FM 7-100.1

OPFOR

Opposing Force

Operations

DECEMBER 2004

HEADQUARTERS, DEPARTMENT OF THE ARMY

FOREWORD

In today's complicated and uncertain world, it is impossible to predict the exact nature of future conflict that might involve the U.S. Army. So the Army must be ready to meet the challenges of any type of conflict, in all kinds of places, and against all kinds of threats. This is the nature of the contemporary operational environment (COE), and training for such an environment requires a different type of Opposing Force (OPFOR) than that of the past.

The Deputy Chief of Staff for Intelligence (DCSINT) of the U.S. Army Training and Doctrine Command (TRADOC) is the Executive Agent for the development, management, administration, integration, and approval functions of the OPFOR Program across the Army. Thus, the TRADOC DCSINT is responsible for documenting the doctrine, organization, and capabilities of a contemporary OPFOR that is appropriate for training the Army's leaders, soldiers, and units for the COE.

In the FM 7-100 series, the TRADOC Office of the Deputy Chief of Staff for Intelligence (ODCSINT) has created a flexible baseline for an OPFOR that can be adapted to meet a variety of different training requirements in a number of different scenarios that reflect the COE. The OPFOR operational doctrine outlined in FM 7-100.1 represents a realistic composite of potential adversaries the Army might encounter in the real-world situations of the foreseeable future. However, the world is continually changing, as are the threats and challenges for which the Army must be prepared. The Army must remain flexible, as must the OPFOR designed to serve as a challenging sparring partner in the training environment.

This manual is approved for use in all Army training venues. However, as the contemporary OPFOR and other aspects of the COE are integrated into Army training, the TRADOC ODCSINT and the intelligence community will continue research and analysis of real-world developments and trends. The goal of this continued effort is to keep our OPFOR and our understanding of the COE truly contemporary and relevant as the world around us changes. Thus, this manual is intended to be a living document, and the ODCSINT will modify and change it as often as necessary in order to ensure its continued relevance in light of changes and developments in the COE. In anticipation of such changes, this manual will be published primarily in electronic format with only limited distribution of hard-copy, printed manuals. The electronic version is available on the Army Knowledge Online (AKO) at http://www.us.army.mil and the General Dennis J. Reimer Training and Doctrine Digital Library (ADTDL) at http://www.adtdl.army.mil. Users also need to monitor the TRADOC ADCSINT-Threats Knowledge Center on AKO for information regarding periodic updates.

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Opposing Force Operations

Contents

Preface

This manual is one of a series that describes a contemporary Opposing Force (OPFOR) for training U.S. Army commanders, staffs, and units. See the Bibliography section for a list of the manuals in this series. Together, these manuals outline an OPFOR than can cover the entire spectrum of military and paramilitary capabilities against which the Army must train to ensure success in any future conflict.

Applications for this series of manuals include field training, training simulations, and classroom instruction throughout the Army. All Army training venues should use an OPFOR based on these manuals, except when mission rehearsal or contingency training requires maximum fidelity to a specific country-based threat. Even in the latter case, trainers should use appropriate parts of the OPFOR manuals to fill information gaps in a manner consistent with what they do know about a specific threat.

The proponent for this publication is HQ TRADOC. Send comments and recommendations on DA Form 2028 directly to the OPFOR and Threat Integration Directorate (OTID) of the TRADOC Office of Deputy Chief of Staff for Intelligence at the following address: Director, OTID, ADCSINT-Threats, ATTN: ATIN-T (Bldg 53), 700 Scott Avenue, Fort Leavenworth, KS 66027-1323.

This publication is available at Army Knowledge Online (AKO) at http://www.us.army.mil and on the General Dennis J. Reimer Training and Doctrine Digital Library (ADTDL) at http://www.adtdl.army.mil. Readers should monitor those sites and also the TRADOC ADCSINT-Threats Knowledge Center on AKO for the status of this manual and information regarding updates. Periodic updates, subject to the normal approval process, will occur as a result of the normal production cycle in accordance with TRADOC regulation 25-36, paragraphs 2-17 and 4-7. The date on the cover and title page of the electronic version will reflect the latest update.

Unless this publication states otherwise, masculine nouns or pronouns do not refer exclusively to men.

Introduction

This manual is part of the FM 7-100 series, which describes a **contemporary Opposing Force (OPFOR)** that exists for the purpose of training U.S. forces for potential combat operations. This OPFOR reflects the characteristics of military and paramilitary forces that may be present in the **contemporary operational environment (COE)**. Like those real-world threats, the OPFOR will continue to present new and different challenges for U.S. forces. The COE is **constantly changing**, and it is important for U.S. Army training environments to keep pace with real-world developments.

CONTEMPORARY OPERATIONAL ENVIRONMENT

The DOD officially defines an *operational environment* (OE) as "a composite of the conditions, circumstances, and influences that affect the employment of military forces and bear on the decisions of the unit commander" (JP 1-02). The *contemporary operational environment* (COE) is the operational environment that exists today

> **Contemporary Operational Environment (COE)**
>
> **The operational environment that exists today and for the clearly foreseeable future.**

and for the clearly foreseeable future. There are some "constants" or common threads that define the general nature of this COE:

- The United States in not likely to have a peer competitor until 2020 or beyond.

- However, nations will continue to field armed forces and use these forces as a tool to pursue national interests.

- As nations use their armed forces (or other instruments of national power) in pursuit of national interests, their actions may cause U.S. intervention, either unilaterally or as a coalition partner, with or without United Nations mandate.

- Nations that believe the United States may act to counter their national interests will develop diplomatic, informational, economic, and military plans for managing U.S. intervention.

- Nations will continue to modernize their armed forces within the constraints of their economies, but in ways that may negate U.S. overmatch.

- Advanced technology will be available on the world market for a wide variety of nation-state and non-state actors.

- Non-state actors will play an important role in any regional conflict—as combatants or noncombatants.

- All combat operations will be significantly affected by a number of variables in the environment beyond simple military forces.

Thus, one of the constants is that there are variables. Those "variables" in the COE result in a number of different OEs that can occur in specific circumstances or scenarios.

CRITICAL VARIABLES

Any OE, in the real world or in the training environment, can be defined in terms of eleven critical variables. While these variables can be useful in describing the overall (strategic) environment, they are most useful in defining the nature of specific OEs. Each of these "conditions, circumstances, and influences" and their possible combinations will vary according to the specific situation. In this sense, they are "variables." These variables are interrelated and sometimes overlap. Different variables will be more or less important in different

Critical Variables of COE
• Nature and Stability of the State.
• Regional and Global Relationships.
• Economics.
• Sociological Demographics.
• Information.
• Physical Environment.
• Technology.
• External Organizations.
• National Will.
• Time.
• Military Capabilities.

situations. Each OE is different, because the content of the variables is different. Only by studying and understanding these variables—and incorporating them into its training—will the U.S. Army be able to keep adversaries from using them against it or to find ways to use them to its own advantage.

Nature and Stability of the State

It is important to understand the nature and stability of the state (or states) with which or in which the conflict takes place. Study of this variable measures how strong or weak a country is and determines where the real strength of the state lies; it may be in the political leadership, the military, the police, or some other element of the population. Understanding this variable will allow U.S. forces to better understand the nature of the military campaign and the true aims of an enemy campaign, operation, or action. It also helps determine what kinds of threats may be present in a particular country. The real threat to U.S. forces may come from elements other than the military.

Regional and Global Relationships

Nation-states and/or non-state actors often enter into relationships, which can be regional or global. These partnerships support common objectives, which can be political, economic, military, or cultural. An actor's membership or allegiance to such a relationship can determine its actions of support and motivation. Virtually all conflict will occur with alliances and coalitions, some involving the United States and some involving its adversaries. When actors create regional or global alliances, it can add to their collective capability and broaden the scale of operations and actions.

As the world moves away from the traditional long-term, fixed alliances of the past, regional and global relationships are much more fluid and unpredictable. The choice of a state to be nonaligned does not mean that it will not become in-volved in a conflict or crisis. It simply means that the state does not make a commitment to another state, alliance, or cause before a situation arises. This lack of precommitment makes it difficult to predict how actors and forces may align when a situation does arise. Alliances can form or change rapidly, even dur-ing the course of an operation or campaign.

Economics

The economic variable establishes the boundaries between the "haves" and the "have-nots." This gap of economic differences among nation-states and other actors can cause conflict. Economic superiority, rather than military superiority, may be the key to power or dominance within a region. However, economic position often represents a nation or non-state actor's ability to buy military technology or to conduct prolonged operations. Economics help define the relationship between a nation or non-state actor and other actors at the regional or global level. These regional or global economic relationships could result in military or political assistance.

Sociological Demographics

The demographics variable includes the cultural, religious, and ethnic makeup of a given region, nation, or non-state actor. Extreme devotion to a particular cause or significant hatred of a particular group may provide an enemy with an unshakable will and a willingness to die for the cause. U.S. forces may also find that large segments of the population around them are sympathetic to the same cause as the enemy force. The needs of the local population can create heavy demands on U.S. military units, particularly their supply and medical systems. Refugees and internally displaced persons may increase the complexity of the environment. The enemy may use civilians as shields or obstacles or as cover for hostile intelligence services.

Information

Media and other information means can make combat operations transparent to the world, visible to all who have access to data. Various actors seek to use perception management to control and manipulate how the public sees things. They will exploit U.S. mistakes and failures and use propaganda to sway the local population to support their cause. Media coverage can impact on U.S. political decision making, international opinion, or the sensitivities of coalition members.

Even without sophisticated sensors and information systems, actors native to the area or region often have greater situational awareness than U.S. forces. Various actors are able to access commercial systems (such as satellite communications and imagery) for the larger picture. For a more detailed view, they can use human networks operating over normal telephone lines or with cellular telephones.

Physical Environment

The main elements in the physical environment are terrain and weather. Potential enemies clearly understand that less complex and open environments favor a U.S. force with its long-range, precision-guided weapons and sophisticated reconnaissance capability. So they will try to avoid the types of operations and environments for which such U.S. forces are optimized. They will try to operate in urban areas and other complex terrain and in weather conditions that may adversely affect U.S. military operations and mitigate technological advantages.[1]

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[1] *Complex terrain* is a topographical area consisting of an urban center larger than a village and/or of two or more types of restrictive terrain or environmental conditions occupying the same space. (Restrictive terrain or environmental conditions include but are not limited to slope, high altitude, forestation, severe weather, and urbanization.) Complex terrain, due to its unique combination of restrictive terrain and environmental conditions, imposes significant limitations on observation, maneuver, fires, and intelligence collection.

Technology

The technology that nations or non-state actors can bring to the OE includes what they can develop and produce, as well as what they could import. Access to technological advances available on the global market is slowly eating away at the technological advantage the United States has enjoyed in the past.

It is likely that some high-end forces in a particular region of the world could field a few systems that are more advanced than those of the U.S. force deployed there. Easy access to new technology allows potential adversaries to achieve equality or even overmatch U.S. systems in selected niche areas. Many countries are trying to acquire relatively low-cost, high-payoff, new technologies. In addition, upgrades and hybridization allow older systems to compete with more modern capabilities, thus neutralizing the technical advantage of many modern forces. In urban areas or other complex terrain, less advanced systems may still find effective uses. Various actors may find adaptive and innovative ways of using systems for other than their originally intended applications.

External Organizations

When the U.S. Army goes into a failed state or into areas torn by conflict, it is likely to find international humanitarian relief organizations at work there. These external organizations continue to grow in influence and power, as well as in willingness to become involved in crisis situations that were previously purely military operations. These external organizations can have both stated and hidden interests and objectives that can either assist or hinder U.S. mission accomplishment. The presence of transnational corporations operating in a country or region can also place added pressure on U.S. forces to avoid collateral damage to civilian life and property. U.S. forces may have to divert troops and resources from their assigned missions to conduct rescues or provide security for various external organizations.

Prior to the outbreak of hostilities in a given region (or at least prior to U.S. military intervention there), during such hostilities, or after the conclusion of hostilities in a particular area, members of external organizations and other civilian noncombatants from outside the region may be endangered. Diplomatic personnel, other government employees, or private citizens from the United States or other countries might be present in one or more countries within the region. The private citizens might be associated with an external organization (media, humanitarian relief organization, or transnational corporation) or might be there on private business or as tourists. If their lives are endangered by war, civil unrest, or natural disaster, such U.S. citizens and their dependents, as well as selected host-nation citizens and third-country nationals, could be eligible for evacuation in noncombatant evacuation operations conducted by U.S. forces.

National Will

The variable of national will reflects how much each country's people and government are behind what the military or paramilitary forces are doing. This can influence the objectives of a conflict, its duration, and the conditions for ending it.

A country will try to attack its opponent's national will and still preserve its own. Clearly, most foreign countries view U.S. national will as a point of vulnerability. Thus, a potential adversary may perceive the collective will of his people as a comparative advantage against the United States.

History has proven that battlefield victory does not always go to the best-trained, best-equipped, and most technologically advanced force. Victory often goes to the side that most wants to win, needs to win, and is willing to sacrifice to do so.

Time

In most cases, potential opponents of the United States view time as being in their advantage. When U.S. forces have to deploy into the area over long time and distance, the opponent can use this time to adjust the nature of the conflict to something for which the U.S. forces are not prepared.

First, the opponent will try to control the entry of U.S. forces into the area. If access control fails, the enemy still has the opportunity to oppose lightly equipped U.S. early-entry units and try to prevent full deployment of the rest of the force. The opponent will try to speed up the tempo, to rapidly defeat its local or regional enemy or to defeat U.S. early-entry forces before the United States can deploy overwhelming military power. If that fails, the opponent will try to prolong the conflict and to outlast the U.S. will to continue.

Military Capabilities

Military capabilities of a nation-state or non-state actor are measured in relative terms, in comparison to the capabilities of other actors against which they might be applied. Most of the military forces in the world continue to operate in conventional ways, which remain sufficient against other local and regional actors.

However, once the United States becomes involved, these same military forces may have to use adaptive or asymmetric approaches. Various nations and other foreign entities around the world study the United States and its military forces. They generally view the United States as a major power—the world's only superpower—with an overall advantage in technology and warfighting capability. Despite these strengths, other actors see some weaknesses that they may be able to exploit. They can use these perceptions as a guide to optimizing the effectiveness of their own forces and to find ways to negate current U.S. advantages.

Military capabilities may be the most critical and the most complex variable that affects military operations. However, the military variable does not exist in isolation from the other variables that help determine the overall OE. It interacts with the other variables, and all the other variables can affect military capabilities. Potential enemies can use any or all of these factors against the Army as it tries to accomplish its missions in various parts of the world or in various training environments.

REAL WORLD

In the real world, the COE is the entire set of conditions, circumstances, and influences that U.S. Armed Forces can expect to face when conducting military operations to further the national interests of the United States, its friends, and allies. The COE is "contemporary" in the sense that it does not represent conditions that existed only in the past or that might exist only in the remote future, but rather those conditions that exist today and in the clearly foreseeable, near future. This COE consists not only of the military and/or paramilitary capabilities of potential real-world adversaries, but also of the manifestations of the ten other variables that help define any OE.

TRAINING

In training environments, the COE is the OE created to approximate the demands of the real-world COE and to set the conditions for desired training outcomes. This involves the appropriate combination of an OPFOR (with military and/or paramilitary capabilities representing a composite of a number of potential adversaries) and other OE variables in a realistic, feasible, and plausible manner. The purpose of the COE in training simulations is to produce the necessary training outcomes.[2]

Even in the COE for training, it is possible to speak of an overall COE that addresses the qualities of virtually any OE in which the units or individuals being trained might be called upon to operate. In this sense, there are the same "constants" as in the real-world COE.

INTERACTION AND LINKAGE OF VARIABLES

The variables of the COE do not exist in isolation from one another. The linkages of the variables cause the complex and often simultaneous dilemmas that a military force might face. In order to provide realistic training, training scenarios must try to simulate this synergistic effect to the maximum degree that is feasible.

The COE is not just about the OPFOR. The COE variables and their interaction provide the robust environment and context for OPFOR operations. The complexity of the specific OE in training can be adjusted to keep it appropriate for the required training objectives and the training state of various U.S. Army units.

ADAPTIVE AND CHANGING

The nature of the COE is adaptive and constantly changing. As the United States and its military forces interact with the COE in a real-world sense, the OE changes. As the Army applies the lessons learned from training in a COE setting, the OPFOR and potential real-world adversaries will also learn and adapt.

The development of the COE for training started with research to develop an understanding of the real-world COE and trends that affect military operations. Then, taking into consideration the desired training outcomes and leader development goals, the authors of the FM 7-100 series proceeded to document an OPFOR doctrine and structure that reflect the real-world COE, and the Army began integrating this OPFOR and other COE variables into training scenarios. Meanwhile, the authors of the FM 7-100 series are continuing to research the real-world COE and to mature the OPFOR and the COE in training in order to provide a richer, appropriately challenging training environment and keep the OPFOR and the COE truly "contemporary."

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[2] The same type of COE conditions can be created to support some combat development activities that do not require simulation of a specific real-world potential adversary. However, some combat development activities may require portrayal of an OE that extends further into the future than is typical for the COE.

ENEMY, THREAT, AND OPFOR

Before going further into the COE, the contemporary OPFOR, and the intended uses of this manual, it may be useful to define some key terms and the distinctions among them. It is important to distinguish among the terms *enemy*, *threat*, and *OPFOR* and to use them correctly.

ENEMY

From the U.S. perspective, an *enemy* is an individual, group of individuals (organized or not organized), paramilitary or military force, national entity, or national alliance that is in opposition to the United States, its allies, or multinational partners. In other words, the *enemy* is whoever is actually opposing the United States in a particular conflict.[3] Thus, this term is synonymous with adversary or opponent.

THREAT

A potential adversary is sometimes designated as a threat. In this sense, the Army defines *threat* as "any specific foreign nation or organization with intentions and military capabilities that suggest it could become an adversary or challenge the national security interests of the United States or its allies." Once hostilities actually begin, the threat becomes the enemy.

OPPOSING FORCE

An *Opposing Force (OPFOR)* is a training tool that should allow the U.S. Army to train against a challenging and plausible sparring partner that represents the wide range of possible opponents the Army could face in actual conflict. It enables training of all arms of the Army and prepares the Army for potential combat operations.[4]

During the road to war leading up to events in a training scenario, the OPFOR may play the role of a "threat" (potential enemy) that is on the verge of becoming an enemy. However, the actual training event usually deals with a state of hostilities. Thus, once hostilities begin in the training event, the OPFOR acts as the "enemy" of the U.S. force in the training environment.[5]

During the Cold War period, the Army employed OPFORs based on specific real-world threats. However, the Army needs a different type of OPFOR to meet its training requirements for the COE.

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[3] This definition of *enemy* is from the U.S. point of view. After this Introduction, the chapters of this manual address their topics from the OPFOR point of view. So, *friendly* refers to the OPFOR and its allies, and enemy refers to the enemy of the OPFOR, which may be an opponent within its own country or region or an extraregional opponent (normally the United States or a U.S.-led coalition).

[4] Although the OPFOR is primarily a training tool, it may be used for other purposes. For example, some combat development activities that do not require simulation of a specific real-world potential adversary may use an OPFOR to portray the "threat" or "enemy."

[5] From the OPFOR point of view, its leadership plans and develops forces and methods to deal with one or more threats to its own interests, goals, or survival.

Cold War OPFOR

When the Army established its OPFOR program in 1976 with Army Regulation 350-2, it could hardly have envisioned today's computerized constructive and virtual simulations, or even the evolving requirements of live simulations. It defined an *OPFOR* simply as "an organized force created by and from U.S. Army units to portray a unit of a potential adversary armed force." Thus, all OPFORs were originally threat-based, in the sense that they replicated the forces, capabilities, and doctrine of a particular country officially recognized as a threat or potential adversary. In the midst of the Cold War, the 1976 regulation identified only one potential adversary against which to train: the Soviet Union; by 1978, a revision of the regulation added North Korea as a second threat for replication by an OPFOR. Over time, the Army developed other OPFORs to replicate other threats emerging in places ranging from Latin America and Southwest Asia.

In its time, the threat-based OPFOR served the Army very well, particularly for units targeted against specific threats. The benefits of this training were borne out, for example, in Operation Desert Storm. Techniques and doctrine, including deep attack and the intelligence preparation of the battlefield, developed to cope with specific threats and honed against the OPFOR, enabled the Army to achieve decisive results on the battlefield. However, the OE is dynamic, and the pace of that dynamism has increased with the end of the Cold War and the rapid advancement of information technology.

Contemporary OPFOR

Training U.S. forces for the COE requires a different kind of OPFOR from that of the past. The contemporary OPFOR must be less predictable and not based on the armed forces of a particular country. In today's world, the U.S. Army must be prepared to go into any OE and perform its full range of missions. It must be ready to do so in

> **Contemporary OPFOR**
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> **A plausible, flexible military and/or paramilitary force representing a composite of varying capabilities of actual worldwide forces, used in lieu of a specific threat force, for training and developing U.S. forces.**

the face of a wide variety of possible threats and at the same time be prepared to deal with third-party actors that may have other interests. Not all threats are purely military in nature. Therefore, the U.S. Army now defines an *OPFOR* as "a plausible, flexible military and/or paramilitary force representing a composite of varying capabilities of actual worldwide forces, used in lieu of a specific threat force, for training and developing U.S. forces."

Thus, in some training environments, a military force alone may be the OPFOR. In other cases, military forces may have paramilitary forces acting in loose affiliation with them, or acting separately from them within the same training environment. These relationships depend on the scenario, which is driven by training requirements.

Various agencies and experts have different lists of real-world threats the United States might have to face. If the U.S. Army were to pick any one of these threats as *the* threat against which to train, that threat would almost certainly not be the one it would actually fight. What is needed is a composite that is representative of the full range and variety of possible threats and OEs. It must have a bit

of everything—it could be virtually anybody, anywhere. Therefore, this manual defines this representative composite in a way that is flexible enough to fit the most demanding U.S. Army training requirements and provides a framework for training that creates the leaders, soldiers, and unit skills necessary for success on the next battlefield.

CONTEMPORARY THREATS AND OTHER ACTORS

There are many types of actors or participants in today's complex world environment. Some of the actors are countries (also called nation-states) and some are not. Nation-states are still dominant actors. However, some power is shifting to nontraditional actors and transnational concerns. There are many potential challenges to traditional concepts like balance of power, sovereignty, national interest, and roles of nation-state and non-state actors.

Of course, not all actors are threats. To be a threat, a nation or organization must have both the capabilities and the *intention* to challenge the United States. The capabilities in question are not necessarily purely military, but encompass all the elements of power available to the nation or organization.

NATION-STATE ACTORS

Nation-states fall into four basic categories according to their roles in the international community. The categories are core states, transition states, rogue states, and failed or failing states.

The category of *core states* includes more than half of the nearly 200 countries in the world today. These are basically democratic (although to varying degrees) and share common values and interests. Within this larger group, there is an "inner core" of major powers. These are the advanced countries, including the United States, that generally dominate world politics. Most conflict with global consequences will involve the core states in some fashion or another.

Transition states are other larger, industrial-based countries—mostly emerging regional powers—that are striving to become major powers. High-end transition states are moving from an industrial-based society to an information-based society. Low-end transition states are seeking to move from an agricultural-based society to an industrial base. As states try to make this transition, there are cycles of political stability and instability, and the outcome of the transition is uncertain. Some transition states may successfully join the ranks of core states and even become major powers within that context; others may become competitors.

Rogue states are those that are hostile to their neighbors or to core states' interests. These countries can sponsor international terrorism or even confront U.S. military forces operating in the region. *Failed or failing states* are fragmented in such a way that a rule of law is absent; their instability is a threat to their neighbors and the core states.

Countries can move from one category to another, as conditions change. Sometimes countries join together in multinational alliances and coalitions. Together, they have more strength and can become a power to be reckoned with.

NON-STATE ACTORS

Non-state actors are those that do not represent the forces of a particular nation-state. Such non-state elements include rogue actors as well as third-party actors.

Like rogue states, *rogue actors* are hostile to other actors; however, they may be present in one country or extend across several countries. Examples include insurgents, guerrillas, mercenaries, and transnational or subnational political movements. Particular sources of danger are terrorists and drug-trafficking or criminal organizations, since they may have the best technology, equipment, and weapons available, simply because they have the money to buy them. These non-state rogue actors may use terror tactics and militarily unconventional methods to achieve their goals.

Third-party actors may not be hostile to other actors. However, their presence, activities, and interests can affect the ability of military forces to accomplish their mission when operating in a foreign country. These third-party actors can be refugees, internally displaced persons, and other civilians on the battlefield, including international humanitarian relief agencies, transnational corporations, and the news media. These individuals and groups bring multiple sources of motivation, ideology, interests, beliefs, or political affiliations into consideration. They may be sources of civil unrest. Their presence may require military forces to consider the potential impacts of traffic congestion, demonstrations, sabotage, and information manipulation.

REAL-WORLD AND TRAINING CONSIDERATIONS

When U.S. forces become involved in a particular country or region, they must take into account the presence and influence of these various types of threats and other actors. In a training environment, an OPFOR can represent a composite of those nation-state or non-state actors that constitute military and/or paramilitary forces that could present a threat to the United States, its friends, or its allies. Other, non-state actors that fall in the category of nonmilitary forces or elements are not part of the OPFOR, but could be part of the COE used in the training environment.

CONTEMPORARY OPFOR

This manual introduces the baseline operational doctrine of a flexible, thinking, adaptive, contemporary OPFOR that applies its doctrine with considerable initiative. (See the definition of *contemporary OPFOR* above.) It is applicable to the entire training community, including the OPFORs at all of the combat training centers (CTCs), the TRADOC schools, and units in the field. It provides an OPFOR that believes that, through adaptive use of all available forces and capabilities, it can create opportunities that, properly leveraged, can allow it to fight and win, even against a technologically superior opponent such as the United States.

BASELINE

As a baseline for developing specific OPFORs for specific training environments, this manual describes an OPFOR that is representative of the forces of contemporary nation-states. This composite of the characteristics of real-world military and paramilitary forces provides a framework for the realistic and relevant portrayal of capabilities and actions that U.S. armed forces might face in the COE.

The State

For this composite of real-world threats, the manual refers to the country in question as "the State."[6] It describes this artificial country in terms of the eleven critical variables of the COE. As the baseline for the contemporary OPFOR that is representative of real-world forces, the State is not a peer competitor of the United States. However, it is a dominant power in its region of the world and is capable of challenging U.S. interests there. The general characteristics of the State could fit a number of different types of potential adversaries in a number of different scenarios.

Like most countries in the world, the State does not design its forces just to fight the United States or its allies. It designs them principally to deal with regional threats and to take advantage of regional opportunities. Therefore, the State's national security strategy (including its doctrine, force design, and investment strategy) focuses primarily on maintaining and expanding its position as a regional power. It develops its military forces in a way that ensures conventional power superiority over any of its regional neighbors. These forces, together with the State's other instruments of power, make it a dominant force in its region.

At the same time, the State is aware that aggressive pursuit of its regional goals might lead to intervention by a major power, such as the United States, from outside the region. To the extent possible, therefore, it invests in technologies and capabilities that have utility against both regional and extraregional opponents. The basic force structure of the OPFOR is the same for either type of threat. The State must go to war—or continue the war after extraregional intervention—with whatever it had going into the war.

When an extraregional power intervenes with sufficient force to overmatch the State's, the State has to adapt its patterns of operation. It realizes that the forces and technology that allow it to dominate its neighbors may not be a match for the modern, high-technology forces of a wealthy extraregional power like the United States—at least not in a head-to-head conventional confrontation. However, it can use those means in creative and adaptive ways. To the maximum extent possible, the State plans and trains for adaptive operations and how it will make the transition to them. It is the combination of the State's capabilities and its adaptive strategy, operations, and tactics that make it believe it can take on such an extraregional force and win.

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[6] In specific U.S. Army training environments, the generic name of the State may give way to other (fictitious) country names such as Atlantis, Upper Flambokia, or Westland.

Broadened Context

At the strategic level, the State's ability to challenge U.S. interests includes not only the military and paramilitary forces of the State, but also the State's diplomatic-political, informational, and economic instruments of power. Rarely would any country engage the United States or a U.S.-led coalition with purely military means. It is also possible that the State could be part of an alliance or coalition, in which case the OPFOR could include allied forces. These nation-state forces may also operate in conjunction with non-state actors such as insurgents, terrorists, and drug or criminal organizations.

The FM 7-100 series, as a whole, covers not only the military and paramilitary forces of the State, but also other, non-state paramilitary and nonmilitary organizations present in the State's region of the world. An extraregional power becoming involved in that region may have to deal with any or all of these types of military, paramilitary, and nonmilitary elements. It might encounter these elements individually or, more likely, in combination with other such elements. Whether these elements operate in concert or independently, they are an important part of the COE.

Trainers need to consider the total OE and all instruments of power at the disposal of the State and the OPFOR—not just the military element, but also diplomatic-political, informational, and economic means. For a nation-state, these are instruments of national power. For non-state actors whose forces are paramilitary in nature, the other three instruments of power are generally present to one degree or another. Together, these instruments represent the power that actors can bring to bear against the United States.

Terminology

Since OPFOR baseline doctrine is a composite of how various forces worldwide might operate, it uses some terminology that is in common with that of other countries, including the United States. Whenever possible, OPFOR doctrine uses established U.S. military terms—with the same meaning as defined in FM 1-02 (formerly FM 101-5-1) and/or JP 1-02. However, the FM 7-100 series also includes some concepts for things the OPFOR does differently from how the U.S. military does them. Even if various real-world foreign countries might use the same concept, or something very close to it, different countries might give it different names. In those cases, the OPFOR manuals either use a term commonly accepted by one or more other countries or create a new, "composite" term that makes sense and is clearly understandable. In any case where an operational or tactical term is not further specifically defined in the FM 7-100 series, it is used in the same sense as in the U.S. definition.

FLEXIBILITY

As a training tool, the OPFOR must be a challenging, uncooperative sparring partner, capable of stressing any or all battlefield operating systems of the U.S. force. However, it also must be tailored to meet training requirements.

In the OPFOR baseline presented in this manual, the FM authors often say that the State or the OPFOR "may" be able to do something or "might" or "could" do something. They often use the progressive forms of verbs to say that the State has a "growing" economy or "is developing" a capability or "is continually modernizing."

The State participates in the global market, which can allow it to acquire things it cannot produce domestically. Such descriptions give scenario writers considerable flexibility in determining what the State or the OPFOR actually has at a given point in time or a given place on the battlefield—in a particular scenario.

The composite example of this baseline may meet the OPFOR requirements for many U.S. Army training environments. For cases that require an OPFOR based on a type of nation-state with characteristics different from those of the State described in this manual, this baseline provides a framework from which trainers can develop an OPFOR appropriate for their particular training requirements.

The OPFOR must be flexible enough to fit various training requirements. It must be scalable and tunable. Depending on the training requirement, the OPFOR may be a large, medium, or small force. Its technology may be state-of-the-art, relatively modern, obsolescent, obsolete, or an uneven combination of those categories. Its ability to sustain operations may be limited or robust.

THINKING

This manual describes how the OPFOR thinks, especially how it thinks about fighting its regional neighbors and/or the United States. This thinking determines basic OPFOR operations—as well as strategy and tactics, which are the subjects of other manuals in this series. It drives OPFOR organizational structures and equipment acquisition or adaptation. It also determines how the nation-state OPFOR that represents the armed forces of the State would interact with other, non-state actors that may be present in the COE.

Just because the U.S. force knows something about how the OPFOR has fought in the past does not mean that the OPFOR will always continue to fight that way. A thinking OPFOR will learn from its own successes and failures, as well as those of its potential enemies. It will adapt its thinking, its makeup, and its way of fighting to accommodate these lessons learned. It will continuously look for innovative ways to deal with the United States and its armed forces.

ADAPTABILITY

Like all military forces, the OPFOR has a basic, conventional design for dealing with forces with capabilities equal to or inferior to its own. Prior to a U.S. force becoming involved, therefore, the OPFOR can use the application or threat of application of that conventional design to dominate or influence its regional neighbors. The OPFOR plans these operations well in advance and tries to execute them as rapidly as possible, in order to preclude regional alliances or outside intervention.

The OPFOR has developed its doctrine, force structure, and capabilities with an eye toward employing them against both regional and extraregional opponents, if necessary. It has thought about and trained for how to adapt once an extraregional force becomes engaged. It has included this adaptability in its doctrine in the form of general principles, based on its perceptions of the United States and other threats to its goals and aspirations. It will seek to avoid types of operations and environments for which U.S. forces are optimized. During the course of conflict, it will make further adaptations, based on experience and opportunity.

When a U.S. force or a U.S.-led coalition first begins to deploy into theater, the OPFOR will seek to disrupt the deployment and thus create opportunity. In such cases, the conventional design the OPFOR used in regionally-focused operations may still provide the framework for military operations against an advanced extraregional force. The OPFOR will not shy away from the use of military means against such an opponent, so long as the risk is commensurate with potential gains. As a U.S. or coalition force builds up power in the region, the OPFOR must rely on adaptive applications of its basic design in order to mitigate its disadvantages and exploit its advantages compared to this new opponent.

In general, the contemporary OPFOR will be less predictable than OPFORs in the past. It will be difficult to template as it adapts and attempts to create opportunity. Its patterns of operation will change as it achieves success or experiences failure. OPFOR doctrine might not change, but its way of operating will.

INITIATIVE

Like U.S. Army doctrine, OPFOR doctrine must allow sufficient freedom for bold, creative initiative in any situation. OPFOR doctrine is descriptive, but not prescriptive; authoritative, but not authoritarian; definitive, but not dogmatic. The OPFOR that U.S. units encounter in various training venues will not apply this doctrine blindly or unthinkingly, but will use its experience and assessments to interpolate from this baseline in light of specific situations. Thus, U.S. units can no longer say that the OPFOR has to do certain things and cannot do anything that is not expressly prescribed in established OPFOR doctrine. Doctrine guides OPFOR actions in support of the State's objectives; OPFOR leaders apply it with judgment and initiative.

KEEPING THE COE AND THE OPFOR CONTEMPORARY

The COE is extremely fluid, with rapidly changing regional and global relationships. New actors—both nations and non-state actors—are constantly appearing and disappearing from the scene. The OPFOR operational doctrine provided in this manual should meet most of the U.S. Army's training needs for the foreseeable future. During the period covered by the COE, almost anyone who fights the United States would probably have to use the same kinds of adaptive action as outlined in this doctrine. As the geopolitical situation, forces, or capabilities change over time, OPFOR doctrine and its applications will evolve along with them, to continue to provide the Army a "contemporary" OPFOR. Thus, the OPFOR will remain capable of presenting a challenge that is appropriate to meet evolving training requirements at any given point in time.

Chapter 1

Strategic Framework

This chapter describes the State's national security strategy and how the State designs campaigns and operations to achieve strategic goals outlined in that strategy. This provides the general framework within which the OPFOR plans and executes military actions at the operational level, which are the focus of the remainder of this manual. The nature of the State and its national security strategy are explained in greater detail in FM 7-100.

NATIONAL SECURITY STRATEGY

1-1. The *national security strategy* is the State's vision for itself as a nation and the underlying rationale for building and employing its instruments of national power. It outlines how the State plans to use its diplomatic-political, informational, economic, and military instruments of power to achieve its strategic goals. Despite the term *security*, this strategy defines not just what the State wants to protect or defend, but what it wants to achieve.
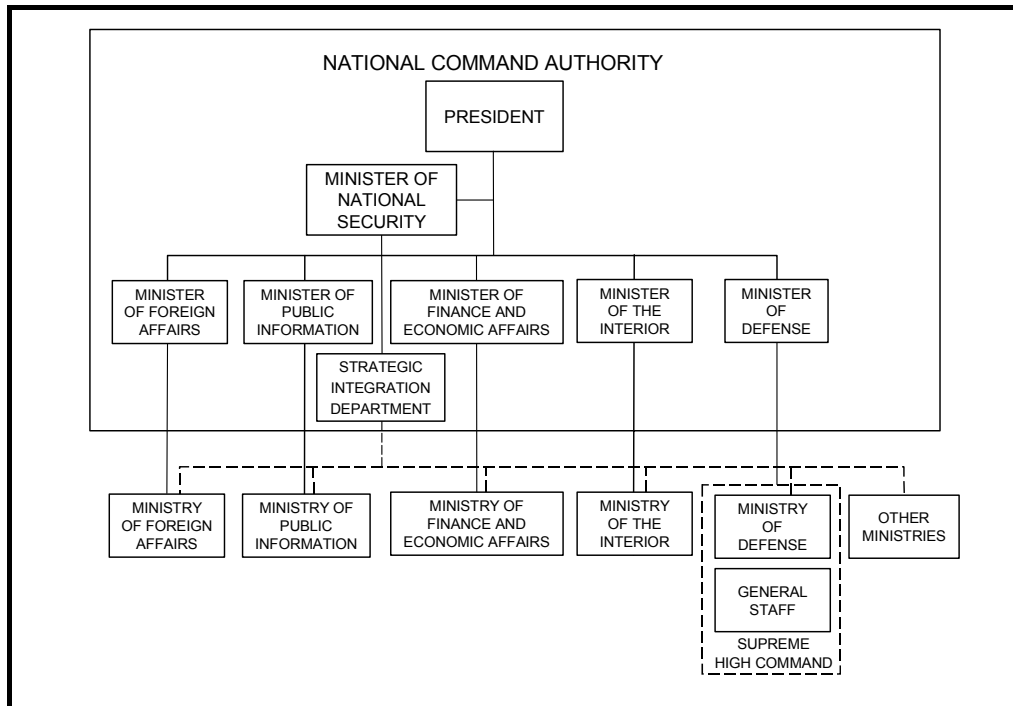
Figure 1-1. National Command Authority

NATIONAL COMMAND AUTHORITY

1-2. The National Command Authority (NCA) exercises overall control of the application of all instruments of national power in planning and carrying out the national security strategy. Thus, the NCA includes the cabinet ministers responsible for those instruments of power: the Minister of Foreign Affairs, Minister of Public Information, Minister of Finance and Economic Affairs, Minister of the Interior, and Minister of Defense, along with other members selected by the State's President, who chairs the NCA. (See Figure 1-1.)

1-3. The President also appoints a Minister of National Security, who heads the Strategic Integration Department (SID) within the NCA. The SID is the overarching agency responsible for integrating all the instruments of national power under one cohesive national security strategy. The SID coordinates the plans and actions of all State ministries, but particularly those associated with the instruments of power.

NATIONAL STRATEGIC GOALS

1-4. The NCA determines the State's strategic goals. The State's overall goals are to continually expand its influence within its region and eventually change its position within the global community. These are the long-term aims of the State.

1-5. Supporting the overall, long-term, strategic goals, there may be one or more specific goals, each based on a particular threat or opportunity. Examples of specific strategic goals might be—

- Annexation of territory.
- Economic expansion.
- Destruction of an insurgency.
- Protection of a related minority in a neighboring country.
- Acquisition of natural resources located outside the State's boundaries.
- Destruction of external weapons, forces, or facilities that threaten the existence of the State.
- Defense of the State against invasion.
- Preclusion or elimination of outside intervention.

Each of these specific goals contributes to achieving the overall strategic goals.

FRAMEWORK FOR IMPLEMENTING NATIONAL SECURITY STRATEGY

1-6. In pursuit of its national security strategy, the State is prepared to conduct four basic types of strategic-level courses of action. Each course of action involves the use of all four instruments of national power, but to different degrees and in different ways. The State gives the four types the following names:

- **Strategic operations**—strategic-level course of action that uses all instruments of power in peace and war to achieve the goals of the State's national security strategy by attacking the enemy's strategic centers of gravity. (See the Strategic Operations section of this chapter for more detail.)

- **Regional operations**—strategic-level course of action (including conventional, force-on-force military operations) against opponents the State overmatches, including regional adversaries and internal threats. (See the Regional Operations section of this chapter for more detail.)

- **Transition operations**—strategic-level course of action that bridges the gap between regional and adaptive operations and contains some elements of both, continuing to pursue the State's regional goals while dealing with the development of outside intervention with the potential for overmatching the State. (See the Transition Operations section of this chapter for more detail.)

- **Adaptive operations**—strategic-level course of action to preserve the State's power and apply it in adaptive ways against opponents that overmatch the State. (See the Adaptive Operations section of this chapter for more detail.)

Although the State refers to them as "operations," each of these courses of action is actually a subcategory of strategy. Each of these types of "operations" is actually the aggregation of the effects of tactical, operational, and strategic actions, in conjunction with the other three instruments of national power, that contribute to the accomplishment of strategic goals. The type(s) of operations the State employs at a given time will depend on the types of threats and opportunities present and other conditions in the operational environment. Figure 1-2 illustrates the State's basic conceptual framework for how it could apply its various instruments of national power in the implementation of its national security strategy.
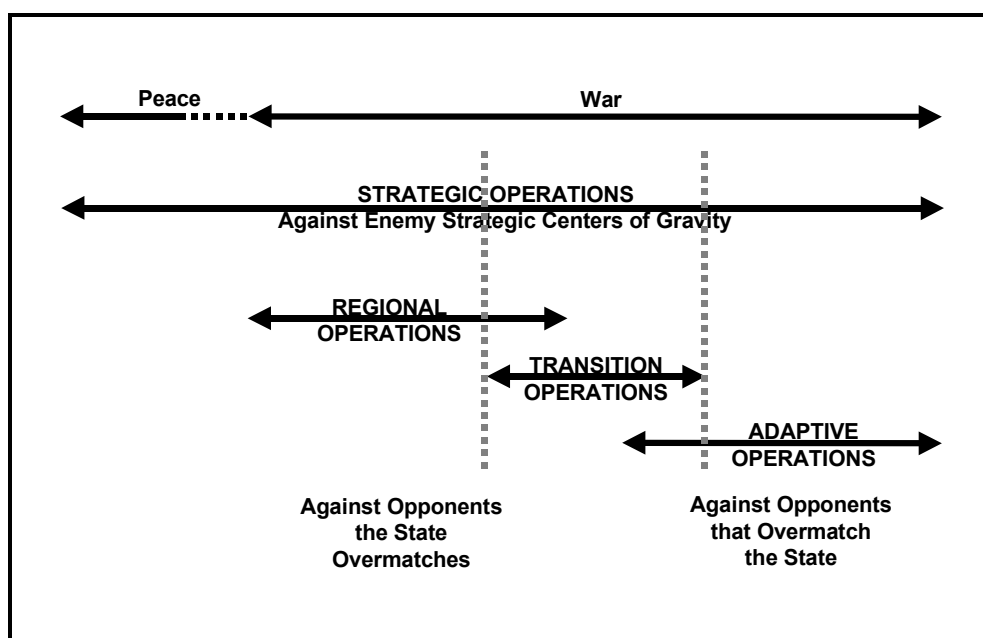
Figure 1-2. Conceptual Framework for Implementing the State's National Security Strategy

1-7. Strategic operations are a continuous process not limited to wartime or preparation for war. Once war begins, they continue during regional, transition,

and adaptive operations and complement those operations. Each of the latter three types of operations occurs only during war and only under certain conditions. Transition operations can overlap regional and adaptive operations.

1-8. The national security strategy identifies branches, sequels, and contingencies and the role and scope of each type of strategic-level action within these modifications to the basic strategy. Successful execution of these branches and sequels can allow the State to resume regional operations and thus achieve its strategic goals. (See Figure 1-3.)

STRATEGIC OPERATIONS
Against Opponents' Strategic Centers of Gravity

REGIONAL OPERATIONS

and

or

REGIONAL OPERATIONS

or

REGIONAL OPERATIONS

TRANSITION OPERATIONS

or

ADAPTIVE OPERATIONS

State Achieves Strategic Goals

Against Regional Opponents

Against Extraregional Opponents

(1) State achieves its strategic goals without combat, through strategic operations that compel other actors to yield to State's will.
(2) State must react to a particular regional threat or seizes an opportunity to change status quo in region.
(3) While strategic operations continue, State achieves its strategic goals through regional operations against weaker neighbors, without extraregional intervention.
(4) Extraregional power threatens to intervene.
(5) State deters extraregional intervention through strategic operations.
(6) State achieves its strategic goals after deterring intervention.
(7) State unable to deter intervention; begins transition operations.
(8) State defeats early-entry forces or causes extraregional forces to withdraw from region; transitions back to regional operations.
(9) Extraregional forces fully deployed and overmatch State forces; State conducts adaptive operations.
(10) Extraregional forces withdraw from region after defeat or stalemate; State begins transition back to regional operations.
(11) State achieves its strategic goals after extraregional intervention.

Figure 1-3. Examples of Branches and Sequels in National Security Strategy

1-9. The national security strategy is designed to achieve one or more specific strategic goals within the State's region. Therefore, it typically starts with actions directed at an opponent within the region—an opponent that the State overmatches in conventional military power, as well as other instruments of power.

1-10. The State will attempt to achieve its ends without resorting to armed conflict. Accordingly strategic operations are not limited to military means and usually do not begin with armed conflict. The State may be able to achieve the desired goal through pressure applied by other-than-military instruments of power, perhaps with the mere threat of using its superior military power against the regional opponent. These actions would fall under the general framework of "strategic operations."

1-11. When nonmilitary means are not sufficient or expedient, the State may resort to armed conflict as a means of creating conditions that lead to the desired end state. However, strategic operations continue even if a particular regional threat or opportunity causes the State to undertake "regional operations" that include military means.

1-12. Prior to initiating armed conflict and throughout the course of armed conflict with its regional opponent, the State continues to conduct strategic operations to preclude intervention by outside players—by other regional neighbors or by an extraregional power that could overmatch the State's forces. However, those operations always include branches and sequels for dealing with the possibility of intervention by an extraregional power.

1-13. When unable to limit the conflict to regional operations, the State is prepared to engage extraregional forces through "transition and adaptive operations." Usually, the State does not shift directly from regional to adaptive operations. The transition is incremental and does not occur at a single, easily identifiable point. If the State perceives intervention is likely, transition operations may begin simultaneously with regional and strategic operations. Transition operations overlap both regional and adaptive operations. Transition operations allow the State to shift to adaptive operations or back to regional operations. At some point, the State either seizes an opportunity to return to regional operations, or it reaches a point where it must complete the shift to adaptive operations. Even after shifting to adaptive operations, the State tries to set conditions for transitioning back to regional operations.

1-14. If an extraregional power were to have significant forces already deployed in the region prior to the outbreak of hostilities, the State would not be able to conduct regional operations using its normal, conventional design without first eliminating those forces. In this case, the State would first use strategic operations—with all means available—to put pressure on the already present extraregional force to withdraw from the region or at least remain neutral in the regional conflict. Barring that, strategic operations could still aim at keeping the extraregional power from committing additional forces to the region and preventing his forces already there from being able to fully exercise their capabilities. If the extraregional force is still able to intervene, the rest of the State's strategic campaign would have to start with adaptive operations. Eventually, the State would hope to move into transition operations. If

it could neutralize or eliminate the extraregional force, it could finally complete the transition to regional operations and thus achieve its strategic goals.

STRATEGIC CAMPAIGN

1-15. To achieve one or more specific strategic goals, the NCA would develop and implement a specific *national strategic campaign*. Such a campaign is the aggregate of actions of all the State's instruments of power to achieve a specific set of the State's strategic goals against internal, regional, and/or extraregional opponents. There would normally be a diplomatic-political campaign, an information campaign, and an economic campaign, as well as a military campaign. All of these must fit into a single, integrated national strategic campaign.

1-16. The NCA will develop a series of contingency plans for a number of different specific strategic goals that it might want or need to pursue. These contingency plans often serve as the basis for training and preparing the State's forces. These plans would address the allocation of resources to a potential strategic campaign and the actions to be taken by each instrument of national power contributing to such a campaign.
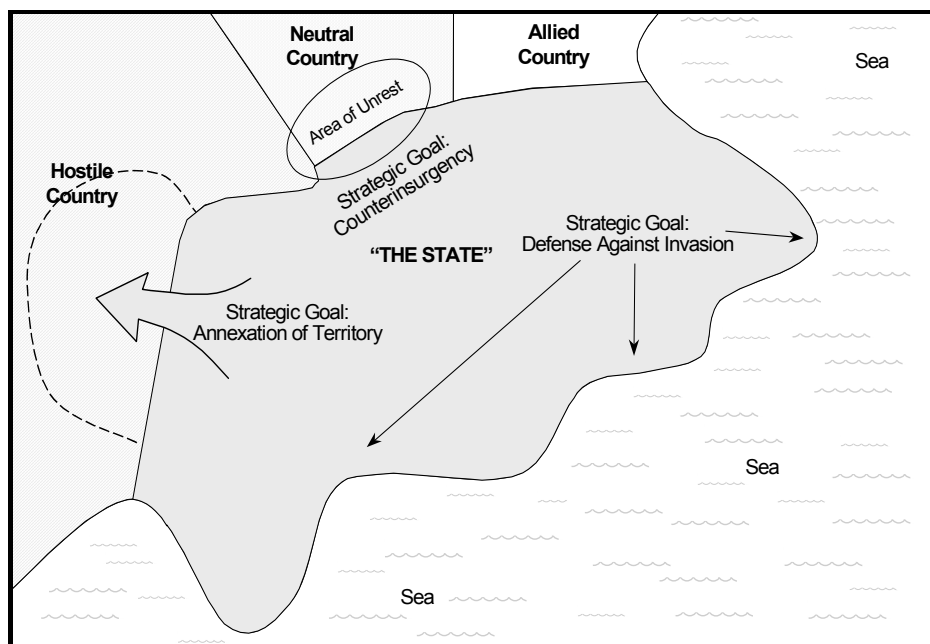
Figure 1-4. Example of a Strategic Campaign

1-17. Aside from training exercises, the NCA would approve only one strategic campaign for implementation at a given time. Nevertheless, the single campaign could include more than one specific strategic goal. For instance, any strategic campaign designed to deal with an insurgency would include contingencies for dealing with reactions from regional neighbors or an extraregional power that could adversely affect the State and its ability to achieve the selected goal. Likewise, any strategic campaign focused on a goal that involves the State's invasion of a regional neighbor would have to take into consideration possible adverse actions by other regional neighbors, the

possibility that insurgents might use this opportunity to take action against the State, and the distinct possibility that the original or expanded regional conflict might lead to extraregional intervention. Figure 1-4 shows an example of a single strategic campaign that includes three strategic goals. (The map in this diagram is for illustrative purposes only and does not necessarily reflect the actual size, shape, or physical environment of the State or its neighbors.)

NATIONAL STRATEGIC CAMPAIGN PLAN

1-18. The purpose of a *national strategic campaign plan* (national SCP) is to integrate all the instruments of national power under a single plan. Even if the State hoped to achieve the goal(s) of the campaign by nonmilitary means, the national campaign plan would leverage the influence of its Armed Forces' strong military presence and provide for the contingency that military force might become necessary.

1-19. The national SCP is the end result of the SID's planning effort. Based on input from all State ministries, this is the plan for integrating the actions of all instruments of power to set conditions favorable for achieving the central goal identified in the national security strategy. The Ministry of Defense (MOD) is only one of several ministries that provide input and are then responsible for carrying out their respective parts of the consolidated national plan.

1-20. In waging a national strategic campaign, the State never employs military power alone. Military power is most effective when applied in combination with diplomatic-political, informational, and economic instruments of power. State ministries responsible for each of the four instruments of power will develop their own campaign plans as part of the unified national SCP.

1-21. A national SCP defines the relationships among all State organizations, military and nonmilitary, for the purposes of executing that SCP. The SCP describes the intended integration, if any, of multinational forces in those instances where the State is acting as part of a coalition.

MILITARY STRATEGIC CAMPAIGN PLAN

1-22. Within the context of the national strategic campaign, the MOD and General Staff develop and implement a *military strategic campaign*. During peacetime, the Operations Directorate of the General Staff is responsible for developing, staffing, promulgation, and continuing review of the military SCP. It must ensure that the military plan would end in achieving military conditions that would fit with the conditions created by the diplomatic-political, informational, and economic portions of the national plan that are prepared by other State ministries. Therefore, the Operations Directorate assigns liaison officers to other important government ministries.

1-23. Although the State's Armed Forces (the OPFOR) may play a role in strategic operations, the focus of their planning and effort is on the military aspects of regional, transition, and adaptive operations. A military strategic campaign may include several combined arms, joint, and/or interagency operations. If the State succeeds in forming a regional alliance or coalition, these operations may also be multinational.

1-24. The General Staff acts as the executive agency for the NCA, and all military forces report through it to the NCA. The Chief of the General Staff (CGS), with NCA approval, defines the theater in which the Armed Forces will conduct the military campaign and its subordinate operations. He determines the task organization of forces to accomplish the operational-level missions that support the overall campaign plan. He also determines whether it will be necessary to form more than one theater headquarters. For most campaigns, there will be only one theater, and the CGS will serve as theater commander, thus eliminating one echelon of command at the strategic level.

1-25. In wartime, the MOD and the General Staff combine to form the Supreme High Command (SHC). The Operations Directorate continues to review the military SCP and modify it or develop new plans based on guidance from the CGS, who commands the SHC. It generates options and contingency plans for various situations that may arise. Once the CGS approves a particular plan for a particular strategic goal, he issues it to the appropriate operational-level commanders.

1-26. The military SCP directs operational-level military forces, and each command identified in the SCP prepares an operation plan that supports the execution of its role in that SCP. The SCP assigns forces to operational-level commands and designates areas of responsibility (AORs) for those commands.

STRATEGIC OPERATIONS

1-27. What the State calls "strategic operations" is actually a universal strategic course of action the State would use to deal with all situations—in peacetime and war, against all kinds of opponents, potential opponents, or neutral parties. Strategic operations involve the application of any or all of the four instruments of national power at the direction of the *national-level* decision makers in the NCA. They occur throughout a strategic campaign. The nature of strategic operations at any particular time corresponds to the conditions perceived by the NCA. These operations differ from the other operations of a strategic campaign in that they are not limited to wartime and can transcend the region.

1-28. Strategic operations typically target elements that constitute the enemy's strategic centers of gravity—such as soldiers' and leaders' confidence, political and diplomatic decisions, public opinion, the interests of private institutions, national will, and the collective will and commitment of alliances and coalitions. National will is not just the will to fight, but also the will to intervene by other than military means.

1-29. The State will employ all means available against the enemy's centers of gravity: diplomatic initiatives, information warfare (IW), economic pressure, terrorist attacks, State-sponsored insurgency, direct action by special-purpose forces (SPF), long-range precision fires, and even weapons of mass destruction (WMD) against selected targets. These efforts often place non-combatants at risk and aim to apply diplomatic-political, economic, and psychological pressure by allowing the enemy no sanctuary.

1-30. Strategic operations occur continuously, from prior to the outbreak of war to the post-war period. They can precede war, with the aim of deterring other regional actors from actions counter to the State's interests or compelling such actors to yield to the State's will. Before undertaking regional operations, the State lays plans to prevent outside intervention in the region. During the course of regional operations, the State uses strategic operations primarily in defensive ways, in order to prevent other parties from becoming involved in what it regards as purely regional affairs. At this point, the State relies primarily on diplomatic-political, informational, and economic means in a peacetime mode in relation to parties with whom it is not at war.

1-31. If preclusion of outside intervention is not possible, the State continues to employ strategic operations while conducting transition and adaptive operations. With the beginning of transition operations, the military aspects of strategic operations become more aggressive, while the State continues to apply other instruments of power to the full extent possible. The aim becomes getting the extraregional force to leave or stop deploying additional forces into the region. Successful strategic operations can bring the war to an end.

1-32. Once war begins, strategic operations become an important, powerful component of the State's strategy for total war using "all means necessary." What the various instruments of power do and which ones dominate in strategic operations at a given time depends on the same circumstances that dictate shifts from regional through transition to adaptive operations. In most cases, the diplomatic-political, informational, and economic means tend to dominate. During strategic operations, military means are most often used to complement those other instruments of national power. For example, the military means are likely to be used against key political or economic centers or tangible targets whose destruction affects intangible centers of gravity, rather than against military targets for purely military objectives.

1-33. Even within the military instrument of power, actions considered part of strategic operations require a conscious, calculated decision and direction or authorization by the NCA. It may not be readily apparent to outside parties whether specific military actions are part of strategic operations or another strategic course of action occurring simultaneously. In fact, one action could conceivably fulfill both purposes. For example, a demoralizing military defeat that could affect the enemy's strategic centers of gravity could also be a defeat from an operational or tactical viewpoint. In other cases, a particular action on the battlefield might not make sense from a tactical or operational viewpoint, but could achieve a strategic purpose. Its purpose may be to inflict mass casualties or destroy high-visibility enemy systems in order to weaken the enemy's national will to continue the intervention.

REGIONAL OPERATIONS

1-34. The State possesses an overmatch in most, and sometimes all, elements of power against regional opponents. It is able to employ that power in a conventional operational design focused on offensive action. A weaker regional neighbor may not actually represent a threat to the State, but rather an opportunity that the State can exploit.

1-35. To seize territory or otherwise expand its influence in the region, the State must destroy a regional enemy's will and capability to continue the fight. It will attempt to achieve strategic political or military decision or achieve specific regional goals as rapidly as possible, in order to preclude regional alliances or outside intervention.

1-36. During regional operations, the State relies on its continuing strategic operations to preclude or control outside intervention. It tries to keep foreign perceptions of its actions during a regional conflict below the threshold that will invite in extraregional forces. The State wants to win the regional conflict, but has to be careful how it does so. It works to prevent development of international consensus for intervention and to create doubt among possible participants. Still, at the very outset of regional operations, it lays plans and positions forces to conduct access-control operations in the event of outside intervention.

1-37. At the military level, regional operations are combined arms, joint, interagency, and/or multinational operations. They are conducted in the State's region and, at least at the outset, against a weaker regional opponent. The State's doctrine, organization, capabilities, and national security strategy allow the OPFOR to deal with regional threats and opportunities primarily through offensive action.

1-38. The State designs its military forces and employs an investment strategy that ensures superiority in conventional military power over any of its regional neighbors. Regionally-focused operations typically involve "conventional" patterns of operation. However, the term *conventional* does not mean that the OPFOR will use only conventional forces and conventional weapons in such a conflict, nor does it mean that the OPFOR will not use some adaptive approaches.

TRANSITION OPERATIONS

1-39. Transition operations serve as a pivotal point between regional and adaptive operations. The transition may go in either direction. The fact that the State begins transition operations does not necessarily mean that it must complete the transition from regional to adaptive operations (or vice versa). As conditions allow or dictate, the "transition" could end with the State conducting the same type of operations as before the shift to transition operations.

1-40. The State conducts transition operations when other regional and/or extraregional forces threaten the State's ability to continue regional operations in a conventional design against the original regional enemy. At the point of shifting to transition operations, the State still has the ability to exert all instruments of national power against an overmatched regional enemy. Indeed, it may have already defeated its original adversary. However, its successful actions in regional operations have prompted either other regional actors or an extraregional actor to contemplate intervention. The State will use all means necessary to preclude or defeat intervention.

1-41. Although the State would prefer to achieve its strategic goals through regional operations, an SCP has the flexibility to change and adapt if required. Since the State assumes the possibility of extraregional intervention,

any SCP will already contain thorough plans for transition operations, as well as adaptive operations, if necessary.

1-42. When an extraregional force starts to deploy into the region, the balance of power begins to shift away from the State. Although the State may not yet be overmatched, it faces a developing threat it will not be able to handle with normal, "conventional" patterns of operation designed for regional conflict. Therefore, the State must begin to adapt its operations to the changing threat.

1-43. While the State and the OPFOR as a whole are in the condition of transition operations, an operational- or tactical-level commander will still receive a mission statement in plans and orders from higher headquarters stating the purpose of his actions. To accomplish that purpose and mission, he will use as much as he can of the conventional patterns of operation that were available to him during regional operations and as much as he has to of the more adaptive-type approaches dictated by the presence of an extraregional force.

1-44. Even extraregional forces may be vulnerable to "conventional" operations during the time they require to build combat power and create support at home for their intervention. Against an extraregional force that either could not fully deploy or has been successfully separated into isolated elements, the OPFOR may still be able to use some of the more conventional patterns of operation. The State will not shy away from the use of military means against an advanced extraregional opponent so long as the risk is commensurate with potential gains.

1-45. Transition operations serve as a means for the State to retain the initiative and still pursue its overall strategic goal of regional expansion despite its diminishing advantage in the balance of power. From the outset, one part of the set of specific goals for any strategic campaign was the goal to defeat any outside intervention or prevent it from fully materializing. As the State begins transition operations, its immediate goal is preservation of its instruments of power while seeking to set conditions that will allow it to transition back to regional operations. Transition operations feature a mixture of offensive and defensive actions that help the OPFOR control the strategic tempo while changing the nature of conflict to something for which the intervening force is unprepared. Transition operations can also buy time for the State's strategic operations to succeed.

1-46. There are two possible outcomes to transition operations. If the extraregional force suffers sufficient losses or for other reasons must withdraw from the region, the OPFOR's operations may begin to transition back to regional operations, again becoming primarily offensive. If the extraregional force is not compelled to withdraw and continues to build up power in the region, the OPFOR's transition operations may begin to gravitate in the other direction, toward adaptive operations.

ADAPTIVE OPERATIONS

1-47. Generally, the State conducts adaptive operations as a consequence of intervention from outside the region. Once an extraregional force intervenes with sufficient power to overmatch the State, the full conventional design used in regionally-focused operations is no longer sufficient to deal with this threat. The State has developed its doctrine, organization, capabilities, and strategy with an eye toward dealing with both regional and extraregional opponents. It has already planned how it will adapt to this new and changing threat and has included this adaptability in its doctrine.

1-48. The State's immediate goal is survival—as a regime and as a nation. However, its long-term goal is still the expansion of influence within its region. In the State's view, this goal is only temporarily thwarted by the extraregional intervention. Accordingly, planning for adaptive operations focuses on effects over time. The State believes that patience is its ally and an enemy of the extraregional force and its intervention in regional affairs.

1-49. The State believes that adaptive operations can lead to several possible outcomes. If the results do not completely resolve the conflict in the State's favor, they may at least allow the State to return to regional operations. Even a stalemate may be a victory for the State, as long as it preserves enough of its instruments of power to preserve the regime and lives to fight another day.

1-50. When an extraregional power intervenes with sufficient force to overmatch the State's, the OPFOR has to adapt its patterns of operation. It still has the same forces and technology that were available to it for regional operations, but must use them in creative and adaptive ways. It has already thought through how it will adapt to this new or changing threat in general terms. (See Principles of Operation Versus an Extraregional Power below.) It has already developed appropriate branches and sequels to its basic SCP and does not have to rely on improvisation. During the course of combat, it will make further adaptations, based on experience and opportunity.

1-51. Even with the intervention of an advanced extraregional power, the State will not cede the initiative. It will employ military means so long as this does not either place the regime at risk or risk depriving it of sufficient force to remain a regional power after the extraregional intervention is over. The primary objectives are to preserve combat power, to degrade the enemy's will and capability to fight, and to gain time for aggressive strategic operations to succeed.

1-52. The OPFOR will seek to conduct adaptive operations in circumstances, opportunities, and terrain that optimize its own capabilities and degrade those of the enemy. It will employ a force that is optimized for the terrain or for a specific mission. For example, it will use its antitank capability, tied to obstacles and complex terrain, inside a defensive structure designed to absorb the enemy's momentum and fracture his organizational framework.

1-53. The types of adaptive actions that characterize "adaptive operations" at the strategic level can also serve the OPFOR well in regional or transition operations—at least at the tactical and operational levels. However, once an extraregional force becomes fully involved in the conflict, the OPFOR will conduct adaptive actions more frequently and on a larger scale.

PRINCIPLES OF OPERATION VERSUS AN EXTRAREGIONAL POWER

1-54. The State assumes the distinct possibility of intervention by a major extraregional power in any regional conflict. Consequently, it has devised the following principles for applying its various instruments of diplomatic-political, informational, economic, and military power against this type of threat.

CONTROL ACCESS INTO REGION

1-55. Extraregional enemies capable of achieving overmatch against the State must first enter the region using power-projection capabilities. Therefore, the State's force design and investment strategy is focused on access control—to selectively deny, delay, and disrupt entry of extraregional forces into the region and to force them to keep their operating bases beyond continuous operational reach. This is the easiest manner of preventing the accumulation of enemy combat power in the region and thus defeating a technologically superior enemy.

1-56. Access-control operations are continuous throughout a strategic campaign and can reach beyond the theater as defined by the State's NCA. They begin even before the extraregional power declares its intent to come into the region, and continue regardless of whether the State is conducting regional, transition, or adaptive operations. Access-control operations come in three basic forms: strategic preclusion, operational exclusion, and access limitation.

Strategic Preclusion

1-57. *Strategic preclusion* seeks to completely deter extraregional involvement or severely limit its scope and intensity. The State would attempt to achieve strategic preclusion in order to reduce the influence of the extraregional power or to improve its own regional or international standing. It would employ all its instruments of power to preclude direct involvement by the extraregional power. Actions can take many forms and often contain several lines of operation working simultaneously.

1-58. The primary target of strategic preclusion is the extraregional power's national will. First, the State would conduct diplomatic and perception management activities aimed at influencing regional, transnational, and world opinion. This could either break apart ad hoc coalitions or allow the State to establish a coalition of its own or at least gain sympathy. For example, the State might use a disinformation campaign to discredit the legitimacy of diplomatic and economic sanctions imposed upon it. The extraregional power's economy and military would be secondary targets, with both practical and symbolic goals. This might include using global markets and international financial systems to disrupt the economy of the extraregional power, or conducting physical and information attacks against critical economic centers. Similarly, the military could be attacked indirectly by disrupting its power projection, mobilization, and training capacity. Preclusive actions are likely to increase in intensity and scope as the extraregional power moves closer to military action. If strategic preclusion fails, the State will turn to operational methods that attempt to limit the scope of extraregional involvement or cause it to terminate quickly.

Operational Exclusion

1-59. *Operational exclusion* seeks to selectively deny an extraregional force the use of or access to forward bases of operation within the region or even outside the theater defined by the NCA. For example, through diplomacy, economic or political connections, information campaigns, and/or hostile actions, the State might seek to deny the enemy the use of bases in other foreign nations. It might also attack population and economic centers for the intimidation effect, using long-range surface-to-surface missiles (SSMs), WMD, or SPF.

1-60. Forces originating in the enemy's homeland must negotiate long and difficult air and surface lines of communication (LOCs) merely to reach the region. Therefore, the State will use any means at its disposal to also attack the enemy forces along routes to the region, at transfer points en route, at aerial and sea ports of embarkation (APOEs and SPOEs), and even at their home stations. These are fragile and convenient targets in support of transition and adaptive operations.

Access Limitation

1-61. *Access limitation* seeks to affect an extraregional enemy's ability to introduce forces into the theater. Access-control operations do not necessarily have to deny the enemy access entirely. A more realistic goal is to limit or interrupt access into the theater in such a way that the State's forces are capable of dealing with them. By controlling the amount of force or limiting the options for force introduction, the State can create conditions that place its conventional capabilities on a par with those of an extraregional force. Capability is measured in terms of what the enemy can bring to bear in the theater, rather than what the enemy possesses.

1-62. The State's goal is to limit the enemy' accumulation of applicable combat power to a level and to locations that do not threaten the accomplishment of a strategic campaign. This may occur through many methods. For example, the State may be able to limit or interrupt the enemy's deployment through actions against his aerial and sea ports of debarkation (APODs and SPODs) in the region. Hitting such targets also has political and psychological value. The State will try to disrupt and isolate enemy forces that are in the region or coming into it, so that it can destroy them piecemeal. It might exploit and manipulate international media to paint foreign intervention in a poor light, decrease international resolve, and affect the force mix and rules of engagement (ROE) of the deploying extraregional forces.

EMPLOY OPERATIONAL SHIELDING

1-63. The State will use any means necessary to protect key elements of its combat power from destruction by an extraregional force—particularly by air and missile forces. This protection may come from use of any or all of the following:
- Complex terrain.
- Noncombatants.
- Risk of unacceptable collateral damage.

- Countermeasure systems.
- Dispersion.
- Fortifications.
- IW.

1-64. Operational shielding generally cannot protect the entire force for an extended time period. Rather, the State will seek to protect selected elements of its forces for enough time to gain the freedom of action necessary to prosecute important elements of a strategic campaign.

CONTROL TEMPO

1-65. The OPFOR initially employs rapid tempo to conclude regional operations before an extraregional force can be introduced. It will also use rapid tempo to set conditions for access-control operations before the extraregional force can establish a foothold in the region. Once it has done that, it needs to be able to control the tempo—to ratchet it up or down, as is advantageous to its own operational or tactical plans.

1-66. During the initial phases of an extraregional enemy's entry into the region, the OPFOR may employ a high operational tempo. Taking advantage of the weaknesses inherent in enemy power projection, it seeks to terminate the conflict quickly before main enemy forces can be brought to bear. If the OPFOR cannot end the conflict quickly, it may take steps to slow the tempo and prolong the conflict, taking advantage of enemy lack of commitment over time.

CAUSE POLITICALLY UNACCEPTABLE CASUALTIES

1-67. The OPFOR will try to inflict highly visible and embarrassing losses on enemy forces to weaken the enemy's domestic resolve and national will to sustain the deployment or conflict. Modern wealthy nations have shown an apparent lack of commitment over time, and sensitivity to domestic and world opinion in relation to conflict and seemingly needless casualties.

1-68. The OPFOR has the advantage of disproportionate interests: the extraregional power may have limited objectives and only casual interest in the conflict, while the State approaches it from the perspective of total war and a threat to its aspirations or even to its national survival. The State is willing to commit all means necessary, for as long as necessary, to achieve its strategic goals. Compared to the extraregional enemy, the State stands more willing to absorb higher military and civilian casualties in order to achieve victory. It will try to influence public opinion in the enemy's homeland to the effect that the goal of intervention is not worth the cost.

NEUTRALIZE TECHNOLOGICAL OVERMATCH

1-69. Against an extraregional force, the OPFOR will forego massed formations, patterned echelonment, and linear operations that would present easy targets for such an enemy. It will hide and disperse its forces in areas where complex terrain limits the enemy's ability to apply his full range of technological capabilities. However, the OPFOR can rapidly mass forces and fires from these dispersed locations for decisive combat at the time and place of its own choosing.

1-70. Another way to operate on the margins of enemy technology is to maneuver during periods of reduced exposure. The OPFOR trains its forces to operate in adverse weather, limited visibility, rugged terrain, and urban environments that shield them from the effects of the enemy's high-technology weapons and deny the enemy the full benefits of his advanced reconnaissance, intelligence, surveillance, and target acquisition (RISTA) systems.

1-71. Modern militaries rely upon information and information systems to plan and conduct operations. For this reason, the OPFOR will conduct extensive information attacks and other offensive IW actions. It can also use the enemy's robust array of RISTA systems against him. A sophisticated enemy's large numbers of sensors can overwhelm subordinate units' ability to receive, process, and analyze raw intelligence data and to provide timely and accurate intelligence analysis. The OPFOR can add to this saturation problem by using deception to flood enemy sensors with masses of conflicting information. Conflicting data from different sensors at different levels (such as satellite imagery conflicting with data from unmanned aerial vehicles) can confuse the enemy and degrade his situational awareness.

1-72. The OPFOR will concentrate its own RISTA, maneuver, and fire support means on the destruction of high-visibility (flagship) enemy systems. This offers exponential value in terms of increasing the relative combat power of the OPFOR and also maximizes effects in the information and psychological arenas. Losses among these premier systems may not only degrade operational capability, but also undermine enemy morale. Thus, attacks against such targets are not always linked to military objectives.

CHANGE THE NATURE OF CONFLICT

1-73. The OPFOR will try to change the nature of conflict to exploit the differences between friendly and enemy capabilities. Following an initial period of regionally-focused conventional operations and utilizing the opportunity afforded by phased enemy deployment, the OPFOR will change its operations to focus on preserving combat power and exploiting enemy ROE. This shift in the focus of operations will present the fewest targets possible to the rapidly growing combat power of the enemy. Also, the OPFOR or affiliated forces can use terror tactics against enemy civilians or soldiers not directly connected to the intervention as a device to change the fundamental nature of the conflict.

1-74. Against early-entry forces, the OPFOR may still be able to use the design it employed in previous operations against regional opponents, particularly if access-control operations have been successful. However, as the extraregional force builds up to the point where it threatens to overmatch the OPFOR, the OPFOR is prepared to disperse its forces and employ them in patternless operations that present a battlefield that is difficult for the enemy to analyze and predict.

1-75. The OPFOR may hide and disperse its forces in areas of sanctuary. The sanctuary may be physical, often located in urban areas or other complex terrain that limits or degrades the capabilities of enemy systems. However, the OPFOR may also use moral sanctuary by placing its forces in areas shielded by civilians or close to sites that are culturally, politically, economically, or ecologically sensitive. It will defend in sanctuaries when necessary. However,

units of the OPFOR will move out of sanctuaries and attack when they can create a window of opportunity or when opportunity is presented by physical or natural conditions that limit or degrade the enemy's systems.

1-76. OPFOR units do not avoid contact; rather, they often seek contact, but on their own terms. Their preferred tactics under these conditions would be the ambush and raid as a means of avoiding decisive combat with superior forces. They will also try to mass fires from dispersed locations to destroy key enemy systems or formations. However, when an opportunity presents itself, the OPFOR can rapidly mass forces and execute decisive combat.

ALLOW NO SANCTUARY

1-77. Along with dispersion, decoys, and deception, the OPFOR uses urban areas and other complex terrain as sanctuary from the effects of enemy forces. Meanwhile, its intent is to deny enemy forces the use of such terrain. This forces the enemy to operate in areas where the OPFOR's long-range fires and strikes can be more effective.

1-78. The OPFOR seeks to deny enemy forces safe haven during every phase of a deployment and as long as they are in the region. It is prepared to attack enemy forces anywhere on the battlefield, as well as to his strategic depth. The resultant drain on manpower and resources to provide adequate force-protection measures can reduce the enemy's strategic, operational, and tactical means to conduct war and erode his national will to sustain conflict. The goal is to present the enemy with a nonlinear, simultaneous battlefield. Such actions will not only deny the enemy sanctuary, but also weaken his national will, particularly if the OPFOR or affiliated forces can strike targets in the enemy's homeland.

OPFOR MILITARY AND OPERATIONAL ART

1-79. The OPFOR embraces the concept that military strategy and operations are an important part, but not the whole, of the conduct of war. Military strategy is not separate from politics and political leadership but a means to support the State in achieving its political objectives. The national security strategy is essentially a political document that sets forth the goals of the State and informs military strategists. It is their responsibility to build, train, and employ forces for the purpose of achieving those political goals.

1-80. When the political leadership makes the decision to employ military forces to achieve a goal, the military strategy for that employment is closely associated with diplomatic-political, informational, and economic strategies to bring about a favorable political result. Thus, the military leadership requires a broad understanding of the overall national strategy, and the political leadership needs an understanding of the capabilities and limitations of the military.

MILITARY STRATEGY

1-81. The OPFOR views military strategy as the art of developing the ways and means for the application of military power to achieve State objectives. Ways and means encompass the threatened or actual use of force. Military

doctrine describes fundamental principles and provides guidelines for the use of military forces in pursuit of national objectives.

1-82. Military and operational art is the theory and practice of conducting armed conflict. It recognizes that war is a human endeavor and therefore not amenable to quantifiable formulas that limit thinking and lead to unimaginative and predictable solutions. It is the intellectual and intuitive synthesis of military doctrine, military science, and intangibles to address the problem at hand. Military science is not discarded but, like military doctrine, is seen as providing tools that support the practice of military art. The single, most important ingredient in the practice of military strategy, and of military and operational art, is the commander. The commander who develops creative solutions to military problems is highly valued.

1-83. The study and analysis of political and military history has an important place in the development of OPFOR military thought and doctrine. The OPFOR views the role of history and past experience as one that provides insights and observations into the present and future conduct of war. It is a significant source for the development of new and adaptive ways of conducting military operations. The OPFOR has developed an effective method for identifying, analyzing, validating, and applying new concepts. It is an interactive process that establishes a partnership between military colleges and civilian institutions on one side and the active force on the other.

OPERATIONAL ART

1-84. Operational art links tactics and strategy to form a coherent structure for the conduct of war. Some strategists have traditionally expressed operational art as the sequencing of battles and engagements so that the collective outcomes will produce a specified military condition in a theater. Others describe operational art as the blending of direct and indirect approaches to achieve necessary conditions in a theater. The OPFOR has developed a style of operational art that is an amalgam of both theories, capturing the best from each.

1-85. No particular level of command is uniquely concerned with operational art. The Chief of the General Staff and the theater commander(s) normally plan and direct strategic and theater campaigns, respectively, while field group and operational-strategic command (OSC) commanders normally design the major operations of a campaign. The OPFOR recognizes the classic division of warfare between the strategic, operational, and tactical levels. However, the boundaries between these levels are not associated so much with particular levels of command as with the effect or contribution to achieving strategic, operational, or tactical objectives.

OPERATIONAL ART AND THE NATIONAL SECURITY STRATEGY

1-86. As discussed earlier in this chapter, the national security strategy can involve four types of strategic-level actions: strategic, regional, transition, and adaptive operations. In specific terms, OPFOR operational art consists of the sequencing of the actions of military forces to attain strategic goals set forth within and across this spectrum of strategic-level actions. In practical terms, this is expressed in the strategic campaign plan.

1-87. Regional operations are largely conventional actions against a less capable force. While dealing with such a regional opponent primarily through offensive means, the State employs its economic, informational, and diplomatic-political instruments of power in a peacetime, "defensive" mode against other regional and extraregional parties with whom it is not at war. This overall strategy constitutes a "strategic defense" that supports the offensive military operations being conducted in the region while seeking to preclude outside involvement. The practitioner of operational art must insure that his plan for use of forces is congruent with the aims of the SCP and vice versa. The soldier does not view the proper, coordinated use of these other instruments of power as a hindrance. From his perspective, their use to influence an extraregional power not to commit forces or to delay their commitment is the equivalent of having extra divisions.

1-88. Transition and particularly adaptive operations are at the core of what makes OPFOR military and operational art distinctive, if not unique. The political and military leadership recognizes that attempts to achieve national strategic goals through the use of force can result in a military response from within and outside the region. Strategic plans take this possibility into account and, depending on the degree of risk, contingencies are planned to account for such an eventuality.

1-89. Applying the principles of operation versus an extraregional power, (discussed earlier in this chapter) and taking a "systems warfare" approach, the State and the OPFOR seek to develop contingency plans that transition to a "strategic offense" while conducting military operations that are, at least initially, defensive in nature. The purpose of the strategy is to disaggregate the enemy's elements of power through the conduct of strategic operations, while seeking to disaggregate his combat systems at the operational level. The ultimate goal is to exhaust the enemy and destroy his will to continue the fight.

1-90. In preparing contingency plans, the political and military leadership conducts a detailed analysis to determine major actions that might be taken by an intervening force to mobilize, deploy, and operate within the region. Using this analysis (which is continually updated) and the assessed risk, they further refine the plan. Actions to support the plan, prior to its execution, could include increasing the readiness of units, organizations, and industry required to support an intervention scenario. Other actions could include pre-positioning forces, weapons, and logistics to those areas that support the contingency plan. Plans for strategic operations in support of transition and adaptive operations are developed while the military operational planners continue to plan for the employment of tactical forces to achieve the aims set forth in the strategy. All of this is set against a matrix that identifies key events that would trigger execution of the contingency.

1-91. Inherent in the concept of adaptive operations is the idea that the operational planner assigns missions and arrays tactical forces in such a way to support the operation. Although the tactical commander will understand, from a conceptual context, that he is involved in adaptive operations, from a tactical perspective that will be transparent. It is through the manner in which the operational commander arrays and employs his forces that adaptive operations are achieved. Tactical commanders are adaptive in the sense

that they have the flexibility within the missions assigned by the operational commander and within the techniques and procedures they develop to more effectively accomplish those missions.

1-92. The OPFOR includes in its planning and execution the use of paramilitary forces. It is important to stress that, with the exception of internal security forces, those paramilitary organizations that are not part of the State structure and do not necessarily share the State's views on national security strategy.

THE ROLE OF PARAMILITARY AND IRREGULAR FORCES IN OPERATIONS

1-93. Paramilitary forces are those organizations that are distinct from the regular armed forces but resemble them in organization, equipment, training, or purpose. Basically, any organization that accomplishes its purpose, even partially, through the force of arms is considered a paramilitary organization. These organizations can be part of the government infrastructure or operate outside of the government or any institutionalized controlling authority.

1-94. In consonance with the concept of "all means necessary," the OPFOR views these organizations as assets that can be used to its advantage in time of war. Within its own structure, the OPFOR has formally established this concept by assigning the Internal Security Forces, part of the Ministry of the Interior in peacetime, to the SHC during wartime. Additionally, the OPFOR cultivates relationships with and covertly supports nongovernment paramilitary organizations to achieve common goals while at peace and to have a high degree of influence on them when at war.

1-95. The primary paramilitary organizations are the Internal Security Forces, insurgents, terrorists, and drug and criminal organizations. The degree of control the OPFOR has over these organizations varies from absolute, in the case of the Internal Security Forces, to tenuous when dealing with terrorist and drug and criminal organizations. In the case of those organizations not formally tied to the OPFOR structure, control can be enhanced through the exploitation of common interests and ensuring that these organizations see personal gain in supporting OPFOR goals.

1-96. The OPFOR views the creative use of these organizations as a means of providing depth and continuity to its operations. A single attack by a terrorist group will not in itself win the war. However, the use of paramilitary organizations to carry out a large number of planned actions, in support of strategy and operations, can play an important part in assisting the OPFOR in achieving its goals. These actions, taken in conjunction with other adaptive actions, can also supplement a capability degraded due to enemy superiority.

INTERNAL SECURITY FORCES

1-97. The Internal Security Forces subordinated to the SHC provide support zone security and collect information on foreign organizations and spies. They perform civil population control functions and ensure the loyalty of mobilized militia forces. Some units are capable of tactical-level defensive actions if required. These basic tasks are not all-inclusive, and within their capability these forces can perform a multitude of tasks limited only by

the commander's imagination. While performing these functions, the Internal Security Forces may be operating within their own hierarchy of command, or they may be assigned a dedicated command relationship within an OSC or one of its tactical subordinates.

1-98. During *regional operations*, the Internal Security Forces may serve to control the population situated in newly seized territory. They are an excellent source of human intelligence and can provide security for key sites located in the support zones. The Internal Security Forces can either augment or replace regular military organizations in all aspects of prisoner-of-war processing and control. While continuing their normal tasks in the homeland, they can assist regular military organizations in the areas of traffic control and regulation.

1-99. During *transition operations*, the Internal Security Forces evacuate important political and military prisoners to safe areas where they can continue to serve as important sources of information or means of negotiation. Traffic control and the security of key bridges and infrastructure take on a higher level of importance as the OPFOR repositions and moves forces transitioning to adaptive operations. The Internal Security Forces can continue to gather intelligence from the local population and assist in mobilizing civilians in occupied territory for the purpose of augmenting OPFOR engineer labor requirements. Finally, the use of qualified personnel to stay behind as intelligence gatherers and liaison with insurgent, terrorist, and criminal organizations can provide the OPFOR an increased capability during the adaptive operations that follow.

1-100. Especially important in the conduct of *adaptive operations* is the ability of the Internal Security Forces to free up regular military organizations that can contribute directly to the fight. The security of support zones within an OSC area of responsibility is just one example of this concept. Where necessary, some units can augment the defense or defend less critical areas, thus freeing up regular military forces for higher-priority tasks. Stay-behind agents working with insurgent, terrorist, and criminal organizations can contribute by directing preplanned actions that effectively add depth to the battlefield. Their actions can cause material damage to key logistics and command and control (C^2) assets, inflict random but demoralizing casualties, and effectively draw enemy forces away from the main fight in response to increased force-protection requirements.

INSURGENT FORCES

1-101. The OPFOR ensures that the exploitation and use of insurgent forces operating against and within neighboring countries is an integral part of its strategic and operational planning. Insurgent forces, properly leveraged, can provide an added dimension to the OPFOR's capabilities and provide options not otherwise available. During peacetime, a careful balance is kept between covert support for insurgent groups that may prove useful later and overt relations with the government against which the insurgents are operating.

1-102. During peacetime, support to insurgents can consist of weapons, staging and sanctuary areas within the State, and training by OPFOR SPF. It is during this time that the OPFOR attempts to cultivate the loyalty and trust

of insurgent groups they have identified as having potential usefulness in their strategic and operational planning. In all operations of the strategic campaign, insurgent forces serve as an excellent source of intelligence.

1-103. During the conduct of *regional operations*, the decision to influence insurgents to execute actions that support operations will depend on a number of factors. If the OPFOR views extraregional intervention as unlikely, it may choose to keep insurgent participation low. A key reason for making this decision is the potential for those forces to become an opponent once the OPFOR has accomplished its goals. On the other hand, the OPFOR may plan to have these groups take part in directly supporting its operations in anticipation of further support in the case of an extraregional intervention. Insurgent involvement during regional operations may be held to furthering OPFOR IW objectives by creating support for the State's actions among the population, harassing and sniping enemy forces, conducting raids, and assassinating politicians who are influential opponents of the State. Insurgents can also serve as scouts or guides for OPFOR regular forces moving through unfamiliar terrain and serve as an excellent source of political and military intelligence.

1-104. The usefulness of insurgent forces can be considerable in the event of extraregional intervention and the decision to transition to adaptive operations. During *transition operations*, insurgent forces can support access-control operations to deny enemy forces access to the region or at least delay their entry. Delay provides the OPFOR more time to conduct an orderly transition and to reposition its forces for the conduct of *adaptive operations*. The principal means of support include direct action in the vicinity of APODs and SPODs and along LOCs in the enemy's rear area. Dispersed armed action for the sole purpose of creating casualties can have a demoralizing effect and cause the enemy to respond, thus drawing forces from his main effort. OPFOR regular forces can coordinate with insurgents, supported by SPF advisors, to execute a variety of actions that support the strategic campaign or a particular operation plan. Insurgents can support deception by drawing attention from an action the OPFOR is trying to cover or conceal. They can delay the introduction of enemy reserves through ambush and indirect fire, cause the commitment of valuable force-protection assets, or deny or degrade the enemy's use of rotary-wing assets through raids on forward arming and refueling points and maintenance facilities.

TERRORIST AND CRIMINAL ORGANIZATIONS

1-105. Through the use of intelligence professionals and covert means, the OPFOR maintains contact with and to varying degrees supports terrorist and criminal organizations. During peacetime, these organizations can be useful, and in time of war they can provide an added dimension to OPFOR strategy and operations.

1-106. Although the OPFOR recognizes that these groups vary in reliability, it constantly assesses both their effectiveness and usefulness. It develops relationships with those organizations that have goals, sympathies, and interests congruent with those of the State. In time of war, it can encourage and materially support criminal organizations to commit actions that contribute to the breakdown of civil control within a neighboring country. It can provide support for the distribution and sale of drugs to enemy military forces, which

creates both morale and discipline problems within those organizations. The production of counterfeit currency and attacks on financial institutions help to weaken the enemy's economic stability. Coordination with and support of terrorists to attack political and military leaders and commit acts of sabotage against key infrastructure (such as ports, airfields, and fuel supplies) add to the variety and number of threats that the enemy must address. The State and OPFOR leadership also have the ability to promote and support the spread of these same kinds of terrorist acts outside the region. However, they must carefully consider the political and domestic impact of these actions before making the decision to execute them.

SYSTEMS WARFARE

1-107. The OPFOR defines a *system* as a set of different elements so connected or related as to perform a unique function not performable by the elements or components alone. The essential ingredients of a system include the components, the synergy among components and other systems, and some type of functional boundary separating it from other systems. Therefore, a "system of systems" is a set of different systems so connected or related as to produce results unachievable by the individual systems alone. The OPFOR views the operational environment, the battlefield, the State's own instruments of power, and an opponent's instruments of power as a collection of complex, dynamic, and integrated systems composed of subsystems and components.

1-108. Systems warfare serves as a conceptual and analytical tool to assist in the planning, preparation, and execution of warfare. With the systems approach, the intent is to identify critical system components and attack them in a way that will degrade or destroy the use or importance of the overall system.

PRINCIPLE

1-109. The primary principle of systems warfare is the identification and isolation of the critical subsystems or components that give the opponent the capability and cohesion to achieve his aims. The focus is on the disaggregation of the system by rendering its subsystems and components ineffective. While the aggregation of these subsystems or components is what makes the overall system work, the interdependence of these subsystems is also a potential vulnerability. Systems warfare has applicability or impact at all three levels of warfare.

APPLICATION AT THE STRATEGIC LEVEL

1-110. At the strategic level, the instruments of power and their application are the focus of analysis. National power is a system of systems in which the instruments of national power work together to create a synergistic effect. Each instrument of power (diplomatic-political, informational, economic, and military) is also a collection of complex and interrelated systems.

1-111. The State clearly understands how to analyze and locate the critical components of its own instruments of power and will aggressively aim to protect its own systems from attack or vulnerabilities. It also understands that an adversary's instruments of power are similar to the State's. Thus, at the

strategic level, the State can use the OPFOR and its other instruments of power to counter or target the systems and subsystems that make up an opponent's instruments of power. The primary purpose is to subdue, control, or change the opponent's behavior.

1-112. If an opponent's strength lies in his military power, the State and the OPFOR can attack the other instruments of power as a means of disaggregating or disrupting the enemy's system of national power. Thus, it is possible to render the overall system ineffective without necessarily having to defeat the opponent militarily.

APPLICATION AT THE OPERATIONAL LEVEL

1-113. At the operational level, the application of systems warfare pertains only to the use of armed forces to achieve a result. Therefore, the "system of systems" in question at this level is the combat system of the OPFOR and/or the enemy.

Combat System

1-114. A *combat system* (see Figure 1-5) is the "system of systems" that results from the synergistic combination of four basic subsystems that are integrated to achieve a military function. The subsystems are as follows:

- Combat forces (such as main battle tanks, IFVs and/or APCs, or infantry).
- Combat support forces (such as artillery, SSMs, air defense, engineers, and direct air support).
- Logistics forces (such as transportation, ammunition, fuel, rations, maintenance, and medical).
- C^2 and RISTA (such as headquarters, signal nodes, satellite downlink sites, and reconnaissance sensors).

1-115. The combat system is characterized by interaction and interdependence among its subsystems. Therefore, the OPFOR will seek to identify key subsystems of an enemy combat system and target them and destroy them individually. Against a technologically superior extraregional force, the OPFOR will often use any or all subcomponents of its own combat system to attack the most vulnerable parts of the enemy's combat system rather than the enemy's strengths. For example, attacking the enemy's logistics, C^2, and RISTA can undermine the overall effectiveness of the enemy's combat system without having to directly engage his superior combat and combat support forces. Aside from the physical effect, the removal of one or more key subsystems can have a devastating psychological effect, particularly if it occurs in a short span of time.
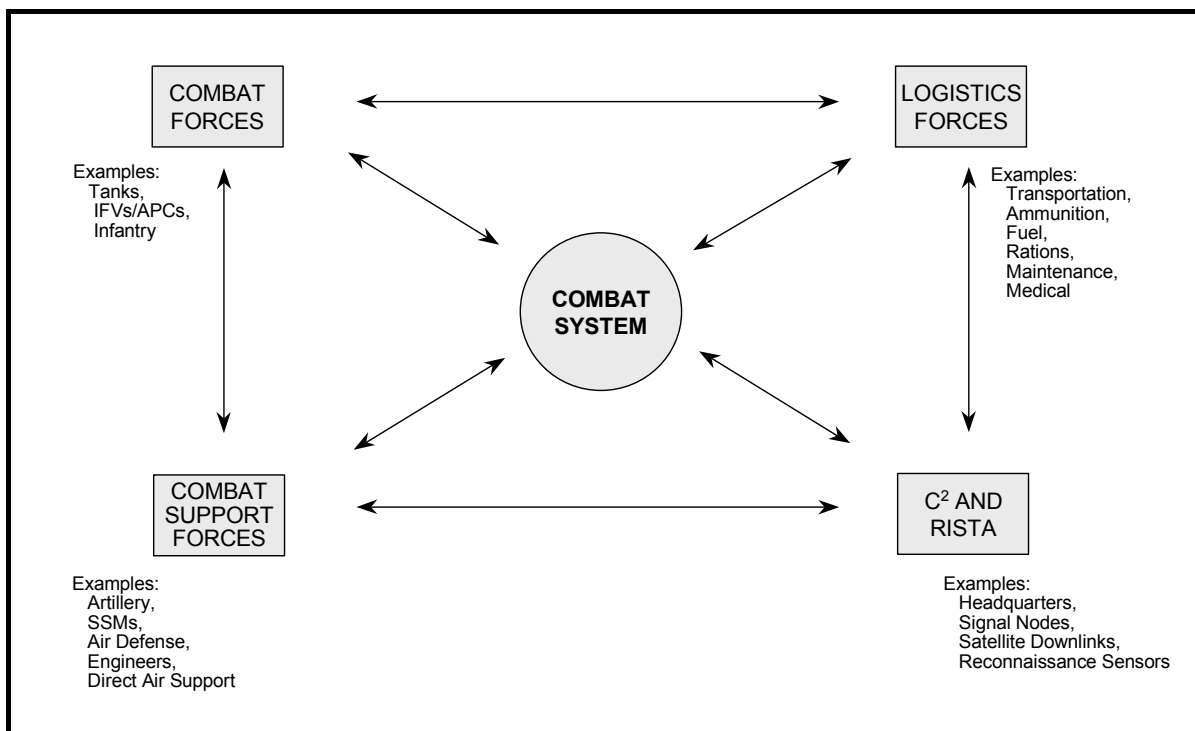
Figure 1-5. Combat System

Planning and Execution

1-116. The systems warfare approach to combat is a means to assist the commander in the decision-making process and the planning and execution of his mission. The OPFOR believes that a qualitatively and/or quantitatively weaker force can defeat a superior foe, if the lesser force can dictate the terms of combat. It believes that the systems warfare approach allows it to move away from the traditional attrition-based approach to combat. It is no longer necessary to match an opponent system-for-system or capability-for-capability. Commanders and staffs will locate the critical component(s) of the enemy combat system, patterns of interaction, and opportunities to exploit this connectivity. Systems warfare has applications in both offensive and defensive contexts.

1-117. The essential step after the identification of the critical subsystems and components of a combat system is the destruction or degradation of the synergy of the system. This may take the form of total destruction of a subsystem or component, degradation of the synergy of components, or the simple denial of access to critical links between systems or components. The destruction of a critical component or link can create windows of opportunity that can be exploited, set the conditions for offensive action, or support a concept of operation that calls for exhausting the enemy on the battlefield. Once the OPFOR has identified and isolated a critical element of the enemy combat system that is vulnerable to attack, it will select the appropriate method of attack.

1-118. Today's state-of-the-art combat and combat support systems are impressive in their ability to deliver precise attacks at long standoff distances. However, the growing reliance of some extraregional forces on these systems offers opportunity. Attacking critical ground-based C^2 and RISTA nodes or logistics systems and LOCs can have a very large payoff for relatively low investment and low risk to the OPFOR. Modern logistics systems assume secure LOCs and voice or digital communications. These characteristics make such systems vulnerable. Therefore, the OPFOR can greatly reduce a military force's combat power by attacking a logistics system that depends on "just-in-time delivery."

1-119. For the operational commander, the systems warfare approach to combat is not an end in itself. It is a key component in his planning and sequencing of tactical battles and engagements aimed toward achieving assigned strategic goals. Systems warfare supports his concept; it is not the concept. The ultimate aim is to destroy the enemy's will and ability to fight.

APPLICATION AT THE TACTICAL LEVEL

1-120. It is at the tactical level that systems warfare is executed in attacking the enemy's combat system. While the tactical commander may use systems warfare in the smaller sense to accomplish assigned missions, his attack on systems will be in response to missions assigned him by the operational commander.

APPLICATION ACROSS ALL TYPES OF STRATEGIC-LEVEL ACTIONS

1-121. Systems warfare is applicable against all types of opponents in all strategic-level courses of action. In regional operations, the OPFOR will seek to render a regional opponent's systems ineffective to support his overall concept of operation. However, this approach is especially conducive to the conduct of transition and adaptive operations. The very nature of this approach lends itself to adaptive and creative options against an adversary's technological overmatch.

RELATIONSHIP TO THE C^2 PROCESS

1-122. The systems warfare approach to combat is an important part of OPFOR planning. It serves as a means to analyze the OPFOR's own combat system and how it can use the combined effects of this system to degrade the enemy's combat system. The OPFOR believes that the approach allows its decision makers to be anticipatory rather than reactive.

Chapter 2

Command and Control

This chapter examines the OPFOR system and process of command and control (C^2). It explains how the OPFOR expects to direct the forces and actions described in other chapters of this manual. It provides insights into the OPFOR theory and practice of controlling combined arms, joint, interagency, and multinational forces in war. Most important, it shows how OPFOR commanders and staffs think and work.

In modern war, victory is likely to go to the side that acts most quickly. The overriding need for speedy decisions to seize fleeting opportunities drastically reduces the time available for decision making and for issuing and implementing orders. The need to seize opportunities on the battlefield, coupled with dispersion to avoid the threat of precision weapons, dictates the replacement of concentration in terms of space by concentration in terms of time and effects. Moreover, the operational and tactical situation is subject to sudden and radical changes, and the results of combat are more likely to be decisive than in the past. OPFOR C^2 participants, processes, and systems are designed to operate effectively and efficiently in this new environment. The successful execution of an information warfare (IW) plan is critical to victory.

Although dealing briefly with strategic control of forces, this chapter focuses on operational command and control. All OPFOR levels of command share a common decision-making and planning process. They also share a parallel staff organization and command post (CP) structure, tailored to match the differences in scope and span of control.

CONCEPT

2-1. The OPFOR's C^2 concept is grounded in the essential principles of the States' process for exercising command and control. At the core of the State's C^2 concept is the assumption that modern communications are susceptible to attack and/or monitoring. Accordingly, the State operates from the view that centralized planning defines the means for assuring both *command* (establishing the aim) and *control* (sustaining the aim). It leads to strategic and operational directions. Necessarily, then, the State relies on the loyalty of its forces and accords far-ranging authority to act within the aim while foregoing rigorous control as both unproductive and unlikely in the modern environment.

2-2. For the OPFOR, this concept translates into centralized planning and decentralized execution, requiring a high degree of initiative at low operational and tactical levels. The OPFOR not only accepts this condition as necessary, but also considers decentralized execution the essence of its operational

doctrine. It requires the commander at each level of command to act flexibly, exercising his judgment as to what best meets and sustains the aim of his superior. The OPFOR believes that this approach provides an absolute advantage particularly when operating against a sophisticated enemy equipped with advanced information technology. This view stems from the conviction that, if the means to exercise control from the top exists, then there is a danger that it will be used to the extent that it stifles creativity and initiative. The OPFOR seeks to avoid this pitfall in its own C^2 process, while recognizing that even sophisticated opponents may fall prey to it. It realizes that stifled initiative and creativity can ultimately preclude such an opponent from acting decisively or quickly.

PRINCIPLES OF COMMAND AND CONTROL

2-3. The OPFOR specifically defines *command and control* at tactical and operational levels as the actions of commanders, command groups, and staffs of military headquarters to maintain continual combat readiness and combat efficiency of forces, to plan and prepare for combat operations, and to provide leadership and direction during the execution of assigned missions. The objective of *command* is to accomplish the mission. The objective of *control* is to attain maximum combat effectiveness from all available resources. To obtain this objective, the OPFOR identifies several principles of command and control.

CENTRALIZED PLANNING

2-4. OPFOR military art is fundamentally based on a system of political control and the presumption of loyalty among subordinates who have been prepared for high position in either the civil or military structure. Thus, military art and the principles of command within the military are closely related to those found in the political system. Indeed, the State views military capability as one of its four instruments of national power. Centralized planning characterizes the State and its various components, including the military.

DECENTRALIZED EXECUTION

2-5. The State accepts that decentralized execution is essential to controlling the tempo of operations. The OPFOR, therefore, is organized to provide initiative within the bounds of the aim as stipulated in the planning process. The OPFOR accepts some risk in this approach, but mitigates that risk in the planning process by determining branches (accommodations made to the plan that require diversion from the central plan) and sequels (follow-on operations in accordance with the plan). This approach depends on clearly stated aims and delineation of the limits of authority at the each level of command. It provides considerable flexibility to subordinates and is deemed essential by the State and the OPFOR for meeting the needs of the modern operational environment.

DELIBERATE DECISION-MAKING PROCESS

2-6. The OPFOR decision-making process consists of five phases: assess, orient, decide, act, and adapt. (See the section on Decision Making for more detail.)

COMMAND AND CONTROL STRUCTURES

2-7. C^2 at each level of command is very similar, designed with the same basic structure and emphasis on survivability through mobility, redundancy, and security. The higher the level of command, the larger and more complex the staff. Supporting each staff is a series of multiple CPs and communications systems, providing the flexibility required on a highly fluid, lethal battlefield.

2-8. The professional training of commanders and staffs emphasizes consistency in staff planning procedures at all levels of command. Emphasis on responsive planning (assisted by automation) in the C^2 process has produced a cadre of professional, highly-trained staff officers. Thoroughly educated in all aspects of strategy, operations, and tactics, these officers are capable of functioning from the General Staff down to tactical level.

2-9. Operational commanders must be equipped to control the full scope of combined arms, joint, interagency, and multinational activity. The OPFOR operational C^2 structure is designed to facilitate this control.

COMMAND AND SUPPORT RELATIONSHIPS

2-10. OPFOR units are organized using four command and support relationships, summarized in Figure 2-1 and described in the following paragraphs. These relationships may shift during the course of an operation in order to best align the force with the tasks required. The general category of subordinate units includes both constituent and dedicated relationships; it can also include interagency and multinational (allied) subordinates.

Relationship	Commanded by	Logistics from	Positioned by	Priorities from
Constituent	Gaining	Gaining	Gaining	Gaining
Dedicated	Gaining	Parent	Gaining	Gaining
Supporting	Parent	Parent	Supported	Supported
Affiliated	Self	Self or "Parent"	Self	Mutual Agreement

Figure 2-1. Command and Support Relationships

2-11. **Constituent.** Constituent units are those forces assigned directly to a unit and forming an integral part of it. They may be organic to the table of organization and equipment of the administrative structure forming the basis of a given unit, assigned at the time the unit was created, or attached to it after its formation.

2-12. **Dedicated.** Dedicated is a command relationship identical to constituent with the exception that a dedicated unit still receives logistics support from a parent organization of similar type. An example of a dedicated unit would be the case where one or two surface-to-surface missile (SSM) battalions from an SSM brigade could be dedicated to an operational-strategic command (OSC). Since the OSC does not otherwise possess the technical experts

or transloading equipment for missiles, the dedicated relationship permits the SSM battalion(s) to fire exclusively for the OSC while still receiving its logistics support from the parent SSM brigade. In OPFOR plans and orders, the dedicated command and support relationship is indicated by (DED) next to a unit title or symbol.

2-13. **Supporting.** *Supporting* units continue to be commanded by and receive their logistics from their parent headquarters, but are positioned and given mission priorities by their supported headquarters. This relationship permits supported units the freedom to establish priorities and position supporting units while allowing higher headquarters to rapidly shift support in dynamic situations. The supporting unit does not necessarily have to be within the supported unit's area of responsibility (AOR). An example of a supporting unit would be a fighter-bomber regiment supporting an OSC for a particular phase of the strategic campaign plan (SCP) but ready to rapidly transition to a different support relationship when the OSC becomes the theater reserve in a later phase. In OPFOR plans and orders, the supporting command and support relationship is indicated by (SPT) next to a unit title or symbol.

2-14. **Affiliated.** Affiliated organizations are those operating in a unit's AOR that the unit may be able to sufficiently influence to act in concert with it for a limited time. No "command relationship" exists between an affiliated organization and the unit in whose AOR it operates. Affiliated organizations are typically nonmilitary or paramilitary groups such as criminal cartels, insurgencies, terrorist cells, or mercenaries. In some cases, affiliated forces may receive support from the OSC as part of the agreement under which they cooperate. Although there would typically be no formal indication of this relationship in OPFOR plans and orders, in rare cases (AFL) is used next to unit titles or symbols.

STRATEGIC-LEVEL ORGANIZATION

2-15. The National Command Authority (NCA) is responsible for the preparation and conduct of strategic campaigns. It also resolves issues regarding the overall wartime situation of the State and the allocation of strategic resources. The NCA allocates forces and establishes general plans for the conduct of national strategic campaigns.

General Staff

2-16. The General Staff is a major link in the centralization of military command at the national level, since it provides staff support and acts as the executive agency for the NCA. Together with the Ministry of Defense (MOD), the General Staff forms the Supreme High Command (SHC) in wartime. (See Figure 2-2.) The General Staff has direct control over the six services, and all military forces report through it to the NCA. The Chief of the General Staff (CGS) commands the SHC. The General Staff consists of three functional directorates. These are the Operations, Intelligence, and Organization and Mobilization directorates.
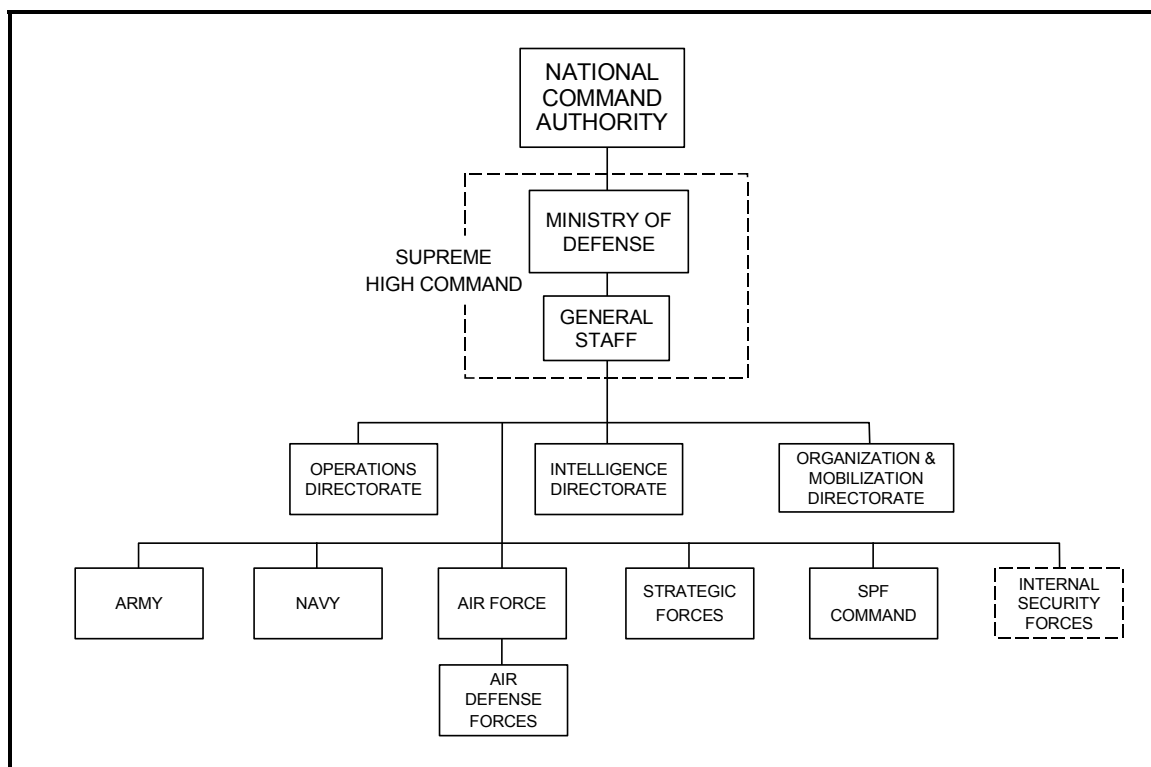
Figure 2-2. Supreme High Command

2-17. Working with the staffs of each of the services, the Operations Directorate of the General Staff drafts the military SCP for the CGS. Once the CGS approves the military SCP, it becomes part of the national SCP, and the General Staff issues it to appropriate operational-level commanders. During peacetime and preparation for war, the Operations Directorate continues to review and refine the plan. The military SCP assigns forces to operational-level commands and designates AORs for those commands.

2-18. During combat operations, the Operations Directorate is responsible, along with the Intelligence Directorate, for maintaining a continuous estimate of the situation for the SHC. Because of the uncertainties of combat, the Operations Directorate continually reevaluates the military SCP and modifies it or develops a new plan based on guidance from the CGS. The Organization and Mobilization Directorate determines the assets that each component of the military needs to execute its portion of the national strategic campaign.

Theater Headquarters

2-19. For the State, a *theater* is a clearly defined geographic area in which the OPFOR plans to conduct or is conducting military operations. Within its region, the State may plan or conduct a strategic campaign in a single theater or in multiple theaters, depending on the situation. The General Staff may create one or more separate theater headquarters, even in peacetime, for planning purposes. However, no forces would be subordinated to such a headquarters until the activation of a particular SCP.

2-20. A theater headquarters provides flexible and responsive control of all theater forces. When there is only one theater, as is typical, the theater head-quarters may also be the field headquarters of the SHC, and the CGS may also be the theater commander. Even in this case, however, the CGS may choose to focus his attention on national strategic matters and to create a separate theater headquarters, commanded by another general officer, to control operations within the theater.

2-21. When parts of the strategic campaign take place in separated geographi-cal areas and there is more than one major line of operations, the OPFOR may employ more than one theater headquarters, each of which could have its own theater campaign plan. In this case, albeit rare, the SHC field headquarters would be a separate entity exercising control over the multiple theater headquarters.

2-22. Theater command provides flexibility to the OPFOR, since the exis-tence of one or more separate theater headquarters enables the SHC to fo-cus on the strategic campaign and sustaining the forces in the field. A theater headquarters acts to effectively centralize and integrate General Staff control over theater-wide offensive and/or defensive operations. The chief responsibility of this headquarters is to exercise command over all forces assigned to a theater in accordance with mission and aim assigned by the SHC. A theater headquarters links the operational efforts of the OPFOR to the strategic efforts and reports directly to the SHC.

Administrative Force Structure

2-23. The OPFOR has an _administrative force structure_ that manages its military forces in peacetime. This structure is the aggregate of various military headquarters, organizations, facilities, and installations designed to man, train, and equip the forces. In peacetime, forces are commonly grouped into corps, armies, or army groups for administrative purposes. An army group can consist of several armies, corps, or separate divisions and brigades. The administrative force structure also has responsibility for disaster manage-ment and support to other State agencies. In some cases, forces may be grouped administratively under geographical commands designated as military regions or military districts.[1] Normally, these administrative group-ings differ from the OPFOR's go-to-war (fighting) force structure.

2-24. The administrative force structure includes all components of the Armed Forces—not only regular, standing forces (active component), but also reserve and militia forces (reserve component). For administrative purposes, both regular and reserve forces come under the headquarters of their respec-tive service component. Each of the six service components is responsible for manning, equipping, and training of its forces and for organizing them within the administrative force structure.

2-25. If the General Staff or SHC elects to create more than one theater headquarters, it may allocate parts of the administrative force structure to each of the theaters, normally along geographic lines. One example would be to divide Air Force assets into theater air armies. Another would be to assign

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[1] A military district may or may not coincide with a political district within the State government.

units from the Special-Purpose Forces (SPF) Command to each theater, according to theater requirements.

2-26. The administrative force structure also includes some assets centrally controlled at the national level. For instance, major portions of the Air Force, Navy, Strategic Forces, and the SPF Command often remain under the direct control of their respective service component headquarters. The Army component headquarters may retain centralized control of certain elite units of the ground forces, including airborne units and Army SPF. This permits flexibility in the employment of these relatively scarce assets in response to national-level requirements. In peacetime, the internal security forces are under the administrative control of the Ministry of the Interior. The pool of national assets also includes major logistics facilities and installations.

2-27. In wartime, the normal role of administrative commands is to serve as force providers during the creation of operational- and tactical-level fighting commands. After transferring control of its major fighting forces to one or more task-organized fighting commands, an administrative headquarters, facility, or installation continues to provide depot- and area support-level administrative, supply, and maintenance functions. (See Chapter 12.) A geographically-based administrative command also provides a framework for the continuing mobilization of reserves to complement or supplement regular forces.

2-28. In rare cases, an administrative command could function as a fighting command. This could occur, for instance, when a particular administrative command happens to have just the right combination of forces for executing a particular SCP. Another case would be in times of total mobilization, when an administrative command has already given up part of its forces to a fighting command and then is called upon to form a fighting command with whatever forces remain under the original administrative headquarters.

2-29. Operational-level commands in the administrative force structure that are called upon to fight will employ the doctrine in this manual. However, they will not be able to employ joint or interagency forces effectively without additional training, staff, and C^2 systems.

OPERATIONAL-LEVEL ORGANIZATION

2-30. An SCP always contains both military and nonmilitary subordinate actions. The operational level of command is that which executes military tasks assigned directly by an SCP. Operational-level commands translate actions directly supporting the SCP into an operation plan. The most common OPFOR operational-level commands are field groups (FGs) and operational-strategic commands (OSCs).[2] Figure 2-3 shows one example of FG and OSC missions within such a hypothetical SCP.

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[2] For the OPFOR, military actions above the tactical level will most commonly involve one or more OSCs, but could possibly involve an FG as an additional level of operational command. In most cases, the statements about an OSC in this manual would also apply to an FG, if one is created. Therefore, for the sake of brevity, references to FG will appear only where it is important to make a distinction between the OSC and FG levels.
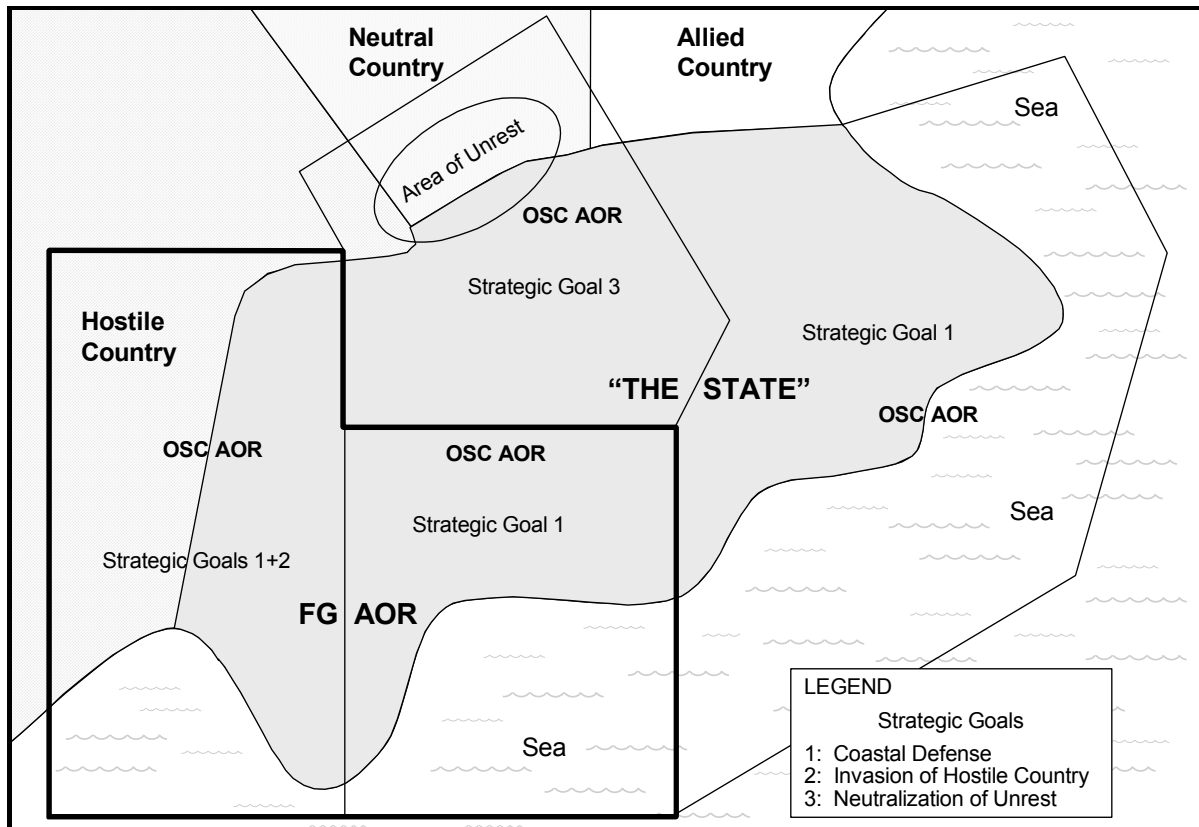
Figure 2-3. Example of FGs and OSCs in an SCP

2-31. There is also the possibility that a division or division tactical group (DTG) could be directly subordinate to the SHC in the fighting force structure and thus perform tasks assigned directly by an SCP. In such cases, the OPFOR would consider the divisions or DTGs to be operational-level commands. More typically, however, they perform tactical missions as subordinates of an FG or OSC. (For more detail of divisions and DTGs and their tactics, see FM 7-100.2.)

2-32. The SCP specifies the geographic AOR within which the operational-level command's allocated forces are intended to operate. A single SCP could include more than one strategic goal. Thus, a particular FG or OSC could be task organized to achieve one or more goals within its assigned AOR.

Field Group

2-33. A *field group* is the largest operational-level organization, since it has one or more smaller operational-level commands subordinate to it. An FG is a grouping of subordinate organizations with a common headquarters, a common AOR, and a common operation plan. FGs are always joint and interagency organizations and are often multinational. However, this level of command may or may not be necessary in a particular SCP. An FG may be organized when the number of forces and/or the number of major military efforts in a theater exceeds the theater commander's desired or achievable span of control. This can facilitate

the theater commander's remaining focused on the theater-strategic level of war
and enable him to coordinate effectively the joint forces allocated for his use.
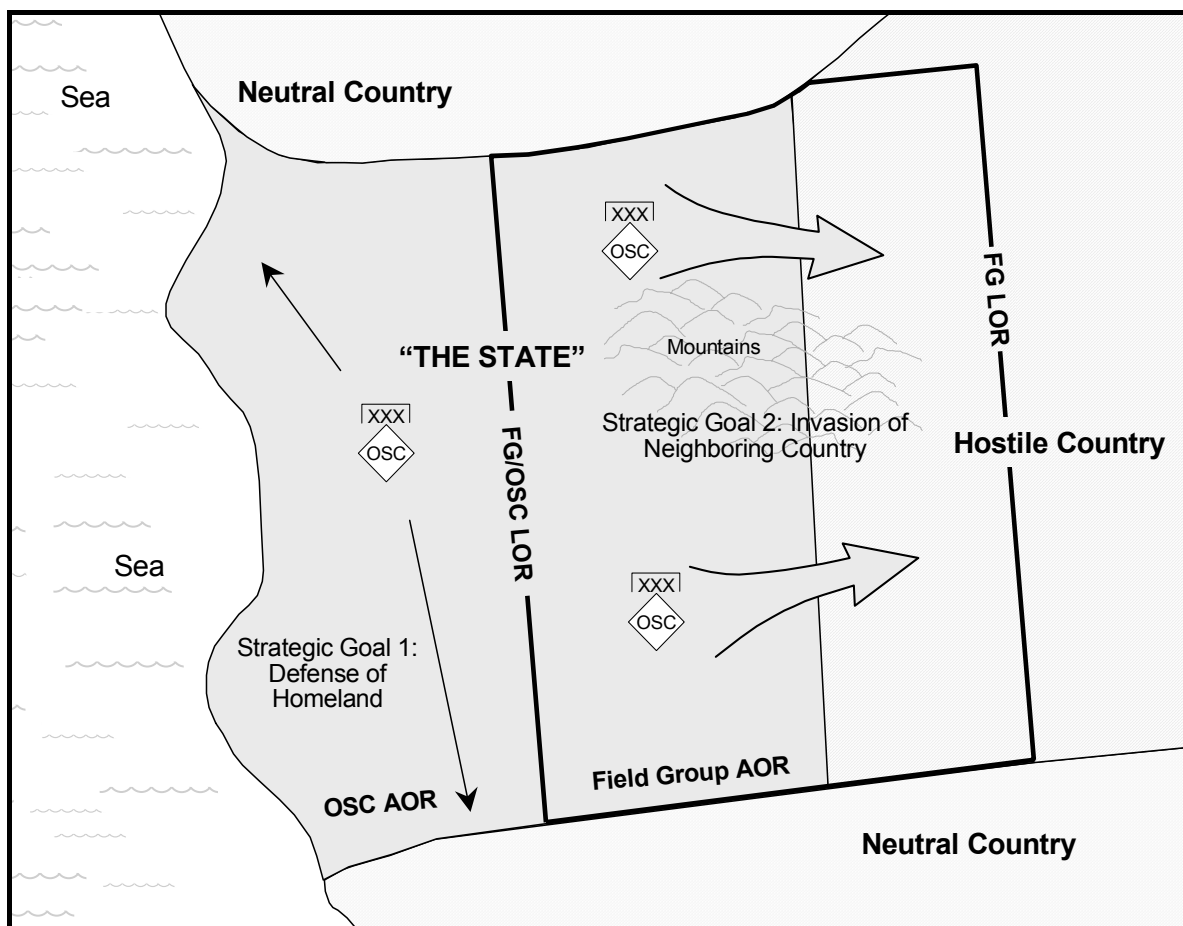
Figure 2-4. Field Group in Control of Multiple OSCs in a Major Military Effort

2-34. The General Staff does not normally form standing FG headquarters,
but may organize one or more during full mobilization, if necessary. An FG
can be assigned responsibilities in controlling forces in the field during adap-
tive operations in the homeland, or forward-focused functionally (an FG may
be assigned an access-control mission). However, FGs may exist merely to ac-
commodate the number of forces in the theater.

2-35. FGs are typically formed for one or more of the following reasons:

- An SCP may require a large number of OSCs and/or operational-level
  commands from the administrative force structure. When the number
  of major military efforts in a theater exceeds the theater commander's
  desired or achievable span of control, he may form one or more FGs.
  (See Figure 2-4.)

- In the rare cases when multiple operational-level commands from the
  administrative force structure become fighting commands, they could
  come under the command of an FG headquarters. (See Figure 2-5.)

● Due to modifications to the SCP, a standing operational-level head-
  quarters that was originally designated as an OSC headquarters may
  receive one or more additional major operational-level commands from
  the administrative force structure as fighting commands. Then the
  OSC headquarters would transition into an FG headquarters.

In the first two cases, a separate FG staff would be formed and identified as
having control over two or more OSCs (or operational-level commands from
the administrative force structure) as part of the same SCP. In the third case,
the original OSC headquarters would be redesignated as an FG headquar-
ters. In any case, the FG command group and staff would be structured in
the same manner as those of an OSC.
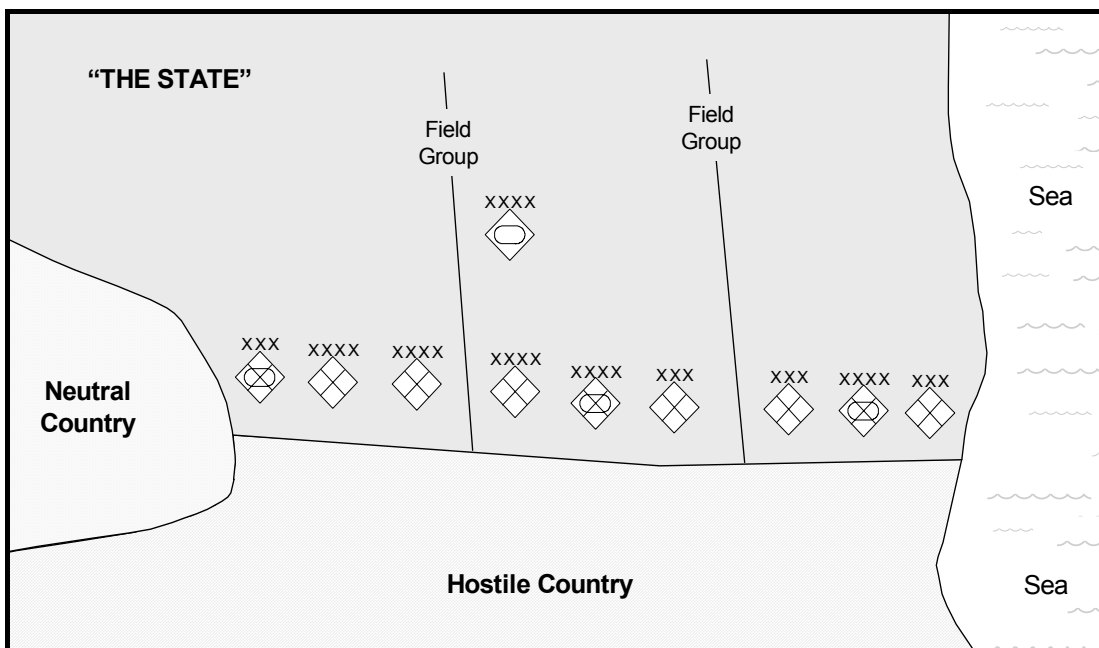
**Figure 2-5. Field Groups Consisting of Multiple Operational-Level Commands from
the Administrative Force Structure**

Operational-Strategic Command

2-36. The OPFOR's primary operational organization is the OSC. Once the
General Staff writes a particular SCP, it forms one or more standing OSC
headquarters. Each OSC headquarters is capable of controlling whatever
combined arms, joint, interagency, or multinational operations are necessary
to execute that OSC's part of the SCP. However, the OSC headquarters does
not have any forces permanently assigned to it.

2-37. Figure 2-6 shows an example of allocation of forces to an OSC. The
units allocated from the administrative force structure to form the OSC typi-
cally come from an army group, army, or corps (or perhaps a military district
or military region) or from forces directly subordinate to a service headquar-
ters. There can also be cases where forces from the services have initially
been allocated to a theater headquarters and are subsequently re-allocated
down to the OSC. The organizations shown under the OSC, like those shown
under the theater headquarters in this example, indicate a pool of assets
made available to that command. The commander receiving these assets may
choose to retain them at his own level of command, or he may choose to sub-
allocate them down to one or more of his subordinates for their use in their
own task organization.
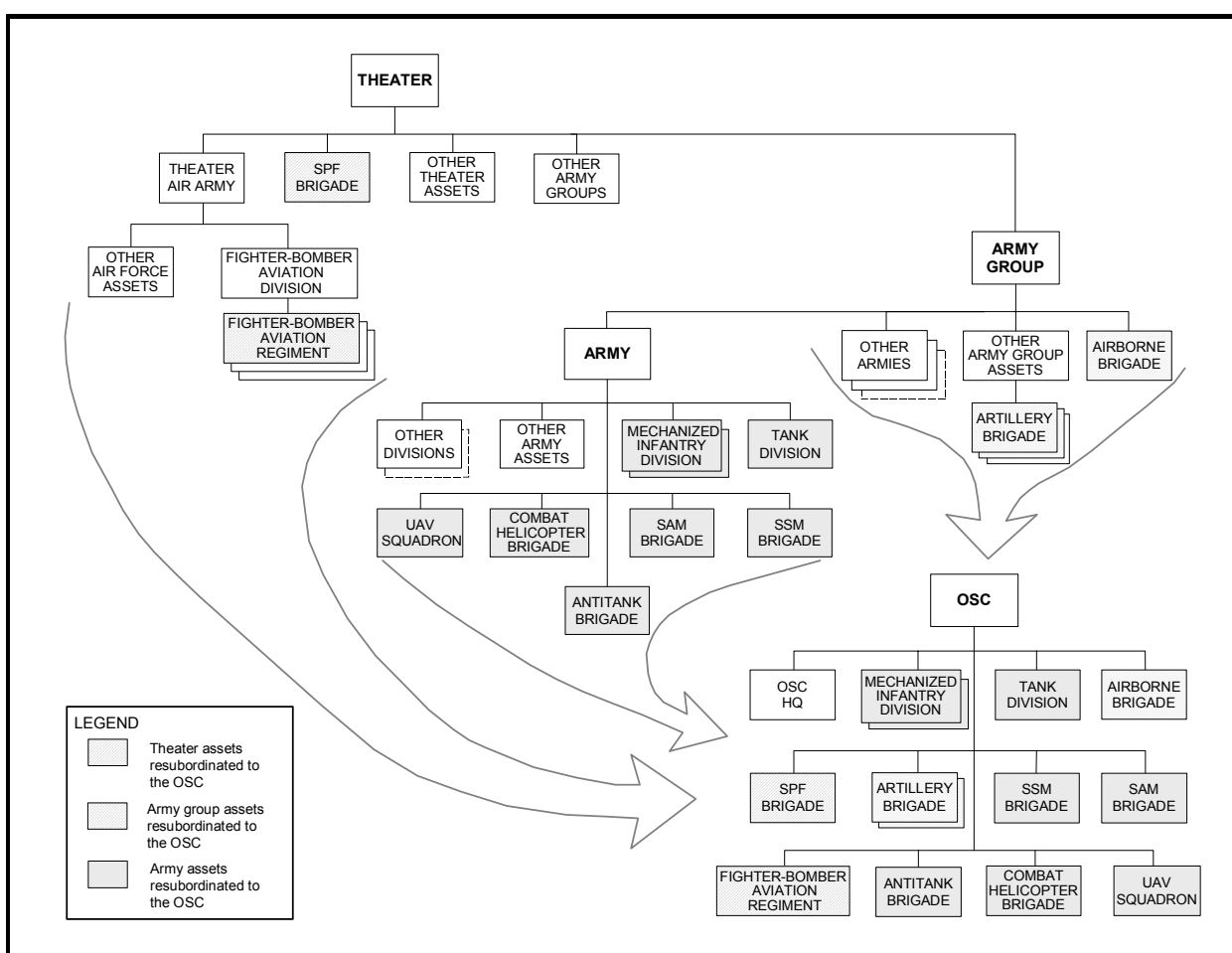
Figure 2-6. Allocation of Forces to an OSC (Example)

2-38. When the NCA decides to execute a particular SCP, each OSC partici-
pating in that plan receives appropriate units from the OPFOR's administra-
tive force structure, as well as interagency and/or multinational forces.
Forces subordinated to an OSC may continue to depend on the administra-
tive force structure for support.

2-39. If a particular OSC has contingency plans for participating in more than one SCP, it could receive a different set of forces under each plan. In each case, the forces would be task organized according to the mission requirements in the given plan. Thus, each OSC consists of those division-, brigade-, and battalion-size organizations allocated to it by the SCP currently in effect. These forces also may be allocated to the OSC for the purpose of training for a particular SCP. When an OSC is neither executing tasks as part of an SCP nor conducting exercises with its identified subordinate forces, it exists as a planning headquarters.
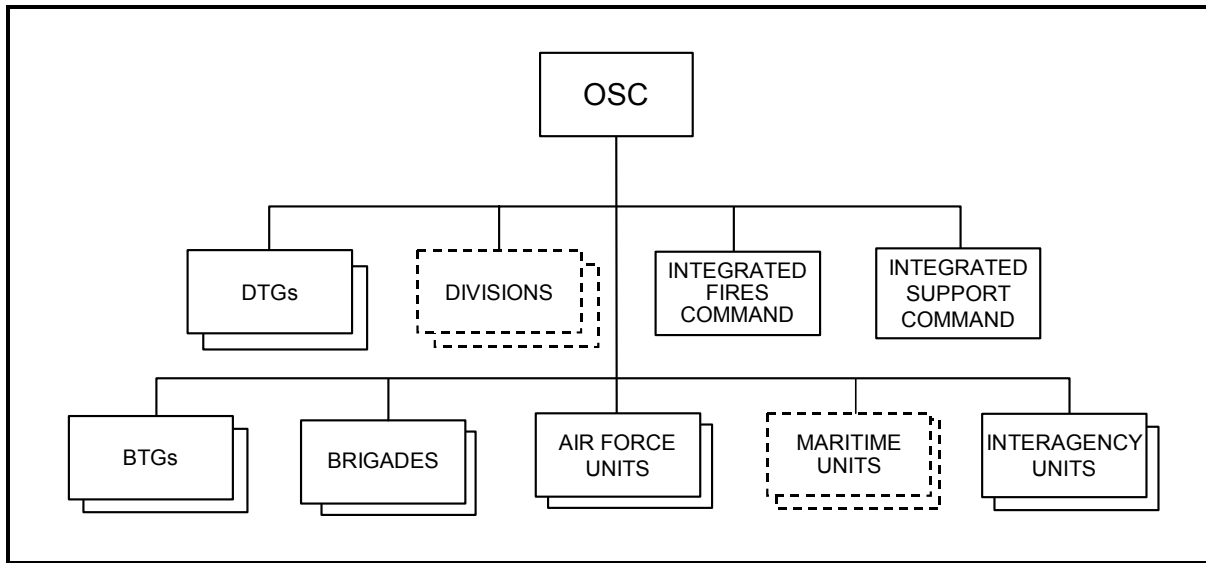
Figure 2-7. Possible OSC Organization (Example)

2-40. Figure 2-7 shows an example of the types of organizations that could make up a particular OSC organization. The numbers of each type of subordinate and whether they actually occur in a particular OSC can vary. As shown in this example, the composition of an OSC is typically joint, with Air Force and possibly maritime (naval or naval infantry) units, and it can also be interagency. If some of the allocated forces come from another, allied country, the OSC could be multinational. The simplified example of an OSC shown here does not show all the combat support and combat service support units that would be present in such an organization. Many of these support units are found in the integrated fires command (outlined below) and the integrated support command (outlined below and in Chapter 12). Other support units could be allocated initially from the administrative force structure to the OSC, which further allocates them to its tactical subordinates.

2-41. Once allocated to an OSC, a division or brigade often receives augmentation that transforms it into a DTG or brigade tactical group (BTG), respectively. However, an OSC does not have to task organize subordinate divisions and brigades into tactical groups. Most divisions would become DTGs, but maneuver brigades in the administrative force structure may be sufficiently robust to accomplish their mission without additional task organization.

2-42. The OPFOR has great flexibility regarding possible OSC organizations for different missions. There is virtually no limit to the possible permutations that could exist. The allocation of organizations to an OSC depends on what is available in the State's administrative force structure, the mission requirements of that OSC, and the requirements of other operational-level commands.

TACTICAL-LEVEL ORGANIZATIONS

2-43. In the OPFOR's administrative force structure, the largest tactical-level organizations are divisions and brigades. In wartime, they are often subordinate to a larger, operational-level command. However, they may also be directly subordinate to a theater headquarters or to the SHC. In either wartime role, a division or brigade may receive additional assets that transform it into a tactical group.

2-44. A *tactical group* is a task-organized division or brigade that has received an allocation of additional land forces in order to accomplish its mission. These additional forces may come from within the Ministry of Defense, from the Ministry of the Interior, or from affiliated forces. Typically, these assets are initially allocated to an OSC or FG, which further allocates them to its tactical subordinates. If the tactical group operates as a separate command, it may receive additional assets directly from the theater headquarters or the SHC that are necessary for it to carry out an operational-level mission. The same higher command that augments a division or brigade to transform it into a tactical group can also use some units from one division or brigade to augment tactical groups based on other divisions or brigades.

2-45. The purpose of a tactical group is to ensure unity of command for all land forces in a given AOR. Tactical groups formed from divisions are *division tactical groups* (DTGs), and those from brigades are *brigade tactical groups* (BTGs).

2-46. If a DTG has a mission directly assigned by an SCP, it acts as an operational-level command. If a DTG has a mission assigned by an intermediate operational-level command (such as an FG or an OSC), then it acts as a tactical-level command. In either of those cases, the original division headquarters becomes the DTG headquarters.

INTEGRATED FIRES COMMAND

2-47. The *integrated fires command* (IFC) is a combination of a standing C^2 structure and task organization of constituent and dedicated fire support units. (See Figure 2-8.) All division-level and above OPFOR organizations possess an IFC C^2 structure—staff, CP, communications and intelligence architecture, and automated fire control system (AFCS). The IFC exercises command of all constituent and dedicated fire support assets retained by its level of command. This includes aviation, artillery, and missile units. It also exercises command over all reconnaissance, intelligence, surveillance, and target acquisition (RISTA) assets allocated to it.[3]
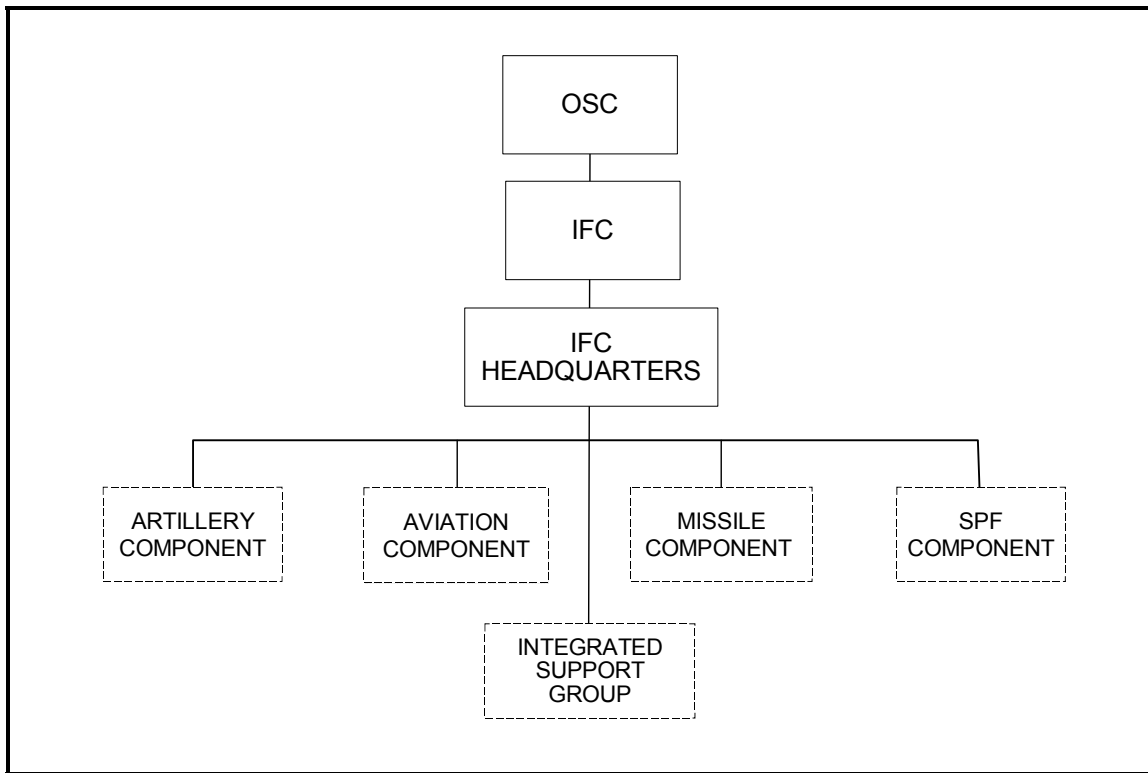
Figure 2-8. Possible IFC Components in an OSC

2-48. The mission of the IFC is to execute all fire support tasks required to accomplish the unit mission. It is designed to—

- Exploit the combat power inherent in carefully integrated ground and air fire support actions.
- Reduce the amount of time from target acquisition to attack to the absolute minimum.
- Permit fire support assets to mass their effects without having to operate in concentrated formations.

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[3] Based on mission requirements, the commander may also allocate maneuver forces to the IFC. This is most often done when he chooses to use the IFC CP to provide C^2 for a strike, but can also be done for the execution of other missions.

- Ensure the optimal fire support asset(s) are assigned any given mission.
- Ensure the commander's priorities for fire support are adhered to.
- Act, if necessary, as the organization's alternate command structure.
- Integrate the effects of fires from units placed in support of the organization.

2-49. The number and type of fire support and RISTA units allocated to an IFC is mission-dependent. The IFC is not organized according to a table of organization and equipment, but is task organized to accomplish the missions assigned.

IFC Headquarters

2-50. The OSC IFC headquarters, like the overall OSC headquarters, exists in peacetime in order to be ready to accommodate and exercise C^2 over all forces made subordinate to it in wartime. The IFC headquarters is composed of the IFC commander and his command group, a RISTA and IW section, an operations section, and a resources section. (See Figure 2-9.)
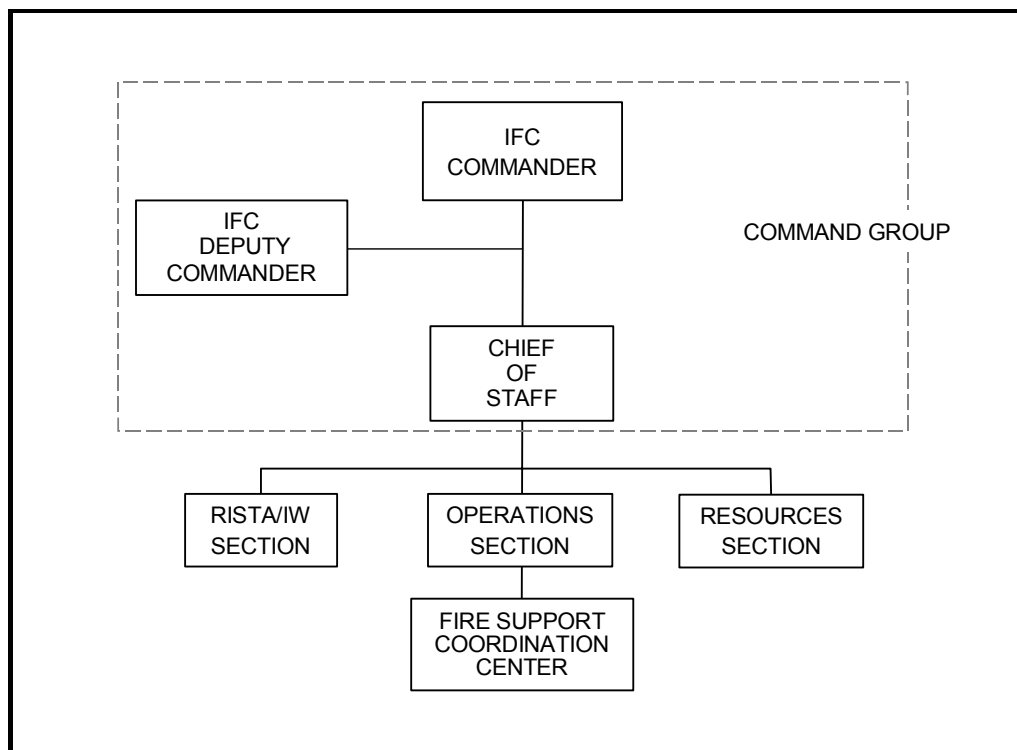
Figure 2-9. IFC Headquarters

2-51. The deputy commander (DC) of the OSC serves as IFC commander. The RISTA and IW section provides the complete spectrum of intelligence and IW support for the IFC. The operations section provides the control, coordination, and communications for the headquarters. Located within the operations section is the fire support coordination center (FSCC). To ensure the

necessary coordination of fire support and associated RISTA, the operations section of the IFC headquarters also includes liaison teams from subordinate units. The resources section provides control and coordination of various logistics and administrative support functions.

Artillery Component

2-52. The artillery component is a task organization tailored for the conduct of artillery support during combat operations. In an OSC's IFC, it is typically organized around one or more artillery brigades, or parts of these that are not allocated in a constituent or dedicated relationship to tactical-level subordinates. The artillery component includes appropriate target acquisition, C^2, and logistics support assets.

2-53. The number of artillery battalions assigned to an IFC varies according such factors as mission of friendly units, the enemy situation, and terrain. However, the number of artillery units also can vary based on the capabilities of the supporting AFCS. For example, a multiple rocket launcher (MRL) brigade AFCS can have enough command and staff vehicles for the brigade commander and his chief of staff, as well as the subordinate commanders of battalions and up to 18 batteries (6 battalions). An AFCS supporting a cannon, MRL, or mortar battalion may consist of enough command and staff vehicles to support 3 to 4 batteries (each consisting of 4 to 8 systems).

Aviation Component

2-54. The aviation component is a task organization tailored for the conduct of aviation operations. The aviation component is task organized to provide a flexible and balanced air combat organization capable of providing air support to the OSC commander. It may be organized around an Air Force aviation regiment or an air army, or parts of these, as required by the mission. It may also include rotary-wing assets from army aviation. It includes ground attack aviation capability as well as requisite ground and air service support assets. The IFC commander exercises control through facilities provided by the airspace operations subsection of the OSC staff and/or the aviation unit(s).

Missile Component

2-55. The missile component is a task organization consisting of long-range missiles or rockets capable of delivering conventional or nuclear, biological, and chemical (NBC) munitions. It is organized around an SSM or rocket battalion or brigade and includes the appropriate logistics support assets. Missile and rocket units may come from the Strategic Forces or from other parts of the administrative force structure (where they may be part of a corps, army, or army group).

2-56. The State considers the long-range rocket and missile capability, even when delivering conventional munitions, the responsibility of the NCA. For example, the SHC or theater commander may allocate Strategic Forces assets to an IFC in order to use long-range missiles and rockets to advance State political ends during regional, transition, or adaptive operations. Unable to mount robust air campaigns, the State can use these weapons to mount an equivalent effort.

Special-Purpose Forces Component

2-57. The SPF component normally consists of assets from an SPF brigade. Personnel of such a brigade are specially trained for insertion in small SPF teams. These assets provide the OPFOR the ability to attack both regional and extraregional enemies throughout their tactical, operational, and strategic depth. SPF assets are inserted in advance of regional operations and in support of transition and adaptive operations. They are an essential part of the concept of using all means necessary and are critical to access-control operations. SPF assigned to the Army, Air Force, and Navy are designed for use at the operational level. The national-level SPF Command has its own SPF units.

2-58. The SPF conduct operations to achieve strategic military, political, economic, and/or psychological objectives or achieve tactical or operational goals in support of strategic objectives. Such operations may have either long-range or immediate impact on the enemy. The OPFOR concept of SPF operations includes reconnaissance, direct action, and diversionary measures. The SPF component of the IFC has a capability to support terrorist and irregular forces operations.

2-59. If an OSC has received SPF units, it may further allocate some of these units to supplement the long-range reconnaissance assets a division or DTG has in its own IFC. However, the scarce SPF assets normally would remain at OSC level.

Integrated Support Group

2-60. The integrated support group (ISG) is a compilation of units performing logistics tasks that support the IFC. Other combat support and combat service support units may be grouped in this component for organizational efficiency although they may support only one of the major units of the IFC. The ISG is discussed in detail in Chapter 12. It can perform the same functions as the integrated support command (see below and in Chapter 12), but on a different scale and tailored to the support requirements of the IFC.

INTEGRATED SUPPORT COMMAND

2-61. The integrated support command (ISC) is the aggregate of combat service support units (and perhaps some combat support units) allocated from the administrative force structure to an OSC and not suballocated in a constituent or dedicated command relationship to a subordinate headquarters within the OSC. The OSC further allocates part of its combat service support units to its tactical-level subordinates and some, as an ISG, to support its IFC. The rest remain in the ISC at OSC level to provide overall support of the OSC. For organizational efficiency, other combat service support units may be grouped in this ISC, although they may support only one of the major units of the OSC. Sometimes, an ISC might also include units performing combat support tasks (such as chemical warfare, IW, or law enforcement) that support the OSC. (See Chapter 12 for more detail on the ISC.)

ORGANIZING THE OPERATIONAL BATTLEFIELD

2-62. The OPFOR organizes the battlefield in such a way that it can rapidly transition between offensive and defensive operations and between linear and nonlinear operations. This flexibility can help the OPFOR adapt and change the nature of the conflict to something for which the enemy is not prepared.

Battlefield Geometry

2-63. The OPFOR recognizes the complexity of the modern battlefield. This will often lead to situations where part of the OPFOR may be able to effectively operate in a linear fashion, while other parts may be able to (or need to) conduct nonlinear operations. The OPFOR's understanding of what makes a battlefield linear or nonlinear is based on general military theory accepted by the armed forces of many countries. Battlefield geometry can be described in two dimensions: the relationship of units to each other, the enemy, and their support base; and the expected effects of that relationship.

2-64. **Linear Operations.** Some military operations develop along a secure line from a base toward a geographically-based objective. These _linear_ operations are characterized by an easily definable front and rear across the entire force. Orientation of the bulk of the force is in one general direction, defined as the front, normally facing the enemy and/or the objective. (See Figure 2-10.) During linear operations, the flanks of units are normally protected by other units, natural terrain features, or manmade obstacles.
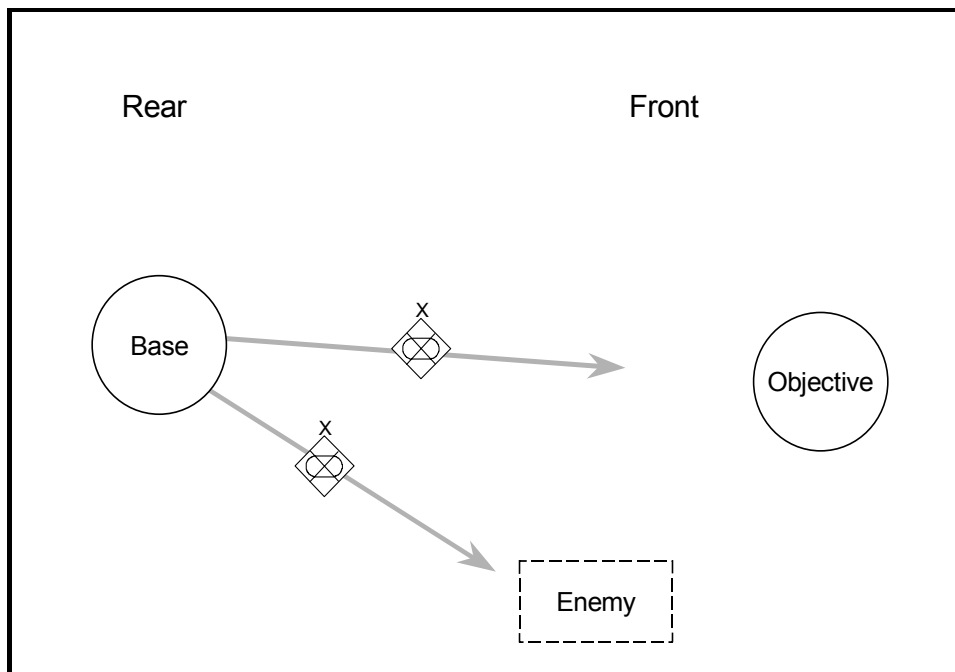
Figure 2-10. Linear Operations
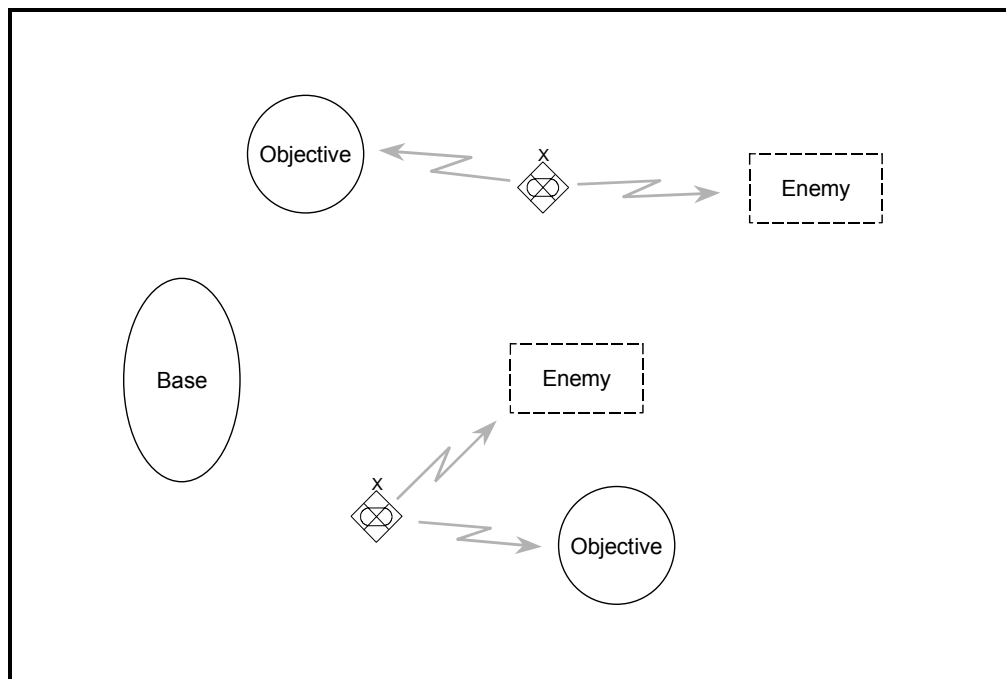
Figure 2-11. Nonlinear Operations

2-65. **Nonlinear Operations.** Military operations that seek to complete a force- or systems-based mission, with no secure connection to a base and no easily defined front and rear across the force, are *nonlinear*. Orientation of the force is determined by the location of the immediate threat or the objective. (See Figure 2-11.) In most cases, units in a nonlinear environment rely on movement, deception, cover, and concealment to provide protection for potentially exposed portions of the force.

2-66. **Expected Effects.** The OPFOR considers the difference between linear and nonlinear operations less in terms of geography and more in terms of effects desired. Linear operations normally produce small effects from small actions and large effects from large actions (or perhaps large effects from an aggregation of small actions)—a linear relationship. Linear operations are proportional and additive, and typically produce a predictable, measurable effect. In contrast, this relationship may not always be present in nonlinear operations, which can produce large effects from small actions. In some cases, small actions produce small effects or no effects at all. Thus, nonlinear operations produce disproportionate, often unpredicted effects.

2-67. The OPFOR believes the worst of all possible situations is for a force to be operating in a linear mode against an enemy that can operate freely throughout the battlespace with excellent situational awareness and significant forces and fires. The OPFOR seeks, as a base case, to create such a situation for its enemies.

Areas of Responsibility

2-68. OPFOR organizations are given a specific *area of responsibility*. An AOR is a clearly defined geographic area with associated airspace. An AOR is bounded by a *limit of responsibility* (LOR) beyond which the organization may not operate or fire without coordination through the next-higher head-quarters. AORs may be linear or nonlinear in nature (see Figures. 2-12 and 2-13 for examples; see Chapters 3 and 4 for additional examples). Linear AORs may contain subordinate nonlinear AORs and vice versa.

2-69. AORs normally consist of three basic zones: the *battle zone*, the *disruption zone*, and the *support zone*. An AOR may also contain one or more *attack* and/or *kill* zones. Zones may be linear or nonlinear in nature. These zones have the same basic purposes within each type of offensive and defensive operation (see Chapters 3 and 4). The size of these zones depends on the size of the OPFOR units involved, engagement ranges of weapon systems, the terrain, and the nature of the enemy's operation.

2-70. An AOR is not required to have all of these zones in any particular situation. A particular command might have a battle zone and no disruption zone. It might not have a battle zone, if it is the disruption force of a higher command. If it is able to forage, it might not have a support zone. (See examples in Figure 2-13.)
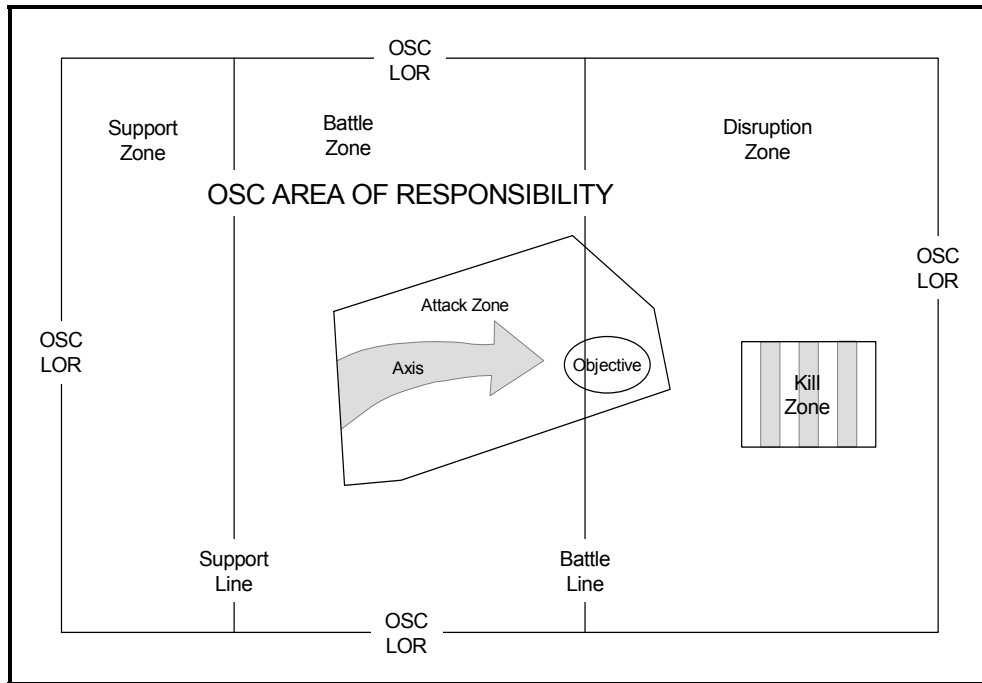
Figure 2-12. Linear AOR Example

2-71. Within the overall LOR, the OPFOR normally refers to two types of control lines. The *battle line* separates the battle zone from the disruption zone. The *support line* separates the support zone from the battle zone. LORs give maximum latitude to the subordinate commander. Within the LOR, the

commander has the flexibility to do as he sees fit unless the higher commander also assigns a kill zone, which he proposes to support with additional resources.

2-72. An operation plan or directive normally defines AORs and zones by specifying boundary lines in terms of distinct local terrain features through which a line passes, specifying whether each terrain feature is included or excluded from the unit's AOR or zones within it. Normally, a specified terrain feature is included unless the order identifies it as "excluded."

2-73. In either linear or nonlinear operations, military reason normally dictates a contiguous force deployment. The OPFOR does not recognize the idea of "noncontiguous operations." Senior OPFOR commanders ensure that all parts of a theater are within the assigned AOR of some subordinate organization, whether or not ground forces are actually present or expected to operate in any given area. A given AOR or zone might be not be contiguous with other AORs of its level of command or with other zones of the same type, but the geographic area between such control measures will be identified as being in the AOR of some other organization.
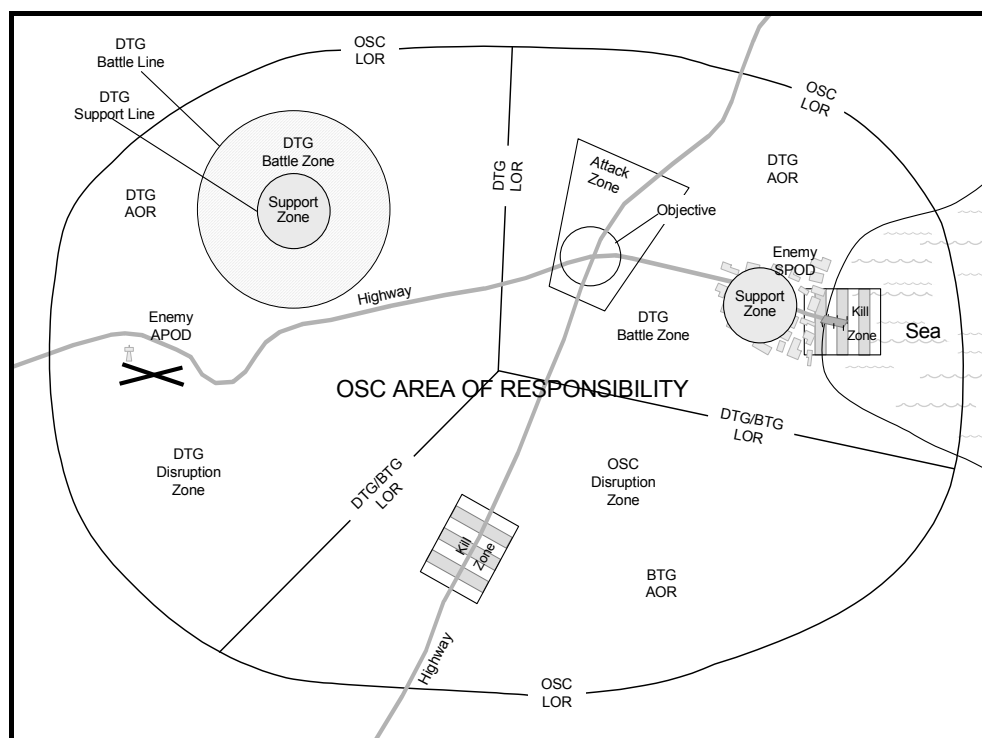
Figure 2-13. OSC Nonlinear AOR Example

2-74. In his operation plan, the commander specifies the organization of the battlefield from the perspective of his level of command. Within his unit's AOR, as defined by the next-higher commander, he designates AORs for his subordinates, along with zones, objectives, and axes related to his own overall mission. (See Chapter 3 for further discussion of objectives and axes.) Whether the overall operation plan is offensive or defensive in nature, some

subordinate units are likely to be occupying defensive battle positions. (See Chapter 4 for further discussion of simple and complex battle positions.)

2-75. **Disruption Zone.** The disruption zone is where the OPFOR sets the conditions for successful operations by beginning the attack on the components of the enemy combat system. A successful disruption zone operation can create a window of opportunity that is exploitable in the battle zone. In the disruption zone, the OPFOR attacks specific components of the enemy's combat system in order to begin the breakdown of the system. For example, attack of all enemy engineer forces can leave a maneuver force unable to continue effective combat operations in complex terrain—exposing them to destruction by forces in the battle zone. Actions of forces in the disruption zone are detailed in Chapters 3 and 4. Disruption zones may be contiguous or noncontiguous with other disruption zones, or they may be "layered."

2-76. **Battle Zone.** The *battle zone* is the portion of the AOR where the OPFOR expects to conduct decisive operations. Using all components of its combat power, the OPFOR will engage the enemy and defeat him in this zone. Units operating in the battle zone can have various missions and objectives, depending on the nature of the overall offensive or defensive operation (see Chapters 3 and 4).

2-77. An FG or OSC does not form an operational-level battle zone per se—that zone is the aggregate of the battle zones of its subordinate units. In a nonlinear operation, multiple, noncontiguous battle zones may exist, and within each a certain task would be assigned to the OPFOR unit or units charged to operate in that space. The battle zone provides the commander of each of those units the battlespace in which to frame his operations.

2-78. **Support Zone.** The support zone is that area of the battlespace designed to be free of significant enemy action and to permit the effective logistics and administrative support of forces. Security forces operate in the support zone in a combat role to defeat enemy special operations forces and other threats. Camouflage, concealment, cover, and deception (C^3D) measures occur throughout the support zone to protect the force from standoff RISTA and precision attack. The OSC support zone may be dispersed within the support zones of subordinate tactical units, or the OSC may have its own support zone that is separate from subordinate AORs. The support zone may be in a sanctuary that is noncontiguous with other zones of the AOR.

2-79. **Attack Zone.** An attack zone is given to a subordinate unit with an offensive mission, to delineate clearly where forces will be conducting offensive maneuver. Attack zones are often used to control offensive action by a subordinate unit inside a larger defensive operation.

2-80. **Kill Zone.** A kill zone is a designated area on the battlefield where the OPFOR plans to destroy a key enemy target, usually by fires. A kill zone may be within the disruption zone or the battle zone. In defensive operations, it could also be in the support zone.

COMMAND GROUP AND STAFF

2-81. Within the C^2 structure, the headquarters includes the command group and the staff. (See Figure 2-14.) These elements perform the functions required to control the activities of forces preparing for and conducting combat. The primary functions of headquarters are to—

- Make decisions.
- Plan combat actions that accomplish those decisions.
- Acquire and process the information needed to make and execute effective decisions.
- Support the missions of subordinates.

The commander exercises C^2 functions through his staff and subordinate commanders.

Command Group

2-82. The command group consists of the commander, deputy commander, and chief of staff. Together, they direct and coordinate the activities of the staff and of subordinate forces.

2-83. **Commander.** The commander directs subordinate commanders and, through his staff and liaison teams, controls any supporting units. OPFOR commanders have complete authority over their subordinates and overall responsibility for those subordinates' actions. This centralized authority enables the commander to maintain troop discipline and unity and to act decisively. Under the fluid conditions of modern warfare, even in the course of carefully planned operations, the commander must accomplish assigned missions on his own initiative without constant guidance from above.

2-84. The commander is responsible for the combat capability of subordinate units, the organization of combat operations, the maintenance of uninterrupted C^2, and the successful conduct of combat missions. He examines and analyzes the mission he receives (that is, he determines his forces' place in the senior commander's concept of operations). He may do this alone or jointly with the chief of staff. He then gives instructions to the chief of staff on preparing his forces and staff for combat. He also provides instructions about the timing of preparations. The commander makes his own assessment of intelligence data supplied by the intelligence officer. Then, with advice from the primary staff officers, he makes an assessment of his own forces. After discussing his deductions and proposals with the operations officer and his staff, the commander reaches a decision, issues combat missions to subordinates, and gives instructions about planning the operation. He then directs coordination within his organization and with adjacent forces and other units operating in his AOR.

2-85. During the course of operations, the commander must constantly evaluate the changing situation, predict likely developments, and issue new combat missions in accordance with his vision of the battlefield. He also keeps his superiors informed as to the situation and character of friendly and enemy actions and his current decisions.

Command Group

- **COMMANDER**
- Deputy Commander
- Chief of Staff
- Commanders of Subordinate Forces

Primary Staff

- Intelligence Officer
- Operations Officer
- Resources Officer

Secondary Staff

- Chief of Reconnaissance
- Chief of Information Warfare
- Chief of Communications
- Chief of Current Operations
- Chief of Future Operations
- Chief of Airspace Operations
- Chief of Logistics
- Chief of Administration

Functional Staff

- Chief of Integrated Fires
- Chief of Force Protection
- Chief of Special-Purpose Operations
- Chief of WMD
- Chief of Population Management
- Chief of Infrastructure Management
- Chief of Littoral Warfare

Figure 2-14. OSC Command Group and Staff

2-86. **Deputy Commander.** In the event the commander is killed or incapacitated, the DC would assume command. Barring that eventuality, the DC's primary responsibility is to command the OSC's IFC. As IFC commander, he is responsible for executing operational-level fire support in a manner consistent with the commander's intent.

2-87. **Chief of Staff.** Preeminent among OPFOR staff officers is the chief of staff position (found at every level from the General Staff down to battalion). He exercises direct control over the primary staff. During combat, he is in charge of the main CP when the commander moves to the forward CP. He has the power to speak in the name of the commander and DC, and he normally countersigns all written orders and combat documents originating from the commander's authority. He alone has the authority to sign orders for the commander or DC and to issue instructions in the commander's name to subordinate units. In emergency situations, he can make changes in the tasks given to subordinate commanders. Thus, it is vital that he understands not merely the commander's specific instructions but also his general concept and train of thought. He controls the battle during the commander's absences.

2-88. The chief of staff is a vital figure in the C^2 structure. His role is to serve as the director of staff planning and as coordinator of all staff inputs that assist the commander's decision making. He is the commander's and DC's focal point for knowledge about the friendly and enemy situation. He has overall responsibility for providing the necessary information for the commander to make decisions. Thus, he plays a key role in structuring the overall reconnaissance effort to meet the commander's information requirements.

Staff

2-89. A staff provides rapid, responsive planning for combat activity, and then coordinates and monitors the execution of the resulting plans on behalf of the commander. Proper use of this staff allows the commander to focus on the most critical issues in a timely manner and to preserve his energies.

2-90. The staff releases the commander from having to solve administrative and technical problems, thereby allowing him to concentrate on the battle. The primary function of the staff is to plan and prepare for combat. Evaluation and knowledge of the situational elements of combat is fundamental to the decision-making process and the direction of troops. After the commander makes the decision, the staff must organize, coordinate, disseminate, and support the missions of subordinates. Additionally, it is their responsibility to train and prepare troops for combat, and to monitor the pre-combat and combat situations.

2-91. In the decision-making and planning process, the staff—
- Prepares the data and estimates the commander uses to make a decision.
- Plans and implements the basic measures for comprehensive support of a combat action.
- Organizes communications with subordinate and adjacent headquarters and the next-higher staff.

- Monitors the activities of subordinate staffs.
- Coordinates ongoing activity with higher-level and adjacent staffs during an operation.

2-92. All operational-level headquarters have the same basic organization, although each differs in size and complexity. The higher the level, the larger and more complex the staff. Therefore, the organization of command and staff elements is similar at theater, FG, or OSC.

2-93. The staff consists of three elements: the primary staff, the secondary staff and the functional staff. Figure 2-14 depicts the primary, secondary, and functional staff officers of an OSC headquarters; it does not show the liaison teams, which support the primary, secondary, and functional staff.

Primary and Secondary Staff

2-94. Each member of the primary staff heads a staff section. Within each section are two or three secondary staff officers heading subsections subordinate to that primary staff officer.

2-95. **Operations Officer.** The operations officer heads the operations section, and conducts planning and prepares operation plans and operational directives. Thus, the operations section is the principal staff section. It includes current operations, future operations, and airspace operations subsections, as well as the functional staff.

2-96. The operations officer is responsible for training and the formulating of plans and orders. He monitors the work of all other staff sections, remains knowledgeable of the current situation, and is ready to present information and recommendations concerning the situation. He writes combat orders and important combat reports. In coordination with the information section, the operations officer keeps the commander informed on the progress of the operation. Specific duties of the operations section include—

- Assisting the commander in the making and execution of combat decisions.
- Collecting information concerning the situation of friendly forces.
- Preparing and disseminating operational directives, plans and reports, summaries, and situation overlays.
- Providing liaison for the exchange of information within the headquarters and with higher, subordinate, and adjacent units.
- Organizing the main CP.
- Organizing troop movement and traffic control.
- Coordinating the organization of reconnaissance with the information section.

2-97. The *chief of current operations* is a secondary staff officer who proactively monitors the course of current operations and coordinates the actions of forces to ensure execution of the commander's intent. He serves as the representative of the commander, chief of staff, and operations officer in their absence and has the authority to control forces in accordance with the operation plan.

2-98. The *chief of future operations* is a secondary staff officer who heads the planning staff and ensures continuous development of future plans and possible branches, sequels, and contingencies. While the commander and the

chief of current operations focus on the current operation, the chief of future operations and his subsection monitor the friendly and enemy situations and their implications for future operations. They try to identify any developing situations that require command decisions and/or adaptive measures. They advise the commander on how and when to make adjustments to the operation plan during the fight. Planning for various contingencies and anticipated opportunities can facilitate immediate and flexible response to changes in the situation.

2-99. The *chief of airspace operations* (CAO) is a secondary staff officer who is responsible for the control of the OSC's airspace. See Chapters 8 and 9 for further information on his duties.

2-100. **Intelligence Officer.** The intelligence officer heads the intelligence and information section, which consists of the reconnaissance subsection, the IW subsection, and the communications subsection. The intelligence officer is responsible for the acquisition, synthesis, analysis, dissemination, and protection of all information and intelligence related to and required by the OSC's operations. He ensures the commander's intelligence requirements are met. He provides not only intelligence on the current and future operational environment, but also insight on opportunities for adaptive and creative responses to ongoing operations. The intelligence officer works in close coordination with the chief of future operations to establish feedback and input for future operations and the identification of possible windows of opportunity.

2-101. The intelligence officer also formulates the OSC's IW plan and must effectively task organize his staff resources to conduct and execute IW in a manner that supports the strategic IW plan. He is responsible for the coordination of all necessary national or theater level assets in support of the IW plan and executes staff supervision over the IW and communications plans. He is supported by three secondary staff officers: the chief of reconnaissance, the chief of IW, and the chief of communications.

2-102. The *chief of reconnaissance* develops collection plans, gathers information, and evaluates data on the battlefield situation. During combat, he directs the efforts of subordinate reconnaissance units and reconnaissance staff subsections of subordinate units. Specific responsibilities of the reconnaissance subsection include—

- Collecting, analyzing and disseminating information on the enemy, terrain, and weather to the commander and subordinate, higher, and adjacent units.
- Organizing reconnaissance missions, including requests for aerial reconnaissance, in coordination with the operations section and in support of the IW plan.
- Preparing the reconnaissance plan, in coordination with the operations section.
- Preparing the reconnaissance portion of operation plans and operational directives.
- Preparing intelligence reports.
- Supervising the exploitation of captured enemy documents and materiel.
- Supervising interrogation and debriefing operations throughout the command.
- Providing targeting data for long-range fires.

2-103. The *chief of information warfare* is responsible supervising the execution of the OSC's IW plan. (Chapter 5 details the components of the IW plan.) These responsibilities include—

- Coordinating the employment of IW assets, both those constituent to the OSC and those available at the national or theater level.
- Planning for and supervising all information protection and security measures.
- Supervising the implementation of the deception and perception management plans.
- Working with the operations staff to ensure that targets scheduled for destruction support the IW plan, and if not, resolving conflicts between IW needs and operational needs.
- Recommending to the intelligence officer any necessary actions required to implement the IW plan.

2-104. The *chief of communications* develops a communications plan for the command that is approved by the intelligence officer and chief of staff. He organizes communications with subordinate, adjacent, and higher headquarters. The communications subsection plans the use of all forms of communications, to include satellite communications (SATCOM), wire, radio, digital, cellular, and couriers, to ensure that the commander has continuous and uninterrupted control. Specific responsibilities of the communications subsection include—

- Establishing SATCOM and radio nets.
- Establishing call signs and radio procedures.
- Organizing courier and mail service.
- Operating the command's message center.
- Supervising the supply, issue, and maintenance of signal equipment.

2-105. An additional and extremely important role of the communications officer is to ensure the thorough integration of joint, interagency, and allied forces into the OSC's C^2 structure. The OSC headquarters is permanently equipped with a full range of C^2 systems compatible with each of the services of the State's Armed Forces as well as with government agencies commonly operating as part of OSCs (such as special police or border guard units that were originally subordinate to the Ministry of the Interior). Other government agencies and allied partners are also the responsibility of the communications officer and he plans and provides for their C^2 integration.

2-106. **Resources Officer.** The resources officer is responsible for the requisition, acquisition, distribution, and care of all of the command's resources, both human and materiel. He ensures the commander's logistics and administrative requirements are met and executes staff supervision over the command's logistics and administrative procedures. (Sustainment procedures are detailed in Chapter 12.) He is supported by two secondary staff officers: the chief of logistics and the chief of administration. One additional major task of the resources officer is to free the commander from the need to bring his influence to bear on priority logistics and administrative functions. He is also the officer in charge of the sustainment CP.

2-107. The *chief of logistics* heads the logistics system. He is responsible for managing the order, receipt, and distribution of supplies to sustain the command. He is responsible for the condition and combat readiness of armaments and related combat equipment and instruments. He is also responsible for their supply, proper utilization, repair, and evacuation. He oversees the supply and maintenance of the command's combat and technical equipment. These responsibilities encompass the essential wartime tasks of organizing and controlling the command's recovery, repair, and replacement system. During combat, he keeps the commander informed on the status of the command's equipment.

2-108. The *chief of administration* supervises all personnel actions and transactions in the command. His subsection maintains daily strength reports and TO&E changes; assigns personnel; requests replacements; records losses; administers awards and decorations; and collects, records, and disposes of war booty.

Functional Staff

2-109. The *functional staff* consists of experts in a particular type of military operation or function (see Figure 2-15). These experts advise the command group and the primary and secondary staff on issues pertaining to their individual areas of expertise.
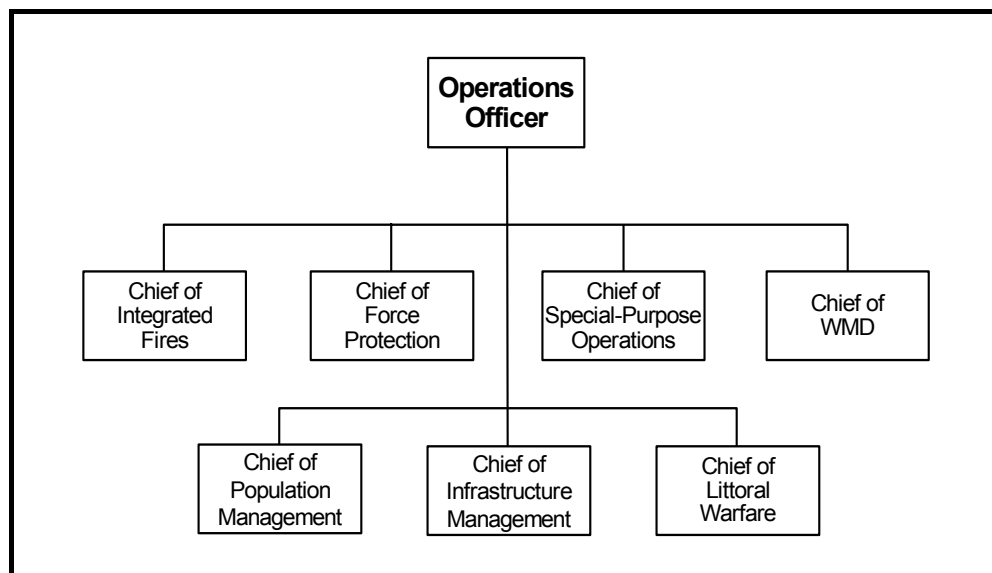
Figure 2-15. OSC Functional Staff

2-110. In peacetime, the functional staff is a cadre with personnel assigned from appropriate branches and services. It has enough personnel to allow continuous 24-hour capability and the communications and information management tools to allow them to support the commander's decision-making process and exercise staff supervision over their functional areas throughout the AOR. In wartime, the functional staff receives liaison teams from subordinate and supporting units that perform tasks in support of those functional areas.

2-111. **Chief of Integrated Fires.** The chief of integrated fires is responsible for integrating C^2 and RISTA means with fires and maneuver. He works closely with the OSC chief of reconnaissance and the IFC staff. He also coordinates with the chief of IW to ensure that deception and protection and security measures contribute to the success of the fire support to offensive and defensive operations.

2-112. **Chief of Force Protection.** The chief of force protection is responsible for coordinating activities to prevent or mitigate the effects of hostile actions against OPFOR personnel, resources, facilities, and critical information. This protection includes air, space, and missile defense; NBC defense; defensive IW; counterterrorism; counterreconnaissance; and engineer survivability measures. This subsection works closely with those of the chief of weapons of mass destruction (WMD) and the chief of IW. Liaison teams from internal security, air defense, chemical defense, and engineer forces provide advice within their respective areas of protection.

2-113. **Chief of Special-Purpose Operations.** The chief of special-purpose operations is responsible for planning and coordinating the actions of SPF units allocated to an OSC. When possible, this subsection receives liaison teams from any affiliated forces that act in concert with the SPF.

2-114. **Chief of Weapons of Mass Destruction.** The chief of WMD is responsible for planning the offensive use of WMD. This functional staff element receives liaison teams from any subordinate or supporting units that contain WMD delivery means.

2-115. **Chief of Population Management.** The chief of population management is responsible for coordinating the actions of Internal Security Forces, as well as psychological warfare, perception management, civil affairs, and counterintelligence activities. There is always a representative of the Ministry of the Interior, and frequently one from the Ministry of Public Information. This subsection works closely with the chief of IW and receives liaison teams from psychological warfare, civil affairs, counterintelligence, and Internal Security Forces units allocated to the OSC or operating within the OSC's AOR.

2-116. **Chief of Infrastructure Management.** The chief of infrastructure management is responsible for establishing and maintaining roads, airfields, railroads, hardened structures (warehouses and storage facilities), inland waterways, ports, and pipelines. He coordinates with the OSC resources officer regarding improvement and maintenance of supply and evacuation routes. He exercises staff supervision or cognizance over the route construction and maintenance functions of both civil and combat engineers operating in the OSC's AOR. He coordinates with civilian agencies and the OSC chief of communications to ensure adequate telecommunications support.

2-117. **Chief of Littoral Warfare.** The chief of littoral warfare is responsible for planning and coordinating coastal defense and amphibious operations. His subsection includes liaison teams from not only naval and naval infantry units, but also any ground forces, aviation, air defense, airborne, SPF, or affiliated forces that participate in or support the coastal defense or amphibious operation. He also coordinates with border guard units assigned to patrol coastal border areas.

Liaison Teams

2-118. Liaison teams support the staff with detailed expertise in the mission areas of their particular branch or service and provide direct communications to subordinate and supporting units executing missions in those areas. Liaison team leaders speak for the commanders of their respective units. Liaison teams to OSCs are organized with a liaison team leader, two current operations officers or senior NCOs and two plans officers or senior NCOs. This gives liaison teams the ability to conduct continuous operations and simultaneously execute current plans and develop future plans. The staff would also receive liaison teams from multinational and interagency subordinates and from affiliated forces.

COMMAND AND CONTROL PROCESS

2-119. C^2 is a continuous process at all levels of command. The OPFOR recognizes five elements in this process:

- Acquiring and processing information.
- Decision making.
- Planning.
- Preparation.
- Execution.

ACQUIRING AND PROCESSING OF INFORMATION

2-120. Acquiring and processing information is always the first function in the C^2 process. This function is a continuous, active process of requesting, receiving, collating, analyzing, and disseminating information commanders and staffs need for decision making and planning. However, the physical collection of information is not actually part of the C^2 process.

2-121. An operational-level commands receives information collected at higher and lower levels, as the information relates to its own requirements. Likewise, operational-level commands pass information to both those levels to meet strategic or tactical information requirements.

Strategic-Level Information Requirements

2-122. At the General Staff level and above, military and political information requirements are global in scope. The OPFOR has a continuous requirement to evaluate changes in the military or political capabilities and intentions of foreign nations in relation to the State. The accuracy of these assessments can directly influence the selection of strategic military and political goals, the structure of the State's Armed Forces, and the strategic concept for using military power.

Operational-Level Information Requirements

2-123. FG and OSC staffs are the focal points for detailed situation evaluation and large-scale planning for combat units. Therefore, they have a particularly heavy demand for information to support the decision-making and planning process. To function efficiently, operational-level staffs require high-resolution data on both enemy and friendly forces. Required periodic and special reporting is the primary source of detailed, accurate, and timely information on

friendly forces. The availability and timeliness of such friendly force data depends largely on the availability and efficiency of the necessary communications links. On the other hand, acquiring information on the enemy involves collecting and reporting in a hostile environment. Operational staffs must analyze conflicting and incomplete data and assess and correlate intelligence provided by higher headquarters.

Tactical-Level Information Requirements

2-124. The commander and staff must bring together all available data applicable to their mission and use the data skillfully to achieve their objectives. At a minimum, these data include information on enemy and friendly forces, the combat environment, and the population in the AOR.

2-125. **Enemy.** Of these elements, information about the enemy is the most important. An OPFOR commander must have continuous, reliable information about the enemy's effective combat strength and organization to conduct forces analysis. He must receive information concerning enemy locations, reinforcing units, C^2 systems, and defensive positions. Information pertaining to the disposition and potential use of precision weapons is important. The required degree of detail will vary in different situations and at various levels of command. Constant attention is given to identifying enemy deception efforts. The OPFOR emphasizes multi-spectral collection efforts to reduce the potential effects of the enemy's deceiving a single RISTA asset.

2-126. **Friendly Forces.** Information about friendly forces is necessary to help the commander determine how best to use them and to identify requirements for coordination. OPFOR planners consider training status when making qualitative calculations of relative strengths of their own and enemy forces. In addition, they must consider how missions of other friendly forces may affect the accomplishment of their own assigned tasks.

2-127. **Combat Environment.** The NBC environment, terrain, weather, and climatic and seasonal conditions also provide OPFOR planners insight as to what they can and cannot do effectively during a combat action. Planners use this information to determine routes, use of NBC weapons, and types of camouflage. This information can also help determine the effects these factors could have on friendly actions and on the enemy's possible courses of action.

2-128. **Population.** The economic and sociopolitical makeup of the AOR interests OPFOR military planners. Information about potentially hostile, neutral, and friendly populations in the AOR enables the OPFOR to exploit local resources and to plan appropriate levels of security and perception management strategies to manipulate the population.

DECISION MAKING

2-129. The military decision-making process consists of five phases: assess, orient, decide, act, and adapt. These phases are not completely independent processes or stages of thought. Each phase overlaps and relies on the others.

Assess

2-130. The command group and staff develop estimates across the components of the combat system, including combat, combat support, C², RISTA, and logistics forces. There are three separate purposes served by the assessment process, including—

- Develop situational awareness of forces and means at the disposal of the OPFOR and the enemy.
- Determine possible enemy weaknesses.
- Develop an understanding of OPFOR requirements.

2-131. The assessment phase requires the staff elements responsible for the discrete components of the combat system to conduct analysis and synthesis. Typically the analysis includes—

- **Mission.** The commander must understand the senior commander's concept of the campaign or operation and his own command's role in it.
- **Time and Space.** The OPFOR considers time a factor it can use to its advantage and prefers to exercise patience if that will achieve the goal. The OPFOR views time as an ally in developing a strategy of exhausting the enemy in pursuit of the State's goals.
- **Environment**. In the assessment of the environment, the OPFOR includes terrain, population, and other physical dimensions of the battlespace.
- **Capabilities and Intentions**. This is not limited to the immediate opponent, but includes all relevant regional and global actors.
- **Opportunities and Risks.** In its decision making, the OPFOR attempts to identify both risks and opportunity posed by the environment, time and space, or capabilities and intentions of other actors.

Orient

2-132. The orientation step or phase in the process enables the commander to direct preparatory steps prior to determining his aim or making his final decision. He first examines the mission given his unit and determines what tasks must be performed to accomplish this mission. This phase also includes activating RISTA assets to develop information requirements identified in the assessment of the situation. Typically, the orientation phase would include preliminary instructions appropriate to the assessment of the situation. If the assessment phase reveals shortfalls or information requirements essential to reaching a final decision, orienting the command group, staff, and units enables the OPFOR to develop "pace" prior to final decision. This phase requires coordination with appropriate civilian authorities at the higher echelons, particularly in support of transition operations or adaptive operations. During the orientation phase, the commander and his staff develop several courses of action and compare them, attempting to refine the information required for decision.

Decide

2-133. In the "decide" step, the commander determines his aim or decision and communicates his concept for execution. He includes his directions for

sustaining the aim. Typically, sustaining the aim involves assigning re-sources and developing parameters for execution that define the limits of subordinates' discretion. In communicating his thinking, the commander al-ways includes branches and sequels that he is able to anticipate. In establishing the aim, he remains focused on the mission that he was assigned, but does so in the context of the systems warfare approach to combat and how he may best achieve the ends envisioned in his mission. He attempts to reach a choice that enables the OPFOR to operate successfully by defeating an opponent through disaggregating one or more components of the enemy combat system. Conse-quently, the OPFOR is not very interested in classic calculations of correlation of military forces, but more in finding a way to produce disproportionate effects.

2-134. When the commander has selected a base course of action with appro-priate branches and sequels, he provides this decision to his staff for further planning and for dissemination of the finalized missions to the troops. The decision includes the concept, missions for major subordinates, the organiza-tion of forces, and the organization of the AOR. The components of the deci-sion are the following:

2-135. **Objective (Subordinate Unit Missions).** The commander deter-mines the objective of the operation and the missions to be assigned to con-stituent and dedicated forces. This part of the decision defines the priorities for supporting and affiliated forces.

2-136. **Opportunity.** The commander describes how the unit will achieve the necessary window of opportunity to execute the plan. This includes meas-ures for protecting the force from standoff attack as well as creating or taking advantage of an enemy vulnerability.

2-137. **Method (Concept of Operations).** The commander describes by what means to accomplish the task or mission. He organizes the battlefield and his forces. He lays out the method by which the OSC will support the theater or national IW campaign.

2-138. **End State.** The commander describes his vision for how the operation ends on OPFOR terms. He also describes how this operation sets the stage for follow-on operations.

Act

2-139. On the basis of the available data and the recommendations from the staff, the commander makes a decision. The decision may be one of the rec-ommended courses of action, a combination of two or more recommendations, or a new solution. The commander can also keep the more promising non-selected variants as contingency plans.

2-140. Commanders avoid using stereotyped patterns that would make en-emy templating and targeting easier. To aid in deception, they may create courses of action that appear on the surface as established fighting methods but are actually something else.

Adapt

2-141. Operational-level decision making is highly flexible. This flexibility comes from mission-type orders from the General Staff (or SHC or theater

headquarters) to the operational-level commands. The staff structure provides operational-level commanders the capability for rapid situation assessment and decision making.

2-142. Since operational planning occurs well in advance, it would be difficult for the enemy to disrupt the initial decision making and planning. However, the operational-level commanders and staffs are continually updating and adapting the operation plan. The OPFOR uses IW measures to help ensure that the OPFOR commander has sufficient time to acquire and process information on the combat situation.

PLANNING

2-143. The commander conveys his decision to the chief of staff, who, with his subordinates, fleshes it out with detailed planning tailored to the circumstances of the operation and the terrain. The chief of staff issues detailed, precise orders for the initial phase of an operation only. At this point, there usually is not enough hard data to allow an accurate forecast of how the situation will develop. The plan includes intelligence, the commander's decision, limits of responsibility, the missions of flanking forces, the missions of combat support and combat service support units, coordinating instructions, and the deployment of CPs.

2-144. Planning usually begins with the receipt of preliminary instructions for execution of the SCP. The planning process is continuous and will be affected by changes in the battlefield situation, amendments to orders and directives, or assignment of new missions. Situational intensity dictates the planning method used.

2-145. Central to OPFOR planning is the concept of opportunity. In transition or adaptive operations, the OPFOR recognizes that it will often be operating in conditions where it is overmatched by enemy technological superiority. In these conditions, the OPFOR will plan and conduct deliberate operations to create windows of opportunity in which to operate proactively with freedom of maneuver from enemy RISTA and standoff attack. Each OPFOR plan includes specific instructions to subordinate units concerning how this opportunity will be achieved and utilized.

2-146. Examples of means by which the OPFOR can create opportunity are—
- IW activities, including selective denial of enemy situational understanding.
- Use of complex terrain.
- Freedom-of-movement operations (such as feints, ruses, demonstrations, or ambushes).

Planning Framework

2-147. The military SCP developed and issued by the General Staff directs operational-level military forces. Each operational-level command identified in the SCP prepares an operation plan that supports the execution of its role in that SCP.

2-148. From the General Staff down through the operational and tactical levels, the staff of each military headquarters has an operations directorate or section that is responsible for planning. The plan at each level specifies the AOR and task organization of forces allocated to that level of command, in

order to best accomplish the mission assigned by a higher headquarters. Once the commander at a particular level approves the plan, he issues it to the subordinate commanders who will execute it. Figure 2-16 illustrates the framework for planning from the national level down through military channels to the operational and tactical levels.
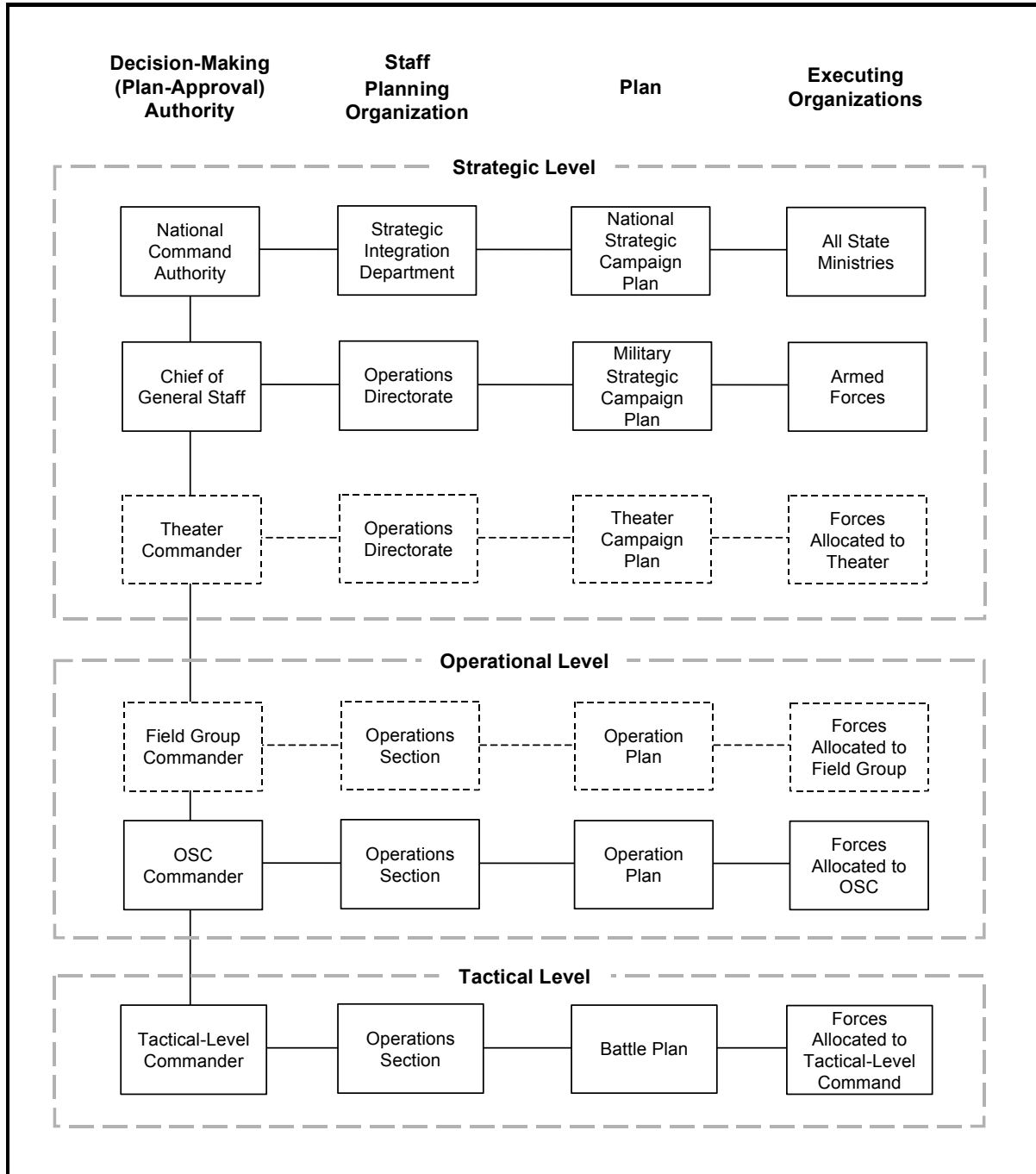
Figure 2-16. State and OPFOR Planning Framework

Planning Factors

2-149. Planning factors serve as a basis for staff calculations and as measures against which to test and assess troops and units. The OPFOR sees these planning factors as guides in planning rather than figures to which one must adhere rigidly in all circumstances.

2-150. The OPFOR views planning factors as practical expressions of the relationships dictated by military common sense and the principles of war. Operations planning factors include space and time factors concerning the missions of forces and their areas of combat activity. For example, such planning factors establish parameters for the time available to take advantage of a window of opportunity, the space required to disperse forces, and the number of ambushing forces necessary to ensure a key target is destroyed. The basis for these planning factors is a close study of potential adversaries, military history, field training exercises, and military simulations. The resulting planning factors are tailored to the makeup of OPFOR organizations, their capabilities, enemy capabilities, and conditions on the modern battlefield.

2-151. Planning factors also express timeliness and quantitative and qualitative factors. Examples include normal expenditures of ammunition to destroy a given target, rates of fuel consumption under specific conditions, and the number of halts in a road march of a given duration. Such factors ensure a uniform and objective approach to expected performance in combat and a standard for evaluating the training level of personnel and units.

Forces Analysis

2-152. For determining the amount and type of force required to accomplish a given mission (for planning purposes), OPFOR planners use a very detailed method known as *forces analysis*. This involves qualitative calculations of the relative strengths of their own and enemy forces. Forces analysis includes study of opponents previous military operations and the historical trends for application of military power at all levels. Vulnerabilities and strengths are assessed for potential exploitation by OPFOR operational forces. Forces analysis is seldom a simple one-to-one comparison of combat systems. It involves an examination of the enemy's entire combat system and the linkages of military forces to national strategies. By determining the relationships of the systems that give a military force its strength the OPFOR can determine where, and now much combat power to apply for desired effects. The results of forces analysis are used to recommend to the commander the organization of forces and the battlefield, as well as to identify any shortfalls in the available components of combat power.

Advances in Planning

2-153. Advances in information technology have resulted in changes in the OPFOR's planning process. Some of the advances have resulted in the fielding of new hardware providing increased capabilities, while others caused changes in how the OPFOR conducts operations. The following paragraphs address these factors.

2-154. **Timeliness.** The high pace of modern combat imposes time constraints on the OPFOR decision-making process and planning cycle. Commanders must expect the situation to be subject to sudden, sharp

changes, or to be shrouded in obscurity and ambiguity. As a result, there may be insufficient time to produce and disseminate intelligence and to formulate and issue plans and orders.

2-155. Timely and rapid information collection and reporting are critical to ensuring that commanders have constant, up-to-date knowledge of the situation. To be successful, the commander must be able to react swiftly to changes, while updating subordinate unit missions.

2-156. To OPFOR decision makers and planners, time assumes a role of unparalleled importance on the battlefield. The effectiveness of their C^2 is inseparably linked to the ability to make and implement decisions that allow the OPFOR to control the pace of combat.

2-157. Commanders and staffs must plan their available time carefully. The OPFOR emphasizes parallel planning and action at all levels. Even when less time is available for planning, it works out plans in as much detail as possible.

2-158. **Staff Procedures.** While the time available for making and communicating decisions has decreased, the quantity of information collected has increased dramatically. Improved reconnaissance systems have increased the volume of information to be processed and analyzed. Despite this information explosion, commanders must still be able to make rapid decisions while guarding against information overload and a resulting slowdown of the decision-making process.

2-159. The OPFOR has increased automation of the staff calculations supporting the decision-making and planning processes. Automation extends the use of prepared calculations and formulas, while reducing paperwork. OPFOR staff procedures are streamlined to provide commanders with more time to prepare their forces for combat. The issuance of preliminary instructions outlining the broad concept of operations, along with the acceptance of subordinates' initiative, allows subordinate staffs to use parallel planning.

2-160. **Detailed Planning.** When the commander decides on the final concept of operations, the staff begins detailed planning. Detailed planning is a prerequisite for success. Modern combined arms, joint, interagency, and multinational operations integrate the actions of many types of forces and combat equipment, as well as diverse support requirements. In terms of detail, OPFOR planning considers forces an echelon below the immediately subordinate units to which it assigns tasks in the operation plan. Thus, planning in an OSC with division-size subordinates looks at brigade-level requirements in detail.

PREPARATION

2-161. Preparation links planning and execution. The commander supervises the preparations of his subordinates, either personally or through his DC or chief of staff. He issues instructions and directives.

Dissemination of Missions

2-162. The dissemination of missions to subordinates is a critical C^2 task. The commander usually establishes the general procedures of staffs and other headquarters for disseminating missions to the troops. However, the chief of staff is the main organizer for carrying out this work. He must accomplish

this quickly, in order to give subordinate commanders and staffs, and units as well, sufficient time to prepare for their combat missions. In order to decrease the time this task requires, the OPFOR applies technology, such as graphic display panels and other sophisticated signal equipment.

2-163. Disseminating mission-type information concerning upcoming or planned combat activity occurs at several points in the decision-making and planning process. At any level, preliminary instructions from higher-level commanders first present this information in general outline, allowing subordinate commanders and staffs to begin preliminary planning (as part of the decision-making process). Only when they receive the senior commander's final decision in operational directives can lower-level commanders decide on their own final concept of the operation. The process at a given level ends when commanders issue combat orders to their own subordinates.

2-164. **Preliminary Instructions.** The means by which commanders can make the earliest possible dissemination of information concerning an upcoming operation are preliminary instructions. These instructions contain the missions of the subordinate units and the higher commander's general concept of operations. These normally serve as a vehicle to provide the outline of the commander's decision, basic information on the situation, and the mission for which the receiving headquarters should begin planning. These instructions may revise a previous order or issue a new, time-sensitive mission. Similar to a warning order in the U.S. Army, they allow subordinate units to prepare for the flurry of activity demanded of headquarters on receipt of a new mission. They enable subordinate headquarters to begin their planning process concurrently with the higher command levels. The commander may issue preliminary instructions to subordinates in either oral or written form. However, it is normal to transmit preliminary instructions by electronic, secure-voice means rather than in written form.

2-165. **Operation Plan.** Operational-level commands prepare *operation plans* to control execution of their portion of an SCP. The operation plan must—

- Optimally allocate forces and resources to each mission.
- Provide concrete methods to coordinate the actions of maneuver, fire support, and logistics support.
- Provide for a specific sequence and methods for conducting each subtask required to assure mission success.

From the completed operation plan, the staff creates operational directives or combat orders to inform subordinates of their missions, roles, and time requirements for executing the plan.

2-166. The operation plan details the commander's thinking and reflects the input of various subordinates and staff elements according to their functional responsibilities. It normally includes the following specific areas:

- Assessment of the enemy situation and probable intentions.
- Scope, aim, and concept of operations.
- Organization of forces.
- Organization of the battlefield.
- Results of forces analysis.

- Plan for commitment of reserves.
- Missions of subordinate units.
- Missions of supporting and adjacent units.
- Plan for logistics support.
- Locations of CPs.

2-167. The operation plan includes a varying number of annexes. There are normally annexes for C^2, SPF, airborne landings, preparation and occupation of assembly areas, and movement routes, among others.

Execution Orders

2-168. After planning and preparation, it is time to issue directives and orders for execution of the planned operation. The commander may continue to revise and re-issue these during the course of the operation.

2-169. **Operational Directive.** An operational directive contains complete information for accomplishing a particular mission. Commanders issue operational directives during the course of an operation to implement upcoming phases of the operation plan, implement a foreseen contingency, or to effect changes in the operation plan. Time constraints necessitate heavy dependence on verbal dissemination of missions and planning guidance. The operational-level staff usually issues a formal, written directive to supplement the verbal instructions the commander has already issued.

2-170. The operational-level staff may also prepare and issue annexes to operational directives. If annexes are incomplete when the staff transmits the directive, it sends them out separately to prevent delay in dissemination of the directive. Types of annexes include coordination requirements, reconnaissance, IW, force protection, communications, fire support, logistics, and counterattack plans.

2-171. **Combat Orders.** Commanders at all levels issue combat orders both during combat and during the preparation for combat. The orders are designed to direct a unit to perform a specific task or to adjust a former mission. Combat orders typically include an estimate of the enemy situation, the new (or revised) mission, the support available from the commander for the mission, and the time when the unit must be ready to execute the task. Because they are time-sensitive, combat orders are usually disseminated orally either by radio or in person.

Rehearsals

2-172. Rehearsals are an integral part of OPFOR preparation for combat. OPFOR commanders expect all key phases of an operation to be well rehearsed using the most realistic means possible. OPFOR staffs take action to relieve subordinate units of other time pressures to permit the maximum time for rehearsals and other combat checks during preparation. OPFOR commanders often forego planning detail in order to spend time with key subordinates during their rehearsals.

EXECUTION

2-173. Planning and preparation are important, but they alone are not sufficient for success. The enemy's actions can have a dynamic effect on executing plans. Friction and uncertainty can distort the best of plans, imposing new realities on the situation. Dealing with those realities is the art of execution.

Planned Flexibility

2-174. Operational-level C^2 is highly flexible. This flexibility comes from mission-type orders from the General Staff (or SHC or theater headquarters) to the operational-level commands. The staff structure provides operational-level commanders the capability for rapid situation assessment and decision making. A standardized, streamlined process, using automated support, produces the decision and the accompanying plans to implement it.

2-175. Since operational planning occurs well in advance, it would be difficult for the enemy to disrupt the initial decision making and planning. However, the operational-level commanders and staffs are continually updating of the operation plan. By limiting a commander's time to plan, an enemy could force the OPFOR staff to forsake the preferable parallel or sequential planning methods for less desirable executive planning. The OPFOR uses IW measures to help ensure that the OPFOR commander has sufficient time to acquire and process information on the combat situation.

2-176. Planning continues during execution. The process of forecasting and modeling the commander began in his decision process usually has produced a series of variants, or contingency plans, which the commander can implement without completely changing his concept of operations. Such planning also accounts for a range of probable enemy responses to OPFOR combat actions. Each variant, however, must allow the achievement of the assigned mission by the designated time; this aspect of the plan is not subject to contingency planning.

Monitoring Execution and Sustaining the Aim

2-177. Issuing directives does not ensure they will be carried out or understood. The OPFOR places great emphasis on supervision after the directive is issued. The chief of staff is responsible to the commander for the overall organization of staff supervision. Each staff section is responsible for checking on the execution of the directives it prepares and also ensuring that subordinates have correctly understood the directives. The chief of staff may issue additional directives, with the operational commander's approval, to resolve any misunderstandings.

2-178. Proper supervisory control takes many forms. These include observation from air and ground observation points, and instructions and questions passed by radio, wire, or messenger. The preferred method is personal contact. The OSC commander may personally supervise the most important combat action. In fast-moving situations, control is somewhat looser. Subordinate commanders then react as the situation dictates, realizing they are responsible for acting in accordance with the commander's concept.

COMMAND POSTS

2-179. The OPFOR plans to exercise strategic, operational, and tactical control over its wartime forces from an integrated system of CPs. It has designed this system to ensure uninterrupted control of forces.

2-180. CPs are typically formed in three parts: a control group, a support group, and a communications group. The control group includes members of the command group and staff. The support group consists of the transport and logistics units. Whenever possible, the communications group, is remoted from the control and support groups, because of its large number of signal vans, generators, and other special vehicles that would provide a unique signature.

2-181. Because the OPFOR expects its C^2 to come under heavy attack in wartime, its military planners have created a CP structure that emphasizes survivability through dispersal, stringent security measures, redundancy, and mobility. They have constructed a CP system that can sustain damage with minimum disruption to the actual C^2 process. In the event of disruption, they can quickly reestablish control. This extensive system of CPs extends from the hardened command facilities of the NCA to the specially designed command vehicles from which OPFOR tactical commanders control their units. Most operational-level CPs have been designed to be very mobile and smaller than comparable enemy CPs. The number, size, and types of CPs depend on the level of command.

COMMAND POST TYPES

2-182. OPFOR ground forces use five basic and three special types of CPs. Not all levels of command use all types at all times. (See Figure 2-17, where parentheses indicate that a type of CP may or may not be employed at a certain level.) The redundancy provided by multiple CPs helps to ensure that the C^2 process remains survivable.

Level of Command	Basic					Special		
	Main CP	IFC CP	Forward CP	Sustainment CP	Airborne CP	Alternate CP	Auxiliary CP	Deception CP
OSC	X	X	X	X	(X)	(X)	(X)	(X)
Field Group*	X	X	(X)	X	X	(X)	(X)	(X)
Theater*	X	X	(X)	X	X	(X)	(X)	(X)
* When formed.								

Figure 2-17. Command Post System

2-183. FGs and OSCs can use the same basic types of CPs (main, IFC, forward, sustainment, and airborne). FG and OSC airborne CPs may be aboard fixed-wing aircraft. However, helicopters are more likely to serve this purpose at OSC level.

2-184. A theater headquarters normally deploys main, IFC, and sustainment CPs. An airborne CP will always be available to the theater commander. A theater forward CP may be established. The main CP at this level may initially be in permanent, hardened bunkers; the other CP types may be at less-protected sites. The airborne CP is most likely aboard fixed-wing aircraft.

2-185. For brevity, OPFOR plans and orders may use acronyms for the various types of CP. Thus, main CP may appear as MCP, integrated fires command CP as IFC CP, forward CP as FCP, sustainment CP as SUSCP, airborne CP as AIRCP, alternate CP as ALTCP, auxiliary CP as AUXCP, and deception CP as DCP.

Main Command Post

2-186. The main CP generally is located in a battle zone or in a key sanctuary area or fortified position. It contains the bulk of the staff. The chief of staff directs its operation. Its primary purpose is to simultaneously coordinate the activities of subordinate units not yet engaged in combat and plan for subsequent missions. The particular emphasis on planning in the main CP is on the details of transitioning between current and future operations. The main CP is the focus of *control*. It is less mobile and much larger than the forward CP. It makes use of hardened sites when possible.

2-187. The chief of staff directs the staff in translating the commander's decisions into plans, directives, and orders. He also coordinates the movement and deployment of all subordinate units not yet in combat and monitors their progress and combat readiness. In addition to the chief of staff, personnel present at the main CP include the liaison teams from subordinate, supporting, allied, and affiliated units, unless their presence is required in another CP.

IFC Command Post

2-188. The DC directs the IFC from the IFC CP. The IFC CP possesses the communications, airspace control, and automated fire control systems required to integrate RISTA means and execute long-range fires. Each secondary staff subsection and some functional staff subsections have an element dedicated to the IFC CP. The IFC CP includes liaison teams from fire support, army aviation, and Air Force units. The IFC CP is typically separated from the main CP. Also for survivability, the various sections of the IFC headquarters that make up the IFC CP do not necessarily have to be located in one place.

Forward Command Post

2-189. An OSC commander often establishes a forward CP with a small group of selected staff members. Its purpose is to provide the commander with information and communications that facilitate his decisions. The forward CP is deployed at a point from which he can more effectively and personally observe and influence the operation. The need for this is less likely at

the FG and theater levels. This CP is mobile, but at the operational level may consist of a large number of command vehicles.

2-190. The personnel at the forward CP are not permanent. The assignment of officers to accompany the commander is dependent on the mission, situation, availability of officers, communications, and transport means. Officers who may accompany the commander include the operations officer and the chief of reconnaissance. Other primary and or secondary staff officers may also deploy with the forward CP, depending on the needs of the situation. The secondary staff contains enough personnel to man the forward CP without degrading its ability to man the main or IFC CPs.

2-191. When formed, and when the commander is present, the forward CP is the main focus of *command*, though the chief of staff (remaining in the main CP) has the authority to issue directives in the commander's absence.

Sustainment Command Post

2-192. The resources officer establishes and controls the sustainment CP. This CP is deployed in a position to permit the supervision of execution of sustainment procedures and the movement of support troops, typically in the support zone. It contains staff officers for fuel supply, medical support, combat equipment repair, ammunition supply, clothing supply, food supply, prisoner-of-war, and other services. It interacts closely with the subordinate units to ensure sustained combat capabilities. In nonlinear operations, multiple sustainment CPs may be formed.

Airborne Command Post

2-193. To maintain control in very fluid situations, when subordinates are operating over a wide area, or when the other CPs are moving, a commander may use an airborne CP. This is very common in higher-level commands and typically employs fixed-wing aircraft above OSC level.

Alternate Command Post

2-194. The alternate CP provides for the assumption of command should the CP containing the commander be incapacitated. The alternate CP is a designation given to an existing CP and is not a separately established entity. The commander establishes which CP will act as an alternate CP to take command if the main (or forward) CP is destroyed or disabled. For example, the commander might designate the IFC CP as the alternate CP during an operation where long-range fires are critical to mission success. For situations that require reconstituting, he might designate the sustainment CP instead. Alternate CPs are also formed when operating in complex terrain, or if the organization is dispersed over a wider area than usual and lateral communication is difficult.

Auxiliary Command Post

2-195. At OSC and FG levels, the operational commander may create an auxiliary CP to provide C^2 over subordinate units operating on isolated or remote axes. He may also use it in the event of disrupted control or when he cannot adequately maintain control from the main CP. An officer appointed at the

discretion of the commander mans it. The auxiliary CP may also find uses at the theater level, when subordinate forces may be far from the main CP.

Deception Command Post

2-196. As part of the overall IW plan, the OPFOR very often employs deception CPs. These are complex, multi-sensor-affecting sites integrated into the overall deception plan to assist in achieving battlefield opportunity by forcing the enemy to expend command and control warfare (C2W) effort against meaningless positions.

COMMAND POST MOVEMENT

2-197. Plans for relocating the CPs are prepared by the operations section. The CPs are deployed and prepared in order to ensure that they are reliably covered from enemy ground and aerial reconnaissance, or from attack by enemy raiding forces.

2-198. Commanders deploy OSC CPs in depth to facilitate control of their AORs. During lengthy moves, CPs may bound forward along parallel routes, preceded by reconnaissance parties that select the new locations. Normally, the main and forward CPs do not move at the same time, with one moving while the other is set up and controlling operations. During an administrative movement, when there is little or no likelihood of contact with the enemy, a CP may move into a site previously occupied by another CP. However, during a tactical movement or when contact is likely, the OPFOR does not occupy a site twice, because to do so would increase the chances of an enemy locating a CP. While on the move, CPs maintain continuous contact with subordinates, higher headquarters, and flanking organizations. During movement halts, the practice is to disperse the post in a concealed area, camouflaging it if necessary and locating radio stations and special vehicles some distance from the control and support groups. Because of dispersion in a mobile environment, CPs are often responsible for their own local ground defenses.

2-199. During the movement of a main CP, the OPFOR maintains continuity of control by handing over control to either the forward or airborne CP or, more rarely, to the alternate CP. Key staff members often move to the new location by helicopter to reduce the time spent away from their posts. Before any move, headquarters' troops carefully reconnoiter and mark the new location. Engineer preparation provides protection and concealment.

COMMAND POST LOCATION

2-200. The OPFOR locates CPs in areas affording good concealment, with good road net access being a secondary consideration. It situates CPs so that no single weapon can eliminate more than one. Remoting communications facilities lessens the chance of the enemy's locating the actual CP by radio direction finding.

2-201. During some particularly difficult phases of an operation, where close cooperation between units is essential, the forward CP of one unit may be collocated with the forward or main CP of another. Examples are the commitment of an exploitation force, the execution of a strike, or the passing of one organization through another.

COMMAND POST SECURITY

2-202. Security of CPs is important, and the OPFOR takes a number of measures to ensure it. CPs are a high priority for air defense protection. Ideally, main CPs also locate near reserve forces to gain protection from ground attack. Nevertheless, circumstances often dictate that they provide for their own local defense. Engineers normally dig in and camouflage key elements.

2-203. Good camouflage, the remoting of communications facilities, and the deployment of alternate CPs make most of the C^2 structure fairly survivable. Nevertheless, one of the most important elements, the forward CP, often remains vulnerable. It forms a distinctive, if small, grouping, well within enemy artillery range, even at OSC level. The OPFOR therefore typically provides key CPs with sufficient engineer and combat arms support to protect them from enemy artillery or special operations raids.

COMMAND AND CONTROL SYSTEMS

2-204. The OPFOR commander's C^2 requirements are dictated generally by the doctrine, tactics, procedures, and operational responsibilities applicable to commanders at higher echelons. Battlefield dispersion, mobility, and increasing firepower under conventional or WMD conditions require reliable, flexible, and secure command and control.

2-205. Expanding C^2 requirements include the need for—

- High mobility of combat headquarters and subordinate units.
- Rapid collection, analysis, and dissemination of information as the basis for planning and decision making.
- Maintaining effective control of forces operating in a hostile IW environment.

Supporting communications systems, which are the principal means of C^2, must have a degree of mobility, reliability, flexibility, security, and survivability comparable to the C^2 elements being supported.

2-206. Modern warfare has resulted in a shift away from large formations arrayed against one another in a linear fashion, to maneuver warfare conducted across large areas with more lethal, yet smaller, combat forces. C^2 must provide the reliable, long-range communications links necessary to control forces deployed over greater distances. In order to move with the maneuver forces, the communications systems must be highly mobile.

COMMUNICATIONS

2-207. The chief characteristics of communications supporting the C^2 structure are security, survivability, and flexibility. In the OPFOR view, centralization of operational planning is a prerequisite to achieving the flexibility required to ensure timely concentration of forces and fires. Redundancy in equipment, as well as communications links and CPs, is the primary means of ensuring the control structure's security and survivability.

2-208. The organization of communications to meet operational requirements is the responsibility of the commander at each level. Prior to combat, the OSC chief of communications, under the personal direction of the intelligence officer,

prepares the communications plan. After approval by the chief of staff, it becomes an annex to the operational directive for implementation by subordinate signal units. OPFOR communications reflect the concern of commanders to maintain uninterrupted C^2, flexibility, and security.

Signal Assets

2-209. Communication systems employed include—

- Manportable high-frequency (HF) and very-high-frequency (VHF) radios.
- HF radio stations.
- VHF and ultra-high-frequency (UHF) multichannel radio relay.
- Super-high-frequency (SHF) troposcatter systems.
- Satellite communications (SATCOM).
- Wire and cable (landline as far forward as possible).
- Commercial communications networks (including cellular, microwave, radio, wire, digital, and satellite)
- Local area networks (LANs) and wide area networks (WANs).
- Internet and Intranet.

Encrypted communications are common from brigade upward, but may extend to the lowest levels in the most modern OPFOR units.

2-210. At the operational level, headquarters normally task-organize their signal assets to support the formation of forward, main, IFC, and sustainment CPs. The numbers and types of signal units can vary greatly depending on the size and makeup of the operational force grouping under a particular headquarters.

2-211. Signal communications are organized through the communications groups that are established to provide communications for the CPs. Telephone exchanges and cable are used extensively to integrate the control and support groups of the CPs with the communications groups. It is possible to extend mobile communications through the integration of wire and wireless and by connecting with fixed military and civil communications facilities.

2-212. The OPFOR also stresses the use of *non-electronic* means of communications. While radio must be the principal means of communication in a fluid, mobile battle, the OPFOR is aware of the threat from enemy signals intelligence, direction finding, and communications jamming. Also, wire and cable are often not practical in fast-moving situations.

2-213. During periods of radio silence or disruption of radio communications, the OPFOR employs messengers, liaison teams, and visual and sound signals. Messengers are the preferred method for delivering combat orders at any time. Representatives from the OSC staff may observe and supervise the execution of directives. Whenever possible, the OPFOR prefers personal contact between commanders (or their representatives) and subordinates.

Communications Nets

2-214. C² of OPFOR organizations relies on extensive and redundant communications. The OPFOR primarily uses UHF/SHF SATCOM, radio relay multichannel, HF radio stations, HF and VHF single-channel radios, and wire or cable. In modernized OPFOR units, the command, operations, intelligence, and logistics nets may operate over a digital network of linked computers, obviating the need for voice communications.

2-215. The OSC operates two *command nets*. The commander normally controls the *primary command net* from the forward CP, while the chief of staff maintains control of the *alternate net* from the main CP. Depending on the distances involved, the primary net may be either HF or VHF. All of the command's constituent and dedicated units monitor the command nets. The IFC CP also monitors the command nets

2-216. The operations officer maintains an *operations net* monitored by the commander, subordinate and supporting units, and any alternate or auxiliary CP created. The resources officer also monitors this net from the sustainment CP.

2-217. The DC, as IFC commander, maintains the *integrated fires net*. This net is monitored by the subordinates of the IFC and RISTA assets assigned IFC missions.

2-218. The resources officer maintains the *support net*. The OSC's materiel support, maintenance, and medical units monitor this net. Subordinate combat arms units may also use this net when requiring additional, immediate assistance that constituent support assets are unable to provide.

2-219. The chief of reconnaissance maintains an *intelligence net*, monitored by reconnaissance units, maneuver units, the commander, DC, chief of staff, and resources officer.

2-220. The CAO maintains the *airspace control net* for the purpose of controlling the command's airspace. Organizations on this net include aviation units, air defense assets, and army aviation and Air Force liaison teams.

2-221. When required, the commander can create a *special mission net*, monitored by the chief of staff, that is employed to control the activities of units conducting a special mission, such as a reconnaissance detachment or an airborne or heliborne landing force deployed behind enemy lines. Specific communications systems employed are dependent on the depth and type of mission.

2-222. The chief of force protection maintains an *air defense and NBC warning communications net*, monitored by all constituent, dedicated, and supporting units. This net is used for passing tactical alerts or NBC and air warning reports. The chief of staff maintains a watch on the OSC-level warning nets at the main CP; he then disseminates warning where appropriate.

2-223. The command establishes multichannel links between the main and sustainment CPs and the CPs of subordinate units. These links are used for high-capacity voice and data transmissions. The OSC also establishes multichannel links between the main and sustainment CPs.

2-224. The primary responsibility for maintaining communications of an OSC with the General Staff or SHC (or a parent FG or theater headquarters) rests with the main CP. With the larger staffs and greater communications capabilities of the main CP, the commander is allowed to focus more on the actual conduct of the operation from the forward CP. Obviously, when staff members, such as the CAO or chief of reconnaissance, accompany the commander, they will establish control over their respective nets as required.

2-225. The chief of IW may also control one or more deception nets designed to mislead enemy signals intelligence analysis. Integrated into the IW plan are a description of these nets and procedures for their use.

Procedures

2-226. Before making contact with the enemy, most radio and radio-relay systems maintain a listening watch with transmission forbidden or strictly controlled. OPFOR units usually observe radio silence when defending or departing assembly areas. During radio silence, wire and courier are the primary communications means. While moving toward the enemy, units normally limit radio transmissions to various code words informing commanders they have accomplished assigned tasks or have encountered unexpected difficulties. The OPFOR also uses visual signals, such as flags and flares, to a great extent during movement. Usually only the commander and reconnaissance forces have permission to transmit.

2-227. In the offense, OPFOR units maintain radio silence until the outbreak of battle, when those authorized to transmit may do so without restriction. When contact with the enemy occurs, units initiate normal radio procedures. Subordinate commanders inform the OSC commander—usually by code word—when they reach objectives, encounter NBC contamination, make contact with the enemy, or have important information to report.

COMMAND AND CONTROL SYSTEMS SURVIVABILITY

2-228. Survivability of C^2 systems is of great concern, since the C^2 elements are typically located within range of enemy standoff systems, with increased potential for disruption or destruction. The OPFOR stresses the need to maintain continuous, reliable control of its forces and has undertaken a number of measures to prevent disruption and enhance survivability, while remaining flexible enough to retain control of units in combat. These include—

- High mobility of C^2 systems and facilities.
- Redundancy of the C^2 elements and networks.
- Adherence to operations- and information-security measures.
- Deception

2-229. IW activities contribute to C^2 survivability. So does the principle of centralized planning and decentralized execution. The survivability of the headquarters' command group is facilitated by the fact that the commander, DC, and chief of staff can be in separate CPs (forward, IFC, and main CPs, respectively).

Mobility

2-230. C^2 elements must be highly mobile, due to the emphasis on maintaining combat at a rapid tempo. Because of their proximity to the enemy, CPs and supporting communications must frequently relocate to avoid detection and subsequent destruction.

2-231. CPs are usually mobile (that is, in vehicles) but may also be fixed. By emphasizing the use of multiple, mobile CPs, planners minimize the disruption of C^2 that would occur with the enemy's destruction of this element of the C^2 structure. Highly mobile signal units employing transportable communications equipment support mobile CPs. This gives OPFOR commanders great flexibility in organizing and deploying their C^2 elements. Thus, they are able to provide effective control in varied situations.

Redundancy

2-232. The OPFOR has built extensive redundancy into the C^2 structure. Multiple CPs are fielded as low as possible. For communications between levels of command, multiple communications types are employed. Providing a variety of single- and multichannel links, these systems operate over a wide frequency spectrum.

Operations and Information Security

2-233. The consistent adherence to operations- and information-security measures is especially critical, given the increased capabilities of enemy reconnaissance, the increased role of surprise, and the proliferation of precision weapons. Given the high priority the enemy places on C^2 elements as targets, maintaining operations security is an important requirement for C^2 nodes. This is achieved by the stringent adherence to information-security procedures and extensive use of C^3D.

Chapter 3

Offensive Operations

The OPFOR sees the offensive as the decisive form of operations and the ultimate means of imposing its will on the enemy. While conditions at a particular time or place may require the OPFOR to defend, defeating an enemy force ultimately requires shifting to offensive operations. Even within the context of defense, victory normally requires some sort of offensive action. Therefore, OPFOR commanders at all levels seek to create and exploit opportunities to take offensive action, whenever possible.

In the context of the theater strategic or operational level of war, offensive operations are often "conventional" in nature. Conventional operations are not, however, the only form of offensive operations. Accordingly, this chapter includes discussions of operational-level offensive actions that do not rely only on large formations of mechanized or motorized units. Offensive operations may include operations done by paramilitary or irregular forces. The OPFOR recognizes the traditional forms of maneuver: envelopment, turning movement, infiltration, penetration, and frontal attack.

STRATEGIC CONTEXT

3-1. Offensive operations are an important component of all OPFOR strategic campaigns. However, the scale and purpose of offensive actions may differ during the various types of strategic-level actions.

REGIONAL OPERATIONS

3-2. Offensive operations during regional operations attempt to achieve strategic political or military decision by destroying the enemy's will and capability to fight. This is brought about by destroying components of the enemy's combat system. This may include discrete attacks on any of the four components of an enemy's combat system: combat forces, combat support forces, logistics forces, and command and control (C^2) and reconnaissance, intelligence, surveillance, and target acquisition (RISTA). It may also include an attempt to destroy one or more of the enemy's systems simultaneously.

3-3. Due to its military superiority over a regional adversary in regional operations, the State is able to pursue primarily offensive military courses of action. It is also prepared to use offensive means against internal and possible extraregional threats.

3-4. The State's military forces are sufficient to overmatch any single regional neighbor, but may not be a match for the forces an extraregional power can bring to bear. Thus, the State seeks to exploit its numerical and

technological overmatch against one regional opponent rapidly, before other regional neighbors or an extraregional power can enter the fight. Thus, a characteristic of regional operations is a rapid tempo of offensive combat.

3-5. The State's military goal during regional operations is to destroy its regional opponents' military power in order to achieve specific ends. The State plans regional operations well in advance and executes them as rapidly as is feasible in order to preclude intervention by outside forces. Still, at the very outset of these operations, it lays plans and positions forces to conduct access-control operations in the event of outside intervention. Extraregional forces may also be vulnerable to conventional operations during the time they require to build combat power and create support at home for their intervention.

3-6. In comparison to the forces of the State's regional neighbors, the OPFOR is a relatively large and modern force. Therefore, it is capable of offensive operations against such opponents. The OPFOR will use armor, mechanized infantry, airborne, and heliborne forces, when available. Generally, it will use infantry forces suitable for operating in the complex terrain that dominates portions of the region. When the OPFOR is dependent on infantry forces or irregular forces, it will attack by infiltration or maneuver to conduct ambushes of more capable enemy forces.

3-7. The OPFOR may attack along a suboptimal approach to exploit an enemy vulnerability or to achieve surprise. To maintain a high tempo of operations and reach key targets, the OPFOR often accepts the risk of bypassing pockets of resistance.

TRANSITION OPERATIONS

3-8. Offensive operations play two key roles in transition operations. First, they are used to continue to achieve the State's regional goals as rapidly as possible, to make the act an extraregional power is trying to prevent a *fait accompli*. Second, they are a component of access-control operations to exclude the extraregional power from key areas and contain him in areas of the OPFOR's choosing. The OPFOR uses offensive operations to preclude or put a quick end to expansion of the conflict and to either consolidate its previous gains or conduct further operations against the original regional enemy.

3-9. During transition operations, military forces solidify gains made during regional operations. However, the central aim is to prevent or defeat outside intervention. Although transition operations are primarily defensive in nature, attacks will continue. As a minimum, the OPFOR will maintain counterattack forces at virtually all levels of command and will attempt to physically attack one or more components of an enemy's combat system. A combination of operational and tactical offensive and defensive actions help the OPFOR control tempo.

3-10. Military forces in the immediate vicinity of the point of intervention move into sanctuary as opportunity allows, making use of existing C^2 and logistics. They conduct limited-objective attacks to secure positions, protect flanks, and control access. They may attack vulnerable early-entry forces before the enemy can bring his technological overmatch to bear. Even at this stage, the State may be able to inflict politically unacceptable casualties that could cause the extraregional power to terminate its intervention.

3-11. During transition operations, the OPFOR plans and conducts sophisticated ambushes to destroy high-visibility enemy systems or cause mass casualties. These ambushes are not always linked to maneuver or ground objectives, but are designed to have a huge psychological and political impact by demonstrating enemy vulnerability. The OPFOR may use niche technology it has acquired to achieve technological surprise and limited-duration overmatch in specific areas.

3-12. The OPFOR can use weapons of mass destruction (WMD) to deny an extraregional opponent the use of complex terrain for a period of time. This creates opportunities for operational forces to destroy key enemy systems with precision fires or to engage the enemy forces with fires and maneuver.

3-13. Transition operations are combined arms and/or joint efforts, although the air and naval forces increasingly revert to defensive measures to preserve their capability. Ground forces or, more often, Special-Purpose Forces (SPF) conduct raids against logistics sites, lines of communication (LOCs), and other vulnerable military targets in the region, along the routes to the region, and to the enemy's strategic depth. Occasionally, if the risks are worth the costs, the OPFOR attacks such targets by air and sea. It may also use long-range missiles or rockets to deliver conventional warheads or WMD against these kinds of targets. Paramilitary forces, air defense forces, and precision attack can also play important roles. The OPFOR may also use long-range weapons or SPF to conduct attacks outside the theater, to divert enemy resources to protect politically or ecologically sensitive targets.

ADAPTIVE OPERATIONS

3-14. Once an extraregional power commits forces in the region, the OPFOR does not avoid battle. It seeks it often, but on its own terms. Battles will occur at a place and time of the OPFOR's choosing and involve dispersed maneuver, precision fires, and simultaneous actions by all services of the Armed Forces as well as affiliated forces. Tactical counterattacks characterize adaptive operations, and larger counteroffensive operations are undertaken when feasible.

3-15. During adaptive operations, the OPFOR may conduct limited-objective operational- and tactical-level offensive actions to prevent buildup of intervening forces, to facilitate the defense, or to take advantage of an opportunity to counterattack.

3-16. When the OPFOR can create a window of opportunity or exploit opportunity created by natural conditions that limit or degrade enemy capabilities, its forces move out of sanctuary and attack. They try to force the enemy to operate in areas where OPFOR interdiction fire can be most effective. The OPFOR uses windows of opportunity to destroy key enemy systems or cause mass casualties.

PURPOSE OF THE OFFENSE

3-17. All offensive operations are designed to achieve the goals of a strategic campaign through active measures. However, the purpose of any given offensive operation varies with the situation. The primary distinction among types of offensive operations is their purpose. Thus, the OPFOR recognizes three general types of offensive operations according to their purpose: to destroy, seize, or expel.

ATTACK TO DESTROY

3-18. An *attack to destroy* is designed to eliminate a target entity as a useful fighting force. Operational-level attacks to destroy usually focus on key enemy combat formations or capabilities. Not every soldier or system need be destroyed for such an attack to be successful. Attacks to destroy are often focused on a single component of an enemy's combat system. For example, it may be enough to remove the enemy force's ability to sustain itself or exercise effective command and control. Therefore, attacks to destroy are often focused on the logistics and C^2 systems of the target entity. Such attacks are most often conducted during regional operations. However, an attack to destroy may also occur during transition or adaptive operations, whenever the OPFOR can recognize and exploit a window of opportunity.

ATTACK TO SEIZE

3-19. An *attack to seize* is designed to gain control of a key terrain feature or man-made facility. The OPFOR does not adhere to the idea that seizure may be accomplished simply by placing a feature in weapons range. In the OPFOR lexicon, *seize* means to have OPFOR soldiers on and/or in the feature in question. Attacks to seize can occur as part of all strategic-level courses of action during OPFOR strategic campaigns. In regional operations, the seizure may facilitate the movement of an exploitation force. In transition or adaptive operations, the seizure may be part of a campaign to control access into the theater.

ATTACK TO EXPEL

3-20. An *attack to expel* is used to force the defender to vacate an area. Attacks to expel often have a strong information warfare (IW) component, so that the enemy removes himself from the area largely through a loss of resolve. Attacks to expel typically focus on a key enemy capability or vulnerability. Attacks to expel are primarily conducted within the context of transition or adaptive operations.

PLANNING OFFENSIVE OPERATIONS

3-21. For the OPFOR, the key elements of planning offensive operations are—
- Determining the level of planning possible (planned versus situational offense).
- Organizing the battlefield.
- Organizing forces.
- Organizing IW activities (see Chapter 5).
- Determining the objective of the offensive operation.

3-22. Offensive actions during transition and adaptive operations are not able to rely simply on massing combat power at a decisive point. Such actions typically include increased use of—
- Infiltration.
- Perception management (see Chapter 5) in support of operations.
- Affiliated forces in support of operations.

PLANNED OFFENSE

3-23. A *planned* (deliberate) offense is an offensive operation or action undertaken when there is sufficient time and knowledge of the situation to prepare and rehearse forces for specific tasks. Typically, the enemy is in prepared defensive positions and in a known location. The OPFOR plans an offense using the method described in Chapter 2. Key considerations in offensive planning are—

- Selecting a clear and appropriate objective.
- Determining which enemy forces (security, reaction, or reserve) must be fixed.
- Developing a reconnaissance plan that locates and tracks relevant enemy targets and elements.
- Creating or taking advantage of a window of opportunity to free friendly forces from any enemy advantages in precision standoff and situational awareness.
- Determining which component or components of an enemy's combat system to attack.

SITUATIONAL OFFENSE

3-24. The OPFOR may also conduct a *situational* (hasty) offense. It recognizes that the modern battlefield is chaotic. Fleeting opportunities to attack an enemy weakness continually present themselves and just as quickly disappear. Although detailed planning and preparation greatly mitigate risk, they are often not achievable if a window of opportunity is to be exploited.

3-25. The following are examples of conditions that might lead to a situational offense:

- A key enemy unit, system, or capability is exposed.
- The OPFOR has an opportunity to conduct a spoiling attack to disrupt enemy defensive preparations.
- An OPFOR unit makes contact on favorable terms for subsequent offensive action.

3-26. In a situational offense, the commander develops his assessment of the conditions rapidly and without a great deal of staff involvement. He provides a basic course of action to the staff, who then quickly turn that course of action into an executable operational directive. The situational offense relies heavily on implementation of battle drills by subordinate tactical units (see FM 7-100.2).

3-27. Organization of the battlefield in a situational offense is normally limited to minor changes to existing control measures. Organization of forces in a situational offense typically requires the use of detachments or tactical groups (see FM 7-100.2). The nature of situational offense is such that it often involves smaller, independent forces accomplishing discrete missions dispersed from the main body of the operational-strategic command (OSC).

ORGANIZING THE BATTLEFIELD FOR THE OFFENSE

3-28. In his operation plan, the commander specifies the organization of the battlefield from the perspective of his level of command. Within his unit's area of responsibility (AOR), as defined by the next-higher commander, he designates AORs for his subordinates, along with zones, objectives, and axes related to his own overall mission.
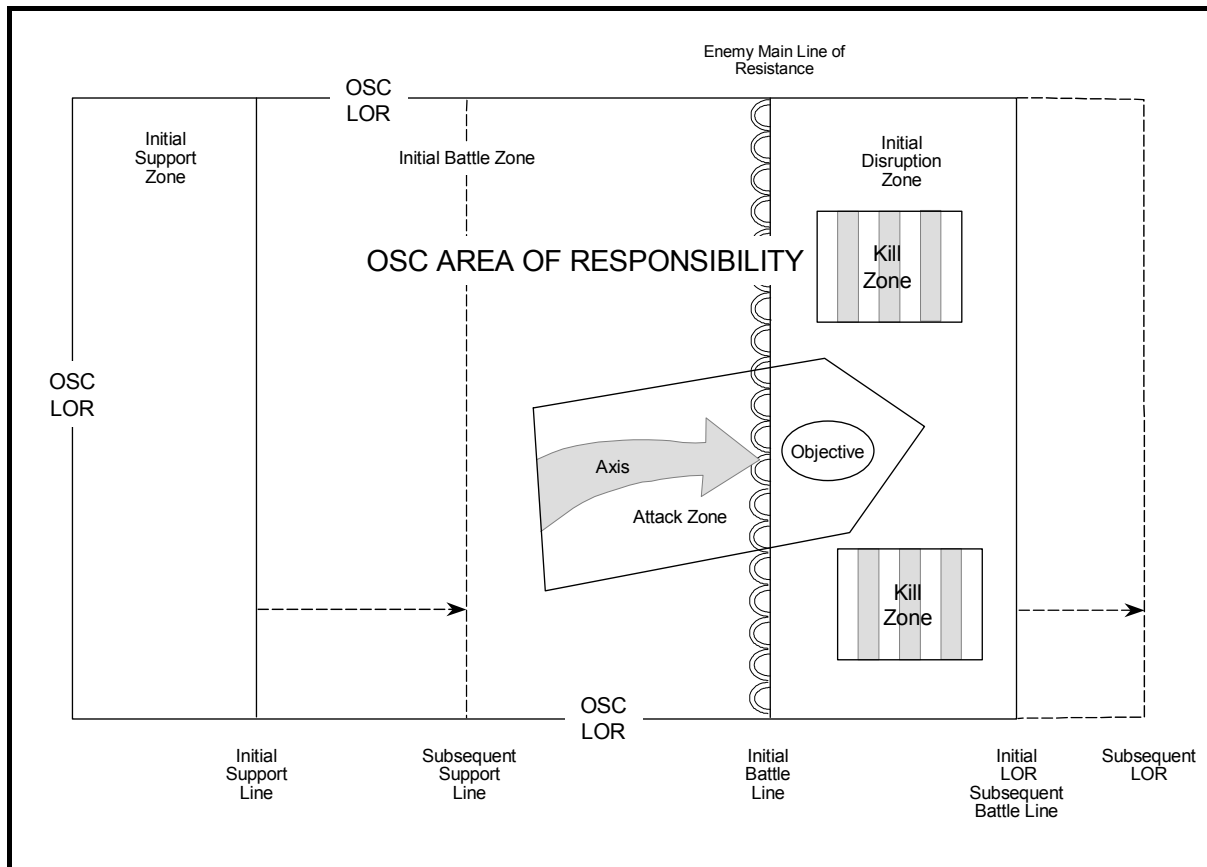
Figure 3-1. Example of an AOR (Linear Battlespace)

Areas of Responsibility

3-29. OPFOR AORs normally consist of three basic zones: the *disruption zone*, the *battle zone*, and the *support zone*. These zones have the same basic purposes in all types of offense. In the offense, AORs also may contain one or more *attack zones*, *kill zones*, *objectives*, and/or *axes*. Zones may be linear or nonlinear in nature. See Figures 3-1 and 3-2 for generalized examples of AORs and zones.
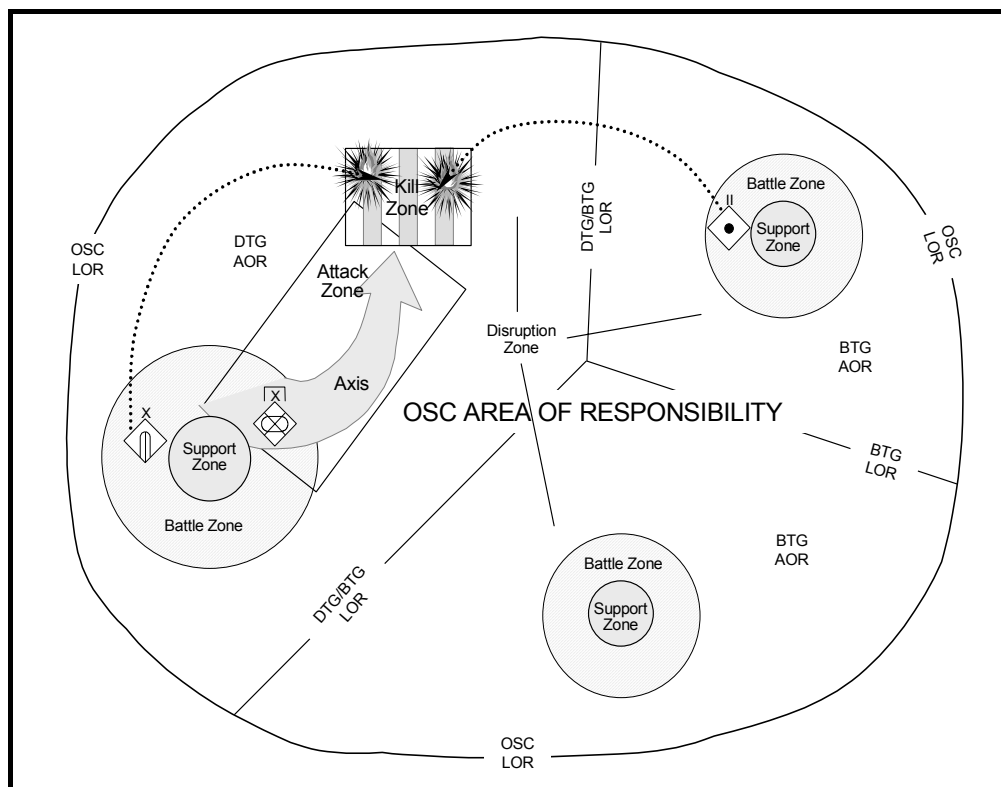
Figure 3-2. Example of AOR (Nonlinear Battlespace)

3-30. The intent of this method of organizing the battlefield is to preserve as much flexibility as possible for subordinate units within the parameters that define the aim of the senior commander. An important feature of the basic zones in an AOR is the variations in actions that can occur within them in the course of a specific offensive operation.

Disruption Zone

3-31. In the offense, the disruption zone is that battlespace in which the OPFOR seeks to use direct and indirect fires to destroy the integrity of enemy forces and capabilities without decisive engagement. In general, this zone is the space between the battle line and the limit of responsibility (LOR). In linear operations, it typically begins at what the OPFOR anticipates to be the enemy main line of resistance and extends to the LOR. The dimensions of this zone are based on OPFOR weapons envelopes and the targets the OPFOR wishes to affect. For example, counterreconnaissance activity may draw the attention of enemy forces and cause them to enter the kill zone of a sophisticated ambush (described later in this chapter) executed by long-range precision fires.

3-32. The OSC disruption zone may be the aggregate of the disruption zones of subordinates, such as division and brigade tactical groups (DTGs and BTGs). However, assets directly controlled by the OSC could also operate throughout the OSC disruption zone. In that case, each subordinate would be responsible for a portion of the OSC disruption zone, and that portion would constitute the subordinate's disruption zone within its own AOR. In other

cases, an OSC disruption zone may extend beyond those of its subordinates, to include an area occupied by forces sent out under direct control of the OSC. OSC-level forces could include SPF and affiliated forces, which could be operating in enemy-held territory even before the beginning of hostilities. There could also be stay-behind forces in areas seized by the enemy. A field group (FG) or theater commander controlling multiple OSCs can have a disruption zone and may assign an OSC to operate in that zone.

3-33. In the offense, the disruption zone exists to—

- Disrupt defensive works and preparations.
- Delay or fix enemy counterattacks or response forces.
- Attack lucrative targets (key systems or vulnerable troops).

3-34. Disruption forces often maneuver to fix enemy forces and place long-range fire on key enemy units. They can also strip away the enemy's reconnaissance assets (to deceive him of the location and configuration of the attack) while denying him the ability to acquire and engage the OPFOR with deep fires. This includes an air defense effort to deny aerial attack and reconnaissance platforms from targeting forces in the zone. A disruption force seeks to conduct highly damaging local attacks. It ensures that a covered withdrawal route exists to avoid decisive engagement.

3-35. Typical systems, units, or facilities to be attacked by a disruption force are—

- C^2 systems.
- RISTA assets.
- Aviation assets.
- Precision fire systems.
- Logistics support areas.
- LOCs.
- Mobility and countermobility assets.
- Casualty evacuation routes and means.

3-36. The disruption zone is bounded by the battle line and the LOR of the overall AOR. In linear offensive operations, the higher headquarters may move this LOR forward as the force continues successful offensive operations. Thus, the boundaries of the disruption zone will also move forward during the course of an operation. The higher commander can push the disruption zone forward or outward as forces adopt a defensive posture while consolidating gains at the end of a successful offensive operation and/or prepare for a subsequent offensive operation.

Battle Zone

3-37. In the offense, the battle zone is that battlespace in which the OPFOR seeks to fix and/or destroy enemy forces through simultaneous or sequential application of all components of combat power. The dimensions of this zone are based on OPFOR objectives and the time-space relationships for the forces involved.

3-38. The battle zone is separated from the disruption zone by the battle line and from the support zone by the support line. The commander may adjust the location of these lines in order to accommodate successful offensive operations. In a linear situation, those lines can shift forward during the course of a successful attack. Thus, the battle zone would also shift forward.

3-39. In the offense, the battle zone exists to—
- Control forces in proximity to the enemy.
- Define objectives.
- Support understanding of roles and missions.

3-40. Forces operating in the battle zone engage the enemy in close combat to achieve a specific operational objective. This objective is typically one of the following:
- Create a penetration in the enemy defense, through which exploitation forces can pass.
- Draw enemy attention and resources to the action.
- Seize operationally significant geographic areas.
- Inflict casualties on a vulnerable enemy unit.
- Prevent the enemy from moving a part of his force to impact OPFOR actions elsewhere on the battlefield.

3-41. In nonlinear offensive operations, multiple battle zones may exist, and within each a certain task would be assigned to the OPFOR unit or units charged to operate in that space. The tasks given to the units that operate in the zone can range from demonstration to attack. The battle zone provides the commander of those units the battlespace in which to frame his operations.

Support Zone

3-42. The support zone is that area of the battlespace designed to be free of significant enemy action and to permit the effective logistics and administrative support of forces. Security forces operate in the support zone in a combat role to defeat enemy special operations forces and other threats. Camouflage, concealment, cover, and deception (C^3D) measures throughout the support zone aim to protect the force from standoff RISTA and precision attack. If the battle zone moves during the course of an operation, the support zone would move accordingly.

Attack Zone

3-43. The *attack zone* is the assigned zone of action for an attacking force. In operation plans and directives, the senior commander assigns attack zones to subordinate units.

Kill Zone

3-44. A *kill zone* is a designated area on the battlefield where the OPFOR plans to destroy a key enemy target. Kill zones are tied to enemy targets and the OPFOR weapon systems that will engage them, and not a particular zone

of the AOR. They may be designated by a senior commander in order to focus combat power.

Objectives and Axes

3-45. An *objective* is a geographic location or physical object, the seizing and/or holding of which is a goal of an offensive operation.[1] An *axis* is a control measure showing the location through which a force will move as it proceeds from its starting location to its objective.

ORGANIZING FORCES FOR THE OFFENSE

3-46. In planning and executing offensive actions, the OPFOR organizes and designates various forces according to their *function*. This provides a common language for how the OPFOR fights functionally, rather than geometrically. The functions do not change, regardless of where the force might happen to be located on the battlefield. Thus, *functional forces* that perform the common operational and tactical tasks of disrupting, fixing, assaulting, exploiting, providing security, and deceiving are logically designated as disruption, fixing, assault, exploitation, security, and deception forces, respectively. A force held in reserve is designated as a reserve, until it receives a mission to perform a specific function.

3-47. In his operation plan, the operational-level commander specifies the organization of the forces within his level of command. Thus, subordinate forces understand their roles within the overall operation. However, the organization of forces can shift dramatically during the course of an operation, if part of the plan does not work or works better than anticipated. For example, a unit that started out being part of a fixing force might split off and become an exploitation force, if the opportunity presents itself.

3-48. Each of the separate functional forces has an identified commander. This is often the senior commander of the largest subordinate unit assigned to that force. For example, if two DTGs are acting as the OSC's fixing force, the senior of the two DTG commanders is the fixing force commander. Since, in this option, each force commander is also a subordinate unit commander, he controls the force from his unit's command post (CP). Another option is to have one of the OSC's or FG's CPs be in charge of a functional force. For example, the forward CP could control a disruption force or a fixing force. Another possibility would be for the IFC CP to command the disruption force or the exploitation force or any other force whose actions must be closely coordinated with fires delivered by the IFC.

3-49. In any case, the force commander is responsible to the OSC or FG commander to ensure that combat preparations are made properly and to take charge of the force during the operation. This frees the operational-level commander from decisions specific to the force's mission. Even when tactical-level subordinates of an OSC or FG have responsibility for parts of the disruption zone, there is still an overall OSC or FG disruption force commander.

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[1] The term *objective* may also refer to the defined aim(s) of a particular operation. It is not always tied to ground or places. It could be a desired effect on a particular enemy formation or capability.

Disruption Force

3-50. In the offense, the disruption force would include the disruption force that already existed in a preceding defensive situation (see Chapter 4). It is possible that forces assigned for operations in the disruption zone in the defense might not have sufficient mobility to do the same in the offense or that targets may change and require different or additional assets. Thus, the disruption force might require augmentation.

Fixing Force

3-51. OPFOR offensive operations are founded on the concept of fixing enemy forces so that they are not free to maneuver. The OPFOR recognizes that units and soldiers can be fixed in a variety of ways. For example—

- They find themselves without effective communication with higher command.
- Their picture of the battlefield is unclear.
- They are (or believe they are) decisively engaged in combat.
- They have lost mobility to due to complex terrain, obstacles, or WMD.

3-52. In the offense, planners identify which enemy forces need to be fixed and the method by which they will be fixed. They then assign this responsibility to a force that has the capability to fix the required enemy forces with the correct method. The fixing force may consist of a number of units separated from each other in time and space, particularly if the enemy forces required to be fixed are likewise separated. A fixing force could consist entirely of affiliated irregular forces. It is possible that a discrete attack on logistics or C^2 (or other systems) could fix an enemy without resorting to deploying large fixing forces.

Assault Force

3-53. The assault force is charged with creating the conditions that allow the exploitation force the freedom to operate. In order to create a window of opportunity for the exploitation force to succeed, the assault force may be required to operate at a high degree of risk and may sustain substantial casualties. However, an assault force may not even make contact with the enemy, but instead conduct a demonstration.

Exploitation Force

3-54. The exploitation force is assigned the task of achieving the objective of the mission. It typically exploits a window of opportunity created by the assault force. However, effective IW, a mismatch in system capabilities, or even the enemy's own dispositions may create a situation in which the exploitation force is able to achieve the objective without a formal assault force. An exploitation force could engage the ultimate objective with fires only.

Security Force

3-55. The *security force* conducts activities to prevent or mitigate the effects of hostile actions against the overall operational-level command and/or its key components. If the commander chooses, he may charge this security force

with providing force protection for the entire AOR, including the rest of the functional forces; logistics and administrative elements in the support zone; and other key installations, facilities, and resources. The security force may include various types of units—such as infantry, SPF, counterreconnaissance, and signals reconnaissance assets—to focus on enemy special operations and long-range reconnaissance forces operating throughout the AOR. It can also include internal security forces units allocated to the operational-level command, with the mission of protecting the overall command from attack by hostile insurgents, terrorists, and special operations forces. The security force may also be charged with mitigating the effects of WMD.

Deception Force

3-56. When the IW plan requires combat forces to take some action (such as a demonstration or feint), these forces are designated as deception forces in close-hold executive summaries of the plan. However, wide-distribution copies of the plan refer to these forces according to the designation given them in the deception story.

Reserves

3-57. At the commander's discretion, forces may be held out of initial action so that he may influence unforeseen events or take advantage of developing opportunities. OPFOR offensive reserve formations are given priorities in terms of whether the staff thinks it most likely that they will act as a fixing, assault, or exploitation force. The size and composition of an offensive reserve is entirely situation-dependent. (See Chapter 4 for more detail on the various types of reserves, some of which are more common in defensive operations.)

PREPARING FOR THE OFFENSE

3-58. In the preparation phase, the OPFOR focuses on ways of applying all available resources and the full range of actions to place the enemy in the weakest condition and position possible. Commanders prepare their forces for all subsequent phases of the offensive operation. They organize their forces and the battlefield with an eye toward capitalizing on conditions created by successful attacks.

ESTABLISH CONTACT

3-59. The number one priority for all offensive operations is to gain and maintain contact with key enemy forces. As part of the decision-making process (see Chapter 2), the commander and staff identify which forces must be kept under watch at all times. The OPFOR will employ whatever technical sensors it has at its disposal to locate and track enemy forces, but the method of choice is ground reconnaissance. It may also receive information on the enemy from the civilian populace, local police, or affiliated irregular forces.

MAKE THOROUGH LOGISTICS ARRANGEMENTS

3-60. The OPFOR understands that there is as much chance of an offensive operation being brought to culmination by a lack of sufficient logistics support

as by enemy action. Careful consideration is given to carried days of supply and advanced caches to obviate the need for easily disrupted LOCs.

MODIFY THE PLAN WHEN NECESSARY

3-61. The OPFOR takes into account that, while it might consider itself to be in the preparation phase for one operation, it is continuously in the execution phase. Plans are never considered final. Plans are checked throughout the course of their development to ensure they are still valid in light of battlefield events.

REHEARSE CRITICAL ACTIONS IN PRIORITY

3-62. The commander establishes the priority for the critical actions expected to take place during the operation. The force rehearses those actions in as realistic a manner as possible for the remainder of the preparation time.

EXECUTING THE OFFENSE

3-63. The degree of preparation often determines the nature of the attack in the execution phase. Successful execution depends on forces that understand their roles in the operation and can swiftly follow preparatory actions with the maximum possible shock and violence and deny the enemy any opportunity to recover. A successful execution phase often ends with transition to the defense in order to consolidate gains, defeat enemy counterattacks, or avoid culmination. In some cases, the execution phase is followed by continued offensive action to exploit opportunities created by the operation just completed.

MAINTAIN CONTACT

3-64. The OPFOR will go to great lengths to ensure that its forces maintain contact with key elements of the enemy force throughout the operation. This includes rapid reconstitution of reconnaissance assets and forces and the use of whatever combat power is necessary to ensure success.

MODIFY THE PLAN WHEN NECESSARY

3-65. The OPFOR is sensitive to the effects of mission dynamics and realizes that the enemy's actions may well make an OPFOR unit's original mission achievable, but completely irrelevant. As an example, a unit of the fixing force in an attack may be keeping its portion of the enemy force tied down while another portion of the enemy force is maneuvering nearby to stop the exploitation force. In this case, the OPFOR unit in question must be ready to transition to a new mission quickly and break contact to fix the maneuvering enemy force.

SEIZE OPPORTUNITIES

3-66. The OPFOR places maximum emphasis on decentralized execution, initiative, and adaptation. Subordinate units are expected to take advantage of fleeting opportunities so long as their actions are in concert with the purpose of the operational directive.

DOMINATE THE TEMPO OF OPERATIONS

3-67. Through all actions possible, the OPFOR plans to control the tempo of operations. It will use continuous attack, IW, and shifting targets, objectives, and axes to ensure that operational events are taking place at the pace it desires.

TYPES OF OFFENSIVE ACTION

3-68. The types of offensive action in OPFOR doctrine are both tactical methods and guides to the design of operational courses of action. An FG or OSC offensive operation plan may include subordinate units that are executing different offensive and defensive courses of action within the overall offensive mission framework.

ATTACK

3-69. An *attack* seeks to achieve operational decision through primarily military means by defeating the enemy's military power. This defeat does not come through the destruction of armored weapons systems but through the disruption, dislocation, and subsequent paralyzation that occurs when combat forces are rendered irrelevant by the loss of the capability or will to continue the fight. Attack is the method of choice for OPFOR offensive action. There are two types of attack: *integrated attack* and *dispersed attack*.

3-70. The OPFOR does not have a separate design for "exploitation" as a distinct offensive course of action. Rather, exploitation is considered a central part of all integrated and dispersed attacks.

3-71. The OPFOR does not have a separate design for "pursuit" as a distinct offensive course of action. A pursuit is conducted using the same basic course-of-action framework as any other integrated or dispersed attack. The fixing force gains contact with the fleeing enemy force and slows it or forces it to stop while the assault and exploitation forces create the conditions for and complete the destruction of the enemy's C^2 and logistics structure or other systems.

Integrated Attack

3-72. *Integrated attack* is an offensive action where the OPFOR seeks military decision by destroying the enemy's will and/or ability to continue fighting through the application of joint and combined arms effects. Integrated attack is often employed when the OPFOR enjoys overmatch with respect to its opponent and is able to bring all components of offensive combat power to bear. It may also be employed against a more sophisticated and capable opponent, if the appropriate window of opportunity is created or available. See Figures 3-3 through 3-5 for examples of integrated attacks.
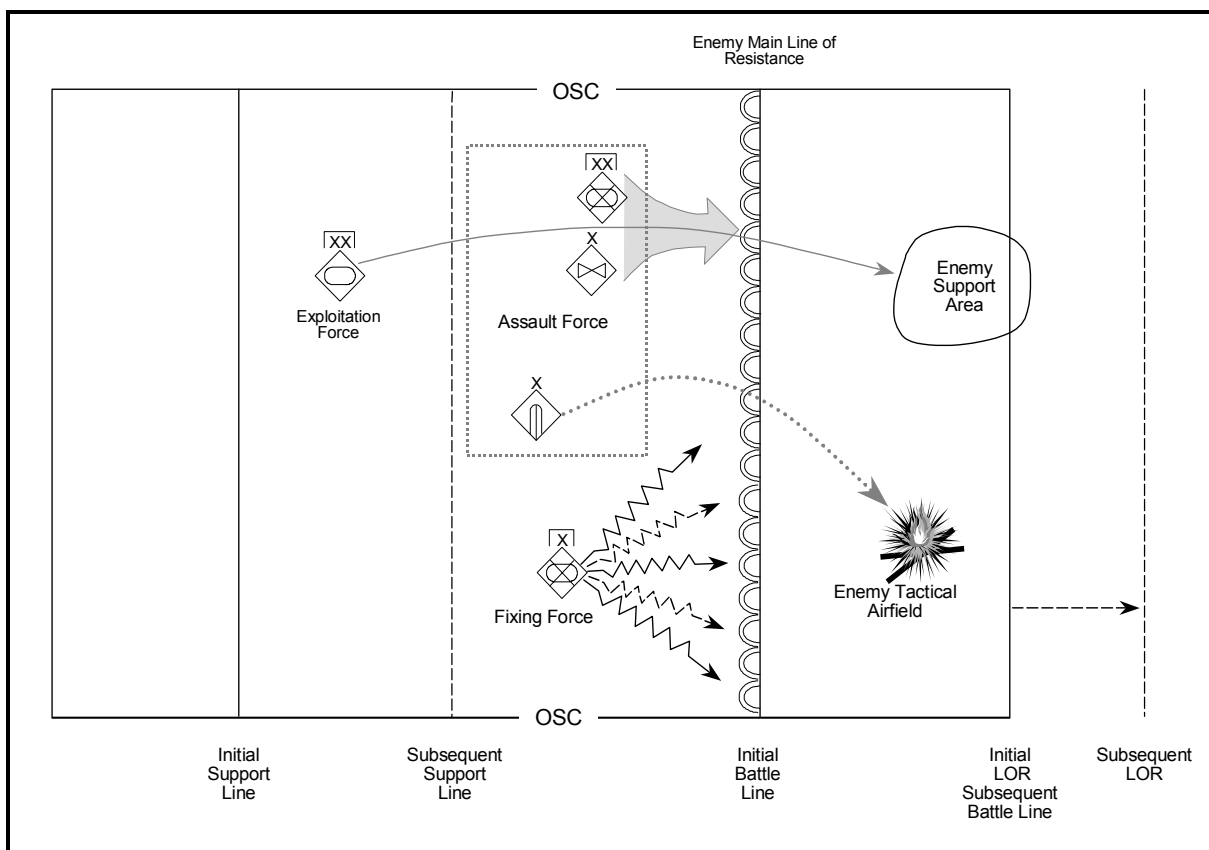
Figure 3-3. Integrated Attack (Linear Battlespace Example1)

3-73. The primary objective of an integrated attack is the enemy's will and ability to fight. The OPFOR recognizes that modern militaries cannot continue without adequate logistics support and no military, modern or otherwise, can function without effective command and control.

3-74. Integrated attacks are characterized by—

- Not being focused solely on destruction of ground combat power but often on C^2 and logistics.
- Fixing the majority of the enemy's force in place with the minimum force necessary.
- Isolating the targeted subcomponent(s) of the enemy's combat system from his main combat power.
- Using complex terrain to force the enemy to fight at a disadvantage.
- Using deception and other components of IW to degrade the enemy's situational understanding and ability to target OPFOR formations.
- Using flank attack and envelopment, particularly of enemy forces that have been fixed.
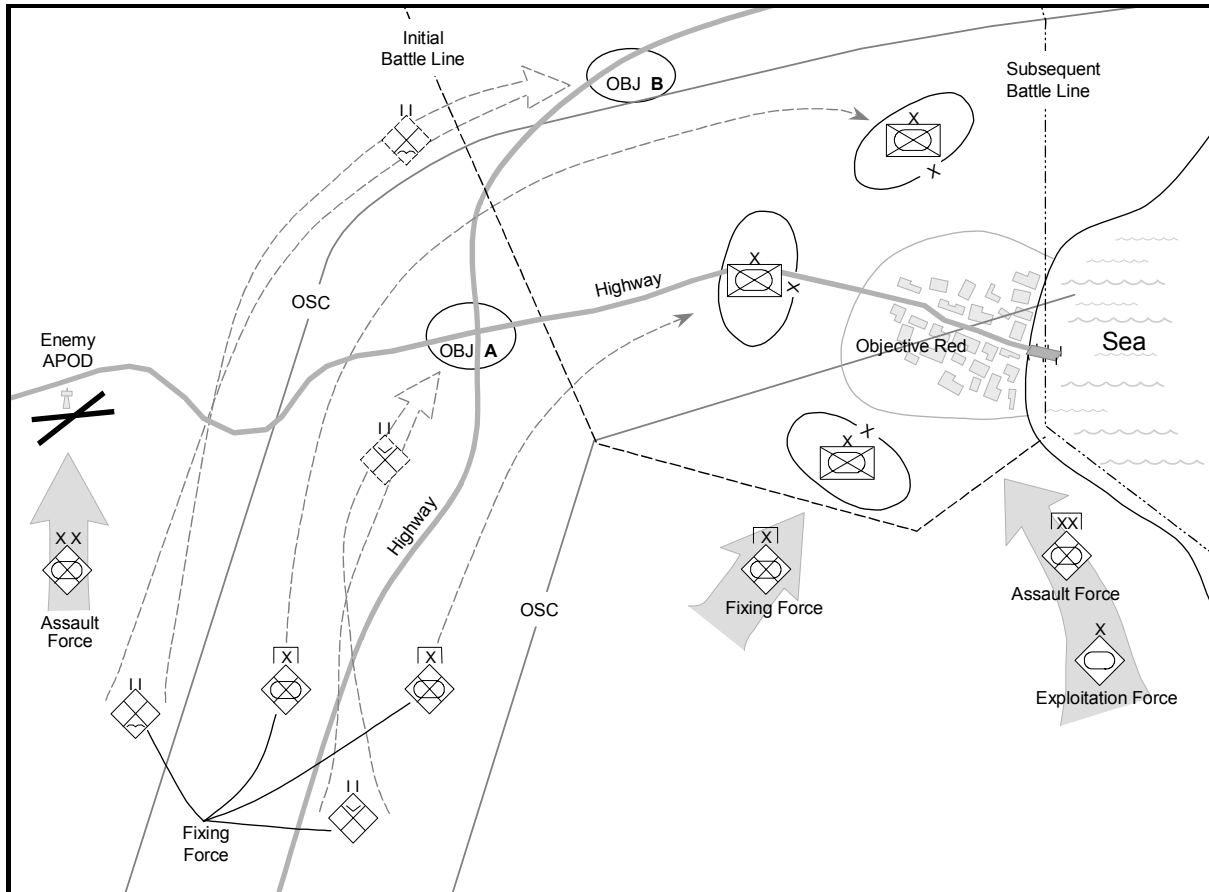
Figure 3-4. Integrated Attack (Linear Battlespace Example 2)

3-75. The OPFOR prefers to conduct integrated attacks when most or all of the following conditions exist:

- The OPFOR possesses significant overmatch in combat power over enemy forces.

- It possesses at least air parity over the critical portions of the battlefield.

- It is sufficiently free of enemy standoff reconnaissance and attack systems to be able to operate without accepting high levels of risk.
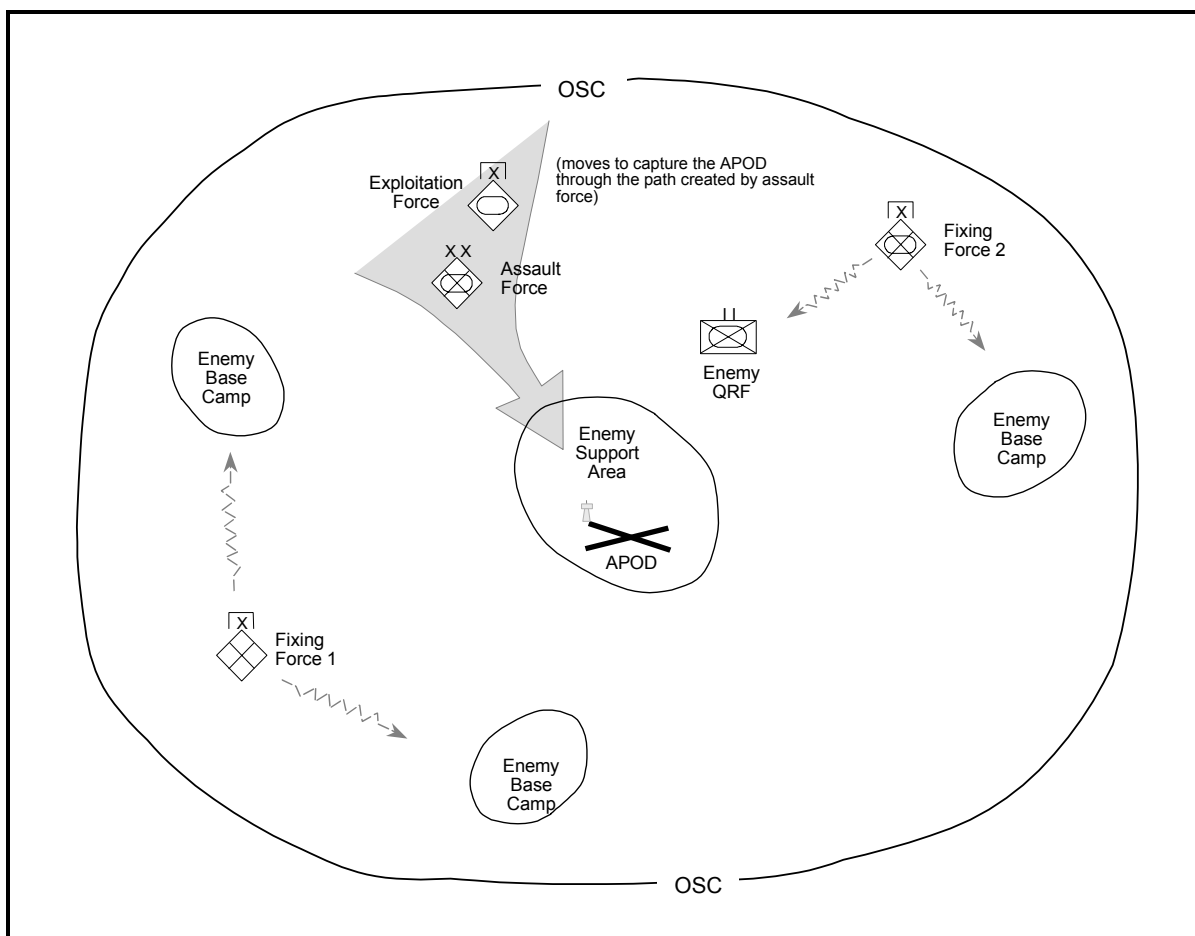
Figure 3-5. Integrated Attack (Nonlinear Battlespace Example)

Organizing Forces for an Integrated Attack

3-76. An integrated attack employs fixing, assault, and exploitation forces. A disruption forces exists, but is not created specifically for this type of offensive action.

3-77. **Fixing Force.** The fixing force in an integrated attack is required to prevent enemy defending forces, reserves, and quick-response forces (QRF) from interfering with the actions of the assault and exploitation forces. The battle will develop rapidly, and enemy forces not in the attack zone cannot be allowed to reposition to influence the assault and exploitation forces. Maneuver forces, precision fires, air defense units, long-range antiarmor systems, situational obstacles, chemical weapons, and electronic warfare (EW) are well suited to fix defending forces.

3-78. **Assault Force.** The assault force in an integrated attack is charged with creating conditions that allow the exploitation force to rapidly penetrate enemy defenses. Since the exploitation force is principally required to act within the window of opportunity, the assault force may successfully employ infiltration of infantry to carefully pre-selected points to assist the exploitation

force in its penetration. Smoke and suppressive artillery and rocket fires, combat engineer units, and air-delivered weapons are also suited to this mission.

3-79. **Exploitation Force.** The exploitation force in an integrated attack must be capable of penetrating or avoiding enemy defensive forces and attacking and destroying the enemy's support infrastructure before he has time to react. An armored or attack helicopter unit is often best suited to be the core of an exploitation force in an integrated attack due to the combination of mobility, protection, and firepower possessed by such forces.

Dispersed Attack

3-80. _Dispersed attack_ (also known as _decentralized attack_) is the primary manner in which the OPFOR conducts offensive action when threatened by a superior enemy and/or when unable to mass or provide integrated C^2 to an attack. This is not to say that the dispersed attack cannot or should not be used against peer forces, but as a rule integrated attack will more completely attain objectives in such situations. Dispersed attack relies on IW and dispersion of forces to permit the OPFOR to conduct tactical offensive operations while overmatched by precision standoff weapons and imagery and signals sensors. The dispersed attack is continuous and comes from multiple directions. It employs multiple means working together in a very interdependent way. The attack can be dispersed in time as well as space. See Figures 3-6 and 3-7 for examples of dispersed attacks.

3-81. The primary objective of dispersed attack is to take advantage of a window of opportunity to bring enough joint and combined arms force to bear to destroy the enemy's will and/or capability to continue fighting. To achieve this, the OPFOR does not necessarily have to destroy the entire enemy force, but often just a key portion of that force.

3-82. Selecting the appropriate portion of the enemy to destroy is the first step in planning the dispersed attack. This element is chosen because of its importance to the enemy and varies depending on the force involved and the current military situation. For example, an enemy force dependent on one geographical point for all of his logistics support and reinforcement would be most vulnerable at that point. Disrupting this activity at the right time and to the right extent may bring about operational decision on the current battlefield or it may open further windows of opportunity to attack the enemy's weakened forces at little cost to the OPFOR. In another example, an enemy force preparing to attack may be disrupted by an OPFOR attack whose purpose is to destroy long-range missile artillery, creating the opportunity for the OPFOR to achieve standoff with its own missile systems. In a final example, the key system chosen may be the personnel of the enemy force. Attacking and causing mass casualties among infantrymen may delay an enemy offensive in complex terrain while also being politically unacceptable for the enemy command structure.

3-83. Dispersed attacks are characterized by—
- Not being focused on complete destruction of ground combat power but rather on destroying a key portion of the enemy force (often targeting enemy C^2 and logistics).
- Fixing and isolating enemy combat power.

- Using smaller, independent subordinate elements.
- Conducting rapid moves from dispersed locations.
- Massing at the last possible moment.
- Conducting simultaneous attack at multiple, dispersed locations.
- Using deception and other components of IW to degrade the enemy's situational understanding and ability to target OPFOR formations.
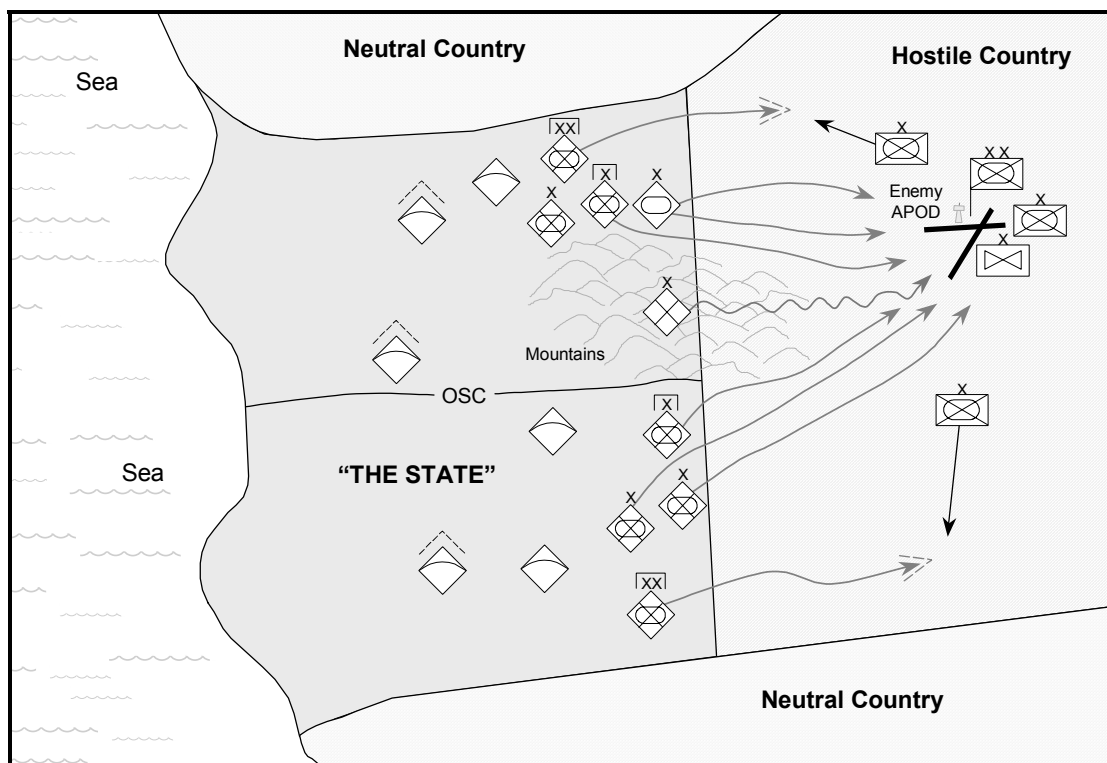
Figure 3-6. Dispersed Attack (Example 1)

3-84. The window of opportunity needed to establish conditions favorable to the execution of a dispersed attack may be one created by the OPFOR or one that develops due to external factors in the operational environment. When this window must be created, the OPFOR keys on several tasks that must be accomplished:

- Destroy enemy ground reconnaissance.
- Deceive enemy imagery and signals sensors.
- Create an uncertain air defense environment.
- Selectively deny situational awareness.
- Maximize use of complex terrain.
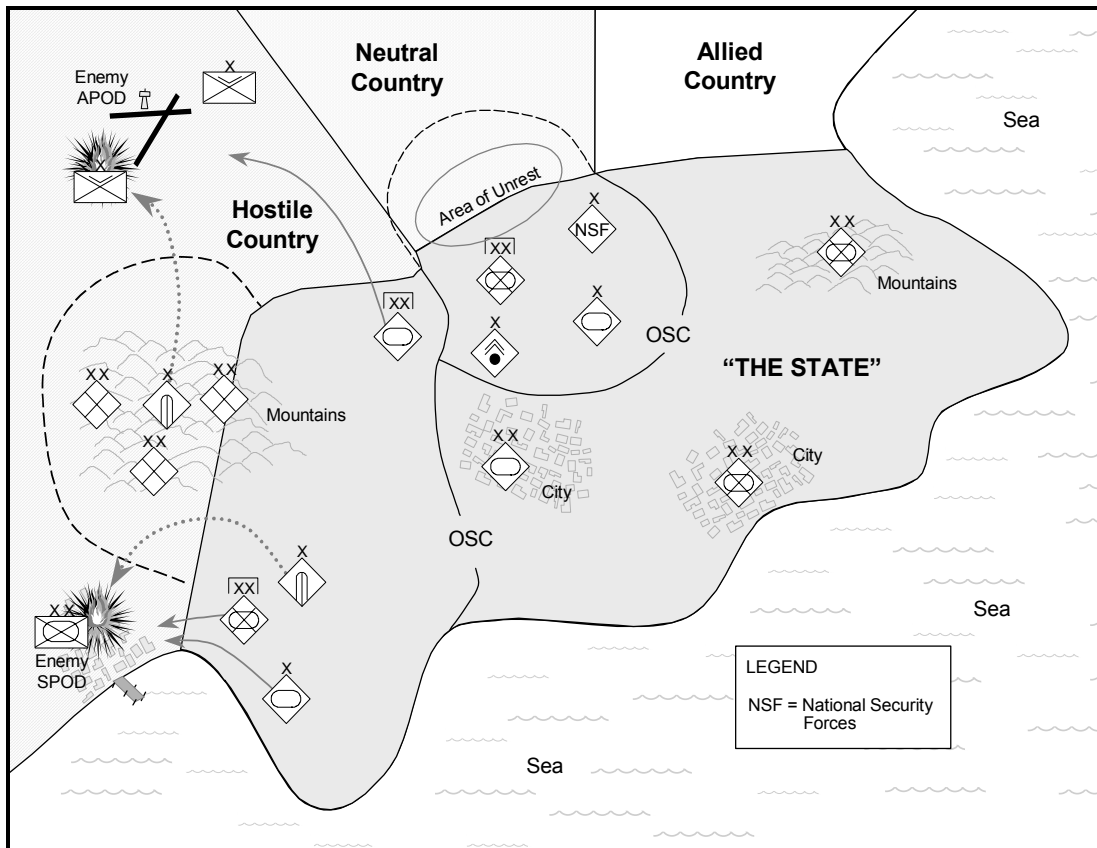
Figure 3-7. Dispersed Attack (Example 2)

Organizing Forces for a Dispersed Attack

3-85. A dispersed attack employs fixing, assault, and exploitation forces. A disruption force exists, but is not created specifically for this type of offensive action. Deception forces can also play an important role in dispersed attack operations.

3-86. **Fixing Force.** The fixing force in a dispersed attack is primarily focused on fixing enemy response forces. Enemy reserves, response forces, and precision fire systems that can reorient rapidly will be those elements most capable of disrupting a dispersed attack. Maneuver forces, precision fires, air defense and antiarmor ambushes, situational obstacles, chemical weapons, and EW are well suited to fix these kinds of units and systems.

3-87. **Assault Force.** The assault force in a dispersed attack is charged with creating favorable conditions for the exploitation force to rapidly move from dispersed locations and penetrate or infiltrate enemy defenses. Since it is the exploitation force that is principally required to act within the window of opportunity, the assault force may successfully employ infiltration of infantry to carefully pre-selected points to assist the exploitation force in its penetration. Smoke and suppressive artillery and rocket fires, combat engineer units, and air-delivered weapons are also suited to this mission. Dispersed attacks often make use of multiple assault forces separated in time and/or space.

3-88. **Exploitation Force.** The exploitation force in a dispersed attack must be capable, through inherent capabilities or positioning relative to the enemy, of destroying the target of the operation. An armored force may be the weapon of choice to maneuver throughout the battlefield as single platoons in order to have one company reach a vulnerable troop concentration or soft C^2 node. Alternatively, the exploitation force may be a widely dispersed group of SPF teams set to attack exposed logistics targets simultaneously. Dispersed attacks often make use of multiple exploitation forces separated in time and/or space, but often oriented on the same objective(s).

LIMITED-OBJECTIVE ATTACK

3-89. A *limited-objective attack* seeks to achieve results critical to the strategic campaign plan (SCP) by destroying or denying the enemy key capabilities through primarily military means. The results of a limited-objective attack typically fall short of operational decision on the day of battle, but may be vital to the overall success of the SCP. Limited-objective attacks are common during adaptive operations in which the objective is to preserve forces and wear down the enemy, rather than achieving a military decision.

3-90. The primary objective of a limited-objective attack is a particular enemy capability. This may or may not be a particular man-made system or group of systems, but may also be the capability to take action at the enemy's chosen tempo.

3-91. Limited-objective attacks are characterized by—

- Not being focused solely on destruction of ground combat power but often on C^2 and logistics.
- Denying the enemy the capability he most needs to execute his plans.
- Maximal use of the systems warfare approach to combat (see Chapter 1).
- Significant reliance on a planned or seized window of opportunity.

3-92. At the operational level, there are three types of limited-objective attack: sophisticated ambush, spoiling attack, and counterattack. One of these types, the sophisticated ambush, requires conditions similar to those needed for a dispersed attack, but is executed by autonomous tactical-level forces with the OSC providing coordination and support. The other two types, the spoiling attack and counterattack, share some common characteristics, but differ in purpose.

Sophisticated Ambush

3-93. A *sophisticated ambush* is the linking in time and task of RISTA, attacking forces, and window of opportunity to destroy key enemy systems or cause politically unacceptable casualties. What makes a sophisticated ambush "sophisticated" is not the actual attack means. In fact, the actual ambush is executed by tactical-level forces. (See FM 7-100.2 for examples.) What makes it "sophisticated," however, is the linking of sensor, ambusher, window of opportunity, *and* a target that affects an enemy center of gravity. This typically requires sophisticated ambushes to be planned, coordinated, and resourced at the operational level.

3-94. Like any other ambush, a sophisticated ambush is conducted against a moving or temporarily halted target. In this case, however, the IW plan is designed to facilitate infiltration or positioning of the ambushing forces and expose the target. The OSC will be involved in IW planning and the coordination of operational-level assets needed to support the ambush.

3-95. A sophisticated ambush is conducted by forces autonomous on the battlefield, but linked by C² and purpose. It can often involve affiliated forces, particularly when conducted as part of adaptive operations. A sophisticated ambush is not necessarily tied to scheme of maneuver in that the larger part of the OPFOR force may be involved in an operation not directly related to the ambush.

3-96. Sophisticated ambushes are characterized by—
- A key enemy target that, if destroyed, would significantly degrade the enemy's will or ability to fight.
- OPFOR sensor(s) with capability and mission to find and track the target. Sensors are often ground reconnaissance, but may include unmanned aerial vehicles (UAVs) or satellites.
- A C² method to link the ambushing forces and sensors.
- Supporting operation(s)—usually primarily IW—to create a window of opportunity for the ambushing forces to act.

3-97. A sophisticated ambush requires conditions similar to those needed for a dispersed attack. However, since less combat power is typically at risk in a sophisticated ambush, the window of opportunity does not need to be as extensive. The window of opportunity needed to establish conditions favorable to the execution of a sophisticated ambush may be one created by the OPFOR or one that develops due to external factors in the operational environment. When this window must be created, the OPFOR keys on several tasks that must be accomplished:
- Destroy enemy ground reconnaissance in the ambush area.
- Deceive enemy imagery and signals sensors.
- Establish effective air defense protection for ambushing forces.
- Selectively deny situational awareness.
- Maximize use of complex terrain.
- Locate and track enemy security and response forces that could interfere with the ambush.
- Locate and track ambush target.

Spoiling Attack

3-98. A *spoiling attack* is designed to control the tempo of combat by disrupting the timing of enemy operations. This is accomplished by attacking during the planning and preparation for the enemy's own offensive operations. Spoiling attacks do not have to accomplish a great deal to be successful. Conversely, planners must focus carefully on what effect the attack is trying to achieve and how the attack will achieve that effect. In some cases, the purpose of the attack is to remove a key component of the enemy's force array or

combat system so it is unavailable for the planned attack and therefore reduces his overall chances of success. More typically, the attack is designed to slow the development of conditions favorable to the enemy's planned attack. See Figure 3-8 for an example of a spoiling attack.

3-99. Quite often, the spoiling attack develops as a situational attack (see above). This occurs when an unclear picture of enemy dispositions suddenly clarifies to some extent and the commander wishes to take advantage of the knowledge he has gained to disrupt enemy timing. This means that spoiling attacks are often conducted by reserve or response forces that can rapidly shift from their current posture to attack the enemy.
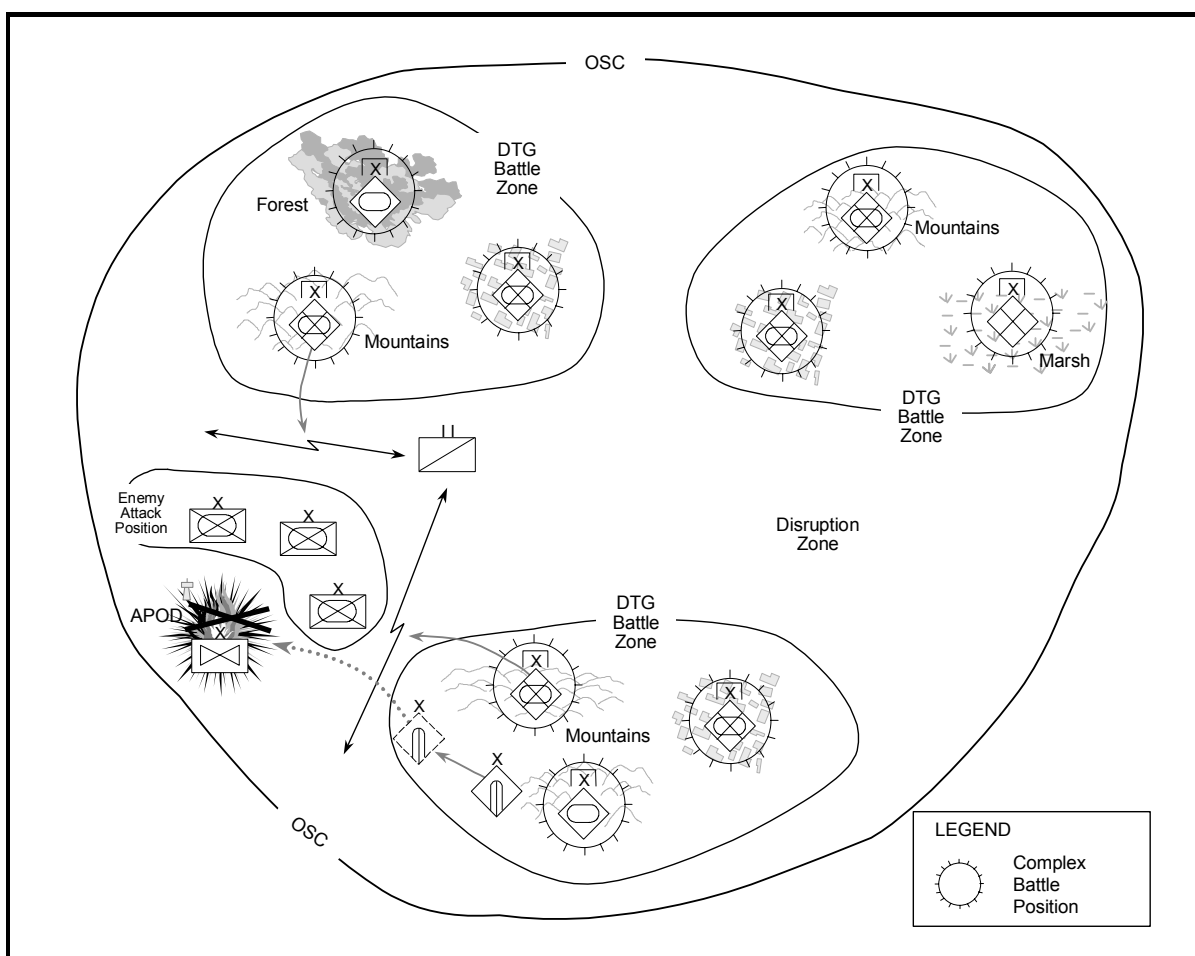
Figure 3-8. Spoiling Attack (Example)

3-100. Spoiling attacks are characterized by—

- A requirement to have a clear picture of enemy preparations and dispositions.
- A number of independent subordinate unit actions.
- Highly focused objectives.
- The possibility that a spoiling attack may open a window of opportunity for other operations.

3-101. The OPFOR seeks to have the following conditions met in order to conduct a spoiling attack:

- RISTA establishes a picture of enemy attack preparations.
- Enemy security, reserve, and response forces are located and tracked.
- Enemy ground reconnaissance in the attack zone is destroyed or rendered ineffective.

3-102. Spoiling attacks are actually executed using one of the other types of offensive action as the base method: integrated attack, dispersed attack, or sophisticated ambush. Thus, the forces engaged in a spoiling attack would be organized accordingly. The primary difference between a spoiling attack and the other types of limited-objective attack is the purpose of the attack.

Counterattack

3-103. A *counterattack* is designed to cause an enemy offensive operation to culminate and allow the OPFOR to return to offensive operations. A counterattack is designed to control the tempo of operations by returning the initiative to the OPFOR. Like a spoiling attack, a counterattack often develops as a situational attack, when the commander wishes to take advantage of a fleeting opportunity. The difference is that the counterattack occurs after the enemy begins his attack. See Figure 3-9 for an example of a counterattack.

3-104. Counterattacks are characterized by—

- A shifting in command and support relationships to assume an offensive posture for the counterattacking force.
- A proper identification that the enemy is at or near culmination.
- The planned rapid transition of the remainder of the force to offensive operations.
- The possibility that a counterattack may open a window of opportunity for other operations.

3-105. The OPFOR seeks to set the following conditions for a counterattack:

- Locate and track enemy reserve forces and cause them to be committed.
- Destroy enemy reconnaissance forces that could observe counterattack preparations.
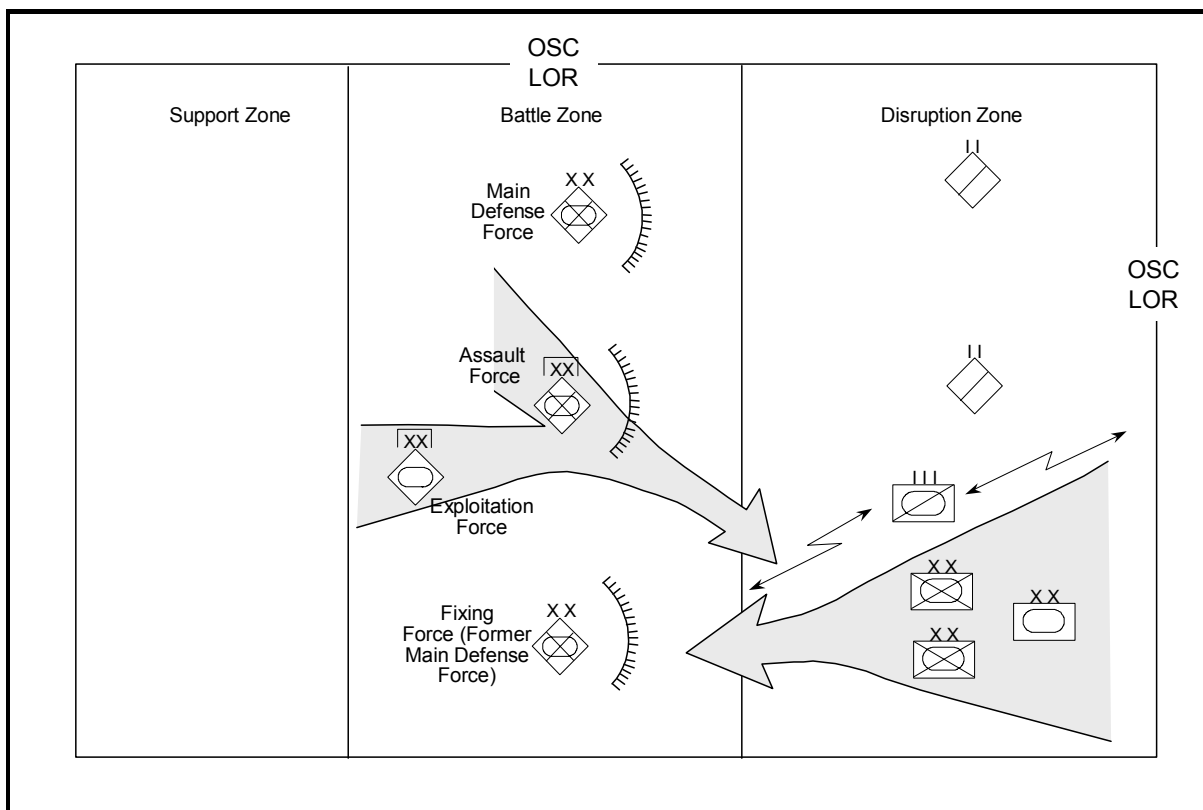
Figure 3-9. Counterattack (Example)

Organizing Forces for a Counterattack

3-106. Since counterattacks develop out of a defensive posture, the organiza-tion of forces involves the rapid shifting of some forces from their previously defensive roles to attack the enemy. Generally, the disruption force was al-ready part of a previous OPFOR defensive posture and continues to perform the same functions during a counterattack. Like other offensive actions, a counterattack employs fixing, assault, and exploitation forces. Within the context of a larger defensive action, these forces come from the main defense force and/or the reserve, and they collectively make up the counterattack force. Other forces in the AOR may continue to perform their original defensive roles.

3-107. **Fixing Force.** The fixing force in a counterattack is that part of the force engaged in defensive action with the enemy. These forces continue to fight from their current positions and seek to account for the key parts of the enemy array and sure they are not able to break contact and reposition. Additionally, the fixing force has the mission of making contact with and destroying enemy reconnaissance forces and any combat forces that may have penetrated the OPFOR defense.

3-108. **Assault Force.** In a counterattack, the assault force (if one is used) is assigned the mission of forcing the enemy to commit his reserve so that the enemy commander has no further mobile forces with which to react. If the fixing

force has already forced this commitment, the counterattack design may forego the creation of an assault force.

3-109. **Exploitation Force.** The exploitation force in a counterattack maneuvers through or bypasses engaged enemy forces to attack and destroy the enemy's support infrastructure before he has time or freedom to react. An armored or attack helicopter unit is often best suited to be the core of an exploitation force in a counterattack due to the combination of mobility, protection, and firepower possessed by such forces.

STRIKE

3-110. A *strike* is an offensive course of action that rapidly destroys a key enemy organization through a synergistic combination of massed precision fires and maneuver. The targeted enemy formation is usually a battalion task force or larger. Defeat for the enemy does not come through the simple destruction of armored weapon systems or combat soldiers but through the subsequent paralyzation that occurs when a key organization is completely devastated in a small span of time. See Figures 3-10 and 3-11 for examples of strikes. The overall objective is to destroy an enemy formation, typically after carefully setting the conditions for its destruction. The strike can be employed in larger operations that are either defensive or offensive in nature.
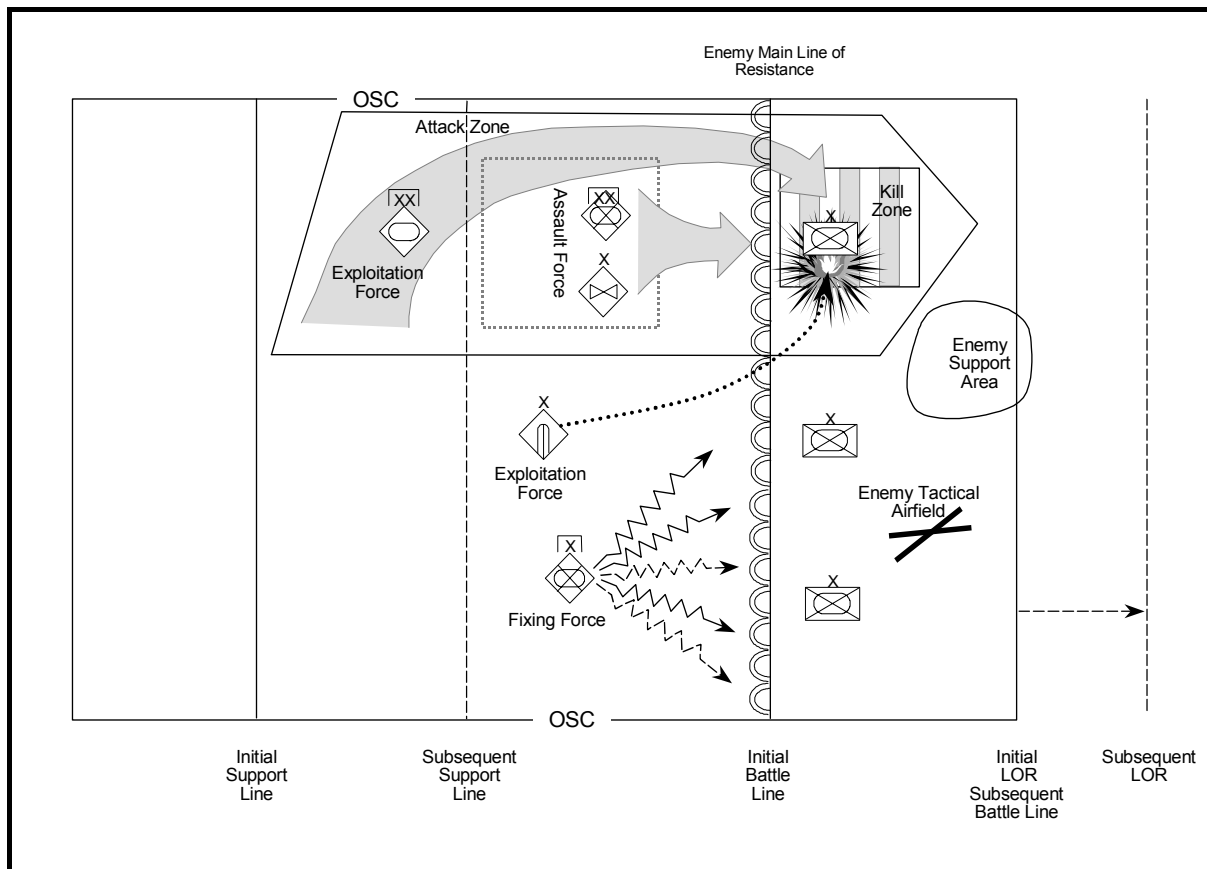
Figure 3-10. Strike (Example 1)

3-111. The primary objective of a strike is the enemy's will and ability to fight. The OPFOR recognizes that modern militaries cannot rapidly reconstitute entire combat formations and that significant destruction is both capable of removing all momentum possessed by a combat formation and eliminating support at home for continued combat operations.

3-112. Strikes are characterized by—

- Being focused on the complete destruction of a particular enemy formation.
- Typically following a period of reconnaissance fire (see Chapter 7).
- Requiring effective and integrated C^2 and RISTA means.
- The use of complex terrain to force the enemy to fight at a disadvantage.
- Significant reliance on deception and other IW measures.
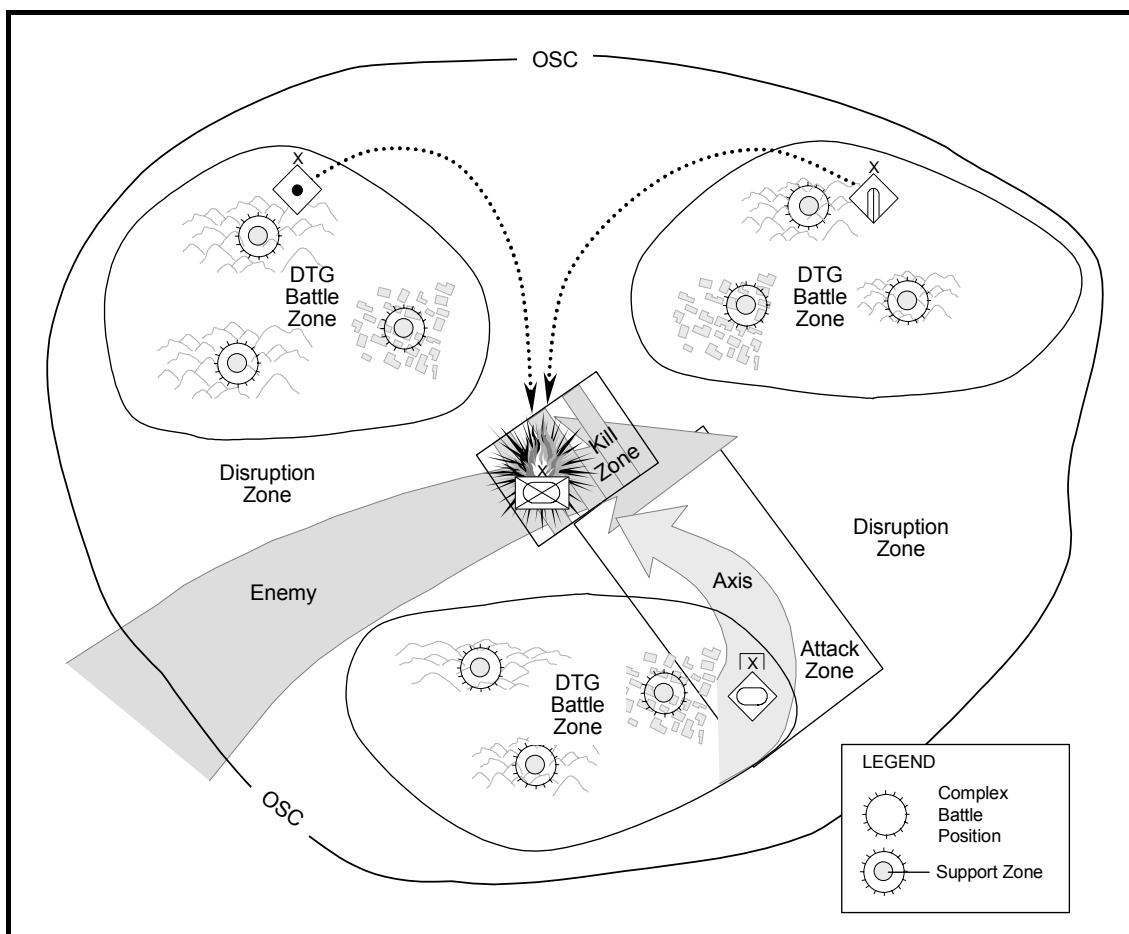
Figure 3-11. Strike (Example 2)

3-113. The window of opportunity needed to establish conditions favorable to the execution of a strike may be one created by the OPFOR or one that develops due to external factors in the operational environment. When this window must be created, the OPFOR keys on several tasks that must be accomplished:

- Destroy enemy ground reconnaissance.
- Deceive enemy imagery and signals sensors.
- Create an uncertain air defense environment.
- Selectively deny situational awareness.
- Maximize use of complex terrain.

Reconnaissance Fire

3-114. In addition to the above, the OPFOR will typically precede a strike with significant reconnaissance fire (see Chapter 7) designed to remove one or more key capabilities from the enemy force. The targeted capabilities could be ground reconnaissance, effective C^2, effective logistics, or casualty evacuation.

Organizing Forces for a Strike

3-115. A strike employs fixing, assault, and exploitation forces. The disruption force can play an important role in determining when the target formation will enter the kill zone for the strike.

3-116. **Fixing Force.** The fixing force in a strike is primarily focused on fixing enemy forces that might come to the aid of the target formation. The battle will develop rapidly, and enemy forces cannot be allowed to reposition to influence the assault and exploitation forces. Maneuver forces, precision fires, air defense units, long-range antiarmor systems, situational obstacles, chemical weapons, and EW are well suited to fix defending forces.

3-117. **Assault Force.** The assault force in a strike is charged with creating the conditions that allow the exploitation force to complete the destruction of the target formation. Since the exploitation force is principally required to act within the window of opportunity, the assault force may successfully employ infiltration of infantry to carefully pre-selected points to assist the exploitation force in its action. Smoke and suppressive artillery and rocket fires, combat engineer units, and air-delivered weapons are also suited to this mission.

3-118. **Exploitation Force.** The exploitation force in a strike has the mission of completing the destruction of the target formation. Strike exploitation forces are almost always combinations of highly lethal ground maneuver formations and precision long-range fire systems. A strike must be capable of eliminating the target enemy force before the higher enemy commander has time to react. An armored or attack helicopter unit is often best suited to be the core of an exploitation force in a strike, due to the combination of mobility, protection, and firepower possessed by such forces. However, a strike may be successfully executed without any maneuver forces, and the exploitation force may consist entirely of long-range fire systems.

Chapter 4

Defensive Operations

While the OPFOR sees the offense as the decisive form of military action, it recognizes defense as the stronger form of military action, particularly when faced with a superior, extraregional foe. Defensive operations can lead to strategic victory if the extraregional enemy abandons his mission. It may be sufficient for the OPFOR simply not to lose. Even when an operational-level command—such as a field group (FG) or operational-strategic command (OSC)—as a whole is conducting an offensive operation, it is likely that one or more subordinate units may be executing defensive missions to preserve offensive combat power in other areas, to protect an important formation or resource, or to deny access to key facilities or geographic areas.

OPFOR defenses can be characterized as a "shield of blows." Each force and zone of the defense plays an important role in the attack of the enemy's combat system. An operational-level defense is structured around the concept that destroying the synergy of the enemy's combat system will make enemy forces vulnerable to attack and destruction.

Commanders and staffs do not approach the defense with preconceived templates. The operational situation may cause the commander to vary his defensive methods and techniques. Nevertheless, there are basic characteristics of defensive operations (purposes and types of action) that have applications in all situations.

STRATEGIC CONTEXT

4-1. Defensive operations are an important component of all OPFOR strategic campaigns. However, the scale and purpose of defensive actions may differ during the various types of strategic-level actions.

REGIONAL OPERATIONS

4-2. The State possesses an overmatch in all elements of power against internal and regional opponents. It is able to employ that power in regional operations in a conventional operational design. This overmatch does not imply, however, that regional operations are entirely offensive. Consolidation of gains, security actions, and economy-of-force measures can all produce defensive courses of action inside a larger offensive design.

4-3. The State's military forces are sufficient to overmatch any single regional neighbor, but not necessarily an alliance or coalition of neighboring countries. They may not be a match for the forces an extraregional power can bring to bear. Thus, the OPFOR seeks to exploit its numerical and

technological overmatch against one regional opponent rapidly, before other regional neighbors or an extraregional power can enter the fight. In some cases, this may require defensive operations against one or more regional neighbors who are not the main target of the strategic campaign, to mitigate their ability to disrupt an OPFOR offensive against the one that is.

4-4. Regional operations include essentially defensive security actions to maintain internal stability. In addition, the Internal Security Forces help control the population in territory the OPFOR seizes or engage enemy forces that invade State territory.

4-5. The State's military goal during regional operations is to destroy its regional opponents' military power in order to achieve specific ends. The State plans regional operations well in advance and executes them as rapidly as is feasible in order to preclude intervention by outside forces. Still, at the very outset of these operations, it lays plans and positions forces to conduct access-control operations in the event of outside intervention. Extraregional forces may also be vulnerable to conventional operations during the time they require to build combat power and create support at home for their intervention.

TRANSITION OPERATIONS

4-6. If an extraregional force starts to deploy into the region, the balance of power begins to shift away from the State. Although the OPFOR may not yet be totally overmatched by the enemy force, it faces a threat it cannot handle with normal, "conventional" patterns of operation designed for regional conflict. Therefore, the OPFOR must begin to adapt its operations to the changing threat.

4-7. As the State begins transition operations, its immediate goal is preservation of its instruments of power while seeking transition back to regional operations. Transition operations therefore feature a mixture of offensive and defensive actions.

4-8. This combination of offensive and defensive actions can allow the State to control the strategic tempo while changing the nature of conflict to something for which the intervening force is unprepared. If these actions are successful and the extraregional force is no longer a factor, the OPFOR may be able to transition back to regional operations without having to complete the shift to adaptive operations.

4-9. During transition operations, the State must decide whether to keep its forces in any territory it has occupied in a neighboring country or to withdraw them back to its home territory. The decision to stay or withdraw at this point may be based on the presence or absence of complex terrain suitable for defensive operations in the occupied territory against an extraregional power with overmatch in technology and conventional forces. The OPFOR is more likely to remain in the occupied territory if it has already achieved its strategic goal in regional operations or at least achieved major intermediate objectives leading toward that goal and can structure an effective defense in that territory. Military forces in the immediate vicinity of the point of intervention move into defensive positions as opportunity allows, making use of existing command and control (C^2) and logistics.

4-10. The OPFOR can use the time it takes the extraregional force to prepare and deploy into the region to change the nature of the conflict into something for which the intervening force is unprepared. The OPFOR tries to establish conditions that force the new enemy to fight at less than full strength and on terrain for which his forces are not optimized. It seeks to take advantage of complex terrain whenever possible, while controlling the enemy's access to such terrain. It plans operations to exploit the opportunities created by the presence of NGOs, PVOs, media, and other civilians on the battlefield.

4-11. Meanwhile, transition operations permit other key forces the time, space, and freedom of action necessary to move into sanctuary in preparation for a shift to adaptive operations. These forces preserve combat power and prepare to defend the State homeland, if necessary. Transition operations usually include mobilization of reserve and militia forces to assist in defending the State.

4-12. At some point, the OPFOR may conclude that it cannot deny entry or defeat the extraregional force by destroying his early-entry forces. The OPFOR then shifts its emphasis to completing the transition to adaptive operations as soon as possible, before the enemy can deploy overwhelming forces into the region.

ADAPTIVE OPERATIONS

4-13. From the perspective of the extraregional power, any regional crisis has the potential to expand into a major theater war. Therefore, it will try to avoid crisis expansion by early engagement and rapid response. The longer the State can delay effective extraregional response to the crisis in the region, the greater its chances for success. Failing to limit or interrupt access to the region, the State will attempt to degrade further enemy force projection, hold initial gains, and extend the conflict, while preserving its own military capability and other instruments of national power.

4-14. When the OPFOR shifts to adaptive operations, these are more defensive in nature than were regional or transition operations. When overmatched in conventional power, the OPFOR seeks to preserve its own power and apply it in adaptive ways. It expects its commanders to seize opportunity, tailor organizations to the mission, and make creative use of existing resources—even more than they did in regional and transition operations.

4-15. Generally, the OPFOR conducts adaptive operations during the strategic campaign as a consequence of intervention from outside the region. If it cannot control the extraregional enemy's access into the region or defeat his forces before his combat potential in the region equals or exceeds its own, the OPFOR must resort to adaptive operations. The primary objectives are to preserve combat power, to degrade the enemy's will and capability to fight, and to gain time for aggressive strategic operations to succeed.

4-16. Adaptive operations occur as a result of an extraregional power intervening with sufficient forces to thwart the OPFOR's original offensive operations in the region. The OPFOR disperses to the extent its C^2 allows and conducts decentralized operations in both offense and defense. The OPFOR views adaptive operations as temporary in nature, serving as a means for the OPFOR to return to regional operations.

4-17. Adaptive operations are often sanctuary-based. Sanctuaries are areas that limit the ability of an opponent to apply his full range of capabilities. The OPFOR can use physical and/or moral sanctuaries for preserving and applying forces. It can defend in sanctuaries or attack out of them. It may conduct limited-objective attacks from these positions to prevent buildup of intervening forces, to facilitate the defense, or to take advantage of an opportunity to counterattack. When defending, the OPFOR generally does not employ fixed, contiguous defensive fronts.

4-18. The OPFOR uses flexible and unpredictable force structures task-organized for particular missions. Forces may be combined arms, joint, interagency, and possibly multinational. The State may fully mobilize all available means to create large conventional force and paramilitary capability in support of adaptive operations. Full mobilization involves all military and paramilitary forces, including militia. During adaptive operations, the State will use conventional forces in adaptive ways. It will also employ unconventional and specialized forces tailored to the needs of combat against an extraregional force with technological overmatch. Operations may also involve various types of affiliated forces.

PURPOSE OF THE DEFENSE

4-19. Defensive operations are designed to achieve the goals of the strategic campaign through active measures while preserving combat power. However, the purpose of any given defensive operation depends on the situation.

4-20. The primary distinction among types of OPFOR defensive operations is their purpose. Therefore, the OPFOR recognizes three general types of defensive operations according to their purpose: to destroy, preserve, or deny.

DEFENSE TO DESTROY

4-21. A *defense to destroy* is designed to eliminate an attacking formation's ability to continue offensive operations while preserving friendly forces and setting the military conditions for a favorable political settlement. Such a defense may be the entirety of an operation or may be used to defeat a counterattack during a larger OPFOR offensive action. An operational defense to destroy often has one or more tactical offensive actions as subcomponents.

DEFENSE TO PRESERVE

4-22. A *defense to preserve* is designed to protect key components of the OPFOR from destruction by the enemy. Such a defense may occur—

- To preserve combat power for future operations.
- Before the outbreak of a war, or in its early stages, to cover the mobilization and deployment of the main forces.
- When facing numerically or qualitatively superior enemy forces.
- During an offense, to economize force in one area and achieve superiority in another.

DEFENSE TO DENY

4-23. A *defense to deny* is intended to deny the enemy access to a geographic area or use of facilities that could enhance his combat operations or provide him substantial value for information operations. An example of this would be enemy capture of a religious or cultural center. This type of defense is most often used as part of an overall campaign of theater access control. It may also be used to consolidate, retain, and protect critical positions that attacking forces have captured.

PLANNING DEFENSIVE OPERATIONS

4-24. For the OPFOR, the key elements of planning defensive operations are—

- Determining the level of planning possible (planned versus situational defense).
- Organizing the battlefield.
- Organizing forces.
- Organizing information warfare (IW) activities in support of the defense (see Chapter 5).

4-25. Defensive actions during transition and adaptive operations will not be able to rely simply on attrition-based operations in layered engagement areas. Such actions will typically include increased use of—

- Infiltration to conduct spoiling attacks and ambushes.
- Perception management (see Chapter 5) in support of defensive operations.
- Camouflage, concealment, cover, and deception (C^3D) measures.
- Affiliated forces for reconnaissance, counterreconnaissance, security, and attacks against key enemy systems.

PLANNED DEFENSE

4-26. A *planned* (or *deliberate*) defense is a defensive operation undertaken when there is sufficient time and knowledge of the situation to prepare and rehearse forces for specific tasks. Typically, the enemy is in a staging or assembly area and in a known location and status. The OPFOR plans a defense using the method described in Chapter 2. Key considerations in defensive planning are—

- Selecting operationally significant areas in complex terrain from which to dominate surrounding avenues of approach.
- Determining the method that will deny the enemy his operational objectives.
- Developing a plan for reconnaissance, intelligence, surveillance, and target acquisition (RISTA) that locates and tracks major enemy formation and determines enemy patterns of operations and probable objectives.
- Creating or taking advantage of a window of opportunity that frees friendly forces from any enemy advantages in precision standoff and situational awareness.

SITUATIONAL DEFENSE

4-27. The OPFOR recognizes that the modern battlefield is chaotic, and fleeting opportunities to attack an enemy weakness will continually present themselves and just as quickly disappear. If the OPFOR determines that, by conserving resources in one area, it may be able to take advantage of a window of opportunity in another, it may assume a *situational* (or *hasty*) defense. It may also do so when an OPFOR attack culminates prior to achieving the objective.

4-28. The OPFOR may also be forced to employ a situational defense when it has been conducting offensive operations against a regional neighbor and intervention by a powerful extraregional force materializes more quickly than anticipated. Thus, the OPFOR may have to make the transition from regional to adaptive operations more rapidly than planned. Units may still be able to move into preplanned positions in complex terrain, but without some measures they anticipated being able to take during transition operations. They may or may not have fully-prepared, complex battle positions, with engineer preparation, C^3D measures, and logistics caches.

4-29. The commander develops his assessment of the conditions leading to a situational defense rapidly and without a great deal of staff involvement. He provides a basic course of action to the staff, who then quickly turn that course of action into an executable operational directive.

4-30. Organization of the battlefield in a situational defense is normally limited to minor changes to existing control measures. Organization of forces in a situational defense typically relies on minor modifications to existing structure.

4-31. The following are examples of conditions that might lead to a situational defense:

- The enemy gains or regains air superiority sooner than anticipated.
- An enemy counterattack was not effectively fixed.
- An attacking force makes contact with an enemy formation it did not expect.

ORGANIZING THE BATTLEFIELD FOR THE DEFENSE

4-32. In his operation plan, the commander specifies the organization of the battlefield from the perspective of his level of command. Within his unit's area of responsibility (AOR), as defined by the next-higher commander, he designates AORs for his subordinates, along with zones related to his own overall mission.

4-33. In organizing the defensive battlefield, the operational commander organizes forces to begin attack of the combat system of the enemy force as soon as feasible. By attacking subsystems or components of the enemy's combat system appropriate to the situation, the operational commander can create windows of opportunity for offensive action.

Areas of Responsibility

4-34. OPFOR AORs normally consist of three principal *zones*: disruption, battle, and support zones. Zones may be linear or nonlinear in nature and are designed to facilitate rapid transition between linear and nonlinear operations, as well as between offense and defense. These zones have the same basic purposes in all types of defenses. In addition to the basic zones in an AOR, the operational-level commander may also employ attack zones and kill zones to control subordinate offensive operations conducted in support of the overall defensive scheme. See Figures 4-1 and 4-2 for generalized examples of AORs and zones in linear and nonlinear defensive operations.
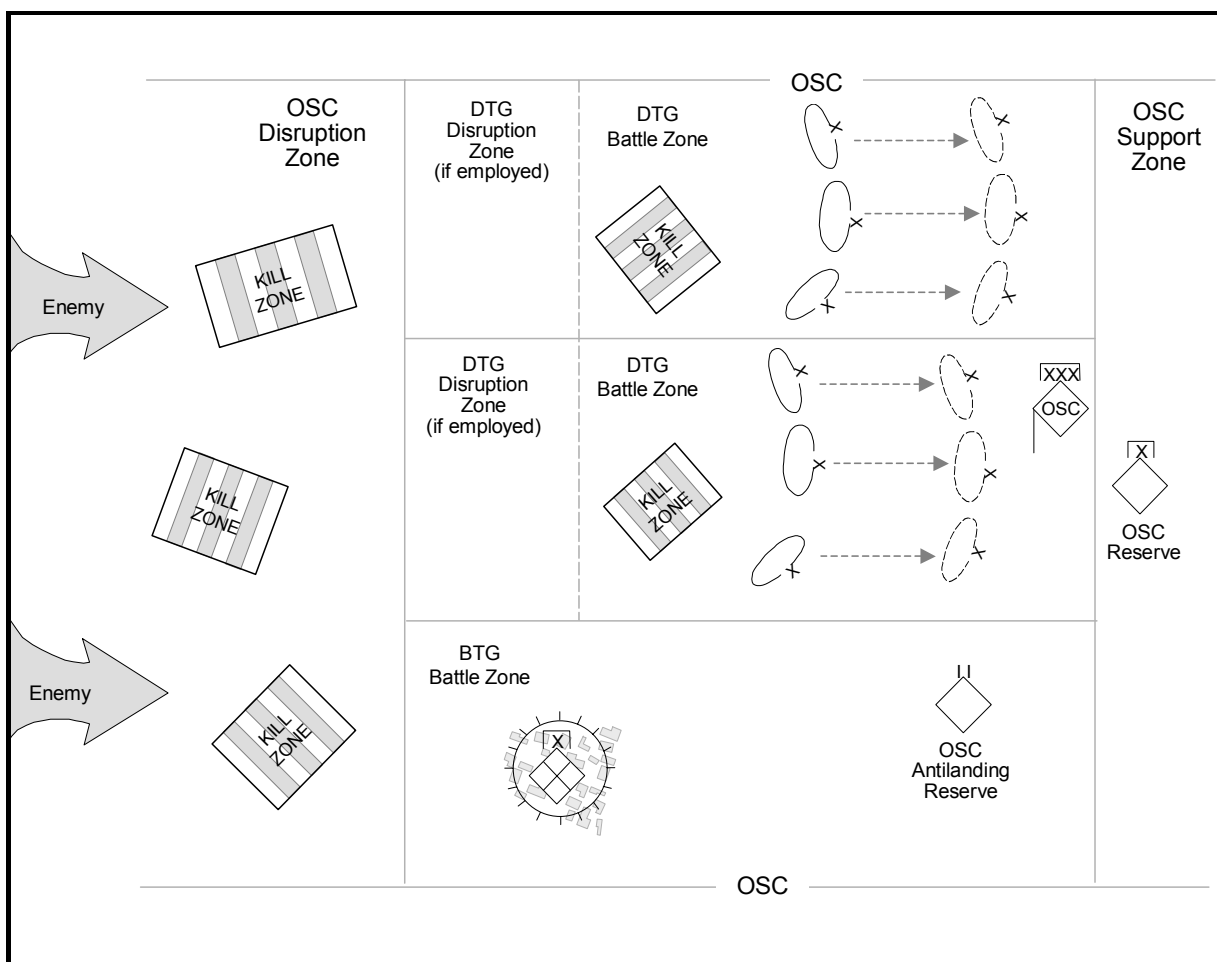
Figure 4-1. Example of AOR (Linear Battlespace)
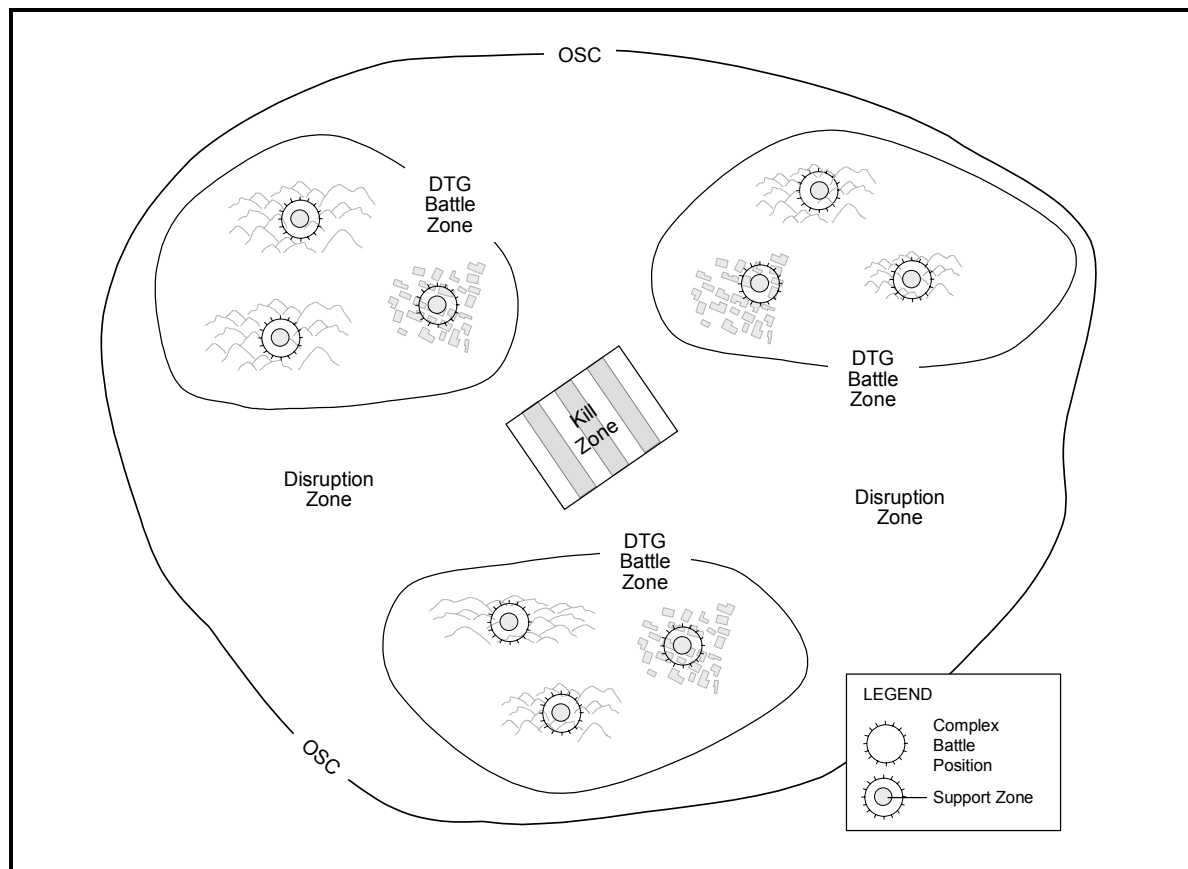
Figure 4-2. Example of AOR (Nonlinear Battlespace)

Disruption Zone

4-35. In the defense, the *disruption zone* is that battlespace where operational forces begin their attack on the designated component or subsystem of the enemy's combat system. It is located between the OSC's battle zone and the limit of responsibility (LOR) that defines the extent of the AOR. Within this battlespace, the OPFOR seeks to set the conditions for the defeat of the attacking force in the battle zone. For example, the operational-level commander may determine that destruction of the enemy's mobility assets will create an opportunity to destroy maneuver units in the battle zone. The disruption force would be given the mission of seeking out and destroying enemy mobility assets while avoiding engagement with maneuver forces.

4-36. The disruption zone is the primary area in which the operational-level commander will employ long-range joint fires and strikes. He may establish kill zones within his disruption zone for the purpose of integrating the actions of long-range fire elements and disruption force elements.

4-37. The operational-level disruption zone may be the aggregate of the disruption zones of subordinates. For example, an FG's disruption zone could include the disruption zones of one or more OSCs and/or tactical-level commands directly subordinate to the FG. An OSC's disruption zone could include disruption zones

of subordinate division and brigade tactical groups (DTGs and BTGs), although assets directly controlled by the OSC could also operate throughout an OSC disruption zone. In such cases, each subordinate would be responsible for a portion of the operational-level disruption zone, and that portion would constitute the subordinate's disruption zone within its own AOR. In other cases, an operational-level disruption zone may extend beyond those of the FG's or OSC's subordinates, to include an area occupied by forces sent out under direct control of the FG or OSC commander.

4-38. Operational-level forces in the disruption zone could include special-purpose forces (SPF) and affiliated forces, which could be operating in enemy-held territory even before the beginning of hostilities. There could also be stay-behind forces in areas seized by the enemy.

Battle Zone

4-39. The *battle zone* is that battlespace in which the main defense force uses fires and maneuver to exploit the conditions created by successful disruption zone operations. In the battle zone, the main defense force completes the disaggregation of the enemy's combat system by destroying the components exposed by the disruption force. By inflicting significant damage or denying the enemy his objectives, the main defense force causes the enemy to culminate and, in the best case, to quit the field entirely. An operational-level battle zone is often the aggregate of the battle zones of subordinate units.

4-40. The battle zone ties all available obstacles into an integrated fire support plan of all available weapons. It denies complex terrain to the enemy. It allows the enemy to enter easily, but to exit only at great cost or ideally not at all. The operational-level commander may establish kill zones within the battle zone for the purpose of integrating long-range fire, ground attack aviation, and main defense forces. Long-range fires from the battle zone may also reach kill zones in the disruption zone, where these fires can be integrated with the actions of disruption forces.

Support Zone

4-41. The *support zone* is that area of the battlespace designed to be free of significant enemy action and to permit the effective logistics and administrative support of forces. Security forces (see Organizing Forces for the Defense below) operate in the support zone in a combat role to defeat enemy special operations forces and other threats. Camouflage, concealment, cover, and deception (C^3D) measures occur throughout the support zone to protect the force from standoff RISTA and precision attack.

Attack Zone

4-42. During an overall defensive operation, an *attack zone* may be employed to conduct an offensive action inside a larger defensive action. It will have the characteristics described in Chapter 3. An *axis* is a control measure showing the location through which a counterattack force, for example, will move as it proceeds from its assembly area to its attack zone. At the operational level, multi-division OSCs may conduct offensive actions as a part of a larger defensive scheme.

Kill Zone

4-43. A *kill zone* is a designated area on the battlefield where the OPFOR plans to destroy a key enemy target, usually by fire. Kill zones may be within any of the zones described above.

Battle Position

4-44. Within the AOR of an operational command, tactical-level subordinates may occupy battle positions. A *battle position* is a defensive location designed to maximize the occupying unit's ability to accomplish its mission. A battle position is selected such that the terrain in and around it is complementary to the occupying unit's capabilities and its tactical task. There are two kinds of battle positions: simple and complex. See Figure 4-3.
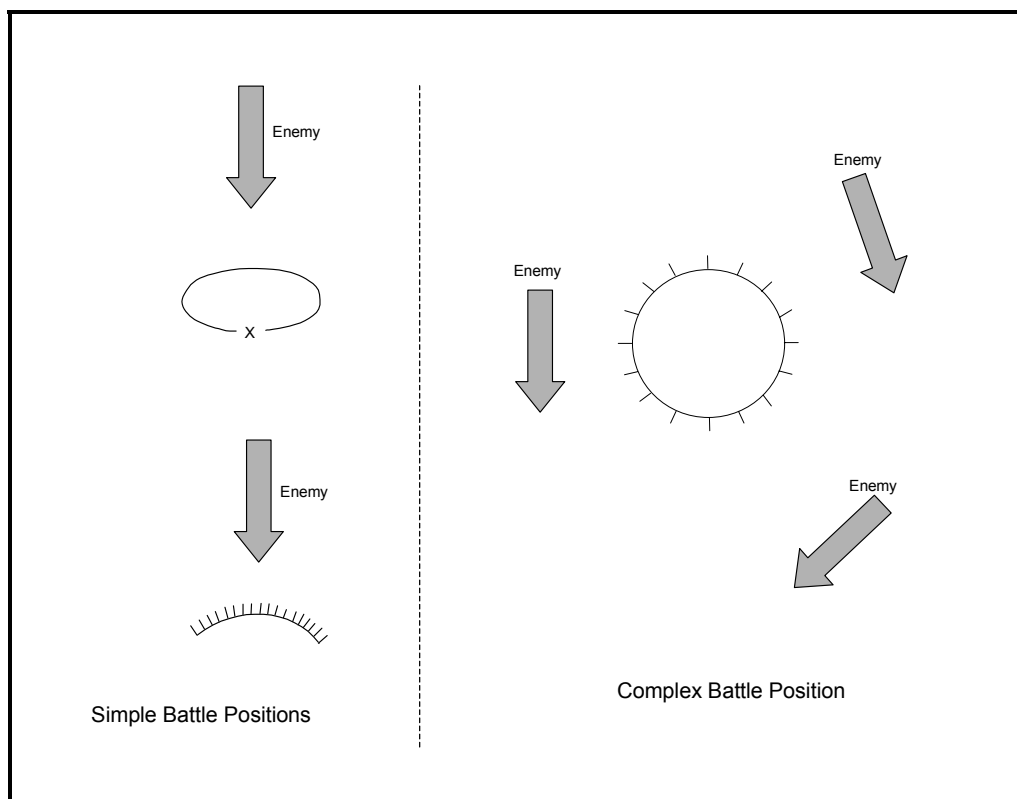
Figure 4-3. Battle Positions

4-45. A *simple battle position* is a defensive location oriented on the most likely enemy avenue of approach. Simple battle positions are not necessarily tied to complex terrain but often employ as much engineer effort as time allows.

4-46. *Complex battle positions* are defensive locations designed to protect the units within them from detection and attack while denying their seizure and occupation by the enemy. They typically employ a combination of complex terrain, C3D measures, and engineer effort to protect combat forces from engagement by precision standoff attack.

4-47. A typical complex battle position contains—

- Complex terrain.
- A substantial logistics cache.
- Extensive engineer fortification and obstacle work.
- C^3D effort to confuse the enemy picture of strength and disposition.
- Precision fire capability.
- Mobile reserves.
- Air defense systems.
- Redundant C^2 systems.

ORGANIZING FORCES FOR THE DEFENSE

4-48. In his operation plan, the operational-level commander also specifies the organization of the forces within his level of command. Thus, subordinate forces understand their roles within the overall operation. However, the organization of forces can shift dramatically during the course of an operation. For example, a unit that initially was part of a disruption force may eventually occupy a battle position within the battle zone and become part of the main defense force or act as a reserve.

4-49. Each of the separate functional forces has an identified commander. This is often the senior commander of the largest subordinate unit assigned to that force. For example, if two DTGs and a separate BTG are acting as the OSC's main defense force, the senior of the two DTG commanders is the main defense force commander. During decentralized operations, even when the force consists of like units of the same command level, control can be delegated to the senior commander of that force's like units. Since, in this option, each force commander is also a subordinate unit commander, he controls the force from his unit's command post (CP).

4-50. Another option is to have one of the OSC's or FG's CPs be in charge of a functional force. Particularly during dispersed defensive operations, functional forces that contain units of the same command level might be controlled from the forward, auxiliary, or airborne CP of the OSC or FG. For example, the forward CP could control a disruption force. Another possibility would be for the IFC CP to command the disruption force or any other force whose actions must be closely coordinated with fires delivered by the integrated fires command (IFC).

4-51. In any case, the force commander is responsible to the OSC or FG commander to ensure that combat preparations are made properly and to take charge of the force during the operation. This frees the operational-level commander from decisions specific to the force's mission. Even when tactical-level subordinates of an OSC or FG have responsibility for parts of the OSC or FG disruption zone, there is still an overall OSC or FG disruption force commander.

Disruption Force

4-52. The size and composition of forces in the disruption zone depends on the level of command involved, the commander's concept of operations, and the circumstances in which the unit adopts the defense. An operational-level disruption force has no set organization but may be as large as a multi-division OSC or consist only of SPF teams to direct reconnaissance fires and conduct direct action. The operational-level commander will always make maximum use of stay-behind forces and affiliated forces existing within his AOR. Subordinate commanders can employ forces in a disruption zone role independent of the operation plan only with approval of the operational-level commander.

4-53. A disruption force has no set order of battle, but may contain—
- Ambush teams (ground and air defense).
- SPF teams.
- RISTA assets and forces.
- Counterreconnaissance forces.
- Artillery systems.
- Target designation teams.
- Affiliated forces (such as terrorists, insurgents, criminals, or special police).
- Antilanding reserves.

4-54. The purpose of the disruption force is to prevent the enemy from conducting an effective attack. The disruption force does this by initiating the attack on components of the enemy's combat system. Successful attack of designated components or subsystems begins the disaggregation of the enemy's combat system and creates vulnerabilities for exploitation in the battle zone. Skillfully conducted disruption operations will effectively deny the enemy the synergy of effects of his combat system.

4-55. The disruption force may also have a counterreconnaissance mission. It may selectively destroy or render irrelevant the enemy's RISTA forces. There will be times, however, when the OPFOR wants enemy reconnaissance to detect something that is part of the deception plan. In those cases, the disruption force will not seek to destroy all of the enemy's RISTA assets.

Main Defense Force

4-56. The *main defense force* is the component of the operational-level command that is charged with execution of the defensive mission. It operates in the battle zone to accomplish the purpose of the operation (destroy, preserve, or deny).

Protected Force

4-57. In a defense to preserve, the *protected force* is the force being kept from detection or destruction by the enemy. Protection can be afforded by C^{3}D and/or the actions of other OPFOR units. There is generally some force that the OPFOR is trying to protect from enemy observation and fire, to ensure that it will still have that force after the current operation is over. At the operational level, this force is critical to future operations and the preservation of the regime. It may be in the battle zone or the support zone.

Security Force

4-58. The *security force* conducts activities to prevent or mitigate the effects of hostile actions against the overall operational-level command and/or its key components. If the commander chooses, he may charge this security force with providing force protection for the entire AOR, including the rest of the functional forces; logistics and administrative elements in the support zone; and other key installations, facilities, and resources. The security force may include various types of units—such as infantry, SPF, counterreconnaissance, and signals reconnaissance assets—to focus on enemy special operations and long-range reconnaissance forces operating throughout the AOR. It can also include internal security forces units allocated to the operational-level command, with the mission of protecting the overall command from attack by hostile insurgents, terrorists, and special operations forces. The security force may also be charged with mitigating the effects of weapons of mass destruction (WMD). The security force commander can be given control over one or more reserve formations, such as the antilanding reserve.

Counterattack Forces

4-59. In a defensive operation with a planned counterattack scheme (typically in a maneuver defense), the operational-level commander designates one or more *counterattack forces*. He also shifts his task organization to create a counterattack force when a window of opportunity opens that leaves the enemy vulnerable to such an action. At the operational level, the counterattack force may be a multi-division force with the mission to destroy a major enemy formation that is exposed. The operational-level commander uses counterattack forces to complete the defensive mission assigned and regain the initiative for the offense. The counterattack force can have within it fixing, assault, and exploitation forces (as outlined in Chapter 3).

Types of Reserves

4-60. At the commander's discretion, forces may be held out of initial action so that he may influence unforeseen events or take advantage of developing opportunities. He may employ a number of different types of reserve forces of varying strengths, depending on the situation.

4-61. **Maneuver Reserve.** The size and composition of a reserve force is entirely situation-dependent. However, the reserve is normally a force strong enough to respond to unforeseen opportunities and contingencies at the operational level. A reserve may assume the role of counterattack force to deliver the final blow that ensures the enemy can no longer conduct his preferred operation.

4-62. A reserve force is given a list of possible missions for rehearsal and planning purposes. The staff assigns to each of these missions a priority, based on likelihood that the reserve might be called upon to execute that mission. Some missions given to the reserve may include—

- Conducting a counterattack. (The counterattack goal is not limited to destroying enemy forces, but may also include recovering lost positions or capturing positions operationally advantageous for subsequent combat actions.)

- Conducting counterpenatration (blocking or destroying enemy penetrations).
- Conducting antilanding operations (eliminating vertical envelopments).
- Assisting forces heavily engaged on a defended line to break contact and withdraw.
- Act as a deception force.

4-63. **Antitank Reserve.** OPFOR commanders faced with significant armored threats may keep an antitank reserve (ATR). It is generally an antitank unit and often operates in conjunction with an obstacle detachment (OD). Based on the availability of antitank and engineer assets, an operational-level command may form more than one ATR.

4-64. **Antilanding Reserve.** Because of the potential threat from enemy airborne or airmobile troops, an operational-level commander may designate an antilanding reserve (ALR). Operational-level ALRs would be resourced for rapid movement to potential drop zones (DZs) and landing zones (LZs). The ALR commander would have immediate access to the operational intelligence system for early warning of potential enemy landing operations. ALRs typically include maneuver forces, air defense assets, and engineer units, but may be allocated any unit capable of disrupting or defeating an airborne or heliborne landing, such as smoke or electronic warfare (EW). While other reserves can perform this mission, the commander may create a dedicated ALR to prevent destabilization of the defense by vertical envelopment of OPFOR units or seizure of key terrain. ALRs assume positions prepared to engage the enemy primary DZ or LZ as a kill zone. They rehearse and plan for rapid redeployment to other suspected DZs or LZs. Operational-level commanders may direct long-range fires or SPF direct action to prevent enemy forces from mounting air insertions. The destruction of airframes or fuel sources, or the positioning of air defense assets may serve to take this option away from enemy forces.

4-65. **Special Reserves.** An operational-level command may form an *engineer reserve* of earthmoving and obstacle-creating equipment. A commander can deploy this reserve to strengthen defenses on a particularly threatened axis during the course of the operation. An operational-level command threatened by enemy use of WMD may also form a *chemical defense reserve*.

Deception Force

4-66. When the IW plan requires the creation of nonexistent or partially existing formations, these forces are designated *deception forces* in close-hold executive summaries of the operation plan. Wide-distribution copies of the plan make reference to these forces according to the designation given them in the deception story. The deception force in the defense is typically given its own command structure to both replicate the organization(s) necessary to the deception story and to execute the multidiscipline deception required to replicate an actual military organization. For example, FG commanders can use deception OSC command structures to deny enemy forces information on operation plans for the defense.

PREPARING FOR THE DEFENSE

4-67. In the preparation phase, the OPFOR focuses on ways of applying all available resources and the full range of actions to conduct defensive operations. Commanders organize their forces and the battlefield with an eye toward capitalizing on conditions created by successful defensive actions, and seizing opportunities for offensive actions wherever possible. The defensive dispositions are based on the application of the systems warfare approach to combat, as described in Chapter 1. OPFOR defensive operations focus on attacking components or subsystems to of the enemy's combat system to disaggregate the "system of systems." By denying the enemy the synergy created by an integrated, aggregated system, vulnerabilities are created that defensive forces can exploit.

DENY ENEMY INFORMATION

4-68. Operational-level commanders realize that enemy operations hinge on an appreciation of the situation. So, defensive preparations focus on destruction and deception of enemy national and theater sensors. Lethal and nonlethal attack of enemy intelligence satellites and reconnaissance aircraft can limit the ability of enemy forces to understand the OPFOR defensive plan. The OPFOR recognizes that, when conducting operations against an extraregional power, it will often be impossible to destroy the ability of the enemy's standoff RISTA means to observe its defensive preparations. However, the OPFOR also recognizes the reluctance of enemy military commanders to operate without human confirmation of intelligence, as well as the relative ease with which imagery and signals sensors may be deceived. The OPFOR operational-level commander considers ground reconnaissance by enemy special operations Forces as a significant threat in the enemy RISTA suite and focuses significant effort to ensure its removal. While the OPFOR will execute missions to destroy standoff RISTA means, C3D would be the method of choice for degrading the capability of such systems.

MAKE THOROUGH COUNTERMOBILITY AND SURVIVABILITY PREPARATIONS

4-69. The more time available, the greater the preparation of an AOR for the defense. This is a reflection of engineer effort and time to devote to that effort. The OPFOR employs every method to maximize the time available to prepare for the defense. This includes preparation of the State during peacetime and highly detailed plans for transition from regional to adaptive operations to take full advantage of any operational lull as the enemy builds combat power. This might involve an offensive operation with limited objectives that transitions to the defense by design.

4-70. Operational-level commanders realize that engineer works are vital to the stability of the defense. Engineer assets will be used to improve the advantages of complex terrain in protecting friendly forces and exposing enemy forces to engagement. Engineer efforts can contribute to creating windows of opportunity by degrading the ability of the enemy's combat system to integrate the effects of its subsystems.

4-71. Engineer units specializing in rapid obstacle construction and minelaying form mission-specific units known as ODs. These ODs normally deploy in conjunction with reserves to block enemy penetrations or to protect the flanks of counterattack forces. In the initial stages of the defense, engineer assets concentrate on creating obstacles in the disruption zone, in gaps in the combat formation, and to the flanks, and preparing lines for counterpenetration and counterattack and routes to such lines. The obstacle plan ensures that the effort is coordinated with fires and maneuver to produce the desired effects. In conjunction with other tasks, engineers support the IW plan through activities such as constructing false defensive positions and preparing false routes. More information on countermobility and survivability planning at the operational level can be found in Chapter 10.

MAKE USE OF COMPLEX TERRAIN

4-72. The OPFOR tries to make maximum use of complex terrain in all defensive operations. Complex terrain provides cover from fires, concealment from standoff RISTA assets, and intelligence and logistics support from the population of urban areas. It plays into the strength of OPFOR resolve to win through any means and through protracted conflict if necessary.

MAKE THOROUGH LOGISTICS ARRANGEMENTS

4-73. The overwhelming ability of extraregional intervention forces to attack exposed logistics elements makes it difficult to resupply forces. The OPFOR understands that there is as much chance of a defensive operation being brought to culmination by a lack of sufficient logistics support as there is by enemy action. Careful consideration is given to carried days of supply and pre-established caches to obviate the need for easily disrupted lines of communication (LOCs).

MODIFY THE PLAN WHEN NECESSARY

4-74. The OPFOR takes into account that, while it might consider itself to be in the preparation phase for one operation, it is continuously in the execution phase. Plans are never considered final. Plans are checked throughout the course of their development to ensure they are still valid in light of battlefield events.

REHEARSE EVERYTHING POSSIBLE, IN PRIORITY

4-75. At the operational level, rehearsals are usually confined to map or sand table exercises to ensure understanding by subordinate commanders. The commander establishes the priority for critical parts of the operation, and rehearses those operations with his subordinates. Typical actions to be rehearsed in a defensive operation include—

- Commitment of a reserve.
- Initiation of a counterattack.
- Execution of the fire support plan.

EXECUTING THE DEFENSE

4-76. Successful execution depends on forces that understand their roles in the operation and can swiftly follow preparatory actions with implementation of the operation plan or rapid modifications to the plan, as the situation requires. A successful execution phase results in the culmination of the enemy's offensive action. It ideally ends with transition to the offense in order to keep the enemy under pressure and destroy him completely. During adaptive operations against superior enemy force, however, a successful defense may end in a stalemate.

4-77. A successful operational-level defense sets the military conditions for a return to the offense or a favorable political resolution of the conflict. The OPFOR may have to surrender territory to preserve forces. Territory can always be recaptured, but the destruction of OPFOR operational formations threatens the survival of the State. Destruction of the protected force is unacceptable.

4-78. Success criteria for an operational-level commander conducting an area or maneuver defense may include—

- Major combat formations remain intact.
- The enemy is forced to withdraw or, at a minimum, forego offensive operations due to losses.
- A stalemate allows theater- and national-level assets time to conduct attacks against enemy strategic centers of gravity.

MAINTAIN CONTACT

4-79. OPFOR operational-level commanders go to great lengths to maintain contact with enemy formations and headquarters that may influence theater operations. This includes rapid reconstitution of reconnaissance assets and forces.

MODIFY THE PLAN WHEN NECESSARY

4-80. The OPFOR is sensitive to the effects of mission dynamics and realizes that the enemy's actions may well make the original mission of an OPFOR unit achievable, but completely irrelevant. As an example, an OSC assigned a mission to secure a critical area or facility may find that mission is not viable if the enemy conducts a major air insertion that threatens the overall defensive plan. Parts of that OSC may be called upon to initiate limited offensive action while the air insertion is still vulnerable.

SEIZE OPPORTUNITIES

4-81. The OPFOR places maximum emphasis on decentralized execution, initiative, and adaptation. Subordinate units are expected to take advantage of fleeting opportunities so long as their actions are in concert with the purpose of the operational directive.

INTEGRATED AND DECENTRALIZED DEFENSES

4-82. The OPFOR recognizes two general forms of defense: integrated and decentralized. The distinction between the two rests on the ability of the OPFOR to operate freely in the battlespace with full joint and combined arms synchronization and adequate C^2 and logistics support.

INTEGRATED DEFENSE

4-83. A defensive operation is *integrated* if the OPFOR has the ability to achieve full joint and/or combined arms synchronization through all levels of command and throughout the battlespace. This requires a modernized C^2 system, a robust logistics capability, and the ability to operate relatively free of enemy influence in the support zone and battle zones prior to the commencement of full-fledged enemy offensive action. The OPFOR force structure possesses the first two of these characteristics, at least in relation to regional opponents. Thus, during regional operations and perhaps transition operations, it would often be operating in an integrated fashion unless the enemy is able to achieve a sufficient level of overmatch in RISTA and standoff attack capability to deny the OPFOR freedom of action.

4-84. Integrated defenses are able to—

- Operate, at least partially, without the requirement for windows of opportunity.
- Maximize the effects of destructive fire and maneuver.
- Achieve operational decision through primarily military means.

DECENTRALIZED DEFENSE

4-85. A defensive operation is *decentralized* if the OPFOR's C^2 and/or logistics capability has been significantly degraded or it does not have the ability to operate freely in the battlespace. This typically occurs when the enemy enjoys significant technological overmatch, particularly in technical RISTA means and standoff precision attack. Decentralized defenses do not achieve decision in and of themselves. Rather, they focus on preserving combat power while buying time for the execution of strategic operations (see Chapter 1).

4-86. In some cases, an operational-level commander may chose to adopt a decentralized defense to preserve his C^2 and logistics, understanding that his ability to synchronize operations will be degraded. Operational-level commanders are constantly estimating the situation to determine risk versus reward for active measures. A decentralized defense relies on initiative of subordinate commanders and the discrete targeting of elements of the enemy's combat system to reduce combat capability and expose enemy forces to destruction.

4-87. To be successful, decentralized defenses must—

- Operate primarily in complex terrain.
- Maximize the effects of countermobility and survivability measures.
- Rely heavily on IW.
- Make the best possible use of reconnaissance fires (see Chapter 7).

TYPES OF DEFENSIVE ACTION

4-88. The types of defensive action in OPFOR doctrine are both tactical methods and guides to the design of operational courses of action. The two basic types are maneuver and area defense. An operational-level defensive plan may include subordinate units that are executing various combinations of maneuver and area defenses, along with some offensive courses of action, within the overall defensive mission framework.

MANEUVER DEFENSE

4-89. In situations where the OPFOR is not completely overmatched, it may conduct an operational *maneuver defense*. This type of defense is designed to achieve operational decision by skillfully using fires and maneuver to destroy key components of the enemy's combat system and deny enemy forces their objective, while preserving the friendly force. Maneuver defenses cause the enemy to continually lose effectiveness until he can no longer achieve his objectives. They can also economize force in less important areas while the OPFOR moves additional forces onto the most threatened axes.

4-90. Maneuver defenses are almost always integrated defenses. Decentralized maneuver defenses typically occur as part of transition operations. As an extraregional enemy builds combat power to overmatch levels, but before the OPFOR is completely overmatched, maneuver defense can buy time for other forces to move into sanctuary areas and prepare for adaptive operations.

4-91. Even within a maneuver defense, the OPFOR may use area defense on some enemy attack axes, especially on those where it can least afford to lose ground. (See Figure 4-1.) An operational-level commander may use both forms of defense simultaneously across the theater. A command may employ maneuver defense techniques to conduct operations in the disruption zone if it enhances the attack on the enemy's combat system and an area defense in the battle zone.

Method

4-92. Maneuver defense inflicts losses on the enemy, gains time, and protects friendly forces. It allows the operational defender to choose the place and time for engagements. Each portion of a maneuver defense allows a continuing attack on the enemy's combat system. As the system begins to disaggregate, more elements are vulnerable to destruction. The maneuver defense accomplishes this through a succession of defensive battles in conjunction with short, violent counterattacks and fires. It allows abandoning some areas of terrain when responding to an unexpected enemy attack or when conducting the battle in the disruption zone. In the course of a maneuver defense, the operational-level commander tries to force the enemy into a situation that exposes enemy formations to destruction. See Figures 4-4 and 4-5 for examples of maneuver defense.
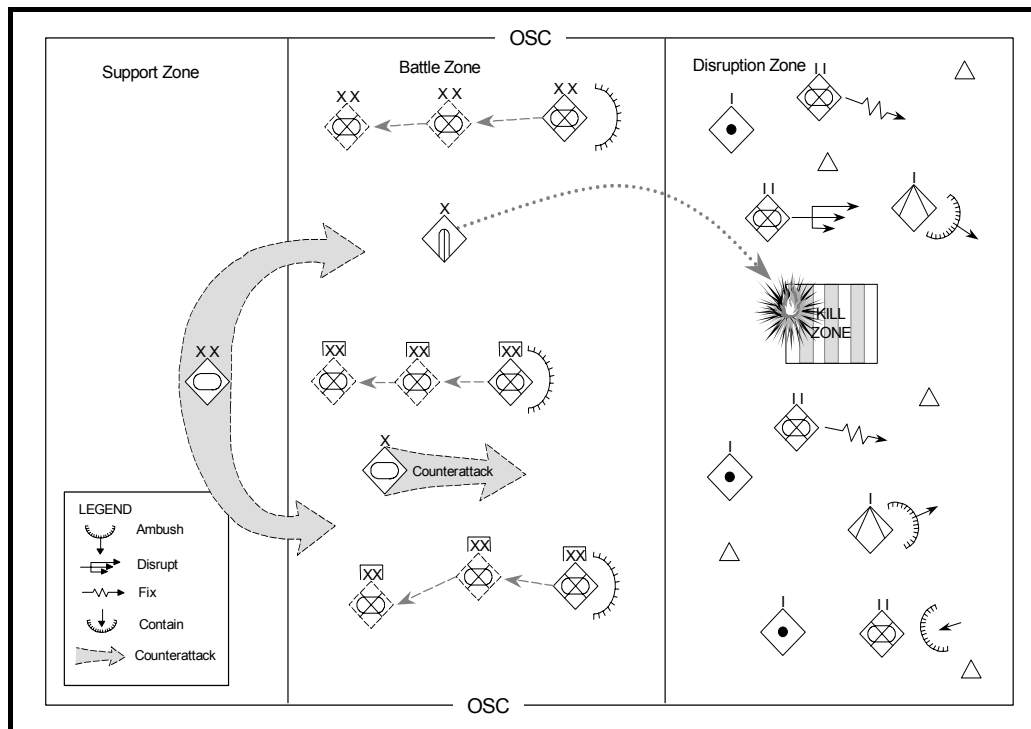
Figure 4-4. Maneuver Defense (Example 1)

4-93. A maneuver defense trades terrain for the opportunity to destroy portions of the enemy formation and render the enemy's combat system ineffective. The OPFOR might use a maneuver defense when—

- It can afford to surrender territory.
- It possesses a mobility advantage over enemy forces.
- Conditions are suitable for canalizing the enemy into areas where the OPFOR can destroy him by fire or deliver decisive counterattacks.

4-94. Compared to area defense, the maneuver defense involves a higher degree of risk for the OPFOR, because it does not rely heavily on the inherent advantages of prepared defensive positions. Units conducting a maneuver defense typically place smaller forces forward in defensive positions and retain much larger reserves than in an area defense.

Defensive Lines

4-95. The basis of maneuver defense is for units to conduct maneuver from position to position on a succession of *defensive lines*. In this case, the "line" defended on is not a continuous line of defenses, but rather a notional line on which one or more units have orders to defend for a certain time at a certain depth within a unit's AOR. The OPFOR accepts large intervals between defensive positions on such a line. Part of the line may consist of natural or manmade obstacles or of deception defensive positions.

4-96. These "lines" are not necessarily linear, in the sense of forming a straight line. Nor are they necessarily at regular intervals from one another.

A particular unit's position on a subsequent line may not be directly behind its previous position. In the spaces between the lines, the defenders can organize reconnaissance fire, raids, and counterattacks. Thus, it is difficult for the enemy to predict where he will encounter resistance.

4-97. The number of lines and duration of defense on each line depend on the nature of the enemy's actions, the terrain, and the condition of the defending units. Lines are selected based on the availability of natural obstacles and shielding terrain, with consideration of being able to leave the lines without being observed.
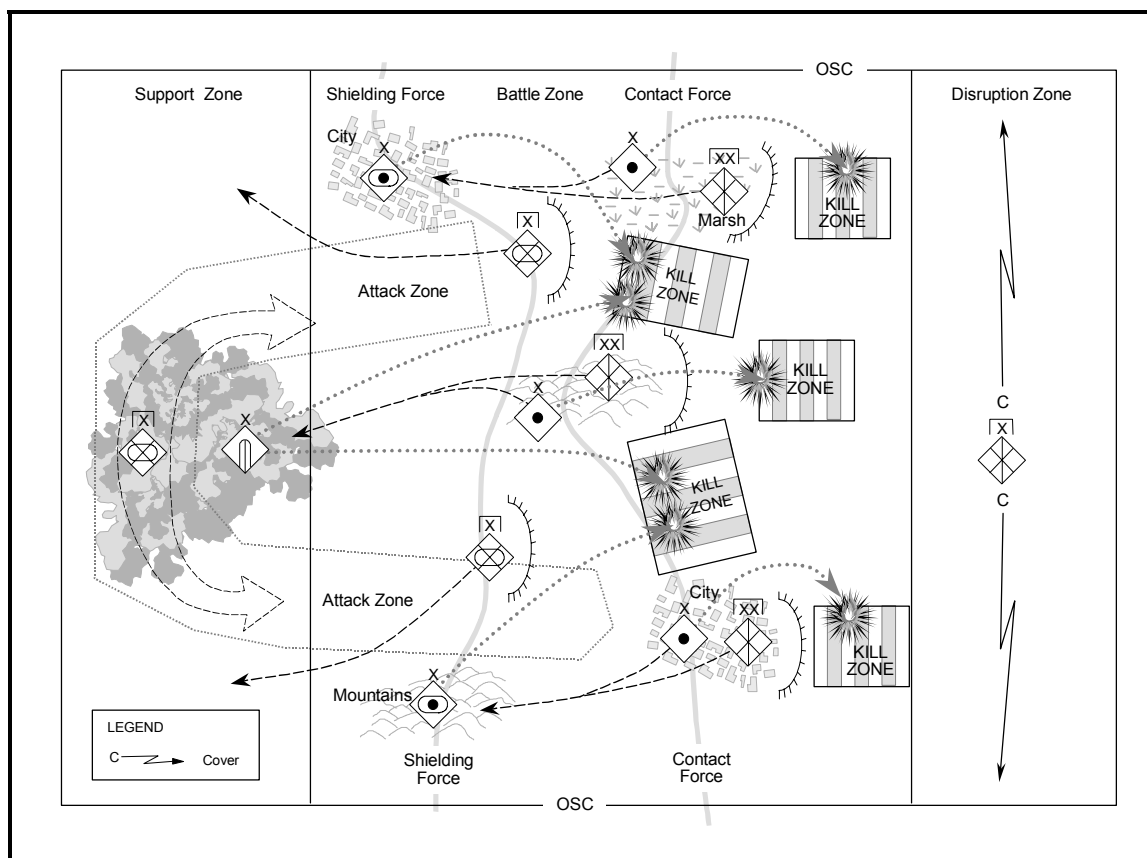
Figure 4-5. Maneuver Defense (Example 2)

Defensive Maneuver

4-98. *Defensive maneuver* consists of movement by bounds and the maintenance of continuous fires on enemy forces. A disruption force and/or a main defense force (or part of it) can perform defensive maneuver. In either case, the force must divide its combat power into two smaller components: a contact force and a shielding force. The *contact force* is the component occupying the forward-most defensive line at any point in time. The *shielding force* is the component occupying the next line immediately to the rear.

4-99. At each line, the contact force ideally forces the enemy to deploy his maneuver units and perhaps begin his artillery preparation for the attack. Then, before the contact force becomes decisively engaged, it maneuvers to its next preplanned line, behind the line occupied by the shielding force. While the original contact force is moving, the shielding force is able to keep the enemy under continuous fires. When the original contact force passes to the rear of the original shielding force, the latter force becomes the new contact force. When the original contact force occupies its next line, it becomes the shielding force for the new contact force. In this manner, units continue to move by bounds to successive lines, preserving their own forces while delaying and destroying the enemy.

4-100. Figures 4-1, 4-4, and 4-5, due to the operational scope of the overall maneuver defense shown, depict only the general location of a BTG or DTG as it moves to subsequent positions. These figures do not reflect the reality that the contact and shielding forces moving by bounds are likely to be detachments within a BTG or DTG. See FM 7-100.2 for examples of how this process works at the tactical level.

4-101. Subsequent lines are far enough apart to permit defensive maneuver by friendly units. The distance should also preclude the enemy from engaging one line and then the other without displacing his indirect fire weapons. This means that the enemy, having seized one line, must change the majority of his firing positions and organized his attack all over again in order to get to the next line. However, the lines are close enough to allow the defending units to maintain coordinated, continuous fires on the enemy while moving from one to the other.

4-102. OPFOR commanders may require a unit holding a line to continue defending, even if this means it becomes decisively engaged or enveloped. This may be necessary in order to allow the construction of defenses to the rear of the line this unit is defending.

Disruption Force

4-103. An operational-level defense may have an OSC occupying an operational disruption zone if it is important to delay enemy forces to allow theater transition to adaptive operations. The task organization of such an OSC would have sufficient mobility to conduct a maneuver defense and a significant allocation of artillery and rocket units. The disruption force initiates the attack on the enemy's combat system by targeting and destroying subsystems that are critical to the enemy. If successful, the disruption force can cause culmination of the enemy attack before the enemy enters the battle zone. In the worst case, the enemy would enter the battle zone unable to benefit from an integrated combat system and vulnerable to defeat by the main defense force.

4-104. Forces committed to the disruption zone battle for an OSC usually would be a BTG or DTG, along with supporting and affiliated assets from the OSC. The OSC conducts the defense throughout the depth of the disruption zone. Maneuver units conduct the defense from successive battle positions. Intervals between these positions provide space for deployment of mobile attack forces, precision fire systems, and reserves.

4-105. The distance between successive positions in the disruption zone is such that the enemy is forced to displace the majority of his supporting weapons to continue the attack on the subsequent positions. This aids the force in breaking contact and permits time to occupy subsequent positions. Long-range fires, ODs, and ambushes to delay pursuing enemy units can assist units in breaking contact and withdrawing.

4-106. If the disruption force has not succeeded in destroying or halting the attacking enemy, but is not under too great a pressure from a pursuing enemy, it may occupy prepared battle positions in the battle zone and assist in the remainder of the defensive mission as part of the main defense force. A disruption force may have taken losses and might not be at full capability; a heavily damaged disruption force may pass into hide positions. In that case, main defense or reserve forces occupy positions to cover the disruption force's disengagement.

Main Defense Force

4-107. The mission of the main defense force is complete the defeat of the enemy by attack of those portions of the force exposed by disruption zone operations. In a multi-OSC operation, this may involve resubordination of units and in some cases attacks by fire or maneuver forces across OSC limits of responsibility.

4-108. The main defense force in a maneuver defense divides its combat power into contact and shielding forces. These forces move in bounds to successive defensive lines. If maneuver defense in the disruption zone has provided sufficient time, the defensive positions on these lines may take on more of the characteristics of prepared battle positions.

4-109. The basic elements of the battle zone are battle positions, firing lines, and repositioning routes. Battle positions use the terrain to protect forces while providing advantage in engagements.

4-110. The commander may order a particular unit to stand and fight on a line long enough to repel an attack. He may order this if circumstances are favorable for defeating the enemy at that line. The unit also might have to remain on that line because the next line is still being prepared or a vertical envelopment threatens the next line or the route to it.

Reserves

4-111. An operational-level command in the maneuver defense can employ a number of reserve forces of varying strengths. The maneuver reserve is a force strong enough to respond to unforeseen opportunities and contingencies at the operational level. It is normally strong enough to defeat the enemy's exploitation force. The commander positions this reserve in an assembly area using C^3D to protect it from observation and attack. From this position, it can transition to a situational defense or conduct a counterattack. The reserve must have sufficient air defense coverage to allow maneuver. If the commander does not commit the reserve from its original assembly area, it maneuvers to another assembly area, possibly on a different axis, where it prepares for other contingencies. (See the Reserves section above for discussion of other types of reserves.)

AREA DEFENSE

4-112. In situations where the OPFOR must deny geographic areas (or the access to them) or where it is overmatched, it may conduct an operational *area defense*. An area defense uses complex battle positions to protect key components of the OPFOR's combat power while creating opportunities, if possible, to attack the enemy's combat system. Not every component of OPFOR combat power needs to or will be able to operate from complex battle positions. However, those components most central for the OPFOR commander's plan will be the priority for preservation. Area defense is designed to achieve a decision in one of two ways:

- By forcing the enemy's offensive operations to culminate before he can achieve his objectives.

- By denying the enemy his objectives while preserving combat power until decision can be achieved through strategic operations (see Chapter 1).

See Figures 4-6 and 4-7 for examples of area defense.
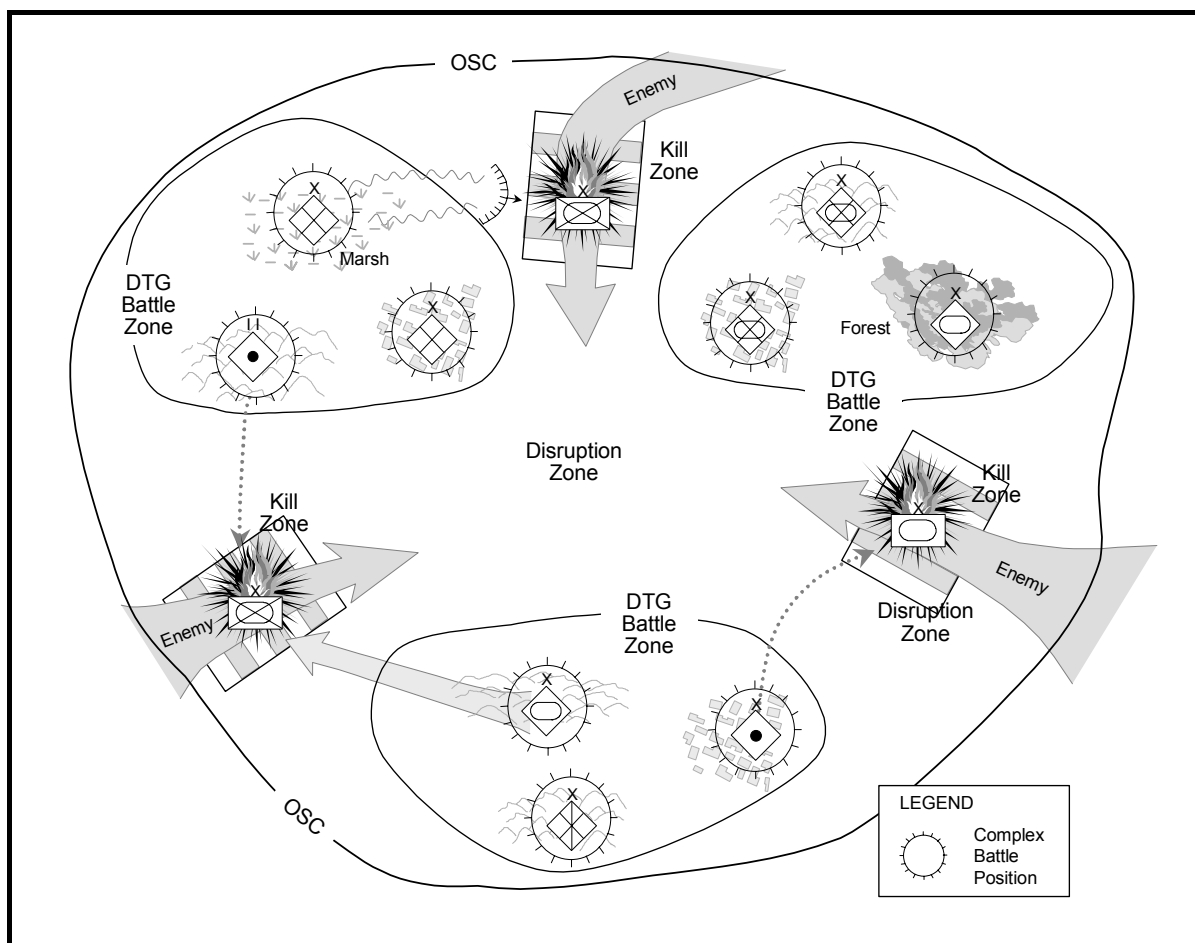
Figure 4-6. Area Defense (Example 1)
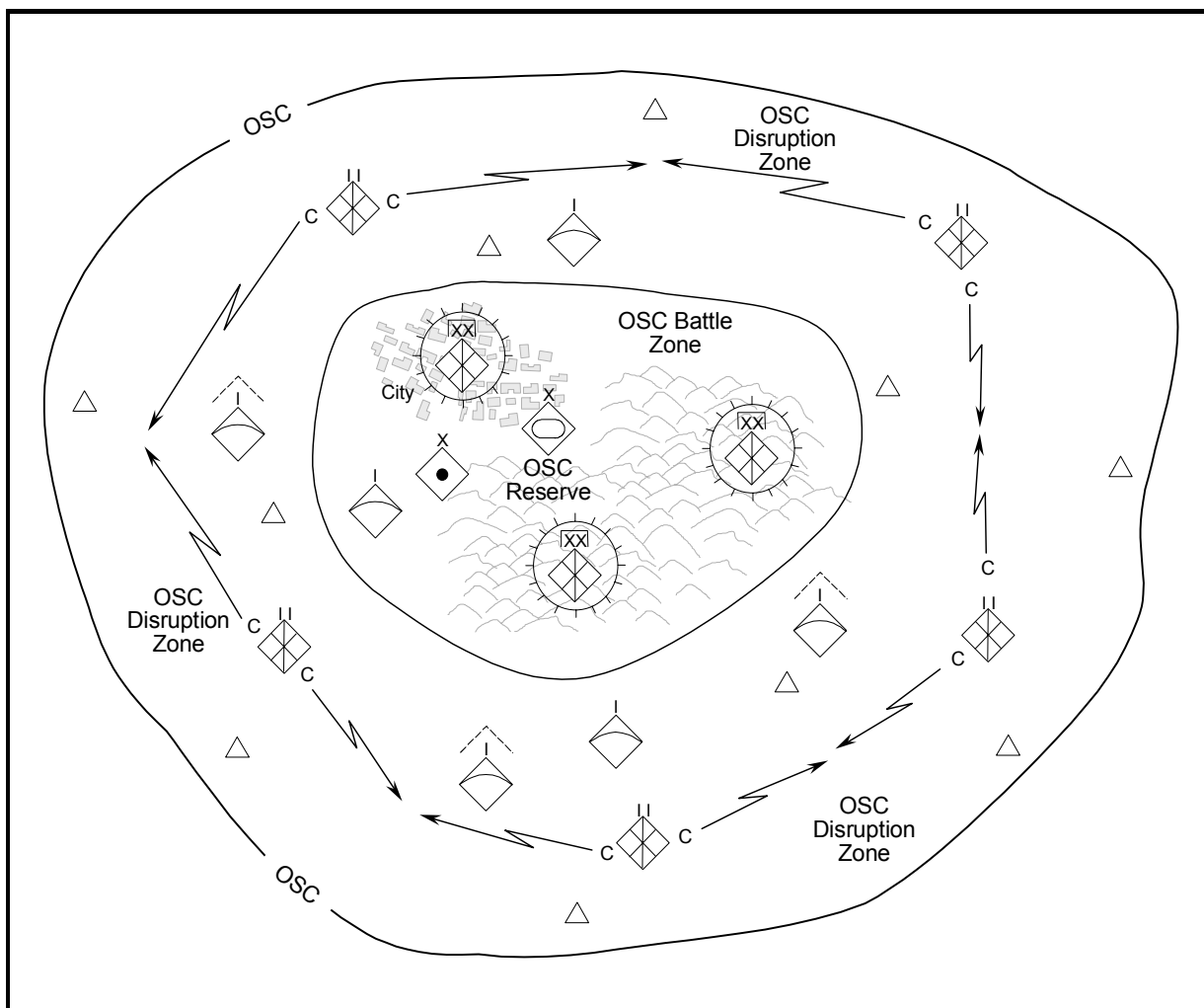
Figure 4-7. Area Defense (Example 2)

4-113. The area defense does not surrender the initiative to the attacking forces, but takes action to create windows of opportunity that permit forces to conduct small-scale offensive actions to attack key components of the enemy combat system and cause unacceptable casualties. Area defense can set the conditions for destroying a key enemy force in a strike. Extended windows of opportunity permit the action of maneuver forces and facilitate transition to a larger offensive action. IW is particularly important to the execution of the area defense in adaptive and transition operations. Deception is critical to the creation of complex battle positions, and effective perception management is vital to the creation of the windows of opportunity needed to execute ma- neuver and fires.

Method

4-114. Area defense inflicts losses on the enemy, retains ground, and protects friendly forces. It does so by occupying battle positions in complex terrain and dominating the surrounding battlespace with reconnaissance fire (see Chapter 7). These fires attack designated elements of the enemy's combat system to destroy components and subsystems that create an advantage for the enemy. The operational design of an area defense is to begin disaggregating the enemy's combat system in the disruption zone. When enemy forces enter the battle zone, they should be incapable of synchronizing combat operations.

4-115. Area defense creates windows of opportunity in which to conduct spoiling attacks or counterattacks and destroy key enemy systems. In the course of an area defense, the operational-level commander uses terrain that exposes the enemy to continuing attack.

4-116. An area defense trades time for the opportunity to attack enemy forces when and where they are vulnerable. The OPFOR might use an area defense when—

- It is conducting access-control operations.
- Enemy forces enjoy a significant RISTA and precision standoff advantage.
- Conditions are suitable for canalizing the enemy into areas where the OPFOR can destroy him by fire and/or maneuver.

4-117. A skillfully conducted area defense can allow a significantly weaker force to defeat a stronger enemy force. However, the area defense relies to a significant degree on the availability of complex terrain and decentralized logistics. Units conducting an area defense typically place small ambushing and raiding forces in complex terrain throughout the AOR to force the enemy into continuous operations and steadily drain his combat power and resolve.

4-118. Within an overall operational area defense, the OPFOR might use maneuver defense on some portions of the AOR, especially on those where it can afford to lose ground. This occurs most often during transition operations as forces initially occupy the complex terrain positions necessary for the execution of the area defense.

Disruption Force

4-119. In an area defense, the disruption zone is that battlespace surrounding its battle zone(s) where the OPFOR may cause continuing harm to the enemy without significantly exposing itself. For example, counterreconnaissance activity may draw the attention of enemy forces and cause them to enter the kill zone of a sophisticated ambush using long-range precision fires. RISTA assets and counterreconnaissance forces occupy the disruption zone, along with affiliated forces. Paramilitary forces may assist other disruption force units by providing force protection, controlling the civilian population, and executing deception operations as directed.

4-120. The disruption zone of an area defense is designed to be an area of uninterrupted battle. OPFOR RISTA maintains contact with enemy forces, and other parts of the disruption force attack them incessantly with ambush and precision fires.

4-121. The disruption force has many missions. The most important mission at the operational level is the destruction of appropriate elements of the enemy's combat system, to begin disaggregating it. The following list provides examples of other tasks that the disruption force may perform:

- Detect the enemy's main groupings.
- Force the enemy to reveal his intentions.
- Deceive the enemy as to the location and configuration of battle positions.
- Delay the enemy, allowing time for preparation of defenses and counterattacks.
- Force the enemy into premature deployment.
- Attack lucrative targets (key systems, vulnerable troops).
- Canalize the enemy into situations unfavorable to him.

The disruption force mission also includes maintaining contact with the enemy and setting the conditions for successful reconnaissance fire and strikes.

4-122. In an area defense, the disruption force often occupies and operates out of battle positions in the disruption zone and seeks to inflict maximum harm on selected enemy units and destroy enemy systems operating throughout the AOR. An area defense disruption force permits the enemy no safe haven and continues to inflict damage at all hours and in all weather conditions.

4-123. Disruption force units break contact after conducting ambushes and return to battle positions for refit and resupply. Long-range fires, ODs, and ambushes to delay pursuing enemy units can assist units in breaking contact and withdrawing.

4-124. Even within the overall context of an operational area defense, the disruption force might employ a maneuver defense. In this case, the distance between positions in the disruption zone is such that the enemy is forced to displace the majority of his supporting weapons to continue the attack on the subsequent positions. This aids the force in breaking contact and permits time to occupy subsequent positions.

4-125. The disruption zone often includes a significant obstacle effort. Engineer effort in the disruption zone also provides mobility support to disruption force units requiring maneuver to conduct their attacks or ambushes.

4-126. Within the overall structure of the area defense, disruption force units seek to conduct highly damaging local attacks. They deploy on likely enemy avenues of approach. They choose the best terrain to inflict maximum damage on the attacking enemy and use obstacles and barriers extensively. They defend aggressively by fire and maneuver. When enemy pressure grows too strong, these forces can conduct a maneuver defense, withdrawing from one position to another in order to avoid envelopment or decisive engagement.

4-127. Since a part of the disruption force mission to attack the enemy's combat system, the following are typical targets for attack:

- C^2 systems.
- RISTA assets.
- Precision fire systems.
- Aviation assets in the air and on the ground—at attack helicopter forward arming and refueling points (FARPs) and airfields.
- Logistics support areas.
- LOCs.
- Mobility and countermobility assets.
- Casualty evacuation routes and means.

4-128. In some cases, the disruption force can have a single mission of detecting and destroying a particular set of enemy capabilities. This does not mean that no other targets will be engaged; it means that, given a choice between targets, the disruption force will engage the targets that are the most damaging to the enemy combat system.

Main Defense Force

4-129. The units of the main defense force conducting an area defense occupy battle positions in complex terrain within the battle zone. That terrain is reinforced by engineer effort and C^{3}D measures. These complex battle positions are designed to prevent enemy forces from being able to employ precision standoff attack means and force the enemy to choose costly methods in order to affect forces in those positions. They are also arranged in such a manner as to deny the enemy the ability to operate in covered and concealed areas himself.

4-130. The main defense force in an area defense conducts attacks and employs reconnaissance fire against enemy forces in the disruption zone. Disruption forces may also use the complex battle positions occupied by the main defense force as refit and rearm points.

Reserves

4-131. An operational-level command in the area defense can employ a number of reserve forces of varying strengths. In addition to its other functions, the maneuver reserve in an area defense may have the mission of winning time for the preparation of positions. This reserve is a unit strong enough to respond to unforeseen opportunities and contingencies at the operational level. It is normally strong enough to defeat the enemy's exploitation force. The commander positions his reserve in an assembly area within one or more of the battle positions, based on the commander's concept of the operation. (See the Reserves section above for discussion of other types of reserves.)

Chapter 5

Information Warfare

Modern information technologies (ITs) have created conditions for the confrontation of states, combatants, and non-state actors in a fundamentally new arena—the information sphere. Information, information processing, and communications networks are at the core of every military activity. The concepts of time, space, force, navigation, speed, precision, and lethality have changed because of the capabilities of information-age technology and the availability of information. These changes have a tremendous effect on how military forces conduct activities. The OPFOR addresses this issue through continued refinement of its information warfare (IW) doctrine.

The OPFOR defines *information warfare* as the specifically planned and integrated actions taken to achieve an information advantage at critical points and times. The ultimate goal of IW is to influence decision makers. The OPFOR conducts IW at all levels of warfare—strategic, operational, and tactical—but without regard to strict definitional boundaries among these levels. Opponents of the State are subject to IW regardless of the level and degree of engagement in other types of operations. The State's leadership integrates all instruments of power—diplomatic-political, economic, military, and informational—to implement an information strategy. One element of power may have primacy over the others at a given time, but all work together.

In the OPFOR's view, skillful application of IW can facilitate the defeat of a technologically superior enemy. It can challenge or counter an enemy's goal of information dominance. The OPFOR can target key components (such as technology providing situational awareness, and advanced computing and communications technologies) that provide such dominance, thus shaking the opponent's confidence.

NEW CONCEPTS OF INFORMATION IN WARFARE

5-1. The State envisions an operational environment (OE) in which the battlespace stretches from the depths of an opponent's territory to the center of the State's political, economic, and military organizations. This OE is conducive to the practice of IW. Combat cannot be confined to a single battlespace, but instead will often expand globally to encompass attacks on an adversary's information and space systems or his entire information environment.

5-2. Information is a powerful strategic, operational, and tactical multiplier. It enhances leadership and magnifies the effects of maneuver, firepower, and protection at decisive points. The OPFOR can use information as a component of combat power to shape the OE and create the conditions for employing the

other components of its combat power. Information has become a vital strategic and operational resource. The OPFOR clearly understands the power of information and the revolution in IT and is actively developing doctrine and tactics to supplement more traditional types of warfighting. The OPFOR can use IW activities to create and/or exploit windows of opportunity for itself.

5-3. The importance of information, and its flow and control, to the conduct of military operations is not a new concept. The OPFOR has for years employed an integrated approach to attacking, disrupting, or manipulating information inside the enemy's decision-making cycle. Objectives have included not only the systems and information its enemies collect, process, and analyze, but also the leaders and the decisions they make. What is new, however, is the speed and volume of information available; networking, routing, and switching technologies; and the global connectivity of information systems and infrastructures. This information explosion, coupled with an integrated IW doctrine, provides the OPFOR a greater opportunity to inflict damage, trigger chaos, weaken national will, or permanently cripple an opponent. In effect, IW challenges traditional approaches to warfare. The following are ways in which IW redefines operations.

INFORMATION INFRASTRUCTURE

5-4. Most of today's information environment is outside of military control, making it harder to regulate, dominate, or protect. While neither the State nor its opponents can control the global information environment or global information infrastructure (GII), they must prepare to operate within it. The GII is defined as the worldwide interconnection of communications networks, computers, databases, and consumer electronics that make vast amounts of information available to users. Within the GII, various countries have their own national information infrastructures (NIIs) and defense information infrastructures (DIIs).

5-5. The NII is the physical and virtual backbone of a nation. It is composed of multiple critical infrastructures. Critical infrastructures are those information and communication assets, systems, and functions so vital to a nation that their disruption or destruction would have a debilitating effect on national security, economy, governance, public health and safety, and morale.

5-6. The DII is defined as the shared or interconnected system of computers, communications, data applications, security, people, training, and other support structures serving an actor's defense needs. The DII connects computers used for mission support, command and control (C^2), and intelligence through voice, telecommunications, imagery, video, and multimedia services.

5-7. The interaction of the GII, NIIs, and DIIs introduces multiple actors into the information environment. This increases vulnerabilities and dependencies, and creates many legal issues.

BLURRED BOUNDARIES

5-8. The OPFOR understands that there is no clear-cut line of demarcation between the military, economic, and diplomatic-political aspects of an operation or strategic campaign and that the informational element cuts across the other three. Therefore, it uses all types of IW across all these dimensions.

5-9. In an information-based world, the boundaries between nations, individuals, and private-sector organizations can be undefined and nebulous. The traditional distinction between enemy and friendly forces becomes harder to observe, define, and ultimately defend against. The OPFOR is keenly aware of this development and can use it to its advantage when conducting IW actions. For example, the OPFOR could employ third-party individuals or organizations (either domestic or international) to conduct IW activities, making traceability difficult.

5-10. There may also be an inherent difficulty in isolating a specific OPFOR IW activity. For example, the distinction between OPFOR-sponsored IW attacks and other types of activities and events (such as espionage, accidents, system failures, disgruntled employee actions, and hacker pranks) are hard to distinguish. This period of confusion, and time spent trying to identify the attacker, can benefit and be manipulated by the OPFOR.

5-11. The interaction of the GII, NIIs, and DIIs compresses and blurs the distinction among tactics, operations, and strategy. For example, images of tactical military actions, disseminated by the media, are likely to influence strategic decision makers or the populace.

EXPANDED ROLE FOR PERCEPTION MANAGEMENT

5-12. Thus, perception management is a critical piece of IW. The OPFOR constantly attempts to "spin" any conflict or situation to its advantage. IW planning and implementation emphasizes increased use of psychological warfare (PSYWAR) and deception designed to manipulate public opinion, coupled with attacks against an opponent's centers of gravity.

5-13. New information-based techniques and tools can dramatically increase the ability to conduct perception management and supporting deception operations. Modern technologies allow the OPFOR to target a global audience for support and sympathy. The OPFOR stresses the importance of perception management from the strategic to the tactical level. (See the Perception Management section of this chapter for further detail.)

ROLE OF TECHNOLOGY

5-14. Rapid advances in technology have produced an incredibly complex global information environment. Information and communications technologies have grown exponentially in recent years. Satellite and cellular communications, direct-broadcast television (expanding the awareness of events, issues, and military activities), personal computers, global positioning system (GPS) technologies, wireless communication capabilities, and the Internet are a few examples of the capabilities widely available to nations, as well as independent organizations and individuals. Given such advances, the capabilities of both the OPFOR and its potential adversaries are increasing in both sophistication and lethality. The OPFOR tries to exploit such technologies to gain the operational advantage.

INVESTMENT IN TECHNOLOGY

5-15. The State is committed to creating an IT research and development base. However, until such a capability is developed, the State actively seeks

international sources (overt and covert) and commercial off-the-shelf (COTS) products to satisfy its civilian and military requirements.

5-16. The OPFOR focuses its investment strategy on the following areas:

- Computers (including increasingly complex distributed information systems).
- Telecommunications (traditional and wireless communications).
- Electronics (to included microelectronics).
- Computer integrated manufacturing.
- Nanotechnology.
- Robotics.
- Biotechnology.
- Space-based communications.
- Sophisticated sensing capabilities.

VULNERABILITY OF TECHNOLOGY

5-17. The OPFOR can manipulate an enemy's unresolved problems of interoperability and dependence on COTS systems to its advantage. COTS materials are usually not hardened against electronic spikes, remote collection capabilities, or extreme weather conditions. The OPFOR understands that security cannot be constructed or guaranteed when depending on COTS. For example, if hackers (working independently or for a government or criminal organization) disrupted Internet communications or links while a military operation was in progress, information exchange between combat units could be severely disrupted.

NEUTRALIZING TECHNOLOGICAL AND INFORMATION SUPERIORITY

5-18. The OPFOR recognizes the increasing dependence of modern extraregional forces on information systems and their desire to obtain information superiority. However, the OPFOR also understands that information superiority does not equate to perfect information, nor does it eliminate the "fog of war." Information systems, processors, and links add their own source of friction and vulnerability to the operational environment. Systems and sensors can be tricked, destroyed, or overwhelmed with data, thus causing an enemy to question the value and validity of his gathered intelligence. The OPFOR seeks to exploit this uncertainty and friction at all times.

5-19. The OPFOR recognizes that it cannot stand toe-to-toe with most extraregional enemies in a conventional war, and therefore seeks to target enemy weaknesses. IW will be the tool of choice to counter a technologically superior opponent and to challenge his relative information dominance. In addition, IW actions designed to break the will of a conventionally more powerful adversary will be common.

NEW TARGETS

5-20. Societies rely increasingly on a high-performance, networked information infrastructure for everything from air travel to electric-power generation and telecommunications to financial transactions. This means that a new set

of lucrative strategic and operational targets is now open to attack. The OPFOR will focus all elements of its power, as well as the State's, on the destruction of the adversary's critical information infrastructures.

EASY OF OPERATION AND LOW COST

5-21. In contrast to other forms of warfare, IW actions might occur without access to large financial resources or backing or without state sponsorship. Information weapons could be software logic bombs or computer worms and viruses. IW could be conducted with such easily accessible means such as cellular telephones and the Internet.

ELEMENTS OF IW

5-22. OPFOR IW occurs through the combinations of seven elements:
- Electronic warfare (EW).
- Computer warfare.
- Deception.
- Physical destruction.
- Protection and security measures.
- Perception management.
- Information attack (IA).

The seven elements of IW do not exist in isolation from one another and are not mutually exclusive. Often they are mutually supporting. The overlapping of functions, means, and targets makes it necessary that they all be integrated into a single, integrated IW plan. However, effective execution of IW does not necessary involve the use of all elements concurrently. Although one element might be all that is required to successfully execute a tactical IW action, that would seldom be the case at the operational level. Likewise, using one element or subelement, such as camouflage, does not by itself necessarily constitute an operational application of IW.

5-23. The use of each element or a combination of elements is determined by the operational situation and support to the overall strategic objective. The size and sophistication of an enemy force also determines the extent to which the OPFOR employs the various elements of IW. The commander has the freedom to mix and match elements to best suit his operational needs, within the bounds of guidance from higher headquarters.

ELECTRONIC WARFARE

5-24. EW consists of measures conducted to control or deny the enemy's use of the electromagnetic spectrum, while ensuring its use by the State and the OPFOR. EW capabilities allow the OPFOR to exploit, deceive, degrade, disrupt, damage, or destroy sensors, processors, and C^2 nodes. Spectrum supremacy and delay, denial, or distortions of information in the adversary's information infrastructure are the objectives. At a minimum, the goal of OPFOR EW is to control the use of the electromagnetic spectrum at critical locations and times in the battlespace or to attack the enemy.

5-25. To accomplish these EW goals and objectives, the OPFOR employs both lethal and nonlethal measures. *Lethal* EW activities include the physical destruction of high-priority targets supporting the enemy's decision-making process—such as reconnaissance sensors, command posts, and communications systems. They also include activities such as lethal air defense suppression measures. If available, precision munitions can degrade or eliminate high-technology C^2 assets and associated links. *Nonlethal* means range from signals reconnaissance and electronic jamming to the deployment of corner reflectors, protective countermeasures, and deception jammers. Sophisticated camouflage, deception, decoy, or mockup systems can degrade the effects of enemy reconnaissance, intelligence, surveillance, and target acquisition (RISTA) systems. Also, the OPFOR can employ low-cost GPS jammers to disrupt enemy precision munitions targeting, sensor-to-shooter links, and navigation.

5-26. EW activities especially focus on the enemy's advanced C^2 systems developed to provide real-time force synchronization and shared situational awareness. The enemy relies on the availability of friendly and enemy force composition and locations, digital mapping displays, and automated targeting data. By targeting vulnerable communications links, the OPFOR can disrupt the enemy's ability to digitally transfer and share such information. The OPFOR enhances its own survivability through disrupting the enemy's ability to mass fires with dispersed forces, while increasing enemy crew and staff workloads and disrupting his fratricide-prevention measures.

5-27. EW is a perfect example of the integrated nature of OPFOR IW elements. It overlaps significantly with protection and security measures, deception, and physical destruction. Reconnaissance, aviation, air defense, artillery, and engineer support may all contribute to successful EW for IW purposes.

COMPUTER WARFARE

5-28. Computer warfare consists of attacks that focus specifically on the computer systems, networks, and/or nodes. This includes a wide variety of activities, ranging from unauthorized access (hacking) of information systems for intelligence-collection purposes, to the insertion of malicious software (viruses, worms, logic bombs, or Trojan horses) and deceptive information entry into enemy computer systems. Such attacks concentrate on the denial, disruption, or manipulation of the infrastructure's integrity. The OPFOR may attempt to accomplish these activities through the use of agents or third-party individuals with direct access to enemy information systems. It can also continually access and attack systems at great distances via communications links such as the Internet.

5-29. OPFOR computer warfare activities may be conducted prior to or during a military action. For example, by accessing databases related to an enemy's projected force deployments and troop movements, the OPFOR can effectively disrupt planning and misdirect movement, producing substantial confusion and delays. As modern armies increasingly rely on "just-in-time" logistics support, targeting logistics-related computers and databases can produce delays in the arrival of critical materiel such as ammunition, fuel, and spare parts during critical phases of a conflict.

5-30. The OPFOR can successfully conduct invasive computer warfare activities from the safety of its own territory, given the distributed ability to reach targeted computers anywhere in the world (as long as they are connected to the Internet). The OPFOR can continuously exploit the highly integrated information systems of an adversary.

DECEPTION

5-31. OPFOR deception activities include measures designed to mislead adversaries by manipulation, distortion, or falsification of information. The aim of deception is to influence opponents' situational understanding and lead them to act in a manner that favors the OPFOR or is prejudicial to their own interests. Deception measures are a part of every military operation, and are also used to achieve political and economic goals. The international media may be a target for deceptive information at the operational level, being fed false stories and video that portray tactical-level actions with the goal of influencing operational or even strategic decisions.

5-32. The OPFOR applies all forms of deception in support of IW. These range from physical decoys and electronic devices to operational activities. The OPFOR can even use its own information systems to pass misleading or false information in support of deception activities. Such information may cause the adversary to analyze incorrectly OPFOR capabilities and intentions.

5-33. Because of the number and sophistication of sensors available to an extraregional adversary, the OPFOR recognizes that a multispectral effort is required to deceive him. This includes providing false or misleading thermal, visual, and electronic signatures.

5-34. Successful deception activities depend on the identification and exploitation of enemy information systems and networks, as well as other "conduits" for introducing deceptive information. Knowing how the conduits receive, process, analyze, and distribute information are priority intelligence requirements for the OPFOR.

PHYSICAL DESTRUCTION

5-35. Physical destruction, as an element of IW, involves measures to destroy critical components of the enemy's information infrastructure. The OPFOR integrates all types of conventional and precision weapon systems to conduct the destructive fires, to include fixed- and rotary-wing aviation, cannon artillery, multiple rocket launchers, and surface-to-surface missiles. It can also utilize other means of destruction, such explosives delivered by special-purpose forces (SPF), insurgents, terrorists, or even co-opted civilians.

5-36. The OPFOR may integrate all forms of destructive fires, especially artillery and aviation, with other IW activities. Physical destruction activities are integrated with jamming to maximize their effects. Specific missions are carefully timed and coordinated with the IW plan and the actions of the supported units.

5-37. Due to the mobility and fleeting nature of many IW targets, precision weapons deliver the munitions of choice against many high-value targets. The increased accuracy provided by such weapons allows the OPFOR to attack specific IW-related targets rapidly and accurately. The OPFOR continues to research and develop directed energy weapons, to include radio frequency weapons and high-power lasers.

PROTECTION AND SECURITY MEASURES

5-38. The purpose of *protection and security measures* in IW is to protect the OPFOR's information infrastructure, maintain OPFOR capabilities for effective C^2, and deny protected information to other actors. The OPFOR continues to develop capabilities to effectively preserve OPFOR C^2 at all levels of command.

5-39. Protection and security measures conducted as part of IW include—
- Information collection, processing, and utilization.
- Reconnaissance and counterreconnaissance.
- Information and operations security.
- Camouflage, concealment, cover, and deception (C^3D).
- Force protection.
- Secure use of information-collection and -processing systems.

Information and Operations Security

5-40. Information and operations security is used to protect the physical and intellectual assets used to facilitate command and control. It must function continuously to be effective. It must conceal not only operational intentions, current locations and configurations, and actions but also the tactics, techniques, and procedures of information systems employment and operation.

5-41. The OPFOR clearly understands the importance of information security. Commanders understand their vulnerabilities to being attacked through their own information systems and develop means to protect these systems. In addition, the OPFOR must be capable of isolating attacks on its information systems while maintaining the ability to execute. In order to reduce the vulnerability, the OPFOR emphasizes strong communications, computer, and transmission security. It uses all State assets to support this process and supply the necessary resources and intelligence.

Camouflage, Concealment, Cover, and Deception

5-42. The OPFOR gives particular attention to protective measures aimed at reducing the enemy's ability to target and engage OPFOR systems with precision munitions. Knowing that the enemy cannot attack what his RISTA systems do not find, the OPFOR employs a variety of C^3D techniques. These range from the most simple and inexpensive methods to hide from observation to the most modern multispectral signature-reducing technology.

5-43. All OPFOR units can use one or more forms of technical camouflage. The purpose of these techniques is to alter the appearance of personnel and

equipment and to blend them with the surrounding terrain. Capabilities available include—

- Natural concealment.
- Camouflage paint.
- Artificial camouflage (nets and screens).
- Antiradar camouflage (radar-absorbing nets and paints).
- Decoy equipment (mockups) and deception positions.
- Light and thermal camouflage.
- Smoke camouflage.

PERCEPTION MANAGEMENT

5-44. *Perception management* involves measures aimed at creating a perception of truth that furthers the OPFOR's objectives. It integrates several widely differing activities that use a combination of true, false, misleading, or manipulated information. Enemy or foreign audiences, as well as the State's own public, may be targets. Perception management can include misinformation, media manipulation, and PSYWAR. Perception management is critically important to all types of OPFOR operations.

5-45. PSYWAR is the capability and activities designed to influence selected friendly, neutral, and/or hostile target audiences' attitudes and behaviors in support of the OPFOR. PSYWAR can target either specific decision-making systems or the entire information system of the target audience, while influencing key communicators and decision makers. The OPFOR attacks an enemy's perceived centers of gravity. For example, prolonging an operation and using all forms of media to show the devastation of conflict can sway public opinion against the effort.

5-46. Statecraft (the art of conducting state affairs) and diplomacy (the art and practice of conducting negotiations with other states) are aspects of perception management conducted with foreign governments, and include those countries' populations as a target. The OPFOR skillfully employs media and other neutral players, such as nongovernmental and private volunteer organizations, to influence further public and private perceptions. It exploits the international media's willingness to report information without independent and timely confirmation. Individuals such as agents of influence, sympathizers, and antiwar protesters are also employed advantageously by the State or OPFOR to influence the enemy's media, politicians, and citizenry.

5-47. The State's Ministry of Public Information controls its own population's access to information and perceptions of reality. Successful preparation of the population significantly enhances public support for the OPFOR's military actions.

INFORMATION ATTACK

5-48. An *information attack* (sometimes called *cyber attack*) focuses on the intentional disruption or distortion of information in a manner that supports a comprehensive IW campaign. Unlike, computer warfare attacks that target the information systems, IAs target the information itself. Attacks on the commercial Internet by civilian hackers have demonstrated the vulnerability of cyber

and information systems to innovative and flexible penetration, disruption, or distortion techniques. OPFOR information attackers (cyber attackers) learn from and expand upon these methods.

5-49. IA offers a powerful tool for the OPFOR. For example, an information attacker may target an information system for sabotage (electronically or physically) or manipulate and exploit information. This may involve altering data, stealing data, or forcing a system to perform a function for which it was not intended, such as spoofing the air traffic control grid.

5-50. Likely targets for an IA are information residing in the critical infrastructures of an opponent: telecommunications links and switches, commercial infrastructures, and economic infrastructures. The OPFOR will attempt to manipulate, control, or monitor data and information that are critical for the infrastructures.

TOOLS AND TARGETS

5-51. Tools for waging IW can include conventional physical and electronic destruction means, malicious software, denial-of-service attacks, news agencies, television, radio, the Internet, traditional print media, communication networks, and diplomatic activities and well as various types of reconnaissance, espionage, and eavesdropping technologies. The OPFOR can employ IW tools from both civilian and military sources and assets of third-party sources.

5-52. The OPFOR sees the targets of IW as decision makers, weapons and hardware, an opponent's critical information infrastructure, C^2 system, information and telecommunications systems, and C^2 centers and nodes. An adversary's national communications media are also among the important targets in an OPFOR IA. Information links, such as transmitters, communication devices, and protocols, will be targeted. These targets may be more susceptible to precision fires and more traditional forms of attack based on EW. However, the OPFOR is extremely adaptive and will employ the best option available to degrade or destroy an information link.

STRATEGIC IW

5-53. Strategic information warfare (SIW) is the synergistic effort of the State to control or manipulate information events in the strategic environment, be they political, economic, military, or diplomatic in nature. Specifically, the State defines SIW as any attack (digital, physical, or cognitive) against the information base of an adversarial nation's critical infrastructures. The ultimate goal of SIW is strategic disruption and damage to the overall strength of the opponent. This disruption also focuses on the shaping of foreign decision makers' actions to support the State's strategic objectives and goals.

5-54. The National Command Authority (NCA) is responsible for determining and articulating the State's strategic goals. The Strategic Integration Department (SID) then develops a strategic information warfare plan (SIWP) to support the national security strategy. The SID has a special Strategic Information Warfare Planning Office (SIWPO) dedicated to reviewing and integrating information-related plans of all State ministries, both military and civilian. The SIWPO can directly task information- or IW-related

elements of any ministry to support the SIWP. In time of war, the SIWPO continues to coordinate with all government ministries for further development and modification of the SIWP. However, it works most closely with the Ministry of Defense, specifically the General Staff, to ensure the development of the SIWP in concert with the military IW plan.

5-55. In the General Staff, the Chief of IW handles IW functions that transcend service component boundaries. He reviews and approves the IW plans of all operational-level commands as well as any separate theater headquarters that might be established. He drafts the overall military IW plan that, upon approval by the Intelligence Officer, is forwarded to the Operations Directorate of the General Staff for inclusion in the military strategic campaign plan (SCP). Once approved by the Chief of the General Staff, the military IW plan and the rest of the military SCP are forwarded to the SID for incorporation into the national-level SIWP and the national SCP, respectively. During peacetime and preparation for war, the Chief of IW continues to review and refine the military IW plan.

OPERATIONAL-LEVEL IW

5-56. The OPFOR conducts IW actions at the operational level to support strategic campaigns or operational objectives. The focus at this level is on affecting an adversary's lines of communication (LOCs), logistics, C^2, and critical decision-making processes. The OPFOR targets information or information systems in order to affect the information-based process, be it human or automated.

SYSTEMS WARFARE

5-57. In the systems warfare approach to combat (see Chapter 1), the OPFOR often focuses on attacking the C^2 and/or RISTA elements that are critical components of the enemy's combat system. It is often more feasible to attack these types of targets, rather than directly engaging the combat power of the enemy's combat or combat support forces or even his logistics forces. Operational-level IW can be a primary means of attacking C^2 and RISTA assets, either on its own or in conjunction with other elements of the OPFOR's own combat system.

OFFENSIVE IW

5-58. *Offensive IW* involves the integrated use of subordinate and supporting capabilities and activities, mutually supported by intelligence, to affect an adversary's decision makers or to influence others in order to achieve or promote specific OPFOR objectives. Using the elements of IW offensively, the OPFOR can either prevent an adversary from exercising effective C^2, challenge his quest for information dominance, or leverage enemy information systems to its own advantage.

Purpose of Offensive IW

5-59. Simply put, offensive IW seeks to deny, degrade, destroy, disrupt, deceive, and exploit an adversary's information systems and capabilities. Offensive IW helps the OPFOR seize and retain the initiative by degrading the enemy's information systems and forcing the enemy commander to be reactive. This can result in slowing the enemy's tempo, disrupting his decision cycle, and impacting his overall ability to generate combat forces and execute and sustain operations.

Possible Actions

5-60. Possible OPFOR offensive IW activities and actions can include—

- Denying the enemy the information necessary to conduct operations (destroy, degrade, or distort).
- Influencing the information (misinformation, manipulation, or "spinning").
- Disrupting the enemy's ability to observe and collect information and obtain or maintain information dominance.
- Degrading enemy information collection or destroying his collection means.
- Deceiving the decision makers by manipulating perception and causing disorientation within the decision cycle.
- Neutralizing or destroying the opponents' information capability by physical destruction of critical communications nodes and links.

DEFENSIVE IW

5-61. *Defensive IW* is the integration and coordination of policies and procedures, operations, personnel, and technology to protect and defend friendly information and information systems. Defensive IW also seeks to conceal the physical locations of critical information systems. IW activities, particularly defensive measures, play a significant role in ensuring the viability and survivability of the OPFOR C^2 process. IW defensive actions are planned at the strategic, operational, and tactical levels. IW measures, combined with the mobility and redundancy of C^2 systems, can provide a high degree of survivability, even if the enemy is successful in disrupting or destroying some elements of the process.

Purpose of Defensive IW

5-62. The objectives of OPFOR defensive IW activities and actions are—

- Protecting the information environment.
- Detecting attack.
- Restoring capabilities.
- Responding to attack.

Specific objectives of defensive IW include misleading the enemy concerning the OPFOR's force structure, location, and intent; protecting all critical information and communication links; and ensuring maximum survivability of friendly high-value assets and combat power.

Possible Actions

5-63. To achieve these objectives, the OPFOR conducts a variety of activities and actions that can—

- Provide for uninterrupted control of friendly forces.
- Ensure survivability through extensive use of signature-reducing measures.
- Conceal the identities and locations of critical elements.
- Portray false force dispositions and OPFOR unit strengths.
- Portray false levels of preparation, readiness, and morale.
- Portray false impressions of OPFOR operational intent.

IW Element	Objectives	Targets
Electronic Warfare	Exploit, disrupt, deny, and degrade the enemy's use of the electromagnetic spectrum.	C^2 and RISTA assets and networks.
Computer Warfare	Disrupt, deny, or degrade the enemy's computer networks and information flow.	C^2 and RISTA assets and networks (both civilian and military).
Deception	Mislead enemy decision makers. Cause confusion and delays in decision-making process. Persuade adversary's population and international community to support OPFOR objectives.	Key decision makers from political, military, economic, and diplomatic elite. General population and international media sources and Internet sites.
Physical Destruction	Destroy enemy's information infrastructures (both civilian and military).	C^2 nodes and links, RISTA assets, telecommunications, and power sources.
Protection and Security Measures	Protect critical assets.	Enemy RISTA assets.
Perception Management	Distort reality or manipulate information to support OPFOR goals.	RISTA assets, media sources (international and domestic).
Information Attack	Objectives vary based on situational needs and objectives of the attack.	Information residing in networks, software, data repositories, databases, and any other electronic source or conduit of communication or information.

Figure 5-1. IW Elements, Planning Objectives, and Targets

IW PLANNING AND EXECUTION

5-64. An effective IW action demands the coordination of activities and capabilities into a single, focused plan. Any or all elements of IW may be effectively used in any given plan. Figure 5-1 provides examples of objectives and targets.

5-65. OPFOR IW planning occurs at all levels of conflict and before and after conflict. At the strategic level, the initial focus is achieving State objectives and supporting the strategic campaign plan. Perception management, protection and security measures, and computer warfare activities are critical at this level.

5-66. As tensions escalate, IW at the operational level can be employed to disrupt the enemy's information systems, further demonstrating national resolve and military capability. The chief of IW formulates the IW plan as an integral part of all ground, air, sea, and space operations.

STAFF RESPONSIBILITIES

5-67. Just as there is a Chief of IW in the General Staff, there is a chief of IW under the intelligence officer in all military staffs down to brigade level. Within those operational- and tactical-level staffs, the intelligence officer and chief of IW are responsible for ensuring that all IW actions undertaken at their levels are in concert with the overall military IW plan and the SIWP. As necessary, the Chief of IW in the General Staff can directly task each operational- or tactical-level chief of IW to support the SIW campaign. (See the Strategic IW section of this chapter.)

5-68. The intelligence officer heads the intelligence and information section of the primary staff of an operational-strategic command (OSC). He ensures that all intelligence requirements are met and coordinates all necessary national- or theater-level assets for the IW plan. He must effectively task organize his staff resources to plan, conduct, and execute IW. Traditional staff functions and relationships may be expanded or even redefined. (See Chapter 2 for a more detailed discussion of staff responsibilities and organization.)

5-69. The chief of IW belongs to the secondary staff, heading a subsection under the intelligence officer. The chief of IW supervises the execution of the OSC's IW plan. He is responsible for—

- Coordinating the employment of IW assets, including those subordinate to the OSC or affiliated forces and any supporting assets available at the national or theater level.
- Planning for and supervising all information protection and security measures.
- Supervising the implementation of the deception plan and perception management objectives.
- Working with the operations section of the staff to ensure that targets scheduled for destruction support the IW plan, and if not, resolving conflicts between IW needs and operational needs.
- Recommending to the intelligence officer any necessary actions required to implement the IW plan.

5-70. The chief of IW at each level of command submits his IW plan to the chief of IW at the next-higher level. The senior chief of IW issues directives to subordinate units' chiefs of IW. These directives are part of the operation plan or operational directive, and can be part of the SCP. What the subordinates plan and execute must be in concert with the higher plan, and the higher headquarters also needs to ensure that the IW plan of one subordinate does not conflict with that of its adjacent units.

5-71. The chief of IW also plays a key role in coordinating IW activities with other staff sections and subsections, particularly with members of the functional staff. For instance, he coordinates with the chief of integrated fires to

ensure that deception and protection and security measures contribute to the success of fire support to offensive and defensive operations. He will also work directly with the chief of the RISTA and IW section of the OSC's IFC headquarters to coordinate all necessary IW support to the IFC. IW activities can support the overall fire support plan or provide a feasible nonlethal alternative to destroying key enemy formations or systems. The chief of IW also coordinates with the chief of force protection to prevent or mitigate the effects of hostile actions on critical information and information systems. He works closely with the chief of population management and representatives from the Ministry of Public Information regarding coordination of PSYWAR and other perception management activities.

PLANNING

5-72. The components of an IW plan include, at a minimum, the following:
- Statement of overall State and military objectives and goals.
- Definition of the missions of IW (public, private, military, and nonmilitary).
- IW objectives of the next-higher command.
- Use of affiliated forces.
- Use of civilians (individuals or organizations) on the battlefield.
- Identification of all applicable State elements of power to assist in the execution of the IW plan.
- Potential targets and tools for destruction, degradation, or exploitation.
- Specific unit responsibilities.

Specific plan elements include a review of the enemy's IW capabilities, an operational analysis of all relevant information infrastructures (location, ownership and vulnerabilities), requirements of IW capabilities, an organizational plan and staff responsibilities, a deception plan, and perception management objectives.

EXECUTION

5-73. Throughout the implementation of the IW plan, activities and success are monitored, and may result in a revision of the plan. The intelligence officer and the chief of IW are providing feedback to the planning process.

STRATEGIC CONTEXT

5-74. The OPFOR uses IW activities during all four strategic-level courses of action: strategic, regional, transition, and adaptive operations (see Chapter 1 or FM 7-100). While certain elements of IW may be highlighted for a particular strategic course of action, all elements can be applied as necessary. IW can support the OPFOR against a regional peer or a technologically superior enemy. IW can also be used to create and/or exploit windows of opportunity across all types of operations.

STRATEGIC OPERATIONS

5-75. Strategic operations can occur before and after armed conflict and in conjunction with any of the other three strategic courses of action during war. The State recognizes the value of IW in peacetime actions as well as during

actual conflict. At this level, the State employs all the elements of IW to support its strategic objectives.

5-76. Perception management, deception, and protection and security measures are especially critical during strategic operations. The State attempts to use all forms of international media to support State actions and objectives. It uses all types of information dissemination to project its desired "spin" of events, to gather international support, to weaken its enemy's resolve, and to force key decision makers to rethink any potentially damaging action against the State. In addition, the State develops a strategic deception plan to conceal its intentions from both the international audience and its own population. Once extraregional intervention begins, the military aspects of strategic operations become more aggressive, including use of physical destruction accompanied by other IW efforts to exploit its effects on enemy confidence and resolve.

5-77. Strategic operations involve the application of any or all of the four instruments of power (including the informational) to target enemy strategic centers of gravity. Thus, IW targets during strategic operations might include—

- Key leaders and decision makers (military and civilian).
- All relevant media outlets.
- Diplomatic entities.
- Relevant private institutions or influential organizations.
- Public opinion (international and domestic).
- National will (enemy and friendly).
- Commitment of alliance and coalition members.

5-78. The Ministry of Public Information is responsible for the control and appropriate dissemination of all political, diplomatic, economic, and military information to the public and the international audience. That ministry is a key player in the development and execution of all strategic IW campaigns. At the operational level, the intelligence officer and chief of IW are responsible for ensuring that all IW actions are in concert with the national-level SIWP.

REGIONAL OPERATIONS

5-79. IW activities during regional operations focus on controlling foreign perceptions of such operations and preventing the development of any international consensus to intervene. The State tries to keep foreign perceptions of its actions below the threshold that could invite intervention by extraregional forces. To this end, perception management and deception campaigns are critical, for both domestic and international consumption.

5-80. During regional operations, the State also conducts an internal information campaign to help maintain and strengthen the national will. The overall goal is to give the entire country a common focus and guarantee internal support. All elements of IW are important in regional operations. Depending on the specific conditions, EW, IAs, protection and security measures, or perception management may dominate.

TRANSITION OPERATIONS

5-81. During transition operations, the OPFOR focuses IW activities on access-control operations, perception management and deception campaigns, and protection and security of its IW assets. Deception activities focus on concealing the intentions of the OPFOR as well as the likely course of the transition—either into adaptive operations or back to regional operations.

5-82. Denying an adversary information dominance is critical during transition operations. The OPFOR attempts to take advantage of the enemy's reliance on advanced C^2 and RISTA technology. Such technology and related communications and data links are critical to the enemy's maintaining enhanced situational awareness and thus become the key targets of all IW actions.

5-83. The protection and security of OPFOR IW assets and related communications is always a critical element. However, its importance increases during transition operations, since the OPFOR's paramount goal is to preserve all instruments of power and prepare for a possible move to more adaptive operations.

5-84. The State's internal IW goal might be to convince its citizens that transition operations are necessary in order to exploit the many gains it has already made and to prevent the intervention of an extraregional force. The State also conducts a ubiquitous information campaign to strengthen its national will by portraying the State as a victim of impending antagonistic actions, thus rallying support for State actions.

5-85. In perception management campaigns targeting the international community, the State increases its emphasis on popularizing the State and its actions. If it is obvious that the OPFOR will be overmatched by the extraregional force that is about to intervene, the State may depict the intervening force as an unwanted aggressor involving itself in regional affairs in order to support its own selfish interests. This may lead to intense international media pressure. During transition operations, the State may implement a cleverly developed plan to fracture alliance or coalition support to extraregional intervention.

ADAPTIVE OPERATIONS

5-86. Against extraregional threats, the OPFOR begins to use more offensive and adaptive forms of IW. These include not only more aggressive information campaigns, but also IA, EW, and increased emphasis on physical destruction. As extraregional forces continue to deploy into the region, the OPFOR can use IAs on enemy C^2 systems and to strip away the enemy's RISTA capabilities.

5-87. The OPFOR uses perception management and other tools to attack the enemy's will to fight or otherwise continue its intervention, and to manipulate international opinion. If it still occupies territory of a neighboring country, it also tries to turn the populace there against the intervening extraregional force.

5-88. The State continues to leverage international media to influence world perception and public opinion within the extraregional power's own populace. It also continues to censor and manipulate the media.

5-89. The specific focus of IW in adaptive operations may include—

- **Control access.** Use all means necessary, including IW, to delay or disrupt entry into the region and ultimately defeat the intervening force.

- **Control tempo.** Use IW to attack critical C^2 and logistics links.

- **Exploit atrocities of conflict.** Use IW to weaken the enemy's resolve to remain committed while promoting the OPFOR's position as a victim.

- **Neutralize technological overmatch.** Use IW to attack critical C^2 and RISTA nodes and destroy supporting infrastructures.

- **Attack reach-back links.** Use IW to detect, jam, disable, or degrade critical nodes of communication.

- **Counter information dominance.** (See the following paragraph.)

5-90. The very systems and links upon which technologically advanced enemies rely for information dominance are also high-payoff targets for IAs or physical destruction. Denial of these resources at critical times can deny forces complete situational awareness. The OPFOR can also use the enemy's robust array of RISTA systems against him. His large numbers of sensors can overwhelm his units' ability to receive, process, and analyze raw intelligence data and to provide timely and accurate intelligence analysis. The OPFOR can add to this saturation problem by using deception to flood enemy sensors with masses of conflicting information. Conflicting data from different sensors at different levels (such as satellite imagery conflicting with data from unmanned aerial vehicles) can confuse the enemy and degrade his situational awareness.

Chapter 6

Reconnaissance

The OPFOR considers reconnaissance the most important element of combat support. All commanders and staffs organize reconnaissance to acquire information about the enemy's reconnaissance, intelligence, surveillance, and target acquisition (RISTA) assets, precision weapons, force disposition, intentions, and terrain and weather in the area of responsibility (AOR). This information is crucial to the planning process in OPFOR command and control (C^2). Reconnaissance can decisively influence the outcome of an operation or even the strategic campaign.

MISSION

6-1. For the OPFOR, reconnaissance is a mission, not a force or unit. OPFOR reconnaissance is an integrated combined arms effort, not solely the business of reconnaissance troops. Besides reconnaissance units, the OPFOR will use other arms for reconnaissance missions, as necessary. It will also use paramilitary forces, affiliated forces, and/or friendly civilians to collect information.

CONCEPT

6-2. Reconnaissance and intelligence collection are critical to OPFOR military operations. Commanders and planners place significant emphasis on the destruction of enemy precision weapons and on conducting high-speed, continuous, combined arms operations throughout the depth of the theater. Reconnaissance and intelligence collection has three distinct levels—strategic, operational, and tactical. These three categories overlap, mutually support, and differ primarily by the level of command and the commander's AOR.

6-3. Commanders require continuous, timely, and accurate intelligence on the enemy, terrain, and meteorological situation. Thus, the OPFOR devotes substantial effort to all forms of reconnaissance. Commanders prefer to confirm their plan only after thorough reconnaissance.

PRINCIPLES

6-4. The OPFOR uses six principles to guide its reconnaissance activities: focus; continuity; aggressiveness; timeliness; camouflage, concealment, cover and deception (C^3D); accuracy and reliability. For the greatest likelihood of a successful operation, OPFOR reconnaissance must satisfy all of these principles simultaneously and continuously.

Focus

6-5. The actions of reconnaissance must serve the commander's needs and focus on elements and objectives critical to the execution of combat operations.

Each level of command, from theater to battalion, develops a comprehensive reconnaissance plan in accordance with the organization's mission. Reconnaissance resources are always scarce. The commander must carefully define and limit ground reconnaissance objectives and concentrate reconnaissance assets on the critical areas of the battlefield.

6-6. To use reconnaissance assets effectively, the commander must be flexible. If the situation changes, he must redirect the reconnaissance effort, even altering the plan. The reconnaissance plan must coordinate all available assets into an integrated plan.

Continuity

6-7. The modern, fluid battlefield demands continuous reconnaissance to provide an uninterrupted flow of information under all conditions. Reconnaissance provides constant coverage of the enemy situation and helps prevent enemy operational surprise. To ensure continuity, the OPFOR employs a wide variety of redundant assets with deep overlapping coverage ranging from satellites to human agents to unmanned aerial vehicles (UAVs).

6-8. Reconnaissance attempts to maintain contact with the enemy at all times. The OPFOR conducts reconnaissance in all directions and against all key enemy formations. Reconnaissance collects information during all battle phases, 24 hours a day, 7 days a week, in all weather conditions. Not only must reconnaissance answer specific requests for information; it also must continuously collect information on all aspects of the enemy, weather, and terrain to fully meet future requirements.

6-9. Units conducting reconnaissance and intelligence collection must maintain a high state of combat readiness. Reconnaissance is a critical responsibility for all commanders at all times. In the event that a specialized reconnaissance unit is destroyed or becomes combat ineffective, commanders reassign the mission to appropriate forces.

Aggressiveness

6-10. Aggressiveness is the vigorous search for information, including the willingness to fight for it if necessary. The OPFOR recognizes that reconnaissance is an offensive combat operation, requiring successful penetration or avoidance of enemy security forces to be successful. Reconnaissance must conduct intelligence collection creatively and make maximum use of assets on the battlefield to ensure success. The OPFOR vigorously employs all available collection resources and adheres carefully to the reconnaissance plan. However, it will alter the plan when its own initiatives or enemy actions dictate.

6-11. The OPFOR stresses initiative, resourcefulness, and daring in the conduct of reconnaissance. Reconnaissance attempts to penetrate enemy defenses, ambush and raid enemy forces, and as a last resort, draw fire to determine enemy positions. In short, it does what is necessary to fulfill the commander's intelligence needs.

6-12. Commanders use all available means to seek information. The information requirement determines the techniques to use, such as clandestine infiltration by Special-Purpose Forces (SPF) or quick mechanized reconnaissance. Ambushes and raids are fruitful means of gathering intelligence from prisoners of war, captured documents, and equipment. Such information-gathering actions are generally more important than any associated damage, but there are exceptions. Reconnaissance must sometimes destroy high-value targets they find. Elements of enemy long-range fire systems, precision weapons, multiple rocket launchers, and forward operating sites for attack helicopters or ground-attack aviation are some high-priority targets.

Timeliness

6-13. Timely information is critical on the modern battlefield. Because of the high mobility of modern armies, there are frequent and sharp changes in the battlefield situation. As a result, information quickly becomes outdated. Timely reporting enables the commander to exploit temporary enemy vulnerabilities and windows of opportunity. He can adjust plans, using increased data automation to fit a dynamic battlefield.

Camouflage, Concealment, Cover and Deception

6-14. The OPFOR is aware that the enemy may learn a great deal about its intentions by discovering its reconnaissance plan. Therefore, OPFOR commanders try to conceal the scale, missions, targets, and nature of reconnaissance efforts. They understand it is not possible to hide the fact that reconnaissance is being conducted. However, they do strive to prevent the enemy from discovering where they are concentrating their main strength in the defense or where they are preparing to launch their main attack.

6-15. The OPFOR can also use C^3D to "paint a picture" that confirms the enemy's stereotyped views of how the OPFOR fights. By showing the enemy what he wants to see, the reconnaissance effort can help to establish the conditions for success during ensuing operations.

Accuracy and Reliability

6-16. The OPFOR uses every available means to verify the accuracy and reliability of reported information. A commander must base his decisions on accurate and timely reconnaissance information. Reconnaissance must reliably clarify the true enemy situation in spite of enemy C^3D and counterreconnaissance activities. Multiple means of acquisition help defeat enemy counterreconnaissance. To maximize results, the commander's plan requires accurate information on the enemy's size, location, equipment, and combat readiness. Accuracy is crucial to destroying high-value targets such as enemy precision weapons, C^2, and communications.

CHARACTERISTICS

6-17. OPFOR reconnaissance operations are characterized by—
- **Flexibility**. The OPFOR must be able to switch priorities from one target to another without degrading the overall mission.

- **Sustainability**. Reconnaissance forces must be able to sustain themselves wherever they are operating, without relying on others for transport or subsistence.
- **Security**. A reconnaissance asset should be as secure as possible during operations. This means operating in a manner that conceals activities and areas of interest at all times. Reconnaissance activity should not reveal the parent unit's plan of action.
- **Communications**. Reconnaissance forces must have reliable communications. An intelligence organization may successfully gather all necessary information, but if it cannot transmit this information to the user (such as the maneuver commander or an artillery unit), the entire effort is useless.
- **Reserves**. All levels should maintain a reconnaissance reserve to take on unforeseen tasks or redeem failure on key missions.

PRIORITIES

6-18. Reconnaissance activities must support the information requirements of the commander. Therefore, priorities vary at different levels of command: strategic, operational and tactical.

Strategic

6-19. The highest priority of strategic reconnaissance is to provide indications and warning of impending hostilities, as well as targeting information for weapons of mass destruction (WMD). However, strategic intelligence can also gather information useful to operational and even tactical commanders. In this case, the information must pass down through reconnaissance staff channels to the potential user.

Operational

6-20. The operational commander conducts reconnaissance to locate the most critical enemy targets, including the following:
- Precision weapons.
- Nuclear, biological, and chemical (NBC) systems.
- Air defenses.
- Intelligence-collection assets.
- Higher headquarters and communications centers.
- General support artillery.
- Operational maneuver formations and their movements.
- Contents of airfields and army aviation forward operating bases.
- Major concentration areas of reserves.
- Unit boundaries.
- Location and extent of defended areas.
- The enemy's combat capabilities and intentions.

Tactical

6-21. Tactical groups also address more local threats, including the following:
- Location of direct support artillery and mortars and attack helicopters.

- Disposition of tanks and medium- and long-range antitank systems.
- Deployment of air defense weapons.
- Location of brigade and battalion command posts.
- Nature and extent of natural and manmade obstacles.
- Locations of field defenses.

STRATEGIC ASSETS

6-22. Strategic reconnaissance acquires and analyzes information about the military-political situation in individual countries and coalitions of probable or actual enemy nations; their armed forces; and their military, industrial, and economic potential. Strategic reconnaissance provides the information required by the highest military-political leadership. Needed information concerning a potential enemy includes the following:

- Intentions and capabilities.
- Preparation and disposition of forces in various theaters.
- NBC capability.
- Diplomatic initiatives.
- Strength and weaknesses of alliances and coalitions.

SPECIAL-PURPOSE FORCES

6-23. The General Staff normally reserves some units of the SPF Command under its own control for reconnaissance missions supporting national-level intelligence requirements. It may control these units either through the SPF Command or by placing them directly under the control of its own Intelligence Directorate. SPF units of the Army, Navy, Air Force, or Internal Security Forces could temporarily come under the control of the SPF Command or the General Staff when they become part of joint SPF operations in support of national-level requirements. If the General Staff creates a theater headquarters, it may dedicate one or more SPF units to it. Even SPF units allocated to an operational-strategic command (OSC) may conduct strategic missions, if required.

6-24. The SPF represent an important element in the total integrated reconnaissance network planners try to achieve. These elite troops are a major source of human intelligence (HUMINT). They provide reconnaissance and combat capabilities for strategic and operational employment. They gather information to satisfy strategic and operational requirements at extended distances (sometimes more than 100 km) or close to tactical reconnaissance, in nonlinear situations. For more information on SPF, see Chapter 13.

SIGNALS RECONNAISSANCE UNITS

6-25. Signals reconnaissance is an integral part of information warfare (IW). The overall scope of signals reconnaissance includes the interception, analysis, and exploitation of electromagnetic (radio and radar) emissions, coupled with measures to disrupt or destroy the enemy's radio and radar assets. Signals reconnaissance assets are found in two types of organizations. The majority are organic to signals reconnaissance units at all echelons and provide significant support to the chief of reconnaissance. Additional assets are organic to jamming units, where they provide targeting support.

AIR ASSETS

6-26. Aerial reconnaissance includes visual observation, aerial imagery, UAV reconnaissance, and signals reconnaissance. Since most reconnaissance aircraft must penetrate enemy airspace, many of these missions are possible for manned aircraft only when the OPFOR has established air superiority. However, UAVs do not necessarily require air superiority. They are generally harder to detect because they are smaller and fly at lower altitudes than manned aircraft. Also, they are relatively low-cost and may be considered expendable.

Fixed-Wing

6-27. The Air Force has varying reconnaissance assets to meet specific needs. These units use high-performance aircraft to conduct aerial reconnaissance, including visual, photographic, radar, and signals reconnaissance missions. Aircraft on photographic reconnaissance missions normally fly at high speed and may fly at high or low altitudes. They fly in pairs or singly, out to about 600 km from their operating base. Aircraft with side-looking airborne radar (SLAR) normally work at high altitude and may not need to cross the battle line to achieve their objectives. Similarly, signals reconnaissance aircraft may not need to cross the battle line to identify and locate enemy radar emissions.

Rotary-Wing

6-28. Helicopters are a primary means to transport and insert reconnaissance units behind enemy lines. They can emplace observation posts or reconnaissance patrols rather than perform air reconnaissance, especially when the OPFOR does not have air superiority.

Unmanned Aerial Vehicles

6-29. There are two types of UAV: drones and remotely-piloted vehicles (RPVs). A drone flies a set course programmed into its onboard flight control system prior to launch. An RPV, on the other hand, can be flown by remote control from a ground station, over a flight path of the controller's choosing. Flight patterns can vary according to the mission. For surveillance missions, the UAV typically uses a figure-eight or racetrack pattern to maintain it over the assigned surveillance area. For reconnaissance, intelligence collection, target acquisition, and battle damage assessment missions, a loop or zigzag pattern allows thorough coverage over a specific target area. RPV operators can vary these basic flight patterns by taking control of the RPV and changing its altitude, speed, or direction of flight. This allows RPVs to search for high-priority targets or to collect more detailed information on such targets once it locates them. While the radio command link gives an RPV greater flexibility, it also limits the range of the RPV to the line-of-sight transmission range from its control station. However, many RPVs can also operate in a preprogrammed mode at longer ranges. UAV operations are also described in greater detail in FM 7-100.2.

SATELLITES

6-30. The Intelligence Directorate controls satellite reconnaissance to support the OPFOR. These satellites provide unique capabilities of noninvasive reconnaissance (not violating enemy airspace), "free" access, and continuous communications or

surveillance from their orbits. The OPFOR can use three basic types of reconnaissance satellites: photographic, early warning, and signals reconnaissance.

Photographic

6-31. Satellite reconnaissance is not as flexible as other types of reconnaissance, because a satellite only reconnoiters an area when its orbit takes it into range. As a result, the OPFOR uses specialized photographic reconnaissance satellites to record designated enemy activity. Satellites may photograph an area 40 to 50 km wide from an altitude of 200 to 250 km.

Early Warning

6-32. Early warning satellite orbits cross over foreign countries and the oceans. The satellites might be used to detect infrared signatures from intercontinental ballistic missile (ICBM) launches or the deployment of enemy troops.

Signals Reconnaissance

6-33. The OPFOR could use several classes of signals reconnaissance satellites to gather information on the electronic order of battle. Signals reconnaissance satellites locate C^2 nodes, battlefield radars, and forward units. Some might also monitor transoceanic shipping and air traffic. Another function could be to detect unknown electronic signatures that might indicate the presence of new equipment.
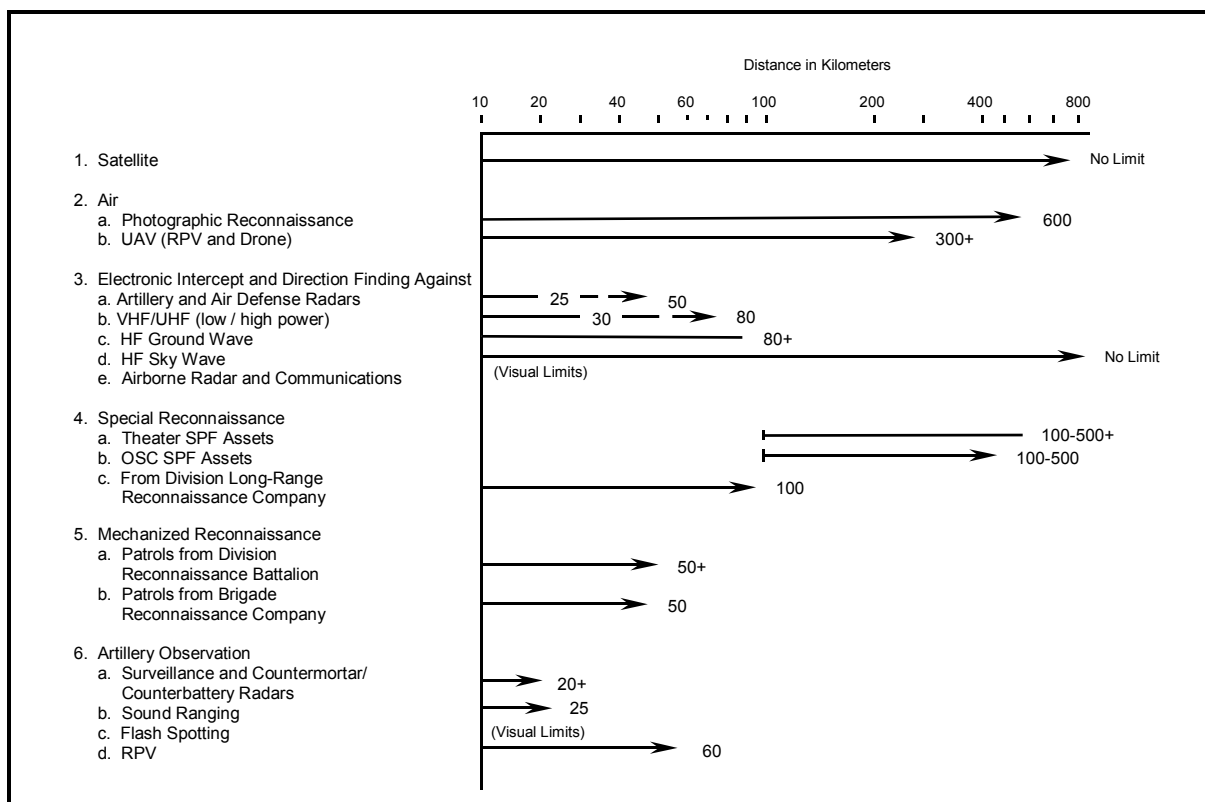
Figure 6-1. Effective Ranges of Reconnaissance Assets

OPERATIONAL ASSETS

6-34. Operational reconnaissance forces support OSC commanders. They acquire and analyze information about an actual or probable enemy, to prepare for the successful conduct of combat operations. Operational reconnaissance forces usually collect information throughout the entire depth of an enemy corps area (300 to 600 km). Operational reconnaissance collection assets include signals reconnaissance, aerial reconnaissance, and SPF. OSCs conduct operational reconnaissance using their own resources, plus those of their subordinate tactical groups. Figure 6-1 illustrates the effective ranges of various reconnaissance means that may support OSC operations.

SPECIAL-PURPOSE FORCES

6-35. The General Staff often allocates SPF units to support the operations of an OSC or to become part of the OSC in a constituent or dedicated command relationship. Such units have SPF troops specially trained to insert by parachute, helicopter, light aircraft, or infiltration to conduct reconnaissance. Of course, commanders do not insert all of the assets at the outset to operate simultaneously; they might retain some in the reconnaissance reserve to be inserted against new targets or original ones left uncovered by the compromise or destruction of a team inserting in the first group.

SIGNALS RECONNAISSANCE ASSETS

6-36. The OPFOR typically allocates radio and radar intercept and direction finding units to OSC level. These assets report gathered information to higher and lower levels.

AIR ASSETS

6-37. The theater commander normally controls aerial reconnaissance but may allocate aircraft to lower headquarters to support a particular operation or battle. The number and composition of units, and the types of fixed- and rotary-wing aircraft can vary greatly. The OPFOR also employs UAVs to conduct aerial reconnaissance.

ARTILLERY ASSETS

6-38. OSCs often have constituent target acquisition units to obtain and transmit meteorological, topographic, and targeting information. This can include sound-ranging systems, battlefield surveillance and countermortar/counterbattery radars.

NBC ASSETS

6-39. OSCs operating in potential NBC environments typically have chemical defense units and chemical reconnaissance units allocated to them.[1] These units perform decontamination and detect, report, and mark all contaminated areas.

ENGINEER ASSETS

6-40. Engineer units have reconnaissance specialists to accompany maneuver unit reconnaissance forces. There are specialized engineer reconnaissance

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[1] Although the OPFOR calls these *units* are "chemical defense" or "chemical reconnaissance," their *functions* actually encompass nuclear, biological, and chemical (NBC) defense or reconnaissance. (See Chapter 11.)

patrols that assess routes, reporting on obstacles, road conditions, and the general nature of the terrain. These engineer assets help units maintain a rapid rate of advance or prepare for effective defense.

AIRBORNE FORCES

6-41. Airborne forces are elite troops whose primary purpose is to conduct active combat operations in the enemy's rear area. Airborne forces might conduct reconnaissance operations and relay information directly to the main command post or headquarters as they operate against targets in the enemy's rear. See Chapter 13.

UNMANNED AERIAL VEHICLES

6-42. At OSC level, UAVs provide aerial reconnaissance support. An OSC often is assigned one or more UAV units.

GROUND FORCES TACTICAL RECONNAISSANCE

6-43. Reconnaissance is a combined arms responsibility. Thus, ordinary mechanized infantry and tank units perform two functions: they perform their own close reconnaissance tasks with organic resources, and they provide reconnaissance detachments of up to battalion strength. Leading units may also conduct reconnaissance attacks (see FM 7-100.2). OSCs and tactical groups may also form task-oriented reconnaissance detachments based on a combat arms battalion, augmented by engineer and chemical reconnaissance and, often, by mechanized infantry and tank units. Generally, these groups try to avoid combat in fulfilling their tasks, although they may direct artillery fire or air attacks. Typical missions might include—

- Locating, identifying, and reporting enemy precision weapons and nuclear delivery means, headquarters, communications centers, troop concentrations, and movements of enemy units.
- Determining the strength and disposition of the enemy's defenses and locating his boundaries.
- Providing topographical information concerning routes to, or bypasses around, enemy positions as well as concerning lateral routes.
- Identifying the extent and depth of minefields and the types of mines employed (assessing obstacles and possible crossing points).
- Establishing the extent of zones of NBC contamination.
- Identifying potential communications facilities and other sites for use by their own forces.

6-44. The chief of reconnaissance, with input from other staff elements, must prepare a detailed reconnaissance plan, specifying—

- The organization of reconnaissance activities for a specific time.
- Goals and mission for each reconnaissance activity.
- Completion times.
- Reporting procedures.

STRATEGIC CONTEXT

6-45. Reconnaissance plays a critical role in all OPFOR strategic courses of action. Targets of reconnaissance actions may be the same during different strategic courses of action, but for different reasons.

REGIONAL OPERATIONS

6-46. Military operations during regional operations attempt to achieve strategic political or military decision by destroying the enemy's will and capability to fight. This is often brought about by destroying the C^2 and logistics systems the enemy needs for continued operations. Reconnaissance actions during this period are therefore focused on locating and tracking enemy C^2 nodes and logistics centers.

6-47. Other targets of OPFOR RISTA during regional operations include the enemy's—

- Precision weapons delivery means.
- Long-range fire systems.
- WMD.
- RISTA assets.

TRANSITION OPERATIONS

6-48. A key reconnaissance task during transition operations is to support the requirements of access-control operations. RISTA assets can gather information on likely enemy aerial and sea ports of debarkation and other targets of access-control activities, such as potential operating or staging bases.

6-49. Reconnaissance efforts are directed against vulnerable early-entry forces before the enemy can bring his technological overmatch to bear. They can also support sophisticated ambushes to destroy high-visibility enemy systems or cause mass casualties.

ADAPTIVE OPERATIONS

6-50. In adaptive operations, RISTA assets support the creation of windows of opportunity that permit OPFOR units to move out of sanctuary and attack. OPFOR RISTA can do this by locating and tracking key elements of the enemy's C^2, RISTA, air defense, and long-range fires systems for attack.

6-51. RISTA assets can also play a direct role in supporting counterreconnaissance operations. Extraregional powers rely heavily on situational awareness, both to employ standoff weapons and to preclude being deceived by OPFOR IW efforts.

Chapter 7

Fire Support

The integration of air, artillery, and missile assets into a unified fire support plan is a major task for the combined arms commander. Integration is a decisive element, fundamental to the success of any operation on the modern battlefield. The OPFOR does not consider itself to be an "artillery-centric" army. Rather, it views itself as using various forms of fire support to achieve success during offensive and defensive operations. In the offense, fire support is important to the success of any attack. It can destroy key systems; disrupt, immobilize, or destroy enemy groupings; and repel counterattacks. Fire support is also the cornerstone of any defense, blunting attacks at the crucial point in the battle. It disrupts enemy preparations for the attack, causes attrition as he approaches, and repels forces.

FIRE SUPPORT CONCEPTS

7-1. Fire support is the collective and coordinated use of target acquisition, indirect fire weapons, aircraft, and other lethal and nonlethal means in support of operational or tactical objectives. The goal is to synchronize all available fire support systems to achieve the most effective results, thereby maximizing combat power. Effective fire support enables OPFOR ground forces to attack successfully and quickly to exploit weaknesses. Commanders try to accomplish their missions using a combination of maneuver and fire. The OPFOR continues to expand and upgrade fire support systems to achieve a qualitative edge over its regional opponents. However, it realizes that it may be at a qualitative disadvantage compared to a modern extraregional force.

7-2. The OPFOR stresses that fire support should integrate air assets, surface-to-surface missiles (SSMs), and artillery to attack enemy targets throughout the area of responsibility (AOR). The combined arms commander always seeks to increase the effectiveness of air and missile attacks and artillery fire to destroy enemy formations, weapon systems, or key components of an enemy combat system. (See Systems Warfare later in this chapter and in Chapter 1.) This ensures continuous fire support for maneuver units throughout the AOR.

7-3. The OPFOR considers information warfare (IW) an essential element of fire support. It provides a nonlethal alternative or supplement to attack by fire and maneuver. It is integrated into the overall concept of the operation, to confuse, deceive, delay, and disorganize the enemy.

FIRE SUPPORT PRINCIPLES

7-4. The principles of fire support are the framework for a thought process that ensures the most effective use of fire support assets. These principles apply at all levels of command, regardless of the specific fire support assets available:
- Plan early and continuously.

- Exploit all available reconnaissance, intelligence, surveillance, and target acquisition (RISTA) assets.
- Consider airspace management and the use of all fire support (lethal and nonlethal) means.
- Use the lowest echelon capable of furnishing effective support.
- Avoid unnecessary duplication of effort.
- Use the most effective means to accomplish the mission.
- Provide rapid and effective coordination.
- Provide for flexibility of employment.
- Provide for safeguarding and survivability of OPFOR fire support assets.
- Attempt to achieve surprise when possible.
- Deliver highly accurate and effective fire.

SYSTEMS WARFARE

7-5. The foundation of OPFOR planning is the *systems warfare* approach to combat. Thus, the OPFOR analyzes its own combat system and how it can use the combined effects of this "system of systems" to degrade or destroy the enemy's combat system. In systems warfare, the subsystems or components of a combat system are targeted and destroyed individually. Once a favorable combat situation has developed, the targeted enemy subsystem is quickly destroyed in high-intensity operations, thus making the enemy's overall combat system vulnerable to destruction or at least degrading its effectiveness. (See Systems Warfare in Chapter 1 for further information.)

7-6. Within the systems warfare approach, the OPFOR employs a fire support concept centered on a phased-cycle of finding a critical component of the enemy combat system and determining its location with RISTA assets; engaging it with precision fires, maneuver, or other means; and recovering to support the fight against another part of the enemy force. The primary reason for attacking an enemy with fires is to degrade or destroy one or more key components of the enemy's combat system and/or to create favorable conditions for degrading or destroying other parts of his combat system.

TECHNIQUES TO EXPLOIT ENEMY VULNERABILITIES

7-7. The OPFOR seeks to avoid enemy strengths and exploit his vulnerabilities. In conflicts with extraregional powers, the OPFOR typically would be operating from relative strategic weakness. Therefore, it seeks to operationally outmaneuver, overwhelm, and outpace the enemy. It also seeks to deny him any sanctuary on the battlefield, as well as in the local theater or in his strategic depth. (See Strategic Context later in this chapter.)

7-8. The OPFOR will also leverage the effects of its available fire support means by integrating them into an integrated fires command (IFC) in organizations down to division or division tactical group (DTG) level. The IFC (described in detail in Chapter 2) synchronizes and focuses the efforts of RISTA and fire to destroy key enemy formations or systems—or key components of an enemy combat system. Destroying such targets can not

only shift the balance of power in the region in the OPFOR's favor, but also undermine enemy morale and resolve.

TARGET DAMAGE CRITERIA

7-9. Target damage is the effect of fires on a given military target. It results in total, partial, or temporary loss of the target's combat effectiveness. The OPFOR categories of target damage are annihilation, demolition, neutralization, and harassment.[1] Of these categories, the first three fall under the general term *destruction*.

Annihilation

7-10. *Annihilation* fires render targets completely combat-ineffective and incapable of reconstruction or token resistance. For a point target such as an antitank guided missile launcher, the OPFOR must expend enough munitions to ensure a 70 to 90 percent probability of kill. For area targets such as platoon strongpoints or nuclear artillery assets, the OPFOR must fire enough rounds to destroy from 50 to 60 percent of the targets within a group. These fires result in the group ceasing to exist as a viable fighting force.

Demolition

7-11. The OPFOR uses the term *demolition* in reference to the destruction of buildings and engineer works (such as bridges, fortifications, or roads). Demolition requires enough munitions to make such material objects unfit for further use.

Neutralization

7-12. Fire for *neutralization* inflicts enough losses on a target to—

- Cause it to temporarily lose its combat effectiveness, or
- Restrict or prohibit its maneuver, or
- Disrupt its command and control (C^2) capability.

To achieve neutralization, the OPFOR must deliver enough munitions to destroy 30 percent of a group of unobserved targets. The expectation is that the target is severely damaged but could again become capable of coordinated resistance after the fire is lifted. The term *neutralization* applies only in an artillery context.

Harassment

7-13. The OPFOR uses a limited number of fire support systems and munitions within a prescribed time to deliver *harassment* fires. The goal of these fires is to put psychological pressure on enemy personnel in locations such as defensive positions, command posts (CPs), and logistics installations. Successful harassment fire inhibits maneuver, lowers morale, interrupts rest, and weakens enemy combat readiness.

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[1] The use of precision weapons may render such target damage criteria obsolete, since precision weapons are always supposed to "annihilate" the targets completely, not just destroying a certain percentage of them.

COMMAND AND CONTROL

7-14. The nature of fire support units, with assets capable of long ranges and their potential wide influence and flexibility on the battlefield, requires that C^2 be more complex than for maneuver units. The ability to engage and destroy targets at longer ranges has generally resulted in C^2 being retained at a high level of command in order to maximize overall effectiveness. However, the requirement for a rapid response between the detection of targets and their subsequent engagement requires C^2 to be exercised at a low level of command. Low-level C^2 facilitates accurate judgement in both the timing of engagements and the fire support adjustments as the combat situation develops. The OPFOR instituted the IFC as the principal fire support C^2 structure to ensure flexibility of C^2 and response in meeting the fire support challenges on future battlefields.

CHIEF OF INTEGRATED FIRES

7-15. Within the operations section of the operational-strategic command (OSC) staff, there is a *chief of integrated fires*. This officer is responsible for coordinating and advising the commander on the effective integration of C^2 and RISTA means with fire support means (including precision fires) to support the overall operation plan. He controls, but does not command, the fire support units subordinate to or supporting the OSC. He advises the OSC commander on how best to use available fire support assets.

INTEGRATED FIRES COMMAND

7-16. The IFC is a combination of a standing C^2 structure and task organization of constituent and dedicated fire support units. All division-level and above OPFOR organizations possess an IFC C^2 structure—staff, CPs, communications and intelligence architecture, and automated fire control system. The IFC exercises C^2 of all constituent and dedicated fire support assets retained by its level of command. This can include Air Force, army aviation, artillery, and SSM units. It also exercises C^2 over all RISTA assets constituent or dedicated to it. There is one IFC per OSC.

7-17. An OSC-level IFC is capable of engaging designated operational and strategic targets. However, there are circumstances where an IFC may be formed at the theater level. For example, the theater could have two separate campaigns, requiring a centralization of critical fire support assets at theater level to achieve the strategic or theater campaign objectives. When this occurs, the theater commander forms a theater-level IFC commanded by the deputy theater commander. This IFC exercises C^2 over all fire support assets retained at the theater level of command.

7-18. The mission of the IFC is to execute all fire support tasks required to accomplish the mission of the command to which the IFC belongs. The IFC is designed to—

- Exploit the combat power inherent in carefully integrated ground and air fire support actions.
- Reduce to the absolute minimum the amount of time from target acquisition to engagement.

- Permit fire support assets to mass their effects without having to operate in concentrated formations.
- Ensure the optimal fire support asset(s) are assigned any given mission.
- Ensure the commander's priorities for fire support are adhered to.
- Act, if necessary, as the organization's alternate command structure.
- Integrate the effects of fires from units placed in support of the organization.

7-19. The number and type of fire support and RISTA units allocated to an IFC is mission dependent. The IFC is not organized according to a table of organization and equipment, but is task organized to accomplish the missions assigned.

7-20. In addition to constituent or dedicated assets that become part of its IFC, an OSC can receive fire support and/or RISTA assets allocated to it from national or theater level in a supporting relationship. In that case, the OSC or its IFC commander can position those assets and give them mission priorities, but the supporting assets would still be commanded by their parent organization.

FIRE SUPPORT COORDINATION CENTER

7-21. A fire support coordination center (FSCC) is established at each organizational level (maneuver battalion to IFC). The FSCC is the staff element responsible for the planning and coordination of fires to support the respective maneuver unit. It performs the following coordination functions:

- Acquire and identify high-payoff targets (HPTs).
- Recommend targets.
- Use target value analysis to identify target priorities.
- Determine fire support needs.
- Expedite fire support.
- Assess fire support effects.
- Change fire support plans.
- Coordinate the timing of fire support attacks (to include IW).
- Recommend the use of aviation.

SUPPORTING MANEUVER COMMANDERS' FIRE REQUESTS

7-22. Requests for supporting fires may originate at any organizational level. They are initiated when constituent or dedicated fire support means at that level are fully engaged, when the range of the target exceeds the constituent or dedicated fire support means, or when the constituent or dedicated fire support means have suffered combat loss. There are two methods of requesting supporting fires. The preferred method is for the request to be forwarded from the division or DTG commander to the integrated fires subsection in the OSC headquarters. An alternate method is for the division or DTG commander to request supporting fires from the OSC commander. The OSC commander either approves or denies the request. If the request is approved, the OSC commander tasks the IFC to provide the requested support.

NAVAL FIRE SUPPORT

7-23. Naval fire support, when available, gives the ground maneuver commander long-range indirect fires. Naval fire support includes shipborne gunfire and sea-launched cruise missiles. Depending on the hydrography and the orientation of the ground operation, naval fire support may provide deep indirect fire attacks on enemy formations and installations.

7-24. Naval fire support assets allocated to a theater or OSC in a constituent or dedicated relationship are under the command of the theater- or OSC-level IFC. Another option is for naval fire support assets to remain under the command of the Navy but to provide support for ground operations. During the course of such a supporting relationship, if enemy actions threaten naval operations, the target attack priorities of the ship may cause it to suspend or cancel land fire missions until the other threats subside. Once the threats have subsided, the fire support assets resume their support of the ground maneuver force.

7-25. A naval fire support liaison team augments the operations section of the IFC staff when naval fire support is required to support the ground maneuver force, whether in a constituent, dedicated, or supporting relationship. The liaison team provides special staff representation and advice on naval fire support to the IFC commander. Additionally, it coordinates requests for naval fire support and operates the naval fire support nets in the IFC's FSCC.

FIRE SUPPORT PLANNING

7-26. Fire support planning is the determination of the content, manner, and sequence of delivery of fire on the enemy in an operation. The OPFOR accomplishes fire support planning at the highest possible levels. The fire support plan also includes input from subordinate units. The fire support planning process includes—

- Target acquisition.
- Organization of forces for combat.
- Assignment of fire support missions.
- Determination of ammunition requirements.
- Formulation of a detailed fire support plan.

7-27. Fire support planning includes consideration of the following:

- The scheme of maneuver of the supported forces.
- The enemy force to receive fire.
- The location and character of individual targets within the designated enemy force.
- The required or desired level of target damage.
- Fire support assets available, both delivery systems and ordnance.
- Requirements for allocation of weapons and units (organization of forces for combat).
- Missions assigned to IFCs, units, and weapons.
- The manner and procedure of delivery of fire during the performance of missions.

- Requirements and distribution of ammunition by missions.
- Organization of coordination and command and control.
- Preparation of appropriately detailed fire support plans at various levels.

7-28. In the OPFOR's "top-down" approach to the planning and allocation of fire support, fire support planning occurs at the highest level possible. The IFC commander at the OSC or theater level plans and coordinates fire support, always under the direction of the maneuver commander. The highest level of participating units coordinates and approves the fire support plan, with input from subordinate units. The OSC headquarters performs general fire support planning. Detailed planning occurs in maneuver units, IFCs, and fire support units. The fires of all indirect fire support units within a brigade or brigade tactical group (BTG) are incorporated into the brigade or BTG fire support plan. In turn, brigade or BTG fire support plans become part of division or DTG fire support plans. Division or DTG fire support plans become part of OSC fire support plans.

7-29. In its simplest form, fire support planning is the process of determining the best way to engage all of the enemy's units with fires—ensuring that the required level of damage is inflicted in a manner consistent with the commander's concept of the operation. Above all else, this means that the fire support plan must match his concept for the sequence with which the operation will develop. The focus of fire support planning is on establishing and maintaining fire superiority over the enemy. Therefore, timing is critical.

ESTIMATE OF SITUATION

7-30. The planning process begins with an estimate of the situation. This estimate includes the following:
- Scheme of maneuver of supported forces.
- Locations and type of enemy targets.
- Required level of damage.
- Delivery means and ordnance available.

7-31. The OSC commander, his IFC commander, and other staff members establish the basis for fire support planning during the commander's reconnaissance of the area of anticipated action. During this reconnaissance, the commander refines the organization of forces for combat and the means of coordination. The OSC commander gives the IFC commander the information base to determine the following:
- Targets for fire support weapons to engage and fire upon.
- Priority of each target.
- Sequence in which to attack targets.
- Time to attack each target.

7-32. The commander of a fire support unit at any level coordinates the fires under his control. He determines new requirements and missions and, with the IFC commander, makes suggestions to the maneuver commander about adjustments in organization of forces as the situation develops.

IFC PLANNING

7-33. An IFC commander and members of his staff conduct their planning in coordination with the rest of the OSC staff, concurrently with the OSC staff developing the operation plan. The IFC has targets for each phase of the battle. Planning considerations include target type, dimensions, degree of fortification, mobility, and depth into the enemy's defense.

Allocation Procedures

7-34. The OPFOR carefully calculates fire support requirements in terms of weapons and munitions needed to produce a required effect on enemy targets. If insufficient fire support or ammunition is available to achieve the necessary result, the OPFOR does not fire less and hope for the best. Rather, if necessary, it engages fewer targets, adjusting the fire support plan and the operation plan.

7-35. The priority of allocation of fire support assets to the OSC from the administrative force structure is normally to the OSC's IFC. Fire support assets that are allocated to the OSC and not used in the IFC are allocated, normally in a constituent or dedicated relationship, to maneuver units such as DTGs. Fire support units remaining under IFC command may provide fires for tactical maneuver units in a supporting relationship. The supporting relationship allows the IFC commander the flexibility to task fire support assets to engage key enemy targets throughout the AOR.

Synchronization

7-36. The IFC is synchronized at two levels. First, the OSC commander and his staff are responsible for synchronizing fire support with ground maneuver. The key element is to ensure that all fire support occurs at the right place and time to produce the desired effect. The OSC commander's maneuver plan forms the basis for the synchronization of the IFC.

7-37. The commanders of the individual fire support components accomplish the second level of synchronization when they plan and execute the fire support operations. They must synchronize the supporting fire components to produce the concentration of combat power at the decisive point. For example, the priority of initial attack helicopter fires may be to suppress enemy air defense systems to protect attacking fixed-wing aircraft. The artillery may be assigned missions to attack targets to assist the attacking ingress and egress of aircraft.

FIRE SUPPORT COORDINATION MEASURES

7-38. Fires from mortars, cannon artillery, multiple rocket launchers (MRLs), and SSMs pose a potential hazard to friendly maneuver forces and aircraft activities. The highest probability of conflict between aircraft and indirect fire weapons occurs at relatively low altitudes in the immediate vicinity of firing positions and targeted areas. (See Chapter 8 for more information on air and artillery coordination measures.) To reduce potential conflicts between indirect fires and maneuver forces or aircraft, information pertaining to firing positions, targeted areas, and fire support plans is distributed to all involved

commanders and their staffs. The fire support plan includes a map with graphics outlining the following control lines:

- **Coordinated Fire Line.** A line beyond which indirect fire systems can fire at any time within the AOR of the establishing headquarters without additional coordination.

- **Final Coordination Line.** A line established by the appropriate maneuver commander to ensure coordination of fire of converging friendly forces. It can be used to prohibit fires or the effects of fires across the line without coordination with the affected force. For example, this line may be used during link-up operations between an airborne or heliborne insertion and converging ground forces.

- **Joint Fire Line.** A line established by the appropriate OSC-level and above commander to ensure coordination of fire not under his control but which may affect his operations. The joint fire line is used to coordinate fires of air, ground, or sea weapons systems using various types of ammunition against surface targets.

- **Safety Line.** A line that denotes the fragmentation footprint of indirect fire munitions or bombs/rockets released from aircraft. This indicates the minimum distance between the impact area and the nearest friendly troops.

ASSIGNING FIRE MISSIONS

7-39. When assigning missions, indirect fire support commanders and planners consider several variables, depending on the situation. These variables include—

- Type of target (for example, equipment or personnel, deliberate or hasty defensive positions, hard- or soft-skinned vehicles, point or area targets).

- Deployment of target (dug-in or in the open).

- Whether the target is stationary or moving.

- Whether the target is under direct observation during the artillery attack.

- Range to the target.

- Type, caliber, and number of weapons engaging the target.

- Types of ammunition available.

- Time available to prepare for firing.

PRECISION MUNITIONS

7-40. The OPFOR defines a *precision weapon* as one capable of delivering guided conventional munitions with a high probability of destroying enemy targets with a first-round hit (within range of the weapon delivery system). The presence of the precision munition transforms a weapon into a precision weapon. However, a precision weapon system must also incorporate a target acquisition and tracking subsystem and a missile or projectile guidance subsystem. Some of these subsystems may be combined. Precision munitions are primarily designed to effectively defeat armored vehicles; self-propelled artillery systems; MRLs; C^2 and RISTA centers; defensive fortifications; and bridges.

7-41. Precision weapons have enabled the OPFOR to mass firepower at critical points on the battlefield and simultaneously reduce ammunition expenditure and mission time. Reconnaissance fire (defined later in this chapter) is an effective form of precision weapon engagement. It is sometimes called a "unified precision weapon system," because it links the highly accurate weapon to an automated reconnaissance and control system.

7-42. Precision munitions delivered by mortars, artillery, missiles, and aircraft can include—

- Homing and guided SSMs (some delivering advanced submunitions).
- Semiactive laser-guided artillery projectiles and bombs.
- Sensor-fuzed artillery submunitions.
- Terminally homing cannon and mortar projectiles.
- Terminally homing submunitions.

Air-delivered precision munitions include homing and guided air-to-surface missiles (including radar-seeking antiradiation missiles); guided bombs and cluster bombs containing homing elements; and air-launched cruise missiles.

7-43. Not all OPFOR artillery units have precision munitions, making it necessary to allocate those rounds available against high-value targets (HVTs). Even the units that do receive them do not distribute them evenly among all delivery means, but typically designate one particular unit to fire them.

NBC WEAPONS

7-44. The OPFOR might use nuclear, biological, and chemical (NBC) weapons either to deter aggression or as a response to an enemy attack on the State. The State considers the employment of NBC weapons as a responsibility of the National Command Authority. Delivery means such as long-range missiles and rockets are political tools, first and foremost. The OPFOR has SSMs capable of carrying nuclear, chemical, or biological warheads. Additionally, it can employ aircraft systems and cruise missiles to deliver an NBC attack.

7-45. OPFOR military doctrine distinguishes between fire support and an NBC attack. However, the two are closely related. Strategic and operational fire support units must plan and deliver the attacks. They must also adjust the fire support plan to account for the effects of NBC attacks on the enemy. Such attacks greatly affect the tempo of combat activity. This, in turn, influences the type of fire support required. It also influences the kind of logistics support needed, such as fuel or ammunition.

7-46. If needed, the majority of OPFOR artillery (152-mm and above) is capable of firing nuclear or chemical munitions. However, continued improvements in conventional munitions, especially precision munitions, increase the likelihood that the OPFOR can achieve operational- or tactical-level fire superiority at the desired location and time without resorting to NBC weapons.

TARGETING

7-47. Targeting is the process of selecting targets and matching the appropriate response, taking into account operational requirements and OPFOR

capabilities. Targeting requires constant interaction between maneuver, reconnaissance, fire support, and IW, at all levels. Target value analysis is an analytical tool that is used in the targeting process by which the supported maneuver commander—

- Provides focus for his target acquisition effort.
- Identifies priorities for the engagement of enemy targets that will facilitate the success of his mission.
- Identifies the target damage criteria.
- Permits planning for identified contingencies based on enemy options available when the enemy operation fails.

HIGH-VALUE TARGETS

7-48. HVTs are targets deemed important to the enemy commander for the successful accomplishment of his mission. The loss of HVTs can be expected to contribute to a substantial degradation of an important battlefield function.

HIGH-PAYOFF TARGETS

7-49. HPTs are HVTs that must be successfully acquired and attacked to contribute substantially to the success of OPFOR operations. They are developed on the basis of factors such as enemy situation, unit mission, terrain, and the time and resources available. They are not dependent on the ability of the fire support unit to acquire or attack them. If an HPT is beyond the capability of the target acquisition or reconnaissance unit to acquire, it should be passed to the next-higher headquarters as a priority intelligence requirement.

7-50. Based on a battlefield analysis, the OSC commander, with advice from his IFC commander, selects HPTs and establishes a prioritized list of them. The HPT list identifies the HPTs for a specific point in the operation in the order of their priority for acquisition and attack. While their target value is usually the greatest factor contributing to the target payoff, other considerations include the following:

- Sequence or order of occurrence.
- Ability to locate and identify the target.
- Degree of accuracy and identification available from the acquisition system.
- Ability to engage and defeat the target in accordance with the established target damage criteria.
- Resource requirements necessary to accomplish all of the above.

TIME-SENSITIVE TARGETS

7-51. Time-sensitive targets are those targets requiring an immediate response. The reason for this urgency is that they either pose (or will soon pose) a clear and present danger to the OPFOR or are highly lucrative, fleeting targets of opportunity.

TARGET ATTACK METHODOLOGY

7-52. The vast array of targets anticipated on the battlefield can generate competing demands for fire support. These demands could exceed the capability

of fire support assets to adequately respond to all requirements. Therefore, the OPFOR uses the target attack methodology of plan, detect, deliver, and assess.

Plan

7-53. The plan phase provides the focus and priorities for the reconnaissance collection management and fire planning process. It employs an estimate of enemy intent, capabilities, and vulnerabilities in conjunction with an understanding of the OPFOR mission and concept of operations. During the plan phase, the OSC commander, with advice from his IFC commander, makes a determination of *what* HPTs to look for, *when* and *where* they are likely to appear on the battlefield, *who* (reconnaissance or target acquisition assets) can locate them, and *how* the targets should be attacked.

Detect

7-54. During the detect phase, the reconnaissance plan is executed. As specified targets are located, the appropriate command observation post (COP) or delivery system is notified to initiate the attack of the target. Figure 7-1 illustrates the varying methods of reporting targets for attack from the point of detection by a sensor through delivery. The figure displays the methods along a range from the least to the most responsive.
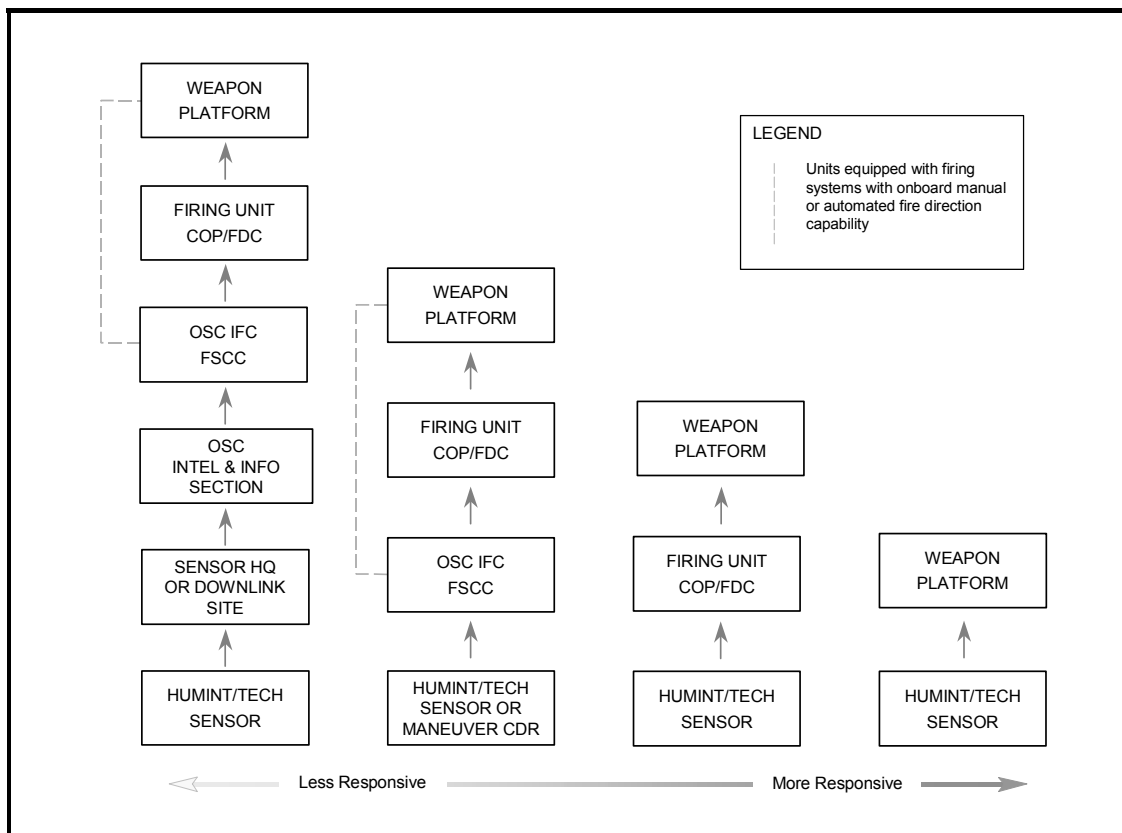
Figure 7-1. Target Report Flow

Deliver

7-55. Timely, accurate delivery is the culmination of synchronization of fire support. The delivery is rapidly executed by having designated attack systems respond to the maneuver commander's guidance when the HPTs are observed.

Assess

7-56. Following the attack of the target, the RISTA assets are cued to determine if the target has been defeated in accordance with the established target damage criteria. If it is determined that the target damage criteria are not achieved, delivery assets re-engage the target until the desired target damage has been achieved.

METHODS OF FIRE

7-57. Critical to the success of OPFOR operations is the ability to plan, detect, deliver, and assess fire (in accordance with the commander's target damage criteria) against enemy C^2 and RISTA and weapons systems throughout the AOR. The focus is a systems warfare approach to combat, where the objective of the combat action is to deny the enemy's combat system its synergistic capabilities. Thus, the OPFOR is able to compel enemy forces into multiple and rapid tactical transitions and to create opportunity by keeping them off balance, breaking their momentum, and slowing movement. The OPFOR uses various types of fires against the enemy. The methods of fire may have different purposes in the offense and defense.

FIRE SUPPORT TO A STRIKE

7-58. At the operational level, a strike involves the employment of a combination of strategic- and operational-level RISTA systems with fire support, SPF, and maneuver forces to conduct precision strike operations that can result in a decisive operational victory. The strike can be employed in both defensive and offensive operations.

7-59. Fire support to a strike involves the employment of a wide variety of ammunition types (such as standard, course-corrected, advanced, and precision munitions) to destroy an enemy formation after typically setting the conditions for its destruction through reconnaissance fire. IFC fire support units are assigned interdiction fire missions to support the maneuver component throughout the strike. Constituent and dedicated indirect fire support units (allocated to the maneuver component) provide close support fire throughout the operation. Thus, fire support to a strike incorporates other methods of fire.

RECONNAISSANCE FIRE

7-60. *Reconnaissance fire* is the integration of RISTA, fire control, and weapon systems into a closed-loop, automated fire support system that detects, identifies, and destroys critical targets in minutes. This integration capability normally exists only within an IFC. One reason for this requirement for accelerated engagement is that high-value targets may expose themselves for only fleeting periods. Reconnaissance fire is primarily designed to attack and destroy key enemy capabilities and/or set the conditions for a strike (see Chapter 3).

7-61. Reconnaissance fire enables the OPFOR to deliver fixed- and rotary-wing air, SSM, cruise missile, and artillery fires (including precision munitions) on enemy targets within a very short time after acquisition. The OPFOR can use reconnaissance fire in offensive and defensive phases of combat. Assets designated for reconnaissance fire use are under control of the IFC commander, and control remains centralized for planning, analysis, and evaluation of reconnaissance data, and for execution of the reconnaissance fire mission. This type of arrangement allows the assets to execute other missions or taskings until the desired HPTs are detected. The IFC commander may establish a window of time for assets tasked to support reconnaissance fire (based on an intelligence assessment of when the enemy targets should be in designated kill zones).

7-62. The OSC commander selects and establishes the target priority and target damage criteria of the combat system component or components to be attacked in order to force the favorable condition to conduct a strike. The IFC staff and fire support component commanders develop the fire support plan designed to conduct reconnaissance fire necessary to create the favorable condition. The IFC commander then briefs the fire support plan to the OSC commander to ensure compliance with the overall operation plan. The IFC executes reconnaissance fire in accordance with the approved fire support plan.

CLOSE SUPPORT FIRE

7-63. Close support fire is fire used to support maneuver forces and attack targets of immediate concern to units such as battalions and BTGs. The requirement is to provide a quick response time and accurate fires capable of either neutralizing or destroying all types of targets.

INTERDICTION FIRE

7-64. Interdiction fire is fire designed to attack targets in depth (such as logistics sites or assembly areas) and to prevent enemy follow-on or reserve forces from reinforcing or influencing a battle or situation. Generally, interdiction fire (when compared to close fire) has a slower response time, especially for stationary targets; accuracy may be lower; and the targets are generally not as well protected. However, technological improvements such as course-corrected rockets, projectiles, and fuzes facilitate long-range precision targeting.

7-65. The OPFOR employs long-range fire systems (operating from dispersed areas) to continuously engage targeted forces and systems. Operational and tactical RISTA systems direct them.

COUNTERFIRE

7-66. Counterfire is fire designed to destroy the enemy fire support infrastructure throughout the battlefield. The fire support infrastructure includes mortars, cannon, rockets, missiles, fire support C^2 and RISTA, and logistics assets. Counterfire enables the ground forces to achieve effective fire support on the battlefield. It is especially important for the early destruction of the enemy's long-range and precision weapons.

COUNTERBATTERY FIRE

7-67. Counterbattery fire is fire that accomplishes the annihilation or neutralization of enemy artillery batteries. It enables ground forces to maneuver on the battlefield with little to no suppression by enemy artillery. However, combat with enemy artillery requires more than counterbattery fire.

FIRE SUPPORT OF MANEUVER OPERATIONS

7-68. The fire support of maneuver operations is characterized by the use of all available fire support to carry out the commander's plan. The OPFOR believes that fire support must be flexible to meet all contingencies during combat operations. The OPFOR masses fires against an enemy objective with available fire support assets, with the goal of achieving the OSC commander's specified target damage criteria in the shortest time possible.

OFFENSE

7-69. Fire support considerations for the offense apply to all types of offensive action discussed in Chapter 3. The OPFOR plans and executes fires to support the offensive action and complete the destruction of the enemy. The use of selected lines or zones controls the shifting of fires, and the displacement of fire support units reflects changes in command and support relationships between fire support units and maneuver units. Fires are planned to—

- Suppress enemy troop activity and weapon systems.
- Deny the enemy information about friendly forces.
- Prevent the enemy from restoring fire support, C^2, and RISTA systems neutralized during previous fire support missions.
- Deny the enemy the ability to use reserve forces to conduct a counterattack.
- If necessary, create favorable conditions for the conduct of a strike.
- Support the exploitation force.

DEFENSE

7-70. Fire support considerations for the defense apply to all types of defensive action discussed in Chapter 4. Key is the application of fire support as early as possible throughout the AOR in support of the defensive operation plan. Emphasis is placed on RISTA assets locating enemy formations and attack positions, with the goal of determining the direction and composition of the enemy main attack. Carefully analyzing the terrain over which the enemy will advance and canalizing his movement into kill zones can create conditions for fires in the defense. Fires are planned to—

- Deny the enemy information about friendly forces.
- Develop the situation early by forcing the enemy to deploy early and thus reveal the location of his main effort.
- Maximize the effect of obstacles as combat multipliers.
- Create favorable conditions for the conduct of a strike or counterattack.

STRATEGIC CONTEXT

7-71. During all strategic-level courses of action, the OPFOR may use various fire support assets to attack the most vulnerable parts of the enemy's combat system. These attacks are coordinated with perception management efforts to convey a message of political and military dominance to the regional civilian populace as well as to convey an adverse view of an intervening extraregional opponent.

7-72. The OPFOR is able to employ all of its methods of fire in regional and transition operations. However, it is unable or finds it difficult to employ the counterbattery method of fire during adaptive operations due to an extraregional force's technological advantage in ability to target OPFOR fire support assets.

REGIONAL OPERATIONS

7-73. During regional operations, the OPFOR can use fire support means (primarily aviation, SSMs, and long-range rockets) to attack targets in the homeland of a regional opponent. The OPFOR generally possesses an overmatch in military capability against its regional neighbor and is able to control the airspace, thus allowing it freedom of maneuver. However, the OPFOR is concerned about the intervention of an extraregional force during a strategic campaign against a regional neighbor.

7-74. The OPFOR realizes that its regional opponent may receive RISTA support (such as satellite and fixed-wing signals intelligence and imagery) from an extraregional power. OPFOR fire support planners also develop contingency plans to preserve their fire support assets during transition and adaptive operations, if necessary. Common countermeasures are to disperse fire support assets and to use decoys and camouflage.

TRANSITION OPERATIONS

7-75. During transition operations, the OPFOR is concerned about the extraregional force's military capabilities arriving or being established before the OPFOR can completely achieve its strategic objectives. Therefore, the overall focus is on the disaggregation of the enemy's combat system (see Systems Warfare earlier in this chapter and in Chapter 1).

7-76. Starting with transition operations, the OPFOR may use various fire support assets in access-control operations and attack of the enemy's LOCs and rear. It attacks the most vulnerable parts of the enemy's combat system. This may include attacks on the infrastructure or even civilian targets. The OPFOR coordinates such attacks with perception management efforts to convey the view that these terror tactics are no worse than enemy bombing campaigns.

7-77. The goal of the OPFOR is to disrupt the deployment tempo of the extraregional force by attacking unique or key targets in aerial and sea ports of debarkation. These targets include key C^2 nodes, contractors and contractor-operated facilities, logistics operating bases, and ground and airborne RISTA platforms. For example, the OPFOR can greatly reduce an extraregional force's combat power by attacking a logistics system that depends on "just-in-time" or "reach-back" delivery. The OPFOR would also seek to conduct these

attacks in concert with the perception management portion of the IW plan to leverage the world media to report adverse perceptions of the extraregional force.

7-78. During transition operations, the OPFOR begins to disperse its fire support assets and emphasize the use of fire and decoy tactics, techniques, and procedures (TTP). The OPFOR employs the fire and decoy TTP to increase survivability as well as to deceive the enemy as to the actual firing unit location.

ADAPTIVE OPERATIONS

7-79. An extraregional force must maintain a degree of information dominance that enables it to use information systems to achieve an operational advantage, while denying that capability to the OPFOR. Such systems provide battlefield visualization, situational awareness, combat identification, spectrum supremacy, and C^2 attack and protection. Therefore, the OPFOR primarily shifts its emphasis to force preservation and seeks opportunities to attack and destroy key components of the enemy's combat system, including his information systems.

7-80. The extraregional force may have the perception that the tempo of OPFOR continuous fire support has substantially decreased, since the OPFOR no longer possess the advantage of information dominance nor the ability to control its airspace. However, the OPFOR mindset is that the tempo has been adjusted to attack targets (using reconnaissance fire) at critical times in order to preserve the force. For example, during adaptive operations, fire support is centrally planned and executed. The OSC commander can establish both the firing and target damage criteria and exercise C^2 of units conducting fire support. The IFC headquarters develops the firing orders and firing data computation and transmits this information in a coded format to the firing unit. Because the OPFOR's communications are particularly vulnerable to attacks, transmission may have to be via a civilian telephone system (to include cellular phone), messenger, or even newspaper.

7-81. The OPFOR continues to emphasize the use of the fire and decoy TTP. While using such TTP, it seeks to colocate its fire support assets with the civilian populace, especially in urban areas to create a moral sanctuary. If the extraregional force attacks the fire support assets colocated with the civilian populace, the OPFOR will seek to leverage the world media to report adverse perceptions of the extraregional force through the perception management portion of the IW plan.

Chapter 8

Aviation

Aviation operations are an integral part of all OPFOR operations. Most fixed-wing assets belong to the Air Force, while most of the rotary-wing aircraft belong to the Army. The Air Force is the largest, best equipped, and best trained in the geographic region. The capabilities of the OPFOR's fixed- and rotary-wing aircraft far exceed those of its neighbors, allowing for regional air superiority. However, the Air Force is not strong enough to defeat the air force of a modern power from outside this region. Realizing this limitation, the OPFOR will modify its use of aviation assets to ensure effective use against high-payoff targets. The air doctrine of the OPFOR represents a blend of principles growing out of past experience and doctrine adapted from foreign advisors.

ORGANIZATION

8-1. The State's aviation organizations are structured similar to the ground components. As with the ground forces, the administrative force structure is a system in peacetime that mans, trains, and equips units to deploy for war. In wartime, the Air Force's peacetime air armies may be utilized in whole or may be parceled to provide units to a theater- or operational-level command. The Army's aviation units are structured similarly to other Army units, with brigades and battalions being the primary size of deployable units. This structure provides timely and effective use of assets at all levels of combat from the strategic campaign to the tactical ground maneuver plan.

AIR FORCE

8-2. The OPFOR has a variety of Air Force assets at national and theater levels in the administrative force structure. It has organized these assets so that each of these levels of command can have its own aviation forces to fulfill mission requirements. The subordinate Air Force organizations are grouped on a functional, mission-related basis, into divisions, regiments, and squadrons. For example, a bomber division is composed primarily of bomber regiments, and a fighter regiment is composed mainly of fighter squadrons. Rotary-wing assets of the Air Force are organized along the same lines as those of army aviation, with brigades and battalions. The Air Force also has some mixed aviation units with a combination of fixed- and rotary-wing assets; these follow the normal Air Force organization pattern, with mixed aviation regiments and squadrons, although rotary-wing subordinates would be battalions and companies. Various fixed- and/or rotary-wing assets of the Air Force may be task organized as part of an operational-level command in wartime.

National-Level Air Force

8-3. The State has subordinated air armies directly to the Supreme High Command (SHC) for strategic missions. Aircraft include bombers, interceptors, fighters, electronic warfare (EW) platforms, transport aircraft, and tankers. Some bombers can deliver long-range, air-launched cruise missiles (ALCMs) with high accuracy and a standoff range of 3,000 km or more. Tankers provide a capability for air-to-air refueling of bombers. A national-level air army has the mission of inflicting losses on vital targets and conducting aerial reconnaissance in support of the strategic campaign. The SHC can also allocate these air armies to support a specific theater- or operational-level command.

8-4. The size and composition of an air army can vary greatly. However, most air armies have one or more units each for—

- Fighter aviation.
- Bomber aviation.
- Reconnaissance aviation.
- Mixed aviation (fixed- and rotary-wing).
- Heliborne jamming.

In addition, some air armies may have one or more units for—

- Ground-attack aviation.
- Airborne jamming aviation.
- Transport helicopters.
- Air ambulance.

Generally, units with the term *aviation* in their titles are either fixed-wing units or mixed aviation units with a mixture of fixed-and rotary-wing aircraft. During wartime, some aviation divisions and regiments may be task organized into aviation tactical groups.

Theater-Level Air Force

8-5. Theater air armies are subordinate to the theater headquarters (if created) and play a key role in all types of combat, from participating in theater-level campaigns to supporting low-level tactical units of the ground forces. In the former role, they complement national-level aviation, and in the latter, army aviation.

8-6. High-performance fighters, interceptors, and some light bombers comprise the air army of the theater. At theater level, the Air Force also controls a substantial number of fixed- and rotary-wing EW aircraft, as well as medium- and heavy-lift helicopters. Thus, a theater air army can have the same types of units as found in air armies at the national level.

8-7. The size and composition of the theater air army vary greatly depending on the theater's needs. Those aviation assets retained to provide fire support at the theater level are part of the theater's integrated fires command (IFC). Theater headquarters may also use these assets to support high-priority operational-level actions.

Operational-Level Air Force

8-8. At the operational level, an operational-strategic command (OSC) is a joint command. Therefore, the SHC may include Air Force units in the formation of the OSC. These units are sized and equipped according to the mission assigned to the OSC. Those Air Force assets allocated to an OSC in a constituent or dedicated relationship for fire support become part of the OSC's IFC.

ARMY AVIATION

8-9. The OPFOR has a variety of attack, transport, multipurpose, and special-purpose helicopters that belong to the ground forces (Army) rather than the Air Force. Hence the term *army aviation*. In addition to these helicopters, army aviation also owns a limited number of small fixed-wing aircraft to support transport and reconnaissance missions. Army aviation units may remain under centralized control at theater level or may be task organized within an OSC, division tactical group (DGT), or brigade tactical group (BTG).

Theater-Level Army Aviation

8-10. The theater headquarters' army aviation assets are critical in theater campaigns. Army aviation provides reconnaissance, lift for heliborne landings, and direct air support (DAS) for ground forces. The OPFOR generally uses helicopters for reconnaissance only within the protection of the ground forces' air defense umbrella. Helicopters perform such tasks as route or NBC reconnaissance. In the DAS role, it is common for army aviation to supplement theater's fixed-wing ground-attack aircraft. All attack helicopter units and perhaps some other army aviation assets retained at theater level would be part of the theater IFC.

8-11. The type and number of army aviation brigades or battalions subordinate to the theater headquarters or theater IFC varies according to the theater's needs and the importance of that theater in the OPFOR's strategic campaign. Army aviation assets at theater-level can include one or more units of each of the following:

- Attack helicopters.
- Medium-lift helicopters.
- Heavy-lift helicopters.
- Reconnaissance, jamming, and command and control (C^2) helicopters.
- Drones.
- Light and medium transport airplanes, replacing some lift helicopters in mixed aviation units.

Other than these standing army aviation organizations, the OPFOR may also form some task-organized army aviation tactical groups or detachments with a mix of different aircraft types.

Operational-Level Army Aviation

8-12. As discussed in Chapter 2, the OSC is a standing headquarters. When the OSC is formed for combat operations, an army aviation brigade or battalion may be task organized under this command to provide agility, versatility, and increased firepower. The type, size, and quantity of the units vary depending

on the mission of the OSC. In some cases, the OPFOR may include a limited number of army aviation assets in the formation of a DTG or BTG.

COMMAND AND CONTROL

8-13. The commander of the theater air army (Air Force asset) is subordinate to the theater commander. If the majority of the air army's assets retained at theater level are allocated to the theater IFC, the air army commander may also become subordinate to the IFC commander. The air army command post (CP) is normally within 10 to 15 km of the theater's main CP or IFC CP to ensure a close relationship. This relationship ensures that there is no danger of the air army conducting separate, divergent operations as opposed to subordinating the air effort to the needs of the ground operation.

8-14. The senior commander of the army aviation component is also directly subordinate to the theater commander or the theater IFC commander. The army aviation CP is located within 30 km of the theater main CP or IFC CP to allow for rapid coordination from theater to the executing unit. The staff of the aviation unit works closely with the theater staff to plan and coordinate the employment of the theater's army aviation assets.

8-15. The command structure at the OSC level is similar to that at theater level. The OSC may have an air army, division, or regiment as the largest Air Force organization. Depending on the type of aviation assets involved, the commander of this unit is subordinate to the OSC commander or to the OSC IFC commander.

8-16. The command structure for army aviation units in an OSC depends on the types of aviation units assigned and whether or not they perform or support fire support missions. Thus, the commander of the army aviation unit may be directly subordinate to the commander of the OSC or to the OSC IFC commander.

CENTRALIZED CONTROL

8-17. The OPFOR has a limited number of aviation units compared to the size of the ground force. For this reason, it believes that maintaining centralized control over its aviation assets is essential to the effective employment of both fixed-wing and rotary-wing aircraft. However, centralization is a relative term, depending on what levels of command are involved.

Fixed-Wing

8-18. The OPFOR establishes relatively centralized control over its fixed-wing assets. Centralization takes advantage of the mobility and maneuverability of aircraft to concentrate them at the decisive point and time from dispersed bases. Centralized control simplifies the coordination with ground forces and allows for the integration of aircraft being used in different, but complimentary roles (for example, reconnaissance, fighter, and ground attack). It also allows a rapid reallocation of air support resources to accomplish the more important missions that suddenly arise during an operation. Aviation units not originally assigned for ground support may sometimes take part in delivering air attacks against ground targets. To execute their missions, the OPFOR uses centralized planning to allocate air support resources to the ground commander by flights or aircraft sorties with the appropriate ammunitions.

Rotary-Wing

8-19. The OPFOR can use less centralized procedures for the allocation of its helicopter assets, especially the combat helicopter in the DAS role. However, if the number of assets in theater allows and the mission dictates, it may decentralize control over an aviation unit. It can do this in two ways. The first is a constituent subordination of an aviation unit, or the higher headquarters can establish a dedicated or supporting relationship for a specified period of time.

AIRSPACE OPERATIONS SUBSECTION

8-20. The *chief of airspace operations* (CAO) at theater, OSC, and tactical group levels is the primary person in the staff responsible for the coordination of all airspace users. He, along with his staff, make up the airspace operations subsection (AOS). They work directly for the operations officer in the planning of future operations and the execution of current operations. At theater level, this AOS generally consists of—

- An air controller team (Air Force).
- An intelligence team.
- A communications team.
- Liaison teams from subordinate units requiring airspace deconfliction.

8-21. At OSC level and below, the AOS is sized according to needs, but performs the same functions. Some functions of this staff are to—

- Recommend the employment of air assets.
- Deconflict airspace for all users.
- Plan the effective suppression of enemy air defense.
- Transmit air support requests.
- Maintain communications with aircraft in the area of responsibility.
- Provide the commander with all air reconnaissance information.

8-22. The AOS at every level is manned and equipped to provide 24-hour operations. Additionally, the AOS provides representation to the IFC CP and to the forward CP when the latter is operational.

PLANNING AND PREPARATION

8-23. The theater air army and ground forces have an integrated C^2 structure. This ensures close and continuous coordination in joint operations. The CAO evaluates the situation based on the theater commander's guidance. He then plans the air portion of an operation and recommends the proper employment of air assets. The same process is being performed simultaneously at the OSC-level AOS.

8-24. In addition to the air missions planned at theater level, the theater staff allocates assets to integrate into the subordinate ground commander's plan. To achieve a coordinated operation plan, the theater air army sends personnel and communications equipment to ground force units at battalion level and above. These personnel forward requests for air assets through the chain of command to the theater staff. The theater CAO then screens the

requests and identifies the missions that can be supported by army aviation and those that must be supported with Air Force assets. The allocations are then sent to the theater commander for approval.

8-25. At OSC level, the commander consults his CAO and develops detailed targeting plans for the current fight through the next 48 hours. He also makes rough estimates for 5 subsequent days. Requests are formulated for mission type, not for specific type of aircraft. For example, the OSC does not identify helicopters in its request for DAS. These requests are forwarded to the theater CAO and continually revised until 48 hours prior to execution. Once approved, these become part of the published theater aviation support plan (ASP). There can also be an ASP at OSC level, particularly when the OSC is not subordinate to a theater headquarters.

8-26. Then, the theater or OSC AOS issues the ASP to the executing aviation units. These orders cover targets, numbers of sorties, air approach corridors, communications codes, and mission timing. Air Force representatives at subordinate levels then confirm, for their respective commanders, the allocation of air resources. Normally, the commander holds a percentage of his air power in reserve to meet the unforeseen demands.

8-27. Once the allocation is received by the OSC, the OSC commander may assign specific air support to a subordinate unit or maintain control at his level. The OSC AOS then continues to coordinate the effort until the end of the mission.

MISSION REQUEST TYPES

8-28. The OPFOR recognizes the criticality of providing support to the ground forces. Available air support is assigned missions according to the following categories of requests: preplanned, on-call, and immediate.

Preplanned

8-29. A *preplanned* mission is a mission planned well in advance of its execution, usually 24 hours prior to launch. Such missions are normally planned against static or non-moving targets with known locations.

On-Call

8-30. An *on-call* mission is one in which the target may be predesignated, but the timing of the attack remains at the discretion of the ground force commander. These missions are normally planned to support maneuver forces not yet in contact with the enemy, but expected to make contact once the aircraft are available. The on-call mission is planned the same as preplanned missions, with the exception of the attack's timing. A "window of availability," usually no longer than 4 to 5 hours, is established. The mission can be launched at any time during that window. On-call missions are planned with secondary targets in the event the window of availability expires before the primary target becomes available for attack.

Immediate

8-31. The OPFOR designates a limited number of aircraft to respond only to requests from ground commanders for unplanned *immediate* air support.

A request for immediate air support is forwarded through AOS channels. As with preplanned support, the AOS at each command level participates directly in the evaluation of each air support request.

LEVELS OF COMBAT READINESS

8-32. The OPFOR recognizes three levels of combat readiness for aircraft and crews. (See Figure 8-1.) Aircraft in categories one and two respond to on-call missions.

Category	Crew and Aircraft	Duration of Readiness	Time Before Takeoff
One	Aircraft are fully serviced and armed. Combat crews are briefed on their mission and are in the aircraft ready to start engines. Ground personnel are assisting the combat crews.	1-2 hours	3-5 minutes
Two	Aircraft are fully serviced and armed. Combat crews are briefed and are on standby in the vicinity of the aircraft, ready to take off within a specified short period of time after receiving a mission order.	2-4 hours	15 minutes
Three	Aircraft are refueled and serviced. Cannons are loaded. External systems (bombs, rockets, missiles, fuel tanks, etc.) are not loaded. Combat crews are designated, but not on standby; they have not been briefed on the air and ground situation, but will be before takeoff.	2-4 days	1-2 hours

Figure 8-1. Levels of Combat Readiness

CAPABILITIES

8-33. The priority for organizational strength and equipment modernization depends on the importance of a unit within the overall strategic plan. Modernization, in particular, depends greatly on the economic capability of the State to acquire the latest-generation fixed-wing aircraft and helicopters. As an example, the OPFOR helicopter combat units range from armed lift aircraft employed as gunships to state-of-the-art attack helicopters. The OPFOR continues to modernize units with aircraft having—

- Improved avionics.
- Improved electronic countermeasures (ECM) and electronic counter-countermeasures (ECCM) equipment.
- Increased payload.
- Longer combat radius.
- Increased night capability.

8-34. The OPFOR will continue to modify the employment of its aviation units as the modernization continues. On the lowest level, for example, gunship units are employed almost exclusively during daytime, while modernized attack helicopter battalions can be effectively employed at night.

DIRECT AIR SUPPORT

8-35. Aviation continues to improve nighttime and poor-weather air reconnaissance and ordnance delivery in support of ground maneuver formations. With the heavy emphasis on night combat, the OPFOR recognizes limitations in its ability to maintain continuity of air support at night and in poor weather.

8-36. The OPFOR is making efforts to correct these shortcomings. The all-weather fighters and bombers are capable assets to support ground forces even for night missions. They have the range and payload to attack deep targets. Many modern fixed-wing aircraft and combat helicopters have electronic and infrared instruments that enable pilots to conduct sorties at night and in poor weather at low altitudes. The pilots can search for, detect, and destroy targets.

COUNTERAIR

8-37. The Air Force has the most lethal air intercept aircraft in the region. However, it would be challenged by air forces of a first-class power and would modify its operations when required. The deployment of a wide array of mobile and semi-mobile ground air defense systems has freed some aircraft from air defense missions for ground support roles. (See Chapter 9 for more details on air defense support.)

RECONNAISSANCE

8-38. Aerial reconnaissance includes visual observation, imagery, and signals reconnaissance. Imagery reconnaissance encompasses all types of optical cameras utilizing conventional fixed-frame and strip photography, infrared photography, and television systems; it also includes side-looking airborne radar (SLAR) and synthetic-aperture radar (SAR) capabilities. Airborne signals reconnaissance includes communications and noncommunications emitter intercept and direction finding.

ELECTRONIC WARFARE

8-39. The OPFOR continues to improve its capabilities to conduct EW, including sophisticated jamming equipment. It might deploy equipment on its aircraft to—

- Jam multiple enemy radars.
- Jam only when the target radar reaches a certain intensity.
- Select the correct jamming signal for the specific target radar.

8-40. The OPFOR can jam the enemy air defense network's major surveillance and acquisition radars. It also uses advanced deception jamming techniques. All these capabilities allow OPFOR aviation to provide increased support that combines accuracy in ordnance delivery, greater flexibility in employment, increased survivability, and increased responsiveness to combined arms commanders.

UNMANNED AERIAL VEHICLE

8-41. The OPFOR is currently acquiring unmanned aerial vehicles (UAVs). As technology allows, it will develop doctrine for employing UAVs in the reconnaissance, attack, deception, and resupply roles.

MISSIONS

8-42. Based on the capabilities outlined in the preceding section, the OPFOR conducts a wide variety of missions with its aviation assets. This section describes the typical missions assigned to aviation units.

COUNTERAIR

8-43. If engaged in a regional operations, the Air Force attempts to establish and maintain the desired degree of air dominance. Air superiority is established through a combination of offensive and defensive actions. Preplanned attacks while the enemy's aircraft are on the ground would be an example of offensive air defense missions, while flying intercept missions to engage enemy aircraft firing on air or ground troops is an example of a defensive mission.

8-44. When the State is attacked by a major power, the Air Force will attempt to defend strategic centers and conduct precision attacks early to inflict politically significant damage on invaders. An invasion of the State may dictate an "all-out" effort to control access to the region or harass the early-entry forces before they build up sufficient air and air defense capabilities to dominate the airspace. Alternatively, the OPFOR could save its Air Force assets for a surge effort at a critical point later in the conflict. However, it will not delay use of its air forces until such a surge unless it has means to ensure the survivability of its aircraft on the ground. Survivability means may include underground shelters. The OPFOR also will attempt to conduct missions from more dispersed locations or from a safe haven such as neighboring country.

RECONNASSIANCE

8-45. Aerial reconnaissance is a principal method of gathering target intelligence. The theater and OSC staffs each prepare a reconnaissance plan, which details tasks for Air Force and/or army aviation assets. Theater aviation's reconnaissance forces gather tactical and operational intelligence up to a 300-km radius. They may also be tasked to collect strategic intelligence to support national-level requirements.

8-46. Aircrews on any mission should immediately report observed enemy activity or conspicuous inactivity. Specialized reconnaissance aviation regiments have the primary responsibility for aerial reconnaissance. These regiments have specially-equipped reconnaissance aircraft. Aviation assets also can have airborne signals reconnaissance collectors.

8-47. The processing of data from an air reconnaissance mission can take 2 to 8 hours. To shorten this time, the aircraft transmit perishable target intelligence by radio to ground CPs. OPFOR planners are also modernizing their techniques to shorten the process.

COUNTERRECONNAISSANCE

8-48. The OPFOR knows the significance of having reconnaissance forces on the battlefield to ensure mission success. For this reason, it heavily emphasizes the destruction of the enemy reconnaissance teams and dedicates numerous assets to accomplish this mission. The OPFOR includes either armed or lift helicopters in the counterreconnaissance plan to search for, locate, and report enemy reconnaissance teams. Depending on the plan, the OPFOR may use the armed helicopters, infantry, artillery, or other methods to destroy these teams.

DIRECT AIR SUPPORT

8-49. DAS is a mission to disrupt or destroy enemy forces in proximity to friendly forces. This mission can be accomplished using fixed-wing assets and fire support helicopters. Because these assets are centrally controlled, the missions are formulated at various staff levels and allocated based on assets available and significance of the mission. DAS missions are part of the fire support plan.

INTERDICTION

8-50. Air interdiction is planned and executed to destroy targets that are not in proximity to friendly troops. These missions are planned at the theater or OSC level to support the ground commander's overall plan. Interdiction missions can be conducted in advance of ground maneuver to set the conditions, or simultaneously to force the enemy to fight on different fronts.

HELICOPTERS AS A MANEUVER FORCE

8-51. As an exception to the rule, the OPFOR might employ a highly-trained unit equipped with modern attack helicopters as a maneuver force in the ground commander's scheme of maneuver. In this role, the attack helicopter unit can be used as the fixing, assault, or exploitation force in the offense or as the disruption or counterattack force in the defense. In either offense or defense, it could be a deception force or reserve. Such employment is among the most complex missions conducted by aviation units and requires detailed planning, rehearsals, and execution.

COMBAT SUPPORT AND COMBAT SERVICE SUPPORT MISSIONS

8-52. Lift helicopters can support the ground commander in numerous combat support (CS) and combat service support (CSS) roles. For example, they can—

- Transport ground units conducting heliborne assaults.
- Rapidly move forces on the battlefield.
- Insert reconnaissance teams.
- Conduct emergency resupply missions to isolated units.

The aircraft can also be equipped as a gunship, minelayer, electronic jammer, or C^2 platform.

8-53. The OPFOR has a variety of medium- and heavy-lift helicopters that can provide transport capability throughout the battlefield. These aircraft are lightly armed and are used to move troops, equipment, and supplies in the relatively safe areas. Periodically, these aircraft are tasked to assist in CS

and CSS missions such as large heliborne assaults, combat search and rescue, and forward arming and refueling point (FARP) emplacement.

PRINCIPLES OF EMPLOYMENT

8-54. The OPFOR's use of aviation assets is guided by key employment principles. Because the State has purchased aircraft (both fixed- and rotary-wing) with a wide array of capabilities, some units are equipped with the latest technology, while other units make do with older systems. This requires the OPFOR to modify its operations based on the capabilities of the unit's aircraft, but within these employment principles.

PURPOSE

8-55. Every mission must be focused toward a clearly defined, decisive, and attainable task. It must directly contribute to the higher commander's immediate plan. As an example, a lift helicopter unit is given a mission to insert a reconnaissance team. All planning efforts should be aimed at accomplishing this goal. Actions that do not contribute to achieving this mission must be avoided.

COORDINATION

8-56. The coordination of aviation with artillery, air defense, and maneuver units is one of the most difficult tasks of modern combat, particularly in the absence of air superiority. CAOs are assigned at various levels of command to ensure a coordinate effort among the airspace users. Liaison teams from aviation units also assist in this effort. The aviation commanders and staffs develop detailed plans, working closely with the other members of the combined arms team, not only to ensure the most effective use of all systems employed, but also to prevent fratricide.

CONCENTRATION OF EFFECTS

8-57. The OPFOR does not distribute resources evenly throughout the theater. A commander identifies goals to be achieved with his aviation assets and organizes them accordingly. As an example, commanders can use fixed-wing aviation to concentrate on opening a few corridors through enemy air defenses to attack specific targets. The OPFOR makes every effort to maintain air superiority over these corridors when it cannot do so over the entire theater.

ECONOMY

8-58. If the OPFOR hopes to achieve the principles of concentration and purpose, it cannot use air assets to perform missions that can be adequately executed by other means. The OPFOR must carefully assess the risks and payoff of using the limited assets of aviation for each mission. For example, the OPFOR may employ its artillery fires instead of ground-attack aircraft for targets within artillery range. Additionally, the OPFOR can minimize the risk of all missions through thorough planning and the use of artillery fires to suppress enemy air defense.

RECONNASSIANCE

8-59. Aerial reconnaissance is an important source of information for the OPFOR commander. It can provide timely and accurate information that can

have a significant impact on the outcome of an operation. For this reason, every aviation mission has an implied task to conduct reconnaissance along the route of flight and report any activity or inactivity that may affect the ground commander's plan. However, the execution of this implied mission does not alter the specified mission plan, in keeping with the principle of purpose.

SURPRISE

8-60. To maximize the effects that aviation can bring to the operation, surprise is an essential element of all aviation missions. Means of achieving surprise include—

- Choosing unexpected or concealed axes.
- Attacking at unlikely times.
- Attacking in unanticipated strength.
- Using new weapons or tactics.
- Limiting or eliminating radio and radar emissions.
- Degrading the enemy's early warning radar net.
- Making decoy raids.
- Using camouflage, concealment, cover, and deception (C^3D) on airfields.

RESPONSIVENESS

8-61. The OPFOR aviation assets provide the most agile, flexible, and reactive firepower to the ground commander. Plans to employ aviation assets must capitalize on these traits and provide the commander the responsiveness to be employed in a timely manner across the entire area of responsibility (AOR). An example to illustrate this principle is the attack helicopters used as the reserve force in the operation plan. In addition to attack helicopters, commanders can use lift aircraft with infantry soldiers. By using helicopters to move ground forces, the OPFOR can use a smaller force to cover larger AORs.

DEGREE OF AIRSPACE DOMINANCE

8-62. The OPFOR uses standardized terms to define the degree of airspace dominance of its airspace. This allows planners to best employ assets in the theater to satisfy the requirements to support ground forces.

AIR SUPREMACY

8-63. Air supremacy is defined as the condition when the enemy air force is incapable of effective interference. Through the complete destruction of the enemy air forces, this condition is the ultimate goal of air operations. Yet, this condition may be difficult or even impossible to achieve. It may occur, however, through the establishment of a diplomatic "no-fly zone." Under the condition of air supremacy, the OPFOR commander employs all of his aircraft at will.

AIR SUPERIORITY

8-64. Air superiority is defined as the condition when the conduct of operations is possible at a given time and place without prohibitive interference by the enemy. The most efficient method of attaining air superiority is to attack

early warning and C^2 sites, ground-based air defense sites, and enemy aviation assets close to their source of maintenance and launch facilities.

LOCAL AIR SUPERIORITY

8-65. Even though the OPFOR hopes to attain air superiority, it recognizes the potential for only local air superiority to exist. Purely geographic in nature, this condition is characterized by well-timed aviation missions to coincide with enemy aircraft downtime, returning sorties, aircraft rearming, or gaps in air defense coverage. This condition may also occur in areas across the theater where the OPFOR or the enemy may not have adequate assets available to ensure air superiority. In certain situations or against certain enemies, local air superiority for a specified period of time may be a more realistic goal.

AIR PARITY

8-66. Air parity is defined as the functional equivalency between enemy and friendly air forces in strength and capability to attack and destroy targets. Under the condition of air parity, where neither side has gained superiority, some enemy capabilities affect friendly ground forces at times and places on the battlefield.

STRATEGIC CONTEXT

8-67. OPFOR aviation planners modify the employment of aviation assets (both fixed- and rotary-wing) according to the strategic goals of the State and the degree of airspace dominance attained by the OPFOR. This section examines some of these differences as the OPFOR fights in regional, transition, and adaptive operations.

REGIONAL OPERATIONS

8-68. The OPFOR relies heavily on its aviation assets when planning its strategic campaign against a regional enemy. It does not initiate hostilities unless air superiority can be attained prior to ground combat. Because the OPFOR has a superior aviation force, it is confident that it can attain air superiority quickly against any regional opponent.

8-69. In the initial days of any strategic campaign against a regional opponent, the OPFOR focuses the air campaign on attaining air superiority. Once that is established, aircraft apportionment is gradually shifted to ground attacks while maintaining air superiority. The ultimate goal of the OPFOR is to dedicate minimal aircraft to maintaining air superiority while dedicating maximum assets to ground attacks. Secondary missions include reconnaissance, transportation, logistics support, and insertion of troops.

8-70. Rotary-wing aircraft can fly missions with relative ease with few restrictions during day and night operations while the OPFOR maintains air superiority. The regional opponent's limited air defense assets can be targeted early to improve the survivability of all aviation missions.

TRANSITION OPERATIONS

8-71. With the introduction of superior forces from an extraregional enemy, the OPFOR cannot rely on the continued dominance of the airspace. In response, it shifts its air operations to control the access of the enemy into the

region and slow or alter the enemy's deployment progress by attacking ports, airfields, railheads, and other infrastructure. The OPFOR tries to maintain air superiority as long as possible without losing excessive aircraft to the extraregional forces. During this limited time of marginal airspace dominance, it can use its aviation forces to support the ground forces' transition to adaptive operations by performing security, support, and deception missions. The OPFOR transitions to maintaining local air superiority and even air parity to support the ground transition to adaptive operations.

8-72. Transition operations can also be a shift from adaptive operations to regional operations. In this case, the OPFOR uses its aviation assets to regain air superiority once the air dominance of the extraregional force has diminished. This process may be initiated by establishing and maintaining local air superiority in a given area, followed by establishing air superiority over the entire region.

ADAPTIVE OPERATIONS

8-73. During adaptive operations, the OPFOR has realized that the dominance of the airspace by the extraregional enemy has severely limited the employment of its aviation forces in the conventional manner. The OPFOR is not willing to lose its aviation assets and will find creative means to use its air power during limited windows of opportunity. The primary concern, though, is to preserve combat power in order to remain a dominant force within the region after the extraregional force has departed.

8-74. As the OPFOR transitions to adaptive operations, it relies more on helicopter operations and less on fixed-wing assets for ground attacks. This allows the OPFOR to keep the fixed-wing assets in sanctuaries, while helicopters use flight profiles minimizing the risk against enemy air defense systems. Because helicopters do not require runways, they provide the OPFOR the means to attack quickly from more dispersed locations.

8-75. During adaptive operations, the OPFOR can employ operational shielding to protect its aviation assets. Helicopters will be more dispersed than in regional operations. Fixed-wing assets may be shielded by positioning them in relative safe areas of the region—such as neighboring neutral countries, areas of high civil population, and areas that may cause high collateral damage if attacked.

8-76. The centralized control of aviation assets may be elevated to a higher level during adaptive operations. Because of the high risk associated with flying missions against the extraregional force, theater and OSC commanders may retain the authority to determine what targets are valuable enough to risk aviation assets. This elevation of employment authority also allows for windows of opportunity to be recognized or created in a timely manner using other assets found at these levels.

8-77. In addition to scrutinizing the target selection, the theater or OSC commanders closely analyze the mission planning. During adaptive operations, the OPFOR commander is more likely to plan and execute missions: during periods of limited visibility, within specified ranges, and with minimal numbers of aircraft. The objective of every aviation mission during adaptive operations must support a strategic goal.

Chapter 9

Air Defense Support

The OPFOR system of air defense includes assets and actions at the strategic (national), operational, and tactical levels. The focus in this chapter is on air defense of maneuver forces at the operational level. However, operational-level air defense does not exist in isolation from the overall system of OPFOR air defense. For more information on tactical-level air defense, see FM 7-100.2.

ALL-ARMS AIR DEFENSE

9-1. The main objective of air defense is to prevent enemy air action from interfering with mission accomplishment of the entire force. For the OPFOR, air defense is not just a particular organization or branch of service. It is a mission.

9-2. To do this, the OPFOR uses a combined arms and joint approach, involving not only air defense units, but also other forces such as—

- Aviation.
- Special-purpose forces (SPF).
- Rockets and surface-to-surface missiles (SSMs).
- Artillery and mortars.
- Infantry.
- Engineers.
- Affiliated forces.

These forces are often used in combination or participate separately in attacking targets, which in effect achieves a combined result.

9-3. Against a sophisticated enemy, the OPFOR recognizes that it will have to adapt the operations and tactics employed by air defense units to improve their chances of success. It also views the creative and adaptive use of other arms to accomplish air defense objectives as part and parcel of the overall air defense effort. This practical application of the combined arms concept calls for the simultaneous employment of several arms, in some cases including air defense systems, to achieve an effect against the enemy air threat that will render greater results than the use of air defense assets and systems alone.

9-4. The extent to which the concept of all-arms air defense can be applied is limited only by the commander's and staff's knowledge of the enemy air threat, capabilities of their own systems, and their ability to apply that knowledge to come up with innovative solutions. The air defense-related activities of all arms are part of an overall campaign to defeat or at least degrade enemy air capabilities. The results may produce effects at the strategic, operational, or tactical levels.

GOALS

9-5. Air defense forces and other arms work together to protect ground units and other potential targets from attacks by fixed-wing ground-attack aircraft, cruise missiles, and armed helicopters. They also try to deny aerial reconnaissance platforms, including unmanned aerial vehicles (UAVs). A secondary mission is to protect OPFOR air and airborne or heliborne missions over enemy-held territory. OPFOR air defense focuses on destroying or disrupting the activities of not only enemy aircraft, but also the command and control (C^2) systems associated with enemy air operations.

CONCEPTS

9-6. The OPFOR's concept of air defense is not purely defensive in nature. Destruction of enemy aircraft is not always linked to military objectives. The destruction of high-visibility or unique systems employed by enemy forces offers exponential value in terms of increasing the relative combat power of the OPFOR. However, it also has possibly decisive effects in the information and psychological arenas. Losses among these premier systems demonstrate the vulnerability of even a technologically superior enemy and may undermine enemy morale, degrade operational capability, and inhibit employment of other enemy weapon systems. High-visibility (flagship) systems that could be identified for destruction could include stealth aircraft, attack helicopters, or aerial reconnaissance and surveillance platforms. The OPFOR can also attack high-payoff targets such as high-technology communications nodes and other information systems that support enemy air operations.

9-7. The OPFOR emphasizes that air defense does not necessarily have to destroy aircraft to accomplish the mission, although that is obviously desirable. The mission is accomplished if air defense prevents enemy aircraft from conducting successful air activities. For example, air defense units can force enemy aircraft to break off their attacks or to expend their ordnance inaccurately without having to destroy the aircraft. In fact, the mere presence of active and effective air defense weapon systems can reduce the effectiveness of enemy air activities by forcing aircraft to avoid the systems or otherwise use less than optimum procedures. The OPFOR can also use air defense jammers, GPS jammers, and other electronic warfare (EW) methods to disrupt the enemy's air capability.

9-8. The role of air defense can be to create opportunity for fire and maneuver by clearing or minimizing the air threat in the airspace above friendly forces. This is especially important when the OPFOR lacks the air power or air superiority necessary to create opportunity with air attacks. The OPFOR can concentrate the fires of its air defense assets to create a window of opportunity for a limited-duration and limited-objective offensive action (such as a spoiling attack, counterattack, raid, or ambush). Likewise, air defense can enhance the ability to defend or transition from defense to offense. Air defense can also mass fires to protect the key reconnaissance and fire assets that perform reconnaissance fires.

9-9. Another important OPFOR concept is that air defense is an integral part of combined arms combat. The maneuver unit commander who disregards the enemy air threat or fails to properly plan for defending against it risks mission failure.

9-10. A closely related concept is that air defense weapons, radars, and associated equipment cannot be regarded as single pieces of equipment or even units engaged in combat actions but as parts of an integrated air defense system (IADS). Proper integration of these assets in mission planning and execution is the only way the commander can effectively deal with the enemy air threat.

PRINCIPLES

9-11. In pursuit of these goals and concepts, the OPFOR follows several basic principles when conducting air defense: surprise, firepower, mobility, continuity, initiative, coordination, and security. Of these, the element of surprise is the most critical.

Surprise

9-12. Achieving surprise is fundamental to successful air defense. Surprise can be achieved by—

- Positioning air defense systems in unexpected locations.
- Using other arms for air defense.
- Using camouflage, concealment, cover, and deception (C^3D).

The OPFOR is aware of the potential physical destruction it can achieve by attacking an unsuspecting and unprepared enemy. It is also aware of the psychological effects of violent and unexpected fires on aviation crews. These effects are often only temporary, but at critical moments they can reduce the effectiveness of aircrews preparing to attack.

9-13. The element of surprise is also increasingly important because of modern technological advances. The speed and evasiveness of modern aircraft reduce engagement times. Modern aircraft also have a great amount of firepower with which to suppress air defenses. These two factors make it necessary for units to achieve some degree of surprise. Of course, the air enemy also is trying to achieve surprise, and the OPFOR must consider how enemy aircraft might exploit the terrain in making a concealed approach.

9-14. The principle of surprise is also important in the wider context of denying the enemy's intelligence organization an accurate and comprehensive picture of the deployment of air defense weapons and radars. Otherwise, the enemy also can use air defense formations as a principal means of determining the organization for combat and organization of forces of supported maneuver units.

Firepower

9-15. The OPFOR force structure includes a wide variety of air defense weapons (both missiles and guns). This mix of capabilities gives ground force commanders outstanding firepower for air defense. It is important that air defense planning consider and employ all assets available, across all arms, to achieve maximum firepower.

Mobility

9-16. Air defense assets must have mobility comparable to the ground forces for which they provide cover. When planning air defense, the commander must always consider the mobility of air defense weapons and the time required

for their deployment. The ground forces, for which air defenses provide cover, are quite mobile and frequently change formation as they deploy. The air enemy is mobile and can attack from many directions or altitudes. Therefore, the commander must use to the maximum the mobility and firepower of his assets, creating optimum groupings and fire plans.

Continuity

9-17. Air defense forces must provide continuous protection of critical organizations and assets. Only constantly-moving air defense units that have adequate logistics support can ensure comprehensive air coverage. They must provide air defense day or night in all weather conditions. Mobility contributes directly to continuity.

Initiative

9-18. The modern battlefield is a fluid and volatile environment. Air defense unit commanders must respond to constant changes in the situation with initiative and aggressive action. Units must continue to operate efficiently even when communications with other air defense units fail. For example, if the supported unit receives a modified mission, the air defense commander must reevaluate his own unit's deployment in light of the new requirements. He also must be aware of changes in the tactics that enemy air forces are employing.

Coordination

9-19. The OPFOR stresses coordination between air defense units and supported maneuver units, other air defense units, and units of other arms performing air defense functions. It views air defense as a single, integrated system composed of various parts. Air defense is an integral element of the air and ground battle.

9-20. All tactical-level air defense weapons must coordinate precisely with flanking units, with operational-level air defense units, and with aviation units. Failure to coordinate can result in gaps in the air defense umbrella, excessive ammunition expenditure, and casualties to friendly air forces. To achieve efficient coordination, the OPFOR stresses centralization of control, with operational-level headquarters playing a key role as a land-air interface.

Security

9-21. The OPFOR recognizes that enemy air assets can attack from any quarter. Therefore, it must provide security for units anywhere on the battlefield or in sanctuary areas against air attack from any direction. Air defense must function with unremitting reliability and overall security. This requires careful deployment, uninterrupted ammunition supply, and a comprehensive early-warning system. Commanders must factor security into air defense planning.

COMMAND AND CONTROL

9-22. The OPFOR combines ground-based national-, operational-, and tactical-level air defense assets with fixed-wing aircraft forces to provide an integrated air defense umbrella for ground units. Consequently, effective control of the

airspace becomes more complex. The OPFOR stresses the need for operations conducted with a single integrated plan under unified command and control.

INTEGRATED AIR DEFENSE SYSTEM

9-23. OPFOR air defense weapons and surveillance systems at all levels of command are part of an integrated air defense system (IADS) that presents a threat to any potential enemy. Air defense effectively supports the concept and requirements of combined arms combat. The best way to accomplish this is to integrate a large number and variety of weapons and associated equipment into a redundant air defense system.

9-24. The OPFOR's intent is to integrate air defense assets at all levels of command into a continuous, unbroken umbrella of air defense coverage. Integration can be vertical and/or horizontal. *Vertical integration* is between the strategic, operational, and tactical levels, while *horizontal integration* is within each of those levels.

9-25. The dispersed positions of OPFOR units, as well as enemy actions to suppress OPFOR air defense and C^2 capabilities, may make it difficult to maintain vertical or horizontal integration. Enemy capabilities may present a situation where a vertically integrated system at the strategic or even operational level is neither possible nor desirable.

9-26. An integrated communications system is established to provide target information and early warning to air defense and ground maneuver units. If communications with other air defense units fail, however, commanders may have to use their own initiative and flexibility, in order to respond to frequent changes in the ground or air situation.

National Level

9-27. Against regional opponents, the OPFOR may be able to use an IADS that is centrally directed from the national level. Centralization of control gives the OPFOR flexibility in the employment of resources to meet the overall goal of air defense. The national-level air defense organization can play a major role in the control of air defense assets of operational-level commands.

Sector Level

9-28. Against a modern extraregional force, however, the OPFOR accepts that it may not be able to employ a nationally integrated air defense system to defend its entire airspace. In fact, a vertically integrated system centrally directed from the national level could be a liability from a C^2 standpoint. Thus, the OPFOR is prepared to adapt its air defense operations to use IADS at sector levels. Within sectors, it may be able to challenge the most modern air forces, at least initially. It can prevent extraregional air forces from attaining air supremacy, for a time.

9-29. Air defense sector boundaries do not necessarily parallel geographic boundaries or the boundaries of military areas of responsibility (AORs). It is quite possible that boundaries could coincide, if air defense assets are allocated to provide support for theater- or operational-level commands. In some cases, however, an air defense sector could cover a larger area that includes

the AORs of one or more operational-level commands and could cover air-space not included in any of those AORs. It is possible that the OPFOR could divide a large geographic area into air defense sectors even when it does not establish multiple theater headquarters within that area.

9-30. Sector air defense can reduce the physical and electronic signature of defensive systems. To the extent possible, the OPFOR disperses high-value assets. Still, air defense assets may be close enough together to be hard-wired. Sector IADS enables the OPFOR to mass the effects of air defense assets from dispersed sites to protect the most critical targets. It also facilitates the use of passive air defense techniques including dispersal, deception, and camouflage.

9-31. In choosing to fight within sectors, the OPFOR accepts risk, in that air defense sectors present seams in the defenses and may be unable to provide mutual support. Within sectors, the OPFOR develops air defense ambushes along the most likely air avenues of approach.

Operational and Tactical Level

9-32. In most situations, an operational-strategic command (OSC) directs the employment of the air defense assets of at least its immediate tactical-level subordinates—divisions and division tactical groups (DTGs) or separate brigades or brigade tactical groups (BTGs). Brigades and BTGs that are part of a division or DTG provide coverage for their own units and vertically integrate with division or DTG coverage. When not part of a division or DTG, they vertically integrate with OSC-level coverage, which would be their next-higher level of command. There may be skip-echelon situations when the OSC will specify how divisional maneuver brigades employ their air defense batteries. Normally, however, the division or DTG will dictate that.

9-33. At the tactical level, the commander normally strives to achieve horizontal integration. His ability to integrate or be integrated vertically will depend on the air defense course of action taken at the next-higher level.

CENTRALIZATION VERSUS DECENTRALIZATION

9-34. Air defense control relationships are subject to conflicting pressures for centralization and decentralization. Factors favoring centralized control include the greater efficiency and effectiveness of centralized target detection systems and the increased ranges of modern surface-to-air missiles (SAMs). Centralized control is necessary, especially during defensive operations, to ensure that the coverage of air defense units is mutually supporting and comprehensive. Centralization of control gives the OPFOR flexibility in the employment of air defense resources to meet the overall goal of an operation. In most situations, therefore, an operational-level command directs the employment of the air defense assets of at least its immediate tactical-level subordinates.

9-35. Nevertheless, the complexity and fluidity of the modern battlefield require the possibility of some decentralization. Decentralized control provides flexibility and shorter response times for supporting fast-paced operations by ground maneuver units and the many contingencies that can arise in local situations. The OPFOR expects its air defense commanders, like their maneuver counterparts, to demonstrate aggressive action and originality, responding to changes in the tactical situation and operating effectively when

cut off from communications with other air defense units. In general, the OPFOR imposes enough centralization to optimize efficiency while allowing sufficient decentralization for effectiveness.

AIRSPACE MANAGEMENT

9-36. When the OPFOR Air Force is able to fly, airspace management is the most complex aspect of air defense operations. Commanders must divide the airspace among ground-based air defense systems and aviation.

Staff Responsibility

9-37. A single operational-level commander must control the full scope of combined arms and/or joint activity, including air defense within his AOR. It is the combined arms or joint commander who is ultimately responsible for the success or failure of air defense in his AOR. He approves the overall operation plan prepared by his staff. The operation plan includes the air defense plan and coordinating instructions.

9-38. The OSC is the lowest level of joint command with control of both Army and Air Force units. On the staff of an OSC, under the operations officer, the chief of airspace operations (CAO) is responsible for airspace management issues and procedures. The CAO maintains the airspace control net for controlling the command's airspace. OSC headquarters typically receive liaison teams from all constituent, dedicated, and supporting Air Force, army aviation, and air defense units associated with the command. All these units and their liaison teams are on the airspace control net.

Zones of Responsibility

9-39. The OPFOR establishes zones of responsibility in order to minimize mutual interference between its fighter aircraft and ground-based air defense weapons. Zones of responsibility could also be used to determine areas or altitudes to be covered by national-level Air Defense Forces, as opposed to operational- or tactical-level air defense assets. However, the use of such zones does not preclude engagement of high-priority targets by more than one type of weapon system if there is centralized control of all weapon systems involved.

9-40. The OPFOR may assign zones of responsibility in the vertical dimension. Thus, fighter aviation would engage enemy aircraft at certain altitudes, while ground-based air defense assets would be responsible for engagement at other altitudes. See example A in Figure 9-1.

9-41. In the horizontal dimension, zones of responsibility may be in terms of the direction from which target aircraft are approaching (example B). The OPFOR may also choose to delineate responsibility according to the type of target (example C). For instance, fighter aircraft might engage manned aircraft, while ground-based air defense might be responsible for engaging enemy missiles or UAVs. Sometimes, specific targets are assigned to specific systems. However, the latter is likely only in a very low air threat environment.
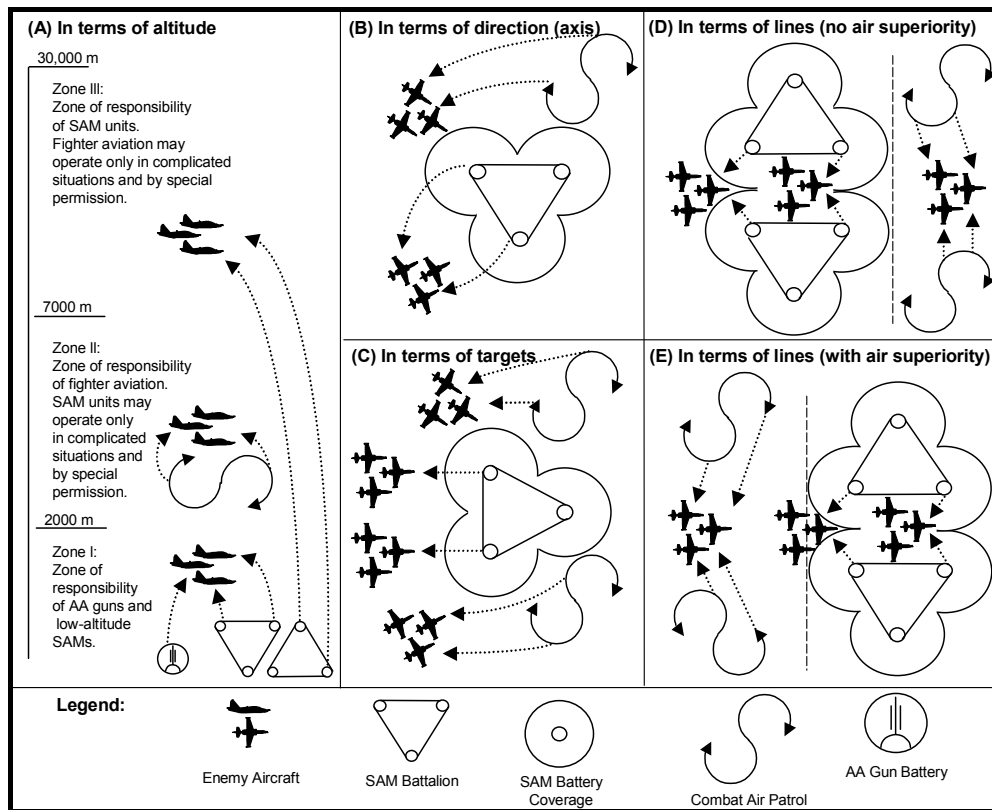
Figure 9-1. Coordination of Fighter Aviation and Ground-Based Air Defenses (Examples)

9-42. Another way of dividing air defense responsibility is in terms of lines. Particularly when the OPFOR does not have air superiority, the first line(s) of air defense responsibility could be for ground-based air defense weapons to engage enemy aircraft. OPFOR fighter aviation would then operate in the relatively safe airspace behind those lines, where its fighters would engage only those aircraft that managed to get through the first line(s). See example D in Figure 9-1.

9-43. If the OPFOR does have air superiority, it might establish a boundary line parallel to and forward of the battle line. This boundary would be generally at the range limit of medium-range SAMs, possibly beyond the supported ground force unit's limit of responsibility. Ground-based air defense systems would engage aircraft out to this boundary. Fixed-wing aircraft would engage the enemy beyond this boundary. See example E in Figure 9-1. However, the OPFOR is unlikely to use this technique unless it possesses air superiority.

9-44. There will never be sufficient specialized air defense assets to protect all units and vital assets from air attack. Therefore, all units must be capable of using their organic weapons for self-defense against air attack. Self-defense is never denied. Thus, air defense units with short-range weapons always have the capability to defend themselves from immediate air threats, regardless of whether another aviation or ground-based air defense unit has responsibility for the airspace above them.

Air Defense Control Measures

9-45. The OPFOR uses various types of air defense weapons control status and procedural controls to coordinate the use of airspace by aviation assets and ground-based air defense. Primarily, it employs a system of identification, friend or foe (IFF) between aircraft and air defense systems. When using non-IFF-capable systems, it may enact strict procedural controls in order to protect friendly aircraft from fratricide. The air defense coverage may be "switched off" to allow friendly aircraft to pass on a mission planned in advance and then "switched on" as they exit the area. For other missions, air defense coverage may allow aircraft to transit only on "safe corridors" based on air routes or other procedural methods. In general, however, the OPFOR would prefer to risk losing some aircraft through fratricide, rather than allowing gaps in its radar and air defense coverage that the enemy might exploit.

COMMAND POSTS AND COMMUNICATIONS

9-46. The CAO and his staff are part of the OSC staff at the main command post (CP). Also located there are Air Force, army aviation, and air defense liaison teams with whom he closely coordinates for airspace management. A deputy CAO and possibly an air defense officer from the liaison team may also be present at the forward CP to advise the OSC commander.

9-47. The basic rule for the establishment of communications between supported and supporting unit is that the higher command allocates landline, radio relay, and mobile communication means, while radio equipment is allocated by both higher and subordinate levels. This ensures proper coordination of communications. If communication is lost, the commanders and staffs of all units involved are responsible for the immediate restoration of communication. An air defense and NBC warning communications net is established to warn maneuver units, the staffs, and logistics units of incoming enemy aircraft. The warning is communicated through signal equipment that is specially allocated for this purpose.

PHASES

9-48. The OPFOR plans to employ its air defense units and all-arms air defense in three phases. The phases are defined by where the enemy aircraft are and what they are doing:

- **Phase I:** Actions against enemy aircraft and control systems on the ground before they are employed.
- **Phase II:** Actions against enemy aircraft while in flight but before they enter the airspace over OPFOR ground maneuver forces.
- **Phase III:** Actions against enemy aircraft that have penetrated into that airspace.

While these phases may occur sequentially after the initiation of hostilities, they are not wholly distinct. They may overlap, and all three may occur simultaneously. The OPFOR roughly equates the three phases with where they will primarily occur on the ground and in the air. Thus, phases I, II, and III occur in the "basing area," "flight area," and "target area," respectively. The purpose of these phases and areas is to assist planners in rationalizing, planning, and organizing the overall air defense effort.

PHASE I

9-49. The first phase includes all actions taken to destroy enemy aircraft and control systems before they are employed. It targets aircraft while they are still on the ground at airfields or in marshalling or staging areas. This "basing area" extends from enemy home territory, to allied basing and staging areas, to and including in-theater enemy support areas down to enemy division level.[1] It is the area in which aircraft are based, refueled, maintained, and resupplied. This area is the overall responsibility of the OPFOR theater commander. A large part of it could be given an OSC. Part of the area assigned could fall within the OSC's disruption zone, which can include enemy airfields and attack helicopter forward arming and refueling points (FARPs).

Planning

9-50. Planning for Phase I begins at the national level, when the General Staff is considering various contingency plans for possible strategic campaigns before the actual threat of war or extraregional intervention. This planning includes any OSCs that might be involved in a particular contingency.

9-51. Each contingency plan developed includes detailed analysis of the area involved, including the identification of key airfields, facilities, and lines of communication (LOCs) that could support enemy air operations. In those areas controlled by the OPFOR, preparations are made to support planned missions. These include the identification of complex terrain in the vicinity of identified targets, potential cache sites, and forces to perform missions.

9-52. Areas not in the direct control of the OPFOR, but anticipated to be included in the contingency, are also analyzed. In this case, in addition to all the factors mentioned above, planners would also examine potential means and routes of infiltration and potential sources of supply. They would also try to identify potential "affiliated" forces that could assist in attacking key targets: insurgent groups, groups with ethnic ties to the OPFOR, groups that sympathize with the OPFOR for political reasons, individual sympathizers, terrorist groups, and even criminal organizations.

9-53. Based on this information, planners identify key targets and missions and task OPFOR units and/or affiliated forces to be prepared to perform them. This information is shared with the OSCs assigned to the particular contingency, and the planning effort is coordinated with them.

9-54. What is developed is an integrated plan consisting of a large number of tactical actions that support air defense objectives at all levels. This is the basic plan from which the OPFOR operates at the initiation of hostilities. It is modified and updated and new missions are assigned as the contingency situation develops.

9-55. Plans are developed which, taken as a whole, may constitute a battle or operation within the designated area. This is particularly true in the basing area, since most of the forces operating there will be small units. Their actions are timed to occur simultaneously or sequentially to achieve a result over time. For example, a series of actions against an airfield, set to occur

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[1] For U.S. forces other than aviators, this phase may present the greatest threat.

within certain timeframes, can have the net effect of not only destroying aircraft and their support facilities but also degrading enemy air operations. An additional payoff is the possible diversion of enemy forces from other areas to secure the facility.

Participants

9-56. Attacks on airfields and related facilities feature coordinated operations by all available forces, and they are *primarily not air defense units*. Aviation, SSMs, artillery, or SPF can destroy air C^2 facilities, aviation support facilities, and the enemy's aircraft while they are still on the ground. When the enemy is operating from bases in or near State territory, the destruction or degradation of these systems may be achieved through the use of raids and ambushes by regular ground forces, insurgents, or partisans.

9-57. **Disruption Forces.** Typical targets for attack by all forces in the disruption zone include enemy airfields and attack helicopter FARPs. The forces employed for such attacks consist almost exclusively of small units.

9-58. When the OPFOR is forced to withdraw from an area, this may become a basing area for the enemy. In such cases, the OPFOR may leave behind a multiple rocket launcher (MRL) in a hide position. In other cases, it can infiltrate a single-round rocket launcher or single mortars to occupy hide positions near the target. The hides are situated in complex terrain, highly camouflaged, and dispersed over a wide area. Once given the order to execute, the firing systems work on a predetermined firing schedule issued as part of an overall plan.

9-59. MRL system hides might contain only one system, which is loaded and ready to fire, with previously determined firing data set on the weapon. Crews manning the systems bivouac away from the system to keep it cold. Crews have communication capability but are kept on radio silence. When monitoring and acknowledging one-time orders to execute, they do so away from the system. Once given the order to execute, the firing systems work on a predetermined firing schedule issued as part of an overall plan. Each MRL may be assigned the mission of firing once. Firing occurs in a predetermined sequence separated by time. The net effect of this tactic is to destroy or damage facilities and/or aircraft on the ground and degrade the operating capability of support personnel. Munitions loads can be mixed dependent on the desired effect. They can include scatterable mines, delayed-fuzed munitions, high-explosive (HE), and chemical.

9-60. This effort can be enhanced through the employment of single mortars and/or single-round rocket launchers. The weapon crews operating from pre-selected hides can move to firing positions where rounds are cached. Once laid in, the mortars can fire rounds in rapid succession at targets on the airfield and then move back to hides. Given range and terrain considerations, larger-caliber mortars (120-mm) can be used in conjunction with laser target designators to place rounds on point targets such as large aircraft, fuel storage and ammunition facilities, and hangers.

9-61. Small SPF teams equipped with explosives or man-portable antitank guided missiles (ATGMs) can target aircraft on the ground, or air traffic control or maintenance vehicles and facilities. SPF teams with shoulder-fired

SAMs can engage enemy aircraft taking off or landing at airfields. OPFOR SPF or affiliated insurgents or terrorists can conduct raids against enemy air bases and other installations, using terror tactics to destroy enemy systems and generate fear. The goal is to present the enemy with a nonlinear, simultaneous battlefield. Attacking such targets not only denies the enemy sanctuary, but also can weaken his national will to continue the conflict.

9-62. Infiltrated or stay-behind SPF and infantry can conduct on-call raids against airfields and ground support facilities. These raids can be timed in conjunction with other methods so that they assist in keeping the target under constant pressure. SPF or infantry can also conduct ambushes along LOCs to destroy certain types of vehicles or equipment related to air operations.

9-63. **National- and Operational-Level Assets.** Some of the means available to attack these targets may be national- and operational-level assets. Since the OPFOR may be unable to reach such targets with its own Air Force aircraft, it may use long-range artillery, rockets, or missiles—possibly to deliver persistent chemical attacks or other weapons of mass destruction (WMD)—to disrupt or degrade enemy activities in the basing area.

9-64. **Affiliated Forces.** In each contingency area, OPFOR planners try to identify insurgents, sympathizers, terrorist groups, and even criminal organizations that might participate in Phase I. Some of these affiliated forces can conduct raids or ambushes and any of them can employ terror tactics to disrupt enemy operations at bases. They can also intimidate host country civilian contractors to force them to sabotage the enemy operations they were hired to support.

PHASE II

9-65. The second phase of air defense aims at destroying enemy aircraft while in flight and before they enter the airspace over OPFOR ground maneuver forces. The "flight area" overlaps the basing area and extends from enemy bases to the battle zones of OPFOR units. Thus, the OPFOR's disruption zone(s) are included in this area, since one of the missions performed in this zone is to destroy aerial platforms before they get to the battle zone. The OPFOR often plans air defense ambushes in the flight area.

Planning

9-66. As with Phase I, planning for Phase II occurs primarily at the national and operational levels. This planning includes any OSCs whose AORs fall in the "flight area." Although tactical units in the disruption zone can carry out air defense-related actions, these actions are part of a larger plan.

Participants

9-67. In Phase II, OPFOR SPF teams can infiltrate man-portable, shoulder-fired SAMs close to airfields or along identified and potential flight routes in the flight area. These teams are best employed in pairs. One team can overwatch an airfield and transmit information on the departure of aircraft and their direction of flight to another team with SAMs. Alternatively, the SPF observers could pass this information as early warning to other air defense units.

9-68. After that, the Phase II mission is performed primarily by air defense forces at the strategic and operational levels. Interceptor aircraft and long- and medium-range SAMs conduct this phase of the air defense.

9-69. When the enemy aircraft enter an OPFOR disruption zone, shorter-range operational- and tactical-level air defense systems can engage them. Such systems often conduct air defense ambushes from positions within the disruption zone.

PHASE III

9-70. The third phase entails the destruction of enemy aircraft that have penetrated into the airspace over OPFOR ground maneuver forces. Thus, the "target area" consists of the area where enemy aircraft have penetrated over the OPFOR disruption, battle, and support zones. The disruption zone is included here, since part of the air defense mission in it is to protect forces on the ground within that zone.

9-71. In Phase III, it is not always necessary to destroy the enemy aircraft. After all, the objective is to deny enemy aviation the ability to interfere with OPFOR ground maneuver units. The OPFOR can accomplish this either by destroying enemy aircraft or by forcing them to expend their munitions beyond effective range or by diverting the aircraft before they reach their targets.

Planning

9-72. Planning for Phase III extends down to the tactical level. However, tactical efforts are typically part of a plan for integrated air defense at the operational and perhaps the national level.

Participants

9-73. In Phase III, the OPFOR may be able to employ its own tactical fighter aircraft, operating in the relatively safe airspace of the "target area." These fighters and fighter-interceptors can engage enemy aircraft that have "leaked through" ground-based air defenses. However, the bulk of the air defense effort in Phase III falls upon short- to medium-range SAMs and antiaircraft (AA) guns of tactical air defense units, complemented by operational- and national-level air defense assets and other weapons of the ground maneuver units.

9-74. In the "target area," the OPFOR is particularly concerned about attack helicopters using standoff firing techniques. It is critical to identify likely firing positions for these helicopters through terrain analysis. These sites will be located primarily in the disruption zone. The planned combined use of antihelicopter mines, artillery, and remote sensors by OSCs and their constituent organizations can be an effective tactic against attack helicopters.

9-75. Once identified, potential sites for attack helicopter firing positions can be seeded with antihelicopter mines. These are directional fragmentation mines that function like a Claymore mine, but are larger. Once emplaced, the mines can be left unattended. Built-in sensors detect approaching helicopters and initiate the mine when a helicopter enters the lethal zone. Thus, the antihelicopter mine systems can autonomously detect and engage enemy helicopters. This technique can be used at some potential sites to economize other air defense assets for use at the most likely sites.

9-76. Another method is to emplace remote sensors to overwatch the sites, and have the sites registered as preplanned artillery targets. Once the sensors pick up the incoming helicopters, the information is relayed to artillery units that take the sites under fire using variable-time-fuzed munitions. This tactic can either destroy or damage the aircraft or cause the area to be unusable. In lieu of remote sensors, small teams of SPF or affiliated forces can be positioned to overwatch the most likely sites and relay information back to the guns.

9-77. Another crude but potentially effective method is to have engineers string cables across the helicopters' avenues of ingress. Engineers can also assist in the construction of deception positions to divert enemy air attack from actual forces or to lure the enemy into air defense ambushes.

ASSETS

9-78. In the OPFOR's approach to all-arms air defense, various services of the Armed Forces and various branches within the services participate in the mission of air defense. However, there are some forces that specialize in air defense.

9-79. Both the Air Force and the Army maintain air defense forces. In peacetime, all these air defense assets belong to the OPFOR's administrative force structure. Even in wartime, some of them—such as the national-level Air Defense Forces—may remain centrally controlled at the national or theater level. Other assets from the administrative force structure are initially allocated to OSCs. An OSC, in turn, may allocate some of its air defense assets to augment those of its tactical subordinates. Thus, it is hard to predict where national-, operational-, and tactical-level assets may actually appear in the wartime, fighting force structure.

9-80. Within the limits of its economic capabilities, the OPFOR has incorporated recent technological developments into its air defense weapons. It may invest in a few high-technology systems that provide it a technological niche that it can exploit against even the most modern enemy air forces. Deployment of advanced air defense systems, even in limited numbers, would affect all enemy air operations.

NATIONAL-LEVEL ASSETS

9-81. National-level air defense forces focus their efforts on destroying enemy aircraft, while protecting critical defensive positions and key political and economic sites. National-level assets include fighter-interceptor aircraft of the Air Force. Against a regional opponent, the OPFOR can use these aircraft to prevent enemy aircraft from entering or operating in OPFOR airspace. It can destroy enemy aircraft before they even take off by using air attacks and the long-range rockets and missiles of the Strategic Forces or direct action teams from its SPF Command.

9-82. The Air Force also includes Air Defense Forces with which the OPFOR can successfully defend its airspace against regional opponents. These national-level assets, along with operational-level air defenses, also provide the capability to challenge or deny air access into the region by outside forces, at least initially.

9-83. The State's national-level Air Defense Forces have medium- and long-range SAMs, some short-range AA guns, and early warning radar units. These forces reflect the State's force development philosophy. They combine obsolescent and state-of-the-art air defense firing units to support area coverage and point protection of high-value assets. The State is investing in point-protection technology that it believes can prove effective in defending against cruise missiles. This capability would include the ability to deploy and use GPS jammers.

OPERATIONAL-LEVEL ASSETS

9-84. The Army recognizes the importance of preventing or at least delaying enemy air superiority. Therefore, it maintains its own operational- and tactical-level air defense forces in addition to those subordinate to the Air Force. Army air defense includes mobile air defense units and large numbers of shoulder-fired SAMs. However, air defense involves use of all arms of the ground forces, not just the specialized air defense units.

9-85. The inventory of operational-level air defense weapons includes a variety of missiles, guns, and support equipment. The numbers and types of air defense assets vary with the size and composition of the OSC. An OSC may have some air defense assets that it reserves for coverage of its own operational support zone and for engaging enemy aircraft that get past tactical air defenses. It also has assets it can allocate to subordinates to augment tactical air defenses at critical points on the battlefield or to cover gaps in the air defense umbrella.

Surface-to-Air Missiles

9-86. Operational-level air defense systems include medium-range SAMs (and perhaps some long-range SAMs) for medium- to high-altitude area coverage. Some SAMs have the capability to engage ballistic or cruise missiles, as well as aircraft. Medium-range SAM units typically have some AA guns or shoulder-fired SAMs for self-protection.

Antiaircraft Guns

9-87. Operational-level commands may have some short-range AA guns for point protection. The AA guns found at the operational level are typically towed systems that lack the mobility of self-propelled SAM systems and cannot fire on the move. These AA gun units are capable of only a limited area coverage and are better suited for short-range, point protection of individual locations. Within their range capabilities, however, these AA guns are extremely lethal weapons.

Radars

9-88. OSCs normally have early warning units with a variety of air surveillance and target acquisition radars, plus some AA guns or shoulder-fired SAMs for self-protection. The majority of air defense surveillance radars are at the operational level. (See the Air Surveillance section later in this chapter for more detail.)

TACTICAL-LEVEL ASSETS

9-89. Aside from air defense assets that might be allocated down from the operational level, tactical maneuver units have a number of systems designed for air defense. They also have systems belonging to other arms that can contribute to the air defense mission.

Air Defense Systems

9-90. Tactical-level air defense includes short- and medium-range SAMs, short-range AA guns, and shoulder-fired SAMs. Tactical assets may also include some combination AA gun and missile systems, offering added flexibility. The OPFOR's tactical air defenses support the need to protect ground forces and the desire to seize any opportunity to shoot down high-visibility (flagship) enemy airframes.

9-91. The Army considers every soldier with a shoulder-fired SAM to be an air defense firing unit. These weapons are readily available at a relatively low cost. Therefore, the OPFOR is acquiring as many of them as possible, within economic constraints, and issuing them in large numbers to a wide variety of units. The small size and easy portability of these systems provides the opportunity for ambush of enemy airframes operating in any area near OPFOR units. The OPFOR could also employ them to set ambushes for enemy helicopters in an attempt to bring down what it perceives to be an enemy flagship system.

9-92. Radar-controlled self-propelled AA guns can fire on the move. Aside from short-range air defense, they also can be employed against all but the heaviest of enemy ground force systems, as well as against personnel, with devastating effects. Shoulder-fired SAMs can also find use against light vehicles when other, more likely systems are unavailable.

Other Arms

9-93. Throughout maneuver units, there are also a number of other systems that can be used in an air defense role. The heavy AA machineguns on tanks are specifically designed for air defense, although they can also be used against ground targets. Machineguns on APCs and automatic cannon on IFVs can engage both ground and air targets. Some ATGMs can be effective against low-flying rotary-wing aircraft. Field artillery and small arms can also be integral parts of the air defense scheme.

9-94. A variety of relatively new systems, which significantly enhance air defense capabilities, have entered the OPFOR inventory. These include remote helicopter infrared (IR) sensing devices and passive acoustic acquisition systems. Antihelicopter mines are widely available and increase the OPFOR ability to deny firing positions and landing sites to enemy rotary-wing aircraft. Another example of OPFOR all-arms air defense is the use of artillery in conjunction with antihelicopter mines against attack helicopter firing positions.

9-95. The OPFOR continuously looks for new and adaptive ways of employing not only air defense systems but also systems not traditionally associated with air defense. It attempts to adapt these systems and develop new tactics

that may help to fill the void when a more sophisticated enemy denies the OPFOR a specific capability.

NONLETHAL AIR DEFENSE ASSETS

9-96. The OPFOR also uses nonlethal air defense-related systems, such as air defense jammers, radar corner reflectors, and GPS jammers. Such systems are potential combat multipliers, when employed in conjunction with SAM and AA gun systems, to defend high-value assets.

Air Defense Jammers

9-97. OSCs can have air defense jamming units. These units employ a variety of radar and communications jamming and target acquisition systems. Electronic intercept systems provide targeting information to the jammers.

9-98. Air defense jammers target the onboard emitters of enemy aircraft used for terrain-following, navigation, and radar-aided bombing, as well as airborne radar reconnaissance systems. The goal of jamming these systems is twofold. The primary goal is to force the attacking enemy aircraft to alter their flight profile, bringing them into the targeting umbrella of SAMs or AA guns. Jamming the terrain-following radars or radar altimeters employed by attacking aircraft does this by forcing low-flying aircraft to gain altitude. The secondary goal is to cause the aircraft to miss their target or abort the mission through the disruption of radar-aided bombing and target acquisition systems.

9-99. The OPFOR deploys air defense jamming assets, in conjunction with lethal systems, to defend what the OPFOR has identified as high-value assets. Examples of these include air bases, major logistics centers, critical LOCs and choke points, and higher-level military CPs.

Corner Reflectors

9-100. Radar corner reflectors provide a low-cost and effective addition to expensive air defense jammers. These passive systems can deceive enemy airborne surveillance and target acquisition radars by providing false or multiple targets. Corner reflectors can also mask or distort radar reference points.

GPS Jammers

9-101. The OPFOR also can employ low-cost GPS jammers to disrupt aircraft navigation and precision munitions targeting. GPS jammers are also effective against cruise missiles.

PASSIVE AIR DEFENSE MEASURES

9-102. In addition to active air defense, the OPFOR practices a variety of passive air defense measures. Many of these measures involve use of C^3D or maneuver and dispersal techniques. Sophisticated camouflage, deception, decoy, or mockup systems can degrade the effects of enemy systems. When conducting actions against a superior foe, the OPFOR must seek to operate on the margins of enemy technology and maneuver during periods of reduced exposure. These and other measures constitute passive air defense.

Camouflage, Concealment, Cover, and Deception

9-103. The OPFOR emphasizes the use of natural terrain and vegetation, camouflage netting and other artificial materials, smokescreens, and decoy equipment to provide C^{3}D. Deception includes deception positions and decoys. The OPFOR can use quick-setup, high-fidelity decoys; derelict vehicles; radar emitter decoys; quick-hardening foams; and many other types of manufactured and field-expedient means. It also employs simple heat sources to confuse IR sensors and weapons seekers.

9-104. The dispersion measures discussed below should be employed with consideration of the protective and screening properties of natural and artificial screens, and would be combined with thermal camouflage and engineer preparation of positions. Natural screens consist of vegetation, terrain folds, populated areas, and local features or objects. Artificial screens include camouflage nets that would enhance natural screens, and radar-opaque screens using local features, radar nets, metallic nets, and corner reflectors. Concealment would be combined with the use of deception positions, using decoy equipment and activities. Like real positions, deception positions would be changed periodically. Dummy emitters and jammers would be used to attract enemy reconnaissance and targeting.

Maneuver and Dispersal

9-105. Maneuver and dispersal of air defense assets, both emitters and other types of equipment, is important for their survival both during movement and in combat formations. Sudden maneuver and periodic changes of position are simple and effective means to counter enemy reconnaissance and precision weapons; these measures are planned and implemented at the tactical level.

9-106. All, or only a portion of, an air defense unit may maneuver to alternate positions, depending on such factors as the degree of air threat, time of day, and meteorological conditions. The first parts of the unit to shift positions are those that have performed combat alert duty for an extended period, or that have been deployed in the position they currently occupy since before the onset of combat. The optimum configuration for shifting to alternate positions involves no more than one-third of the assets of a given unit shifting at one time, in order to maintain adequate air defense coverage.

9-107. The OPFOR uses certain rules of thumb for distances related to dispersion and distances of air defense units from supported units and from the battle line. The OPFOR recognizes that these distances vary with the situation and the threat. Of special concern is the enemy ATGM and precision weapon capability. If it is high, the OPFOR increases the spacing between SAM launchers and the distances of air defense systems from the battle line. Ideally, the degree of dispersal for units would be the same whether the enemy is employing conventional or precision weapons or even tactical nuclear weapons. A general rule for the degree of dispersion is that the enemy attack should not destroy two adjacent units simultaneously. A maximum of one-third of a unit should be vulnerable to a single precision weapon attack.

Other Survivability Measures

9-108. Other measures taken to improve the security and survivability of air defense systems include the following:

- **Signals security.** SAM and AA gun system radars, which move forward to cover the offensive or defensive action of a maneuver unit, remain silent until after the maneuver unit begins to execute its mission.
- **Frequency spread.** Each of the air defense systems operates within separate radar frequency bands. (No one jamming system could operate simultaneously against all bands.)
- **Frequency diversity.** Tracking and guidance radars change frequencies to overcome jamming.
- **Multiple and interchangeable missile guidance systems.** Some OPFOR systems work on pulsed radar; others work on continuous waves. Some radar tracking systems also possess optical tracking for continued operations in a high electronic countermeasures environment; others systems use IR homing.
- **Mobility.** All OPFOR tactical air defense systems and most operational-level systems are mobile. They can quickly change positions after firing or after enemy reconnaissance units detect them.

RECONNAISSANCE

9-109. Reconnaissance related to air defense takes two basic forms. First, commanders conduct terrain reconnaissance to determine likely avenues of approach for enemy aircraft and optimum positions for air defense weapons. Then air surveillance seeks to detect approaching aircraft and provide early warning and target information.

TERRAIN RECONNAISSANCE

9-110. The OPFOR places significant emphasis on identifying all potential attack routes for low-flying enemy aircraft of all types. Routes of approach suitable for armed helicopters and positions from which these helicopters might employ ATGMs are of special concern. The OPFOR considers armed helicopters to be a serious threat to its ground maneuver units. The OPFOR trains commanders to look for areas masked by trees or folds in the terrain where enemy aircraft might use nap-of-the-earth (NOE) flight techniques to avoid radar detection.

9-111. Both the commander of the supported maneuver unit and the commander of the supporting air defense unit usually conduct terrain reconnaissance. A preliminary map reconnaissance can tentatively identify positions for deployment of air defense weapons in defensive areas, along movement routes, or in areas seized by advancing OPFOR units.

AIR SURVEILLANCE

9-112. The principle objective of air surveillance is to provide the earliest possible warning of approaching enemy aircraft and to develop target information for planning and conducting air defense. Forearmed with this information, the OPFOR can ensure that it can mass the fires of dispersed air defense units to engage the intruders. Ground-based and airborne reconnaissance assets

at the operational level play a major role in gathering, integrating, and disseminating information to tactical units. Continuous surveillance of surrounding airspace ensures current data on the enemy air situation.

9-113. The OPFOR uses electronic and electro-optical means and visual observation to conduct air surveillance. The air defense forces have a passive early warning system based on a combination of radar systems and observers that will serve them well in the early stages of combat operations against even the most modern opponents. In later stages, the OPFOR accepts that it will either lose many of its airborne and/or ground-based early warning systems or at least not be able to use them with optimum effectiveness. When technical early warning systems are not available, the OPFOR is prepared to continue air defense operations while relying primarily on observers for air surveillance.

Radars

9-114. Air defense radars fall into two general categories: surveillance and fire control. The category of surveillance radars includes early warning, target-acquisition, and height-finding radars. Some fire control radars also have limited target-acquisition capability.

9-115. National-, operational-, and tactical-level surveillance and target-acquisition radars detect and monitor targets. The radars then provide the necessary data for engagement. Radars work as part of the IADS rather than as separate units. Air defense planners at all levels integrate radars into an overall system of coverage.

9-116. Operational-level early warning units deploy their radars as close as possible to the supported ground force unit's battle line, in order to detect enemy aircraft at maximum radar range. National-level early warning units can establish a second line of radar posts behind the first line of operational-level systems, in order to give depth. The types and capabilities of the systems employed and whether the battlefield is linear or nonlinear will determine the distances between lines.

9-117. Both national- and operational-level air defense forces maintain reserves to expand coverage as the operation develops, to replace casualties, or to establish a new line of radar posts. When the OPFOR is preparing for offensive operations, operational-level early warning radars remain inactive as part of C^3D, and the national-level reserve radars deploy forward.

9-118. In many cases, long-range surveillance radars in early warning units at the national and operational levels can gather target information long before the enemy aircraft come into the range of air defense firing units. These radar units pass preliminary target data to air defense commanders and their firing batteries. Commanders then select the weapon system that can best engage a given target. The early warning units also pass warning information to operational and tactical maneuver units and air defense firing units.

9-119. SAM systems and AA guns may have their own radars in the firing positions or mounted on self-propelled systems. However, higher-level radars can gather the information without unnecessarily exposing the air defense firing units to detection and subsequent neutralization by enemy forces. This practice reduces the vulnerability of battery radars and radar-equipped gun

carriages and missile launchers to jamming or to destruction by antiradiation missiles (ARMs) or other means.

9-120. The air surveillance radar network is difficult to avoid or defeat. Many air defense radars are highly mobile and can displace quickly. Fire control units turn on radars at the last minute to achieve surprise and to avoid exposing themselves to enemy electronic or physical attack. The more advanced radar systems have enhanced electronic protection from jamming and ARMs. The wide spread of operating frequencies makes jamming difficult. Operator training stresses electronic counter-countermeasure skills and the use of radio and electronic silence where possible. Units back up radar reconnaissance with visual observation. Maneuver units have a radio net devoted exclusively to the passage of air and NBC warnings. Radar provides an all-weather detection capability.

Visual Observation

9-121. Despite the presence of a technologically advanced early warning system, the OPFOR continues to stress the importance of visual observation. Air defense and maneuver units deploy air observers as a backup to radars and so air defense units may not need to use their radars. In later stages of combat against more modern opponents, the OPFOR may have to rely heavily on observers after losing much of its radar capability.

9-122. An effective system of visual observation may often provide the first warning of an enemy air attack, especially one conducted by low-flying aircraft or armed helicopters using NOE techniques. When operating close to enemy forces or in areas where enemy air attack is considered likely, all units post air observers. In the defense, air observation posts are set up at suitable locations, usually on terrain offering good visibility, near CPs, and/or close to air defense units in firing positions. During tactical movement and during both the defense and offense, observers are posted on each vehicle. Observers are changed frequently to reduce fatigue and maintain their effectiveness.

9-123. Whenever possible, the OPFOR tries to get SPF teams, human intelligence (HUMINT) agents, or sympathetic civilians to visually observe enemy airfields in or near the region. These observers report by radio or telephone the number and types of aircraft taking off and their direction of travel. Other observers stationed along probable approach routes can monitor and report the progress of the enemy aircraft en route to their targets. Thus, OPFOR air defense units may not need to use their radars to detect and track incoming aircraft.

REQUIREMENTS

9-124. The information required by air defense units falls into two categories: information on enemy air actions and information that can complete the picture of the overall air situation. The first category is a joint responsibility of all reconnaissance forces, and the second is the specific responsibility of air defense reconnaissance units.

9-125. The first category includes data from which the OPFOR can determine probable enemy air actions. This information is critical for planning and organizing the air defense system. Such information could include—
- The composition and strength of enemy air power.

- The capabilities of enemy aircraft.
- The enemy's basic methods for operational and tactical employment of air power.
- The locations of enemy airfields, C² centers, resupply bases, and production facilities.
- Avenues of low-level flight.
- Locations of FARPs.
- Locations of ground stations for UAVs.

9-126. The second category includes data from which the OPFOR can develop a clear picture of the air situation as it unfolds. This information is necessary to determine the enemy's plans, air order of battle, and air attack objectives. The OPFOR can then assign targets to fire units or redeploy resources. Necessary data also include the positions, types, numbers, direction, speed, and altitude of aircraft in flight. Radio intercept provides some data, but most comes from air defense radars.

MISSIONS AND EMPLOYMENT

9-127. Whatever the nature of combat being conducted by maneuver forces—offense or defense—, most actions of supporting air defense units are, as the term implies, inherently defensive. The essence of an air defense unit's combat mission is to provide area coverage and/or point protection. However, air defense missions can also have an offensive nature, with the purpose of destroying certain enemy air platforms or denying or disrupting their employment.

9-128. The OPFOR recognizes that it may be unable to defend its entire airspace adequately. Therefore, it must establish priorities to ensure denser coverage in certain areas or increased protection for key assets. Priorities include airfields, SSMs, artillery, maneuver units, headquarters and communications centers, and critical logistics units and LOCs. The priority assigned to a particular area, entity, or site may change during the course of operations, as the tactical, operational, or strategic situation changes.

NATIONAL-LEVEL

9-129. National-level Air Defense Forces use their own air defense weapons for various missions, depending on the situation. Some of these assets might cover the air defense weapons of subordinate commands. Others might fill gaps between operational-level commands. They usually are somewhere to the rear of operational-level air defense weapons in order to engage aircraft that penetrate forward air defenses. Some national assets might provide general air defense coverage of the State and nearby airspace. In any event, the intent is for Air Defense Forces to ensure continuous coverage in both detection and engagement capabilities.

OPERATIONAL-LEVEL

9-130. Operational-level commands (primarily OSCs) can use their air defense units in many ways. Some medium-range SAM units may augment tactical-level assets. Others provide cover for gaps between tactical units or

provide general area coverage of the OSC's entire AOR. This area coverage gives depth to the defensive effort and overlaps with envelopes of tactical units. Where possible, this SAM coverage overlaps the envelopes of adjacent operational-level commands.

9-131. The medium-range SAM units engage enemy aircraft at some distance from tactical maneuver units and other high-value assets within the OSC's AOR. These SAMs and shorter-range AA guns also protect key targets such as operational-level CPs, tactical ballistic missiles (TBMs), long-range rockets and artillery, and reserves.

TACTICAL-LEVEL

9-132. In the best-case situation, a division or DTG will have sufficient air defense assets to provide area coverage over its AOR, including the AORs of subordinate units. At brigade or BTG level, there is a significant element of point protection in support of subordinate units and brigade- or BTG-level assets. This is due to the nature of the units defended and the relatively short range of air defense weapons at this level.

9-133. Tactical-level short- and medium-range SAMs provide area coverage for the entire tactical-level unit, overlapping with the envelopes of flanking units. Short-range AA guns and shoulder-fired SAMs can provide point protection.

AIR DEFENSE UMBRELLA

9-134. Air defense assets from national down through tactical level create an air defense umbrella. Radars can provide an unbroken detection envelope extending well into enemy territory and across the entire AOR. If OPFOR fighter-interceptors are able to operate farther out against enemy aircraft in the "flight area," national-level long- and medium-range SAMs might be the first to engage enemy aircraft that slip past fighters. When OPFOR fighters must operate in "friendly" OPFOR airspace, the national-level SAMs probably would be the first air defense assets to engage the enemy aircraft. The next layer of defense is operational-level medium-range SAMs. The final layer in the battle zone would consist of tactical-level SAMs and AA guns. If enemy aircraft escape air defenses in the battle zone, they may still encounter operational- or national-level air defense systems protecting key assets in the support zone. This deployment scheme causes enemy aircraft to run into overlapping defensive systems as they approach and penetrate the airspace over OPFOR units.

9-135. There is no set pattern for the deployment of air defense assets. A basic and flexible guideline is that, depending on their functions and weapon capabilities, air defense units occupy positions at a distance from the battle line that ensures the accomplishment of their mission and provides relative safety from enemy fire. For area coverage, this generally means that weapons at the operational level and below deploy rearward from the supported unit's battle line at from one-third to one-half of their engagement range. However, the OPFOR recognizes that "rules of thumb" are just that, and the operational or tactical situation and common sense may dictate that these distances be modified. Actual deployment depends primarily on the supported unit's mission, terrain, and the ground and air situations at a given time and place in the operation. Sometimes, air defense systems can be much closer to the

battle line, realizing that such placement increases their vulnerability to enemy direct fire systems. When necessary, tactical- or even operational-level air defense systems may deploy beyond the battle line, out into the disruption zone.

9-136. As OPFOR units maneuver, the air defense umbrella also moves when necessary, in order to prevent maneuver units from becoming exposed to enemy ground-attack aircraft and armed helicopters. In a fluid, fast-developing situation, textbook efficiency may not be possible. While the OPFOR strives to maintain continuous area coverage, temporary gaps might appear in the air defense umbrella, both in surveillance and in weapons coverage. Commanders must be flexible and prepared to use standard and nonstandard solutions to prevent gaps in air defense coverage from developing during combat. The objective is to deny enemy aviation the ability to interfere with ground maneuver units. Air defense forces can accomplish this either by destroying enemy aircraft, by forcing them expend their munitions beyond effective range, or by diverting the aircraft before reaching their targets.
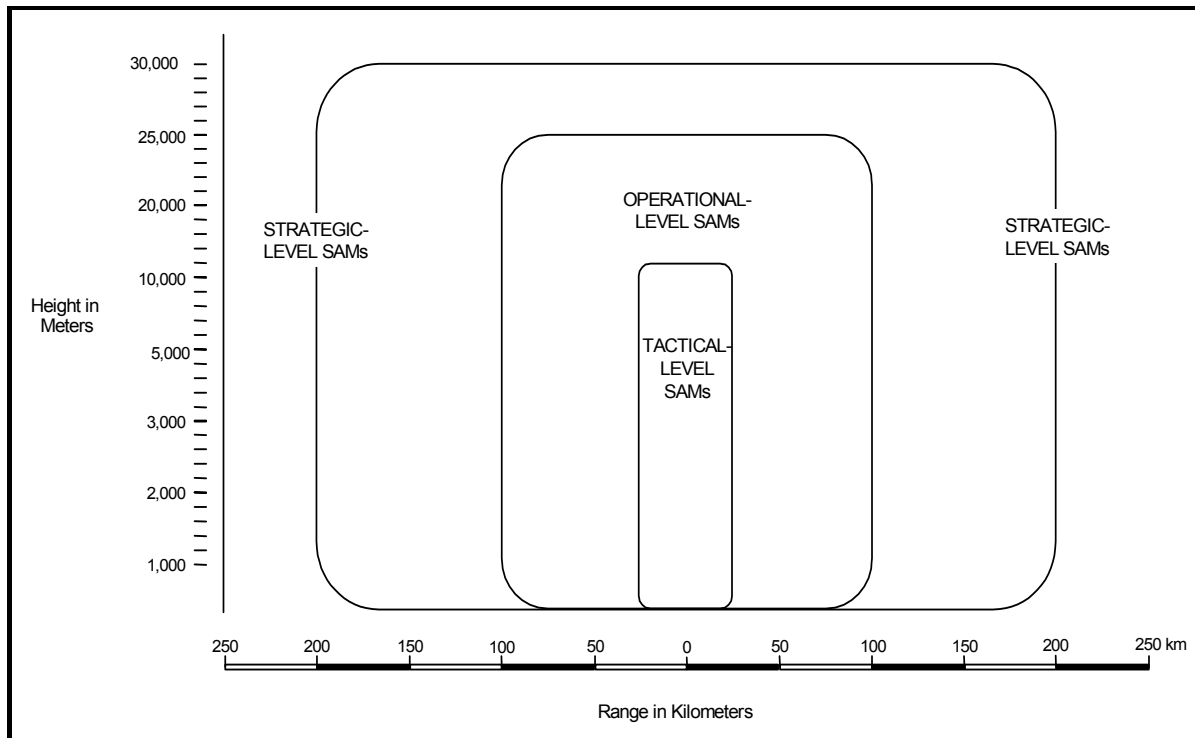
Figure 9-2. Air Defense Coverage (Example)

9-137. Figure 9-2 illustrates the vertical and horizontal coverage typically provided by OPFOR air defense systems at the tactical, operational, and strategic (national) levels. The example altitudes and ranges are illustrative of a principle. The actual systems and their capabilities can vary. Although not shown in this example, all SAM systems have a minimum range and a minimum altitude. Of course, the range beyond the battle line or limit of responsibility of supported forces depends on the situation and where the air defense systems deploy within the supported unit's AOR.

ENGAGEMENT PROCEDURES

9-138. On a priority basis, the OPFOR engages aircraft posing the greatest threat. The preferred technique is to fire at an already engaged target rather than switching from target to target. This priority continues unless a later-acquired target seriously threatens air defense units.

9-139. The OPFOR prefers to engage a hostile aircraft prematurely and waste some ammunition rather than allowing the aircraft to expend its ordnance. The OPFOR fires on aircraft as long as they remain within range.

9-140. Air observers and weapon crews outside the attacked area maintain observation and readiness to fire. This precludes enemy success through simultaneous air attacks from several directions.

OFFENSE

9-141. Operations from the air have ceased to be auxiliary and have become a critical component of combined arms combat. Thus, air defense is a vital part of the combined arms operation. The OPFOR can successfully execute operational offensive actions only if it can negate enemy air power. Conversely, failure to provide effective air defense against enemy air power can result in operational and tactical failures. Therefore, the OPFOR has an extensive air defense system to protect attacking maneuver units. Air defense weapons can fully support dynamic offensive combat.

DEPLOYMENT

9-142. In an offense, the exact location of air defense weapons depends on the following factors:

- The assessment of the air threat.
- The mission of the supported unit.
- The commander's chosen organization of forces.
- The tempo of operations.
- The terrain.
- Fields of fire and observation.

9-143. The shape of the air defense deployment can change as supported units maneuver. The most common methods follow:

- Where the air threat is low, the commander assigns the complete air defense unit lines of deployment to occupy in succession.
- When the air threat is continuous, air defense units may move forward in bounds into successive firing positions, maintaining continuous coverage of supported units.
- In a highly mobile, fragmented operation, the OPFOR might integrate air defense into combat formations and occupy temporary firing positions on less likely approaches or in gaps between the coverage of the main air defenses.

SAM units at the operational and tactical levels deploy where they can provide area coverage for as much as possible of the supported maneuver unit's AOR.

Disruption Zone

9-144. In many cases, dispersed ground ambushing forces and other key assets in the disruption zone will require point air defense protection. Regular infantry, SPF, and affiliated forces operating in the disruption zone should have air defense systems as mobile and survivable as the force they are protecting. This may require extensive use of man-portable, shoulder-fired SAMs. Some forces may rely strictly on C³D for protection from enemy air.

9-145. Some air defense forces may be deployed in the disruption zone, particularly in the form of air defense ambush teams. Their purpose can be to deny aerial attack and/or to prevent enemy reconnaissance platforms from targeting forces in the disruption zone or battle zone.

9-146. Area coverage is desirable for protecting the overall disruption force. When necessary, the OPFOR will move divisional assets or even OSC assets (both normally located in the battle zone) well out into the disruption zone to assist in area coverage or to provide early warning for other air defense units.

Battle Zone

9-147. Most air defense forces would normally be within the battle zone. In order to provide continuous coverage for supported maneuver forces, air defense systems need to have the mobility to move with those forces. Their main role is to allow friendly ground forces the freedom to maneuver as the operational situation develops rapidly. Air defense units in a fixing force can help prevent enemy aviation from coming to the aid of the enemy formation targeted for attack by assault and exploitation forces. Air defense action or even an uncertain air defense environment can help create the window of opportunity for an attack.

Support Zone

9-148. Some air defense units may be deployed in the support zone to help keep this zone free of significant air action and thus permit the effective logistics and administrative support of forces. Generally, commanders can afford to defend the support zone with less mobile air defense assets than in the disruption and battle zones. Throughout the support zone, the OPFOR makes extensive use of passive air defense measures, including C³D, maneuver, and dispersal.

MOVEMENT

9-149. The OPFOR anticipates that its units may be subject to air attack during movement. Accordingly, units engaged in movement are protected by their constituent air defense assets and, in many cases, by additional air defense assets allocated by their parent unit.

9-150. When a subordinate tactical unit is conducting tactical movement, an operational-level command may order its own air defense assets to provide cover for the moving unit. Due to their longer-range systems, operational-level air defense units may be able to provide this coverage from their original positions or with minimal repositioning. Alternatively, the operational command may direct that the subordinate unit conducting movement receive air defense coverage from another, adjacent tactical subordinate whose air defense assets are within range of the moving unit.

9-151. Air defense units relocate as necessary to provide continuous and effective protection to the supported unit. OPFOR commanders maintain effective protection by leaving at least one air defense battery in firing position to cover the movement. Air defense units constituent to or augmenting a maneuver unit usually move as a part of that unit if the air threat is high. If there is little or no air threat, these air defense assets may move separately to a new location.

DEFENSE

9-152. Air defense units seek to provide coverage to all levels of the organization. They must integrate this coverage with the ground operation and ensure continuous air defense. Air defense must provide all-around security because air attack can come from any direction. The OPFOR must coordinate fires among all air defense units and supported maneuver units. This provides an integrated air defense.

9-153. Under conditions when the OPFOR can employ integrated defense, it generally can also employ integrated air defense, integrated both vertically and horizontally. During transition and adaptive operations, however, decentralized conditions may affect the ability to integrate horizontally and thus provide mutual support. The same would apply to the commander's ability to achieve vertical integration between the tactical and operational levels.

DEPLOYMENT

9-154. Deployments closely parallel those in the offense, but there are some differences. The positioning of operational-level air defense assets depends on the overall organization of the battlefield for the defense. Operational-level SAM units might deploy to provide point protection for the main CP, SSM units, airfields, or other high-value assets. The SAMs might cover units in sanctuary areas or sanctuaries into which maneuver units may deploy. They might cover lines of commitment for an operational-level counterattack. The OPFOR sees the threats posed by air reconnaissance and airborne or heliborne assault as being greater in the defense and devotes greater effort to guarding against those threats.

Disruption Zone

9-155. Air defense in the disruption zone should provide area coverage to defend forces in the zone and provide point protection for key assets involved in conducting fires. Even the systems providing point protection must be highly mobile and capable of moving with units as they displace to hides or new firing positions or conduct survivability moves.

9-156. Forces operating in the disruption zone are typically separated from sanctuary areas in both time and space. This separation typically requires the OSC commander to place air defense units in the disruption zone to support the disruption mission. Such deployment allows the OPFOR to detect, track, and attack air platforms in the disruption zone and beyond. This can involve deployment of divisional or even OSC air defense assets (radars as well as weapon systems) well into the disruption zone. These forces occupy prepared and camouflaged positions to support other units in the disruption zone. As in the offense, they try to prevent enemy aerial reconnaissance platforms

from targeting forces in the disruption zone or the battle zone. This is a key part of the OPFOR's aggressive and creative counterreconnaissance effort.

Battle Zone

9-157. In maneuver or area defense, air defense units provide protection for the battle positions of DTGs or BTGs of the main defense force. In a maneuver defense, they especially cover units maneuvering from line to line. Especially in an area defense, they help preserve key components of OPFOR combat power or assist units in the stubborn holding of tactically favorable defensive positions that the OPFOR would prefer to retain. A typical battle position incorporates air defense systems, in conjunction with extensive use of C^3D. In any type of defense, air defense units conduct air defense ambushes to provide opportunities for other forces to conduct counterattacks or reconnaissance fires.

9-158. An OSC in the defense usually employs a strong reserve positioned in an assembly area with good C^3D measures and strong air defense protection. The reserve must have sufficient air defense coverage to allow it to maneuver from the assembly area in order to conduct a variety of contingency missions the OSC commander might give it as the operation develops.

Support Zone

9-159. The OPFOR usually deploys some air defense units in the support zone to protect key logistics units and administrative support elements. However, it also relies heavily on passive air defense measures, including C^3D and dispersal.

ANTILANDING DEFENSE

9-160. Air defense units have a significant role in defending ground forces against attacks by enemy airborne and air assault troops. When the OPFOR detects an enemy airborne operation, Air Force units (if available) attempt to intercept and destroy enemy transport aircraft. They try to do this while the enemy is at marshalling airfields or en route to drop zones.

9-161. Operational- and tactical-level SAM units engage transport aircraft entering their respective air defense zones of responsibility. Short-range air defense assets near the drop zones also engage transport aircraft. These air defense forces typically act in the form of either air defense ambushes or roving air defense units. Self-propelled AA guns, vehicle-mounted machineguns, and small arms all fire on descending paratroops and equipment.

SANCTUARY AREAS

9-162. A sanctuary area may exist because of natural or manmade features. However, it only remains a sanctuary if the OPFOR can prevent the enemy from striking it with standoff weapons, including air power. Thus, OPFOR units in a sanctuary area use all available C^3D techniques to reduce likelihood of detection or identification. They may also exploit political restrictions placed on the enemy force.

9-163. The air defense of the sanctuary area is integrated into the overall air defense scheme at the tactical, operational, and strategic (national) levels. The net result is the requirement for enemy aviation to pass through overlapping

coverage to attack the sanctuary area. Attacking enemy aircraft must first penetrate the strategic (national), operational, and tactical engagement envelopes. Then they must face the air defenses within the sanctuary itself.

9-164. Within the sanctuary area, the air defense unit commander and the supported maneuver commander work closely together to integrate their weapons into an effective air defense plan. The maneuver commander provides guidance for the placement of all air defense systems, while the air defense commander supervises the details of the placement of his weapons and ensures that they remain within mutually supporting distance. As a rule, one crew in each pair of air defense systems remains alert, except when they have received warning of an air attack. Any available shoulder-fired SAMs supplement the defense, and the supporting air defense commander may exercise some degree of control over the SAM gunners. Air defense units observe radio silence and light discipline and dig in, as time allows.

9-165. A 360-degree surveillance of the surrounding airspace increases the air defense engagement envelope to the maximum extent possible. Air observation posts and air defense firing positions are positioned to provide comprehensive observation and interlocking fires on the most likely approach routes for low-flying fixed- and rotary-wing aircraft. All other weapons, including vehicle-mounted machineguns and ATGMs, are further integrated. Even planning for the use and integration of massed small-arms fire is essential to an effective air defense.

MOUNTAINS AND WATER OBSTACLES

9-166. Air defense units operating in mountainous terrain have unique problems. The rugged terrain makes it difficult to maintain the integrity of maneuver and air defense units. This, in turn, makes maintaining comprehensive air surveillance and air defense fire support more difficult, resulting in a greater degree of decentralization than normal.

9-167. Air defense forces play a major role in water obstacle crossings. They protect crossing sites and forces from air attack by creating envelopes of protected airspace above and around crossing sites. Major problems in air defense of water obstacle crossings include—

- Providing comprehensive radar and visual observation.
- Handling simultaneous threats on multiple approach axes.
- Maintaining continuous 360-degree fire coverage.
- Supplying ammunition to firing units on the far shore.

AIR DEFENSE AMBUSHES AND ROVING UNITS

9-168. The OPFOR recognizes the disproportionate effects that sudden, unexpected destruction of an aircraft or small group of aircraft can have can on enemy tactics and morale. For example, the surprise destruction of one or two lead aircraft, on what the enemy perceived to be a clear avenue of approach, could cause an enemy air assault to be called off or seriously disrupted. Air defense ambushes may set up at temporary firing positions to surprise and destroy enemy aircraft and disorganize enemy fixed-wing aircraft and rotary-wing operations. Ambushes and roving air defense units can cause the enemy to believe that significant air defense assets are located in areas where actually

there are only a few weapons. This can reduce the effectiveness of enemy reconnaissance and the likelihood of enemy air attack in the area concerned.

AMBUSHES

9-169. Air defense ambushes usually comprise a single AA gun or SAM weapon, section, platoon, or battery with the mission of engaging enemy aircraft from a hidden or unexpected position. However, the OPFOR may also employ antihelicopter mines.

Placement

9-170. By their very nature, the placement of air defense ambushes is unpredictable. They might be placed on the most likely air avenues of approach or along secondary and tertiary avenues. They can be along flanks, forward, behind, and in gaps between maneuver units. Their purpose can possibly be to fill apparent gaps in air defense coverage or to defend key units or sites. Typical missions include defending maneuver units, CPs, reserves, artillery and missile units, other air defense units in firing positions, and water obstacle-crossing sites.

9-171. Ambushes can be placed—
- In valleys or defiles likely to be used as ingress or egress routes by infiltrating aircraft.
- On adjacent heights to shoot down into valleys or defiles.
- Just behind a crest to catch aircraft from behind as they clear a ridge.

Single-launcher shoulder-fired SAM ambushes may be set up on wooden platforms built in treetops to catch aircraft flying over a forest. In urban areas, AA guns could be set up within the top or middle floors of buildings to fire laterally or even down on low-flying aircraft while remaining unseen from almost every angle. Often, air defense ambushes are placed in complex terrain that offers poor fields of observation but allows them to fire "window shots."

Planning and Preparation

9-172. Air defense ambushes may be planned and executed on short notice with little preparation. In other cases, they may involve elaborate preparation and camouflage, and tracking enemy aircraft over several days to discern operational patterns and possible weaknesses, or optimum weather patterns for a specific ambush site.

9-173. Weather conditions may facilitate the use of an air defense ambush. For example, low cloud bases may force enemy aircraft down into the envelope of a particular weapon. Ambushing units may work in concert with smoke- or aerosol-dispensing units or ground-based jammers that jam a low-flying aircraft's terrain-following radar, forcing it up into the ambush weapon's optimum engagement envelope. The OPFOR may create a deception position using decoys or derelict weapons and vehicles, to draw the attention of enemy aircrews and cause them to enter the ambush zone of an air defense ambushing unit positioned nearby.

9-174. The unit or weapon assigned to an air defense ambush usually occupies a temporary firing position in hours of darkness or under the cover of poor visibility conditions. It may assume a hide position near the firing position

and establish local ground security and air observers. The unit or weapon is carefully camouflaged and keeps all its emitters off or in "dummy load" until ordered to engage a target. While in this mode, it can receive automated surveillance and target tracking data from its parent air defense unit or be alerted by air observers posted nearby. All this can allow the ambushing unit to delay using its own radars and other emitters until the last possible moment, in order to achieve surprise.

9-175. Occasionally, AA guns may choose not to employ their radars, using strictly electro-optical sights. This tactic takes into account the capability of modern aircraft, including attack helicopters, to detect radar and IR systems.

9-176. More than one air defense ambush, involving more than one weapon type may be established along the same air avenue of approach. These may work independently or in concert depending on the situation. Target engagement decisions may be left up to the ambushing unit commander.

Execution and Redeployment

9-177. When an air target is detected, the ambushing weapon or unit prepares to engage. This may involve removal of some camouflage or a short movement from its hide position to its firing position. It then fires on the target until the target is destroyed or moves out of the firing zone. Then the ambushing unit or weapon immediately displaces to a new ambush site or returns to its parent unit.

ROVING UNITS

9-178. Employment of roving units is similar to that of air defense ambushes. The primary difference is that, while an ambushing unit lies in wait in one position for approaching enemy aircraft, a roving unit moves to the most likely areas of enemy air attack and occupies a series of predesignated positions in the supported unit's AOR. The commander of the roving unit identifies these positions during his terrain reconnaissance and coordinates them with the air defense and maneuver unit commanders. The roving unit occupies these positions according to a prearranged schedule or on order of the air defense unit commander. Roving units terminate their missions and return to previously designated primary firing positions upon direction of the commander of the parent air defense unit.

AIR DEFENSE AGAINST UNMANNED AERIAL VEHICLES

9-179. The OPFOR recognizes the increasing importance of UAVs on the battlefield, to both its own forces and those of the enemy. They can perform high- and low-altitude missions, collect the full spectrum of intelligence, and immediately downlink the data to a ground station. They have the capability to loiter or to fly deep. They can collect against a predetermined target or look for targets of opportunity. Their construction can make them difficult or easy to detect. Since UAVs can support targeting for enemy long-range fires, their priority for destruction increases.

9-180. Typically the enemy conducts reconnaissance missions using UAVs operating in the "window" between low-flying helicopters and higher-altitude fixed-wing aircraft. This altitude window is between 300 and 4,000 m. The most common technique is to approach the target area at high altitude and, once at the target area, drop down to a lower altitude that optimizes the capabilities

of the sensor package on board. Once the mission in the target area is complete, the UAV climbs to higher altitude and departs the mission area.

TARGETED SUBSYSTEMS

9-181. Countering UAVs should not be viewed as just a defense against the aerial vehicle, although that is important. Most UAV systems consist of three basic subsystems: the air vehicle, the ground station, and the launcher. (In some cases, the latter two may be one vehicle.) There are also a variety of communication data links between the ground station and the air vehicle. Some systems also include satellite links. The air defense commander must coordinate with other arms to ensure that UAVs are being attacked not just in the air, but that their related subsystems are also addressed. The successful destruction of a UAV ground station has a far greater impact than the destruction of a single air vehicle.

9-182. Thus, air defense against UAVs requires not only an IADS but also an integrated all-arms approach. Air defense commanders and planners should view the three UAV subsystems as three separate targets that can be countered through a variety of means. These means are both active and passive.

ACTIVE MEASURES

9-183. A wide variety and large number of active measures are available to the OPFOR to counter UAVs. The effectiveness of air defense radars can vary dependent on the radar cross section (RCS) and altitude of the vehicle. Of course, this does not preclude the use of radar, since these factors are considerations in detecting any aircraft. The relatively small size of many UAVs obviously reduces their RCS.

9-184. A variety of sound-ranging systems are available that can provide early warning and azimuth of an approaching UAV. This in turn provides air defense weapons and maneuver unit weapons an opportunity to prepare for the vehicle's approach and to put up a large volume of fire, provided the UAV can subsequently be visually detected. The early warning provided by sound ranging increases the probability that visual observers will be able to spot the vehicle.

9-185. The location of UAV ground stations and launchers is typically a high priority for reconnaissance. The OPFOR will use all available means (from the civilian population to commercially available satellite imagery) to locate these key targets. Reconnaissance assets for locating these targets can be tied to artillery, MRLs, or aircraft that can quickly engage the targets once the information is received. SPF operating in the enemy rear can also be a valuable asset in locating launchers and ground stations. They can either take direct action to destroy the targets or relay location information to allow the OPFOR to employ other means against them.

9-186. The OPFOR can also use jamming techniques to counter UAV system data links. In some cases, data links cannot be jammed but they can be monitored. The effectiveness of these procedures varies according to the UAV system being attacked. High-power spot or barrage noise jammers can be effectively used to mask ground targets from side-looking airborne radars. Many satellite up- and downlinks employed are through the use of the commercial telecommunication infrastructure. This infrastructure and supporting satellites can be jammed or monitored to some degree.

PASSIVE MEASURES

9-187. Since the mission the UAV is executing may not be apparent, actions should be taken to counter all possibilities. The integrated use of the passive air defense measures described earlier in this chapter can reduce the effectiveness of UAVs. The use of a variety of decoys provides a false picture of the mission area to the enemy and, to a large extent, can deny information or distort the information collected by the UAV.

STRATEGIC CONTEXT

9-188. The OPFOR accepts that, while it has a full range of capabilities to deal with its neighbors, air defense against a technologically superior force is problematic. It believes that comprehensive planning and the creative use of all capabilities, including some normally not associated with air defense, can serve to mitigate many disadvantages.

REGIONAL OPERATIONS

9-189. Within the context of regional operations, the OPFOR views its air defense system as fully capable of protecting ground forces and infrastructure from air attack by any of its neighbors. To accomplish this, it believes that its aircraft will be capable of conducting successful counterair operations, thus denying any major encroachment into its territory or significant attacks by fixed-wing aircraft against its military forces operating in enemy territory. The ability to use ground-based systems to defeat any "leakers" and rotary-wing attacks serves to reinforce this belief. This confidence does not preclude the OPFOR from using a wide variety of other options, to include TBMs or SPF.

9-190. While desiring to attack its regional opponent with overwhelming force, the OPFOR plans for the possibility of extraregional intervention. In doing so, it may choose to husband certain assets that may not be essential to accomplishing its air defense objectives against its neighbor.

TRANSITION OPERATIONS

9-191. The first OPFOR combat actions against extraregional forces may be against the enemy air threat. Past operations have shown that one of a major power's first steps in support of intervention is the deployment of aircraft to third countries within range of the battlespace. Deployment could also include movement of aircraft to the territory of the regional neighbor with which the State is already at war. Attacking sites within these countries, especially third countries or the extraregional enemy's homeland, is a decision made at the highest political levels. Once the State leadership has assessed this as a viable option, however, the OPFOR will use every means available to preclude deployment or, more realistically, limit access and delay deployment timelines.

9-192. Taking early action against the air threat is essential to forces transitioning to adaptive operations. It provides time for ground forces to reposition. It also allows the use of OPFOR fixed-wing aircraft against targets they can range. Waiting too long to employ fixed-wing aircraft could result in an effective loss of the capability.

ADAPTIVE OPERATIONS

9-193. OPFOR air defense actions during transition and adaptive operations are based on the premise that it is essential to attack aircraft while they are on the ground. While defensive in nature, OPFOR air defense has an important offensive component to it. Therefore, it must use every means available to attack enemy air capability. TBMs provide the OPFOR with the means to continue to attack after the effective loss or degradation of its fixed-wing capability. The key to the use of TBMs is that they are systems that have been held in reserve during regional operations and positioned in hides. These hides are dispersed and not tied to any operational pattern of the ground forces. Armed with a mix of high-explosive and persistent chemical warheads, they can destroy aircraft and make airfields unusable for extended periods of time.

9-194. Augmenting early OPFOR air employment and the continuous use of TBMs is the employment of SPF, insurgents, and terrorist groups. These forces can be a means of providing depth to the battlefield. SPF pre-positioned in anticipation of intervention can operate in third countries or within the theater. Typical SPF missions include air defense ambushes of aircraft along routes of ingress or egress from airfields. Shoulder-fired SAMs equipped with night-vision devices serve as the weapon of choice for these ambushes. In some cases, the ambushing forces could be instructed to fire only at certain types of aircraft. These may include Airborne Warning and Control System (AWACS), reconnaissance aircraft, and fuel tankers. SPF can also conduct raids to destroy maintenance facilities and fuel storage sites. Insurgent forces, advised by SPF, can conduct similar missions. They can ambush cargo trucks en route to airfields or aviation facilities. SPF or insurgents can intimidate local contractors and force them to contaminate fuel supplies or sabotage air traffic control facilities. Where plausible deniability is important, terrorists may be more suitable for conducting some of these operations.

9-195. Air defense by ground-based systems still plays a key role in both transition and adaptive operations. The OPFOR recognizes that strategically and operationally it cannot maintain a fully integrated air defense system over all areas all of the time. However, it does believe that, through niche technologies and creative means, it can achieve integration in some sectors while taking a degree of risk in others. Longer-range systems, normally positioned deep, can be moved forward to cause enemy aircraft to operate from greater standoff distances. By investing in key technologies, the OPFOR has some capability to provide early warning and target information to firing units from remote locations. This protects the firing units from detection and significantly lowers their radar transmission times. There is heavier reliance on the use of passive systems. Air defense ambushes along likely routes of ingress serve as effective means of augmenting ground force protection. In key areas, these ambushes would be positioned forward and in depth.

9-196. The use of other arms is an effective means of augmenting air defense capability. An in-depth analysis of the battlespace is conducted to identify likely helicopter firing positions. These can be sowed with antihelicopter mines and remote sensors. The sensors serve to key artillery fires to attack these sites and render them unusable or prevent effective fires by attack helicopters.

Chapter 10

Engineer Support

The OPFOR believes success in battle requires extensive engineer support at every level. Engineer plans at the operational level support the various strategic-level courses of action involved in the State's strategic campaign. Engineers facilitate the mobility and high rate of movement of combined arms forces while enhancing the survivability of forces. Although the OPFOR generally conducts engineer countermobility activities at the tactical level, it also maximizes activities conducted at the operational level to disaggregate, disrupt, delay, block, or canalize enemy forces. See FM 7-100.2 for more information on tactical-level engineer actions.

ASSETS

10-1. Military engineers fall into two basic categories: combat engineers and special-category engineers. Combat engineers are those whose tasks may bring them in direct contact with the enemy. Special-category engineers (such as bridge- and road-building units) do not normally engage the enemy and generally use utility vehicles as their primary transportation rather than engineer vehicles designed to survive close combat. Together, these two categories of engineers are responsible for the more difficult and complex engineering tasks. Their missions require specialized training and the use of special equipment or munitions. Often the distinction of engineer categories is blurred somewhat depending on task organizations and their mission-driven employment.

10-2. At the operational level, the OPFOR plans the complete integration of civilian and military engineer resources. For example, maneuver commanders may use civilian earthmoving, road-building, and construction equipment and personnel, especially in support zones. This allows constituent combat engineer equipment and personnel to accompany maneuver forces in battle. Civilian workers or maneuver units can perform many basic combat engineer tasks, with engineers providing guidance and technical expertise.

COMMAND AND CONTROL

10-3. Engineer units allocated to an operational-strategic command (OSC) in constituent or dedicated relationships may be directly under the command of the OSC commander. The OSC commander or his subordinate commanders can control—but do not command—other engineer assets that are allocated to them in a supporting relationship. Rather than keeping all allocated engineer assets under his direct command and control (C^2), the OSC commander may suballocate some engineer units to his subordinate maneuver units or to his integrated fires command (IFC) and/or integrated support command (ISC).

STAFF RESPONSIBILITY

10-4. Various staff elements under the operations officer advise him on engineer matters and allow him to advise the commander on the employment of engineer assets. The chief of force protection and the chief of infrastructure management receive liaison teams from each constituent, dedicated, or supporting engineer unit. These teams provide the staff with detailed expertise on engineer functions and provide a direct communications conduit to the engineer units executing such functions. Based on the advice of the liaison teams and coordination with the engineer units through the respective liaison teams, these functional staff chiefs advise the commander on engineer employment within their functional areas. Other liaison teams may fall under the chief of current operations, to advise and assist in mobility and countermobility functions. The engineer liaison teams also coordinate, as necessary, with other staff elements, including the chief of information warfare (IW). Liaison team leaders speak for the commanders of their respective units.

TASK ORGANIZATION

10-5. At each level of command, the commander or his operations officer decides on the task organization of subordinate engineer units. Operational employment of engineer units does not follow strict organizational lines. The OPFOR does not always employ engineer units as complete entities.

10-6. Engineer tasks are integral to all OPFOR organizations. Although engineer assets generally are constituent at no lower than brigade or brigade tactical group (BTG) level, the OPFOR prefers to task organize for mission success at even lower levels, when the assets are available. This may dictate that, instead of maintaining large engineer units, the commander may choose to break them down and combine them into smaller (sometimes much, much smaller) multirole engineer support groupings. These engineer groupings range in size from brigades down to multirole platoons and engineer squads. An example of this flexible task organization would be the allocation more minelaying assets on an exposed flank or a high-speed avenue of approach for enemy armored vehicles. Another would be that an OSC that is task-organized for operations in a desert environment would not receive water obstacle-crossing units, but might add more mineclearing units.

10-7. There are no real doctrinal constraints on task organization for mission success. The ability to allocate assets downward and to task organize is restrained only by the availability of assets and the nature of the mission. At the operational level, however, the primary responsibility of the engineers is to support and ensure the mobility and survivability of operational units while retaining a significant countermobility capability to impede (or canalize) the enemy's progress. The primary engineer reconnaissance function at the operational level is route reconnaissance.

10-8. With advice from engineer experts on his functional staff, the operations officer on the OSC staff uses the OSC's engineer resources to form task-oriented groupings according to the commander's decision for the operation and his instructions on engineer support. He forms groupings to—

- Conduct engineer support (reconnaissance, mobility, countermobility, and survivability) at any level.
- Augment maneuver units.
- Augment other operational-level units.
- Support IW.

10-9. The most frequent operational employment of constituent or dedicated engineer, engineer reconnaissance, and road- and bridge-construction units generally involves the formation of one or more functional groupings. Some of these are—

- Obstacle detachments (ODs) to create minefields and other obstacles.
- Movement support detachments (MSDs) to perform route reconnaissance, route preparation, mineclearing, and route marking.
- Obstacle-clearing detachments.
- Engineer reconnaissance patrols.

An OSC may form several of each, and each may be based on an engineer unit as large as a battalion. The OSC may also create an engineer reserve.

MISSIONS

10-10. The primary engineer missions performed in combat are in the categories of reconnaissance, mobility, countermobility, and survivability. The OPFOR recognizes several basic combat tasks engineers perform in support of combined arms operations. Some of these tasks are to—

- Reconnoiter the enemy and the terrain.
- Prepare fortifications.
- Prepare and maintain movement routes.
- Clear passages through obstacles and areas of destruction.
- Equip and maintain gap crossings.
- Establish engineer obstacles.
- Support IW.
- Extract and purify water and establish water supply points.
- Carry out engineer measures to eliminate the effects of nuclear, biological, and chemical (NBC) and precision weapons.

For more detail, see the sections later in this chapter dedicated to Engineer Reconnaissance, Survivability, Countermobility, and Support to Information Warfare. For more detail on mobility support, see FM 7-100.2.

SUPPORT TO OFFENSIVE OPERATIONS

10-11. In the offense, the engineers' primary mission is to support the operation plan. Emphasis is on—

- Clearing and maintaining routes for maneuver units.
- Clearing or removing mines and other obstacles.
- Crossing gaps.
- Creating obstacles to assist in flank protection and protection against counterattacks.

Preparation

10-12. To prepare for offensive operations, engineer tasks include—

- Performing engineer reconnaissance of the terrain and the enemy.
- Preparing assembly areas and movement routes for maneuver forces, including reserves.
- Constructing protective positions for systems, units, and command posts (CPs).
- Establishing and improving road networks to support maneuver forces.
- Preparing alternative airfields and highway strips to support air assets.
- Ensure the integration of engineer support to IW.

Conduct

10-13. During the conduct of offensive operations, engineer support includes—

- Providing tailored engineer support where it is needed, when it is needed.
- Continuing reconnaissance of the enemy and terrain.
- Maintaining airfields and roads.
- Improving road networks and other movement routes to support commitment of reserves or follow-on forces.
- Providing support for the crossing of water obstacles and other gaps.
- Constructing protective positions for systems, units, and CPs, as they relocate.
- Helping to repel enemy counterattack.
- Supplying engineer equipment, materials, and technical assistance to maneuver units and other OPFOR units.
- Facilitate maneuver despite enemy and natural obstacles and possibly NBC-contaminated areas.

SUPPORT TO DEFENSIVE OPERATIONS

10-14. OSC engineer forces are heavily engaged in the preparation and conduct of an operational defense. Comprehensive engineer preparation in the entire area of responsibility (AOR) is an important precondition for holding battle positions, as well as for troop maneuver.

10-15. Engineer support for defensive operations places emphasis on fortifying battle positions and assembly areas, performing engineer camouflage, concealment, cover, and deception (C^3D) measures, and adapting the terrain for defense. The defense is also conducive to the extensive use of various obstacles to interfere with the enemy's advance.

10-16. The general aims of engineer support to defensive operations include—

- Controlling access and tempo by delaying, disaggregating, and canalizing enemy forces.
- Establishing conditions necessary for organizing the defense.
- Protecting personnel and equipment from the effects of conventional direct and indirect fires, precision munitions, and NBC attacks.

- Building fortifications, battle positions, and assembly areas.
- Preparing and maintaining maneuver and supply routes.
- Creating or improving existing obstacles.
- Preparing decoys and deception positions.
- Ensuring the integration of engineer support to IW.

10-17. The type and scale of engineer support depends on the operational situation, enemy forces, and the conditions under which an OPFOR transitions to the defense. If the OPFOR does so during the course of the offense, support may have to begin with the protection of threatened axes by ODs and antitank reserves (ATRs) and the route work needed for regrouping.

Preparation

10-18. Engineer support for preparing an AOR for defensive operations consists of the following:
- Conducting engineer reconnaissance of the enemy and terrain.
- Preparing fortifications for protecting weapons, personnel, and equipment.
- Preparing routes for counterattack forces.
- Constructing obstacles (coordinated with the fire support plan and natural obstacles).
- Preparing C^3D measures in support of IW.
- Maintaining the water supply.

Conduct

10-19. During defensive operations, engineer support consists of improving on and expanding the scope of all the above measures and undertaking new tasks as situations develop. Such tasks include clearing obstacles, crossing gaps, and eliminating the effects of NBC and precision weapons.

SUPPORT TO INFORMATION WARFARE

10-20. The OPFOR has responded at all organizational levels to the challenge posed by enemy advances in sensors and weapons. A wide variety of engineer activities contribute to IW, particularly in support of C^3D measures. This support involves three interrelated areas:
- Deception (signature-enhancing measures).
- Camouflage and concealment (signature-reduction measures).
- Obscurants (measures used both to conceal real equipment and enhance the effectiveness of decoy equipment).

10-21. OPFOR combat engineer units are a high priority for deception efforts, since their composition and disposition on the battlefield are indicators of how and where the OPFOR expects to conduct its main offensive or defensive effort. Therefore, the OPFOR establishes deception positions and engineer obstacles, supported by decoy vehicles.

Offense

10-22. During the offense, engineer support of deception measures can include—

- Construction of decoys and deception positions.
- Preparation of false routes to provide misleading indicators.

Defense

10-23. The OPFOR uses various deception measures to mislead the enemy about size and location of forces and weapon systems and about the nature of defensive engineer preparations. Engineer support of deception measures can include—

- Use of screening characteristics of terrain, darkness, and other conditions of limited visibility during engineer preparation of defensive positions and positioning of forces.
- False actions to draw attention from actual defensive preparations.
- Construction of artificial screens and concealment (such as horizontal and vertical screens, or corner reflectors).

10-24. Sufficient engineer support is critical to the success of any defensive deception plan. Units in the main defense force receive the priority of effort. However, engineers typically do not begin work supporting deception until they have completed all measures required for camouflage, concealment, and cover.

ENGINEER RECONNAISSANCE

10-25. The specific missions of engineer reconnaissance are to—

- Discover enemy engineer measures taken to fortify battle positions and to lay and clear minefields and demolitions.
- Determine movement routes (by the conditions of roads, bridges, and fording sites).
- Determine the characteristics of obstacles and locate bypass routes.
- Determine water availability (or add more robust capability).
- Observe enemy engineer activity.[1]
- Determine requirements for special engineer equipment, allocation of engineer assets, and the subsequent task organizations of subordinate and supporting engineer units.
- Report the locations of any enemy units encountered.
- Advise the commander and staff on locations the enemy is likely to occupy, based on the presence of favorable conditions, such as accessibility, concealment, and water supply.

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[1] The composition and disposition of enemy combat engineer units are important indicators of how and where the enemy expects to conduct his main offensive or defensive effort. Positioning of bridging and mineclearing assets may tip off planned enemy offensive action. When the enemy is preparing to defend, all obstacle-creating assets, such as minelayers, are of particular interest.

ROUTE RECONNAISSANCE

10-26. A primary goal of engineer reconnaissance at the operational level is to provide comprehensive information on the suitability of movement routes. Engineer reconnaissance, performed independently or with other reconnaissance forces, plays a significant role in ensuring freedom of movement and access to various areas of the battlefield. Units performing engineer reconnaissance make the following determinations:

- The degree of trafficability of the entire route.
- The location and nature of obstacles and forces or assets needed to overcome them.
- The condition of crossing sites over rivers, canals, streams, and ravines.
- The location and quantity of material potentially useful for improving the movement route.
- The nature of the terrain and location of areas without natural concealment.

10-27. The purpose of route reconnaissance is to select suitable routes along the axis of movement and to identify suitable halt areas that provide concealment. Engineer reconnaissance can also identify possible infiltration routes. The reconnaissance patrol relays topographical and terrain information back to the unit that sent it out. Route reconnaissance can occur throughout the AOR, in offense or defense.

OFFENSE

10-28. During the offense, the primary engineer reconnaissance mission is to obtain more precise information on—

- Battle damage created both during offensive preparation and during the execution of the offense.
- Troop movement routes and trafficability of off-road terrain.
- Locations where the enemy established obstacles.
- Locations for establishing obstacles during enemy counterattacks.
- Water obstacles on friendly forces' axes of advance.

10-29. Engineer reconnaissance during the offense seeks to obtain information on the nature of enemy fortifications, defensive positions, and obstacles. The basic methods for obtaining this information are observation and aerial or ground photography.

DEFENSE

10-30. Engineers assist in reconnaissance and preparation of the defense by determining the protective and camouflage features of the terrain and by helping select positions for CPs and unit battle positions. Engineers also determine road and bridge conditions in the AOR, availability of local materials for construction of positions, and the status of the water supply.

SURVIVABILITY

10-31. Preparing fortified positions is a task for engineers in both the offense and defense. Fortified positions increase weapons effectiveness and protect personnel, weapons, and materiel. Engineers give priority to digging in CPs and key components of the OPFOR's combat power. Fortification preparation combines and uses to best advantage the terrain's protective properties, local construction materials, and engineer excavation equipment. The C^{3}D measures discussed above, under Support to Information Warfare, also contribute to survivability.

OFFENSE

10-32. In preparation for offensive action, the primary use of field fortification is in the preparation of assembly areas. Even there, the tasks of preparation typically exceed the capability of engineers in the limited time available. Consequently, the preparation of assembly areas becomes a shared responsibility involving all available personnel and equipment of all branches.

10-33. Normally, the OPFOR locates assembly areas far enough from enemy forces to deny the enemy ground observation and to lessen direct-fire effects. It uses field fortification in a way that allows a smooth and protected movement of troops and supplies in and out of the assembly areas.

DEFENSE

10-34. When the OPFOR is transitioning to the defense and preparing complex battle positions or sanctuary areas, advance engineer deployment allows better use of terrain features and constructed fortifications. Engineers also have more time to construct or improve routes for movement of troops and supplies and to conceal forces and caches or short-duration storage facilities. In most cases, engineer units must concentrate their effort on only the most important parts of the AOR.

10-35. The full preparation of defensive positions involving entrenchments, communications trenches, positions for tanks and infantry vehicles, and protected CPs is a labor-intensive process. It often exceeds the capability of pure engineer units. Consequently, the OPFOR's approach is to use all available personnel and equipment. Units of all arms and services receive training in preparing field fortifications and emplacements.

COUNTERMOBILITY

10-36. Creating engineer obstacles and carrying out demolition activities are significant engineer functions in all phases of combat. The obstacle plan is tailored and integrated into the overall operation plan. Engineer obstacles include any actions taken to inflict losses and to delay and impede enemy movement. In the offense, obstacles protect flanks, disrupt counterattacks, and strengthen captured positions. In the defense, engineer obstacles may strengthen the defense, disrupt enemy operations, and cover gaps.

EXPLOSIVE OBSTACLES

10-37. The widespread use of landmines on today's battlefields results from a combination of mass production, plastic mines, improved battlefield delivery systems, and development of sophisticated fuzing. Remotely-delivered mines have expanded capability for changing the tempo of combat.

Minefields

10-38. The five basic types of OPFOR minefields are antitank (AT), anti-personnel (AP), mixed, decoy, and antilanding. AT minefields are the primary type of OPFOR engineer obstacle and serve to destroy or disable armored and other vehicles. They are primarily established in belts consisting of multiple rows on avenues that are favorable for armored vehicles. Wherever possible, minefield belts will be tied into natural terrain obstacles to reduce the mine requirement. The OPFOR sets up conventional AP minefields in support of friendly battle positions, in front of AT minefields, or along dismounted avenues of approach. Mixed minefields consist of both AP and AT mines. Decoy minefields are a significant form of deception used to slow movement or deceive as to true unit locations. Antilanding minefields prevent landings by amphibious, airborne, or heliborne assault forces.

Minelaying

10-39. The methods and extent of minelaying depend on—
- The OPFOR's intentions.
- The operational and/or tactical situation.
- Terrain characteristics.
- The type of mine.
- Time available.
- Available engineer support.

10-40. Emplacement means may be manual, mechanical, or remote. Manual emplacement is the most labor-intensive and time-consuming method and may not always be possible in a fluid battlespace. The OPFOR not only will use mechanical minelayers, but also will continue to develop methods of remote minelaying, including delivery by minelaying helicopters, fixed-wing aircraft, or cannon and rocket artillery. Rapidly laid and scatterable AT mines in support of maneuver operations will predominate on most battlefields. The same types of minefield may also support a situational defense. If the OPFOR plans only a temporary halt or defensive action, it can mechanically surface-lay small protective minefields. It may also use remotely-laid minefields (probably with self-destruct options) and controlled minefields.

Remotely-Delivered Mines

10-41. The ability to remotely deliver mines provides the OPFOR with the capability to respond rapidly with thousands of landmines at any point on the battlefield. The OPFOR can employ remotely-delivered minefields against choke points to delay and cause bunching that could create vulnerability to air or artillery attack. Remotely-delivered minefields fill gaps created by enemy

minefield breaching efforts and can cause confusion and delay in assembly areas. They can halt enemy attacks in areas not covered by an OD (or gain time for an OD to do its work). Maneuver forces use remote mining to protect their flanks or to attack targets deep in enemy territory or anywhere in the AOR. Remote minelaying can be useful against enemy columns, areas of concentration, CPs, firing positions, and other targets. Such unpredictable minefields increasingly dominate OPFOR countermobility operations.

10-42. Remotely-delivered (or scatterable) mines are laid without regard to classical patterns. They are designed to be delivered by aircraft, cannon artillery, multiple rocket launchers (MRLs), or ground vehicles, or they can be hand-thrown or emplaced by man-portable mine dispensers.

10-43. **Artillery.** Some cannon artillery systems are capable of delivering both AP and AT mines. However, MRLs are the primary means of remote minelaying. The principal advantage of MRL mine delivery is its ability to quickly emplace large minefields in a single volley, while minimizing exposure to enemy targeting and weapon systems.

10-44. **Ground Vehicles.** Within recent years, the trend has been to mount scatterable-mine dispensers on ground vehicles. Both AP and AT mines can be launched from ground vehicles. This also gives the engineers the ability to re-seed or reinforce an obstacle without entering the minefield itself.

10-45. **Infantry.** OPFOR infantry units may employ man-portable remote mine dispensers. These man-portable dispensers, weighing only a few pounds, are ideal for installing small, defensive, AP or AT minefields. Infantry-fired ground dispensers allow units to remotely emplace minefields to protect their battle positions, flanks, and boundaries between units, or to cover firing lines and gaps in combat formations. They can quickly close breaches in existing protective minefields and increase the density of mines on armor avenues of approach.

10-46. **Aerial.** Both AT and AP minefields can be laid using aerial minelaying systems. Bombers or ground-attack aircraft can lay remotely-delivered minefields throughout the AOR.

10-47. Helicopter minelaying systems are used to emplace small or large minefields in the execution of offensive or defensive operations. This type of aerial minelaying is normally conducted over friendly territory—along flanks or in support zones. When supporting an airborne or heliborne landing, helicopters may lay mines on enemy-held territory. Helicopter mine chutes are a tool available to even low-technology helicopter forces for installation on a variety of helicopters by low-echelon maintenance units.

OBSTACLE DETACHMENT

10-48. The OD is the basic building block of the OPFOR's countermobility effort. It is a task organization composed primarily of engineers. An OD can vary in size depending on the operational situation and the needs of the commander. An OSC may form several ODs based on its constituent or dedicated engineer units. An OD formed at this level is typically based on an engineer unit as large as a battalion. The OSC generally tries to create one OD for each ATR formed from its AT assets.

10-49. ODs formed by an OSC may be assigned in a supporting relationship to the OSC's subordinate maneuver units, or they can act independently at the OSC level (for example, to protect an exposed flank). They are a standard feature of tactical and operational task organizations. With their ability to rapidly lay mines and construct obstacles, their mission is to deny the enemy access to key terrain, particularly those avenues of approach most suitable for armored vehicles.

10-50. Although the OD can operate independently, it usually operates with an ATR to provide flank protection and to repel enemy counterattacks. ATRs may provide covering fire over the minefields that the ODs emplace. The OD sometimes operates with mechanical minelaying platoons.

Offense

10-51. In the offense, the OD usually moves with the ATR either on an open flank or in a central position ready to deploy to any threatened axis. In the latter case, it usually advances with maneuver units to ensure a prompt response to any threat.

10-52. The OPFOR considers surprise a critical factor in mine warfare. Enemy reconnaissance can discover minefields laid too long in advance and can take measures to overcome them. Therefore, it is often more effective to lay a minefield during the course of a battle, preferably at the last minute, directly in the path of a developing threat. Using mines in this way is not only tactically advantageous, but also economical. This may be an important consideration when supplies are limited.

10-53. The OPFOR uses ODs aggressively, maintaining close contact with the enemy and attempting to mine areas in which the enemy has already committed himself. An OD may join an ATR to ward off enemy counterattack threats.

Defense

10-54. In the defense, the OPFOR commander may hold the OD and other forces in reserve and can quickly employ them during an enemy attack, to mine potentially vulnerable gaps. Engineer tasks during the defense implement obstacle plans, particularly AT obstacles. Together with ATRs, ODs provide a quick-reaction AT force to block enemy penetrations.

10-55. Engineers create obstacles on possible enemy approaches to OPFOR battle positions or artillery and air defense firing positions, in the gaps between battle positions, and on flanks. They normally construct barrier systems in coordination with the overall fire support plan.

10-56. Engineers can lay mines and construct obstacles in the disruption zone and on likely enemy armored avenues of approach. They can also lay obstacles in the depth of friendly units in the battle zone, and at subsequent defensive lines throughout the AOR. However, simultaneous obstacle construction throughout the AOR can only occur when sufficient time, equipment, and personnel are available. In any part of the AOR, minefields and other obstacles require barriers, security, and marked maneuver passages.

OFFENSIVE COUNTERMOBILITY

10-57. Engineer countermobility missions are not strictly an engineer function. Rather, they are part of an overall, all-arms effort to deny the enemy freedom of maneuver. For example, many remotely-delivered mines are emplaced by means other than engineer assets. The OPFOR will also employ all means available to attack the enemy's mobility assets at every opportunity. The elimination or degradation of key mobility assets (such as bridging and mine-clearing assets) can severely limit the enemy's progress, range, or sustainability. This is part of the OPFOR's systems warfare approach to combat.

10-58. Preemptive attacks against the enemy's bridging and mineclearing systems can occur at very early stages in the conflict, often well before the foreseen usage of such mobility assets. The OPFOR might try to destroy all mobility assets, thereby confining the enemy to his aerial or sea port of debarkation (APOD or SPOD), or it might let the enemy commit his assets and then destroy them piecemeal. Whichever method the OPFOR chooses, it would attempt to mask the identity of the true target by also hitting what the enemy may deem "higher-value targets," such as maneuver troops and equipment, during the same attack. Thus, the enemy may believe the destruction of his mobility assets to be collateral damage rather than the intended target, and he may not place a high priority on replacing these as critical items.

STRATEGIC CONTEXT

10-59. Operational-level engineers support the State's various strategic-level courses of action and the OPFOR principles of operations versus an extraregional power (discussed in Chapter 1 and in FM 7-100). Specific engineer requirements are determined by the operational mission of the supported OSC within whichever strategic-level course of action is occurring in a given AOR at a given time. That may be regional, transition, or adaptive operations. Because of the requirement to transition rapidly from regional to adaptive operations and perhaps back to regional operations, engineers assigned to OSCs may be supporting more than one course of action simultaneously.

REGIONAL OPERATIONS

10-60. Operational-level engineer units involved in regional operations facilitate the mobility and high rate of advance of joint, combined arms, interagency, and/or multinational forces while enhancing the survivability of forces. Although the OPFOR generally conducts engineer countermobility activities at the tactical level, it tailors the obstacle plan to the overall operation and integrates it into the operation plan. It uses obstacles to disaggregate, delay, block, and canalize enemy forces.

TRANSITION OPERATIONS

10-61. Since transition operations can overlap both regional and adaptive operations, engineer actions can be various combinations of those occurring during regional or adaptive operations. The need for rapid transition from regional to adaptive operations (and vice versa) presents the engineers several challenges. For example, engineers still supporting regional operations may be involved in water-crossing activities, while engineers

supporting units transitioning to adaptive operations may be blowing up bridges to preserve friendly forces. Engineers supporting joint, combined arms, interagency, and/or multinational units transitioning to regional operations may be laying minefields to fix an extraregional foe while other engineers are providing mobility and survivability support to units launching offensive operations against a regional foe. Therefore, some engineers in transition operations may be involved in those tasks normally associated with regional operations while other engineers units may be involved in tasks normally associated with adaptive operations.

10-62. Several engineer missions become more critical during transition operations when shifting to adaptive operations. For example, IW takes on a more significant role with use of C^3D measures to protect forces while they are attempting to get into sanctuary and begin adaptive operations. Engineer reconnaissance must locate clear, and preferably concealed, routes to expedite units' movement to sanctuary and limit their exposure to extraregional forces.

10-63. The State may have done some advance preparation of defensive positions in peacetime or during regional operations. However, the OPFOR takes advantage of any time required for the extraregional enemy to build up combat power, using that time for additional engineer preparation involving all means available. Engineer units or other forces supervised by engineers provide fortified positions or repair or reinforce those positions already in place. Caches and water sources, if not in place, will have to be prepared.

ADAPTIVE OPERATIONS

10-64. During adaptive operations, several trends in engineer employment may be at odds with one another. On the one hand, the dispersal of forces may require task organization of engineer units into smaller groupings. With dispersal and decentralization, however, the task organization of operational-level engineer assets to support tactical-level missions becomes increasingly difficult. As the OPFOR goes into a force-preservation mode, commanders may tend to create larger engineer reserves and put into protected storage some scarce engineer assets that will be critical to success in later operations. Examples of such high-value assets could be bridging, route-clearing equipment, mechanical minelayers, and other heavy engineer equipment. The process begins during transition operations but has the largest impact during adaptive operations. This equipment will be protected and might only be used for high-priority missions or in areas shielded from the enemy. The shortage of key equipment is further intensified by any combat losses.

10-65. Since requirements for engineer support do not change during the absence of heavy equipment, the OPFOR has planned the complete integration of civilian and military engineer resources to help compensate for this loss. The lack of engineer units and assets available to the lower levels is compensated for by the sharing of engineer tasks and responsibilities throughout the OPFOR branches and maximizing the use of manual labor (military and civilian) and assets other than those of engineer units. Since maneuver units or civilian workers may have to perform the majority of engineer tasks, engineers are also responsible for supervising and providing guidance and technical expertise to these groups. This allows the tasks to be performed with the least amount of engineers and mitigates the loss of units and equipment.

10-66. The basic engineer missions during adaptive operations remain reconnaissance, countermobility, survivability, and mobility, along with the task of support to IW. These all occur at all levels of command all over the battlefield, and priorities of engineer effort vary according to the specific situation, which can be unpredictable. Examples of how these missions and tasks support adaptive operations are listed below.

Reconnaissance

10-67. The focus of engineer reconnaissance during adaptive operations will be on areas that support the creation of windows of opportunity or the exploitation of opportunities that result from existing conditions in the AOR. Engineers can help determine the most likely routes the enemy might take, as well as identify routes for OPFOR units undertaking counterattacks or the maneuver component of a strike.

Countermobility

10-68. The OPFOR makes extensive use of countermobility operations to control access and tempo by delaying, disaggregating, and canalizing enemy forces. The obstacle plan is completely integrated with the maneuver, fire support, and IW plans. Minefields and other obstacles used in support of adaptive operations are extremely innovative, irregular-shaped, and thoroughly merged with the terrain. Minefields also tend to be much smaller than those laid in regional operations (especially linear operations). Many are nuisance minefields, rather than being designed to destroy large numbers of enemy forces.

Survivability

10-69. The construction of battle and fighting positions is a labor-intensive process and is therefore a shared responsibility of engineers and supported units. Maximum use of civilian engineer assets and personnel continues during adaptive operations. Survivability activities during adaptive operations have several unique engineer requirements. Some examples are to—

- Take full advantage of the screening, protective, C^3D techniques, along with careful selection of terrain to passively deny the enemy the ability to acquire OPFOR positions for targeting.
- Make extensive use of local building materials, equipment, and work force.
- Protect CPs and logistics sites.
- Bury communications lines.
- Construct false positions, equipment, movement routes, and lines of communication.
- Assimilate minefields and obstacles to the terrain.
- Prepare caves, tunnels, and tunnel complexes in which troops can live and from which they can fight.

Mobility

10-70. It is critical that the OPFOR maintain the ability to move unimpeded during adaptive operations. This ability allows the OPFOR to control the access and tempo of enemy forces. As long as the OPFOR has complete access to

the battlefield, it will allow no sanctuary to the enemy and determine the nature of the conflict. Engineer support can create opportunities for infiltration of small forces into unexpected locations, to inflict damage or to support IW.

10-71. Rarely during adaptive operations would the OPFOR attempt the classic opposed water crossings it can use during regional operations. However, there may be times when the OPFOR must cross rivers in territory occupied by the enemy. Even then, it would attempt an opposed crossing only if convinced of success and if the enemy did not believe the OPFOR would attempt the crossing. Such crossings would be integrated into the overall operation plan and the IW plan.

10-72. More likely, however, is that the OPFOR would attempt to cross the river surreptitiously at night or during inclement weather. This would allow the OPFOR to infiltrate units—a few vehicles at a time—across the river. The units would regroup at a designated area and continue operations. Engineer support for this may be only engineer reconnaissance of the river and routes. The situation may also call for the engineers to build (undetected) an underwater bridge out of sandbags, or to make rafts rigged to transport vehicles.

10-73. The OPFOR may be required to breach enemy minefields. Although it may breach them in the more conventional manner described in FM 7-100.2, the OPFOR can also devise innovative methods the cross the minefield. One such method might be to manually clear a path through the minefield surreptitiously. Several paths could be cleared in this fashion. Then, at a time of the OPFOR's own choosing, dismounted troops could infiltrate through the minefield and rendezvous at a designated location on the other side, undetected by the enemy.

Support to Information Warfare

10-74. The complete integration of engineer support to IW continues to be critical in adaptive operations. Deception is one of the basic elements of IW. Engineer support of the deception plan is vital for the deception to succeed. Engineers' largest role in an integrated deception plan is that of constructing physical decoys (simulations in deception positions) enabling the enemy to see what he expects to see. These decoys cover a wide spectrum of types and must be introduced or allowed to be "discovered" in the same sequence in which a "real or existing" unit would emplace them. The general priority of engineer construction is from front to rear, beginning with the primary fighting positions, then the temporary and alternate positions. The time sequence in which these "appear" gives credibility to the deception.

10-75. However, engineer support to IW is not limited to C^3D measures. For example, engineers may support psychological warfare with activities to lower morale and instill a sense of tentativeness among enemy soldiers or to undermine confidence of "enemy-friendly" populations. This can be achieved simply by the ubiquitous use of booby traps and AP mines.

Chapter 11

NBC and Smoke Operations

The use of nuclear, biological, and chemical (NBC) weapons can have an enormous impact on all battlefield operations.[1] Not only does the sheer killing and destructive power of these weapons affect the battlefield, but the strategic, operational, psychological, environmental, economic, and political consequences of their use affect strategic campaign plans and operational design.

In response to foreign developments, the OPFOR maintains a capability to conduct chemical, nuclear, and possibly biological warfare. However, it would prefer to avoid the use of NBC weapons by either side—especially nuclear and biological weapons. Both nuclear and biological weapons characteristically have lethal effects over much larger areas than do chemical weapons. The effects of biological weapons can be difficult to localize and to employ in operations without affecting friendly forces; their effects on the enemy can be difficult to predict. Unlike nuclear or biological weapons, chemical agents can be used to affect limited areas of the battlefield. The consequences of chemical weapons use are more predictable and thus more readily integrated into operation plans.

Because chemical employment is more likely than nuclear or biological, this chapter begins by focusing on OPFOR chemical capabilities. Because the OPFOR may also have some nuclear and biological capabilities, these also deserve discussion, despite of the lower probability of their employment. The chapter concludes with discussions of NBC protection and employment of smoke.

PREPAREDNESS

11-1. Due to the proliferation of NBC weapons, the OPFOR must anticipate their use, particularly the employment of chemical weapons. OPFOR planners believe that the best solution is to locate and destroy enemy NBC weapons and their supporting infrastructure before the enemy can use them against OPFOR troops or the State. In case this fails and it is necessary to

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[1] NBC weapons are a subset of *weapons of mass destruction (WMD)*, although the latter exclude the delivery means where such means is a separable and divisible part of the weapon. WMD are weapons or devices intended for or capable of causing a high order of physical destruction or mass casualties (death or serious bodily injury to a significant number of people). The casualty-producing elements of WMD can continue inflicting casualties on the enemy and exert powerful psychological effects on the enemy's morale for some time after delivery. Existing types of WMD include chemical, biological, and nuclear weapons. However, technological advances are making it possible to develop WMD based on qualitatively new principles, such as infrasonic (acoustic), radiological (enhanced-radiation), or particle-beam weapons. In addition, conventional weapons, such as precision weapons or fuel-air explosives, can also take on the properties of WMD.

continue combat operations despite the presence of contaminants, the OPFOR has developed and fielded a wide range of NBC detection and warning devices, individual and collective protection equipment, and decontamination equipment.

MULTIPLE OPTIONS

11-2. Force modernization has introduced a degree of flexibility previously unavailable to combined arms commanders. It creates multiple options for the employment of forces at strategic, operational, and tactical levels with or without the use of NBC weapons. Many of the same delivery means available for NBC weapons can also be used to deliver precision weapons that can often achieve desired effects without the stigma associated with NBC weapons.

11-3. The OPFOR might use NBC weapons either to deter aggression or as a response to an enemy attack on the State. It has surface-to-surface missiles (SSMs) capable of carrying nuclear, chemical, or biological warheads. Most OPFOR artillery is capable of delivering chemical munitions, and most systems 152-mm and larger are capable of firing nuclear rounds. Additionally, the OPFOR could use aircraft systems and cruise missiles to deliver an NBC attack. The State has also trained special-purpose forces (SPF) as alternate means of delivering NBC munitions packages. The threat of using any or all of these means to deliver NBC weapons is an intimidating factor that the State can use against potential regional and/or extraregional adversaries.

TARGETING

11-4. The OPFOR considers the following targets to be suitable for the employment of NBC weapons:

- NBC delivery means and their supply structure.
- Precision weapons.
- Prepared defensive positions.
- Reserves and troop concentrations.
- Command and control (C^2); reconnaissance, intelligence, surveillance, and target acquisition (RISTA); and communications centers.
- Key air defense sites.
- Logistics installations, especially port facilities.
- Airfields the OPFOR does not intend to use immediately.

Enemy NBC delivery means (aircraft, artillery, missiles, and rockets) normally receive the highest priority. The suitability of other targets depends on the OPFOR's missions, the current military and political situation, and the NBC weapons available for use.[2]

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[2] The same list of targets would apply for enemy use of NBC weapons against the OPFOR.

STAFF RESPONSIBILITY

11-5. On the functional staff of an operational-level headquarters (such as an OSC), the chief of WMD is responsible for planning the offensive use of WMD, including NBC weapons. (See the subsections on Release under Chemical Warfare, Nuclear Warfare, and Biological Warfare below.) The WMD staff element advises the command group and the primary and secondary staff on issues pertaining to NBC employment. The WMD element receives liaison teams from any subordinate or supporting units that contain WMD delivery means.

11-6. NBC defense comes under the chief of force protection. The force protection element of the functional staff may receive liaison teams from any subordinate or supporting chemical defense units.[3] However, those units can also send liaison teams to other parts of the staff, as necessary (including, for example, the chief of reconnaissance).

CHEMICAL WARFARE

11-7. The OPFOR is equipped, structured, and trained to conduct both offensive and defensive chemical warfare. It is continually striving to improve its chemical warfare capabilities. It believes that an army using chemical weapons must be prepared to fight in the environment it creates. Therefore, it views chemical defense as part of a viable offensive chemical warfare capability. It maintains a large inventory of individual and collective chemical protection and decontamination equipment. (See the NBC Protection portion of this chapter.)

WEAPONS AND AGENTS

11-8. Chemical delivery means include aircraft, multiple rocket launchers (MRLs), artillery, mines, rockets, and missiles. Virtually all OPFOR indirect fire weapons can deliver chemical agents. Other possible delivery means could include SPF, affiliated insurgent or terrorist organizations, or civilian sympathizers.

11-9. One way of classifying chemical agents according to the effect they have on persons. Thus, there are two major types, each with subcategories. *Lethal* agents, categorized by how they attack and kill personnel, include nerve, blood, blister, and choking agents. *Nonlethal* agents include incapacitants and irritants. (See FM 7-100.2 for more details on these agent types.)

11-10. Chemical agents are also categorized according to their persistency. Generally, the OPFOR would use persistent agents on areas it does not plan to enter and nonpersistent agents where it does.

11-11. *Persistent* agents can retain their disabling or lethal characteristics from days to weeks, depending on environmental conditions. Aside from producing mass casualties initially, persistent agents can produce a steady rate of attrition and have a devastating effect on morale. They can seriously degrade the performance of personnel in protective clothing or impose delays for decontamination.

11-12. *Nonpersistent* agents generally last a shorter period of time than persistent agents, depending on weather conditions. The use of a nonpersistent

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[3] Although the OPFOR calls these *units* are "chemical defense" or "chemical reconnaissance," their *functions* actually encompass nuclear, biological, and chemical (NBC) defense or reconnaissance.

agent at a critical moment in battle can produce casualties or force enemy troops into a higher level of individual protective measures. With proper timing and distance, the OPFOR can employ nonpersistent agents and then have its maneuver units advance into or occupy an enemy position without having to decontaminate the area or don protective gear.

OTHER TOXIC CHEMICALS

11-13. In addition to traditional chemical warfare agents, the OPFOR may find creative and adaptive ways to cause chemical hazards using chemicals commonly present in industry or in everyday households. In the right combination, or in and of themselves, the large-scale release of such chemicals can present a health risk, whether caused by military operations, intentional use, or accidental release.

Toxic Industrial Chemicals

11-14. Toxic industrial chemicals (TICs) are chemical substances with acute toxicity that are produced in large quantities for industrial purposes. Exposure to some industrial chemicals can have a lethal or debilitating effect on humans. The near-universal availability of large quantities of highly toxic stored materials, their proximity to urban areas, their low cost, and the low security associated with storage facilities, make them a potentially attractive option for use as weapons of opportunity or weapons of mass destruction. Employing a TIC against an opponent by means of a weapon delivery system, whether conventional or unconventional, is considered a chemical warfare attack, with the TIC used as a chemical agent. The target may be the enemy's military forces or his civilian population.

11-15. In addition to the threat from intentional use as weapons, catastrophic accidental releases of stored industrial chemicals may result from collateral damage associated with military operations, electrical power interruption, or improper facility maintenance or shutdown procedures. These events are common in armed conflict and post-conflict urban environments.

11-16. The most important factors to consider when assessing the potential for adverse human health impacts from a chemical release are acute toxicity, physical properties (volatility, reactivity, flammability), and the likelihood that large quantities will be accidentally released or available for exploitation. Foremost among these factors is acute toxicity.

11-17. The following are examples of high- and moderate-risk TICs, based on acute toxicity by inhalation, worldwide availability (number of producers and number of countries where the substance is available), and physical state (gas, liquid, or solid) at standard temperature and pressure:

- **High-Risk.** Ammonia, chlorine, fluorine, formaldehyde, hydrogen chloride, hydrogen cyanide, phosgene, sulfuric acid.
- **Moderate-Risk.** Carbon monoxide, methyl bromide, nitrogen dioxide, phosphine.

This list does not include all chemicals with high toxicity and availability. Specifically, chemicals with low volatility are not included. Low-vapor pressure chemicals include some of the most highly toxic chemicals widely available, including most pesticides.

11-18. Some of the high-risk TICs are frequently present in an operational environment. Chlorine (water treatment and cleaning materials), phosgene (insecticides and fertilizers), and hydrogen cyanide are traditional chemical warfare agents that are also considered TICs. Cyanide salts may be used to contaminate food or water supplies. Hydrogen chloride is used in the production of hydrochloric acid. Formaldehyde is a disinfectant and preservative. Fluorine is a base element that is used to produce fluorocarbons. Fluorocarbons are any of various chemically inert compounds that contain both carbon and fluorine. Fluorocarbons are present in common products are refrigerants, lubricants, and nonstick coatings, and are used in the production of resins and plastics.

Household Chemicals

11-19. The OPFOR understands that some everyday household chemicals have incompatible properties that result in undesired chemical reaction when mixed with other chemicals. This includes substances that can react to cause an imminent threat to health and safety, such as explosion, fire, and/or the formation of toxic materials. For example, chlorine bleach, when mixed with ammonia, will generate the toxic gases chloramine and hydrazine that can cause serious injury or death. Another example of such incompatibilities is the reaction of alkali metals, such as sodium or potassium, with water. Sodium is commonly used in the commercial manufacture of cyanide, azide, and peroxide, and in photoelectric cells and sodium lamps. It has a very large latent heat capacity and is used in molten form as a coolant in nuclear breeder reactors. The mixture of sodium with water produces sodium hydroxide, which can cause severe burns upon skin contact.

CHEMICAL RELEASE

11-20. Among NBC weapons, the State is most likely to use chemical weapons against even an extraregional enemy, particularly if the enemy does not have the capability to respond in kind. Since the State does not believe that first use of chemical agents against units in the field would provoke a nuclear response, it is less rigid than other nations in the control of chemical release.

11-21. Initially, the use of chemical weapons is subject to the same level of decision as nuclear and biological weapons. At all levels of command, a chemical weapons plan is part of the fire support plan. Once the National Command Authority (NCA) has released initial authorization for the use of chemical weapons, commanders can employ them freely, as the situation demands. Then each commander at the operational-strategic command (OSC) and lower levels who has systems capable of chemical delivery can implement the chemical portions of his fire support plan, as necessary.

11-22. After a decision for nuclear use, the OPFOR can employ chemical weapons to complement nuclear weapons. However, the OPFOR perceives that chemical weapons have a unique role, and their use does not depend on initiation of nuclear warfare. It is possible that the OPFOR would use chemical weapons early in an operation or strategic campaign or from its outset.

OFFENSIVE CHEMICAL EMPLOYMENT

11-23. The basic principle of chemical warfare is to achieve surprise. It is common to mix chemical rounds with high-explosive (HE) rounds in order to achieve chemical surprise. Chemical casualties inflicted and the necessity of chemical protective gear degrade enemy defensive actions. The OPFOR also may use chemical agents to restrict the use of terrain. For example, contamination of key points along the enemy's lines of communication can seriously disrupt his resupply and reinforcement, while simultaneously keeping those points intact for subsequent use by the attacking OPFOR.

11-24. Nonpersistent agents are suitable for use against targets on axes the OPFOR intends to exploit. While possibly used against deep targets, their most likely role is to prepare the way for an assault by maneuver units, especially when enemy positions are not known in detail. The OPFOR may also use nonpersistent agents against civilian population centers in order to create panic and a flood of refugees.

11-25. Persistent agents are suitable against targets the OPFOR cannot destroy by conventional or precision weapons. This can be because a target is too large or located with insufficient accuracy for attack by other than an area weapon. Persistent agents can neutralize such targets without a pinpoint attack.

11-26. In the offense, likely chemical targets include—

- Troops occupying defensive positions, using nonpersistent agents delivered by MRLs to neutralize these troops just before launching a ground attack. Ideally, these nonpersistent agents would be dissipating just as the attacking OPFOR units enter the area where the chemical attack occurred.
- NBC delivery systems, troop concentration areas, headquarters, and artillery positions, using all types of chemical agents delivered by tube artillery, MRLs, missiles, and aircraft.
- Bypassed pockets of resistance (especially that pose a threat to the attacking forces), using persistent agents.
- Possible assembly areas for enemy counterattack forces, using persistent agents.

11-27. The OPFOR could use chemical attacks against such targets simultaneously throughout the enemy defenses. These chemical attacks combine with other forms of conventional attack to neutralize enemy nuclear capability, C^2 systems, and aviation. Subsequent chemical attacks may target logistics facilities. The OPFOR would use persistent agents deep within the enemy's rear and along troop flanks to protect advancing units.

DEFENSIVE CHEMICAL EMPLOYMENT

11-28. When the enemy is preparing to attack, the OPFOR can use chemical attacks to disrupt activity in his assembly areas, limit his ability to maneuver into axes favorable to the attack, or deny routes of advance for his reserves. Once the enemy attack begins, the use of chemical agents can impede an attacking force, destroying the momentum of the attack by causing casualties or causing attacking troops to adopt protective measures. Persistent chemical agents can deny the enemy certain terrain and canalize attacking forces into kill zones.

NUCLEAR WARFARE

11-29. The OPFOR believes a war is most likely to begin with a phase of non-nuclear combat that may include the use of chemical weapons. The OPFOR emphasizes the destruction of as much as possible of enemy nuclear capability during this nonnuclear phase. To do so, it would use air and missile attacks; airborne, heliborne, and special-purpose forces; and rapid, deep penetrations by ground forces. The OPFOR hopes these attacks can deny the enemy a credible nuclear option.

DELIVERY MEANS

11-30. Nuclear delivery systems may include aircraft from both national- and theater-level aviation, and SSMs. Most artillery 152-mm or larger is capable of firing nuclear rounds, if such rounds are available. Other possible delivery means could include SPF. The OPFOR is unlikely to use affiliated forces for nuclear delivery.

TRANSITION TO NUCLEAR

11-31. Even when nuclear weapons are not used at the outset of a conflict, OPFOR commanders deploy troops based on the assumption that a nuclear-capable enemy might attack with nuclear weapons at any moment. The OPFOR continuously updates its own plans for nuclear employment, although it prefers to avoid nuclear warfare. As long as it achieves its objectives, and there are no indications that the enemy is going to use nuclear weapons, the OPFOR would likely not use them either. However, it could attempt to pre-empt enemy nuclear use by conducting an initial nuclear attack. Otherwise, any OPFOR decision to go nuclear would have to be made early in the conflict, so that sufficient nonnuclear power would remain to follow up and to exploit the gains of nuclear employment.

11-32. If any opponent were to use nuclear weapons against the State, the State would respond in kind, as long as it is still capable. The same would be true of any nuclear-capable opponent, if the State were the first to use nuclear means. While the State recognizes the advantage of its own first use, it may risk first use only when the payoff appears to outweigh the potential costs. Therefore, it would probably avoid the use of nuclear weapons against an extraregional power unless survival of the regime or the nation is at stake.

11-33. The OPFOR is probably more likely to use its nuclear capability against a regional opponent. The likelihood increases if that opponent uses or threatens to use its own nuclear weapons against the State or does not have the means to retaliate in kind. This could account for a nuclear or nuclear-threatened environment existing at the time an outside force might choose to intervene in the region.

TYPES OF NUCLEAR ATTACK

11-34. The OPFOR categorizes nuclear attacks as either massed or individual attacks. The category depends on the number of targets hit and the number of nuclear munitions used.

11-35. A *massed* nuclear attack employs multiple nuclear munitions simultaneously or over a short time interval. The goal is to destroy a single large enemy formation, or several formations, as well as other important enemy targets. A massed attack can involve a single service of the State's Armed Forces, as in a nuclear missile attack by the Strategic Forces, or the combined forces of different services.

11-36. An *individual* nuclear attack may hit a single target or group of targets. The attack consists of a single nuclear munition, such as a missile or bomb.

NUCLEAR RELEASE

11-37. At all stages of a conflict, the OPFOR keeps nuclear forces ready to make an attack. The decision to initiate nuclear warfare occurs at the highest level of the State government. National-level planners develop the fire plan for the initial nuclear attack for approval by the NCA.

11-38. After the initial nuclear release, the NCA may delegate employment authority for subsequent nuclear attacks to an OSC commander. The commander of the OSC's integrated fires command (IFC) submits to the OSC commander, for approval and integration into OSC fire support plans, recommendations for the subsequent employment of nuclear and chemical weapons.

OFFENSIVE NUCLEAR EMPLOYMENT

11-39. Once the NCA releases nuclear weapons, two principles govern their use: mass and surprise. The OPFOR plans to conduct the initial nuclear attack suddenly and in coordination with nonnuclear fires. Initial nuclear attack objectives are to destroy the enemy's main combat formations, C^2 systems, and nuclear and precision weapons, thereby isolating the battlefield.

11-40. Nuclear attacks may target and destroy the enemy's defenses and set the conditions for the exploitation force. Other fire support means support the assault and fixing forces. The OPFOR may plan a high-speed air and ground offensive operation to exploit the nuclear attack.

11-41. If the enemy continues to offer organized resistance, the OPFOR might employ subsequent nuclear attacks to reinitiate offensive operations. Nuclear attacks can eliminate the threat of a counterattack or clear resistance from the opposite bank in a water-obstacle crossing. If the enemy begins to withdraw, the OPFOR plans nuclear attacks on choke points where retreating enemy forces present lucrative targets.

Planning

11-42. Although the opening stages of an offensive operation are likely to be conventional, OPFOR planning focuses on the necessity of—

- Countering enemy employment of nuclear weapons.
- Maintaining the initiative and momentum.
- Maintaining fire superiority over the enemy (preempting his nuclear attack, if necessary).

11-43. In deliberately planned operations, the OPFOR plans nuclear fires in detail. An exploitation force would probably receive the highest percentage of weapons; however, the OPFOR may also reserve weapons for other large, important targets. In more fluid situations, such as during exploitation, the commander may keep some nuclear weapon systems at high readiness to fire on targets of opportunity. Nuclear allocations vary with the strength of the enemy defense and the scheme of maneuver.

11-44. Since the enemy too is under nuclear threat, he also must disperse his formations, which can make him more vulnerable to penetration by an attacking force. However, the OPFOR realizes that enemy troops are also highly mobile and capable of rapidly concentrating to protect a threatened area. Therefore, it considers surprise and timing of operations to be extremely critical in order to complicate enemy targeting and deny him the time to use his mobility.

Execution

11-45. Upon securing a nuclear release, the OPFOR would direct nuclear attacks against the strongest points of the enemy's formations and throughout his operational depth. This would create gaps through which maneuver units, in "nuclear-dispersed" formations, would attack as an exploitation force. As closely as safety and circumstances permit, maneuver forces follow up on attacks near the battle line. Airborne troops may exploit deep attacks.

11-46. An exploitation force would probably attack to take full advantage of the speed of advance it could expect to achieve. The aim of these maneuver units would be to seize or neutralize remaining enemy nuclear weapons, delivery systems, and C^2 systems. By attacking from different directions, the maneuver units would try to split and isolate the enemy.

11-47. Commanders would ensure a rapid tempo of advance by assigning tank and mechanized infantry units to the exploitation force. Such units are quite effective in this role, because they have maneuverability, firepower, lower vulnerability to enemy nuclear attacks, and the capability to achieve penetrations of great depth.

DEFENSIVE NUCLEAR EMPLOYMENT

11-48. Primary uses of nuclear weapons in the defense are to—

- Destroy enemy nuclear and precision weapons and delivery means.
- Destroy main attacking groups.
- Eliminate penetrations.
- Support counterattacks.

- Deny areas to the enemy.
- Conduct preemptive attack.

If nuclear weapons degrade an enemy offensive, the defender could gain the opportunity to switch quickly to an offensive role.

BIOLOGICAL WARFARE

11-49. The State closely controls information about the status of its biological warfare capabilities. This creates uncertainty among its regional neighbors and potential extraregional opponents as to what types of biological agents the State might possess and how it might employ them.

11-50. Biological weapons can provide a great equalizer in the face of a numerically and/or technologically superior adversary that the OPFOR cannot defeat in a conventional confrontation. However, their effects on the enemy can be difficult to predict, and the OPFOR must also be concerned about the possibility that the effects could spread to friendly forces.

WEAPONS AND AGENTS

11-51. Biological weapons consist of pathogenic microbes, micro-organism toxins, and bioregulating compounds. Depending on the specific type, these weapons can incapacitate or kill people or animals and destroy plants, food supplies, or materiel. The type of target being attacked determines the choice of agent and dissemination system.

11-52. Biological weapons are extremely potent and provide wide-area coverage. Some biological agents are extremely persistent, retaining their capabilities to infect for days, weeks, or longer. Biological weapons can take some time (days, weeks, or months—depending on the agent) to achieve their full effect. To allow these agents sufficient time to take effect, the OPFOR may use clandestine means, such as SPF or civilian sympathizers, to deliver biological agents in advance of a planned attack or even before the war begins.

DELIVERY MEANS

11-53. It is possible to disseminate biological agents in a number of ways. Generally, the objective is to expose enemy forces to an agent in the form of a suspended cloud of very fine biological agent particles. Dissemination through aerosols, either as droplets from liquid suspensions or by small particles from dry powders, is by far the most efficient method.

11-54. There are two basic types of biological munitions: point-source bomblets delivered directly on targets and line-source tanks that release the agent upwind from the target. Within each category, there can be multiple shapes and configurations.

11-55. Military systems, as well as unconventional means, can deliver biological agents. Potential delivery means include rockets, artillery shells, aircraft sprayers, saboteurs, and infected rodents. Aside from SPF and civilian sympathizers, the OPFOR might use affiliated insurgent or terrorist organizations to deliver biological agents within the region, outside the immediate region (to divert enemy attention and resources), or even in the homeland of an extraregional opponent.

TARGETS

11-56. Probable targets for biological warfare pathogen attack are nuclear delivery units, airfields, logistics facilities, and C^2 centers. The OPFOR may target biological weapons against objectives such as food supplies, water sources, troop concentrations, convoys, and urban and rural population centers rather than against frontline forces. The use of biological agents against rear area targets can disrupt and degrade enemy mobilization plans as well as the subsequent conduct of war. This type of targeting can also reduce the likelihood that friendly forces would become infected.

BIOLOGICAL RELEASE

11-57. The decision to employ biological agents is a political decision made at the national level—by the NCA. Besides the political ramifications, the State recognizes a degree of danger inherent in the use of biological agents, due to the difficulty of controlling an epidemic caused by them.

11-58. The prolonged incubation period makes it difficult to track down the initial location and circumstances of contamination. Thus, there is the possibility of plausible deniability. Even if an extraregional opponent might be able to trace a biological attack back to the State, it may not be able to respond in kind.

NBC PROTECTION

11-59. The OPFOR's ability to protect itself against NBC weapons and to operate in contaminated environments is at least the equal of any force in the world, including extraregional forces. OPFOR planners readily admit that casualties would be considerable in any future war involving the use of NBC weapons. However, they believe that the timely use of active and passive measures can significantly reduce a combat unit's vulnerability. These measures include but are not limited to protective equipment, correct employment of reconnaissance assets, and expeditious decontamination procedures. The OPFOR conducts rigorous training for chemical defense.

11-60. The OPFOR believes the best way to protect against NBC weapons is to destroy delivery systems, which are always high-priority targets. Other operational-tactical responses to the threat include—

- Dispersion: Concentrations of forces must last for as short a time as possible.
- Speed of advance: If the advance generates enough momentum, this can make enemy targeting difficult and keep enemy systems on the move.
- Camouflage, concealment, cover, and deception (C^3D): C^3D measures complicate enemy targeting.
- Continuous contact: The enemy cannot attack with NBC weapons as long as there is intermingling of friendly and enemy forces.

ORGANIZATION

11-61. Chemical defense units are responsible for nuclear and biological, as well as chemical, protection and reconnaissance measures. In the administrative force structure, such units are organic to all maneuver units brigade and above. Operational-level commands may provide some chemical defense augmentation to subordinate units, particularly those conducting the main effort. However, they must also retain some chemical defense assets at the operational level to deal with the threat to the support zone and provide chemical defense reserves.

11-62. Chemical troops are a vital component of combat support. They provide trained specialists for chemical defense units and for units of other arms. Basic tasks chemical troops can accomplish in support of combat troops include—

- Reconnoitering known or likely areas of NBC contamination.
- Warning troops of the presence of NBC contamination.
- Monitoring changes in the degree of contamination.
- Monitoring the NBC contamination of personnel, weapons, and equipment.
- Performing decontamination activities.
- Providing trained troops to handle chemical munitions.

They perform specialized NBC reconnaissance in addition to supporting regular ground reconnaissance efforts.

11-63. NBC protection functions are not limited to maneuver units. Artillery and air defense regiments and brigades have their own chemical defense units. Medical and SSM units have some decontamination equipment. Engineer troops also are important, performing functions such as decontaminating roads, building bypasses, and purifying water supplies. Of course, all arms have a responsibility for chemical reconnaissance and at least partial decontamination without specialist support. However, they can continue combat actions for only a limited time without complete decontamination by chemical troops.

EQUIPMENT

11-64. OPFOR troops have protective clothing. Most combat vehicles and many noncombat vehicles have excellent overpressure and filtration systems. Items of equipment for individual or collective protection are adequate to protect soldiers from contamination for hours, days, or longer, depending on the nature and concentration of the contaminant. Antidotes provide protection from the effects of agents. Agent detector kits and automatic alarms are available in adequate quantities and are capable of detecting all standard agents.

11-65. Chemical troops have a wide variety of dependable equipment that, for the most part, is in good supply and allows them to accomplish a number of tasks in support of combat troops. They have specialized equipment for detecting and monitoring NBC contamination. They have some specialized NBC reconnaissance vehicles, and they may use helicopters for NBC reconnaissance. Decontamination equipment is also widely available.

NBC DETECTION AND WARNING REPORTS

11-66. The OPFOR transmits NBC warning information over communications channels in a parallel form using both the command net and the air defense and NBC warning communications net. Depending of what type of unit initially detected the contamination, detection reports leading to such warnings may go either through chemical defense and force protection channels or through the maneuver unit or ground reconnaissance reporting chain.

Detection Reports

11-67. Upon detection of contamination, an NBC observer or NBC reconnaissance patrol normally transmits an *NBC detection report* to the chief of force protection on the staff of the commander that sent out the observer or patrol. When NBC observers (whether from the chemical troops or another branch) are attached to regular ground reconnaissance forces, security forces, or maneuver units, the NBC observers that detect contamination would initially pass the detection report through reconnaissance or maneuver unit reporting channels. Of course, they would also report the detection to the commander of the unit to which they are attached. When the maneuver unit chief of staff or chief of reconnaissance receives an NBC detection report through his own channels, he immediately passes it to the chief of force protection at that level.

Warning Reports

11-68. The chief of force protection and his staff evaluate the NBC detection report and determine whether it warrants the issuing of a warning. If it does, they inform the maneuver commander (or his chief of staff). At this point, the NBC detection report changes into an *NBC warning report*. Then, the maneuver commander (or chief of staff) disseminates the NBC warning report via his command net to all subordinate unit commanders and via the next-higher commander's command net to the higher commander and other subordinates of that command. Simultaneously, the chief of force protection disseminates the same report to all of his own command's subordinates over the air defense and NBC warning communications net. He would also inform the chief of force protection at the next-higher headquarters. The desired goal it to disseminate the warning as rapidly as possible to all affected units.

11-69. The chief of force protection (and/or the chief of staff) may issue an advance NBC warning based on the predicted development of an NBC situation. NBC protective measures would change or be rescinded based on subsequent NBC detection reports or on warning reports from higher, lower, or adjacent units. Changes in the NBC protective measures are disseminated by the maneuver commander or chief of staff and the chief force protection using their respective communications nets.

SMOKE

11-70. The OPFOR plans to employ smoke extensively on the battlefield whenever the situation permits. Use of smoke can make it difficult for the enemy to conduct observation, determine the true disposition of OPFOR troops, and conduct fires (including precision weapon fires) or air attacks. The possible presence of toxic smokes may cause the enemy to use chemical

protection systems, thus lowering his effectiveness, even if the OPFOR is using only neutral smoke.

ORGANIZATION

11-71. In the administrative force structure, army groups, armies, and corps typically have smoke companies in their chemical defense battalions and/or smoke battalions. In either case, the smoke companies each consist of nine smoke-generating trucks. These assets are often allocated to OSCs, which can then suballocate them to tactical-level subordinates.

AGENTS

11-72. Smoke agents may be either neutral or toxic. *Neutral* smoke agents are liquid agents, pyrotechnic mixtures, or phosphorus agents with no toxic characteristics. *Toxic* smokes (commonly referred to as combination smoke) degrade electro-optical (EO) devices in the visual and near-infrared (near-IR) wavebands; they also can debilitate an unmasked soldier by inducing watering of eyes, vomiting, or itching.

11-73. The OPFOR may use a number of different smoke agents or other obscurants together. For instance, obscurants such as fog oil block portions of the electromagnetic spectrum more fully when seeded with chaff. The vast quantities of white phosphorus (WP) on the battlefield also suggest that random mixtures of this agent with other obscurants (both manmade and natural) could occur, by chance or by design. The OPFOR recognizes the need to counter target acquisition and guidance systems operating in the IR and microwave regions of the electromagnetic spectrum. It has fielded obscurants, including chaff, capable of attenuating such wavelengths.

DELIVERY SYSTEMS

11-74. The OPFOR has an ample variety of equipment for smoke dissemination. Its munitions and equipment include—
- Smoke grenades.
- Vehicle engine exhaust smoke systems (VEESS).
- Smoke barrels, drums, and pots.
- Mortar, artillery, and rocket smoke rounds.
- Spray tanks (ground and air).
- Smoke bombs.
- Large-area smoke generators (ground and air).

Although not designed for this purpose, some decontamination vehicles with chemical defense units can also generate smoke.

11-75. Smoke grenades include hand grenades, munitions for various grenade launchers, and smoke grenade-dispensing systems on armored vehicles. These grenades can provide quick smoke on the battlefield or fill gaps in smokescreens established by other means. Some armored fighting vehicles have forward-firing smoke grenade dispensers that can produce a bispectral screen up to 300 m ahead of vehicles.

11-76. All armored fighting vehicles can generate smoke through their exhaust systems. With these VEESS-equipped vehicles, a platoon can produce a screen that covers a battalion frontage for 4 to 6 minutes.

11-77. Smoke-filled artillery projectiles, smoke bombs, spray tanks, and generator systems are also common. Artillery can fire WP rounds (which have a moderate degrading effect on thermal imagers and a major one on lasers). The OPFOR makes considerable use of smoke pots emplaced by chemical troops, infantrymen, or other troops. The OPFOR still uses smoke bombs or pots dropped by fixed- or rotary-wing aircraft.

TYPES OF SMOKESCREENS

11-78. The OPFOR recognizes three types of smokescreens: blinding, camouflage, and decoy. Classification of each type as frontal, oblique, or flank depends on the screen's placement. Smokescreens are either stationary or mobile depending on prevailing winds and the dispensing means used. Each basic type can serve a different purpose. However, simultaneous use of all types is possible.

Blinding

11-79. Blinding smokescreens can mask friendly forces from enemy gunners, observation posts, and target-acquisition systems. They can restrict the enemy's ability to engage the OPFOR effectively. Delivery of WP and plasticized white phosphorus (PWP) is possible using MRLs, artillery, mortars, fixed-wing aircraft, or helicopters. The OPFOR lays blinding smoke directly in front of enemy positions, particularly those of antitank weapons and observation posts. Blinding smoke can reduce a soldier's ability to acquire targets by a factor of 10, and its use can reduce casualties significantly.

11-80. Likely targets for blinding smokescreens are enemy defensive positions, rear assembly areas, counterattacking forces, and fire support positions. The screening properties of a blinding smokescreen can couple with dust, HE combustion effects, and the incendiary effects of phosphorus. This can create an environment in which fear and confusion add to the measured effectiveness of the smoke.

Camouflage

11-81. The OPFOR uses camouflage smokescreens to support all kinds of C³D measures. Such screens can cover maneuver, conceal the location of units, hide the nature and direction of attacks, or mislead the enemy regarding any of these. The camouflage smokescreen is useful on or ahead of friendly troops.

11-82. These screens are normally effective up to the point where forces deploy for combat. The number, size, and location of camouflage smokescreens vary depending on terrain, weather, and type of combat action. Camouflage also forces enemy attack helicopters to fly above or around a screen, thus exposing themselves to attack. Camouflage smoke can also cover assembly areas, approaches of exploitation forces, or withdrawals. Smokescreens can also cover a wide surface area around fixed installations or mobile units that do not move for extended periods.

11-83. Establishing camouflage smokescreens normally requires use of a combination of smoke grenades, smoke barrels, smoke pots, vehicles mounting smoke generating devices, and aircraft. Some decontamination vehicles also have the capability to generate smoke.

11-84. Two smoke-generator vehicles can lay a smokescreen of sufficient size to cover a battalion advancing to the attack. For larger smokescreens, the OPFOR divides the smokescreen line into segments and assigns two vehicles to each segment. Doctrinally, camouflage smokescreens should cover an area at least five times the width of the attacking unit's frontage.

11-85. The threat of enemy helicopter-mounted antitank systems concerns the OPFOR. Consequently, its doctrine calls for advancing forces to move as close behind the smokescreen as possible. The higher the smokescreen, the higher an enemy helicopter must go to observe troop movement behind the smokescreen, and the more vulnerable it is to ground-based air defense weapons. Depending on weather and terrain, some large-area smoke generators can produce screens up to several hundred meters high. There is considerable observation-free maneuver space behind a screen of this height. Conversely, smoke pots provide a screen 5 to 10 m high. This screen masks against ground observation but leaves the force vulnerable to helicopters "hugging the deck" and popping up to shoot.

11-86. The protection produced by camouflage smoke also interacts as a _protective_ smoke. Just as smokescreens can degrade enemy night-vision sights, the protective smoke can shield friendly EO devices from potentially harmful laser radiation. This protective effect is greater with a darker smoke cloud because of the better absorption capability of that cloud. Protective smokescreens are also a good means of reducing the effects of thermal radiation from nuclear explosions. A protective smokescreen is useful in front of, around, or on top of friendly positions.

Decoy

11-87. A decoy screen can deceive an enemy about the location of friendly forces and the probable direction of attack. If the enemy fires into the decoy smoke, the OPFOR can pinpoint the enemy firing systems and adjust its fire plan for the true attack. The site and location of decoy screens depend on the type of combat action, time available, terrain, and weather conditions. One use of decoy smoke is to screen simultaneously several possible crossing sites at a water obstacle. This makes it difficult for the enemy to determine which site(s) the OPFOR is actually using.

OFFENSIVE SMOKE EMPLOYMENT

11-88. The OPFOR emphasizes the use of smoke during the offense to help reduce friendly battle losses. However, it understands that smoke may hinder its own C^2, battlefield observation, and target engagement capabilities. In addition, the enemy may take advantage of OPFOR smokescreens to shield his own maneuvers or to carry out a surprise attack or counterattack. Thus, a smokescreen is successful when the OPFOR attackers are able to maintain their assigned axis and retain sight of the objective. To prevent the smoke from

interfering with friendly maneuver, OPFOR commanders must coordinate the planned location and duration of smokescreens with the scheme of maneuver.

DEFENSIVE SMOKE EMPLOYMENT

11-89. In the defense, the OPFOR may use smokescreens for—

- Camouflaging or covering the maneuver of friendly units.
- Concealing engineer activities from enemy observation.
- Screening replacements of units under conditions of good visibility.
- Camouflaging the approach of friendly units for a counterattack.
- Providing flank and maneuver security.
- Misleading the enemy on the disposition of reserves and planned counterattack axes.

11-90. Because a completely obscured environment tends to aid the attacker more than the defender, an OPFOR defense uses smoke to minimize the enemy's vision while allowing the defenders a fairly clear view of the enemy's location. Smoke from artillery and mortar shells is the most effective means of blinding an advancing enemy while keeping friendly forces out of the obscured area.

SIGNALING SMOKE

11-91. Aside from smokescreens, the OPFOR also uses colored smoke for signal purposes. Smoke can mark enemy positions or, occasionally, friendly positions or movement routes for the information of supporting aircraft or artillery. By prearrangement, colored smoke may—

- Identify friendly units.
- Identify targets.
- Control the commencing and lifting of fire.
- Coordinate fire and maneuver of combat units.

STRATEGIC CONTEXT

11-92. During all strategic-level courses of action, the OPFOR will ensure that the employment of NBC weapons is coordinated with perception management efforts. The purpose of this coordinated effort is to convey a message of political and military dominance to the regional civilian populace as well as to convey an adverse view of an intervening extraregional opponent.

11-93. The OPFOR may use the threat of employing NBC weapons as an intimidating factor. Any regional opponent with an NBC capability of its own knows that the OPFOR is prepared to retaliate in kind. The fact that NBC weapons may also place noncombatants at risk is a further intimidating factor—a positive factor from the State's perspective. Thus, it may use or threaten to use NBC weapons as a way of applying political, economic, or psychological pressure by allowing the enemy no sanctuary. This applies to both regional and extraregional foes.

11-94. The OPFOR realizes that an extraregional force will possess a technological edge in the ability of its RISTA means to target OPFOR fire support

assets capable of delivering NBC munitions. Additionally, the OPFOR real-
izes that its regional opponent may receive RISTA support (such as satellite
and fixed-wing signals intelligence and imagery) from an extraregional
power. Therefore, OPFOR fire support planners develop contingency plans to
preserve their NBC-capable fire support assets during all strategic-level
courses of action. Common countermeasures are to disperse fire support
assets and to use decoys and camouflage.

REGIONAL OPERATIONS

11-95. During regional operations, the State may be able to employ NBC
weapons with little fear of retaliation from its regional neighbors. Thus, it is
possible that the OPFOR would use chemical weapons early in an operation
or from its outset, against key targets in a neighbor's homeland. However, it
is aware that use of any NBC weapons could have both positive and negative
affects on its ability to achieve its strategic goals. On the one hand, it may be
concerned that NBC use during a strategic campaign against a regional
neighbor might lead to the intervention of an extraregional force. On the
other hand, the OPFOR could use NBC against a regional neighbor as a
warning to any potential extraregional enemy that it is willing to use such
weapons. The State would prefer not to use chemical weapons within its own
boundaries, except perhaps in an area populated by a particularly rebellious
dissident minority opposed to of the State government.

TRANSITION OPERATIONS

11-96. During transition operations, the OPFOR may use NBC weapons to
attack unique or key targets in aerial and sea ports of debarkation in order to
disrupt the deployment tempo of the extraregional force. These targets in-
clude key C^2 nodes, logistics operating bases, ground and airborne RISTA
platforms, and contractors and contractor-operated facilities. The OPFOR
will also seek to conduct these attacks in concert with the perception man-
agement portion of the information warfare (IW) plan, in order to leverage
the world media to report adverse perceptions of the extraregional force.

ADAPTIVE OPERATIONS

11-97. When the OPFOR shifts to adaptive operations, it will employ all
means available—even WMD against selected targets—to allow the enemy
no sanctuary. As in regional operations, the OPFOR would prefer not to use
even chemical weapons within the boundaries of the State. However, it would
contaminate its own soil if necessary in order to preserve the regime or the
State's sovereignty.

11-98. During adaptive operations, the OPFOR seeks to use a nontraditional
approach to NBC warfare. This approach revolves around the creation of
WMD-like events in concert with the perception management portion of the
IW plan. For example, the OPFOR may seek to use the media to amplify and
embellish the results of a fire at a facility that produces chemicals used in
everyday households. The media campaign would seek to attribute the cause
of the fire to enemy action and would emphasize that injuries caused to the
civilian population are similar in nature to those caused by the release of a
chemical munition.

Chapter 12

Logistics

Operational logistics links strategic-level logistics resources with the tactical level of logistics, thus creating the conditions for effective sustainment of a combat force. It covers the support activities required to sustain campaigns and major operations. A dependable logistics system helps commanders seize and maintain the initiative. Operational maneuver and the exploitation of operational or tactical success often hinge on the adequacy of logistics and the ability of the force to safeguard its critical lines of communication (LOCs), materiel, and infrastructure.

Operational logistics normally supports campaigns and provides theater-wide logistics support, generally over a period of months. Operational logisticians coordinate the allocation and distribution of resources within the area of responsibility (AOR). They interface with tactical-level logisticians in order to determine shortfalls and communicate these shortfalls back to the strategic logistics complex to support operational priorities. Operational logisticians coordinate the flow of strategic capabilities within the theater based on the commander's priorities.

STRATEGIC CONTEXT

12-1. The State strategic logistics complex is the foundation for the logistics system. Fundamental to the logistics concept are the twin notions of total war and all means necessary. As a consequence, the State fully integrates civilian and military components of both its materiel and service industries. Thus, the State strategic logistics complex includes the national industrial base with its supply points, distribution centers, arsenals, plants, manufacturing facilities, medical support, and personnel support centers. The national industrial base is capable of building everything from small arms to nuclear-capable missiles. However, while the State has the ability to design, produce, and field weapon systems, there are some serious qualitative shortcomings in production and integration.

12-2. The State logistics system is designed to provide continuous support to the civilian populace while simultaneously supporting military forces from the strategic level to the individual fighting unit. The State's national security strategy requires that the OPFOR and the entire population be constantly prepared for the sudden outbreak of war or natural disasters. The State continues to make major improvements in all aspects of its logistics system. This includes an increased emphasis on support zone security and plans for stockpiling war materiel throughout the country.

12-3. For the OPFOR, all strategic logistics support is coordinated at the national level through the Chief of Logistics in the Ministry of Defense

(MOD). The responsibilities of the Chief of Logistics are the same during war and peace. These responsibilities include—

- Procuring of personnel, materiel, and services required by the military.
- Preparing the economy and the people to provide sustained support in case of war.
- Ensuring that an uninterrupted flow of personnel, materiel, and equipment reaches the individual fighting unit at the proper place and time.

12-4. Organizations within the national-level military logistics establishment include materiel support and maintenance units, as well as mobilized civilian resources, to include medical personnel and facilities. Some national-level logistics units may be allocated to subordinate commands to augment the units forming their logistics bases, while the remaining units are centralized under General Staff control.

LOGISTICS STOCKPILES

12-5. In preparation for war, the State's national security strategy includes plans for stockpiling war materials, as well as critical civilian supplies and materials, throughout the country. The logistics storage of war materials consists of four major categories: national, strategic, mobilization, and mobile reserves.

National and Strategic Reserves

12-6. Government warehouses store national-level reserves consisting of foodstuffs, petroleum products, manufactured goods, and strategic raw materials. While these stocks are separate from the military items held in strategic reserve, the military will likely use part of these stocks.

12-7. Strategic reserves are stocks of supplies and equipment controlled by the General Staff. These stocks are similar to stocks in national reserves and are not planned for early use in a conflict.

Mobilization Reserves

12-8. The OPFOR holds mobilization reserves for issue to newly activated, large military units and for resupply to combat units in the early stages of a conflict. The Organization and Mobilization Directorate of the General Staff determines the level and configuration of these stocks. That directorate also is responsible for accountability and maintenance. If the administrative force structure includes military districts or regions, these geographic commands can coordinate mobilization measures between military and civilian sectors. Mobilizing reserve and militia units are generally dependent on stockpiled supplies.

Mobile Reserves

12-9. Deployed ground units hold and transport mobile logistics reserves consisting of ammunition, fuel, rations, and equipment. Ground forces maintain these supplies for use in the conduct of ground operations and distribute them to both tactical and support units. Published planning factors establish quantities of these supplies. Each OPFOR unit maintains an emergency reserve of supplies, and only the unit commander can order the use of these supplies.

DEPOT FACILITIES AND OPERATION

12-10. Depots are part of the strategic logistics support structure and hold national-level stockpiles and strategic reserves. They occupy fixed peacetime facilities, aboveground and underground structures, plus dispersal sites throughout the country. They manage the distribution of war stocks and armaments and materiel, and perform any higher-level repair work

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Depot Categories

The depots are generally divided into the following categories:
- Area distribution depots.
- Ammunition depots.
- Maintenance depots.
- Medical depots.

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that is accomplished in country. Examples of these repairs include aircraft instrumentation, optics, and electronics. The depots manage the distribution of consumables such as fuel, food, and other items from the civilian economy. Rocket and missile units, aviation support units, and air defense maintenance units receive logistics support direct from the nearest depot.

12-11. A single depot may have one or more of the above missions. An *area distribution depot* (ADD) receives, stores, and distributes items for units operating or assigned within its geographic support area. Major end items may also be stored in an ADD, but normally are stored in a maintenance depot. The materiel stored within an ADD should accommodate a majority of the demands placed on the distribution system for the units located in its respective support area. An *ammunition depot* receives stores, renovates, issues, and demilitarizes munitions of all types. *Maintenance depots* overhaul major end items and repairable components and, as necessary, perform limited fabrication and manufacturing. All overhaul items are stored at a maintenance depot until disposition instructions are received from the MOD. *Medical depots* are discussed in the Medical Logistics section of this chapter.

Aboveground Structures

12-12. Aboveground structures range from factory warehouses to aboveground hardened structures. Hardened structures are reinforced for protection against aerial and ground attack. Earth mounded bunkers are an example of an aboveground hardened structure. The State uses extensive camouflage and concealment techniques to reduce the detection signature of these structures to enemy reconnaissance platforms. The State will also develop sophisticated decoy sites.

Underground Structures

12-13. Underground structures include shallow buried and deep underground bunkers and complexes. There are cases where the State uses underground storage facilities to house its C^2 complexes and medical facilities. Underground structures are dispersed throughout the country and consist of intersecting tunnels with multiple exits. Some of these exits may lead to either external combat positions or other subterranean facilities. Large camouflaged doors cover the entrances. The camouflage material matches the surrounding rock so closely that one has to knock on the surface to determine the difference. Normally, a complex may extend over a square kilometer or

more. Auxiliary casements in the underground facility may hold fuel, water, food, medical supplies, clothing, or life support equipment.

Short-Duration Facilities

12-14. Short-duration storage facilities play a central role in any strategic campaign that may involve intervention by an extraregional power. For example, prior to conducting adaptive operations, the State plans, develops, and builds short-duration storage facilities for the pre-positioning of equipment and supplies to sustain deployed forces. The State attempts to anticipate outside intervention and plan accordingly. Logistics items are stockpiled or cached in underground caves and dugout holes, tents, or warehouses, and are dispersed over a wide area. These facilities can be considered a mini-supply depot. They also undergo extensive camouflage and concealment to reduce their detection signature.

THEATER DISTRIBUTION NETWORK

12-15. Theater distribution is the flow of personnel, equipment, and materiel within a theater, which enables combat forces to accomplish their assigned missions. The theater distribution network consists of the physical and resource networks.

Theater Distribution Network
The theater distribution network consist of—   • Physical network.   • Resource network.

12-16. The *physical network* consists of fixed structures and established facilities to support distribution operations. It includes roads, airfields, railroads, hardened structures (warehouses and storage facilities), inland waterways, ports, and pipelines. The quantity, capacity, and capability of these structures and facilities determine the robustness of the distribution network.

12-17. The *resource network* consists of personnel (military and civilian), organizations, materiel, and equipment. These resources operate within the physical network of the distribution system.

TAILORED LOGISTICS UNITS

12-18. The OPFOR concentrates the bulk of its logistics units at two levels—theater and operational-strategic command (OSC). This concentration supports the OPFOR philosophy of streamlined, highly mobile combat forces at the tactical level. These higher levels maintain the responsibility and the primary means for logistics support.

12-19. Tailoring allows allocation of logistics resources to the combat forces most essential to mission success. It also allows the OPFOR to assign priorities for logistics support. Subordinate units receive assets according to the importance of their mission, the nature of the terrain, and the level of fighting anticipated. Commanders not only can reallocate their own resources in line with changes in the situation, but also can take away their subordinates' organic resources and give them to other subordinates if the situation warrants.

ADMINISTRATIVE FORCE STRUCTURE

12-20. The administrative force structure is the aggregate of military headquarters, organizations, facilities, and installations that are designed to man, train, and equip the OPFOR. After transferring control of its major fighting forces to one or more task-organized fighting commands, an administrative headquarters, facility, or installation continues to provide depot and area support-level administrative, supply, and maintenance functions. The logistics function of the administrative force structure is extensive and complex, serving as the major connecting link between the industrial base of the State and forces engaged in combat.

FIGHTING FORCE STRUCTURE

12-21. The OPFOR's fighting force structure is a flexible organization. It receives logistics assets from the administrative force structure and tailors them to meet specific objectives, based on forces available, mission requirements, enemy forces, and the geography of the AOR. Tailoring affects both the number and type of subordinate combat units and the number and type of logistics units allocated to support them.

LOGISTICS MISSIONS

12-22. In operational (and tactical) logistics, three terms describe how the OPFOR provides support to the field. These terms are primary support, area support, and depot support.

12-23. *Primary support* is a mission given to supply, services, transportation, and maintenance units that normally provide support directly to other units. This allows the primary support unit to respond directly to the supported unit's request for assistance or supplies.

12-24. *Area support* is a mission given to supply, services, transportation, and maintenance units that normally provide support to primary support units and other area support units. Lower-priority units may have to rely on area support, rather than receiving supplies and services directly from the next-higher echelon.

12-25. *Depot support* is a mission given to national- or theater-level units that normally provide support to area support units. Depot support operations include the receipt, storage, and issue of war stocks and domestically produced armaments and materiel, and the overhaul and rebuilding of major end items.

OPERATIONAL LOGISTICS CONCEPTS

12-26. The OPFOR understands that there is as much chance of an operation being brought to culmination by a lack of sufficient logistics support as by enemy action. Therefore, it considers thorough logistics planning and preparation essential to executing operation

Operational Logistics Concepts

The OPFOR relies on the following logistics concepts:
- Centralized planning and decentralized execution.
- Support forward.
- Sustainment from other sources.

plans. The OPFOR relies on three concepts: centralized planning and decentralized execution, support forward, and sustainment from other sources.

CENTRALIZED PLANNING AND DECENTRALIZED EXECUTION

12-27. To ensure both priority of effort and efficiency in the logistics process, the OPFOR's logistics operations are characterized by the concept of centralized planning and decentralized execution. Logistics plans are developed at higher levels and executed by units and organizations at lower levels. At OSC level, the resources officer has overall responsibility for logistics planning. Centralized planning requires a focal point for logistics planning and resource allocation at all levels. Regardless of whether the focal point is an individual (the resources officer or his secondary staff) or a unit, it must be constantly aware of requirements and capabilities. Decentralized execution enhances the flexibility of lower-level commanders to meet local requirements and to rapidly reprioritize support.

12-28. The concept of centralized planning and decentralized execution is key to supporting reconnaissance fire (see Chapter 7) and strike operations (see Chapter 3). The OPFOR uses reconnaissance fire to attack specific enemy systems in order to destroy or degrade the combat potential of the enemy force. It employs a strike to destroy an enemy formation after setting the conditions for its destruction. The OPFOR uses a series of caches and short-duration storage facilities to sustain fire support and maneuver forces during these operations.

12-29. This concept of centralized planning and decentralized execution is particularly important for supporting the deployment of special-purpose forces (SPF). Generally, SPF deployed into the enemy's strategic depth or against his LOCs are inserted with the munitions and supplies their missions require. Since SPF units are expected to sustain themselves for the duration of their missions, the OPFOR relies on the careful planning and stockage of supply caches to sustain these forces.

SUPPORT FORWARD

12-30. Logistics units are organized and deployed to support forward. The guiding principle is that a combat force should retain its organic support resources (such as trucks, recovery equipment, and ambulances) to support its subordinate units. It should not have to use its own resources to go to support areas to pick up supplies or to evacuate resources that can no longer contribute to combat power.

SUSTAINMENT FROM OTHER SOURCES

12-31. Finally, the logistics system may have to rely on sustainment from other than military sources. Supplies may be procured or obtained from social groups, consumer cooperatives, government farms, or individual citizens, and by coercion or foraging in the AOR. Captured enemy supplies and equipment are another source of outside sustainment.

COMMAND AND CONTROL

12-32. The General Staff may keep some national-level logistics units its direct control. However, it normally allocates some national-level assets, as well as logistics assets of operational-level commands in the administrative force structure, to provide logistics support to an OSC.[1] In some cases, these allocated assets may remain under the command of their original parent headquarters but become associated with an OSC in a supporting relationship. In other cases, they actually come under the command of the OSC in a constituent or dedicated status. (See Chapter 2 for a more detailed explanation of the various command and support relationships.)

OPERATIONAL STAFF RESPONSIBILITIES

12-33. At all levels of command, including the OSC, the resources section of the primary staff is the principal office for the logistics integration of supply, maintenance, transportation, and services. The resources officer heads this section, with two subsections headed by secondary staff officers who support him: the chief of logistics and the chief of administration. See Figure 12-1.
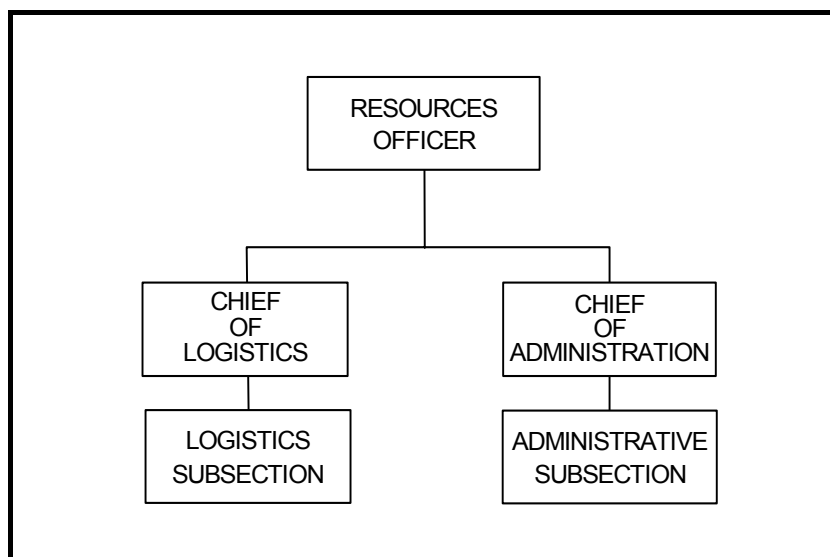
Figure 12-1. Resources Section

Resources Officer

12-34. The *resources officer* is responsible for the requisition, acquisition, distribution, and care of all of the command's resources, both human and materiel. He ensures the commander's logistics and administrative requirements are met and executes staff supervision over the command's logistics and administrative procedures. One additional major task of the resources officer is to free the commander from the need to bring his influence to bear on priority logistics and administrative functions. He is also the officer in charge of the sustainment command post (CP).

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[1] Unless otherwise specified, references to OSC in this chapter could also apply to a field group.

Chief of Logistics

12-35. The *chief of logistics* is responsible for managing the order, receipt, and distribution of supplies to sustain the command. He is responsible for the condition and combat readiness of armaments and related combat equipment and instruments. He is also responsible for their supply, proper utilization, repair, and evacuation. He oversees the supply and maintenance of the command's combat and technical equipment. These responsibilities encompass the essential wartime tasks of organizing and controlling the command's recovery, repair, and replacement system. During combat, he keeps the commander informed on the status of the command's equipment.

Chief of Administration

12-36. The *chief of administration* supervises all personnel actions and transactions in the command. His subsection maintains daily strength reports; records changes in table of organization and equipment of units in the administrative force structure; assigns personnel; requests replacements; records losses; administers awards and decorations; and collects, records, and disposes of war booty.

INTEGRATED SUPPORT COMMAND

12-37. The *integrated support command* (ISC) is the aggregate of combat service support units (and perhaps some combat support units) allocated from the administrative force structure to an OSC in a constituent or dedicated command relationship and not suballocated in a constituent or dedicated command relationship to a subordinate headquarters within the OSC. Normally, the OSC further allocates part of its combat service support units to its tactical-level subordinates and some, as an integrated support group (ISG), to support its IFC. The rest remain in the ISC at OSC level to provide overall support of the OSC. For organizational efficiency, other combat service support units may be grouped in this ISC, although they may support only one of the major units of the OSC. An ISC has six major functions:

- Materiel support (supply and services).
- Maintenance.
- Transportation.
- Medical support.
- Personnel support.

Sometimes, an ISC might also include units performing combat support tasks (such as chemical defense, IW, or law enforcement) that support the OSC.

ISC Headquarters

12-38. The ISC headquarters is composed of the ISC commander and his command group, an operations section, and a resources section. (See Figure 12-2.) The operations section provides the control, coordination, communications, and IW support for the ISC headquarters. Located within the operations section is the support operations coordination center (SOCC). The SOCC is the staff element responsible for the planning and coordination of support for the OSC. In addition to the SOCC, the operations section has

subsections for future operations and airspace operations. The resources section consists of logistics and administrative subsections which, respectively, execute staff supervision over the ISC's logistics and personnel support procedures. The ISC headquarters includes liaison teams from subordinate units of the ISC and from other OSC subordinates to which the ISC provides support. These liaison teams work together with the SOCC to ensure the necessary coordination of support for combat operations.
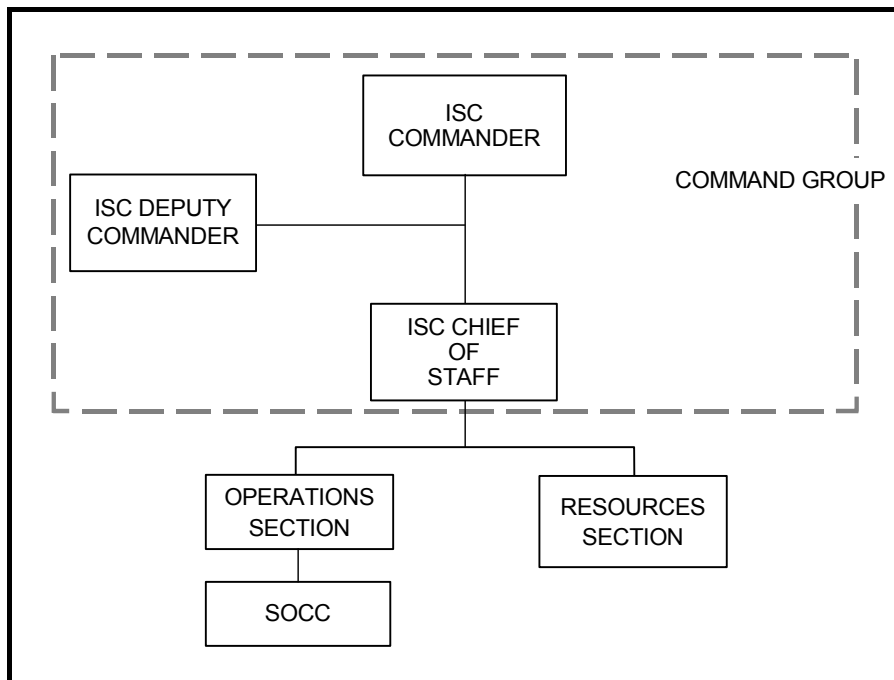
Figure 12-2. ISC Headquarters

12-39. The ISC commander and his staff are the OSC logisticians. The ISC commander advises the OSC commander, resources officer, and the rest of the OSC staff on logistics matters. The ISC commander normally receives guidance and direction from the OSC commander. The overall responsibility for logistics planning belongs to the OSC resources officer. The OSC commander tasks the ISC commander to evaluate the logistics supportability of future operation plans or courses of action. The ISC commander tasks and provides guidance to the ISC staff. The ISC staff gives the alternatives and preferred solutions to the ISC commander for a decision. If necessary, the ISC headquarters can assume the functions of the OSC's sustainment CP, should that CP containing the OSC resources officer be incapacitated.

Task Organization

12-40. The units allocated to an OSC and its ISC vary according to the mission of that OSC and the support requirements of other operational-level commands. The OSC resources officer (in consultation with his chiefs of logistics and administration and the ISC commander) determines the proper task organization of logistics and administrative support assets allocated to

the OSC. He suballocates some assets to the IFC and to other OSC subordinates based on support mission requirements. The remainder he places under the ISC commander. Figure 12-3 shows a typical OSC organization, with an example of the types of combat service support and combat support units that might appear in an OSC ISC.

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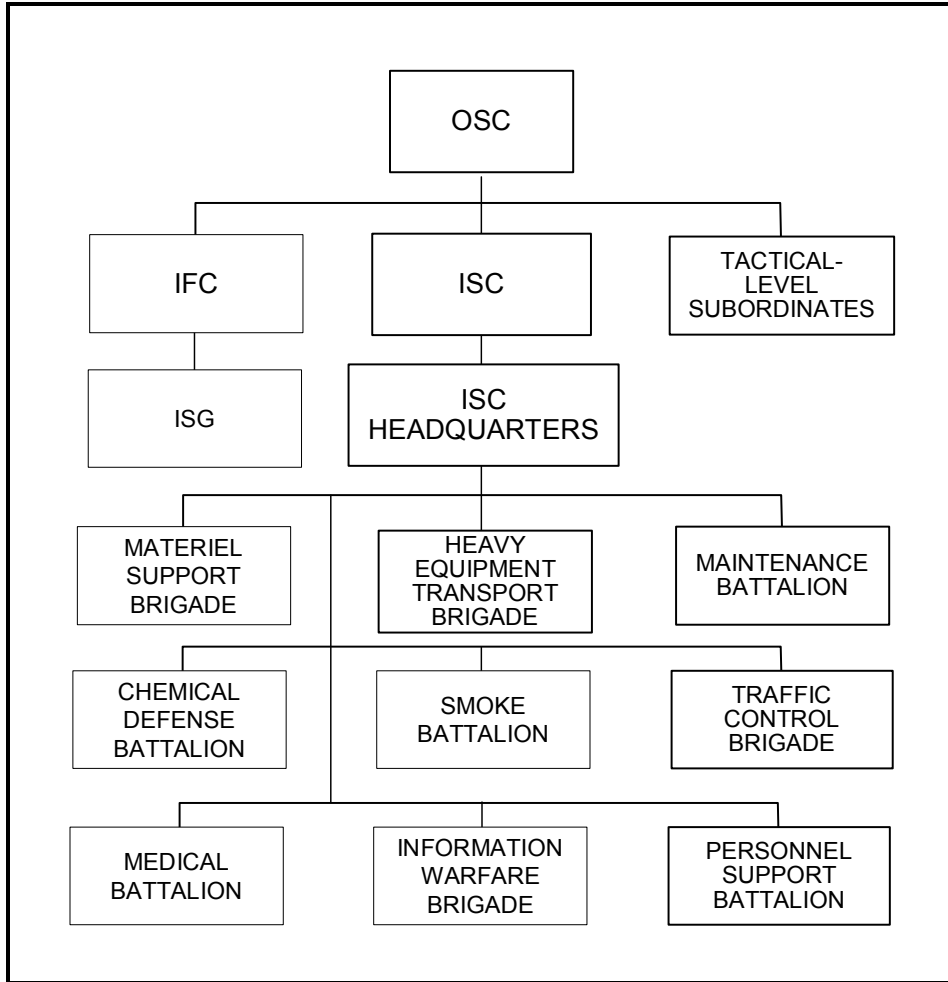
Figure 12-3. Task Organization, with ISC Example

12-41. The number and type of units in the ISC and ISG will vary according to the number and size of supported units in the OSC and its IFC, respectively. For example, an ISC supporting an OSC composed mainly of tank and mechanized infantry units will differ from an ISC supporting an OSC composed mainly of infantry or motorized infantry units. When the logistics units are no longer required for ISC or ISG functions, the primary or area support units will revert to control of their original parent units in the administrative force structure or otherwise will be assigned to other operational-level commands, as appropriate.

INTEGRATED SUPPORT GROUP

12-42. The *integrated support group* (ISG) is a compilation of units performing logistics tasks that support the IFC in a constituent or dedicated command relationship. For organizational efficiency, various units performing other combat support and combat service support tasks might be grouped into the ISG, even though they may support only one of the major units or components of the IFC.

12-43. There is no standard ISG organizational structure. The number, type, and mix of subordinate units vary based on the operational support situation. In essence, the ISG is tailored to the mission and the task organization of the IFC. An ISG can have many of the same types of units as shown in Figure 12-3 for one example of ISC subordinates, but tailored in size and functions to support the IFC.

MATERIEL SUPPORT

12-44. The OPFOR materiel support system comprises a mix of very modern and less modern capabilities that vary depending on the priority of the supported units. Generally, high-priority or elite units enjoy the benefits of a robust materiel support system that affords a higher degree of flexibility and responsiveness to rapid changes in plans. For such units, the system may be fully automated to track requirements and control the issue of supplies. Less capable units (including reserve and militia forces) typically have little or no automation support. Both types of materiel support system are based on allocating supplies and services to units in order to accomplish mission objectives. However, the aim of the OPFOR is to continue the upgrade of its less capable units to a robust supply system capable of sustaining the force in all environments.

SUPPLY

12-45. *Supply* includes actions to acquire, manage, receive, store, and issue the materiel required to equip and sustain the force from deployment through combat operations and recovery into State territory. The allocation of supplies is based on the unit mission, supply reports, and the availability of supplies.

SERVICES

12-46. The OPFOR concept of *services* includes all troops, installations, and duty positions that perform logistics support for combat arms units. Such services are not specific to the ground forces, but support other Armed Forces components as well.

METHODS OF DISTRIBUTION

12-47. During peacetime, the OPFOR operates under the "pull system" of supply. For example, units in the field may request materiel from a depot where they must pick it up and deliver it to the field. During wartime, however, the OPFOR operates under the forward distribution or "push system" principle, in which the higher echelon directly supplies and services the next-lower echelon. Supplies and services are delivered directly to

subordinate units using the organic transportation assets of the higher headquarters. Lower-priority units may have to rely on area support or even supply point distribution.

12-48. The three methods by which supplying units distribute supplies to using units are supply point distribution, unit distribution, and throughput. In *supply point distribution*, the supplying unit issues supplies from a supply point to a receiving unit. The receiving unit must go to the supply point and use its own transportation to move supplies to where they are needed.

12-49. In *unit distribution*, the supplying unit issue supplies and delivers supplies to the receiving unit's area in transportation assets the supplying unit has arranged. *Throughput* is a method of distribution in which shipments bypass intermediate supply points or logistics sites. Throughput eliminates the need for double handling, uses transportation assets more efficiently, and is more responsive to the user's needs.

MAINTENANCE

12-50. *Maintenance* includes actions taken to keep materiel and equipment in a serviceable condition, to return it to service, or to update and upgrade its capability. Since supplies are limited, the OPFOR stresses preventive maintenance, technical inspections, and proper operating methods to extend the life cycle of equipment. The maintenance system is designed to repair vehicles and equipment in the battle zone or as close to it as possible. Repair facilities and units move near the scene of combat rather than waiting for damaged equipment to be evacuated to them. Fixed and mobile repair units extend repair capabilities into the battle zone and provide service to the customer unit. During wartime, the types of repair performed at each level depend on the situation. Generally, they are of a lesser degree than in peacetime. The OPFOR classifies three categories of repair: routine, medium, or capital.

12-51. *Routine* repairs—such as replacements, adjustments, or repair of individual components—require a short time to fix. Generally, maintenance personnel do not disassemble major components as part of routine repair. *Medium* repairs include the minor overhaul of equipment and the repair of individual components requiring a short time to fix. *Capital* repairs are conducted at depot level and involve the major overhaul and/or assembly of equipment.

TRANSPORTATION

12-52. Transportation is a critical function that cannot be looked at in isolation; it is the one function that ties sustainment and all other battlefield operations together. The OPFOR envisions an environment characterized by dynamic, nonlinear operations; wide dispersion of forces; the need to concentrate rapidly for battle and disperse quickly; and the need to conduct a wide range of operations simultaneously.

12-53. Military logistics planners base their estimates on the use of all movement resources available. These estimates include tactical combat

vehicles as well as civilian transportation assets mobilized to move supplies, equipment, and personnel. For example, during mobilization, civilian trucking and bus companies may be organized as militia truck units to provide transportation of cargo and personnel within the State or occupied territory. The mobility of logistics units must match that of the supported force. If the logistics support units fail to achieve this, they may jeopardize the overall success of the operation. Traffic management at the operational level is the responsibility of the military transportation center (MTC). The MTC is subordinate to the OSC chief of logistics and is responsible for managing OSC transportation requirements, using military and civilian resources.

MOVEMENT PRINCIPLES

12-54. The principles of movement apply to all military transportation services and remain constant throughout peace and war. Additionally, they apply regardless of the planning level. During wartime, civilian personnel, transportation assets (including farm animals, vehicles, aircraft, and water vessels), and materiel-handling equipment are mobilized to support the war effort.

Centralized Planning and Decentralized Execution

12-55. Movement control is centralized at the highest level at which commanders charged with providing total logistics support and monitoring the transportation system and infrastructure can exercise it. This requires a focal point for transportation movement planning and resource allocation at all levels. That focal point, whether an individual (the resources officer or chief of logistics) or unit, must be constantly aware of requirements and capabilities. Decentralized execution enhances the flexibility of lower-level commanders to meet local requirements and to rapidly reprioritize support.

Regulated Movement

12-56. All movement is regulated according to command priorities. Movements are not validated, approved, or initiated if any part of the transportation system cannot meet the requirement. Regulating transportation assets and LOCs is required to prevent congestion, confusion, and conflict of movements. Unregulated use of the transportation system can severely hamper the movement of critical cargo and personnel supporting the operation or the overall strategic campaign. Therefore, traffic in the AOR is programmed to provide fluid movement throughout the transportation network.

12-57. The OPFOR employs a system of measures organized and executed for the purpose of ensuring convoy and traffic regulation as well as maintaining general order in areas where troops are deployed. A traffic control brigade is responsible for traffic control and law enforcement at the operational level. It is responsible for directing military traffic along convoy routes and ensuring that the proper convoy speed and spacing are maintained. The State's Internal Security Forces support movement control through protection of supply routes of movement in the State's homeland and of key transportation nodes and centers.

12-58. A *movement program* is a directive that allocates the available transport mode capability to satisfy the movement requirements in accordance with the commander's priorities. The program normally contains detailed information concerning origins, destinations, weights, and cube of cargo, and/or types and number of personnel to be moved.

Fluid and Flexible Movement

12-59. The transportation system is designed to provide an uninterrupted flow of traffic that adjusts rapidly to changing situations. It is flexible enough to meet the changing priorities of a fluid battlefield and reallocate resources as necessary. Adjustments must be made to meet the variations in combat intensity. For example, when units are in the offense, the transportation system expands to maintain the tempo of the operation. Conversely, when units are in the defense, the system is contracted, the mode changes, and differing cargo priorities may be necessary. Changes in the operational environment necessitate adjustments to operate in varying conditions and operational and/or tactical situations that may dictate the types of convoys and controls established for movement.

12-60. The availability and use of road and rail networks, airfields, inland waterways, ports, and beaches not only allow the transportation system to meet operational and tactical changes, but also provide redundancy within the overall transportation network. For example, if a portion of a road network is destroyed or rendered unusable, the mode could change to rail or inland waterway.

Maximum Use of Carrying Capacity

12-61. The principle of making maximum use of carrying capacity involves more than just loading each transportation asset to its optimum carrying capacity. Transport capability that is not used in one day cannot be stored to provide an increase in capability for subsequent days. Similarly, a situation allowing fully-loaded transport to sit idle is just as much a loss of carrying capacity as is a partially-loaded vehicle moving through the system. While allowing for sufficient equipment, maintenance, and personnel rest, planners should keep transportation assets loaded and moving as much as the situation permits.

TRANSPORTATION MODES

12-62. Transportation operations may include motor vehicles, rail, aircraft, and waterway (coastal and inland) transport vessels. The OPFOR generally uses motor vehicles to move large quantities of general cargo, petroleum products, and personnel throughout the AOR. However, waterway transport vessels may be used to move large quantities of supplies and personnel along coastal or inland waterways to remote areas that are not accessible to motor vehicles.

12-63. As requirements for transportation fluctuate, each mode must be properly used to accomplish the commander's objective. For example, air transport is employed if reaction speed is the priority. Motor transport is considered the most flexible surface mode. It provides door-to-door delivery service and an interface with all other transportation modes.

12-64. Motor transport becomes essential as supplies are moved forward from railheads, field depots, or supply points to combat units. After the relocation of supplies from national-level depots, the OPFOR distributes them within OSCs primarily by truck. Within an OSC, the heaviest truck transport requirements are primarily above the division level.[2]

SUPPLY AND EVACUATION ROUTES

12-65. Within their AORs, OSCs establish and improve supply and evacuation routes, using the network of military roads, and maintain them in passable condition. Staff responsibility for this is shared by the OSC resources officer and the chief of infrastructure management at that level. Engineer units at OSC level may form road and bridge construction and repair groups to prepare and maintain these and other movement routes. At national level, the Strategic Integration Directorate (SID) also organizes civil engineering and construction efforts required to sustain military actions. During wartime, civil engineering units from the Ministry of the Interior, as directed by the SID, may be employed at the national and/or OSC levels. Employed on an area basis, these units are responsible for the upkeep of supply and evacuation routes and for repair of battle-damaged roads and bridges. The OSC chief of infrastructure management must coordinate and prioritize the route construction and maintenance functions of both civil and combat engineers within his AOR.

PERSONNEL

12-66. The MOD establishes policy, assigns responsibilities, and prescribes procedures for personnel readiness issues as they apply to all members and components (standing forces, reserve, and militia) of the armed services. The Manpower and Readiness Department under the MOD Chief of Logistics is responsible for the administration and management of the personnel support system.

12-67. During peacetime, the State may be unable to fully man the military with critical professional and technical specialists to maintain an elaborate support structure. Thus, the OPFOR may experience a shortage of doctors, engineers, computer programmers, electronic technicians, and other support professionals. Once the country has been mobilized, however, these critical professionals are detailed into the military structure to augment existing professionals.

12-68. The State considers people as one of the assets most critical to the success of any military operation. Thorough planning and efficient personnel support directly influence mission readiness. Therefore, the MOD requires each of the armed services to resource personnel requirements in a timely manner to support operational requirements. The State views "personnel support" as all activities associated with assignment of personnel against authorized billets and validated individual augmentation requirements, as well as those administrative activities associated with personnel programs within a command.

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[2] Throughout this chapter, references to division- and brigade-level logistics support may also apply to a division tactical group (DTG) and brigade tactical group (BTG), unless specifically stated otherwise.

PERSONNEL SUPPORT

12-69. Units may maintain strength by piecemeal replacement of casualties during combat, particularly when lightly wounded personnel and damaged equipment can return to parent units quickly. Once casualties are sufficient to threaten total loss of combat effectiveness, the unit withdraws from contact and reconstitutes. Timely replacement of ineffective units is vital to maintaining momentum. The commander may choose to withdraw heavily attritted units and consolidate them to form a smaller number of combat-effective units.

12-70. The OSC chief of administration is responsible for all personnel actions and transactions in the command. The personnel support battalion provides the personnel to operate the personnel operations center. That center's major functions include providing personnel and administrative support, finance support, and legal support.

REPLACEMENT

12-71. Replacement operations are based on unit strength reports and include the coordinated support and delivery of replacements and soldiers returning from medical facilities. The unit strength report is used to assess a unit's combat power, plan for future operations, and assign replacements on the battlefield.

Individual Replacements

12-72. The OPFOR can use the system of individual replacements in both peacetime and wartime. The sources of replacement personnel are school graduates, reserve assignments, medical returnees, and normal assignments.

Incremental Replacements

12-73. The OPFOR may incrementally replace entire small units such as weapons crews, squads, and platoons. Replacements can be obtained from training units or reserve forces.

Composite Unit Formations

12-74. Composite units may be formed from other units reduced by combat operations. Composite units may be constituted up to OSC level.

Whole-Unit Replacement

12-75. The OPFOR uses whole-unit replacement when massive losses occur as a result of a combat action. Company-level and above units are brought forward from reserve forces to replace combat forces rendered ineffective.

Replacement Training

12-76. OPFOR planners realize that personnel replacement requirements may necessitate any of the aforementioned procedures. Individual and unit replacement exercises are held semiannually to maintain established proficiency standards for personnel units. During these and other training exercises, troops are moved by various modes of transportation such as motor vehicles, waterway, aircraft, or rail.

MEDICAL SUPPORT

12-77. The basic principle of combat medical support is multistage evacuation with minimum treatment by medical personnel at each unit level. They treat the lightly wounded who can return to combat and those casualties who would not survive further evacuation without immediate medical attention.

12-78. The OPFOR divides the range of medical treatment into three categories. The first category of procedures includes only mandatory lifesaving measures. The second category includes procedures to prevent severe complications of wounds or injuries. The final category of treatment includes procedures accomplished only when there is a low casualty load and reduced enemy activity.

12-79. In anticipation of an overtaxed combat medical support system, OPFOR doctrine emphasizes the importance of self-help and mutual aid among individual soldiers. This concept extends beyond the battlefield to casualty collection points and unit aid stations. Self-help and mutual aid reduces the demands made on medical personnel, particularly when there is a sudden and massive influx of casualties. Each soldier is required to attend a first-aid training session.

MEDICAL LOGISTICS

12-80. The medical logistics system operates on a "pull system." Personnel in the field request medical materiel (including repair parts for medical equipment) from a medical depot where it must be picked up and delivered to the field. Normally, medical supplies are transported from the support zone to the battle zone on cargo-carrying transport vehicles, water vessels, or aircraft. However, ground ambulances returning to the battle zone may assist in transporting medical supplies. A medical equipment maintenance unit at the medical depot provides all medical equipment maintenance.

Level	Available Care
Platoon	Platoon medic (corpsman) provides basic first aid.
Company	Company medic (paramedic) provides advanced first aid, pain relief, intravenous fluids, and treatment of most common illnesses.
Battalion	Medical assistant (physician's assistant) provides limited medical intervention, minor surgery, and treatment of most common illnesses; limited inpatient capability.
Brigade, BTG, and Division	Medical officers (physicians) provide trauma stabilization and minor surgical intervention.
DTG or Higher	A field hospital provides major surgery and extended care.
OSC or Theater Support Zone	Central Military Hospital and major civilian hospitals provide definitive care in fixed facilities.

Figure 12-4. Levels of Medical Care

CASUALTY HANDLING

12-81. The OPFOR has shown success in handling combat casualties. This success stems from emphasis placed on trauma training and close coordination with the civilian medical sector. Evacuation is based on a higher-to-lower method. The next-higher echelon provides transportation for casualties. Each level has specific responsibilities for the care of the sick and wounded. (See Figure 12-4.) Besides treating the wounded, medical personnel handle virtually all of their own administration, especially at lower levels. As casualties move through the combat evacuation system, medical personnel at each level make effective use of medical facilities by repeated sorting of the wounded (triage). Helicopters are used for all military and civilian search and rescue missions, medical evacuations, and domestic disaster relief flights. During wartime situations, most casualties arrive at a hospital within 6 to 12 hours after being wounded. The evacuation time is reduced to 2 hours during peacetime.

MEDICAL FACILITIES

12-82. A field hospital is the first level in the evacuation system capable of conducting major surgery and giving extended care. It is mobile and capable of deployment near the battle zone. It constitutes the largest and most extensive military facility with this capability.

12-83. The best medical facility is the Central Army Hospital. During peacetime, military personnel receive treatment at this hospital, which also is designated as one of the emergency medical care facilities for foreign diplomats, their families, and tourists. The State also has designated some of its major university hospitals as such emergency medical care facilities. This ensures consistent high-quality medical staffing, care and treatment. A majority of medical facilities or clinics in the outlying areas has sufficient numbers of trained personnel, supplies, and reliable electric power and water. The facilities also contain high-quality, sophisticated, domestic and imported medical equipment. The pharmacies are stocked with high-quality, domestic, and foreign-produced pharmaceuticals. During wartime conditions, military personnel are treated at all of the major civilian hospitals in addition to field hospitals.

NBC TREATMENT

12-84. Treating nuclear, biological, and chemical (NBC) casualties is a standard OPFOR trauma protocol. The NBC medical plan is based on three assumptions:

- Mass casualties will occur.
- Casualties will be similar to those that medical personnel have been trained to treat.
- Medical personnel are able to treat the casualties in a decontaminated environment.

The Central Army Hospital can be converted into a chemical decontamination center within 2 to 6 hours. Most of the remaining major hospitals require up to 30 days to convert to a decontamination center.

BLOOD MANAGEMENT

12-85. The Ministry of Health maintains a Blood Management Office to oversee the collection, processing, storage, and distribution of blood (to include liquid blood and blood components) to alleviate the effects of a natural disaster or war. Blood management services are provided to support both civilian and military establishments. The main source of blood to support wartime casualty requirements comes from the collection and processing of blood from the civilian populace during peacetime. The blood is generally stored in pre-positioned underground structures throughout the country.

SUPPORT OF COMBAT OPERATIONS

12-86. During both offense and defense, OPFOR logistics units operate from locations that are protected, concealed, and serviced by good road networks. Commanders emphasize that logistics units make maximum use of urban areas to conduct logistics operations. The dispersion of logistics sites is consistent with support requirements, control, and local security.

12-87. Logisticians must be continuously informed of operation plans and probable changes to those plans. They coordinate logistics preparations with deception plans to avoid giving away the element of surprise. Commanders emphasize passive security measures during the sustainment of combat operations. Logistics unit commanders anticipate that at least 50 percent or more of their work will be done in darkness or under other limited visibility conditions. Therefore, noise and light discipline is a necessity when operating under these conditions.

OFFENSE

12-88. The logistics objective in supporting offensive operations is to maintain the momentum of operations by supporting in the battle zone or as close to it as possible. Both the battle zone and the support zone can move as the offensive operation progresses.

12-89. Planners must consider the nature of offensive operations as it affects logistics activities. For example, high fuel consumption may dictate making provisions to position substantial quantities in or near the battle zone without signaling the OPFOR's intention to attack to the enemy. Responsive support is critical and is made more difficult by lengthening of supply lines and by critical requirements for user resupply vehicles to stay close to their respective units. Planning, coordination, communication, and above all flexibility are key factors to consider. Therefore, planners develop logistics plans flexible enough to meet the changing priorities of a fluid battlefield.

12-90. In considering the attack, materiel support units ensure that all support equipment is ready and that supplies are best located for support. They also ensure that sufficient transportation is available to support maneuver and logistics plans. Normally, ammunition and fuel are the most important supplies in the offense. However, consideration must be given to all supplies, as well as other support procedures, specifically medical and maintenance.

12-91. The following are examples of some specific considerations for planners to use during the development of logistics plans supporting offensive operations:

- Maintenance units should pre-plan maintenance collection points along movement routes, in order to reduce recovery requirements.

- Supply points consisting of fuel and ammunition are positioned in the battle zone or as close to it as possible.

- Arrangements are made in advance for aerial resupply of critical items in order to maintain the operational tempo.

- Planners arrange to throughput obstacle-breaching and bridging material if required.

- Planners must consider potential bypassed enemy units; they must have the latest intelligence on the enemy situation.

DEFENSE

12-92. The logistics objective in supporting defensive operations is to sustain the attrition of enemy attacking forces through support from dispersed sites located in the support zone. An OSC support zone may be dispersed within the support zones of subordinate divisions or brigades, or the OSC may have a separate support zone site of its own.

12-93. During defensive operations, supply activity is greatest in the preparation stage. Supplies generally are stockpiled or pre-positioned in initial and subsequent defensive positions. Critical supplies such as ammunition and barrier material should be as mobile as possible to ensure continuous support as combat power is shifted in response to enemy attacks.

12-94. To support stay-behind operations, supply stockage levels may be two to three times higher than normal amounts. This ensures a redundancy of caches and needed equipment that cannot be readily resupplied. Stay-behind forces may require unique maintenance support arrangements to ensure that equipment remains operational.

12-95. Logistics units position themselves in relatively secure positions far enough from maneuver and fire support units to be out of the flow of the battle. However, they should not be so far removed as to render the logistics effort less effective.

12-96. The following are examples of some specific considerations for planners to use during the development of logistics plans supporting defensive operations:

- Maintenance units should position maintenance teams in the battle zone to return the maximum number of weapons systems to the battle as soon as possible.

- Emphasis is on keeping supply and evacuation routes open.

- Nonessential logistics units and operations move into the depth of the support zone as early as possible.

- In a maneuver defense, supply points consisting of fuel and ammunition are positioned as far forward as possible and in successive battle positions.

SUPPORT ZONE SECURITY

12-97. The OPFOR expects any enemy to make an effort to conduct reconnaissance, espionage, and diversionary action in its operational support zone. These enemy actions can be particularly effective in areas where the local population is not sympathetic to the OPFOR's cause. In addition to these threats, the OPFOR anticipates attacks on its support zone by airborne and heliborne forces as well as larger-scale attacks by enemy operational maneuver forces.

12-98. The OPFOR uses a security force to counter any threats in its support zone. Each OSC deploys a considerable counterintelligence effort. It can assign up to an entire division for security tasks. The security force is equipped and trained for conventional as well as unconventional warfare. As airborne and amphibious threats grow, there is increasing stress on deploying antilanding reserves, including, or even based on, heliborne units to provide a rapid reaction.

MISSION SUPPORT SITES

12-99. A mission support site (MSS) is a temporary base used by units that are operating at a considerable distance from their support zone, during an extended mission. The MSS may provide food, shelter, medical support, ammunition, or demolitions. The use of an MSS eliminates unnecessary movement of supplies and allows a force to move more rapidly. When selecting an MSS, consideration is given to cover and concealment, proximity to the objective, proximity to supply routes, and the presence of enemy security forces in the area. Security dictates that drop zones or landing zones be a considerable distance from an MSS, cache, or support zone—although this may increase transportation problems.

POST-COMBAT SUPPORT

12-100. Strategic and operational logisticians are not only focused on supporting units in combat. They are also focused on other post-combat support requirements such as personnel replacement, weapon systems replacement, reconstitution, and receiving and preparing reinforcements. (For information on personnel replacement, see the Personnel Support section of this chapter.)

WEAPON SYSTEMS REPLACEMENT

12-101. Weapon systems replacement is simply a procedure for providing a weapon system to a combat unit. It involves processing the vehicle or equipment from a storage or transportation configuration to a ready-to-fight condition. It also involves the integration of a completely trained crew with the weapon system.

RECONSTITUTION

12-102. Reconstitution is performed in support of all combat operations. Although it is mainly a command and operations function, the actual refitting, supply, personnel fill, and medical actions are conducted by logistics

units. There are two methods for conducting reconstitution: reorganization and regeneration.

Reorganization

12-103. Reorganization is action taken to shift resources internally within a degraded unit to increase its level of combat effectiveness. Reorganization is normally done at unit level and requires only limited external support such as supply replenishment, maintenance assistance, and limited personnel replacement. When continuity of the mission is of paramount importance, composite units may be formed from other units reduced by combat operations.

Regeneration

12-104. Regeneration is action taken to rebuild a unit through large-scale replacement of personnel, equipment, and supplies. Additionally, it is action taken to restore C^2 and conduct mission-essential training. Overall, the effort is directed at restoring the unit's cohesion, discipline, and fighting effectiveness.

PREPARING REINFORCEMENTS

12-105. OPFOR strategic and operational logisticians prepare contingency plans for the mobilization and reception of reserve forces. Once the unit personnel and equipment are mobilized, they are sustained, configured, and transported to their respective OSC. Normally, strategic-level logistics units provide this type of support. Once units arrive at the OSC level, the OSC assumes responsibility for their further sustainment and transport.

Chapter 13

Airborne, Special-Purpose Forces, and Amphibious Operations

The OPFOR views airborne and special-purpose forces (SPF) as means to carry the battle into the enemy's depth. The General Staff uses these highly mobile forces against strategic objectives or for regional power projection. It may also allocate such forces down to the operational and tactical levels. It has the capability to conduct amphibious operations, which sometimes occur in conjunction with airborne or SPF operations in a coastal area. Insertion of any or all these forces into enemy rear areas can disrupt the stability and cohesion of his defense.

AIRBORNE AND HELIBORNE OPERATIONS

13-1. Airborne and heliborne forces have the capability to surprise the enemy, rapidly envelop key objectives, or exploit targets weakened by the effects of deep fires. Airborne and heliborne forces are especially critical given the fluidity and rapid tempo that characterizes the modern battlefield. The OPFOR expects to capitalize on the added vertical dimension that airborne and heliborne forces provide when working in concert with ground maneuver forces.

13-2. The OPFOR also uses airborne forces as a means of projecting power in its region. Significant portions of invasion forces could consist of airborne units, which are well suited for such roles. They train for operations in a variety of geographical environments. They also train specifically to establish, defend, and expand an airhead. Their equipment is air-transportable.

13-3. Airborne forces are particularly valuable as a means to control access into the region by extraregional forces. The early seizure of ports and airfields critical to enemy deployment can be an essential ingredient in the conduct of access-control operations. Airborne and heliborne forces are especially suited for operations conducted during the transition from regional to adaptive operations. Their unique capabilities also render them especially useful in support of adaptive operations. They can serve as fixing, assault, exploitation, or deception forces when the rapid positioning of such forces in support of offensive operations is critical.

13-4. Airborne landings require many valuable assets. Therefore, only after careful consideration would a commander make the decision to use airborne forces. If other units are capable of fulfilling a given mission, they execute it instead of airborne units. Heliborne landings also require valuable assets but are often more economical than airborne landings.

COMMAND AND CONTROL

13-5. Administratively, airborne forces are part of the Army. During wartime, to allow flexibility in employment, they are directly subordinate to the Supreme High Command (SHC), with control exercised by the General Staff. When the OPFOR establishes more than one theater headquarters, the General Staff may allocate some airborne units to each theater. A theater commander with dedicated airborne assets could further dedicate airborne units to an operational-strategic command (OSC) or, dependent upon the mission, he could also place airborne units in support of an OSC. A theater commander with constituent airborne assets can allocate them to an OSC in a constituent, dedicated, or supporting relationship. These command and support relationships ensure that airborne objectives support the overall mission of the theater or OSC to which the airborne units are allocated. Even in a supporting relationship, the commander of the theater or OSC receiving the airborne unit(s) establishes those units' objectives, priorities, and time of deployment.

13-6. The *landing force commander* is the commander of the airborne or ground force unit forming the basis for the airborne or heliborne landing force. He is responsible for preparing and positioning troops for loading. He shares with the aviation commander the decision to proceed with the landing, based on the assessment of the situation at the drop zone (DZ) or landing zone (LZ). After the landing, the landing force commander is solely responsible for conducting the operation, until linkup with ground maneuver forces. While the landing force commander can plan the scheme of maneuver, final approval of the plan comes from the OSC or theater commander.

MISSIONS

13-7. The OPFOR categorizes airborne or heliborne missions based on the depth and importance of the objective, the size of forces involved, and the level of command of the controlling commander. The three categories of missions are strategic, operational, and tactical. The location of enemy forces, the level of the controlling headquarters, the significance of the target, weapons systems capabilities, and geography also determine the scope of the operation. Many factors can affect the decision of where to insert an airborne or heliborne force, including—

- The size of the force.
- Anticipated enemy resistance.
- The air situation (presence or absence of air superiority).
- The potential for reinforcement of the force.
- The position and projected rate of advance of friendly forces designated for linkup.

Strategic Missions

13-8. In wartime, the SHC establishes strategic missions, which the General Staff controls. The outcome of a strategic mission should have significant impact on the war or strategic campaign. The use of airborne forces in a regional power-projection role is also a strategic mission.

13-9. Airborne forces conduct strategic missions against deep targets. Forces from other arms and services can also participate, but typically would not arrive in the target area until a later time. Depending on the depth of the airborne mission, linkup with ground forces may not occur for several days. Since troops on the ground receive supplies by airdrop or airlift, the operation requires substantial air combat and transport support.

13-10. Objectives of strategic missions could be national capitals or other administrative-political centers, industrial or economic centers, ports or maritime straits, or airfields. Strategic missions also may establish a new theater or neutralize one member of an enemy coalition.

Operational Missions

13-11. An OSC does not necessarily include airborne forces in its task organization. However, the SHC or General Staff may allocate such forces to an OSC for a given operation, in a constituent, dedicated, or supporting role. Operational objectives could include—

- Headquarters or command posts.
- Communications facilities.
- Enemy precision and nuclear weapons.
- Logistics facilities.
- Airfields.
- Ports.
- Bridges and other water- or gap-crossing sites.
- Lines of communications (LOCs).

An airborne force of brigade size is the most common force used to accomplish operational missions. Typical missions can include deception operations, blocking a withdrawing enemy, or enveloping enemy defensive positions.

Tactical Missions

13-12. While recognizing the need to limit the use of airborne forces to primarily strategic and operational missions, the OPFOR also recognizes the need for the capability to insert troops to perform tactical missions. A tactical airborne mission could have the same types of objectives as an operational mission. On occasion, airborne troops may be allocated for such missions, but the force is more likely to consist of infantry troops. In either case, the units involved would normally rely on helicopters for tactical insertions, rather than fixed-wing aircraft. The primary function of these tactical airborne or heliborne landings is to cooperate with ground maneuver forces in reaching operational or tactical objectives. In other situations, heliborne insertions can serve as a rapid means for positioning or repositioning forces on the battlefield.

13-13. Heliborne units can perform reconnaissance missions when inserted into the disruption zone or the enemy rear area. They may perform tactical security missions, or cover, delay, or defend against an enemy approach to a vulnerable flank. Heliborne units can also serve in an antilanding reserve, providing rapid reaction to the threat of enemy airborne or amphibious landings. Ambushes, raids, sabotage, and deception activities are examples of other

missions suited to heliborne operations. Heliborne units can also lay and clear mines in the enemy rear.

PLANNING AND PREPARATION

13-14. Planning considerations for airborne and heliborne operations include the mission, troops and support available, terrain, the depth of the operation, flight routes, air superiority, DZs or LZs, surprise, security, and the enemy situation. Deception operations are planned to mislead the enemy as to the true purpose and location of air activity. Given routine readiness conditions, the time required to prepare transport aviation and to plan a battalion-size or larger airborne mission is, as a minimum, approximately 24 hours. This planning time includes—

- Notification of alert and moving out: 2 hours.
- Preparation of aviation units: 18 hours.
- Embarking troops and equipment and final aircraft preparation: 4 hours.

When exercising a preplanned contingency or starting from an increased readiness condition, the preparation time is reduced by 5 to 8 hours.

13-15. The time required to plan for a battalion-size heliborne assault is similar. Troop embarkation times can be reduced if few or no vehicles accompany the force. The force selected to conduct a heliborne assault may require training, and this adds at least one day to the preparation time. To avoid this delay, the OPFOR trains selected infantry battalions for heliborne employment.

13-16. Preparation for an airborne or heliborne landing includes the following:

- Determining the composition, strength, and capabilities of the enemy forces in the area of the DZ or LZ (or those near enough to interfere with the landing operations and subsequent attack of the objective).
- Determining the nature of the terrain and condition of the road network.
- Locating natural and manmade obstacles that would interfere with air drop of troops and equipment.
- Selecting suitable primary and alternate DZ or LZs.

13-17. Aerial reconnaissance, clandestine agents, sympathizers, maps, signals reconnaissance, long-range patrols, or air-dropped reconnaissance teams all provide intelligence information for an airborne operation. Reconnaissance of the DZ or LZ, by both air assets and SPF, continues throughout the planning and execution stages of the operation. If enemy troops are located in the area, they are attacked and neutralized by aviation, artillery, or SPF. Reconnaissance takes place when the airborne or heliborne operation is first conceived, when troops embark, and while aircraft are en route to the DZ or LZ. Enemy armor, artillery, and air threats are of major concern. Reconnaissance activities also occur outside the projected objective area, as a deception measure.

13-18. Airborne and heliborne operations require extensive coordination between the committed landing force and the controlling headquarters, supporting aviation, and ground maneuver forces. The following principles contribute to success:

- Surprise should be used to advantage. Extensive security measures are necessary in all phases of the operation to prevent early detection and

to minimize enemy reaction time. Night airborne operations are a primary means of achieving surprise. False insertions aid deception and surprise when conducting heliborne operations.

- Landings should be in undefended areas or in areas where enemy defenses have been effectively neutralized.

- There must be effective air cover for the en route formation. Suppression of enemy ground-based air defense weapons along the flight route is imperative.

- Airborne assaults receive fire support from aircraft, surface-to-surface missiles (SSMs), and artillery, as the latter comes within supporting range of airborne forces.

- Artillery fires are essential to the support of heliborne forces.

- Attack helicopters escort lift helicopters to prepare the LZ before the landing of troops and to provide fire support once the landing force is on the ground.

13-19. A typical DZ is three by four km; a typical LZ may be smaller. An airborne brigade normally receives one primary and at least one alternate DZ. Within a brigade DZ, each airborne battalion has a designated, individual DZ. The landing force commander designates alternate zones for emergency use. Follow-on forces normally use the zones used by the initial wave. Heliborne forces use one or more LZs depending upon the situation and size of the landing force. The landing force commander designates at least one alternate LZ.

CONDUCT

13-20. The use of airborne forces in an operation depends upon whether it would enhance the likelihood of surprise, deep penetration, and rapid exploitation. Also essential is a favorable forces analysis in the DZ or LZ and the objective area. These criteria, together with the achievement of at least temporary local air superiority and the availability of airborne and airlift assets, constitute the main elements in a planner's decision to conduct an airborne or heliborne operation.

Air Movement

13-21. The Air Force allocates the transport aviation units required for deployment. Either transport aircraft or lift helicopters or a combination of the two can air-land airborne units or insert airborne battalions. Lift helicopters from army aviation can support heliborne landings. Aircraft of civil aviation can augment military capabilities. Civil fleet equipment consists of some medium- and long-range passenger transports and a number of short-range transports and helicopters. Staging bases and associated airfields are located at distances that protect aircraft and troop concentrations from enemy tactical aircraft and short-range SSMs. Airfields and equipment are camouflaged and concealed against aerial observation, and aircraft are placed in revetted positions.

13-22. The OPFOR considers the air movement phase of an airborne or heliborne operation to be its most vulnerable phase. The OPFOR emphasizes the necessity of creating a threat-free flight corridor from the departure area to the DZ or LZ. All along the flight path, fire support assets target enemy air defenses. Fighters escort transport aircraft during an airborne operation to protect them from

enemy fighters and ground fires. Attack helicopters can escort lift helicopters during a heliborne operation to protect them from ground fires.

13-23. Passive defense measures taken during the air movement phase include conducting movement during hours of darkness, using more than one flight route, maintaining radio silence, and flying at low altitudes. The OPFOR can use electronic warfare measures during air movement, including escort jammers, which suppress enemy air defense and surveillance systems.

Air Drop or Heliborne Landing

13-24. Airborne forces normally conduct combat air drops at an altitude of from 150 to 300 m. They emphasize the necessity of dropping at low altitude to minimize the amount of time individuals are in the air. Low-altitude drops also increase the likelihood that a unit's personnel and equipment would land close together.

13-25. Forces inserted by helicopter have the advantage of arriving on the LZ as organized units. To minimize their vulnerability to ground fires, helicopters remain on the ground in the LZ only long enough to disembark troops. If the LZ is under effective enemy fire, the landing force commander, after consulting the aviation commander, may divert the force to an alternate LZ.

Drop Zone or Landing Zone Procedures

13-26. The air drop or landing and reorganization phase is the second most vulnerable period in an operation, following the air movement phase. The airborne or heliborne force must clear the DZ or LZ quickly, before the enemy arrives to counter it.

13-27. If the airborne force is dropped or landed during daylight hours, personnel either move directly to their predesignated attack positions or, if the DZ or LZ is not on the objective, first assemble in battalion assembly areas. If the drop or landing occurs at night, personnel may first assemble as companies and then move to battalion assembly areas, before occupying predesignated attack positions.

13-28. If the DZ is under strong enemy attack, personnel assemble and move immediately to the perimeter to establish defensive battle positions. Personnel use any available light armored vehicles to reinforce battle positions, and do not sort out the vehicles until after repelling the enemy attack.

13-29. If the DZ is not on the objective and units assemble first, they try to avoid combat with enemy ground force units and hide from an air threat. If required to actively defend against an air attack, at least one entire platoon per company or one company per battalion is responsible for the mission. For a planned follow-on air landing, the initial landing force leaves a rear detachment at the DZ. This detachment provides security on the DZ for the landing of the follow-on force.

13-30. The heliborne force lands on its objective if possible. If it is not on the objective, the LZ should be as close as possible but outside of the direct fire range of enemy forces at the objective. Once on the ground, the heliborne landing force organizes rapidly in an assembly area.

Movement to Objective

13-31. Speed and security are the primary concerns during movement to the objective. If the landing force is moving at night, it can use established road networks to reach the objective before dawn. If movement is during the day, the unit moves cross-country using terrain features to provide concealment when possible. During movement, the landing force maintains radio silence until making contact with the enemy, with only the landing force commander transmitting messages.

13-32. Since the information received before departure is perishable, reconnaissance missions during the ground movement phase are extremely important. For airborne forces, these missions are performed by reconnaissance teams from the brigade and/or battalion level. These teams may have engineer or chemical defense personnel attached.

13-33. Rapid execution is especially important to the heliborne force. The force departs the assembly area with reconnaissance in the lead and on the flanks. The landing force attacks the target as quickly as possible in order to gain surprise and maintain momentum.

Offense

13-34. Once on the ground, offensive tactics of airborne forces are similar to those of similarly equipped infantry forces. Before the attack, the airborne force deploys its fire support units to provide maximum support. Airborne forces at the final objective attack to destroy the enemy or to seize control of the enemy-held area or facility. A heliborne force can be augmented with combat engineers, antitank weapons, artillery, and chemical defense troops. The force usually attempts to attack its objective from several directions at once. A heliborne force is generally assigned an objective less heavily defended than that assigned to an airborne force.

Defense

13-35. Once the landing force has seized an objective, it must defend that objective until the arrival of friendly ground maneuver forces. Usually, the landing force establishes a perimeter defense. In some cases, the terrain and the enemy's situation may permit establishing a defense in depth, with a small, mobile reserve. A number of factors influence the capability to remain on the objective: days of supply on hand, a secure air resupply corridor, the availability of air support, and the enemy's ability to respond to the landing. Heliborne forces, especially those drawn from the regular ground forces, have little sustainability, and their ability to remain on the objective is limited. Linkup with a ground maneuver force should occur as quickly as possible.

Linkup

13-36. Airborne or heliborne units either await a linkup with friendly forces or, when necessary, fight their way back to friendly lines. The rule of thumb is that the probability of overall success is greater the sooner the linkup occurs. To accomplish linkup, the unit sends a reconnaissance patrol to meet the approaching ground maneuver force units. The reconnaissance patrol provides information on the best approaches into the area, the security situation on the

objective, and the enemy situation. A linkup with ground maneuver forces normally completes the mission of an airborne or heliborne force. Once linkup occurs, control of the landing force unit returns to the parent headquarters.

SPECIAL-PURPOSE FORCES OPERATIONS

13-37. The OPFOR maintains a broad array of SPF. One of the six service components, the SPF Command, provides the capability to attack both regional and extraregional enemies throughout their strategic depth. In addition to conducting direct action, this command fields strategic reconnaissance forces with which it is able to support national intelligence requirements. It also has a capability to support operations of terrorists and other irregular forces. The SPF Command includes both SPF units and commando units. Its units provide a balanced capability including some tactical transport for use in inserting SPF or commando units.

13-38. In addition to the SPF Command, four of the other five service components have their own SPF. The Army, Naval, and Air Force SPF are intended primarily for use at the operational level and enable each service to conduct reconnaissance and direct action to the opponent's operational depth. The Internal Security Forces also have their own highly-trained SPF units, equipped to conduct direct-action missions in the enemy's rear. All of these SPF organizations provide the OPFOR a flexible and capable means of support to regional, transition, and adaptive operations.

13-39. The Air Force fields light transport aircraft for insertion of its own SPF or those belonging to other service components, within the region. The Navy's submarine force may also insert SPF for reconnaissance or direct action outside the region.

COMMAND AND CONTROL

13-40. The SPF Command includes both SPF units and commando units. (Command and control for the SPF Command's commando units is discussed under the subsection on Commandos later in this chapter.) The Army, Navy, Air Force, and Internal Security Forces also have their own SPF. Any of these various types of SPF units may remain under the command and control of their respective service headquarters or may be suballocated to operational- or even tactical-level commands during task organization.

Administrative Force Structure

13-41. The SPF Command is one of the six service components subordinate to the SHC and is thus under the control of the General Staff. The General Staff normally reserves some SPF brigades under its own control for strategic-level missions as directed by its Intelligence Directorate. Likewise, the Army, Navy, and Air Force could maintain some of their own SPF directly subordinate to the service headquarters, although most of them are intended for use at the operational level and thus can be subordinate to operational-level commands, even in the administrative force structure.

13-42. In peacetime and in garrisons within the State, SPF of both the SPF Command and other services are organized administratively into SPF companies, battalions, and brigades. These organizations facilitate peacetime administrative

control and training. However, even these administrative organizations do not have a fixed structure. Each consists of a varying number of small SPF teams normally composed of 5 to 12 men each. The number of teams contained in each administrative organization depends on the team size required for specific missions that are envisioned for it. Every SPF operation is unique and unlike any other, and thus requires forces organized not in a standard fashion but rather adapted into a task organization based on the mission.

Task Organization

13-43. When the OPFOR establishes more than one theater headquarters, the General Staff may allocate some SPF units to each theater. From those SPF assets allocated to him in a constituent or dedicated relationship, the theater commander can suballocate some or all of them to a subordinate OSC.

13-44. The General Staff (or a theater commander with constituent or dedicated SPF) can allocate SPF units to an OSC in a constituent or dedicated relationship or place them in support of an OSC. These command and support relationships ensure that SPF objectives support the overall mission of the OSC to which the SPF units are allocated. Even in a supporting relationship, the commander of the OSC receiving the SPF unit(s) establishes those units' objectives, priorities, and time of deployment. The OSC commander may employ the SPF assets allocated to him as constituent or dedicated as part of his integrated fires command (IFC), or he may suballocate them to his tactical-level subordinates. Even SPF units allocated to an OSC may conduct strategic missions, if required.

13-45. The SPF units of the Army, Navy, Air Force, and Internal Security Forces may remain under the control of their respective services (or be allocated to a joint theater command). However, they are more likely to appear in the task organization of an OSC. In that case, the OSC commander may choose to suballocate them to tactical-level subordinates. If necessary, SPF units from any of these service components could become part of joint SPF operations in support of national-level requirements. In that case, they could temporarily come under the control of the SPF Command or the General Staff.

13-46. Regardless of the parent administrative organization, SPF normally infiltrate and operate as small teams. When deployed, these teams may operate individually, or they may be task organized into detachments. The terms *team* and *detachment* indicate the temporary nature of the groupings. In the course of an operation, teams can leave a detachment and join it again. Each team may in turn break up into smaller teams (of as few as two men) or, conversely, come together with other teams to form a larger team (of perhaps up to 30 men), depending on the mission. At a designated time, several teams can join up and form a detachment (for example, to conduct a raid), which can at any moment split up again. This whole process can be planned before the operation begins, or it can evolve during the course of the operation.

13-47. When deployed outside the State, each SPF team or detachment is in direct communication with a higher headquarters. The controlling headquarters is at the very least an OSC, and some SPF units receive orders directly from the General Staff or theater headquarters. Thus, the chain of command during operations is simple and flexible.

SPECIAL RECONNAISSANCE

13-48. SPF are a major source of human intelligence (HUMINT), placing "eyes on target" in hostile, denied, or politically sensitive territory. They gather information to satisfy strategic and operational intelligence requirements at extended distances (sometimes more than 100 km) or close to tactical reconnaissance, in nonlinear and noncontiguous situations. Their priorities include—

- Precision weapons.
- NBC delivery systems.
- Headquarters and other command and control (C^2) installations.
- Reconnaissance, intelligence, surveillance, and target acquisition (RISTA) systems and centers.
- Rail, road, and air movement routes.
- Airfields and ports.
- Logistics facilities.
- Air defense systems.

Once SPF teams locate such targets, they may simply monitor and report on activity there, or they may conduct direct action or diversionary measures.

13-49. The SPF can train and employ affiliated forces and civilians to perform HUMINT activities. They may also operate in conjunction with HUMINT agents controlled by the Intelligence Directorate of the General Staff.

DIRECT ACTION

13-50. *Direct action* involves an overt, covert, or clandestine attack by armed individuals or groups to damage or destroy high-value targets or to kill or seize a person or persons. Examples of direct-action missions for SPF units are assassination, abduction, hostage taking, sabotage, capture, ambushes, raids, rescue of hostages (civilian and military), and rescue of downed pilots and aircrews. Implementation of direct-action missions depends on the size of the enemy's defenses, the element of surprise, and the assets available to the SPF unit commander.

13-51. The term *diversionary measures* refers to direct actions of groups or individuals operating in the enemy's rear area. These measures include the destruction or degradation of key military objectives and the disruption of C^2, communications, junctions, transport, and LOCs. They could include misdirecting military road movement by moving road markers and generating false communications. They also involve killing personnel, spreading disinformation, destroying military hardware, and other actions to weaken the morale and will of the enemy by creating confusion and panic. Diversionary measures may contribute to the conduct of information warfare.

MISSIONS

13-52. While SPF belonging to other service components are designed for use at the operational level, forces from the SPF Command provide a regional and global strategic capability. Collectively, all these SPF assets can engage the enemy simultaneously to his operational and even strategic depth. They are prepared to attack enemy forces anywhere in the region, at overseas bases, at home stations, and even in military communities. They can attack his airfields,

seaports, transportation infrastructures, and LOCs. Targets include not only enemy military forces, but also government agency heads, contractors, and private firms involved in transporting troops and materiel into the region or supporting enemy forces in any manner.

13-53. SPF are likely to be used against key political, economic, or population centers or tangible targets whose destruction affects intangible centers of gravity, rather than against military targets for purely military objectives. These efforts often place noncombatants at risk and aim to apply diplomatic-political, economic, and psychological pressure. The goal is to present the enemy with a nonlinear, simultaneous battlefield. Attacking such targets can not only deny the enemy sanctuary, but also weaken his national will, particularly if the OPFOR can attack targets in the enemy's homeland.

13-54. SPF are capable of conducting the following basic missions:

- Neutralize weapons of mass destruction and precision weapons.
- Attack air defense facilities and airfields.
- Disrupt LOCs.
- Attack C^2 and RISTA facilities.
- Exploit surprise to disrupt defensive actions.
- Undermine morale and spread panic.
- Disrupt enemy power supplies and transportation networks (power utilities, POL transfer and storage sites, and internal transportation).
- Conduct reconnaissance for future ground force operations or for airborne and/or amphibious landings.
- Organize local irregular forces.
- Prevent efficient movement of enemy reserves.
- Assassinate important political and military figures.
- Provide terminal guidance for attacking aircraft, missiles, and precision weapons.

In addition to these basic missions, SPF may have specific missions in peacetime, transition to war, and wartime.

Peacetime Missions

13-55. During peacetime, the Intelligence Directorate of the General Staff carefully coordinates reconnaissance programs geared to meet the intelligence requirements of the State and of the OPFOR in war. Aside from SPF troops, it maintains agent networks in the target country to support SPF operations. Some of these agents actively engage in subversion; others are "sleepers," prepared to act on call in time of war. The SPF Command trains agents to operate as political agitators, intelligence collectors, and saboteurs. The agents establish residence near military targets such as airports, missile bases, arsenals, communications centers, logistics centers and depots, and routes used for troop movements. Just before the beginning of hostilities, SPF teams link up with agents already operating in the target area.

13-56. Clandestine SPF sabotage agents do little intelligence collection. Their job is to assimilate into the local culture, establish residences near transport and power facilities, and when ordered, emplace explosive charges in preselected targets.

13-57. Another important task for clandestine SPF sabotage agents in peacetime is to acquire houses and plots of land to prepare safe areas where sabotage teams (civilian and military) can find refuge after landing behind enemy lines in times of hostilities. These places are usually in the countryside, in forested areas near the sea, or in the mountains.

13-58. Agents provide incoming sabotage and assassination teams with safe areas, motor transport, fuel, and supplies. They then guide the teams to their objective. Both intelligence and sabotage agents can come under the control of a theater or OSC chief of reconnaissance. The chief of reconnaissance can transfer agents from one category to the other at any time or order them to fulfill both roles.

Transition to War

13-59. Before hostilities begin, SPF conduct clandestine operations in the target area. This increases the probability of destroying key targets well before enemy force protection measures tighten. This is the most critical period because clandestine agents or teams can efficiently use the enemy's lack of awareness as an opportunity to disorganize and disrupt troops and the local population. Since the SPF often use terror tactics, direct action during this transition period still allows plausible deniability. Missions generally include the following:

- Conduct strategic and operational reconnaissance.
- Train and assist insurgents operating in foreign countries.
- Organize local irregular forces.
- Weaken the target country's military capabilities or will to fight through either subversion or direct action.
- Assassinate key military and political figures.
- Sabotage enemy mobilization and deployment.

13-60. The General Staff directs the planning of SPF wartime missions, which form an integral part of combined arms operations. Intended to support theater-level campaigns as well as OSC-level operations, SPF are capable of operating throughout enemy territory.

Wartime Missions

13-61. SPF play an important role in support of both the offense and defense. They may perform their missions separately, in support of strategic objectives, or in support of a theater-level campaign or an OSC-level operation. Missions generally include some of the following:

- Conduct deep reconnaissance operations.
- Conduct direct action along strategic or operational axes, including ambushes and raids.
- Destroy critical air defense systems and associated radars.
- Support follow-on conventional military operations.
- Assist local irregular forces to prepare for offensive operations.

- Provide communications, liaison, and support to stay-behind partisan operations in the defense.

13-62. The OPFOR conducts SPF operations in the enemy's operational and strategic depth to undermine his morale and to spread panic among the civilian population and the political leadership. Refugees can hamper enemy deployment, defensive maneuver, and logistics.

13-63. SPF allocated to an OSC often become part of the disruption force, frequently operating in enemy-held territory before the beginning of an operation or battle. They may become part of an OSC's IFC, to assist in locating and destroying key enemy formations or systems (see Chapter 2).

13-64. **Regional Operations.** In operations against the State's regional neighbors, Army SPF inserted in advance can support the ground forces at the operational level and conduct reconnaissance and direct action to the opponent's operational depth. Naval and Air Force SPF can carry out reconnaissance in support of landings or conduct raids against critical targets. The SPF Command uses its assets to conduct missions throughout the strategic depth of current regional opponents and to detect indicators of possible outside intervention in the regional conflict. The SPF can also support terrorist and insurgent operations in the region.

13-65. **Transition Operations.** During transition operations, when an extraregional force begins to intervene, the SPF Command can use its regional and global intelligence-gathering capabilities to the enemy's strategic depth. It can use SPF teams to conduct direct-action attacks against ports, LOCs, and early-entry forces. The SPF can use terror tactics and are well equipped, armed, and motivated for such missions. The SPF can also support insurgent and terrorist operations to delay or disrupt the extraregional force's mobilization and deployment.

13-66. During transition operations, Army SPF conduct raids against enemy logistics sites, LOCs, and vulnerable military targets in the region. The Navy and Air Force can also insert Naval and Air Force SPF to conduct raids against critical installations within the region. The SPF Command can conduct attacks to the enemy's strategic depth, to divert enemy resources to protect politically or ecologically sensitive targets and to undermine the enemy's will to enter or continue the fight. Although these attacks are characteristically part of transition operations, they are also conducted during regional and adaptive operations if required.

13-67. **Adaptive Operations.** During adaptive operations, substantial gaps may exist between the positions of dispersed OPFOR units. In these gaps, the OPFOR may use SPF to destroy key systems, cause politically unacceptable casualties, harass the enemy, and maintain contact.

13-68. Air Force SPF provide air base security in State territory or other areas occupied by the OPFOR. They can conduct raids against enemy air bases and installations within the region. They may also take part in joint SPF operations coordinated by the SPF Command as part of strategic operations. The Navy could use its submarine force to insert SPF for direct action against a high-payoff target outside the region.

13-69. During adaptive operations, the OPFOR may increase the level of SPF actions in the enemy rear area. The national-level SPF Command provides the ability to attack both regional and extraregional enemies throughout their strategic depth. Strategic reconnaissance by SPF in support of national intelligence requirements is an essential element of access-control operations. In addition to its own direct action against enemy forces and installations, the SPF Command can also support operations of irregular forces.

13-70. The OPFOR has trained SPF as alternate means of delivering nuclear, biological, or chemical (NBC) munitions packages it may develop for them. This provides a worldwide strategic means of NBC delivery that is not limited to the range of the missiles of the Strategic Forces.

INTEGRATED FIRES COMMAND

13-71. An IFC may include an SPF unit as one of its many components (see Chapters 2 and 7). At OSC level, the SPF component provides the OPFOR the ability to attack both regional and extraregional enemies throughout their strategic depth. They conduct operations to achieve strategic military, political, economic, and/or psychological objectives or to achieve tactical or operational goals in support of strategic objectives. Such operations may have either long-range or immediate impact on the enemy.

COMMANDOS

13-72. The SPF Command also includes elite commando units. Like SPF units, commandos normally operate in territory not controlled by the State. Normally, personnel selected for commando units come from soldiers who have already served 3 to 7 years in other combat arms. In addition to proficiency in various infantry-type tactics, they receive training for more specialized commando missions, with emphasis on infiltrating and fighting in complex terrain and at night.

Command and Control

13-73. In the administrative force structure, commando battalions are subordinate to the SPF Command. For administrative purposes, these battalions may be grouped under a commando brigade headquarters. However, commandos are employed as battalions, companies, platoons, and squads or as small teams, depending on the type of mission. Commandos are elite units, specially trained for missions in enemy territory. When assigned such missions, the commando units may disperse into small teams (typically 5 to 12 men). These small teams are harder to detect during infiltration and provide the ability to attack many targets simultaneously to achieve maximum effect. However, based on factors such as the enemy situation and the size of the target, the individual teams may come together temporarily to form commando detachments. If necessary, they can re-form into platoon- to company-size units to perform attacks against critical military and civilian targets.

13-74. Commando units can be allocated in a constituent or dedicated status to be task organized as part of an OSC or of a division or brigade tactical group (DTG or BTG) based on a regular ground forces organization. Even is such cases, however, the reason for incorporating a commando unit into such an organization normally would be to perform specialized commando missions that contribute to

the overall mission for which that task organization was created. In other cases, commando units may be allocated in a supporting relationship, while remaining under the command of their parent commando unit or the SPF Command.

Infantry-Type Missions

13-75. Sometimes, particularly in defensive situations, commandos may be called on to perform regular infantry missions, filling gaps between dispersed regular forces. In this case, commandos would typically fight as companies or battalions, using tactics similar to those of regular infantry units.

Commando Missions

13-76. Commando units generally conduct various types of reconnaissance and combat missions in the disruption zone or deep in enemy territory, during larger operations or tactical actions that are either offensive or defensive. The reconnaissance missions include actions such as surveillance, monitoring, and searches. Commando units are expected to conduct reconnaissance within the context of any combat mission. Conversely, when employed as reconnaissance forces, the commando units' activities are not limited to reconnaissance. They are also tasked with assaulting and destroying military or civilian targets.

13-77. Commandos provide the OPFOR with flexible, lethal forces capable of employment in a variety of roles. Typical missions that are assigned to the commandos include but are not limited to—
- Collecting information on deployment of enemy forces and reserve unit movement.
- Collecting information on logistics facilities and seaports.
- Collecting information on enemy aircraft operating from forward airfields.
- Conducting reconnaissance of terrain and enemy forces, in support of the offense.
- Locating and destroying enemy weapons of mass destruction.
- Conducting team- or platoon-size raids and ambushes and destroying critical military or civilian targets in enemy territory.
- Conducing larger-scale (company- or battalion-size) raids and ambushes in the disruption zone or in enemy territory.
- Clearing LOCs for use by supported regular ground force units during the offense or defense.
- Clearing or emplacing obstacles.
- Conducting surprise attacks on enemy forces and create disturbances after infiltrating into enemy territory.
- Acting as a disruption, fixing, assault, exploitation, or security force.
- Acting as an antilanding reserve.

13-78. **Offense.** Commandos are employed as infiltration units during the offense. Following overland, airborne, seaborne, or waterborne infiltration, commandos—operating independently—may perform various reconnaissance and combat missions described above. However, they may also act in conjunction

with regular ground forces. In the latter role, commandos can conduct the following missions to ensure the success of the overall offensive action:

13-79. Commandos can act as a *disruption force*, or as part of such a force. In addition to reconnaissance missions, they can be tasked with creating confusion in the disruption zone or in enemy territory by—

- Removing or emplacing obstacles.
- Raiding and destroying headquarters, LOCs, and tactical missile firing locations.
- Occupying key terrain features (in advance of regular ground forces).
- Occupying ambush positions on enemy withdrawal routes.

13-80. Commandos can act as a f*ixing force*. In this role, they can set up ambushes or emplace obstacles to prevent further enemy forces from coming to the aid of the target the regular forces' attack. They can occupy key terrain features that control choke points that hinder enemy reserve unit movements. Such choke points may be valleys, bridges, and crossroads that are critical for the enemy movement.

13-81. Commandos can act as part of an *assault force*. In this role, they can conduct raids and surprise attacks against C^2 sites, logistics elements, fire support units (to include attack helicopter units), and other high-priority civilian and military targets. They also conduct attacks against other objectives or seize terrain that hinders enemy reserve unit movements or hampers his withdrawal.

13-82. As part of an *exploitation force*, commandos may attack a withdrawing enemy force from his flank and rear. Commando units can be air-inserted ahead of the withdrawing enemy force to establish ambush positions along the enemy's withdrawal route.

13-83. **Defense.** During a defensive operation conducted by an OSC, commando units allocated to the OSC can support the action primarily in reconnaissance and security roles. Commando units can conduct reconnaissance in the OSC disruption zone or deep in enemy territory. They may also act as a security force in the OSC support zone. When acting as a security force, commandos are normally employed as companies or battalions. The commando unit can be augmented with vehicles and/or additional forces (such as tank or mechanized units, fire support, or aviation) to act as an assault force in limited-objective attacks against enemy airborne, air assault, or special operations forces units.

13-84. A commando battalion or company is seldom used as a combat force in the battle zone because of organization, equipment, and limited firepower. However, if the defensive mission is more important than reconnaissance or security, it may act as a combat force, using regular infantry or motorized infantry tactics. Commando units may fill gaps between the battle positions of regular forces. When performing such infantry-type missions, commandos are normally employed as companies or battalions.

13-85. When OSC maneuver forces are forced to withdraw from an area, commando units can remain deployed in the OSC's original disruption zone and battle zone to perform reconnaissance, raids, and ambushes. The stay-behind commandos attempt to maneuver in small teams to conduct reconnaissance

sance and limited-objective attacks against enemy targets such as C^2 sites, isolated combat units, LOCs, and logistics units.

AMPHIBIOUS OPERATIONS

13-86. The Navy has a limited amphibious capability that allows it to insert either naval infantry or regular ground forces or SPF from the sea. It also fields a submarine force that could insert naval infantry to conduct raids against critical installations within the region. The Navy also fields its own Naval SPF that are able to conduct reconnaissance in support of landings or raids against critical targets. Thus, amphibious operations can play an important role in regional, transition, or adaptive operations.

MISSIONS

13-87. Amphibious landings can be either operational or tactical in scale. However, either type can influence the outcome of a larger operation or strategic campaign.

Operational Missions

13-88. Amphibious operations can occur when the objectives are of critical value and the enemy surface warfare capability allows. Although these operations may be conducted independently of SPF or regular ground forces, they may have air, naval gunfire, and missile support. Thus, it is possible for an operational amphibious landing to have major strategic consequences.

13-89. These operational missions may have the following objectives:

- Conduct operations in concert with ground forces to envelop and destroy enemy positions in a coastal area.
- Seize or destroy ports, islands, peninsulas, and/or straits, radar sites, and other important objectives in coastal areas.
- Interdict enemy LOCs within the coastal areas.
- Conduct combined operations with or in support of airborne and SPF units landed deep within enemy territory.
- Contribute to deception operations with amphibious landings mounted as a feint to mislead the enemy about the direction of the OPFOR main effort.
- Block the approach routes of enemy reserves or counterattack forces that might influence the outcome of the main operation or campaign.
- Establish coastal defenses on occupied coasts as other OPFOR forces move deeper into enemy territory.

These objectives can be accomplished by conducting an unopposed, surreptitious insertion of amphibious forces within striking distance of a lightly defended target.

Tactical Missions

13-90. Tactical amphibious landings probably are the most frequent form of OPFOR amphibious operation. Their purpose is to attack the rear area or flank of any enemy force along a coastline or to seize islands, naval bases, coastal airfields, ports, and other objectives on an enemy-held coastline. This diverts enemy attention and resources away from the decisive area of the

battlefield. The amphibious landing force can be up to a detachment, operating independently or with ground force units.

13-91. In an offensive operation, tactical amphibious landing forces can seize bridges or road junctions near the coast and hold them until the arrival of the main land forces. Such landings can stop or delay enemy reinforcements or cut off his line of retreat. They may also help to maintain the tempo of the OPFOR ground forces' advance, or they can be for deceptive purposes. Thus, landings that are tactical in scale may nevertheless have important operational repercussions.

Reconnaissance and Sabotage Missions

13-92. Reconnaissance and sabotage amphibious landings are in a special category. Seaborne raids may perform the multiple functions of—

- Conducting reconnaissance.
- Damaging or destroying high-value installations located near a coast.
- Disrupting the enemy's C^2 and/or logistics.
- Tying down substantial numbers of enemy troops in the defense of long, vulnerable coastlines.

Sea-delivered SPF teams may also perform deep reconnaissance and sabotage tasks of operational or strategic importance.

COMMAND AND CONTROL

13-93. In the administrative force structure, naval infantry forces are part of the Navy. However, they may conduct amphibious landings in support of an OSC or theater command as part of joint and combined arms operations. The SHC or theater command may allocate naval infantry units to an OSC in a given operation.

13-94. Some amphibious landings are conducted by naval infantry delivered by naval transport, without support from or coordinated action with other services of the Armed Forces. In this case, a naval commander could exercise overall C^2 of the amphibious operation.

13-95. However, most landings by naval infantry are part of a larger joint operation or campaign in which they operate in conjunction with forces of other services. When sufficient naval infantry forces are not available, the amphibious landing force may consist of ground forces or SPF units that are transported by naval vessels. In these cases, the OSC or theater commander normally organizes and controls the amphibious operation, with expert advice from the chief of littoral warfare on his functional staff. The OSC or theater commander coordinates the joint actions of the naval and/or ground forces conducting the landing with supporting actions by airborne, SPF, Air Force, and air defense forces. The commander of the naval transport unit and the commander of the transported unit usually share responsibility for overall control during loading, transport, and landing.

13-96. The _landing force commander_ is the commander of the naval infantry, ground force, or SPF unit forming the basis for the amphibious landing force. He is responsible for preparing and positioning his troops for embarkation on naval craft that will transport them to the shore. He must coordinate with the commander of the naval unit providing transport. After the landing, the landing force commander is solely responsible for conducting the operation. While

the landing force commander can plan the scheme of maneuver, final approval of the plan comes from the OSC or theater commander.

CONDUCT

13-97. The preference for smaller-scale landings reflects the limited and subordinate role amphibious landings play in OPFOR thinking. Also, the OPFOR does not use its naval infantry in exactly the same way as other countries use their marines. For the latter, the seizure of a beachhead is often merely a prelude to extended action ashore. The OPFOR, by contrast, generally intends to use its specialized naval infantry troops only to secure a beachhead (and perhaps to raid inland). Any buildup of effort is by ordinary infantry or mechanized infantry units, with supporting artillery and staying power. The OPFOR withdraws naval infantry from combat as soon as possible to keep it available to ensure the success of subsequent landings. This, along with coastal defense, is the primary role of OPFOR naval infantry.

Joint Forces and Combined Arms

13-98. An amphibious landing usually takes on a joint and combined arms character. Its success normally requires at least temporary local air and naval superiority. (The exception would be small-scale raids conducted under conditions of limited visibility.) Against all but the weakest of enemy defenses, a heavy fire preparation is also necessary to suppress the enemy. Naturally, much fire is air-delivered, including using fires of accompanying helicopters. Also, the main ground forces' long-range artillery and/or naval gunfire may be able to provide support for shallow landings.

13-99. An airborne or heliborne landing normally precedes or accompanies any important amphibious landing. If the amphibious landing is to be small in scale and shallow, a heliborne force may suffice. However, a major deep landing probably requires the aid of an airborne drop. These air-delivered forces may either seize a beachhead or port, interdict the approach of enemy reserves, or attack important targets.

13-100. For successful amphibious and supporting air landings, the OPFOR must have an accurate picture of what enemy land, air, and naval forces are in range to intervene. Intensive intelligence-gathering always precedes the landing.

13-101. In a landing conducted jointly with sea-delivered ground forces, naval infantry units constitute the assault force. They have responsibility for breaching antilanding obstacles in the water and on the shore, for seizing a beachhead, and for securing the approach of the exploitation force to the landing area. Once ashore, naval infantry units employ standard OPFOR tactics as they fight their way forward to link up with air-landed troops. Their immediate mission is to provide protection for the landing and deployment of exploitation forces.

13-102. After the naval infantry secures a beachhead, infantry or mechanized infantry units can land and take over the battle. They normally replace, rather than reinforce, the assault force, even if the latter has taken only light casualties. Thus, the naval infantry remains available to spearhead additional landings. Once that is accomplished, the assault force assists the exploitation force in achieving the overall objective of the landing.

13-103. As pointed out, the OPFOR expects to commit infantry or mechanized infantry units through a secure beachhead to perform combat missions inland. However, these units may share in the assault landing role as well. If so, the OPFOR recognizes the need for at least a degree of special training. The ground force units may have attached naval infantry personnel to help overcome the special problems of an assault landing.

Regional Operations

13-104. Against a regional opponent, the OPFOR may be able to conduct amphibious landings as operational-level missions. In this case, a landing force of battalion or even brigade size, once landed, could conduct large-scale operations employing fixing, assault, and exploitation forces, as described in Chapter 3.

13-105. The OPFOR's naval infantry forces may be capable of forcible entry against regional opponents. Amphibious operations may entail the landing of a naval infantry battalion or brigade as the assault force. The exploitation force, consisting primarily of infantry or mechanized infantry troops, follows to exploit the opportunity created by the assault force.

13-106. Even in regional operations, larger-scale amphibious landings are risky. Therefore, the OPFOR normally would not attempt them outside the range of land-based air cover and support. Linkup with a ground maneuver force should occur as quickly as possible.

Transition Operations

13-107. When an extraregional enemy has only early-entry forces deployed, OPFOR naval infantry forces may still be capable of forcible entry. Their insertion can complete the envelopment of a small enemy force. It could also help control further enemy deployment from the sea.

Adaptive Operations

13-108. The OPFOR does not have the capability to conduct opposed amphibious operations against a fully deployed extraregional force. It does, however, have the capability to transport up to a regular infantry or naval infantry battalion by sea, with limited amounts of supplies and heavy weapons. The unit is then landed unopposed at a predetermined site, away from the enemy's main forces. In some cases, SPF or airborne troops may be inserted in lieu of using conventional infantry or naval infantry.

13-109. During adaptive operations, amphibious operations typically comprise small-scale landings conducted in detachment strength. These operations include raids, ambushes, reconnaissance, and assaults, with detachment-strength actions being the norm. The raids and ambushes in this case would be small-scale actions conducted in a manner similar to those described for SPF earlier in this chapter, against isolated small enemy forces. Because of the extraregional force's modern RISTA means, only shorter-range landings conducted during hours of darkness have a chance of achieving the surprise that is critical to success. Normally, linkup with friendly forces is planned to occur within hours after the landing.

Glossary

The glossary lists acronyms and terms with joint definitions, and other selected terms. Terms with specific OPFOR-related definitions for which FM 7-100.1 is the proponent manual (the authority) are marked with an asterisk (*) and followed by the number of the paragraph (¶) or page where they are defined. For other terms, refer to the document listed.

AA	antiaircraft
*access limitation	....¶1-61
*adaptive operations	.... ¶1-6
ADCSINT	Assistant Deputy Chief of Staff for Intelligence
ADD	area distribution depot
ADTDL	Army Doctrine and Training Digital Library (now the General Dennis J. Reimer Training and Doctrine Digital Library)
*administrative force structure	....¶2-23
AFCS	automated fire control system
*affiliated	.... ¶2-14
AFL	affiliated
AIRCP	airborne command post
*air parity	....¶8-67 (see also FM 1-02)
*air superiority	.... ¶8-65 (see also JP 1-02)
*air supremacy	.... ¶8-64 (see also JP 1-02)
AKO	Army Knowledge Online
ALR	antilanding reserve
ALTCP	alternate command post
*annihilation	....¶7-10
*antilanding reserve	....¶4-64
*antitank reserve	....¶4-63
AOR	area of responsibility
AOS	airspace operations subsection
AP	antipersonnel
APC	armored personnel carrier
APOD	aerial port of debarkation

INTEL	intelligence
IR	infrared
ISC	integrated support command
ISG	integrated support group
IT	information technology
IW	information warfare
JP	joint publication

km	kilometer(s)
LAN	local area network

LOC	line of communications

LOR	limit of responsibility
LZ	landing zone
m	meter(s)

MCP	main command post

mm	millimeter(s)
MOD	Ministry of Defense
MRL	multiple rocket launcher
MSD	movement support detachment
MSS	mission support site
MTC	military transportation center

NBC	nuclear, biological, and chemical
NCA	national command authority
NCO	noncommissioned officer

NGO	nongovernmental organization
NII	national information infrastructure
NOE	nap-of-the-earth
OBJ	objective

OD	obstacle detachment
ODCSINT	Office of the Deputy Chief of Staff for Intelligence
OE	operational environment

OPFOR	opposing force

OSC	operational-strategic command
OTID	OPFOR and Threat Integration Directorate

POL	petroleum, oils, and lubricants

PSYWAR	psychological warfare
PVO	private volunteer organization
PWP	plasticized white phosphorus

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These documents must be available to the intended users of this publication.

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READINGS RECOMMENDED

These sources contain relevant supplemental information.

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FM 7-100.4. *Opposing Force Organization Guide*. TBP.

FM 7-100.5. *Opposing Force: Worldwide Equipment Guide*. TBP.

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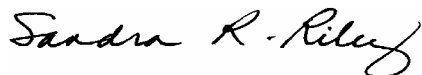
window of opportunity. *See*
opportunity.

Z

zones. *See* attack zone; battle
zone; disruption zone; kill zone;
support zone; (air defense)
zones of responsibility.

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