is GS to the corps and receives guidance and/or taskings from the corps CP.
- Is a highly mobile force with sufficient combat power to defeat Level II threats to rear areas; when designated a TCP and augmented according to METT-T—

– Assignment of static security missions should be minimized.

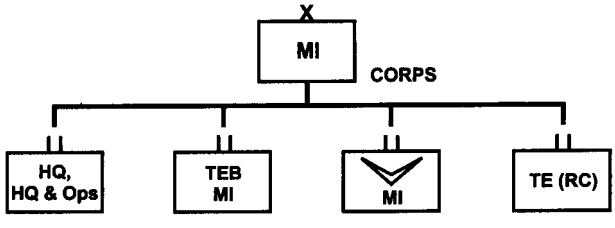


Figure A–23. Corps MI brigade organization

COLLECTION	RANGE	DOWNLINK TO USERS
Organic ground resources:		
– Interrogators	25 km	None. Voice radio or teletype to corps G2. Two hours to G2 ACE. May be attached or DS to maneuver unit CEWI.
– LRSU	150 km	None. Data burst communications to base station retransmissions to communications control set at the ACE.
Organic aerial resources:		
– Communications and nonintercept (GRCS)	150 km	NRT to corps. Downlinked into G2 ACE by ground terminal.
– Imagery (UAV-SR)	125 km	NRT to corps and division via RVT.
Special forces	150 km	LNO to corps. Voice radio to SFOB. Up to 24 hours to corps G2 ACE.
Air reconnaissance	All corps areas	Some real time to USAF ground stations. From two to four hours to corps ASOC. Some real-time downlink to compatible Army ground stations at corps ACE.
Theater systems		NRT via GSM to corps and division.
– Imagery (J-STARS)	200+ km	
National systems	150 km	Classified. Platform dependent.

NOTE: Generally flown from 30 to 45 kilometers behind the FEBA.

Figure A–24. Corps IEW resources

—Access to intelligence and fire support should be maximized.

- Is inadequately resourced to simultaneously perform BCC, area security, EPW, and law-and-order operations or when—
  - The rearCP establishes priorities forMP support.
  - Priorities must support the rear operations commander's intent and concept.
- Normally attaches one MP company to each maneuver division.
- May attach additional MPs to support divisions and units conducting river-crossing operations.

The *Headquarters, MP Battalion,* provides C^2 for from 3 to 6 MP companies. Each MP company, combat support—

- Provides BCC for—
  - Route reconnaissance and surveillance.
  - Main supply route regulation enforcement.
  - Straggler control.
  - Refugee control.
  - Intelligence collection and reporting.
  - Information dissemination.
- Provides area security for—
  - Area reconnaissance and surveillance.
  - Security of designated critical assets (for example, corps main CP).
  - Area damage control.
  - Terrorism counteraction.
  - Nuclear, biological, and chemical detection and reporting.
  - Response force operations.
  - Counterincursion operations.
  - Air base ground defense (when tasked).

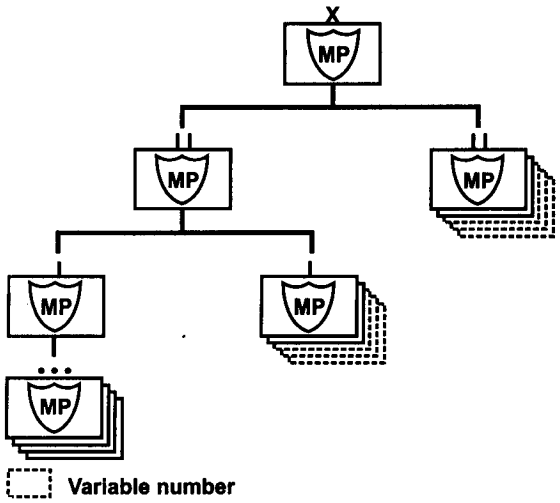


Figure A–25. Corps MP brigade organization

- Provides EPW and civilian internee collection and evacuation.
- Conducts law-and-order operations.

NOTE: See also Figure A-25.

Corps Signal Brigade (Mobile Subscriber Equipment)

The ***Headquarters, Signal Brigade--***

- Provides C^2 for from one to three area signal battalions and one support battalion.
- Provides a corps signal officer to support operational and planning requirements of corps headquarters.
- Provides assistance to MSCs.
- Provides a corps COMSEC officer.
- Provides systems engineering and network control branches for area, combat net radio (CNR), and data distribution systems.
- Provides communications and electronic maintenance for organic equipment.
- Provides a tactical satellite company to extend the range of the area common user (ACU) system (ACUS).

The ***Area Signal Battalion—***

- Provides three area signal companies; each capable of—
  - Installing, operating, and maintaining two node switching sites (NSS) and their associated extension switching facilities to provide mobile and stationary subscribers access to the ACU network.
  - Employing LOS radios to interconnect the NSS forming a grid interconnecting these major node centers and giving the ACUS the survivability and multiple access required by corps users, and which then connect to extension switches, via LOS radio, to provide access to the area wire subscribers and to the radio access units supporting the mobile users.
- Provides one support signal company that—
  - Provides large and small capacity switchboards (extension switches), which can support up to 176 wire subscribers, will normally be used to support the COSCOM or rear CP.
  - Provides radio access for mobile users.
  - Provides a data distribution section and a single-channel objective tactical terminal section when equipment is available.

The *Support Signal Battalion—*

- Provides support throughout the corps area, with possible missions of augmenting the corps' divisions and supporting corps deep operations.
- Consists of two area signal companies and one support company identical in equipment and personnel to the area signal battalion.

Signal Considerations include, when fully deployed, the corps area network that provides coverage for an area of approximately 37,000 square kilometers. Other signal considerations include the following:

- The corps area network can interface with joint or combined forces and HN communications.
- The mobile telephone can provide some commanders and other selected users continuous access to the area communications system during movement and CP displacement.

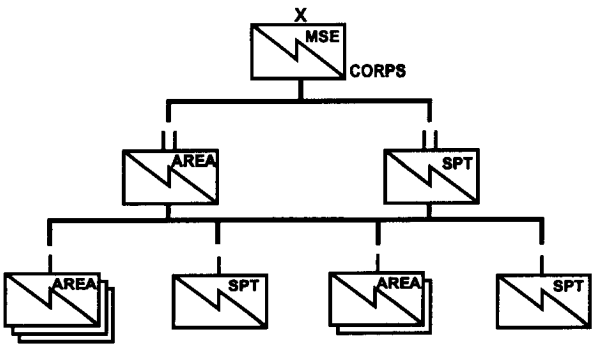


Figure A–26. Corps signal brigade organization

- Large and small extension switches can be remoted up to five miles from their supporting LOS radios, greatly reducing the electronic signature.
- Some extension switches can interface with the CNR, thus allowing single-channel ground and airborne radio system (SINCGARS) users access to the ACUS.
- Selected extension switches have a NATO analog interface to allow interoperability with allied area communications systems.
- The POSNAV system can provide high-volume data distribution in addition to its location capability (including manpack, surface, and airborne terminal configurations).
- The signal brigade can support corps deep operations through the use of LOS relays to extend the area communications system and improved high-frequency single-channel radio transmissions.
- Communications equipment is designed to operate during all weather conditions.
- With skilled crews, emplacement times for major NSS should not exceed 30 minutes.
- Communications sites that require logistic support from either their parent unit or the supported unit; this requirement must be included during planning and adjusted in response to the tactical situation.
- Communications equipment is designed to operate effectively in an ECM and/or EMP environment.

NOTE: See also Figure A-26.

Special Forces (SF)

Special Forces Detachments, Special Forces Battalion Headquarters (Special Forces Operational Detachment-C (SFOD-C)); and Special Forces Company Headquarters (Special Forces Operational Detachment-B (SFOD-B))—

- Plan, direct, and support special reconnaissance, direct action, FID, and UW missions.
- Normally establishes and operates a forward operating base (FOB) to control detachments in theater.
- May serve as a SOCCE located with a conventional force headquarters.

Special Forces Operational Detachment-A (SFOD-A)–

- Plans and conducts special reconnaissance, direct action, FID, or UW missions independently or as part of a larger force.
- Infiltrates and exfiltrates by air, sea, and land.
- Operates in remote areas and hostile environments for extended periods with minimal external direction and support.

Rangers

The rangers plan and conduct special operations and special light infantry operations. The focus is normally deep penetration raids or interdiction operations against targets of strategic or operational significance. These targets generally require tactics that limit collateral damage or allow an intact seizure of a facility for subsequent use by immediately converging force, such as—

- Command, control, communications, and intelligence centers at front and army level.
- Nuclear, biological, and chemical weapons storage sites and delivery means.
- Key logistic centers.
- Air defense and air traffic control integrating centers and air defense weapons sites.
- Radio and television stations, microwave terminals, satellite receiving stations, and telephone lines or exchanges.

- Key power generation and distribution facilities, lines transformers, and grid monitoring centers.
- Airfield and critical transportation nodes.
- Key choice points (such as bridges, tunnels, locks, dams, and mountain passes or routes in restrictive terrain) on vital locations.
- Rescue and evacuation missions.
- Tactical reconnaissance.

Civil Affairs (CA)

The *CA Brigade-*

- Commands and controls from three to five battalions not attached to subordinate corps units.
- Plans and conducts CA in support of corps operations.

The *CA Battalion—*

- Plans and conducts CA in support of a DISCOM or COSCOM.
- Provides CA teams to serve as CA staff elements for the major subordinate elements of a division or the area support groups of a COSCOM.

Civil Affairs Planning Considerations include the following:

- Civil affairs must be filly integrated into corps operations to minimize civil interference and maximize HN support.
- When the corps is operating in a friendly nation having an effective government, CA support will primarily consist of coordination and liaison; when operating in enemy territory or in a friendly nation with a weak or ineffective government, CA units may have to establish a temporary civil administration until existing conditions stabilize.
- The corps commander must comply with international and US national law and, where applicable, with foreign national law.

Psychological Operations (PSYOP)

The *Tactical Support Battalion—*

- Provides a CPSE for a supported corps.
- Coordinates corps PSYOP support requirements with the POTF/JPOTF.
- Performs detailed PSYOP support planning.
- Conducts PSYOP assessments.
- Provides tactical PSYOP companies to the supported corps' attached divisions.

The *Tactical Support Company—*

- Provides PSYOP staff support to division and brigade headquarters.
- Disseminates PSYOP products (loudspeaker messages, leaflets, posters, and so on) and conducts face-to-face communications at the tactical level.
- Executes PSYOP actions at the tactical level in support of PSYOP programs.
- Coordinates division and brigade PSYOP support requirements with the POTF/JPOTF.

Psychological Operations Considerations include the following:

- The corps must ensure continuity with strategic and operational PSYOP being conducted at EAC.

Augmentation of the PSYOP battalion by indigenous writers, announcers, illustrators, and interpreters will enhance the operational effectiveness of the unit.

NOTE: See also Figure A-27.

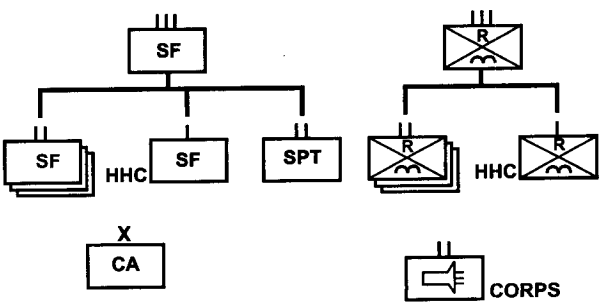


Figure A–27. Special operations forces organization

Appendix B

COMMAND POST/CELL FUNCTIONS

This appendix contains lists of the functions that corps CPs or CP cells perform. These lists are an expansion of the functions Chapter 4 addresses. However they are not an all-inclusive listing of every task each CP or cell must perform.

TACTICAL, MAIN, AND REAR COMMAND POSTS

Tactical Command Post

The major functions of the TAC CP are-

- To control corps close operations.
- To monitor the execution of corps plans.
- To synchronize combat, CS, and CSS in support of close operations
- To issue warning orders and FRAGOs in support of close operations.
- To maintain current close operations situation information.
- To assess the current tactical situation.
- To assess the status and capabilities of friendly forces.
- To monitor the status of CS and CSS in close operations.
- To update CS and CSS requirements of close operations.
- To provide close operations situation information to the main CP.
- To monitor deep operations for effects on close operations.
- To monitor rear operations for effects on close operations.
- To plan for local security of the tactical CP.

Main Command Post

Headquarters Cell

The major functions of the headquarters cell are--

- To coordinate and synchronize the activities of the main CP.
- To provide guidance to the staff at the main CP.
- To analyze situation information to anticipate future requirements.
- To provide and accept command liaison elements.
- To plan for local security of the main CP.
- To arrange for the movement of the main CP or specific cells.
- To receive and accommodate visitors.
- To plan for the assumption of TAC or rear CP functions at the main CP.

Current Operations Cell

The major functions of the current operations cell are—

- To synchronize current corps close, deep, and rear operations.
- To issue warning orders and OPORDS.
- To modify OPORDs as required.

CONTENTS

TACTICAL, MAIN, AND REAR COMMAND POSTS B-1
Tactical Command Post B-1
Main Command Post B-1
Rear Command Post B-4
ASSAULT COMMAND POST B-5
FORWARD AND REARWARD COMMAND POSTS B-5
Forward Command Post B-5
Rearward Command Post B-5

- To control tactical movements.
- To control deep maneuver operations.
- To maintain current close, deep, and rear operations situation information.
- To assess the status of friendly forces.
- To assess the tactical situation.
- To assess the status of C^2 signal and/or automation capabilities to support current operations.
- To allocate resources to current operations.
- To develop branches to the current OPLAN.
- To change subordinate unit missions and task organization as required to implement changes to the plan.
- To change boundaries and other control measures as required.
- To provide current situation information to higher, lower, and adjacent headquarters and to other CPS and cells.
- To request reinforcements.
- To receive and issue NBC warnings and reports.
- To operate the emergency action center.
- To monitor SOF operations.
- To monitor close and rear operations situation information from the TAC and rear CPs.
- To supervise the corps A^2C^2 element collocated with the fire support cell.

Plans Cell

The major functions of the plans cell are—

- To plan future close, deep, and rear operations (sequels).
- To use IPB products in planning future operations.
- To develop COAs for future operations.
- To synchronize future operations during the development of plans.
- To plan tactical movements.
- To task-organize the corps for future operations.
- To incorporate PIR into future operations.
- To incorporate deception and other C^2W into future operations.
- To integrate SOF into future operations, as available.
- To incorporate reconstitution requirements into the plan.
- To plan, with the FSE, nuclear target nomination to support future operations.
- To prepare conventional target lists with the FSE.
- To integrate joint, allied, HN, and combined communications systems into future operations.
- To coordinate combat, CS, and CSS with higher and adjacent headquarters and within the corps.
- To review subordinate unit plans and orders for compliance with corps orders and the commander's intent.
- To monitor the current situation for its impact on future operations.
- To adjust future operation plans based on current and anticipated situations.
- To continuously plan future A^2C^2 requirements.

Command and Control Warfare Cell

The major functions of the C^2W cell are—

- To plan the corps' overall C^2W effort.
- To develop counter-C^2 and C^2 protection concepts to support the concept of operations.
- To establish C^2W priorities to accomplish planned objectives.
- To determine the availability of C^2W resources to carry out C^2W plans.
- To recommend taskings to the G3 for C^2W operations.
- To coordinate corps C^2W operations with higher echelons responsible for the overall C^2W campaign.
- To coordinate consolidated intelligence support to the five elements of C^2W.

Intelligence Cell

The major functions of the intelligence cell are-

- To plan and direct the corps intelligence effort based on the commander's PIR.
- To collect and process information from multiple sources according to the corps' collection plan.
- To produce and disseminate intelligence and targeting information that supports the commander's planning and operational needs.
- To provide indications and warning of enemy actions that may jeopardize the corps or present an opportunity for decisive action.
- To perform IPB supporting current and future operations.
- To conduct situation development to help the commander reduce risk and uncertain as the corps executes the plan.
- To develop targets and support targeting of high-value and high-payoff targets.
- To support force protection through intelligence and CI operations.
- To perform BDA of priority targets.
- To provide IEW support to C^2W.

Fire Support Cell

The major functions of the fire support cell are-

- To control all lethal and nonlethal deep fires.
- To ensure adequate fire support to the corps' current close, deep, and rear operations.
- To control counterfires, if not managed by subordinate maneuver units.
- To coordinate air support through the ASOC/TACP and/or the direct air support center (DASC).
- To coordinate SEAD and/or J-SEAD operations.
- To coordinate combat aviation employment with fire support operations.

Deep Operations Coordination Cell

The DOCC is usually located in the main CP. However, the commander may position this cell in any location he deems appropriate. The major functions of the DOCC are-

- To plan and execute deep operations in support of corps OPORDs.
- To synchronize combat, CS, and CSS in support of deep operations.
- To determine high-payoff targets for deep operations.
- To interface with the JTCB and the corps targeting cell to provide linkage to joint and organic fires.
- To develop the detection and delivery concepts to support deep operations.

Combat Service Support Cell

The major functions of the CSS cell are-

- To monitor personnel, finance, and logistic situation information from the rear CP.
- To monitor personnel, finance, CHS, and logistic operations.
- To monitor the status of personnel strength and morale in the corps' subordinate units.
- To monitor the personnel replacement projections and recommend priorities for their allocation.
- To monitor the status of major weapons systems and recommend priorities for the allocation of replacements.
- To recommend priorities for maintenance support.
- To monitor the status of critical supplies (fuel, ammunition, and so forth) and recommend priorities for their allocation.
- To provide a representative in the plans cell to integrate CSS into future operations.
- To monitor the operational law situation.
- To project CSS capability from 48 to 96 hours into the future.

Rear Command Post

Headquarters Cell

The major functions of the headquarters cell are—

- To coordinate and synchronize the activities of the rear CP.
- To provide guidance to the staff at the rear CP.
- To analyze the rear operations situation for its impact on current and future operations.
- To plan for the assumption of main CP functions.
- To plan and control reconstitution.

Combat Service Support Cell

The major functions of the CSS cell are—

- To collect, analyze, and provide CSS situation information.
- To monitor personnel, finance, and logistic operations.
- To recommend the positioning of CSS units in the rear area to best support the overall corps operation.
- To identify key CSS units and activities that require priority protection.
- To plan and, in coordination with the CMCC's highway traffic division, control administrative movements.
- To designate MSRs and alternate MSRs.
- To establish priorities for administrative movements.
- To plan and control CHS operations.
- To collect, analyze, and provide religious support information.
- To coordinate and reroute administrative movements so as not to conflict with tactical movements.
- To help plan and control tactical movements in the rear area (with the help of the CMCC's highway traffic division in deconflicting the moves).
- To monitor incoming augmentation units (force tracking).
- To maintain civil affairs status and control civil affairs operations.
- To coordinate corps public affairs support.
- To coordinate corps HN and/or LOGCAP support.
- To support reconstitution efforts as directed.
- To coordinate tactical airlift, with the help of the CMCC's plans, programs, and operations division, which validates and commits aviation assets allocated for logistic support.

Operations Cell

The major function of the operations cell are-

- To plan and conduct rear security operations.
- To complete and continually update IPB of the rear area.
- To gather and disseminate early warning of enemy activities in the corps rear area (for example, air attacks, NBC activities).
- To designate response forces to react to rear threats beyond the abilities of bases and/or base clusters to defeat Level H threats.
- To request the commitment of the TCF to defeat Level III threats beyond the abilities of the response forces.
- To coordinate TCF operations.
- To ensure responsive fire support for both response forces and the TCF.
- To integrate available HN forces into the rear security plan.
- To synchronize combat, CS, and CSS in support of rear security operations.
- To plan and control terrain management in the corps' rear area, with the G3.
- To prepare plans for and control of reconstitution efforts, with the CSS cell.
- To monitor current close and deep operations situation information.
- To direct, control, and designate areas of responsibility for subordinate RAOCs. (See Appendix C.)

ASSAULT COMMAND POST

The assault CP is austere. It performs critical corps command functions in tactical operations for special purposes (entry, deployment, retrograde operations). Major functions of the assault CP are-

- Monitoring the current fight with tactical forces on the ground.
- Synchronizing the flow of follow-on forces into the area of operations.
- Synchronizing the expansion and security of the airhead or beachhead.
- Serving as a C^2 link between corps forces on the ground and higher JTF headquarters.
- Facilitating the future establishment of the main CP and continuing in this function until the remaining corps C^2 systems arrive.

FORWARD AND REARWARD COMMAND POSTS

Using a forward and a rearward CP is an emerging concept that defines two zones—the secure area and the combat zone. The forward and rearward CP concept assumes that a reliable communications link can be maintained between the two CPs, thus making distance irrelevant.

Forward Command Post

The primary purpose of the forward CP is to directly support the commander in conducting current operations. Because the commander is expected to remain in the forward area throughout a major operation, the forward CP must be capable of coordinating the development of plans, synchronizing deep operations, and producing intelligence of immediate concern. As much as possible, the amount of detailed coordination, analysis, and integration at the forward CP should be limited so it can remain mobile. Major functions of the forward CP include but are not limited to-

- Control of close operations.
- Synchronization of combat, CS, and CSS to support close operations.
- Synchronization of close and deep operations.
- Limited intelligence production and analysis.
- Control and coordination of immediate fire support means.
- Coordination of airspace and forward AD operations.
- Plans for future operations.

Rearward Command Post

The rearward CP is best characterized as an information repository where detailed planning, coordination, and analysis occur. The rearward CP usually locates in a secure area and is static.

The rearward CP responds to the forward CP's request for information and provides products in the form of analysis, targeting, graphics, future predictions, and so forth. Major functions of the rearward CP include, but are not limited to-

- Rear operations.
- Synchronization of rear operations with close and deep operations.
- Detailed planning, coordination, and analysis.
- Robust intelligence and logistic operations.
- Coordination of CS and CSS operations.
- Planning for future operations.

Appendix C

REAR OPERATIONS

The main CP synchronizes the corps' rear operations with close and deep operations. The rear CP's staff must thoroughly plan and integrate each of the rear operations functional areas (terrain management, security, sustainment, movements) into a comprehensive rear operations concept that supports the commander's concept and intent. The corps must be able to conduct the full spectrum of rear operations in conventional and NBC environments.

As with close and deep operations, deception is an integral part of all rear operations planning. The rear operations deception effort must integrate joint, combined, and HN assets and support the overall corps deception plan.

NOTE: This appendix implements STANAG 2079.

REAR COMMAND

The G3 task-organizes the rear command to support rear operations. Annex A of the corps' OPLAN lists units with specific rear operations functions under the rear command. The rear operations commander is then able to employ resources in accordance with METT-T factors.

Subordinate units also establish liaison relationships with the rear CP. Numerous units operating in the rear are not assigned to the rear command, but do come under the rear command's control for security operations and terrain management.

TERRAIN MANAGEMENT

The corps G3 is the overall corps terrain manager. He positions some units, such as the corps reserve and the aviation brigade, in the corps' rear area. The rear CP operations cell, with the G3, is responsible for positioning the remainder of the units (including EAC, joint, and HN assets) in the rear area.

The operations cell, with the CSS cell, positions units based on the corps' mission, concept of operations, and commander's intent. Combat support units with a higher level of combat capability (MPs and engineers) normally position where they can control key terrain or improve the defensive capability of key bases and base clusters within the corps area. Other factors affecting unit positioning include current rear area IPB, the subordinate units' mission requirements, and considerations of the unit being positioned.

The rear IPB, analysis of METT-T factors, and the commander's risk assessment dictate whether units are to disperse throughout the corps rear to enhance survivability or group together in mutual support. Another consideration in placement should be the requirement for joint air base defense, which Air Force security police and MPs usually conduct.

A key terrain management decision is the positioning of corps support groups. These groups are employed both in support of committed divisions and in area support of the corps.

The rear CP, through subordinate RAOCs, positions CSGs within the rear area based on the factors mentioned above, consideration of the corps' deception plan, and the recommendation of the COSCOM commander. Support groups desiring to position subordinate units within division rear areas must coordinate directly with responsible division rear CPs. (See FM 71-100 for further discussion.)

Another key terrain management decision is the positioning of units being reconstituted. Since these

CONTENTS

REAR COMMAND C-1
TERRAIN MANAGEMENT C-1
SECURITY C-2
Intelligence C-2
Base and Base Cluster Self-Defense . . . C-3
Response Force Operations C-4
Tactical Combat Force Operations C-5
Fire Support C-6
Air Base Defense C-6
SUSTAINMENT C-7
MOVEMENTS C-7
Tactical Movements C-7
Administrative Movements C-8

units may be committed before the planned reconstitution is complete, the rear CP, with the G3, positions these units where the force can best achieve the reconstitution effort and where the units, or portions thereof (for example, redundant fire support assets), can be employed in support of rear and/or close operations if necessary.

Once positioned, the responsible RAOC designates the units in the corps' rear area as either bases (unit or multiunit positions with definite perimeters) or base clusters (groupings of bases based on mission and/or security requirements lacking a clearly defined perimeter). The responsible RAOC designates a commander for each base and base cluster. Base and base cluster commanders are responsible for positioning units within their respective areas of responsibility.

Bases and base clusters fall under the corps rear CP's OPCON and its subordinate RAOCs for rear operations. Normal unit mission guidance and prioritization remains the responsibility of unit parent commands. The corps MP brigade, not the RAOC, determines mission taskings for an MP battalion operating within a RAOC area of responsibility.

Hospitals and other medical units in the rear area must be incorporated into a base cluster tasked with providing the medical unit with security. In addition, the threat to medical units must not be aggravated by positioning them near possible enemy target priorities (such as nuclear storage facilities, Class V supply points, and so on).

Based on the tactical situation or direction from the G3, the rear operations cell, with the CSS cell, directs the repositioning of units within the corps' rear area. The appropriate RAOCs accomplish repositioning. When required, such directed relocations should be coordinated with the affected unit's higher headquarters to ensure continuity of mission accomplishment.

Units entering or desiring to relocate within the corps' rear area must coordinate with the rear operations cell and affected RAOCs to ensure that their desired locations do not conflict with current or projected rear operations positioning or movement priorities. Conflicts that the rear CP cannot resolve are referred to the rear operations commander for resolution. Further, the operations cell, through the G5, must coordinate with HN authorities to ensure that corps and HN facility and/or unit positioning are not in conflict and are integrated in the overall concept of operations.

SECURITY

The corps conducts rear security operations (in NATO, rear area security) to assure freedom of maneuver and continuity of operations. The operations cell and subordinate RAOCs plan and execute rear security operations based on guidance from the rear operations commander.

Corps rear security operations must display the same initiative, agility, versatility, depth, and synchronization required for close and deep operations. They must support the overall corps deception plan and may also include rear operations deception efforts. The four components of corps rear security operations (intelligence, base and base cluster self-defense, response operations, and combined-arms TCF operations) form the framework on which rear security operations are based.

Intelligence

The IPB is a continuous, integrated, and comprehensive analysis of the effects of enemy capabilities, terrain, and weather on the operation, overtime. The IPB should extend throughout the entire area of interest (including forward, rear, and adjacent areas) focusing primarily on specific units and/or NAI that the commander designates.

The intelligence section of the rear CP is the interface with the intelligence system. As such, this section needs a direct link into the ACE at the corps' main CP. This link allows information to pass in both directions in a timely manner.

The RAOC receives IPB products from the main CP. These products should be the same as those for maneuver elements. They should include the intelligence estimate, with event and decision support templates, that include avenues of approach and the mobility corridors for the entire area.

If properly constructed, the IPB will contain the information necessary to do the detailed intelligence planning for rear operations. Items of consideration with regard to the rear area include—

- Enemy avenues of approach through the entire area.

- Most likely air avenues of approach.
- Likely priority activities and targets for threat forces.
- Named areas of interest relating to activities in the enemy's rear area that would indicate preparations for an AASLT or airborne operation.
- The most likely and most dangerous enemy threat actions.
- The battlefield conditions under which the threat is most likely to initiate a Level III operation in the rear area.

The RAOC then collates IPB products from the intelligence cell at the corps' main CP with raw data that units provide. Data include information that units gather when in or moving through the corps' rear area (for example, MPs performing BCC and area security missions; bases and base clusters; and convoys).

The RAOC then develops its own support IPB, adding NAIs and information requirements, possible or potential LZs and DZs, and other related information. The RAOC passes the additional information requirements to the ACE.

The staff disseminates this IPB, along with information on the current enemy situation, through subordinate RAOCs to all units in the corps' rear area. This intelligence forms the basis for planning and conducting the other three components of rear security operations. (See FM 34-130 and FM 34-7 for further discussion.)

Other intelligence support available for rear operations includes counterintelligence. Counterintelligence analysts assist the rear CP in developing lists for high-value targets the force should protect. Analysts can also provide liaison teams to work with local police and civilian and MI agencies. This liaison is critical in neutralizing Level I threats.

The operations cell is responsible for force protection. All intelligence assets available to the corps help minimize the enemy's ability to attack the rear area. Counterintelligence personnel can also help collect and evaluate data from their sources and interface with HN agencies to complement their own efforts. Electronic protection, as an element of EW, further enhances force-protection efforts.

Force protection in the rear area should also focus on gathering and disseminating early warning information regarding threat air activities. This information is critical to subordinate RAOCs, response forces, and the TCF. It allows them to anticipate threat airborne or AALST insertions in the rear area. It is also critical to bases and base clusters so they may adjust their level of security based on the assessed threat. The rear operations cell collects early warning information from several sources:

- The A^2C^2 element at the main and TCF CPs.
- Air defense artillery units in the corps' rear area.
- The USAF's TACP.
- The airlift LNO at the corps' rear CP.
- Other USAF control teams that may be operating in the corps rear.

A two-way sharing of early warning information is critical to defense of joint assets. Once warning is received, the operations cell immediately notifies the TCF and subordinate RAOCs who pass the information to response forces and bases and base clusters.

Base and Base Cluster Self-Defense

Each base and base cluster commander must develop a defense plan to detect, defeat, and minimize the effects of Level I and limited Level II threat attacks on his base or base cluster (including NBC attacks). Each commander bases his defense plan on—

- The IPB, which the corps' rear CP provides.
- His own IPB.
- The current intelligence situation.
- The CI risk assessment.
- The analysis of his unit's mission requirements.

Preparation of the defense plan may include a need for engineer support. Engineer operations in support of rear operations include area and point denial, MSR maintenance, and area damage control. To maximize unit mission accomplishment, defense plans must be flexible and allow for differing degrees of security based on the probability of threat activity.

Defense plans should, as a minimum, address the following critical considerations:

- Clear delineation of defense C2.
- Assignment of defensive sectors of responsibility for subordinate units.
- Integration of all available weapons into the defense plan.
- Identification of unit reaction forces to bolster the defense during an attack.
- Use of listening posts (LPs) and/or observation posts (OPs).
- Air, ground, and NBC attack alarm systems.
- Obstacle planning.
- Use of smoke (if available).
- Area damage control, addressing both damage prevention and repair.
- Integration of HN response plans and units.
- Internal AD measures.
- Fire support planning, including the JAAT (if available).
- Request procedures for response and tactical combat forces.
- Area warning and reporting system.

Commanders provide defense plans—

- To the RAOC exercising OPCON of the base or base cluster.
- To MPs providing area security and/or BCC in the vicinity of the base or base cluster.
- To forces (normally MPs) that are to respond to attacks on' the base or base cluster beyond its self-defense capability.

The RAOC consolidates defense plans and provides appropriate data to the rear operations cell for integration into the overall corps rear fire support plan. To maximize mutual support and to prevent fratricide, the RAOC coordinates defense plans with adjacent bases and base clusters as well as those of joint, multinational, and HN forces.

Separate base and base cluster commanders establish operations centers capable of maintaining 24-hour communications with the respective RAOC for intelligence, tactical information, and direction and with their parent organization for unit mission guidance. In addition, base and base cluster commanders establish communications with and direct the defensive operations of other units occupying terrain within their base or base cluster.

Response Force Operations

The operations cell designates forces (normally MPs) to respond to bases or base clusters under attack by Level II threat forces. Once designated, response forces must—

- Coordinate with supported RAOCs and bases or base clusters to conduct a joint IPB.
- Review base and base cluster self- defense plans.
- Exchange SOI information.
- Identify response force contingency plans to counter likely enemy activities.

Since an objective of response operations is to eliminate a threat without requiring premature commitment of the TCF, response forces integrate available FA, Army aviation, JAAT, and CAS fire support into their plans. With the main CP fire support cell, the operations cell establishes procedures by which response forces can call for fire support.

Because the purpose of response force operations is to help bases or base clusters return to mission accomplishment rather than diverting sustainment resources to self-defense, forces must focus on timely response to make 'the enemy disengage from the attack. Response forces integrate available fire support into their efforts to force the enemy to break off the attack. The response force then fixes and destroys the rear threat using close combat techniques and by applying artillery, Army aviation, JAAT, and/or CAS, as available.

The corps commander's concept and intent, the rear IPB, and the rear operations commander's established protection priorities drive response force planning. Response forces incorporate this information into their own IPB and, with the rear CP operations cell and affected RAOCs, position themselves where they can best—

- Detect major enemy incursions (for example, DZs and LZs).

- Interdict enemy forces en route to key corps facilities.
- Respond to priority facilities in the corps' rear.

Corps MPs are normally assigned as the corps' rear response force. The size of the response force is based on the current rear IPB and the rear operations commander's risk assessment. Mission requirements normally exceed the capability of available MP assets. Therefore, the rear operations commander will either have to—

- Set priorities for corps MPs and accept risks in those areas having a lesser priority.
- Augment MPs with additional fires and/or with combat multipliers to enhance their response ability.
- Assign the response mission to another unit under his control.

Should response forces encounter or engage enemy forces beyond their ability to defeat, they are to immediately notify the appropriate RAOC and maintain contact with the enemy force to delay and/or disrupt the enemy until the TCF is committed.

Tactical Combat Force Operations

As part of the corps' overall organization for combat, the G3 designates a TCF capable of defeating Level III forces that may attempt to operate in the corps' rear area. In addition, the G3 develops contingency plans for the commitment of a TCF to support subordinate division responses to Level III attacks within division rear areas, The overall corps IPB, analysis of METT-T factors, and the corps commander's risk assessment dictate whether a TCF is dedicated to rear operations or given a be-prepared rear operations mission.

Once committed, the TCF becomes OPCON to the rear operations commander. The TCF is normally a composite force, comprising ground maneuver, Army aviation, and FA units under the command and control of the senior maneuver unit headquarters. The actual size of the TCF depends on IPB and METT-T factors and the degree of risk the commander is willing to accept.

Once designated, the TCF establishes liaison with the rear CP. The rear CP operations cell provides the TCF with—

- The current rear IPB.
- Friendly unit dispositions.
- Defense plans.
- Priorities for protection.
- The rear operations commander's concept of operations and intent.
- The fire support plan.

Based on this information, the TCF conducts its own IPB, develops its concept of operations, and forwards it to the rear operations cell for coordination and approval.

Once committed to rear operations, the TCF organizes its forces for combat and positions them where they can best counter likely enemy Level III operations. The TCF focuses on likely threat targets critical to the corps, ground and air avenues of approach, DZs, and LZs. The TCF positions its supporting field artillery where it can best range likely threat targets and where it can interdict enemy forces en route to probable targets in the corps rear area.

The TCF conducts direct coordination with corps MP or other response forces regarding the exchange of reconnaissance information, battle handoff procedures, and contingency plans for TCF operations. The operations cell assigns specific reconnaissance responsibilities to both the response force and the TCF to preclude duplication of efforts.

Commitment of a TCF to perform rear operations under the rear operations commander's OPCON is a decision the corps commander makes. Once committed, the TCF is normally the sole combat force in the corps designated to perform combat operations against Level III threats.

Premature commitment of the TCF against a specific threat could rob the rear operations commander of the flexibility and initiative he requires to counter the overall enemy threat to the corps' rear. Therefore, the TCF is not normally committed until the rear operations commander determines that both base and base cluster defense forces and/or response forces are unable to counter the threat, and the

enemy poses such a risk to the corps that commitment of the TCF is a necessity.

Once the rear operations commander decides to commit the TCF, the operations cell designates an AO for the TCF. All units within the designated TCF area of operations become OPCON to the TCF for rear security operations until the threat is eliminated.

The operations cell establishes control measures, as necessary, to ensure TCF unity of command within its area of operations. The operations cell coordinates with the CSS cell to ensure that movements in the corps rear area do not impede TCF operations. If the tactical situation so warrants, the operations cell requests the corps G3 to divert additional combat power to support the TCF.

Based on the likelihood of the threat conducting multiple Level III operations within the corps area, the operations cell may recommend to the G3 that he designate an additional TCF from within the corps' resources or that he request additional combat forces from the next higher command. In any case, the operations cell must continue to plan for additional TCF operations within the corps' rear area until such time that the TCF eliminates the current threat and the TCF is prepared to respond to additional Level III threats.

While the operations cell establishes priorities and procedures, subordinate RAOCs coordinate the handover of combat responsibility from response forces to the TCF. Depending on the situation, the operations cell may task response forces to conduct a rearward passage of lines through a stationary TCF, support a forward passage of the TCF, or establish blocking positions while the TCF attacks the enemy from the flanks. Based on the TCF commander's recommendation, the operations cell decides whether response forces may remain OPCON to the TCF or be released from OPCON to allow them to resume other priority missions.

While the operations cell coordinates with the corps FSCOORD for fire support for response forces, the TCF, if already under the rear operations commander's OPCON, may also be tasked by the rear operations cell to coordinate fire support provided to response forces in contact with Level II threat forces. Such fire support is not normally provided to units countering Level I threat forces. If tasked to coordinate and/or provide fire support to Level II operations, the TCF will receive priority of fires, fire support control measures, and guidance regarding who can call for and adjust fires (normally limited to response forces to prevent fratricide).

Fire Support

The operations cell, with the FSCOORD, is responsible for the overall planning of rear area fire support. The FSCOORD considers all available fire support systems, including those of units reconstituting, transiting, or temporarily located in the corps rear area, when planning support of rear operations.

The operations cell collates base, base cluster, and response force fire support plans it receives from subordinate RAOCs and coordinates the composite rear operations fire support plan with both the corps FSCOORD and the TCF. The operations cell, and/or the respective RAOC, reviews requests for CAS either from response forces or the TCF and forwards them to the main CP.

Should the TCF with its supporting FA be committed to a Level III threat operation, the operations cell coordinates with the FSCOORD for on-order fires to assist bases and base clusters and/or response forces in countering other Level II or III threat incursions.

Air Base Defense

Air Force bases in the corps' rear area are critical facilities that planners must include in the overall corps rear operations plan. As with any commander of a base in the corps rear, the air base commander is responsible for self-defense against Level I threats.

Should an air base receive a Level II attack, response forces (normally MPs) may become OPCON to the air base commander until the threat is defeated. As with Level III threat response planning throughout the corps rear, a TCF is designated to defeat Level III threat attacks on air bases.

With the affected air base commander, the rear operations commander designates a TCF area of operations and places all external base defense forces in the AO under the OPCON of the TCF until the threat is defeated. The commander of the air base may need to retain control of sufficient assets to maintain security of critical resources. The rear

operations commander, the commander of the air base, and the TCF commander must closely coordinate such requirements. (See FM 19-1 and FM 90-30 for further discussion.)

SUSTAINMENT

The CSS cell of the rear CP plans and directs sustainment operations within the corps. Synchronization of sustainment with the corps commander's concept of operations and intent and with the corps' deception plan is critical for the success of close, deep, and rear operations. Critical sustainment functions that the CSS cell of the rear CP accomplishes include—

- Analyzing the commander's concept and intent and developing an integrated sustainment plan.
- Recommending the positioning of CSS units to the operations cell where they can best support the command.
- Identifying to the operations cell critical CSS facilities and movements that require priority protection.
- Developing a CSS support plan and coordinating CSS support for units in the corps' rear area.
- Monitoring the status of sustainment operations within the corps.

Positioning CSS units requires a thorough knowledge of the current IPB and the corps commander's concept and intent. While CSS units normally position close to MSRs to facilitate timely support, they should not position along likely threat avenues of approach or near likely threat LZs or DZs.

Combat service support units position in depth to minimize the effect of threat attacks on the overall sustainment effort. The CSS cell must anticipate, plan, and coordinate the relocation of CSS units in the rear area should the tactical situation so dictate or should the corps commander adjust his concept of operations.

COSCOM executes the CSS cell's sustainment plan and recommends the location of CSGs to the operations cell. It directs subordinate units, monitors their ability to provide support, and makes rear operations recommendations to the rear CP.

The CSS cell, through the G5, also coordinates with HN authorities for support of corps rear operations. It identifies HN capabilities and negotiates with HN authorities to ensure HN support is provided in accordance with existing agreements. Further, it coordinates with the host nation to ensure that HN activities do not interfere with corps sustainment operations.

MOVEMENTS

Tactical and administrative movements within the rear area are critical to close, deep, and rear operations. Often, movements within the corps' area are an integral part of the corps' deception plan. Movement control includes planning, coordinating, and executing movements both internal to the corps and external (other US forces and the host nation) to the corps.

The corps conducts movement planning both within US channels at the cows' rear CP and with HN movement planners. In addition to planning and controlling movements of US forces, the CSS cell coordinates with the corps provost marshal and appropriate HN authorities to establish adequate US straggler and HN population control measures.

Tactical Movements

The G3 at the main CP, with the rear CP, directs the movement of tactical units through or within the corps rear area, with the exception of TCF movements once the TCF is committed in the corps' rear area. The rear CP helps plan and control movements within the rear area.

The G3 establishes priorities and designates routes or zones for tactical movements. The rear CP ensures that administrative moves do not conflict with tactical moves (CSS cell), designates alternate routes for administrative movements (CSS cell), and plans for sustainment of tactical movements within the corps' rear (operations and CSS cells). The MCC helps plan, coordinate, and support all tactical moves traversing the corps' rear area.

The operations cell plans the tactical movement of the corps TCF in consonance with the TCF's concept of operations. The operations cell coordinates the rerouting of CSS movements with the CSS cell during the movements of the TCF. The cell must

also coordinate rerouting off CSS movements around areas designated as TCF areas of operations.

Should the corps' TCF be tasked to combat a Level III threat in a division rear area, the division gains OPCON of the TCF and plans its movement within the division area. Should the corps commit its reserve through the division rear area, the division rear CP operations cell supports the corps movement by ensuring division CSS movements are rerouted so as not to conflict with the corps' tactical movement. (See FM 71-100 for further discussion.)

Administrative Movements

The CSS cell designates MSRs within the corps' rear area and from the corps' rear area to forward-positioned major corps-controlled forces (for exampie, a corps-controlled covering force). Main supply routes are established between CSGs, from CSGs to supported divisions, and laterally to support the rapid shifting of sustainment and other forces through the corps' rear area.

The corps' CSS cell coordinates with division CSS cells to ensure that designated corps MSRs support division sustainment operations. The CSS cell plans alternate MSRs and identifies critical points that require either positive control or special security considerations. The cell passes this information to the operations cell for coordination with the corps provost marshal and engineer who ensure the development of ADC contingency plans should threat forces interdict MSRs.

The CSS cell establishes priorities for administrative movements along corps MSRs. Movement priorities reflect careful consideration for both sustainment and deception planning requirements in support of the overall corps concept of operations. They are passed through the operations cell to the corps provost marshal who develops a plan to ensure the enforcement of movement priorities.

ACRONYMS AND ABBREVIATIONS

AA	assembly areas
A^2C^2	Army airspace command and control
AADC	area air defense commander
AASLT	air assault
AAv	Army aviation
AB2	Army brigade and below
ABCS	Army battle command system
ABGD	air base ground defense
abn	airborne
AC	active component
ACA	airspace control authority
ACC	air component commander
ACE	analysis control element; airspace control element
ACO	airspace control order
ACR	armored cavalry regiment
acty	activity
ACU	area common user
ACUS	Army common user system
AD	air defense
ADA	air defense artillery
A/DACG	arrival/departure airtleld control group
ADC	area damage control
ADCOORD	air defense coordinator
ADDS	automatic data distribution system
ADE	air defense element
AE	aerial exploitation
adj	adjustment
admin	administration
AF	US Air Force
AFATDS	advanced field artillery tactical data system
AG	adjutant general
AGCCS	Army Global Command and Control System
AH	attack helicopter
AI	air interdiction
AID	Agency for International Development
ALCC	airlift control center
ALO	air liaison officer
ALOC	air line of communications
AMC	U.S. Army Materiel Command
AMO	aviation medical officer
AMOPES	Army Mobilization and Operations Planning and Execution System
anal	analysis
ANGLICO	air and naval gunfire liaison company
AO	area of operations
AOC	air operations center
APC	armored personnel carriers
APERS	antipersonnel
APICM	armor-piercing improved conventional munition
AQF	advanced Quick Fix
ARCOM	Army command
ARFOR	Army force
ARLO	air reconnaissance liaison officer
ARM	antiradiation missile
armt	armament
ARNG	Army National Guard
ASAS	all-source analysis system
ASCC	Army service component command
ASL	authorized stockage list
aslt	assault
ASOC	air support operations center
A/SPOD	aerial/sea ports of debarkation
ASPS	all-source production system
AT	antitank
ATACMS	Army tactical missile systems
ATCCS	Army tactical command and control system

atk	attack
ATMCT	air terminal movement control team
ATO	air tasking order
ATP	allied tactical publication; ammunition transfer point
attn	attention
AUEL	automated unit equipment list
Aug	August
auth	authorization
autmv	automotive
auto	automation
AV	avenger
AVIM	aviation intermediate maintenance
AVLB	armored vehicle launched bridge
avn	aviation
AWACS	airborne warning and control system
AWIS	Army WWMCCS Information System
BCC	battlefield circulation control
BCE	battlefield coordination element
BCV	Bradley command vehicle
BDA	battle damage assessment
bdcst	broadcast
bde	brigade
BFV	Bradley fighting vehicle
BHL	battle handover line
biol	biological
BLT	battalion landing team
bn	battalion
BOS	battlefield operating systems
br; BR	branch; British
BSA	brigade support area
CA	civil affairs; combined arms
CAB	combat aviation brigade
cal	caliber
CAOC	combined air operations center
CAP	combat air patrol; crisis-action planning
CAS	close air support
cat	catalog
cav	cavalry
cbt	combat
C2	command and control
C21	command, control, and intelligence
C2V	command and control vehicle
C2W	command and control warfare
C^3	command, control, and communications
C^31	command, control, communications, and intelligence
CD	cavalry division
cdr	commander
CDS	container delivery system
CE	command element
CENTAF	Central Command Air Force
CENTCOM	central command
CEOI	communications-electronics operating instructions
CEWI	combat electronic warfare intelligence
CFA	covering force area
CG	command group; commanding general
CGSC	U.S. Army Command and General Staff College
CH; chap	cargo helicopter chaplain
CHS	combat health support
CI	counterintelligence
CIA	Central Intelligence Agency
CID	combat intelligence division
CINC	commander-in-chief
CIR	critical information requirement
CJCS	Chairman, Joint Chiefs of Staff
CJTF	commander, joint task force
CMC	civil-military cell

CMCC	corps movement control center
cmd	command
CMISE	corps military intelligence support element
cml	chemical
CMMC	corps materiel management center
CMO	civil-military operations
CMOC	civil-military operations center
CNR	combat net radio
CO	commanding officer
COA	course of action
COB	carrier onboard
COCOM	combatant command
Com	chief of staff
COMARFOR	Commander, ARFOR
comdt	commandant
COMINT	communications intelligence
COMMZ	communications zone
compt	comptroller
COMSAT	communications satellite
COMSEC	communications security
con	control
CONPLAN	concept plan
CONUS	Continental United States
CONUSA	Continental United States Army
CORDS	Civil Operations Revolutionary Development Support
COSCOM	corps support command
CP	command post; computer program
CPSE	corps PSYOP support element
CPX	command post exercise
CRC	control and reporting center
CS	combat support
CSAR	combat search and rescue
CSB	corps support battalion
CSC	combat stress control
CSE	combat support equipment
CSG	corps support group
CSH	combat support hospital
CSM	command sergeant major
CSS	combat service support
CSSCS	combat service support control system
CSSE	combat service support element
CTAPS	Contingency Theater Automated Planning System
CTOC	corps tactical operations center
CV	commander's vehicle
CWRP	chemical warfare request procedures
(D)	draft
DA	Department Agriculture; Department of the Army
DASC	direct air support center
DCA	defensive counter air
DE	directed energy
Dec	December
decon	decontamination
def	defense
den	dental
dep	deputy
det	detachment
DF	direction finding
DFSCOORD	deputy fire support coordinator
dir	director
DISCOM	division support command
DISE	deployable intelligence support element
disp	disposal
div	division
DLA	Defense Logistics Agency
DOCC	deep operations coordination cell
DOD	Department of Defense
DOS	days of supply; Department of State
DPDA	Defense Property Disposal Agency
DPICM	dual-purpose improved conventional munition
DS	direct support
DSA	division support area
DZ	drop zone

EA	electronic attack; engagement area; each
EAC	Eastern Area Command; echelons above corps
ECB	engineer combat battalion
ECM	electronic countermeasures
EEFI	essential elements of friendly information
elct	electronics
EMP	electromagnetic pulse
engr	engineer
ENSCD	enemy situation correlation division
EOD	explosive ordnance disposal
EP	electronic protection
EPDS	electronic processing and dissemination system
EPW	enemy prisoner of war
equip	equipment
ES	electronic warfare support
EUCOM	U.S. Army European Command
evac	evacuation
EW	electronic warfare
FA	field artillery
FAA	forward assembly area
FAAD	forward area air defense
FAB	field artillery brigade
FAC	forward air controller
FAIO	field artillery intelligence officer
FARP	forward arming and refueling point
FASCAM	family of scatterable mines
FB	finance battalion
Feb	February
FEBA	forward edge of the battle area
FEMA	Federal Emergency Management Agency
FG	finance group
FID	foreign internal defense
fin	finance
FLB	forward logistics base
FLIR	forward-looking infrared
FLO	fighter liaison officer
FLOT	forward line of own troops
FM	field manual
FMF	fleet marine forces
FMSP	Foreign Military Sales Program
FOB	forward operating base
FORMDEPS	FORSCOM Mobilization and Deployment Planning System
FORSCOM	U.S. Army Forces Command
FRAGO	fragmentary order
FSCL	fire support coordination line
FSCOORD	fire support coordinator
FSE	fire support element
FSSG	force service support group
fwd	forward
G1	Army component manpower or personnel staff officer (Army division or higher staff)
G2	Army component intelligence staff officer (Army division or higher staff)
G3	Army component operations staff officer (Army division or higher staff)
G4	Army component logistics staff officer (Army division or higher staff)
G5	Assistant Chief of Staff, Civil Affairs
GBCS	ground-based common sensor
GCCS	Global Command and Control System
GCE	ground combat element
gen	general
GLO	ground liaison officer
GOCOM	General Officer Command
gP	group
GPS	global positioning system
GRCS	Guardrail Common Sensor
GS	general support

GSM	ground station module
GS-R	general support-reinforcing
HE	high explosive
hel	helicopter
HEP-T	high-explosive tracer
HHC	headquarters and headquarters company
HHD	headquarters and headquarters detachment
HIDACZ	high-density airspace control zone
HIMAD	high- to medium-altitude air defense
hist	historian
HMMWV	high mobility multipurpose wheeled vehicle
HN	host nation
HPT	high-payoff target
HQ	headquarters
hr	hour
HT	highway traffic
HUMINT	human intelligence
HVT	high-value target
hvy	heavy
ID	infantry division
ID (L)	infantry division (light)
IDAD	internal defense and development
ID(M)	infantry division (mechanized)
IEW	intelligence electronic warfare
IFF	identification, friend or foe
IG	inspector general
IMA	individual mobilization augmenters
IMETP	International Military Education and Training Program
in	inch
indiv	individual
inf	infantry
info	information
intel	intelligence
invt	inventory
IPB	intelligence preparation of the battlefield
ISA	International Standardization Agreements
ISB	intermediate staging base
J1	Manpower and Personnel Directorate of a joint staff
J2	Intelligence Directorate of a joint staff
J3	Operations Directorate of a joint staff
J4	Logistics Directorate of a joint staff
J5	Plans Directorate of a joint staff
J6	Command, Control, Communications, and Computer Systems Directorate of a joint staff
JAAT	joint air attack team
JCCC	joint communications control center
JCMEB	joint civil-military engineering board
JCMOTF	joint civil-military operations task force
JCS	Joint Chiefs of Staff
JCSE	joint communications support element
JDEC	joint documents exploitation center
JFACC	joint force air component commander
JFC	joint force commander
JFLCC	joint force land component commander
JFUB	joint facilities utilization board
JIC	joint intelligence center
JIF	joint interrogation facility
JIPC	joint imagery production complex
JMAO	joint mortuary affairs office
JMBPO	joint military blood program office
JMC	joint movement center

JMCIS	joint maritime command information system
JMEC	joint materiel exploitation center
JMFU	joint meteorological forecasting unit
JMRO	joint medical regulating office
JOA	joint operations area
JOC	joint operations center
JOPES	Joint Operations Planning and Execution System
JP	joint publication
JPO	joint petroleum office
JPOTF	joint psychological operations task force
JRCC	joint rescue coordination center
JSCP	Joint Strategic Capabilities Plan
J-SEAD	joint suppression of enemy air defenses
JSOTF	joint special operations task force
J-STARS	joint surveillance target attack radar system
JTCB	joint targeting coordination board
JTF	joint task force
JTTP	joint tactics, techniques, and procedures
km	kilometer
kph	kilometers per hour
KS	Kansas
LAPES	Slow-altitude parachute extraction system
LAV	light armored vehicle
lbs	pounds
LC	line of contact
LCC	land component commander
LCR	light cavalry regiment
LD	line of departure
LLTR	low-level transit route
LO	liaision officer
LOA	limit of advance
LOC	line of communications
log	logistics
LOGCAP	logistics civil augmentation program
LOS	line of sight
LOTS	logistics-over-the-shore
LP	listening post
LRC	lesser regional contingency
LRS	long-range surveillance
LRSU	long-range surveillance units
lt	light
LZ	landing zone
m	meter
(m)	(mechanized)
MACV	Military Assistance Command, Vietnam
MAG	Marine aircraft group
MAGTF	Marine air-ground task force
maint	maintenance
MARDIV	Marine division
mat	materiel
MAW	Marine aircraft wings
MBA	main battle area
MCC	movement control center
MCOO	modified combined obstacle overlay
MCS	maneuver control system
MCT	movement control team
MEB	Marine expeditionary brigade
mech	mechanized
med	medical
mdm	medium
MEF	Marine expeditionary force
METL	mission essential task list
METT-T	mission, enemy, terrain, troops, and time available
MEU	Marine expeditionary unit
MFO	multinational force of observers
MGB	medium girder bridge

mgmt	management
MI	military intelligence
MIES	modernized imagery exploitation system
min	minute
MITT	mobile integrated tactical terminal
MLRS	multiple-launch rocket system
mm	millimeter
MMC	materiel management center
MOUT	military operations on urban terrain
mov	movement
MP	military police
MRC	major regional contingency
MRR	minimum-risk route
MRT	movement regulating team
MSC	Military Sealift Command; major subordinate command
MSE	mobile subscriber equipment
msl	missile
MSR	main supply route
MT	mechanical time
MTF	medical treatment facility
MTI	moving-target indicator
MTMC	U.S. Army Military Traffic Management Command
MTSQ	mechanical time, superquick
MTT	mobile training teams
mun	munition
NAF	numbered air force
NAI	named area of interest
NATO	North Atlantic Treaty Organization
NBC	nuclear, biological, and chemical
NCA	National Command Authorities
NCO	noncommissioned officer
NEO	noncombatant evacuation operation
NG	National Guard
NGB	National Guard Bureau
NGLO	naval gunfire liaison officer
NGO	nongovernment organization
NLO	naval liaison officer
NOE	nap of the earth
Nov	November
NRT	near-real time
NSS	node switching sites
O&I	operations and intelligence
OAS	Organization of American States
obj	objective
OCA	offensive counter air
OCONUS	outside the continental United States
Ott	October
Ofc	office
off	officer
OH	observation helicopter
OOTW	operations other than war
OP	observation post
OPCOM	operational command
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
Ops	operations
OPSEC	operations security
Ov	orbiting vehicle
PA	public affairs
PACOM	US Army Pacific Command
pam	pamphlet
PAO	public affairs officer
PD	point detonating
peo	peace enforcement operations
pers	personnel
petri	petroleum
PG	personnel group
PIR	priority information requirements
PKO	peace-keeping operations
PL	phase line
PLL	prescribed load list
PM	provost marshal
PMC	personnel management center
POD	port of debarkation

POE	port of embarkation
POL	petroleum, oils, and lubricants
POSNAV	position navigation
POTF	psychological operations task force
PP&O	plans, programs, and operations
PR	personnel readiness
prgm	program
PRMD	personnel readiness management division
pro	procedures
proc	processing
prop	property
Ps	personnel support
PSA	port support activity
PSB	personnel service battalion
PSYOP	psychological operations
pts	parts
PZ	pick-up zone
QSTAG	Quadripartite Standardization Agreement
R	reinforcing
RAOC	rear area operations center
RAP	rocket-assisted projectile
RC	reserve component
RCEM	regional contingency engineering manager
rd(s)	round(s)
RDD	required delivery date
recon	reconnaissance
regt	regiment
rep	representative
replmt	replacement
RFL	restricted fire line
rgr	ranger
RHU	replacement holding unit
RISTA	reconnaissance, intelligence, surveillance, and target acquisition
RLO	reconnaissance liaison officer
RLT	regimental landing team
ROA	restricted operations area
ROE	rules of engagement
ROM	refuel on the move
ROZ	restricted operations zone
RPv	remotely piloted vehicle
RSOP	readiness standing operating procedures
RVT	remote video terminal
S2	battalion or brigade intelligence officer
S3	battalion or brigade operations and staff officer
SAM	surface-to-air missile
SAPO	subarea petroleum office
SAR	synthetic aperture radar
SATP	Security Assistance Training Program
SEAD	suppression of enemy air defenses
sec	section
SECDEF	Secretary of Defense
SEMA	special electronics mission aircraft
Sep	September
serv	service
SF	special forces
SFOA	special forces operational area
SFOB	special forces operational base
SFOD	special forces operational detachment
SGS	secretary of the general staff
SIB	separate infantry brigade
SIDPERS	standard installation division personnel system
sig	signal
SIGINT	signal intelligence
SINCGARS	single channel ground and airborne radio system
SJA	staff judge advocate
so	special operations
Soc	special operations command

SOCCE special operations command and control element
SOCCH special operations command and control headquarters
SOCOORD special operations coordinator
SOF special operations forces
SOFA status of forces agreement
SOI signal operations instructions
SOP standing operating procedures
SP self-propelled
SPCE survey planning and coordination element
Spt support
sqdn squadron
SR short range
SRP soldier readiness processing
SSM surface-to-surface missile
STACCS Standard Theater Army Command and Control System
STANAG standardization agreement
STARC State Area Command
STRIKWARN strike warning
subs subsistence
sup supply
surg surgeon
Svc service
SWO staff weather officer
sys systems

(T) towed
TA Theater Army
TAA tactical assembly area
TAC tactical
TACC tactical air control center
TACFIRE tactical fire
TACOM tactical command
TACON tactical control
TACP tactical air control party
TACSAT tactical satellite
TAI target areas of interest
TALO tactical airlift liaison ofllcer
TAR tactical air reconnaissance
TARABS tactical air reconnaissance and aerial battlefield surveillance
TASOSC Theater Army Special Operations Support Command
TCACCIS Transportation Coordinator Automated Command and Control Information System
TCF tactical combat force
TCP traffic control plan
TE tactical exploitation
TENCAP tactical exploitation of national capabilities
TF task force
tfc traffic
TLAM tactical land attack missile
TMD tactical munitions dispenser
TOA transfer of authority
TOC tactical operations center
TOE table of organization and equipment
topo topographical
TOR terms of reference
TOW tube-launched, optically tracked, wire-guided missile
TPFDD time-phased force deployment data
TPFDL time-phased force deployment list
TPU troop program unit
TRADOC U.S. Army Training and Doctrine Command
trans transportation
TRANSCOM U.S. Army Transportation Command
trn terrain
trp troop
TSS topographic support systems
TTP tactics, techniques, and procedures

UAV unmanned aerial vehicle
UAV-SR unmanned aerial vehicle-short range
UCP Unified Command Plan
UH utility helicopter

UK	United Kingdom
UN	United Nations
UNAAF	Unified Action Armed Forces
us	United States
USA	U.S. Army
USAF	U.S. Air Force
USAR	U.S. Army Reserve
USARC	U.S. Army Reserve Command
USAREUR	U.S. Army Europe
USARPAC	U.S. Army Pacific
Usc	U.S. Code
USCINCPAC	U.S. Commander-in-Chief, Pacific Command
USMC	U.S. Marine Corps
USN	U.S. Navy
USPHS	U.S. Public Health Service
UW	unconventional warfare
veh	vehicle
vet	veterinarian
VSTOL	vertical short takeoffllanding
VT	variable time
whl	wheeled
WWI	World War I
WWII	World War II
WWMCCS	Worldwide Military Command and Control System
WIN	WWMCCS intercomputer network
WOC	wing operation center
WP	white phosphorous
WSRO	weapon system replacement operation
Z	Zulu

REFERENCES

SOURCES USED

These are the sources quoted or paraphrased in this publication.

Joint and Multiservice Publications

Joint Publication 1-02 *DOD Dictionary of Military and Associated Terms.* March 1994.

Joint Publication 3-0 *Doctrine for Joint Operations.* 1 February 1995.

Joint Publication 3-02 *Joint Doctrine for Amphibious Operations.* October 1992.

Joint Publication 3-03 *Doctrine for Joint Interdiction Operations.* December 1990.

Joint Publication 3-05 *Doctrine for Joint Special Operations.* October 1992.

Joint Publication 3-07 *Joint Doctrine for Military Operations Other Than War.* January 1995.

Joint Publication 3-07.1 *JTTP For Foreign Internal Defense (FID).* December 1993.

Joint Publication 3-07.2 *JTTP for Antiterrorism.* June 1993.

Joint Publication 3-18 Joint Doctrine for Forcible Entry Operations (D). April 1994.

Joint Publication 3-18.1 *Joint Airborne and Air Assault Operations.* August 1994.

Joint Publication 3-51 *Electronic Warfare in Joint Military Operations.* June 1991.

Joint Publication 3-52 *Doctrine for Joint Airspace Control in a Combat Zone.* December 1993.

Joint Publication 3-53 *Doctrine for Joint Psychological Operations.* July 1993.

Joint Publication 4-05 *Mobilization.* August 1987.

Joint Publication 5-0 *Doctrine for Planning Joint Operations.* August 1994.

Joint Publication 5-00.1 *Joint Tactics, Techniques, and Procedures (JTTP) for Campaign Planning (D).* June 1994.

Joint Publication 5-00.2 *Joint Task Force Planning Guidance and Procedures.* September 1991.

Joint Publication 5-03.1 *Joint Operation Planning and Execution System, Volume I: Planning Policy and Procedures.* August 1993.

Joint Publication 5-03.2 *Joint Operation Planning and Execution System, Volume II. Planning and Execution Formats and Guidance.* March 1992.

Joint Publication 5-03.11 *Joint Operation Planning and Execution System Execution* Planning. December 1993.

Allied Tactical Publications (ATP)

Allied Tactical Publication-35 (A) Land Force Tactical Doctrine. (STANAG-2868)

Allied Tactical Publication-35 (B) Land Force Tactical Doctrine. *September 1983.*

Army Publications

Field Manual 3-100 NBC *Defense, Chemical Warfare, Smoke and Flare Operations.* May 1991.

Field Manual 5-100-15 *Corps Engineer Combat Operations (D).* March 1994.

Field Manual 5-102 *Countermobility.* March 1985.

Field Manual 5-114 *Engineers in Operations Other Than War (D).*

Field Manual 6-20-30 *Tactics, Techniques, and Procedures for Fire Support for Corps and Division Operations.* October 1989.

Field Manual 7-30 *The Infantry Brigade (D).* September 1994.

Field Manual 17-95 *Cavalry Operations.* September 1991.

Field Manual 19-1 *Military Police Support for Airland Battle.* May 1988.

Field Manual 22-103 *Leadership and Command at Senior Levels.* June 1987.

Field Manual 33-1 *Psychological Operations.* February 1993.

Field Manual 34-7 *Intelligence and Electronic Warfare Support to Low-Intensity Conflict* Operations. May 1993.

Field Manual 34-130 *Intelligence Preparation of the Battlefield.* May 1989.

Field Manual 44-100 *US Army Air Defense Operations.* December 1994.

Field Manual 55-1 *Army Transportation Services in a Theater of Operations.* November 1984.

Field Manual 55-12 *Movement of Army Units in Air Force Aircraft.* November 1989.

Field Manual 55-20 *Army Rail Transport Operations.* October 1986.

Field Manual 55-65 *Strategic Deployment by Surface Transportation.* May 1989.

Field Manual 71-3 *Armored and Mechanized Infantry Brigade Operations.*June 1993.

Field Manual 71-100 *Division Operations.* November 1988.

Field Manual 71-100-3 *Corps Operations.* January 1996.

Field Manual 90-2 *Battlefield Deception.* October 1988.

Field Manual 90-13 *River Crossing Operations.* September 1992.

Field Manual 90-26 *Airborne Operations.* December 1990.

Field Manual 90-29 *Noncombatant Evacuation Operation.* October 1994.

Field Manual 90-30 *Army-Air Force Air Base Ground Defense Operations.*

Field Manual 100-5 *Operations.* June 1993.

Field Manual 100-6 *Information Operations (D).* May 1994.

Field Manual 100-7 *Decisive Force: The Army in Theater Operations.* April 1994.

Field Manual 100-8 *Multinational Operations (D).*

Field Manual 100-9 *Reconstitution.* January 1992.

Field Manual 100-10 *Logistics.* May 1994.

Field Manual 100-16 *Support Operations: Echlons Above Corps.* April 1985.

Field Manual 100-17 *Mobilization, Deployment, Redeployment, Demobilization.* October 1992.

Field Manual 100-19 *Domestic Support Operations.*

Field Manual 100-20 *Operations Other Than War (D).* September 1994.

Field Manual 100-23 *Peace Operations.* December 1994.

Field Manual 100-27 *US Army/US Air Force Doctrine for Joint Airborne and Tactical Airlift Operations.* January 1985.

Field Manual 100-30 *Nuclear Operations (D).* June 1995.

Field Manual 100-103 *Army Airspace Command and Control in a Combat Zone.* October 1987.

Field Manual 101-5 *Command and Control for Commanders and Staff (D).* August 1993.

Field Manual 101-5-1 *Operational Terms and Symbols (D).* January 1994.

Training and Doctrine Command Publications

TRADOC Pamphlet 11-9 *Blueprint of the Battlefield.* May 1991.

DOCUMENTS NEEDED

These documents must be available to the intended users of this publication.

AR 310-50 *Authorized Abbreviations, Brevity Codes, and Acronyms.*

DA Form 2028 *Recommended Changes to Publications and Blank Forms.* February 1974.

READINGS RECOMMENDED

These readings contain relevant supplemental information.

A National Security Strategy of Engagement and Enlargement. July 1994,

National Military Strategy 1992. January 1992.

Field Manual 34-1 *Intelligence and Electronic Warfare Operations.* September 1994.

Field Manual 34-2 *Collection Management and Synchronization Planning.* March 1994.

Field Manual 34-7 *Intelligence and Electronic Warfare Support to Low-Intensity Conflict Operations.* May 1993.

Field Manual 34-8 *Combat Commanders Handbook on Intelligence.* September 1992.

Field Manual 34-25 *Corps Intelligence and Electronic Warfare Operations.* September 1987.

Field Manual 46-1 *Public Affairs Operations.* July 1992.

Field Manual 55-10 *Movement Control in a Theater of Operations.* December 1992.

Field Manual 63-3 *Corps Support Command.* September 1993.

Joint Publication 1 *Joint Warfare of the U.S. Armed Forces.* November 1991.

Joint Publication 3-01.5 *Doctrine for Joint Theater Missile Defense.* April 1994.

OTHER DOCUMENTS

Standardization Agreements

STANAG 2070 *Emergency War Burial Procedures.* December 1988.

STANAG 2077 *Order to Battle.* October 1981

STANAG 2079 *Rear Area Security and Rear Area Damage Control.* September 1985.

STANAG 2104 *Friendly Nuclear Strike Warning.* December 1989.

STANAG 2868 *Land Force Tactical Doctrine.* (ATP-35(A)). April 1992.

Quadripartite Standardization Agreements

QSTAG 189 *Friendly Nuclear Strike Warning.* August 1991.

United States Codes

Posse Comitataus Act, Title 10, US Code, Section 1385.

Foreign Relations and Intercourse, Title 22, US Code, Section 3827(a).

INDEX

A

ACR. *See* Armored cavalry regiment.
Active Component (AC), 1-11, 3-3.
Adjutant general (AG), 1-6, 1-11, 4-12, 4-13, 9-14.
Administrative
  clerk, 4-25.
  movement, 2-8, 3-16, 4-12, 4-13, 7-4, 8-8, B-4, C-1, C-7, C-8.
  NCO, 4-25.
  section, A-17.
  support, 1-1, 1-10, 1-11, 4-24.
  structure, 9-12.
  units, 3-1.
Advance guard (party), 5-2-5-4, 5-13, 8-14.
Advanced
  field artillery tactical data system (AFATDS), 3-16, 4-17.
  Quick Fix (AQF), 2-9.
Aerial
  communications platforms. *See* Communications.
  deployment, 3-11.
  exploitation (AE), A-23.
  or sea ports of debarkation (A/SPOD), 3-10.
  reconnaissance, 4-33.
  resupply. *See* Resupply.
Agency for Internal Development (AID), 9-9.
Agility, 2-4, 4-3, 4-4, 4-13, 5-15, 8-9, C-2.
Agreements, 2-23, 2-28. *See also* Treaties.
Aides, 1-6.
Air
  abilities, A-1.
  ambulance, A-1.
  and missile support, 1-6, 1-9.
  and naval gunfire liaison company (ANGLICO), 1-12, 4-10, 4-21, 4-34, A-1, A-4.
  and sea ports of debarkation (A/SPOD), 6-13.
    See also Port.
  assault (AASLT), 1-7, 1-8, 2-6, 2-12-2-15, 2-19, 3-1, 3-11, 3-12, 3-14, 3-16, 5-7, 5-11, 5-15, 5-18, 6-8, 6-13, 6-14, 8-3, 8-15, A-11, A-20, C-3.
  assets in support of PSYOP, 2-27.
  avenues of approach, 5-16, C-3.
  base ground defense (ABGD), 3-16, 5-16, C-1, C-6.
  combat, 2-13.
  commander, 2-17.
  component command(er) (ACC), 1-10, 4-20, A-2, A-3.
  control, A-2, A-3.
  defense (AD), 1-7-1-9, 1-12, 2-1, 2-8, 2-14, 2-19, 2-20, 2-21, 3-1, 3-6, 3-14, 4-16-4-18, 4-21, 5-3, 5-12, 5-18-5-23, 6-1, 6-5, 6-11, 8-6, 8-7, 8-9, 8-12, 9-1, 9-12-9-13, 10-3, A-4, A-8, A-10, C-4.
  artillery (ADA), 1-9, 2-10, 2-12, 2-16, 2-19, 2-22, 3-14, 4-12, 4-19-4-21, 4-32, 4-33, 5-1, 5-15, 5-19, 6-5, 7-4, 8-2, 8-4, 8-6, 8-15, A-1-A-4, A-9, C-3.
  brigade, A-9, A-10.
  commander, 2-21.
  coordinator (ADCOORD), 1-6, 2-21.
  element (ADE), 4-7, 4-9, 4-11, 4-21.
  enemy, A-2.
  operations, 9-12, 9-13.
  suppression, 4-22.
  systems, 9-13, A-3.
  drop, 2-17, 2-24, 4-23.
  extraction operations, 2-16-2-17.
  Force (AF), 1-2, 1-3, 1-5, 1-6, 1-8-1-11, 2-9, 2-14-2-21, 2-23-2-25, 3-5, 3-10, 4-10, 4-20-4-23, 4-32-4-34, 6-5, 6-13, 9-1, 9-5, A-1, A-2, A-4, A-6, A-25, C-1, C-3, C-6.
  interdiction (AI), 1-6, 1-11, 2-6, 2-16, 2-17, 2-19, 3-14, A-2, A-3.
  liaison officer (ALO), 1-6, 4-7, 4-9, 4-10, 4-12, 4-21, 4-22, 4-33.
  lines of communications (ALOC), 2-23, 2-24.
  mobile forces, 5-15.
  movement, 1-8, 2-13, 2-23, 7-2, 8-9, A-4, A-11, A-12.
    See also Airlift; Sealift.
  observer, A-5.
  operations, A-2.
  operations center (AOC), 2-16, 2-17, 4-20, 4-21, 4-23, 4-32, A-4.
  patrol, 2-18, 2-19.
  reconnaissance, 2-17, 4-22, A-2.
    liaison officer (ARLO), 4-20.
  spotter, A-5.
  support, 1-2, 2-16, 2-17, 3-14, 6-11.
  support operations center (ASOC), 1-6, 2-16, 2-17, 2-19, 4-9-4-11, 4-20-4-22, 4-34, A-25, B-3.
  surveillance, 2-17, 2-19.
  tasking order (ATO), 4-20, 4-21.
  traffic controller, 9-9.
  traffic services battalion, 1-8, 2-27, 4-32.
Airborne
  forces, 1-7, 1-8, 2-6, 2-12, 2-18, 2-19, 3-2, 3-10, 3-12, 3-14, 3-16, 5-7, 6-13, 6-14, 8-15.
  operations, 8-3, A-20, C-3.
  warning and control system (AWACS), 2-10.
Aircraft, 3-14, 4-15, 6-5, 9-13, A-1-A-4, A-7-A-9, A-11, A-13.
  carriers, 3-14.
Airdrop, A-15.
Airfield, 3-13-3-15, 5-15, 6-16, 5-19, A-1, A-8, A-13, A-20.

Airhead, 3-11, 3-15.
Airlift, A-3, A-4, A-7.
control center (ALCC), 4-23.
liaison officer. *See* Liaison officer.
See also Strategic lift.
Airspace, 2-3, 2-14, 4-32, 5-12.
command and control. *See* Army airspace command and control.
control, 4-32-4-34.
control authority (ACA), A-4.
control element (ACE), 2-9, A-7, A-8, C-3.
control measures, 8-12.
control order (ACO), 4-21.
plan 4-33.
restricted area. *See* Restricted operations area (ROA).
Alarms. *See* Reports, alarms, and warnings.
Alert order. *See* Warning order.
Allies/Allied, 9-16, A-14.
Army component command(er), 4-29-4-31, A-14.
forces, 1-5, 1-9, 3-5, 4-29, 4-30, 8-15.
services, 9-15.
See also Coalition operations; Multinational operations.
Allocation, A-2.
Allotment, A-2.
All-source analysis system (ASAS), 2-9, 2-10, 4-16, 4-17.
Alternate command post. *See* Command post.
Ambassadors, 4-31, 9-7.
American Red Cross, 9-9.
Ammunition, 9-14, A-1, A-2, A-5, A-15, A-16.
transfer points (ATP), 6-8.
See also Classes of supply.
Amphibious
forces, 1-12, 3-11, 3-12, 3-14, 8-15.
operations, 3-14, A-8.
ships, A-7.
vehicle company, A-8.
Analysis control element (ACE), 2-9, A-21, A-25, C-2.
Antiair warfare, A-5, A-6.
Antiarmor
capabilities, 5-17, 5-18.
forces, 2-12.
munitions, 8-9.
units, A-7.
Antiinvasion operations, A-5.
Antiradiation missile (ARM), 2-16.
Antishipping operations and embargo, A-5.
Antisubmarine warfare, A-5.
Antisurface,
action group operations, A-5.
warfare, A-5.
Antitank (AT),
capabilities, 5-19.
systems, 2-22.
Antiterrorism. *See* Terrorism.
Apportionment, A-2.
Approach
march. *See* March.
route. *See* Routes.
Approval process, 2-27.
Area
air defense commander (AADC), 2-20, 4-21, A-10.
common user (ACU), A-26.
common user (ACU) system (ACUS), A-26.
damage control (ADC), 2-21, C-3, C-4.
defense, 6-1-6-4, 6-7-6-14.
holding. *See* Holding area.
military commander. *See* CINC.
of interest (AI), 2-1, 2-3, 2-4, 2-28, C-2.
of operations (AO), 1-3, 1-5, 1-8, 1-12, 2-1-2-6, 2-8, 2-24-2-27, 3-5, 3-6, 3-8, 3-9, 3-11, 3-14, 3-15, 3-17, 4-3, 4-5, 4-15, 4-19, 4-20, 4-26, 4-33, 5-11, 5-12, 6-1-6-4, 6-6, 6-7, 6-9, 6-12-6-14, 8-8, 8-13-8-15, 9-3, 9-8, 9-10, 9-12-9-15, 10-3, A-15, C-6.
of responsibility, 2-23, 4-12, 7-2, A-15, C-2.
support. *See* Support.
signal battalion, A-26.
Arms control. 9-1.
Arming. *See* Logistics functions.
Armored
cavalry regiment (ACR), xiii, 1-1, 1-8, 1-10, 2-11-2-13, 2-22, 3-1, 3-2, 5-13, 5-15, 5-17, 5-20-5-22, 6-1, 6-4, 6-5, 6-13, 6-14, 7-1, 8-9, A-1, A-15, A-20.
division, 5-20-5-23, 7-3.
forces, 1-3, 1-5, 1-7, 2-11-2-13, 5-4, 5-8, 5-10, 6-8, 8-5, 8-6.
infantry units, 5-16.
personnel carriers (APC), 3-1.
vehicle launched bridges (AVLB), 5-19.
vehicles, 5-15.
Arms control, 9-1, 9-5.
Army (USA), 4-22, 4-25, 4-34, A-1, A-5, A-8.
airspace, 2-15, 4-32.
airspace command and control (A^2C^2), 2-5, 4-1, 4-7, 4-9-4-11, 4-20-4-22, 4-32-4-34, 8-8, 10-3, A-4, B-2, C-3.
aviation. *See* Aviation.
Battle Command System (ABCS), 4-1, 4-6, 4-15-4-18.
brigade and below (Ab^2), 4-17.
common user system (ACUS), 4-16.
component commander, 4-29, 4-30.
force (ARFOR), 1-1, 1-2, 1-4, 1-9, 2-1, 3-4, 3-9, 3-18, 4-20, 4-21, 4-24, 4-26, 4-29, 4-30, 9-5, 9-10, 9-15, 9-16.
Global Command and Control System (AGCCS), 3-5.
Materiel Command (AMC), 3-8, 3-18.

Mobilization and Operations Planning and Execution System (AMOPES), 3-4.
Pacific (ARPAC), 3-2.
Reserve Command (ARCOM), 3-3, 3-4.
Service Component Command (ASCC), 3-3, 3-4, 3-7, 4-34, 8-11, 8-12, 9-15.
Support Operations Center (ASOC) 4-32.
tactical command and control system (ATCCS), 4-16, A-21.
tactical missile systems (ATACMS), 2-14, 4-21, 5-13.
WWMCCS Information System (AWIS), 4-16.
Arrival/departure airfield control group (A/DACG), 3-8.
Artillery, 2-15, 2-17, 2-19, 2-24, 4-22.
units, 7-4.
See also Air defense artillery; Corps artillery; Field artillery.
Assault, 3-12, 3-14, 3-15.
battalion, 1-8.
bridge company (ABC), 8-2.
command post, B-5.
See also Command post.
force, 3-13-3-17.
helicopter battalion, A-11, A-12.
See also Helicopters.
Assembly areas, 3-10, 3-18, 5-13, 5-20, 6-8, 8-8, 8-10, 8-12.
Assess. *See* Targeting process.
Assessment team, 9-10.
Attached units, 5-14, 5-17, 6-10, 9-5, 9-15.
Attack(s), 2-13, 4-8, 5-2, 5-4, 5-16, 6-6, 9-1, 9-5.
aviation, 2-13, 3-15.
helicopter battalion, A-11, A-12.
See also Helicopters.
in-depth, 4-29.
regiment, A-12.
See also Raids.
Audacity, 5-1, 5-2.
Augmentation, 1-3, 1-4, 2-11-2-13, 2-18, 2-20, 2-22, 3-9, 3-13, 3-16, 3-17, 4-13, 4-24, 4-25, 4-27, 4-32, 5-15, 5-17, 5-19, 6-6, 8-2, 9-2, 9-9, 9-10, 9-14, 9-16, A-2, A-19.
Authorized stockage list (ASL), 3-18.
Automated unit equipment list (AUEL), 3-6.
Automatic data distribution system (ADDS), 4-16.
Automation. *See* Communications.
Avenger, A-7-A-10.
battalion, A-11.
Avenues of approach, 8-7.
air, 5-16, C-5.
enemy, 5-19, 6-7, 6-9, 6-11.
ground, C-5.
Aviation, 1-6, 1-7, 2-12-2-15, 2-18, 2-22-2-25, 3-15, 4-7, 4-9, 4-10, 4-12, 4-32, 4-33, 5-3, 5-4, 5-16, 8-4, 8-6, A-3, A-7-A-9, A-12, C-4.
assembly areas, 5-15, 5-18, 5-19.
brigade, 1-8, 2-15, 4-11, 5-20, 6-5, 7-4, A-1, A-11, A-12.
combat element (ACE), A-6.
company, A-1.
forces, 6-8.
intermediate maintenance (AVIM), A-11, A-15, A-22.
medical officer (AMO), 1-6, 4-12.
units, 5-18, 6-5.
Axis of advance, 5-2, 6-12, 8-12, 8-15.

B

Band, 1-11, A-18.
Base and base cluster, 2-7, 2-8, 5-15, C-1, C-3, C-4.
defense, 1-10, 5-15, C-1, C-3, C-4.
Battalion
landing team (BLT), A-7.
task force, 9-8.
Battle
command, 2-1, 2-2, 2-25, 3-13, 4-1-4-5, 4-8, 4-15, 5-20, 9-1, 9-14.
drill, 5-5, 10-3.
element, 4-13.
support center, 4-1, 4-13.
damage assessment (BDA), 2-10, 2-17, 4-11, 4-21, A-5, B-3.
handover, 2-14, 6-5, 6-6, C-5.
line (BHL), 6-5, 6-6, 8-12.
positions (BP), 6-3, 7-3.
space, 1-5, 2-1, 2-3, 2-4, 2-26, 4-3, 4-5, 4-28.
staff, 4-15.
Battlefield, 4-4, 4-6.
circulation control (BCC), 1-10, 2-21, 6-12, A-24, A-25, C-3, C-4.
coordination element (BCE), 1-5, 2-16, 2-17, 4-1, 4-20, 4-22, 4-32-4-34.
framework, 2-1, 2-3.
functional area, 1-2, 2-20, 4-18.
operating systems (BOS), 2-1, 2-8, 2-9, 2-14, 2-21, 4-13, 4-16-4-18, 10-2-10-3.
organization, 2-1, 2-3, 2-4.
visualization, 4-2, 4-3, 4-15, 4-18, 5-20, 6-7.
Beachhead, 3-11, 3-15.
Be-prepared mission, 5-15.
Biological
contamination, 9-13.
detection, A-12.
weapons, 2-19.
BOS. *See* Battlefield operating systems.
Boundaries, 5-12, 6-14, 7-4.
Branches, 4-25, 5-17, 6-2.
See also Contingencies; Sequels.
Breaching operations, 5-10, 5-19-5-21, 6-12, A-20.
Breakout operations, 8-1, 8-3-8-6, 8-15.
Bridge(s), 2-21, 2-22, 5-19, 6-12, 8-2, 8-3.

Brigade support area (BSA), A-20.
Bridgehead, 8-1, 8-2.
Bridging material, 8-3.
Bridges, A-21, A-22.
Bypassed forces, 5-3, 5-6, 5-7, 5-14, 5-15, 6-6, 8-6.

C

Call-fire, A-5.
See also Fires; Mission.
Camouflage and concealment. *See* Deception.
Campaign plans. *See* Planning.
Canalizing, 6-6.
Cannon, A-13.
Capabilities, A-5.
Cargo traffic, A-16.
Carrier onboard (COB) deliver, A-6.
Casualties, 2-23, 2-24, 3-14, 3-16, 7-3, 8-4-8-7, 8-13, 10-3, A-18.
Casualty
evacuation operations, 9-14.
See also Evacuation operations.
Cavalry (CAV), 1-8, 2-7, 3-2, 5-2.
division (CD), 5-21, 6-13, 6-14.
regiment, A-15, A-19.
Cease fire. *See* Truce.
Cell(s), 4-9, 4-10.
functions, B-1.
Cellular phone, 10-2.
Central
command (CENTCOM), 3-1, 5-20, 5-21.
command Air Force (CENTAF), 5-22.
Intelligence Agency (CIA), 9-7.
Chain of command, 8-4, 8-11, 9-3, 9-15.
Chaparral battalion (National Guard), A-10.
Chaplain (CH), 1-6, 4-12, 4-24.
Chemical, 4-7, 4-9, 4-12, 6-8.
brigade
and battalion, A-12.
organization, A-14.
company (decontamination), A-12.
company (reconnaissance), A-12.
company (smoke/decontamination), A-12.
company (smoke generator) (mechanized), A-12.
company (smoke generator) (motorized), A-12.
contamination, 9-13.
avoidance considerations, A-14.
decontamination considerations, A-12.
operations, 1-1, 1-6, 1-8, 1-10, 2-21, 6-12, 8-12.
protection considerations, A-14.
See also Protection.
reconnaissance units, 5-19.
smoke/obscurants considerations, A-14.
units, A-15.
warfare request procedures (CWRP), A-14.
weapons, 2-19, A-1.
Chief of staff (CofS), 1-5, 1-6, 4-4, 4-8, 4-9, 4-16, 4-18, 4-24, 4-31.
Chokepoint, 8-4, A-11.
Civil affairs (CA), 1-1, 1-10, 2-1, 2-27-2-29, 3-14, 3-17, 4-24-4-26, 9-3, 9-8-9-10, A-1, A-9, B-4.
operations center (CMOC), 2-28.
planning considerations, A-28.
Civil/Civilian(s), 8-8, 9-7, 9-13, 9-14.
affairs (CA), A-27.
battalion, A-28.
brigade, A-27.
planning considerations, A-28.
units, A-15.
agencies, 2-26-2-28, 3-3, 3-17, 9-9, 9-10, 9-15.
authorities, 4-26, 9-1, 9-4, 9-9.
defense, 9-12.
internees, 1-10, 2-27.
programs, 9-7.
refugees. *See* Dislocated civilians.
services, 4-13.
See also Ambassadors; Dislocated civilians.
Civil-military
affairs, 4-26.
cell (CMC), 2-27, 2-28, 4-26.
facilities, 9-13.
operations (CMO), 1-10, 2-26-2-28.
Classes of supply, 1-11, 2-14, 2-23, 3-8, 5-4, 5-5, 5-19, 6-8, 6-11, 6-12, A-11, A-15-A-17, C-2.
Close
air support (CAS), 1-6, 1-8, 1-11-1-12, 2-12-2-14, 2-17-2-19, 4-20-4-23, 4-32, 5-2, 5-3, 5-7, 5-16, 5-18, 6-8, 6-11, 6-13, 8-4, 8-6, 8-12, A-1-A-3, A-5, C-4, C-6.
operations, 1-2, 1-5, 2-4, 2-5, 2-7, 2-10-2-17, 2-20, 2-22, 2-24-2-26, 2-28, 4-6-4-8, 4-10-4-13, 4-33, 5-4, 5-12, 5-13, 6-4, 6-6, 6-8, 6-9, 9-12, B-1, B-2.
Coalition forces, 1-3, 1-5, 3-5, 4-16, 4-28-4-30, 5-18, 5-20, 6-14-9-16.
See also Allied forces; Eastern Area command (EAC); Lead-nation command structure; Multinational operations.
Collateral
damage. *See* Damage.
operations, 1-2, 1-3, 4-2.
Collection assets, 5-16, 6-9.
Collectors/processors, 2-9, 2-11, 2-21, 2-25, 2-27.
Collocation, 4-7, 4-12.
Combatant command(er), 1-3, 3-2, 3-6, 3-8.
Combat
air capabilities. *See* Air abilities.
air patrol. *See* Air patrol.

aviation brigade (CAB), 3-2.
electronic warfare intelligence (CEWI), A-25.
engineer
battalion (CEB), 8-2.
units, A-7.
health support (CHS), 1-11, 2-24, 3-3, 4-17, 9-14, A-14, A-15, B-3, B-4.
intelligence division (CID), 4-12, 4-21.
forces, 3-16.
net radio (CNR), 4-15, A-26.
operations, 4-8, 4-10, 4-13, 5-16, 6-10, 7-3, 7-4, 8-1, 8-7, 8-8, 8-12-8-14, 9-1, 9-2, 9-4, 9-5, 9-8, 9-10, 9-12, 9-13, 9-15, 9-16, A-6, A-16, B-1-B-3, C-1.
Operations Revolutionary Development Support (CORDS), 4-31.
search and rescue (CSAR), 1-8, 4-25.
service support (CSS), xii, xiii, 1-1-1-3, 1-5, 1-8, 1-10, 2-1, 2-7, 2-8, 2-11-2-14, 2-22-2-24, 3-1, 3-5, 3-8, 3-9, 3-12-3-14, 3-16, 3-17, 4-4, 4-8, 4-10, 4-13, 4-16-4-18, 5-1, 5-3-5-6, 5-15, 5-17, 5-19, 6-1, 6-5, 6-6, 6-8-6-10, 6-12, 7-2-7-4, 8-1-8-5, 8-7, 8-8, 8-11-8-16, 9-1, 9-2, 9-5, 9-12, 9-13, 9-15, 9-16, 10-3, A-1, A-6, A-7, A-14, A-17, B-1-B-4, C-1, C-2, C-7.
service support cell, 2-24, 4-9, 4-11-4-13, 4-22, 4-23, B-3, B-4, C-1, C-6, C-7.
Service Support Control System (CSSCS), 4-16, 4-17.
Service support element (CSSE), A-6-A-8.
stress control (CSC), A-15, A-16.
support (CS), xii, xiii, 1-1-1-3, 1-5, 1-8-1-10, 2-1, 2-7, 2-12-2-14, 2-24, 3-1, 3-8, 3-9, 3-16, 3-17, 4-8, 4-10, 4-13, 4-17, 5-3, 5-4, 5-19, 6-5, 6-6, 6-10, 7-4, 8-1, 8-3, 8-7, 8-13-8-16, 9-2, 9-5. 9-12, 9-13, 9-15, A-1, A-8, A-14, B-1-B-3, C-1.
aviation battalion, A-11, A-12.
equipment, A-20.
hospital (CSH), A-16.
units, 3-1, 3-3, 6-5, 7-4.
zone, 4-14, 7-2, 8-8, A-15.
Combatting terrorism. *See* Terrorism.
Combined air operations center (CAOC), A-2.
Combined arms, 2-20, 2-21, 3-15, 5-2, 6-4, 6-7, 6-10, 8-7, 8-8, A-6, A-18.
task force. *See* Task force.
team, 4-33, A-11.
Combined operations, xiii, 1-1, 1-3, 1-5, 1-7, 2-1, 2-6, 2-8, 2-13, 2-15, 2-29, 3-1, 4-6, 8-16, A-13.
Command, 4-1, 4-4, 9-10.
aviation battalion, 1-8, A-11, A-12.
and control (C^2), xiii, 1-4, 1-9, 1-11, 2-1, 2-7, 2-8, 2-12-2-16, 2-18, 2-22, 2-24, 3-8, 3-10, 3-14, 3-15, 4-1, 4-4, 4-6, 4-9, 4-11-4-13, 4-15, 4-17, 4-19, 4-26, 4-27, 4-29, 4-34, 5-1, 5-3, 5-11-5-14, 5-16, 5-18, 5-20, 6-1, 6-6, 6-10, 6-12, 7-2, 8-3, 8-8, 8-10, 8-14, 9-5, 9-15, 10-3, A-11, A-12, A-14, A-17, A-19, A-23, A-25. B-2.
and control facilities, 5-15, A-2.
and control intelligence (C^2I), 4-17.
and control systems, 10-2.
and control warfare (C^2W), 3-14, 4-1, 4-9, 4-34-4-35, 5-11, 6-2, B-2, B-3.
cell, 4-11, B-2.
and support. *See* Support.
considerations, 9-15.
control, and communications (C^3), 1-8, 1-12, 9-6.
control, communications, and computer systems, 4-26, 4-32.
control, communications, and intelligence (C^3I), 3-5, 4-16, 9-9, A-6.
element (CE), A-6-A-8.
group (CG), 4-1, 4-6, 4-7, 4-9.
post (CP), 2-7, 2-8, 2-15, 2-18, 2-21, 2-26, 3-5, 3-9, 4-1, 4-4, 4-6-4-15, 4-19, 4-21-4-23, 4-32, 4-33, 5-4, 5-15, 5-18, 5-20, 6-8, 6-9, 6-13, 8-13-8-15, 9-15, 10-1, 10-2, A-19, A-23, A-24, A-26, B-1-B-4.
exercise (CPX), 3-3.
headquarters cell, 4-9, 4-12.
power, 4-1.
protection. *See* Protection measures.
sergeant major (CSM), 1-6.
vehicle 4-14, 4-15, 10-1.
Commander, Army Forces (COMARFOR), 1-4, 4-20.
Commander, Joint Chiefs of Staff (CJCS), 3-2, 4-27, 4-28.
Commander, Joint Task Force (CJTF), 1-3-1-5, 3-12, 4-24, 4-26-4-28, 4-33, 4-34, 6-9, 9-9, 9-16.
Commander-in-chief (CINC), 2-1, 2-19, 2-27, 3-1, 3-2, 3-4, 3-5, 3-7-3-10, 3-13, 3-16, 3-17, 4-23, 4-27, 4-28, 4-31, 5-21, 9-9, 9-10, 9-15, 9-16, A-6.
Commander's
concept. *See* Concept of operations.
decision, 4-18.
estimate, 4-18.
guidance, 2-17, 2-28, 4-10, 4-15, 4-19, 8-12.
intent, 1-5, 1-6, 2-2, 2-7-2-9, 2-14, 2-20, 2-21, 3-6, 3-17, 4-2, 4-3, 4-7, 4-11, 4-15, 4-19, 4-29, 4-31, 5-2, 5-5, 5-20, 6-2, 6-4, 6-6, 6-8, 6-9, 7-1-7-3, 8-5, 8-12, 9-2, A-2, B-2, C-1-C-7.
role, 4-1.
vision, 2-20, 3-13, 4-2, 4-18, 5-12, 5-20, 6-7.
will, 4-4, 4-19, 5-20.
Commanding
general (CG), 3-3, 4-22.
officer (CO), A-17.
Communications, 1-9-1-10, 1-21, 1-22, 2-10, 2-13, 2-14, 2-16, 2-18, 2-19, 2-22, 2-24, 2-27, 3-4, 3-5, 3-10, 3-11, 3-13, 4-1, 4-5-4-10, 4-11, 4-13-4-19, 4-24-4-29, 4-34, 5-6, 5-20, 6-8, 8-4, 8-14-8-16, 9-2, 9-5, 9-6, 9-9, 9-10, A-5, C-4.
aircraft support, A-11.
command, 9-6.
-electronics operating instructions (CEOI), 9-10.

loss of, 4-4.
networks, 10-2.
satellite (COMSAT), A-11.
security (COMSEC), 4-34, A-26.
systems, 10-2, B-2.
zone, (COMMZ), 7-2, 8-12.
See also Information.
Comptroller, 4-24.
Computer support, 8-10.
Concentration. *See* Massing.
Concept
of maneuver, 6-11.
of operations, 1-2, 1-3, 1-5, 1-9, 2-2, 2-7-2-9, 2-10, 2-20, 2-21, 3-6, 3-13, 3-15, 4-2, 4-3, 4-11, 4-18, 4-19, 4-21, 4-28, 4-34, 4-35, 5-1, 5-12, 6-8, 7-1-7-3, 8-12, A-10, B-2, C-1-C-7.
plan (CONPLAN), 3-1-3-3.
Conflict resolution, 9-4.
Consensus building, 9-3.
Constraints, 2-18, 3-15, 4-13.
Container delivery system (CDS), 2-24, 3-8, 4-23.
Contiguous battlefield, 2-4.
Continental United States (CONUS), 1-3, 2-1, 2-24, 3-2-3-4, 3-6-3-9, 3-11, 3-17, 3-18, 4-14, 9-1, 9-12, 9-15.
Army (CONUSA), 3-4, 3-18.
Contingency (ies), 1-1, 2-1, 2-2, 2-12, 2-14, 3-1-3-3, 3-7, 3-8, 3-18, 4-2, 4-10, 5-5, 5-14, 6-1, 6-2, 8-8, A-7.
area(s), 3-3.
corps, 6-10.
operations, 3-4, 4-27, 9-15.
plans, 2-18, 2-28, 3-7, 4-27, 4-28, 5-19, 6-7, 7-4, 9-2, C-4.
Theater Automated Planning System (CTAPS), 4-17.
Contracting support, 9-14.
Control, 4-1, 4-6, 4-7, 4-19, 6-5, 9-10, 9-14, A-5.
and reporting center (CRC), 4-21.
decentralized, 5-2, 6-5.
measures, 2-3, 2-14, 4-19, 5-11-5-13, 6-11, 7-3, 7-4, 8-9, 8-12, 8-16, C-6.
Controlling, 4-6.
Conventional forces. *See* Ground forces.
Convoy and shipping protection. *See* Protection.
Coordinating
altitude, A-4.
staff, 1-5, 1-6.
Coordination, xii, 1-4, 1-5, 2-1, 2-4, 2-6, 2-14-2-17, 2-21, 2-22, 2-24-2-29, 3-13, 3-15, 3-16, 4-1, 4-2, 4-6, 4-7, 4-9, 4-11, 4-12, 4-14, 4-18-4-20, 4-25, 4-30, 4-34, 5-11, 5-13, 6-2, 6-11, 7-2-7-4, 8-3, 8-12-8-15, 9-3, 9-14, A-3.
center, 4-29.
measures, 5-18.
of fires. *See* Fires.
Corps
area, A-10.
artillery, 1-9, 2-15, 2-22.
headquarters, 1-5, 2-25, 3-9, 6-8, 6-9.
materiel management center (CMMC), A-15, A-17.
military intelligence support element (CMISE), 2-10.
movement control center (CMCC), A-15, A-17, A-18, B-4.
organization, A-18.
operations, 2-1, 2-18, 2-25, 2-26, 4-4, 4-6, 4-8, 5-5, 10-1
organization, 1-7, 4-6.
psychological operations support element (CPSE), 1-10, 4-26, A-28.
staff, 1-5-1-6, 4-3-4-6, 4-21, 9-9.
staff organization, 1-6.
support battalion (CSB), 2-23, A-14, A-15.
support command (COSCOM), 1-1, 1-10, 1-11, 2-23, 4-13, 5-4, 8-8, 9-15, 9-16, A-1, A-14, A-15, A-26, A-28, C-1, C-7.
support group (CSG), 2-23, 4-12, A-14-A-16, C-1, C-7, C-8.
(forward), A-14.
(rear), A-15
tactical operations center (CTOC), 2-27, 4-8.
Counter
air, 1-6, 1-11, 2-18, 2-20, 2-21, 6-11, 8-2, A-2.
command and control, 4-1, 4-34, 4-35.
See also Offensive counter air operations.
Counterattack, 2-6, 2-11, 2-12, 2-16, 3-16, 5-11, 5-13, 5-14, 5-16, 6-2, 6-3, 6-8-6-10, 6-13, 7-3, 8-14, 8-15.
Counterdrug operations, 9-1, 9-9.
Counterfires, 1-2, 2-15, B-3.
See also Fires.
Counterinsurgency, 9-1, 9-5-9-7.
Counterintelligence (CI), 1-9, 2-8, 2-10, 3-5, 3-15, 4-10, 9-11, A-23, B-3, C-3.
Countermeasures, 2-19, A-14.
See also Electronic countermeasures.
Countermine operations, 9-13.
Countermobility, 1-9, 2-22, 5-19, 6-7, 6-11, 6-12, A-20.
Counterobstacle operations, 5-19.
Counterterrorism. *See* Terrorism.
Coup de main, 3-10, 3-11, 3-13, 3-15-3-17.
Course of action (COA), 1-6, 2-2, 2-28, 3-4, 3-12, 4-4, 4-18, 4-19, 4-28, 5-14, 6-2, 8-5, 9-15, B-2.
development, 4-27, 4-28.
sketch, 8-2.
Cover/Covering force, 2-7, 2-11-2-13, 2-16, 5-2, 5-4, 5-13, 5-18, 5-24, 6-1, 6-4-6-6, 6-12, 6-13, 7-3, 7-4, 8-12, C-8.
area (CFA), 6-5, 6-6, 6-14.
Cover mission, 6-4, 7-4.
Crisis-action planning (CAP), 3-2, 3-4, 3-5, 3-12, 4-24, 4-27, 4-28, 4-34, 9-15.

Critical
assets, A-10, A-11.
information requirements (CIR), 4-18.
targets. *See* Targets.
Cross-FLOT operations, A-11.
See also Foward line of own troops (FLOT).
CSG. *See* Corps support group.
Cultural considerations, 2-23, 2-28, 3-8.
Current operations, 2-28, 2-29, 4-1, 4-7, 4-9, 5-16, 5-20, B-1-B-3.
cell, 4-9-4-13, 4-22, B-1, B-2.

D

Damage, collateral, 3-11, 9-12, 10-3.
Data
base, 9-14.
links, 2-9.
processing, 9-10.
Deception, 1-2, 1-9, 2-10, 2-17, 3-14, 3-15, 4-3, 4-9-4-11, 4-34, 4-35, 5-1, 5-2, 5-5, 5-11, 5-13, 5-16, 5-20, 6-1, 6-2, 6-10, 6-12, 7-2-7-4, 8-3, 8-4, 8-8, 8-9, 8-12-8-15, 9-12, A-3, B-2, C-1-C-8.
Decide, detect, deliver, and assess. *See* Targeting process.
Decision
-makers, 9-10.
-making, 4-1, 4-2, 4-4, 4-7, 4-18, 4-19, 4-28, 8-15, 9-15.
-point, 3-15, 4-5, 4-6.
Decontamination, 1-10, 2-21, 5-19, 8-11, A-12, A-13.
planning times, A-13.
sites, A-12.
Deep
air support, 1-12.
attack force, 2-13, 2-15.
operations, 1-2, 2-4-2-7, 2-10-2-12, 2-14-2-20, 2-22, 2-24, 2-25, 4-7, 4-8, 4-10, 4-11, 4-13, 4-14, 4-33, 5-4, 5-6, 5-10, 5-12, 5-13, 5-18, 5-20, 5-22, 6-1-6-4, 6-6, 6-9, 6-10, 6-13, 9-12, B-1, B-2.
operations coordination cell (DOCC), 2-6, 2-15, 4-9-4-11, B-3.
Defense, 1-8, 2-13, 6-1-6-3, 6-6, 6-12, 8-3.
coastal, 3-14,
drop zone, 3-14.
force-oriented, 6-9.
forms of, 6-1, 6-2.
hasty, 5-3, 5-4.
in-depth, 5-12, 8-4.
landing zone, 3-14.
Logistics Agency (DLA), 3-8, 3-18.
plans, C-3, C-4.
point, A-10.
Property Disposal Agency (DPDA), 3-18.
systems, A-3.
terrain-oriented, 6-9.
See also Air defense; Air defense artillery; Area defense; Deliberate defense; Hasty defense; Mobile defense; Transitioning to the defense.
Defensive
counter air (DCA), A-2, A-5.
See also Counter air; Offensive counter air.
operations, 1-8, 2-8, 2-19, 2-20, 3-1, 3-14-3-15, 3-17, 5-5, 5-16, 6-1, 6-6, 6-9, 6-10, 6-13, 7-1, 8-12, 9-6, 9-12, A-2, A-5, A-11.
positions, 5-14, 6-1.
Defiladed positions, A-5.
Delay, 2-15, 6-4-6-6, 6-9, 7-1-7-4, 8-3, 8-5, 9-12.
See also Retrograde operations.
Deliberate
attack, 5-5, 5-11, 5-17, 8-5.
breach. *See* Breaching.
crossing. *See* River crossing.
defense, 6-1, A-20.
planning, 3-1, 3-2, 3-4, 4-27, 4-28, 4-34, 6-11.
Deliver. *See* Targeting process.
Delivery
of fires. *See* Fires.
systems, 2-21, 5-13, A-4.
Demobilization, 1-4, 2-26, 3-1, 3-2, 3-18, 9-15.
Demonstration, 5-11, 5-17, 5-20, 7-4, 9-8.
Dental support, 3-18, 9-14, A-15, A-16.
Department of
Agriculture (DA), 3-18, 9-9.
Commerce (DOC), 9-9.
Defense (DoD), 3-1, 3-6-3-8, 3-17, 9-7, 9-9.
Justice, 9-9.
State (DOS), 9-9, 9-16.
the Army (DA), 3-3, 3-8.
Transportation, 9-9.
Deployable intelligence support element (DISE), 3-5.
Deployment, 1-3-1-7, 2-22, 2-24, 3-1-3-13, 3-15, 3-16, 3-18, 4-13, 4-27, 4-34, 6-1, 6-10, 7-2, 9-2, 9-8-9-10, 9-13, 9-14, A-4, A-7.
See also Preventive deployment.
Depth, 2-4, 2-20, 4-3, 6-6.
Deputy
commander, 1-5, 1-6, 2-8, 4-12, 4-24, 4-31.
G2. *See* G2.
FSCOORD. *See* Fire support coordinator.
Desert Dragon, I, II, III, 6-13.
Shield. *See* Operation Desert Shield.
Desired end state, 2-1, 2-2, 4-2, 9-5, 9-15.
Detect. *See* Targeting process.
Deterrence, 9-8.
Diplomatic activities, 9-8, 9-9.
Digitization, 10-2.
Directed energy (DE), 2-16.

Directing, 4-6.
Direction-finding (DF) equipment, A-23.
Direct
action, 2-25, 9-10.
air support center (DASC), B-3.
fire, A-5.
fire weapons. *See* Weapons.
pressure force, 5-6, 5-7, 5-14, 5-15.
support (DS), 1-10, 2-11, 2-23, 5-4, 8-11, A-1, A-5, A-6, A-11, A-14, A-15, A-17, A-19, A-22, A-23, A-25.
units, A-15, A-16.
Direction finding, 2-9, 2-10.
Disaster relief operations, 1-10, 9-1, 9-5, 9-6, 9-9, 9-13, 9-14.
Disengagement, 6-6, 7-4.
Dislocated civilians, 3-17, 8-4, 8-6, 8-8, 8-13.
Dispersal, 2-20, 4-8, 5-1, 9-4, A-3.
Displacing, 4-8, 6-8.
Displacement of assets, 6-11.
Disruption, 6-1, 6-2.
Distance, 3-12, 3-14, 3-16.
Distribution, A-2.
Division, 1-1-1-3, 1-7-1-10, 2-15, 2-23, 8-3, A-15.
area, A-10, A-15.
brigades, 6-6.
cavalry, 5-17.
rear, 4-8, A-14, A-15.
support area (DSA), A-15.
support command (DISCOM), 2-23, 5-4, 5-17, 5-22, A-28.
DOCC. *See* Deep operations coordination cell.
Doctrine, 2-1, 2-3, 9-1, 9-2, 9-6, 9-7, 9-9, 9-16.
Domestic support operations, 9-6, 9-16.
Double envelopment. *See* Envelopment.
Dragon trackers, A-7-A-9.
Drop zone (DZ), 2-22, 3-14, 4-21, A-4, C-3-C-5, C-7.
Dwell time, 2-17.

E

EA. *See* Electronic attack; Engagement area.
Early warning. *See* Warning.
Eastern Area Command (EAC), 6-13, 6-14.
Echelonment of the force, 3-6, 3-7.
Echelons above corps (EAC), xii, 1-5, 1-9-1-11, 2-1, 2-5, 2-9, 2-10, 2-26, 2-27, 3-9, 3-16, 4-33, 8-11, 8-12, 8-15, 9-12, 9-14, 9-15, A-28, C-1.
plan, 5-11.
support, 5-16, 6-9.
Economy of force, 1-8, 2-13, 2-26, 5-17, 6-2, 6-6, 6-7, 6-9, 7-2, 7-3.
Electromagnetic
energy, 2-16.
pulse, (EMP), 4-18, A-27.
Electronic
attack (EA), 2-6, 2-10, 2-15, 2-16, 4-34, 5-11, 5-18, A-6.
combat, 1-12.
countermeasures (ECM), A-9, A-10, A-27.
deception, 8-3.
intelligence systems. *See* Intelligence.
pipelines, 4-14.
processing and dissemination system (EPDS), 2-10.
protection (EP), 2-16, 4-34, A-6, C-3.
warfare (EW), 1-2, 1-6, 1-9, 1-12, 2-4-2-6, 2-10, 2-14-2-18, 4-7, 4-9-4-11, 4-18, 4-21-4-23, 4-26, 4-32, 4-34, 7-4, 8-7, A-3, A-6, C-3.
warfare support (ES), 2-16, 4-34, A-6.
See also Communications.
Electro-optic systems, A-14.
Embarkation. *See* Port of embarkation.
Employment, 3-2, 3-13, 5-17, 6-12, A-4, A-11.
Encircled forces, 5-6, 5-7, 5-13, 5-14.
Encircling force, 5-14, 5-15.
Encirclement, 5-14, 8-1, 8-3-8-7, 8-15.
End
items. *See* Major end items.
state. *See* Desired end state.
Enemy, 5-16.
artillery, A-13.
observation post, A-13.
prisoner of war (EPW), 1-9, 1-10, 2-27, 3-17, 5-6, 8-4, 8-6, 8-13, A-24, A-25.
situation, 10-1.
situation correlation division (ENSCD), 4-21.
Engagement, 5-2.
area (EA), 2-14, 6-2, 6-3, 6-7, 6-10-6-12.
capability, A-11.
Engineer(s), 1-6-1-9, 2-12, 2-14, 2-21, 2-22, 3-3, 3-6, 3-15-3-17, 4-7, 4-9, 4-12, 4-23-4-26, 5-3, 5-15, 5-19, 6-5, 6-7, 6-8, 6-11, 6-12, 7-4, 8-2, 8-4, 8-5, 8-8, 8-12, 9-1, 9-6, 9-8, 9-12, 9-13, A-1, A-8, A-9, A-19, A-20, C-1, C-3.
battalion (combat) (heavy), A-20.
battalion (corps) (airborne), A-20.
battalion (corps) (light), A-20.
battalion (corps) (mechanized), A-20.
battalion (corps) (wheeled), A-20.
brigade, A-19.
organization, A-19.
company (combat support equipment), A-21.
company (light equipment), A-21.
company (light equipment) (airborne), A-21.
company (medium girder bridge (MGB)), A-21.
company (panel bridge), A-21.
company (ribbon bridge), A-21.
company (topography) (DS), A-21.
group (combat), A-19.
See also Logistics.

Entry operations, 2-12, 3-1, 3-2, 3-4, 3-5, 3-9-3-17, 4-6, 4-27, 5-16, 9-8.
Envelopment, 5-5-5-10, 5-13, 5-14, 5-20-5-23, 8-3, 8-15.
Environment, 2-2-2-4, 2-7, 2-22-2-23, 9-2-9-4, 9-7, 9-9, 9-11, 9-12, 9-16, A-2, A-10, A-16.
Equipment, 3-18, 4-6, 8-2, 8-15, 9-8, 9-10, 9-14, A-3, A-9, A-12.
decontamination sites. *See* Decontamination.
exchange, 8-15.
Essential elements of friendly information (EEFI), 4-35.
Estimates, 2-21, 3-13, 4-3, 4-18, 9-1, A-18.
European Command (EUCOM), 3-2.
Evacuation, 2-24, 2-28, 6-8, 7-2, 8-3, 8-13, 9-2.
operations, 1-8, 1-11, 2-22-2-24, 3-16, 5-4, 8-4, A-16.
requirements, 6-8.
Execution, 4-1, 4-18, 4-19, 6-2, 7-2.
planning. *See* Planning.
Executive officer, 4-31.
Exfiltration, 8-1, 8-4-8-6.
Exploitation, 1-9, 5-2, 5-5, 5-6, 5-13-5-15, 5-17, 8-6, A-11.
See also Pursuit.
Explosive ordnance disposal (EOD), 4-12.

F

Family
of scatterable mines (FASCAM), 4-23.
support, 3-3.
Federal Emergency Management Agency (FEMA), 9-9.
Feint, 5-11, 5-17, 5-20, 7-4.
Field
artillery (FA), 1-7-1-9, 2-6, 2-12, 2-15, 2-16, 4-32, 5-3, 5-4, 5-12, 5-15, 5-18, 5-20, 6-5, 6-8, 6-10, 6-11, 6-13, 7-4, 8-6, 8-7, 8-14, 8-15, A-1, A-3, A-4, A-7, A-8, A-20, A-22, C-4, C-6.
considerations, A-22.
organization, A-23.
resources, A-24.
intelligence officer (FAIO), 4-9.
of fire. *See* Fires.
service, A-14.
service support, 3-8, 9-6.
services company, A-1.
Fighter
aircraft. *See* Aircraft.
liaison officer (FLO), 4-22, 4-23.
Finance
activities, 1-1, 1-6, 1-11, 2-23, 3-18, 4-12, A-1, A-15, A-17, A-18.
battalion (FB), A-17.
group (FG), A-17.
organization, A-17.
staff officer, A-18.
support, A-18.
Fire
control measures, 2-2, 2-6, 5-11, 8-7.
control party, A-5.
support, 2-1, 2-5, 2-8, 2-9, 2-13, 2-14-2-16, 3-15, 4-8, 4-16, 4-18, 4-28, 5-1, 5-16, 5-18, 5-19, 6-1, 6-7, 6-11, 7-3, 8-4, 8-6, 8-8, 8-12-8-15, 9-1, 9-5, 9-12, 10-3, A-4, A-6, B-3, C-1, C-4, C-6.
support cell, 2-15, 4-9, 4-10, 4-22, 4-23, 4-32, B-2, B-3,
support coordination
line (FSCL), 2-6, 5-18, 6-6, A-4.
measures, 4-19, 4-21, 4-28, 8-15, 9-12.
support coordinator (FSCOORD), 1-6, 2-15, 2-21, 4-7, 4-10, C-6.
support element (FSE), 4-6, 4-9, 4-11, 4-12, 4-32, 4-35, I
support officer, 4-33.
support plan/planning, 2-15, 2-17, 3-15, C-4, C-5.
support ships, A-5.
support team, 2-22.
Fires, 1-2, 1-9, 2-4, 2-6-2-8, 2-11, 2-13, 2-16, 2-18-2-20, 3-13-3-15, 4-2, 4-3, 4-10, 4-23, 4-28-4-30, 4-34, 5-1, 5-8, 5-12, 5-14, 5-18, 6-2-6-4, 6-6, 6-7, 6-10, 8-4-8-6, 8-13, 9-12, A-3, A-5, B-3.
joint, 5-18.
Fixed-wing aircraft. *See* Aircraft.
Fixing, 5-4-5-10, 5-14, 5-18, 5-21, 6-8, 6-14.
See also Logistics functions.
Flank(s), 5-13, 5-14, 5-19, 6-4, 6-6, 6-13.
attack, 5-20, 5-21.
operations, 2-13, 5-2, 5-4, 5-5, 6-12.
protection, 2-16, 2-26, 7-2.
screen, 5-13.
Security. *See* Security.
Fleet marine forces (FMF), A-6.
Flexibility, 6-1, 6-2, 6-7, 6-8, 9-11.
Float bridges. *See* Bridge(s).
Follow and assume, 5-6.
Follow and support, 5-6, 5-14, 5-15.
Follow-on
engineers. *See* Engineers.
forces, 2-12, 3-9, 3-11, 3-12, 3-14-3-17, 4-27, 5-15, 5-19, 6-5, 6-9, 6-10, 8-1.
missions (sequels), 2-2, 2-17, 3-17, 4-2, 4-10, 4-18, 5-6, 5-17, 6-14, 8-11, B-2.
operations, 3-13, 3-16, 5-5, 8-8, A-20.
Force
allocation, 2-28.
buildup, 3-12, 3-16.
headquarters, A-9.
module concept, 3-13.
-oriented defense. *See* Defense.
projection, 1-1, 1-7, 1-8, 2-1, 2-12, 2-13, 2-24, 3-1-3-3, 3-5-3-9, 3-17, 3-18, 4-5, 4-6, 4-13, 4-16, 4-26, 4-27, 6-1, 6-2, 6-9, 9-13, 9-15, 10-2, A-19.
forces, A-20.

protection. *See* Protection measures.
service support group (FSSG), A-6, A-8, A-9.
Forces Command (FORSCOM), 3-2-3-4.
Forces Command Mobilization and Deployment Planning System (FORMDEPS), 3-4.
Forcible entry operations. *See* Entry operations.
Foreign
government agencies, 9-15.
internal defense (FID), 2-1, 2-26, 9-5, 9-7, A-27.
Military Sales Program (FMSP), 9-7.
Forward
air controller (FAC), 4-23.
area air defense (FAAD), 4-16, 4-17, 5-18, 5-19, 6-11, A-10, A-11.
arming and refueling point (FARP), 1-8, 2-14, A-11.
assembly areas (FAA), 3-9, 5-18, 5-20.
command post, 4-13, 4-14, 9-15, B-5.
See also Command posts.
deployed elements, 3-5, 3-10, 3-11, 4-5, 4-13, 9-1, A-8.
defense, 3-16, 7-4.
edge of the battle area (FEBA), 5-24, 6-4, 6-6, A-25.
line of own troops (FLOT), xiii, 2-14, 2-19, 5-11, 5-13, 5-24, 8-15, A-4.
logistics bases (FLB), 5-19, 6-10, 6-12.
looking infrared (FLIR), 2-10.
operating base (FOB), 6-13, A-27.
passage of lines. *See* Passage of lines.
presence
location, 2-24.
forces, 3-8, 3-10, 3-15, 6-1.
Fragmentary order (FRAGO), 2-14, 4-18, 5-5, 8-14, B-1.
Fratricide, 2-6, 2-14, 4-35, 6-11, 10-3, C-4.
Friction of battle, 4-4.
Friendly situation, 10-1.
Frontal attack, 5-5, 5-7, 5-8.
Front(s), 8-1, 8-2.
-end loading, 3-5.
-line troops, A-5.
Fuel/Fueling, A-10, A-13.
See also Classes of supply; Logistics functions.
Functional control centers, 2-23.
Funding, 9-13.
Fusion, 4-20, 4-21.
Future
battle scenario, 10-1.
improvements, 10-1.
operations, 3-14, 4-1, 4-3-4-6, 4-8-4-14, 4-33, 6-6, 8-14, 10-1, B-2.
See also Sequels.

G

G1, 1-6, 4-7, 4-9, 4-12, 9-14.
G2, 1-6, 1-9, 2-9, 2-10, 2-21, 4-6, 4-7, 4-9-4-12, 4-21-4-23, 5-16, 5-17, 6-9, 10-1, A-4, A-21, A-23, A-25.
G3, 1-6, 1-9, 2-7, 2-8, 2-10, 2-14, 2-21, 2-25, 2-26, 4-6-4-9, 4-11, 4-12, 4-17, 4-21-4-23, 4-26, 4-32, 4-33, 4-35, 8-8, 10-1, B-2, B-4, C-1, C-2, C-5-C-7.
G4, 1-6, 4-7, 4-9, 4-12, 4-13, 4-21, 8-8.
G5, 1-6, 1-10, 2-27, 2-28, 4-9, 4-12, 9-9, C-2, C-7.
Garrison commander, 3-4.
General engineering. *See* Engineers.
General Officer Command (GOCOM), 3-3, 3-4.
General support (GS), 1-9, 2-11, 2-23, 3-18, 8-11, A-1, A-5, A-15, A-20-A-23.
-reinforcing (GS-R), 2-15, A-15, A-22.
supply (GSS), A-14, A-15, A-17.
Global
Command and Control System (GCCS), 2-9, 3-3, 3-13, 4-16.
information network, 10-2.
positioning system (GPS), 10-2.
Government agencies, 1-5, 1-9, 2-27, 3-1, 3-10, 4-16, 4-31, 9-1, 9-3, 9-6, 9-7, 9-9, 9-11, 9-16.
Governmental laws and regulations. *See* Laws and regulations.
Graphics, 6-12, 8-14, 10-1-10-3.
Graves registration, 8-4.
Grenade launcher, A-7-A-9.
Ground
-based common sensor (GBCS), 2-9.
combat element (GCE), A-6-A-8.
commander, A-3.
force, 1-3, 1-5, 2-1, 2-7, 2-13, 2-17, 2-18, 2-21, 2-24, 3-1, 3-10, 3-14, 5-11, 5-21, 6-5, 8-6, 8-7, 9-6, A-2, A-3, A-6, C-4.
liaison officer (GLO), 4-20, 4-33, 4-34.
maneuver force. *See* Maneuver.
station module (GSM), 2-10, A-25.
tactical plan, 3-13.
transportation assets. *See* Transportation.
See also Avenues of approach; Movement.
Guard mission, 2-7, 2-11-2-13, 5-4, 5-6, 6-4, 6-6.
Guardrail common sensor (GRCS), 2-10, A-25.
Guerrilla forces, 2-26.
Gun(s), 6-10, A-1, A-5.
See also Missiles.
Gun-target line, A-5.

H

Hardening, 2-20, 9-13, A-3.
Hasty
attack, 5-5, 5-11.
defense, 5-14, 5-24, 6-1, 6-14.
Hawk, A-8-A-10.
battalion (National Guard), A-10.

Headquarters,
and headquarters company (HHC), 1-10.
chemical brigade, A-12.
and headquarters detachment (HHD), chemical battalion, A-12.
cell, 4-9, 4-12, B-1, B-4.
commandant, 1-6.
elements, 4-6.
location, 4-12.
military police battalion, A-25.
military police brigade, A-23.
signal brigade, A-25.
support activity, 4-24.
Health services, 2-23, 3-17, 4-26.
Heavy
division, A-13, A-14.
forces, 5-17, 5-18, 6-11, A-12.
-light mix, 6-10, 6-11.
Helicopters, 1-8, 1-12-2-19, 3-1, 3-8, 3-11, 3-14, 3-15, 4-21, 5-7, 5-11-5-13, 5-15, 5-18, 5-20, 5-21, 6-5, 6-7, 6-8, 6-13, 8-3, 8-6, 9-8, A-1, A-3, A-4, A-7-A-9, A-11, A-12.
resources, A-13.
High
-density airspace control zone (HIDACZ), A-4.
explosives (HE), A-13.
-mobility multipurpose wheeled vehicle (HMMWV), 4-7.
-payoff target, 2-6, 2-16, 2-18, 2-21, 4-10, 5-13, 5-16, 6-6, 6-9, B-3.
to medium-altitude air defense (HIMAD), 5-18, 5-19, 6-6, 6-11, A-10.
-value target (HVT), 2-12, 6-13, 9-5, B-3, C-3.
Historian, 1-6.
Holding area, A-16.
Home of record, 3-18.
Host nation (HN), 1-3, 1-5, 1-6, 1-9, 1-10, 2-8, 2-22, 2-23, 2-26, 2-28, 3-5, 3-6, 3-8, 3-10, 3-16, 3-17, 4-6, 4-12, 4-26, 4-29, 5-16, 5-20, 8-12, 9-1, 9-3-9-14, A-14, A-16, A-23, A-28, B-2, B-4, C-1-C-4, C-7.
Howitzers, 3-1, A-7-A-9.
Human intelligence (HUMINT), 2-11, 3-5, 3-15, 5-17, 9-11.
Humanitarian
assistance, 1-2, 3-17, 4-25, 4-32, 9-1, 9-5, 9-6, 9-14.
relief operations, 5-23, 9-12.
Hydrography, A-5.

I

Identification, friend or foe (IFF), 1-9.
Indirect fires. *See* Fires.
Individual mobilization augmentees (IMA), 3-4.
Infantry, 5-15, A-7
battalion, A-11.
division (ID), 5-8, 5-23.
light (L), 3-10, 5-10, 5-17, 5-21, 7-2.
mechanized, (M) 3-2, 5-10, 5-17, 5-20-5-22, 6-13, 6-14.
regiment, A-7, A-8.
Infiltration, 2-12, 5-5, 5-10, 8-7.
Information, 1-9, 2-9, 2-27-2-29, 3-4, 3-13, 4-1, 4-4-4-6, 4-14, 4-15, 4-34, 5-5, 6-2, 7-2, 8-4, 8-10, 9-3, 9-4, 10-2, A-19, C-3.
age technologies, 10-1, 10-2.
warfare, 4-33, 4-34.
Initial entry. *See* Entry operations.
Initiative, 2-4, 2-5, 2-7, 2-11, 2-25, 3-14, 4-2, 4-3, 4-5, 5-1, 5-2, 5-5, 5-15, 6-4, 6-8, 7-3, 8-6, 9-5, 9-8, A-2, C-2.
Inland waterways. *See* Transportation systems.
Inspector general (IG), 1-6, 4-12.
Instability/stability operations. *See* Operations other than war (OOTW).
Installation
garrison, 3-4.
transportation office. *See* Transportation.
Insurgency, 9-7, 9-12.
See also Counterinsurgency.
Integrated Army Component Commander, 4-30.
Integration, xii, 2-8, 2-15, 2-21, 2-26, 2-28, 4-11, 9-9, 9-14, A-2.
Intelligence, 1-2, 1-9, 1-12, 1-14, 2-1, 2-3-2-11, 2-13-2-18, 2-26-2-28, 3-4-3-6, 3-8, 3-9, 3-13, 4-2, 4-3, 4-7, 4-11, 4-13, 4-14, 4-17-4-23, 4-25, 4-29, 4-30, 4-33-4-35, 5-1, 5-2, 5-5, 5-7, 5-16, 5-18, 6-1, 6-9, 8-8, 8-13, 9-1, 9-2, 9-7, 9-10, 9-11, 10-2, C-2-C-4.
analysis, 9-10, 9-11.
and electronic warfare (IEW), 1-9, 2-10, 3-5, 4-16, 4-17, 5-16, 5-17, 6-8, 6-9, 8-5, A-23, B-3.
resources, A-25.
cell, 4-9, 4-10, 4-22, B-3.
-collection, 8-3, 8-12, 9-10, 9-11, A-3.
assets, 4-11, 5-13, 5-16, 5-18, 9-10.
plan, 2-6, 2-10, 4-10, 9-10, B-3.
dissemination, 9-10, 9-11.
fusion systems, 10-2.
operations, 9-1, 9-10, 9-12.
preparation of the battlefield (IPB), 2-8-2-10, 2-14, 2-19, 2-21, 3-3, 4-10, 4-13, 4-18, 5-5, 5-16, 5-19, 6-2, 6-7, 9-11, A-21, B-2-B-4. C-1-C-7.
support, B-2
systems, 6-5, 9-5, 9-11.
See also Combat intelligence division (CID); Human intelligence (HUMINT); Imagery intelligence; Signal intelligence.
Intent. *See* Commander's intent.
Interagency operations, 1-2, 1-4, 3-15, 4-1, 4-6, 4-28, 4-31-4-32, 9-3, 9-6, 9-9-9-11, 9-15.
Interdiction, 2-6, 2-24, 4-10, 4-21, 4-22, 4-33, 5-6, 5-7, 5-15, 5-22, 6-11, 6-13, 9-9, A-5, C-4.
Intervention operations. *See* Peace enforcement operations (PEO).

Interior lines. *See* Reduction.
Intermediate staging base (ISB), 3-5, 3-6, 3-9, 3-11, 3-14,3-15, 5-19, 9-5.
Internal defense and development (IDAD), 9-7.
International
Committee of the Red Cross and Red Crescent, 9-9.
law issues, 9-14.
Military Education and Training Program (IMETP), 9-7.
organizations, 9-9, 9-11, 9-15.
Standardization Agreements (ISA), 4-29.
Interrogation/Interrogators, 2-10, 9-11.

J

J1, 4-24, 4-25, 9-14.
J2, 4-24-4-26.
J3, 4-24-4-26.
J4, 4-24, 4-26.
See also Logistics; Movement.
J5, 4-24-4-26.
See also Plans/Planning.
J6, 4-24, 4-26, 4-27.
JAAT. *See* Joint air attack team operations.
Jamming, 2-16, 2-17, 2-19, 2-20, 3-10, 4-34, 4-35, 5-11, 5-13.
Joint
air attack team (JAAT) operations, 2-13, 2-15, 2-17, C-4.
airspace control, 4-33.
assets, 5-16. C-1.
battle synchronization. *See* Synchronization.
chemical warfare request procedures. *See* Corps warfare request procedures (CWRP).
Chiefs of staff (JCS), 3-2, 3-4, 3-12, 3-13.
command and control systems, 4-15.
command plans, A-14.
communications control center (JCCC), 4-24, 4-27.
communications support element (JCSE), 4-24, 4-27.
civil-military engineering board (JCMEB), 4-24, 4-26.
See also Engineers.
civil-military operations task force (JCMOTF), 4-27.
documents exploitation center (JDEC), 4-24, 4-25.
facilities utilization board (JFUB), 4-24, 4-26.
fires. *See* Fires; Fire support.
force air component commander (JFACC), 1-12, 1-13, 2-16, 2-20, 4-21, 4-33, 4-34.
force commander (JFC), 1-12, 1-13, 3-5, 3-9, 3-13, 4-1, 4-20, A-2, A-6.
force headquarters, 4-24, 4-33.
force land component commander (JFLCC), 1-2-1-5, 2-1, 2-25, 6-9.
forces, 5-12, 9-2, C-4.
Intelligence Center (JIC), 2-9, 3-5, 4-24, 4-25.
intelligence preparation of the battlefield. *See* Intelligence preparation of the battlefield (IPB).
interrogation facility (JIF), 4-24, 4-25.
Maritime Command Information System (JMCIS), 4-17.
materiel exploitation center (JMEC), 4-24, 4-25.
medical regulating office (JMRO), 4-24, 4-26.
meteorological forecasting uinit (JMFU), 4-24, 4-26.
military blood program office (JBPO), 4-24, 4-26.
mortuary affairs office (JMAO), 4-24, 4-26.
movement center (JMC), 4-24, 4-26, A-4.
See also Logistics; Movement.
interdiction, 5-6.
operations, xii, 1-1, 1-4, 1-10-1-13, 2-1, 2-8, 2-14, 2-21, 2-23, 2-29, 3-2, 3-10, 3-11, 3-15, 3-17, 4-1, 4-6, 4-15, 4-19, 4-23-4-29, 8-16, 9-6, 9-7, 9-9-9-11, 9-14, 10-2, A-13, A-18.
operations area (JOA), 2-25.
operations center (JOC), 4-24-4-26.
operations other than war. *See* Operations other than war.
Operations Planning and Execution System (JOPES), 3-2-3-8, 3-13, 4-24, 4-27.
petroleum office (JPO), 4-26.
See also Subarea petroleum office (SAPO).
psychological operations task force (JPOTF), A-28.
publication, 3-2.
rescue coordination center (JRCC), 4-24, 4-26.
special operations task force (JSOTF), 2-25, 4-27.
staff, 4-25.
staff directorates, 4-25.
Strategic Capabilities Plan (JSCP), 3-2.
suppression of enemy air defenses (J-SEAD), 1-2, 2-14, 2-16, 2-19, 4-22, 4-23, A-3, B-3.
surveillance target attack radar system (J-STARS), 2-9, 2-10, A-25.
targeting coordination board (JTCB), 2-25, 4-24, 4-26, 4-29, B-3.
task force (JTF), xiii, 1-1, 1-5, 1-9-1-10, 2-1, 2-4, 2-25, 2-27, 3-7, 3-9, 3-10, 3-12, 3-13, 3-17, 4-1, 4-23-4-28, 4-31, 4-33, 4-34, 6-9, 9-1, 9-2, 9-5, 9-10, 9-14, 9-15, B-5.
communications. *See* Communications.
staff organization, 4-24, 9-14.
See also Commander, joint task force, (CJTF).
support, 6-9.

L

Land
component command(er) (LCC), 8-12, A-2-A-4
maneuver units. *See* Maneuver units.
movement. *See* Strategic lift.
See also Joint land component command(er) (JLCC).
Landing
strip, 5-19, 8-9.
team, A-7.
battalion, A-6.
regimental, A-7.

zone (LZ), 2-14, 2-22, 3-14, 4-21, A-13, C-3-C-5, C-7.
Large-unit movement, 5-11, 8-1, 8-7-8-10.
See also Movement.
Launch, A-10.
Launchers, A-7-A-10.
Law
and order operations, 9-3, 9-9, 9-12, 9-14.
and order support, 1-10, 4-25, 9-14.
enforcement operations, 9-12, A-24.
of armed conflict, 3-6.
See also Operation law situation.
Laws and regulations, 2-22-2-23, 9-4, 9-13.
Leadership, 2-3, 4-1, 4-4, 4-5, 4-7, 4-15, 4-29, 7-2, 8-11, 9-11, 9-15.
Lead-nation command structure, 4-29, 4-30.
Legal services, 9-14.
Legitimacy, 9-1-9-4.
Lesser regional contingency (LRC), 1-11.
Lethal fires. *See* Fires.
Levels of
response. *See* Response levels.
security. *See* Security.
threat. *See* Threat levels.
war, 1-2, 2-8, 2-26, 4-32, 6-2, 9-2.
Liaison, 1-5, 1-6, 1-10, 2-16, 2-17, 2-23, 4-7, 4-12, 4-32, 6-5, 6-11, 8-13-8-16, 9-9, 9-10, A-5, C-1, C-5.
elements, 4-9, 4-19, 5-3, 9-11, B-1.
officer (LNO), 2-23, 3-5, 3-12, 3-13, 4-7, 4-12, 4-19-4-21, 4-24, 4-28-4-30, 4-32, 4-33, 10-3, A-5, A-25, C-3.
teams, 5-20, 8-10, 8-13, 9-10, C-3.
See also Air liaison officer (ALO); Air reconnaissance liaison officer (ARLO); Fighter liaison officer (FLO); Ground liaison officer (GLO); Naval gunfire liaison officer (NGLO); Reconnaissance liaison officer (RLO); Tactical airlift liaison officer (TALO).
Life support, 4-10-4-12, 4-19, 4-24, 4-25.
Lift requirements, 3-6, 3-7, 3-10, 3-16.
See also Strategic lift.
Light
armored vehicle (LAV), A-7-A-9.
cavalry regiment, 2-13.
division, A-13, A-14, A-20.
forces, 2-12, 2-14, 5-4, 5-17, 6-8, 6-10, 6-11, 8-4.
infantry division (LID), 1-3, 1-7, 2-26, A-12.
utility helicopter battalion, A-11, A-12.
See also Helicopters.
Limitations, A-5.
Limited objective attacks, 5-11.
Limiting factors, 3-14.
Limit of advance (LOA), 5-4, 5-6.
Line(s)
of communications (LOC), 2-5, 2-17, 2-22-2-26, 3-8, 4-26, 5-6, 5-7, 5-10, 5-15, 5-19, 6-11, 7-3, A-11, A-20.
See also Air lines of communications (ALOC); Logistics.
of contact (LC), 2-7, 5-20, 5-24, 6-14.
of departure (LD), 5-11, 5-20, 5-21.
of duty, 3-18.
of sight (LOS), 10-2, A-21, A-26.
Linkup operations, 8-1, 8-4, 8-5, 8-15-8-16.
Listening post (LP), C-4.
Lodgement, 2-12, 3-9-3-16, 6-10, 6-13, A-20.
Logistic(s), 1-1, 1-3, 1-10, 1-11, 2-2, 2-12, 2-17, 3-5, 3-13, 4-11, 4-13, 4-23, 6-10, 8-9, 9-5, 9-13, 10-2, A-4, A-6, A-14.
and personnel estimate process, 8-11.
area, A-13.
assets, 2-24.
bases, 5-18, A-20.
civil augmentation program (LOGCAP), 2-23, 9-13, B-4.
data, 2-24, 4-14, 4-21.
facilities, 5-15.
functions, 2-23, 2-24, 3-14, 4-13, 4-26, 5-4, 5-7, 5-15, 6-6, A-17.
operations, 2-23, 3-16, 4-13, 4-25, A-20, B-3.
over the shore (LOTS), 2-13, 3-5, 3-13.
planners, 9-15.
status, 4-13.
stock, 3-9, 3-18.
support, 3-14, 3-15, 4-16, 5-6, 9-5, 9-6, 9-15, A-8, A-10, A-15.
bases (LOB), A-20.
units, 3-1, 3-6, 5-19, 6-8, 9-12, A-20.
See also Forward logistic base (FLB).
Long-range
guns, missiles, and rockets, 3-14.
See also Missiles.
surveillance (LRS), 2-10, 2-25, A-23.
surveillance units (LRSU), 3-15, 5-15, A-25.
Low
-altitude parachute-extraction system (LAPES), 2-24, 4-23.
-level flight, A-13.
-level transit route (LLTR), A-4.

M

Machine gun, A-7-A-9.
Magazine. *See* Ammunition; Munitions.
Main
attack, 2-20, 5-2, 5-14.
battle area (MBA), 2-4, 2-16, 5-11, 5-24, 6-1, 6-2, 6-4-6-6, 6-8-6-10, 6-13, 6-14, 8-12.
command post, C-1, C-2.
See also Command posts.
effort, 2-7, 4-8, 5-12, 5-13, 5-16, 5-19, 5-20, 5-22, 6-4, 6-7-6-11, 9-2, 9-7, 9-12, A-1.
See also Weighting the main effort.

supply route (MSR), 1-10, 5-15, 8-8, A-20, B-4, C-3, C-7, C-8.
Maintenance, 2-19, 2-23, 2-27, 3-14, 3-15, 3-18, 4-26, 5-5, 5-6, 6-6, 6-8, 8-2, 8-8, 8-9, 9-7, A-1, A-14, A-15, A-17, A-21.
support, A-14, A-17, B-3.
See also Logistics.
Major
regional contingency (MRC), 1-11.
subordinte command (MSC), 3-3, 3-4, A-26.
Maneuver, 1-2, 1-7, 1-9, 1-10, 2-1, 2-3-2-6, 2-8, 2-9, 2-11, 2-13, 2-16-2-22, 2-24, 3-11, 4-2, 4-3, 4-18, 5-1, 5-3, 5-5, 5-7, 5-8, 5-12, 5-13, 5-16, 5-18, 6-1-6-3, 6-7, 6-9, 6-10, 6-12, 8-6-8-8, 8-15, 9-1, 9-5, 9-11-9-12, 10-2, C-4.
brigade, 2-7, 2-15.
commander, A-4.
control system (MCS), 4-16, 4-17.
deep, 5-10.
forces, A-11.
operations, 4-10, 5-15, 9-12, B-1.
units, 5-19, 6-4, 6-6, 6-10, 6-11, 7-2, 8-2, A-1, A-2.
Manning. *See* Logistics functions.
Maps, 4-7, 4-33.
March, 8-10.
approach, 5-16, 5-19, 8-8.
columns, 5-3, 5-4.
order of, 8-10.
rate of, 8-9.
road, 8-9.
routes. *See* Routes.
serials, 8-9.
table, 8-10.
tactical road, 8-8-8-10.
units, 8-9.
See also Movement.
Marine
aircraft group (MAG), A-7.
aircraft wing (MAW), A-6, A-8, A-9.
Air-Ground Task Force (MAGTF), 1-12, 1-13, A-6-A-8.
Corps (USMC), 1-2, 1-3, 1-5, 1-6, 1-9, 1-12, 1-13, 2-15, 2-17, 3-10, 3-11, 4-21, 4-25, 6-14, A-1, A-4-A-9.
division (MARDIV), A-6, A-8.
expeditionary brigade (MEB), 6-13, 6-14, A-7, A-8.
expeditionary force (MEF), A-7-A-9.
expeditionary unit (MEU), A-7.
Maritime component commander, 4-33, 4-34.
Marshaling and support, 3-9.
Mass/Massing, 5-1, 5-2, 5-5, 5-11, 5-15, 5-16, 5-19, 6-1, 6-2, 6-7, 6-11, 6-14, 8-7, A-11.
Materiel
-handling equipment, 3-15.
Management Center (MMC), 1-11, 2-23, A-17.
Medium girder bridge (MGB) company, A-22.
Mechanized forces, 1-7, 2-11-2-13, 5-7, 5-16, 5-20, 6-8, 7-1, 7-3, A-12, A-20.
See also Infantry division (mechanized).
Media operations, 3-18, 4-5, 6-2, 9-10, A-19.
Medical
actions, 3-18, 8-11, 9-15.
brigade, 1-11, 2-23, A-15.
organization, A-16.
care, 5-23, 9-6.
command, 9-6.
evacuation, 1-10, 1-12, 6-12, A-11.
groups, A-15.
logistic battalion, A-15.
operations, 4-25, 9-15, C-2.
support, 2-24, 3-3, 5-5, 8-4, 8-5, 8-11, 9-6, 9-12, 9-14.
treatment facility (MTF), 2-23, 2-24, 8-13, A-16.
units, C-2.
Medium
girder bridge (MGB), A-21.
helicopter battalion, A-11, A-12.
See also Helicopters.
Meeting engagement, 5-4, 5-5.
Memoranda of understanding, 4-31.
Meteorological conditions. *See* Weather.
Military
Assistance Command, Vietnam (MACV), 4-31.
end state, 3-17.
intelligence (MI), 1-1, 1-8, 1-9, 2-11, 6-9, A-1, A-9, A-23, C-3.
battalion (aerial exploitation (AE)), A-23.
battalion (headquarters, headquarters and operations), A-23.
battalion (tactical exploitation (TE)), A-23.
battalion (tactical exploitation (TE)) reserve component (RC), A-23.
operations on urbanized terrain (MOUNT), 5-17.
pay, A-18.
police (MP), 1-1, 1-8, 1-10, 2-8, 2-10, 2-12, 2-27, 2-28, 3-3, 3-17, 4-9, 4-12, 4-26, 5-15, 6-12, 8-10, 8-12, 9-6, 9-12, A-1, A-9, A-23-A-26, C-1-C-6.
battalion, A-25, C-2.
brigade organization, A-24, A-26, C-2.
company, 8-2, A-1, C-2.
Sealift Command (MSC), 1-12.
See also Sealift.
Traffic Management Command (MTMC), 3-7.
Mines, 1-4, 2-13, 2-19, 2-22, 3-14, 3-15, 6-11, 6-12, A-5.
countermeasures, A-5.
emplacement, A-20.
warfare, A-5.
See also Countermine operations
Minimum-risk route (MRR), A-4.

Missile(s), A-1, A-2, A-11.
ballistic, 9-13.
capabilities, 4-23.
cruiser, A-6.
defense, 8-9.
destroyer, A-6.
launchers. *See* Launchers.
resupply, A-10.
short-range, A-1.
sites, 3-14, A-2.
systems, 1-9, 2-6, 2-16, 2-19, 2-20, 4-23, 6-2.
tactical tank attack (TLAM), A-6
TOW, 6-13, A-7-A-9, A-13.
Mission, 3-5-3-7, 3-12, 3-13, 3-16, 4-2, 4-3, 4-6, 4-11, 6-4, 8-5, 8-12, 9-2, 9-3, 9-10, 9-14, A-2, C-1, C-2.
analysis, 2-28, 3-13, 9-12.
creep, 3-17, 9-3.
enemy, terrain, troops, time available (METT-T), 1-5, 1-7, 1-10, 1-11, 2-3, 2-5, 2-12, 2-13, 2-20, 2-21, 3-5, 3-6, 3-13, 3-18, 5-2, 5-4, 5-12, 5-15, 5-17-5-19, 6-3, 6-4, 6-6, 6-9, 7-4, 8-1, 8-8, 8-11, 8-13, 9-1, 9-2, A-1, A-13, A-15, A-19, A-24, C-1, C-5.
-essential task list (METL), 3-3, 4-2, 9-16.
-essential training. *See* Training.
planning, 2-14, 8-12, 9-12.
receipt, 3-12.
requirements, A-14.
statement, 6-9, 9-2, 9-4, 9-15.
tactical, A-5.
-type targets, 2-17.
Mitigation techniques, 2-19.
Mobile
command post. *See* Command post.
defense, 4-8, 6-1-6-4, 6-6-6-14.
force, 4-13, 5-6, 8-4.
integrated tactical terminal (MITT), 2-10.
operations, 4-13.
reaction force, 8-7.
reserve, 5-13.
subscriber equipment (MSE), 10-2, A-25, A-27.
training team (MTT), 4-31, 9-7.
Mobility, 1-7-1-9, 2-11, 2-12-2-14, 4-7, 4-8, 4-12, 4-15, 5-13, 5-17, 5-19, 6-3, 6-11, 7-4, 8-5, A-19.
analysis, 5-19.
and survivability, 2-1, 2-8, 2-21, 5-1, 5-19, 6-1, 6-11, 9-1, 9-13, 10-3, A-14, A-19.
operations, A-19, A-20.
Mobilization, 1-4, 1-11, 3-1-3-4, 3-7, 9-7, 9-8.
station, 3-4.
Mode terminal operations, 9-13.
Modernized imagery exploitation system (MIES), 2-10.
Modified combined obstacle overlays (MCOO), A-21.
Monitoring, 4-12, 4-13, 9-9.
Morale and motivation, 4-1, 4-2, 4-5, 5-12, 7-1-7-2, 8-4, 8-11, A-19.
Mortars, A-7-A-9
Mortuary affairs, 4-25, A-1, A-15.
Motorized infantry units, 5-16.
Movement, 2-7, 2-8, 2-14, 2-21, 2-23-2-25, 2-28, 3-6, 3-7, 3-10, 3-15, 3-17, 3-18, 4-5, 4-8, 5-6, 5-11, 5-18, 5-20, 5-24, 6-7-6-9, 7-1, 7-2, 7-4, 8-1, 8-7-8-9, 8-14, A-2-A-4, A-10, B-1-B-4, C-1, C-6-C-8.
administrative, C-1.
air, A-11.
clearance, 3-8.
control, 4-24, 4-25, 4-29, 5-4, 7-4, 8-13, 9-13, A-17.
control center (MCC), 1-11, 2-23, 3-7, 4-13, 8-8, A-18, A-23, C-7.
See also Corps Movement Control Center (CMCC).
control team, 5-4.
of patients, A-16.
onward, 3-6, 3-9,
orders, 3-18,
plan, 3-9, 3-15, 4-13, 8-10, 8-14.
rail, 3-13, 8-9.
rates, 3-14, 6-11.
rearward, 7-4.
support, 8-12.
tactical, 8-8, B-2, B-4, C-1, C-7, C-8.
to contact, 5-2-5-5, 5-16, 5-17, 5-21, 6-9, 7-4.
to ports of embarkation (POE), 3-6, 3-8.
water, 8-9.
See also Administrative movement; Air movement; Large-unit movement.
Moving. *See* Logistics functions.
Moving-target indicator (MTI), 2-10.
Multinational
assets, 5-16.
force of observers (MFO), 9-8.
forces, 4-30, 4-33, 5-12, 6-10, 9-2, 9-10, 9-11, 9-13, 9-14, C-4.
organizations, 9-11, 9-14.
operations, xii, 1-1, 1-3, 1-5, 1-6, 1-10, 2-4, 2-8, 2-14, 2-16, 2-28, 3-1, 3-5, 3-12, 3-14, 3-15, 4-1, 4-15, 4-19, 4-29-4-30, 5-5, 9-3, 9-6, 9-7, 9-9, 9-10, 10-2.
personnel, 9-11.
Multiple-launch rocket systems (MLRS), 2-14, 2-16, A-23.
Munitions. *See* Ammunition; Missiles; Weapons.

N

Named areas of interest (NAI), 2-10, 2-11, 8-10, C-2, C-3.
Nap of the earth (NOE), A-13.
Nation assistance, 9-1, 9-5-9-7, 9-9.
National
assets, 5-16, 6-9.
Command Authorities (NCA), 2-18, 2-28, 3-1, 3-4, 3-12, 3-13, 4-27, 4-28, 9-4, 9-7, 9-11.

Guard (NG), 3-3, 9-4, 9-9, A-10.
Guard Bureau (NGB), 3-8.
Security Council, 4-31.
security objectives, 5-11, 9-8.
Naval
air missions and tasks, A-5.
gunfire, 1-6, 1-12, 5-2, A-5.
gunfire liaison officer (NGLO), 1-6, 4-9, 4-21.
surface fire support, A-1, A-4, A-5.
Navigation, 10-2.
Navy (USN), 1-2, 1-3, 1-5, 1-6, 1-9, 1-12, 2-15, 2-17, 3-14, 4-21, 4-25, 4-33, 9-5, A-1, A-4, A-5, A-7-A-9.
Near-real time (NRT), A-25.
Night operations, 2-14, A-13.
Node switching site (NSS), A-26, A-27.
No fire zone, 8-15.
Noncombatant evacuation operations (NEO), 4-25, 9-1, 9-5, 9-7.
Noncommissioned officer (NCO), 4-7.
Noncontiguous
area of operations. *See* Area of operations.
battlefield, 2-4, 5-12, 6-4.
Nongovernment
agencies, 1-5, 1-10, 2-27-2-29, 4-3, 9-1, 9-6, 9-11.
organizations (NGO), 9-9.
Nonlethal fires. *See* Fires.
North Atlantic Treaty Organization (NATO), 4-30, A-2, A-4, A-26, C-2.
Nuclear
and chemical delivery system. *See* Delivery systems.
battlefield, 7-4.
biological, and chemical (NBC), 1-10, 2-12, 2-20, 5-3, 6-5, 6-6, 6-8, 8-13, B-4, C-1.
defense, A-14, C-3, C-4.
hazards, A-14.
reconnaissance, A-12.
reconnaissance company, 8-2.
reports, alarms, and warnings, A-14, B-2.
warfare requirements, A-13.
nominations, 2-18, 2-19.
option planning, 2-18.
planning,
release message, 2-18, 2-19.
target nomination, 2-18, 7-3.
weapons, 1-2, 2-18, 6-11, 8-4, 8-7.
Numbered air force (NAF). *See* Air Force.

O

O3, 4-25.
O4, 4-25.
O5, 4-25.
O6, 4-25.
Objective(s), 2-3, 2-11, 2-18, 3-11, 3-13, 3-15-3-17, 4-4, 4-11, 4-29, 5-4, 5-6-5-9, 5-11-5-13, 5-15, 6-1, 6-14, 8-1, 8-2, 9-1-9-3, 9-5, 9-7, A-3.
area, 8-15.
Obscruants, A-14.
Observation
and fields of fire. *See* Fires.
helicopters. *See* Helicopters.
post (OP), C-4.
Obstacle(s), 2-22, 3-14, 3-16, 5-16, 5-19, 6-2, 6-6, 6-12, 8-1, 8-14, A-20.
breaching, A-20.
emplacement, 6-11, 6-12.
restricted zone, 6-7.
plans, 6-11, C-4.
operations, 7-4.
Offensive
counter air (OCA), 2-21, 9-12-9-13, A-2, A-5.
See also Counter air.
operations, 1-8, 1-12, 2-8, 2-13, 2-18-2-20, 2-25, 3-16, 3-17, 4-8, 5-1, 5-2, 5-6, 5-12, 5-15, 5-16, 5-18-5-20, 5-24, 6-1, 6-6, 6-8, 7-1, 8-1, 8-6, 8-12, 9-6, 9-8, 9-12, A-2, A-11.
relief, 5-11.
On-order boundaries, 5-11.
Onward movement. *See* Movement.
Operational
command (OPCOM), 3-8.
control (OPCON), 1-1, 1-4, 1-12, 2-11, 2-13, 2-26, 3-2, 3-8, 3-10, 4-21, 4-27, 4-29, 4-33, 5-11, 5-14, 5-17, 6-10, 7-4, 8-12, 9-15, 9-16, A-6, A-10, A-11, C-2, C-4-C-8.
law situation, 4-11.
-level operations, 1-4, 1-7, 2-1, 2-8, 2-9, 2-26, 2-29, 3-4, 6-2, 9-12.
plans. *See* Plans/Planning.
tempos, 5-13.
Operation
Desert Shield, 3-1, 6-13, 6-14.
Desert Storm, 5-1, 5-10, 5-11, 5-20, 6-13.
Just Cause, 3-10, 3-11, 3-15.
Overlord, 3-12.
order (OPORD), 1-3, 2-28, 3-1, 3-6, 3-13, 4-26-4-28, 4-33, A-6.
plan (OPLAN), 3-1,-3-3, 3-7, 3-12, 4-27-4-29, 4-33, B-2, C-1.
Restore Hope, 4-34, 9-6.
Operations, 3-1, 3-2, 3-17, 4-6, 4-20, 4-21.
and intelligence (O&I), 2-9.
battalion, 1-9.
cell, 4-12, 4-13, B-1, B-4, C-2, C-3, C-5, C-6.
continuous, 4-8.
in depth, 5-1, 5-2, 5-12, 5-18, 6-3, 6-4, 6-10.
officer, 4-25.

orders (OPORD), 4-17-4-19, 4-29, B-1, B-3.
other, 8-1.
other than war (OOTW), xii, 1-1, 1-7, 1-9, 2-1, 2-3, 2-22, 2-27, 3-1, 3-5, 3-8, 4-1, 4-5, 4-26, 4-31, 4-32, 5-17, 9-1-9-16, A-16.
security (OPSEC), 1-9, 2-20, 3-4, 3-15, 4-9-4-11, 4-18, 4-34, 4-35, 5-1, 5-5, 5-11, 5-16, 6-1, 6-2, 8-3, 8-14.
See also Close operations; Curent operations cell; Deep operations.
Opposed-entry operations. *See* Entry operations.
Organization, 4-1, 4-6, 4-29, 5-1, 6-1, 6-9, 7-3, 8-8, 9-12.
for combat, A-2.
of American States (OAS), 9-8.
of the defense, 6-3.
of the offense, 5-12.
Outside the continental United States (OCONUS), 3-3, 3-6, 3-7, 3-17, 9-2, 9-9.
Overlay graphics. *See* Graphics.

P

Pacific Command (PACOM), 1-3, 3-2.
Panel bridge company, A-22.
Panamanian Defense Force, 3-10, 3-11.
Parallel
command structure, 4-29.
planning. *See* Planning.
Passage of lines, 2-14, 4-19, 5-11, 5-21, 6-6, 8-1, 8-12-8-13.
Passive
defense, A-14.
measures, 8-4, 9-13, A-3.
Patriot
battalion, A-9, A-10.
missile system, A-10.
Peace
building, 9-8.
enforcement operations (PEO), 9-1, 9-5, 9-8.
operations, 9-1, 9-5, 9-8.
Peacekeeping operations (PKO), 9-1, 9-4, 9-8.
Peacemaking, 9-8.
Penetration, 2-16, 5-5, 5-6, 5-8-5-10, 5-12-5-14, 5-17, 5-20, 6-4, 6-5, 6-8, 6-10, 6-11, 8-4, 8-6, 9-5.
Personal staff, 1-5, 1-6.
Personnel, A-3, A-7-A-9, A-15, B-3.
accounting and strength reporting, 9-14.
director of, 4-25.
group (PG), 1-1, 1-11, 2-23, A-18.
organization, A-18.
management center (PMC), 1-11, 4-13, 9-14.
management officer (PMO), 4-25.
readiness, 1-11, 3-3, 4-11, 4-13, 9-14.
See also Readiness.
requirements, 8-11.
service
battalions (PSB), 1-11, 9-14, A-18.
support, A-17, A-18.
status, 4-13.
strength NCO, 4-25, 4-32.
support, 3-3, 3-18, 4-13, 9-14, A-9, A-16, A-17.
units, 9-14.
Perseverance, 9-1-9-4.
Persistent chemical agents, A-13.
Petroleum, oils, and lubricants (POL), 5-19, 6-8, A-15, A-16.
Phase(s), 3-12, 6-13, 6-14, 7-4.
line (PL), 2-2, 2-3, 4-19, 5-12, 5-13, 5-21, 5-22, 6-6, 7-1-7-4.
Pick-up zone (PZ), 2-14.
Plans/Planning, A-17.
cell, 4-9-4-12, 4-14, 4-22, 4-23, B-2.
considerations, 9-15, A-1, A-2.
corps defense, 6-3-6-9
officer, 4-25.
operational, A-14.
parallel, 9-2.
route. *See* Routes.
schedule, 3-13.
section, 4-20.
See also ADA planning; Contingency planning; Crisis-action planning (CAP); Nuclear option planning.
Point
defense, 5-18, A-10.
of engagement. *See* Engagement area.
Political-military environment.
See Operations other than war (OOTW).
Port(s), A-13.
clearance, A-1.
facilities, 3-13, 3-15.
of debarakation (POD), 3-6, 3-8, 3-13, 3-14, 3-18.
of embarkation (POE), 3-6, 3-7, 3-15, 3-18.
support activity (PSA), 3-8.
Position navigation (POSNAV), A-26.
Posse Comitatus Act, 9-9, 9-12.
Postal
activity, 4-13, 9-9.
company, 9-14.
support, 9-14.
Postconflict operations, 3-1, 3-2, 3-17, 9-8.
Predeployment, 3-1-3-4, 3-7, 9-8.
Preparation, 3-12, 3-15, 3-17, 6-1, 6-9, 8-5, 9-9.
Pre-positioning, 3-5, 3-6, 3-9, 5-4, 6-6, 6-8.
Prescribed load list (PLL), 3-18.
President's involvement, 3-10, 4-31.
Preventive
deployment, 9-8.
health services, 9-14.

medicine, A-15, A-16.
Priority
intelligence requirements (PIR), 2-9, 2-10, 5-16, B-2, B-3.
of effort. *See* Main effort.
Private agencies and organizations, 9-15.
Procedural control, 4-33.
Professional detachments, A-16, A-17.
Property disposal, 3-18.
See also Defense Property Disposal Agency.
Protection/Protection measures, 2-3, 2-15, 2-22, 3-6, 3-8-3-10, 3-17, 3-18, 4-10, 4-11, 4-34, 4-35, 5-2, 5-18, 5-24, 7-2, 9-13, A-5, A-6, A-9, A-11, A-14, B-2, C-3.
Provost marshal (PM), 1-6, A-23.
Psychological
operations (PSYOP), 1-1, 1-10, 1-13, 2-1, 2-6, 2-25-2-29, 3-14, 4-9, 4-11, 4-24-4-27, 4-34, 5-7, 5-11, 8-7, 9-3, 9-10, A-1, A-28.
considerations, A-28.
units, A-15.
operations task force (POTF), 2-27, A-28.
Public
affairs (PA), 2-1, 2-28, 2-29, 3-14, 4-25, 9-3, A-18.
units, A-19.
affairs office(r) (PAO), 1-6, 4-24, A-18, A-19.
utilities, 9-13.
Pursuit, 5-2, 5-5-5-7, 5-13, 5-15, 8-3, A-11.
See also Exploitation.
Push
logistics. *See* Logistics.
packages, 6-8.
radar, 6-5, A-2, A-5.
radio
nets, 6-5, 8-14.
transmissions, A-5.

R

Raids, 3-10, 3-11, 5-11, 5-20, 9-1, 9-5.
Rail movement. *See* Movement.
See also Movement; Strategic lift.
Range. *See* Weapons range.
Ranger units, 2-25, 5-11, A-27.
Readiness, 3-18, 8-11, 9-13.
standing operating procedures (RSOP), 3-3, 3-4, 3-12.
Rear
areas, A-10, A-15, A-16, A-19, A-20.
area damage control team, 4-12.
area operations center (RAOC), 3-4, 4-12, B-4, C-1-C-6.
area security, 2-26, 4-10, 4-12, C-2.
See also Security.
area threat, 5-16.
command post, C-1, C-2, C-5.
headquarters cell, B-4.
operations cell, 4-12, C-1, C-5.
See also Command post.
operations, 1-2, 1-5, 1-10, 1-11, 2-4, 2-5, 2-7, 2-8, 2-12, 2-14-2-16, 2-19, 2-20, 2-22-2-24, 2-28, 3-4, 4-4, 4-7, 4-10-4-14, 4-33, 5-4, 5-12, 5-15, 5-20, 6-1, 6-4, 6-9, 7-1, 7-2, 9-12, B-1, B-2, C-1.
cell, C-2, C-3.
commander, 4-12.
plan, 5-15.
organization, 5-16.
security operations. *See* Secutiry operations.
support. *See* Support.
Rearward
command post, 4-13, 4-14, B-5.
See also Command posts.
passage of lines. *See* Passage of lines.
Reconnaissance, 1-8, 1-10, 2-1, 2-7, 2-8, 2-10, 2-12-2-14, 2-21, 4-18, 4-22, 5-3, 5-13, 5-16, 5-17, 6-1, 6-6, 7-3, 7-4, 8-4, 8-5, 8-7, 8-13, 8-14, 9-10, A-4-A-8, C-5.
and security, 5-12, 5-13.
and surveillance, 1-8, 1-10, 1-11, 2-17, 2-25, A-3.
chemical company, A-12.
elements, 6-12.
in force, 5-11, 5-17.
intelligence, surveillence, and target acquisition (RISTA), 2-20, A-11, A-20.
forces, 5-19.
liaison officer (RLO), 4-22.
route, 8-10.
support, A-12.
See also Air reconnaissance; Security; Special reconnaissance.
Reconstitution, 2-14, 2-20, 2-26, 3-1, 3-2, 3-17, 3-18, 8-1, 8-10-8-11, 9-1, 9-5, 9-8, A-13, C-1, C-2.
Recovery. *See* Reconstitution.
Redeployment, 1-4, 3-1, 3-2, 3-17, 3-18, 9-15.
Reduction, 8-6, 8-7.
Reduction by fire, 8-6.
Redundancy and robustness, 2-20, 2-24.
Refueling, 1-11, 5-15.
aerial, A-6
Refuel on the move (ROM), 5-4.
Refugee control, 2-27, 5-6, 5-23, 9-15.
See also United Nations High Commissioner of Refugees.
Regeneration. *See* Reconstitution.
Regimental landing team. *See* Landing team.
Regional contingency engineering manager (RCEM), A-19.
Rehearsal, 3-7, 3-11, 3-12, 3-15, 5-5, 5-19, 6-1, 9-8.
Reinforced
division, A-9.
squadron, A-6.
Reinforcing (R), 1-7, 2-11, 2-13, 2-15, 2-18, 2-21, 3-14, 3-16, 5-4, 5-14, 6-1, 7-3, A-14, A-15, A-22.

Release message. *See* Nuclear release message.
Relief
in place, 5-6, 8-1, 8-6, 8-12-8-15.
operations. *See* Operations other than war.
Remotely piloted vehicle(s), 9-13.
Remote video terminal (RVT), A-25.
Reorganization. *See* Reconstitution.
Replacement(s), A-18.
activity, 4-13.
companies, 1-11.
personnel, 2-23, 2-24, 5-19.
units, A-15.
See also Reconstitution.
Reports, 4-5.
alarms, and warnings, A-14.
See also Situation report.
Required delivery dates (RDD), 3-15.
Reserve, 2-4, 2-7, 2-12, 2-20, 5-5, 5-8, 5-9, 5-11, 5-15, 6-12, 6-14, 7-4, 8-4, A-11.
assembly areas, 5-18, A-13.
component (RC), 1-11, 3-1, 3-3, 3-4, 4-4, 6-2, 6-7, A-12, A-23.
operations, 5-12, 5-14, 6-1, 6-4, 6-8-6-10, 8-4, 9-4.
Resources, 4-7-4-10, 4-13, 4-28, 4-32, 7-3.
control, 9-14.
management, 9-13, 9-15.
reduction of, 4-13.
Response
force operations, 6-12, C-1, C-3, C-4.
levels, 1-10, 2-7, 2-8, 2-12.
time, 2-24.
Restraint(s), 3-6, 9-1-9-4.
Restricted
fire line (RFL), 5-9, 8-15.
operations area (ROA), A-4.
operations zone (ROZ), A-4.
Resupply, 2-14, 2-18, 5-4-5-7, 6-8, 8-4, 8-8, A-7, A-8, A-10, A-11.
movement, A-16.
Retirement, 7-1, 7-2, 7-4.
See also Retrograde operations.
Retrograde
crossing, 8-3.
operations, 1-8, 2-14, 2-28, 7-1, 7-2, 7-4, 8-1, 8-13.
Risk, 5-15, 6-2, 6-6, 6-12, 7-1, 7-3, 8-1, 8-12, 9-4, A-11, B-3, C-5.
assessment, 2-8, 2-11, 2-12, 2-15, 3-10, 3-11, 4-2, 4-13, 4-15, C-1, C-5.
levels, 6-5.
taking, 4-3, 4-4, 5-1, 5-5, 6-3, 6-7, 6-9, 8-9.
See also Minimum risk route (MRR).
River crossing, 5-19, 8-1-8-3, A-20.
Road
march. *See* March.
movement. *See* Movement.
Rockets, 2-16, 6-10, A-13.
See also Guns; Missiles.
Rotary-wing aircraft. *See* Helicopters.
Routes, 2-21, 2-22, 2-24, 3-15, 5-3, 5-4, 5-6, 5-11, 5-18, 5-19, 6-12, 7-2-7-4, 8-3, 8-4, 8-7-8-10, 8-12, 8-13, A-13, A-20.
See also Main supply route (MSR); Minimum-risk route; Reconnaissance.
Rules of engagement (ROE), 1-4, 3-6, 3-8, 3-16, 4-19, 8-6, 8-8, 9-4, 9-12, 9-13.

S

S2, 2-9, A-4.
S3, 2-7, 2-8.
Satellite links, 10-2.
Save the Children Fund, 9-9.
Scatterable mines. *See* Mines.
Scenario, 10-2.
Scheme
of fire, A-3.
of maneuver, 2-13, 2-15, 2-22, 3-15, 4-2, 4-20, 5-6, 5-18, 5-19, 8-1, 8-8, 8-12, A-3.
of operations, 4-2.
Screening, 5-14.
force, 2-7, 2-11, 2-12.
mission, 5-4, 6-4, 6-6.
See also Flank screen.
Sealift. *See* Strategic lift.
Sea movement, 1-12.
See also Movement.
Search
and attack operations, 5-4, 5-22.
and rescue, A-6.
area, A-5.
Secretary
of Defense (SECDEF), 4-23, 4-28.
of the general staff (SGS), 1-6, 4-9.
Secure the lodgement. *See* Lodgement.
Security, 2-7, 2-8, 2-26, 3-4, 3-11, 4-8-4-12, 4-24, 4-27, 4-28, 5-1-5-4, 5-13, 8-4, 8-8, 8-13, 8-14, 9-1-9-7, 9-11, A-11, B-1, C-1, C-2.
area, 5-24.
assistance, 9-7, 9-8.
Assistance Training Program (SATP), 9-7.
forces, 6-6, 7-3, 7-4.
internal, 9-7.
levels, 9-11.
operations, 1-8, 1-10, 2-7, 2-11-2-13, 4-6, 4-13, 5-16, 6-1, 6-2, 6-4, 6-6, 6-9, 6-12, 7-2-7-4, 9-12, B-4, C-1, C-3, C-5.
See also Reconnaissance; Reconnaissance and security.

Self defense, 2-8, 9-8.
Separate
infantry brigade (SIB), 3-2, A-1, A-15.
maneuver brigade, 1-8, 1-10, 2-15, 2-21, A-15, A-19.
See also Manuever brigade.
Sequels. *See* Follow-on missions.
Service
component command, 1-4.
support division office, A-17.
support group, A-15.
brigade, A-8.
MEU, A-7.
Ship/Shipping, A-5-A-6.
Shore fire control party. *See* Fire control party.
Show of force, 9-1, 9-8, 9-9.
Small-boat attack, A-5.
Signal
assets, A-1.
brigade, A-25.
organization, A-27.
considerations, A-26, B-2.
element, 4-7-4-9, 4-12.
officer, 8-14.
operations, 1-1, 1-6, 1-9, 1-10, 2-13, 3-9.
instructions (SOI), 8-16, C-4.
intelligence (SIGINT), 2-10.
support, 6-12.
Signatures, 4-7, 4-8, A-9-A-11.
Simultaneous operations, 1-2, 2-4, 2-5, 2-10-2-12, 3-15, 3-16.
Single-channel ground and airborne radio system (SINGARS), A-26.
Sister services, 3-4, 3-6, 3-10, 5-15, 5-18, 8-15, 9-1, 9-2, 9-10, 9-14, 9-16.
Situation
assessment, 4-7, 4-9, 4-10.
report (SITREP), 4-5.
Slant range, A-10.
Smoke, 2-21, 5-19, 6-6, 7-3, 8-3, A-11, A-12, A-14, C-4.
generator, 8-2, A-12.
/Obscurants, A-14.
sites, A-12.
support, A-12, A-14.
Soldier readiness processing (SRP), 3-3, 3-8.
Special
electronics mission aircraft (SEMA), 4-21.
forces (SF), 2-25, 2-26, A-27, A-28.
forces battalion headquarters (special forces operational detachment-C (SFOD-C)), A-27.
forces company headquarters (special forces operational detachment-B (SFOD-B)), A-27.
forces detachments, A-27.
forces operational detachment-A (SFOD-A), A-27.
forces organization, A-28.
operations, 1-2, 1-3, 1-11-1-14, 2-20, 3-14, 9-1, 9-10.
aviation. *See* Aviation.
command (SOC), 2-25, 2-26, 9-9.
command and control element (SOCCE), 2-25, 2-26, A-27.
command and control headquarters (SOCCH), 1-13.
coordinator (SOCOORD), 2-25, 4-9.
forces (SOF), 1-1, 1-4, 1-6, 1-9, 1-13, 1-14, 2-19, 2-25, 2-26, 3-1, 3-3, 3-10, 3-15, 3-16, 4-27, 4-33, 5-11, 5-15, 6-14, 8-15, 9-2, 9-5, 9-6, 9-10, A-20, B-2.
forces operational area (SOFA), 2-26.
forces operational base (SFOB), A-25.
purpose operations, 5-11.
reconnaissance, 2-25.
staff, 1-5, 1-6, 4-26, 8-14.
Split-based operations, 2-24, 3-4-3-6, 3-9, 4-1, 4-5, 4-8, 4-14, 4-15, 4-27, 9-2, 9-12, 9-15.
Spoiling attack, 2-11, 2-16, 5-5, 5-11, 6-2, 6-7, 6-10.
Stability operations. *See* Operations other than war (OOTW).
Staff
elements, 2-14, 4-18, A-19.
estimates. *See* Estimates.
judge advocate (SJA), 1-6, 4-9, 4-11, 4-12, 4-24, 4-31.
officers, 4-29, A-1.
supervision, A-15.
weather officer (SWO), 1-6, 2-9, 4-9.
Staging area, A-13.
Standard
Installation Division Personnel System (SIDPERS), 3-18.
Theater Army Command and Control System (STACCS), 4-16, 4-17.
Standardization agreement (STANAG), C-1.
Standing operating procedures (SOP), 4-6, 4-18, 4-19, 4-29, 4-33, 5-5, 5-19, 8-10, 8-13, 10-3, A-14.
See also Readiness Standing Operating Procedures (RSOP).
Status of forces agreements (SOFA), 1-4, 9-14.
State area commands (STARC), 3-3. 3-4.
Stinger teams, A-7-A-9, A-13.
See also Missiles.
Straggler control. *See* Dislocated civilians.
Strategic
-level operations, 3-4, 9-12, A-4.
lift, 3-9, 3-18, 4-6.
air, 1-8, 1-11, 2-13, 2-14, 2-17, 2-18, 3-1, 3-2, 3-5-3-9, 3-14, 3-16, 4-20, 4-21, 4-23, 4-33, A-4.
See also Airlift.
rail, 3-2, 3-8.
sea, 1-6, 1-8, 3-2, 3-14, 3-16.
See also Lift requirements.
Strike(ing)
coordination, A-6.
force, 2-11, 6-2, 6-3, 6-7-6-14.

support and protection, A6.
warfare, A-5.
warning (STRIKWARN), 2-19.
Strongpoint, 6-3, 6-7, 6-8, 6-10.
Subarea petroleum office (SAPO), 4-24, 4-26.
Submarines, A-5.
Supply(ies), 9-14, 9-15, A-15.
and services, 1-10, 2-23, 2-24, 3-5, 3-6, 3-8, 3-13, 3-16, 3-18, 5-12, 5-19, 5-23, 6-6, 6-8, 6-9, 8-11, 9-6, 9-12, 9-13.
common, 8-15.
point, 5-15, C-2.
routes. *See* Routes.
See also Classes of supply; Logistics.
Support, 2-20, 2-23, 2-24, 2-27, 3-5, 3-10, 3-14, 3-15, 4-4, 5-12, 5-17, 6-4, 6-10, 9-7, 9-11, A-9, A-13, A-15.
area, 6-11, 8-4, 9-10, A-15, A-16.
base, A-16.
forces, 4-5, 5-8, 5-13, 6-9, 8-2, 8-3, 9-13.
forward, A-15.
packages, A-14.
rear, A-16.
relationships, A-2.
signal battalion, A-26.
See also Combat service support; Combat support; Direct support; General support; General support-reinforcing.
Supporting attack, 5-7-5-11, 5-14, 5-18.
Suppression
of enemy air defenses (SEAD), 1-2, 2-16, 5-18, A-2, A-3, A-6, B-3.
See also J-SEAD.
of enemy weapons, 2-15, 5-18.
Surface fire support. *See* Fire support.
Surgeon, 1-6, 4-9, 4-12, 4-24.
Surgical
detachment, A-16.
team, A-1.
Surprise, 3-5, 3-15, 5-1, 5-2, 5-5, 5-16, 5-23, 6-4, 8-5, A-2.
Surveillance, 4-35, 5-6, 6-5, A-3, A-5.
See also Air surveillance; Reconnaissance and surveillance.
Survey planning and coordination element (SPCE), 2-21.
Survivability, 1-9, 2-22, 4-6, 4-8, 5-19, 6-7, 6-8, 6-11, 6-12, 9-13, A-4, A-19, A-20, C-1.
See also Engineers; Mobility and survivability.
Sustainment, xiii, 1-3, 2-7, 2-8, 2-14, 2-15, 2-22-2-24, 3-6, 3-8, 3-13, 3-14, 4-4, 4-6, 4-13, 4-16, 4-29, 5-6, 5-7, 5-15, 5-16, 5-19, 6-8, 7-2, 8-2, 8-10, 9-9, 9-13, A-4, A-17, A-19, C-1, C-7, C-8.
base, 4-14, 9-13.
units, 5-14.
See also Logistics functions.
Synchronization, 1-5, 2-4, 2-6-2-8, 2-10, 2-14, 2-15, 2-23, 2-25, 2-26, 3-1, 3-10, 3-11, 3-14-3-16, 4-1-4-4, 4-6, 4-8-4-11, 4-13, 4-14, 4-18, 4-20, 4-21, 5-5, 5-6, 5-12, 5-16, 5-18, 6-2, 6-4, 6-7, 6-9, 6-12, 7-1, 7-2, 8-12, 8-14, 9-5, 9-12, 10-3.
Synthetic aperture radar (SAR), 2-10.

T

Tables of organization and equipment (TOE), 4-32, 9-1.
Tactical air (TACAIR), 2-6.
command post. *See* Command posts.
control center (TACC), 2-16.
control party (TACP), 2-17, 4-9, 4-10, 4-12, 4-21-4-23, 4-32, 4-34, A-4, B-3, C-3.
forces, 3-14, 9-11.
munitions dispenser (TMD), 5-19.
reconnaissance (TAR), 1-6, 4-21-4-23.
reconnaissance and aerial battlefield surveillance (TARABS), 1-6.
support, 1-2, 1-6, 4-33, 4-34.
Tactical
airlift liaison officer (TALO), 4-12, 4-22, A-4.
assembly area (TAA), 5-20, 6-14.
combat force (TCF), 2-8, 2-12, 2-26, 5-15, 5-16, 6-10, B-4, C-1-C-8.
command (TACOM), 4-29.
command post. *See* Command posts.
control (TACON), 1-1, 1-4, 2-26, 4-29, 8-12, 8-13, 8-15.
exploitation (TE), A-23.
of national capabilities. *See* TENCAP.
fire (TACFIRE), 4-7.
land attack missile (TLAM). *See* Missiles.
mission. *See* Mission.
movements. *See* Movements.
level operations, 1-4, 1-7, 2-3, 2-7, 2-9, 2-24, 2-26, 2-28, 2-29, 6-2, 9-12.
offense, 5-1, 5-2, 5-11.
operations center, 4-9, 4-32, C-1-C-5.
reconnaissance resources, 4-22.
road march. *See* Movement.
satellite (TACSAT), 3-9, 4-15, 4-26.
support, 1-10.
battalion, A-28.
company, A-28.
Tactics, techniques, and procedures (TTP), xii, 2-25, 4-29.
Tailoring the force, 3-6, 3-7, 9-11.
Tanks/Tank forces, 3-1, 5-7, 6-13, A-7-A-9.
Target(s), 6-14, A-1, A-3, A-5, A-9, A-11, B-3.
area, A-13.
acquisition, 1-8, 2-7, 2-13, 2-14, 2-16, 2-21, 2-25, 4-11.
areas of interest (TAI), 2-10, 2-11, 3-3, 3-15.
critical, A-13.
development, 4-10.
list, 4-10, 8-15
nomination, 2-22, 4-21, 4-22, 4-28, A-3, B-2.

of opportunity, 5-15.
See also High-payoff target; Nuclear target nomination.
Targeting, 1-2, 2-5, 2-6, 2-9, 2-17, 2-21, 4-10, 4-11, 4-21, 4-26, 4-28, 4-35, 5-11, 6-5, 10-3.
cell, 4-11, B-3.
data, 5-16, B-3.
process, 2-6, 2-10, 2-17, 4-11, 5-16, 6-9, 10-3, A-2.
Task(s), 4-2.
force (TF), 3-6, 9-11.
organization, 1-5, 1-7, 2-8, 2-13, 3-5-3-7, 3-10, 3-16, 4-2, 4-4, 4-28, 5-3, 5-4, 5-17, 6-7, 6-10, 6-12, 7-4, 8-11, 9-1, 9-5, 9-10, 9-14, 9-15, A-1, A-2, A-6-A-10, A-14, A-15, A-20.
See also Joint task force.
Telephone. *See* Cellular phone; Voice telephone.
Temperature, A-14.
Tempo, 2-2, 2-4, 2-5, 2-18, 2-20, 2-24, 3-14, 4-1, 4-5. 4-6, 5-1, 5-2, 5-12, 5-15, 5-17, 5-18, 6-8.
Tenacity, 4-4.
TENCAP, 2-9.
Tenets of Army operations, 4-1, 4-3.
Terms of reference (TOR), 9-4.
Terrain, 2-12, 2-14, 2-18, 2-21, 2-25, 3-12, 3-14, 3-16, 4-2, 5-1, 5-4, 5-24, 6-1-6-3, 6-5-6-7, 6-10, 7-3, 8-1, 8-4, 8-5, 9-5. 9-11, 9-14, 10-3, C-2, C-4.
analysis, 2-22, 5-19, 6-7, 6-11.
close, 5-17.
decisive, 5-5, 5-6, 5-10.
key, 5-16, 6-9, 8-3, C-1.
management, 2-2, 2-7-2-9, 4-12, 4-13, 7-2, 8-8, 8-14, C-1.
objectives, 5-6.
-oriented defense. *See* Defense.
restricted, 2-13, 5-17, 6-5, 6-8, 6-10.
See also Topographic engineers.
Terrorism, 9-1, 9-4-9-6, 9-13, A-5.
Theater
air control. *See* Air control.
airspace, 4-32, 4-33.
Army, A-16.
Army Special Operations Support Command (TASOSC), 2-27.
campaign plan. *See* Planning.
CINC. *See* Commander-in-Chief.
engineers. *See* Engineers.
-level operations, A-3, A-4.
of operations, 2-20, 2-23, 3-7, 3-8, 3-10, 3-11, 3-18, 4-27, 5-16.
Threat
air, A-2.
level, 2-16, 2-18, 2-19, 2-22, 5-15, 5-19, 6-12, 7-4, A-24, B-4, C-3, C-5-C-7.
operations, 6-9, 9-2.
Time, 2-1, 2-4, 2-22, 3-6, 3-12, 3-13, 3-15, 4-2, 4-4-4-6, 4-15, 5-24, 6-1, 6-9, 7-2, 7-3, 8-14, 9-8, 9-15, A-1, A-2, A-11.
constraints, 5-5, 5-7.
lines, 8-9.
-phased force deployment data (TPFDD), 1-3, 3-6, 3-16, 4-26-4-28.
-phased force deployment list (TPFDL), 3-5, 3-6, A-13.
See also Dwell time.
Title 10, 9-7.
Topographic
engineer company, 2-9, 2-21, 4-9, 6-7, 6-11, A-19.
support systems (TSS), A-21.
Tracking, 2-6, 2-9.
Traffic
control, 8-8, 8-9, 8-13.
control plan (TCP), 5-15, 7-3, 7-4, 8-2, A-24.
controllers, 8-10.
Trailing units, 5-14, 6-6, 6-13, 8-1.
Training, 2-19, 2-26, 3-3, 3-7, 3-8, 3-10, 3-12, 3-15, 4-1, 4-2, 4-4-4-6, 4-24, 4-29, 8-10, 9-2, 9-7, 9-8, 9-11, 9-13, 9-16.
Trajectories, A-5.
Transfer
of authority (TOA), 3-4, 3-18.
of control/responsibility, 8-14, 8-15.
Transition, 3-12, 3-17.
to combat operations, 9-15.
to the defense, 5-1, 5-24.
to movement to contact, 7-4.
to the offense, 6-1, 6-2, 6-8, 6-10, 6-13, 6-14.
to the twenty-first centruy, 10-2.
Transportation, 1-11, 2-12, 2-14, 2-22, 2-24, 3-6-3-8, 4-19, 4-24, 4-26, 5-7, 5-18, 6-10, 6-11, 8-2, 8-8, 9-6, 9-13, 9-15, A-1, A-15, A-17.
battalions, A-15, A-16.
cargo transfer companies, A-17
Command (TRANSCOM), 3-5-3-8, 4-26, 9-6, A-4, A-16.
Coordinator Automated Command and Control Information System (TCACCIS), 3-7, 3-8.
group, A-16.
group organization, A-16.
office, 3-7.
railway battalions, A-16.
services, 9-14-9-15.
support, 9-6, 9-13, A-14, A-16.
systems, 3-13, 3-15, 8-9.
units, 5-19, 8-12.
usage, A-17.
See also Logistics.
Treaties, 2-23.
Troop program units (TPU), 3-3.

Tube-launched, optically tracked, wire-guided missile (TOW). *See* Missiles.
Truce, 9-8.
Turning movement, 5-5, 5-10.
See also Movement; Movement to contact.

U

Unconventional warfare (UW), 2-25, 2-26, A-27.
Unified
  Action Armed Forces (UNAAF) plan, 3-2.
  command(er), 2-27, 3-1, 3-4, 4-23, 4-31.
  command plan (UCP), 3-2, A-14.
  forces, 1-3, 2-8.
Unit
  cohesion, 8-11.
  deployment, 3-8.
  discipline, 9-11.
  objectives, 5-15.
  preparation, 3-6, 3-7.
  See also Attached units.
United Nations (UN), 1-9, 2-28, 4-29, 9-8, 9-14.
  High Commissioner for Refugees, 9-9.
United States
  Army. *See* Army.
  Air Force. *See* Air Force.
  Army Reserve Command (USARC), 3-3, 3-4, 3-18.
    See also Reserve(s).
  Code, 9-7, 9-9.
  Marine Corps. *See* Marine Corps.
  Navy. *See* Navy.
  Public Health Service (USPHS), 3-18.
Unity
  of command, 4-29, C-6.
  of effort, 3-13, 4-3, 4-32, 5-20, 6-4, 6-5, 6-12, 9-1-9-3, 9-10, 9-15.
Unmanned aerial vehicle (UAV), 2-9, 2-10, 4-21, 4-32, 9-13, A-11, A-23, A-25.
Unopposed entry operations. *See* Entry operations.

V

Vehicle
  decontamination planning times, A-13.
  recognition plan, 8-14.
Versatility, 2-3, 4-3, 4-5, C-2.
Verticle short takeoff/landing (VSTOL), A-7.
Veterinary
  support, 9-14.
  units, A-15.
VII Corps, 5-1, 5-20, 5-22, 5-23.
Visibility, 5-24, 6-8, 7-3, A-5, A-10, A-13, A-14.
Vision. *See* Commander's vision.
Visualization. *See* Battlefield visualization; Commander's vision.
Voice
  capabilities, 10-2.
  telephone, 4-26.
Vulnerability, 2-2, 2-11, 2-20, 2-26, 4-8, 4-35, 5-11, 5-19, 6-6, 6-9, 8-3, 8-4, 8-13, 9-6, A-2.
  assessment, 6-12.

W

Warfighting, 3-2, 4-1, 4-2, 9-1, 9-2, 9-5.
War
  game/gaming, 2-2, 4-2, 4-18, 5-5, 5-16.
  termination, 3-1, 3-2, 3-17.
Warning, 1-12, 2-20, 3-13, 4-29, C-3, C-4.
  early, 6-1, 6-4, 8-4, 9-12, 10-4, A-3, A-6.
  order, 3-3, 4-18, 4-28, 8-13, B-1.
  See also Reports, alarms, and warnings.
Water, 5-4, 5-23, A-13, A-15.
  availability, A-13.
  movement. *See* Movement.
  point, 8-13.
Weapons, A-3, A-5, A-6, A-11.
  control
    authority, A-4.
    procedures, A-10.
    status, 2-20.
  effects data, 4-23.
  free zone, A-4.
  of mass destruction (WMD), 2-18, 4-4, 5-17, 9-13.
  range, A-6, A-13.
  smart, A-14.
  systems, 2-22, 2-24, 3-15, 4-28, 8-10, 8-11, 9-5, 9-12, A-3, A-10, A-13, B-3.
  system replacement operations (WSRO), 8-10.
Weather, 1-9, 1-12, 2-2, 2-9, 2-25, 3-9-3-11, 4-2, 4-26, 5-1, 8-8, 8-9, 9-11, A-9, A-10, A-13, C-2.
Weighing options/risks, 2-12, 2-15, 2-22.
Weighting the main effort, 2-13, 2-15, 2-20, 2-23,
3-14, 4-28, 5-2, 5-5, 5-15, 5-16, 5-18, 6-11, A-20.
Wind speed, A-13, A-14
Wing operation center (WOC), 4-23.
Withdrawal, 2-6, 2-22, 6-6, 6-8, 6-14, 7-1-7-4, 8-13, 9-5, 9-7.
  See also Retrograde operations.
World War II, 3-12, 8-7, 8-10.
Worldwide Military Command and Control
  Network (WIN), 4-26.
  System (WWMCCS), 3-5, 4-16, 4-26.

X

XVIII Airborne Corps, 6-13, 6-14.

Z

Zone, 8-12.
of attack, 5-12, 5-14-5-16, 8-13.
of operations, 8-12.
See also Combat zone; Communications zone (COMMZ); No fire zone.

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