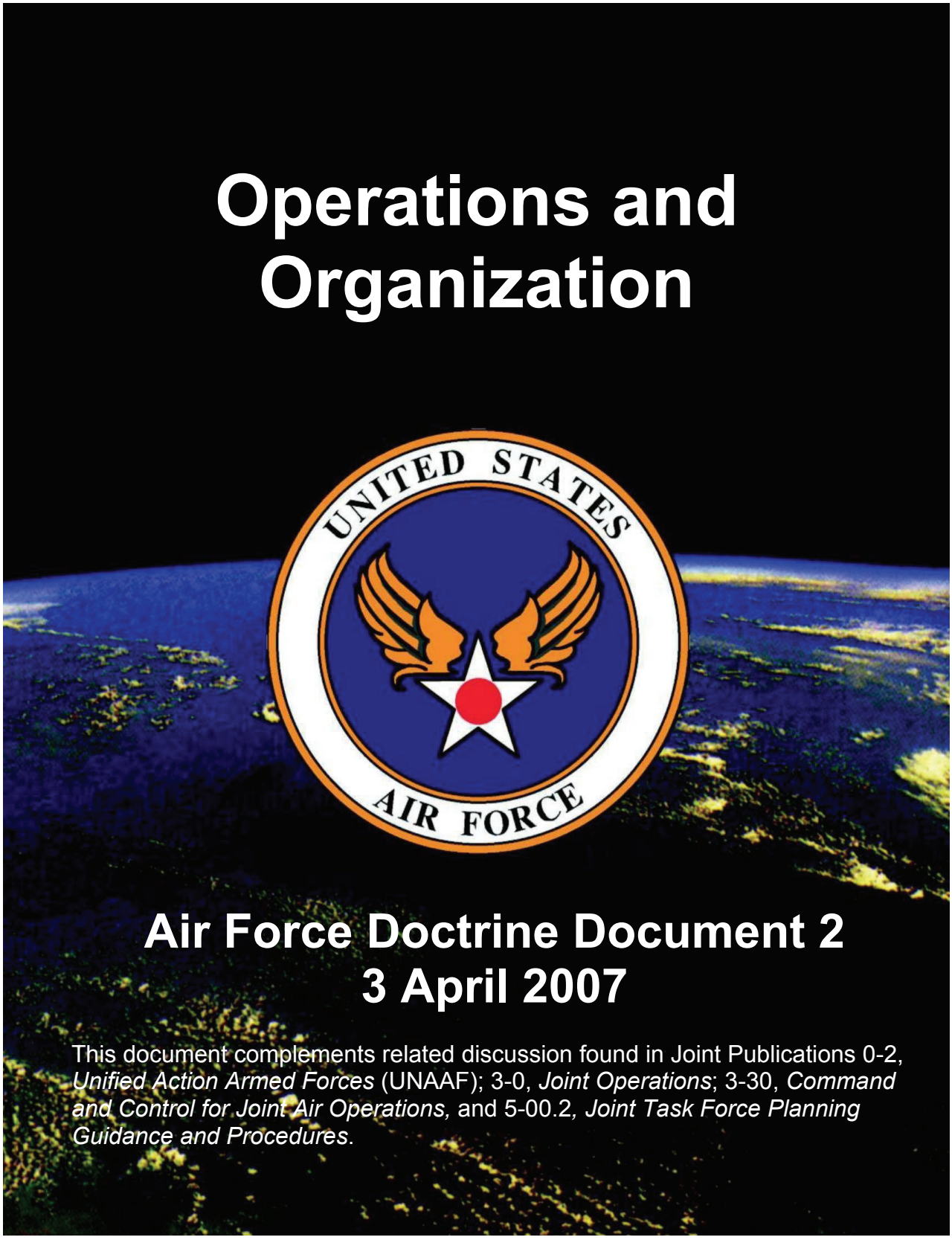
Operations and Organization



Air Force Doctrine Document 2
3 April 2007

This document complements related discussion found in Joint Publications 0-2, *Unified Action Armed Forces* (UNAAF); 3-0, *Joint Operations*; 3-30, *Command and Control for Joint Air Operations,* and 5-00.2*, Joint Task Force Planning Guidance and Procedures*.

BY ORDER OF THE
SECRETARY OF THE AIR FORCE

AIR FORCE DOCTRINE DOCUMENT 2
3 APRIL 2007

SUMMARY OF CHANGES

This revision substantially restructures the entire publication for better presentation of key ideas and introduces much new and updated material. The publication's title has been changed to better reflect the subject matter. The publication updates discussion on the Airman's perspective. Discussion on the range of military operations has been updated and includes discussion of homeland operations and stability operations. A completely new discussion on the effects-based approach to military operations has been added. The discussion on expeditionary organization has been expanded and updated based on experience gained since publication of the previous version. Discussion on administrative control has been clarified and expanded, to include new discussion on responsibilities of host installation commanders. Discussion on command relationship models has been expanded and clarified based on experience in the field. A new chapter on joint organization greatly expands previous joint discussion. The discussion on planning has been greatly expanded, to include effects-based planning, component planning considerations, and the air and space estimate process. Discussion on air and space operations centers has been greatly expanded to include air mobility and space operations centers, organization, and processes. The appendices have been completely revised to support the current content.

Note: This 2007 revision is only an interim change to the previous 27 June 2006 edition. This revision updates the vignette on page 45, deleting now-obsolete references to the warfighting headquarters. No other material has changed.

Supersedes: AFDD 2, 27 June 2006
OPR: HQ AFDC/DD
Certified by: AFDC/CC (Maj Gen Allen G. Peck)
Pages: 173
Accessibility: Available on the e-publishing website at www.e-publishing.af.mil
Releasability: There are no releasability restrictions on this publication
Approved by: T. MICHAEL MOSELEY, General, USAF
Chief of Staff

FOREWORD

Air Force Doctrine Document 1 (AFDD 1), *Air Force Basic Doctrine*, presents the fundamentals of air and space power. This publication, AFDD 2, *Operations and Organization*, is the companion to AFDD 1 and provides the next level of granularity. It describes how the US Air Force organizes and employs air and space power at the operational level across the range of military operations. The concepts discussed in this publication—the role and responsibilities of the senior warfighting Airman; the basics behind our expeditionary organizational model; the fundamentals of joint and Service command arrangements; how we plan operations; and the means by which we place the collective capabilities of air and space power into the hands of a single Airman—are the foundations for all our operations.

We are in the middle of a long, shadowy war that will be punctuated by episodes of full-up, conventional operations. Many different types of operations will occur simultaneously; tempo and objectives may shift rapidly. We will be challenged to adapt well-practiced tactics and to think in new ways to solve unforeseen challenges. As the war evolves, so must we. Some aspects of warfighting, however, will remain constant. Our doctrine captures these enduring aspects. Our success in meeting the challenges of this rapidly changing world depends on our understanding and applying our doctrine.

Doctrine describes not only how we would command and employ air and space forces today, but is also the point of departure to guide us in meeting the challenges of tomorrow. Air and space power is a critical element in protecting our Nation and deterring aggression. It will only remain so if we, as professional Airmen, study, evaluate, and debate our capabilities and the environment of the future. Just as technology, world threats, and opportunities change, so must our doctrine. Each of you must be articulate, knowledgeable, and unapologetic advocates of our doctrine. We must understand what it means to be an Airman and be able to articulate what air and space power can bring to the joint fight. I encourage you to read our doctrine, discuss it, and practice it.

T. MICHAEL MOSELEY
General, USAF
Chief of Staff

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INTRODUCTION

PURPOSE

This document has been prepared under the direction of the Chief of Staff of the US Air Force. It establishes doctrinal guidance for organizing, planning, and employing air and space forces at the operational level of conflict across the full range of military operations. It is the capstone of US Air Force operational-level doctrine publications. Together, these publications collectively form the basis from which commanders plan and execute their assigned air and space missions and their actions as a component of a joint Service or multinational force.

APPLICATION

This Air Force doctrine document (AFDD) applies to the Total Force: all US Air Force military and civilian personnel, including regular Air Force, Air Force Reserve Command, and Air National Guard units and members.

Unless specifically stated otherwise, US Air Force doctrine applies to the full range of military operations, as appropriate, from stability, security, transition, and reconstruction operations to major combat operations.

The doctrine in this document is authoritative but not directive. Therefore, commanders need to consider not only the contents of this AFDD, but also the particular situation when accomplishing their missions.

SCOPE

US Air Force assets (people, weapons, and support systems) can be used across the range of military operations at the strategic, operational, and tactical levels of war. This AFDD discusses the fundamentals of organization and employment of US Air Force air and space capabilities to accomplish the missions assigned by unified combatant commanders. More specific guidance on US Air Force operations may be found in subordinate operational- and tactical-level doctrine documents.

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TERMINOLOGY NOTES

"COMAFFOR" versus "COMAFFOR/JFACC" and "JFACC/CFACC"

One of the cornerstones of US Air Force doctrine is that "the US Air Force prefers – and in fact, plans and trains – to employ through a commander, Air Force forces (COMAFFOR) who is also dual-hatted as a joint force air and space component commander (JFACC)." (AFDD 1)

To simplify the use of nomenclature, US Air Force doctrine documents will assume the COMAFFOR is dual-hatted as the JFACC unless specifically stated otherwise. The term "COMAFFOR" refers to the US Air Force Service component commander while the term "JFACC" refers to the joint component-level operational commander.

While both joint and US Air Force doctrine state that one individual will normally be dual-hatted as COMAFFOR and JFACC, the two responsibilities are different, and should be executed through different staffs.

When multinational operations are involved, the JFACC may become a "combined force air and space component commander" (CFACC). Likewise, the air and space operations center (AOC), though commonly referred to as an AOC, in joint or combined operations is correctly known as a joint AOC (JAOC) or combined AOC (CAOC).

The use of "air *and space*" in Service terminology

US Air Force doctrine recognizes the institutional shift within the US Air Force from "air" to "air and space." The language in this document reflects that shift when it is logical to do so (but note it is not a universal "global replacement" whenever "air" appears). However, in the context of joint doctrine, it is not within the purview of US Air Force doctrine to change terminology that has been formally accepted by the joint community as contained in Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*.

Thus, Airmen may use "joint air and space operations center" or "joint force air and space component commander" when speaking in a Service context (such as in this AFDD). However, when speaking within a joint publication, "joint air operations center" or "joint force air component commander" are appropriate.

The use of "air and space" in Service doctrine will, for the time being, lead similar usage in joint terminology.

The use of “Airman” and “Total Force” in Service doctrine

The US Air Force is composed of Airmen – officers and enlisted personnel from the Regular Air Force, Air National Guard, and Air Force Reserve components, as well as Department of the Air Force civilians, who are sworn to support and defend the US Constitution as a member of the US Air Force. Thus, in US Air Force doctrine, the term “Airman” is seamless; one’s component is almost never an issue. In those few legal areas where component status is relevant (as might occur in some homeland operations scenarios when Titles 10 and 32, United States Code, are in play), doctrine highlights the instance and describes the means by which a COMAFFOR may still achieve unity of effort, and fully leverage the Airmen under his or her command.

Closely allied with the notion of an Airman is that of the Total Force. Total Force reinforces the seamlessness of the Airman concept through organizational constructs that leverage and integrate the unique strengths of the regular, Guard, and Reserve components as well as US Air Force civilians and contractors. In short, “Airmen” refers to the people, “Total Force” to the policy that supports the integration of the components, both within and outside the US Air Force, to create Airmen.

FOUNDATIONAL DOCTRINE STATEMENTS

Foundational doctrine statements are the basic principles and beliefs upon which AFDDs are built. Other information in the AFDDs expands on or supports these statements.

- Air and space power operates in ways that are fundamentally different from other forms of military power; thus, air power and space power are more akin to each other than to the other forms of military power. (Page 1)

- At the focus of operations within any region, it is possible to place the collective capabilities of air and space power in the hands of a single Airman through an adroit arrangement of command relationships, focused expeditionary organization, reachback, and forward deployment of specialized talent. (Page 1)

- Airmen must understand the intellectual foundation behind air and space power and articulate its proper application at the strategic, operational, and tactical levels of war; translate the benefits of air and space power into meaningful objectives and desired effects; and influence the overall campaign planning effort from inception to conflict termination and into whatever post-conflict operations are required. (Page 2)

- Air and space forces can strike directly at an adversary's centers of gravity, vital centers, and critical vulnerabilities. (Page 3)

- By making effective use of the vertical dimension and time, air and space forces can wrest the initiative, set the terms of battle, establish a dominant tempo of operations, anticipate the enemy, and take advantage of tactical and operational opportunities, and thus can strike directly at the adversary's strategy. (Page 3)

- Experience has shown that parallel, asymmetric operations are more effective, achieve results faster, and are less costly than symmetric or serial operations. (Page 11)

- Air and space superiority allows simultaneous and rapid attack on key nodes and forces, producing effects that overwhelm the enemy's capacity to adapt or recover. (Page 11)

- In some situations, air and space power, whether land- or sea-based, may be the only force immediately available and capable of providing an initial response. (Page 11)

- When employed aggressively, air and space forces can conduct operations aimed directly at accomplishing the joint force commander's (JFC's) objectives. (Page 12)

- Air superiority is the desired state before all other combat operations. Attaining air superiority provides both the freedom to attack and freedom from attack, as well as ensuring freedom to maneuver. Operating without air superiority radically increases risk to surface and air operations. (Page 21)

- Space superiority is important in maintaining our unique advantages in precision, situational awareness, and operational reach. (Page 21)

- Military agencies temporarily support and augment, but do not replace local, state (including National Guard forces in state active duty status), and federal civilian agencies that have primary authority and responsibility for domestic disaster assistance. (Page 29)

- The commander of a US Air Force Service component at any joint level (unified combatant command, subunified combatant command, or joint task force [JTF]), is by joint and US Air Force definition called a commander, Air Force forces (COMAFFOR). (Page 35)

- Commanders of US Air Force components have responsibilities and authorities that derive from their roles in fulfilling the Service's administrative control (ADCON) function. (Page 37)

- The joint force air and space component commander (JFACC) should be the Service component commander with the preponderance of air and space assets and the ability to plan, task, and control joint air and space operations. (Page 39)

- The US Air Force prefers – and in fact, plans and trains – to employ through a COMAFFOR who is then prepared to assume responsibilities as a JFACC if so designated. (Page 39)

- The air and space expeditionary task force (AETF) is the organizational structure for US Air Force forces afield. Regardless of the size of the US Air Force element, it will be organized along the lines of an AETF. (Page 43)

- All US Air Force forces assigned or attached to a joint task force, or established as a single-Service task force, should be organized and presented as an AETF. (Page 44)

- Not all air and space forces employed in an operation will be attached forward to a geographic combatant commander. Several aspects of air and space power are capable of serving more than one geographic combatant commander at a time. (Page 45)

- The COMAFFOR should normally not be dual-hatted as commander of one of the subordinate operating units. This allows the COMAFFOR to focus on component responsibilities as the overall AETF commander while subordinate commanders lead their units. (Page 46)

- Although JFCs may retain authority at the JTF level, they should normally designate as space coordinating authority the component commander who provides the preponderance of military space capabilities, the requisite ability to command and control them, and the resident space expertise. (Page 62)

- Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. (Page 69)

- Only commanders have the legal and moral authority to place personnel in harm's way. Under no circumstance should staff agencies, including those of the JFC's staff, attempt to command forces. (Page 74)

- If a commander must wear several hats, it is preferable that the associated responsibilities lie at the same level of war. (Page 75)

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CHAPTER ONE
AN INTRODUCTION TO AIR AND SPACE OPERATIONS

Airpower has become predominant, both as a deterrent to war, and—in the eventuality of war—as the devastating force to destroy an enemy's potential and fatally undermine his will to wage war.

—General Omar Bradley

THE NATURE OF AIR AND SPACE POWER

Air and space power arises from the use of lethal and nonlethal means by air and space forces to achieve strategic, operational, and tactical objectives. Air and space power can rapidly provide the national leadership a full range of military options for meeting national objectives and protecting national interests. Across the range of military operations, air and space forces offer rapid, flexible, and effective lethal and nonlethal power.

Due to its speed, range, and three-dimensional perspective, **air and space power operates in ways that are fundamentally different from other forms of military power; thus, air power and space power are more akin to each other than to the other forms of military power.** Air and space power has the ability to conduct operations and impose effects across the entire theater, wherever targets or target sets might be found, unlike surface forces that typically divide up the battlefield into individual operating areas. Airmen view the application of force more from a functional than geographic standpoint, and classify targets by generated effects rather than physical location.

Air and space power is, however, not monolithic in organization and presentation. Because it encompasses a wide range of capabilities and operating environments, it defies a single, general model for organization, planning, and employment. Some assets and capabilities provide relatively localized effects and generally are more easily deployable, and thus organize and operate within a regional model. Other assets and capabilities transcend geographic areas of responsibility simultaneously, and thus have global responsibilities. Such forces are best organized and controlled through a functional model. However, **at the focus of operations within any region, it is possible to place the collective capabilities of air and space power in the hands of a single Airman through an adroit arrangement of command relationships, focused expeditionary organization, reachback, and forward deployment of specialized talent.**

Recognizing the multifaceted yet complementary nature of air and space power's capabilities, this publication describes the major organizational and operating paradigms of air and space power. While operations predominantly using "kinetic" means (that is, means that have a direct physical impact such as destruction) will remain regionally focused and organized, many other forms of air and space power are provided "over the shoulder" in a supporting relationship. This publication also discusses the variety of discrete operations in which air and space power can be planned and employed.

THE AIRMAN'S PERSPECTIVE

Since the advent of the military airplane, Airmen have claimed that airpower (and later, space power) provided a new element to warfare. Entirely new missions emerged which brought fundamental changes to the ways war could be fought. Airmen sought to take the fight straight to the heart of the enemy to directly achieve effects at the strategic level of war. Early airpower's range of action, its ability to quickly react and refocus across the theater to changing demands, and its literal above-the-surface perspective, all pointed to a different outlook on how wars could be fought. While initial theories claimed to render surface combat obsolete, today's Airmen realize that all domains of combat are complementary. However, air and space power remains distinctly different from other forms of military power in application and organization.

Airmen must understand the intellectual foundation behind air and space power and articulate its proper application at the strategic, operational, and tactical levels of war; translate the benefits of air and space power into meaningful objectives and desired effects; and influence the overall campaign planning effort from inception to conflict termination and into whatever post-conflict operations are required. Today, Airmen still approach war functionally, and have adopted an effects-based approach to operations that more rigorously links planning, execution, and assessment into an adaptive whole and ties specific actions to overall objectives and to the entire range of possible outcomes, intended and unintended,

"Airmindedness"

"The study of aerospace warfare leads to a particular expertise and a distinctive point of view that General Henry H. ('Hap') Arnold termed 'airmindedness.' The perspective of Airmen is necessarily different; it reflects the range, speed, and capabilities of aerospace forces, as well as threats and survival imperatives unique to Airmen. Airmindedness is much harder to convey than the perspectives of soldiers and sailors for several reasons. The viewpoint of the soldier and sailor--bounded by the apparent horizon--is part of everyday life and instinctive understanding; few have ever operated an aircraft or contemplated the problems of aerial warfare; and few popular sources of information reflect an Airman's perspective."

-- AFM 1-1, Volume 2, *Basic Aerospace Doctrine of the United States Air Force*, March 1992

direct and indirect. But the differences in range, flexibility, and perspective with respect to surface warfare require a different approach to the application of air and space power. This outlook—the Airman's perspective—demands that Airmen understand and apply the distinctive characteristics of air and space power in a complex joint environment that is experiencing profound technological change.

Air and Space Maneuver Warfare

Air and space power's vertical position within the theater of operations confers upon it a distinct advantage. Traditionally, the physical structure of ground maneuver forces has consisted of fronts, flanks, and rears. Although these terms have no application to air and space power, it is sometimes useful to make an analogy in surface terms in order to convey air and space power's contribution. In such terms, airpower adds a flank in the third dimension that makes the vertical battle as important as the horizontal battle. Using the metaphor of surface flanks, the airspace above the theater is also maneuver area but in three dimensions, and can be taken and exploited to either destroy or dislodge an enemy or achieve a relative advantage. Thus, as with surface flanks, a commander should seek to gain a position of advantage by turning an enemy's vertical flank, and should no sooner expose one's own vertical flank. Air and space power can also enable creation of a virtual "flank" or "rear" in a fourth dimension: time. By using time more effectively and by disrupting the enemy's operational rhythm, a commander can help ensure the success of friendly actions, disrupt enemy strategies, and in some cases paralyze enemy action.

The Airman's perspective normally encompasses the entire theater or joint operating area (JOA). There may be times when air and space power must focus on a specific geographic area to perform certain functions. However, it will most often be counterproductive for the air and space component to be assigned only to a specific area of operation (AO) if it is to remain flexible and versatile, able to mass effects wherever and whenever the joint strategy requires. In fact, joint doctrine specifically defines an AO as "designated by the JFC for land and naval forces" (JP 1-02). There is no specification of an AO for air and space forces.

In a larger sense, by operating from the third dimension, **air and space forces can strike directly at an adversary's centers of gravity, vital centers, and critical vulnerabilities.** This capability allows air and space forces to achieve effects well beyond the tactical effects of individual actions, at a tempo that disrupts the adversary's decision cycle. **By making effective use of the vertical dimension and time, air and space forces can wrest the initiative, set the terms of battle, establish a dominant tempo of operations, better anticipate the enemy through superior observation, and take advantage of tactical and operational opportunities, and thus can strike directly at the adversary's strategy.** Air and space power's ability to strike the enemy rapidly and unexpectedly across all of the critical points, from deep to close, adds a significant impact to enemy morale in addition to the physical blow.

Integrated with surface maneuver, air and space forces can reduce the need for things like probing actions through such capabilities as wide-ranging strikes, persistent reconnaissance and surveillance, and comprehensive situational awareness. This gives surface forces freedom of action and greatly enhances their effectiveness, and also enhances the effectiveness of the entire joint force. While the categorizing of forces as either "fires" or "maneuver" is more applicable to the land component, both joint and Air Force doctrine include air and space power in the maneuver category. Rapid, long-range, three-dimensional maneuver is inherent in air and space power, as is the ability to inflict both physical and psychological dislocation on an adversary. Thus, in cases where air and space forces present the joint force commander (JFC) with the preponderance of counter-surface effects, it may be appropriate for the air and space component commander to be the supported commander for the destruction of enemy surface forces, with friendly surface force commanders acting in a supporting role. To fully understand the implications of employing air and space power as a maneuver force, it is necessary to understand the various levels at which wars are fought.

The Levels of War

Warfare is typically divided into three levels: strategic, operational, and tactical. The focus at a given level of war is not on the specific weapons used, or on the targets attacked, but rather on the desired effects. A given aircraft, dropping a given weapon, could comprise a tactical, operational, or strategic mission depending on the planned results. Effects at the **strategic level of war** address such desirable outcomes as the destruction or disruption of the enemy's centers of gravity (COGs), critical vulnerabilities, or other vital parts of the enemy system that impair his ability or will to wage war or carry out aggressive activity. At this level the US determines national or multinational (alliance or coalition) security objectives and guidance, and develops and uses national resources to accomplish these objectives. These national objectives in turn provide the direction for developing overall military objectives, which in turn are used to develop the military objectives and strategy for each theater. Strategy is aimed at outcomes, thus strategic ends define this level. In general terms, *the strategic level of war addresses the issues of WHY and WITH WHAT we will fight and WHY the enemy fights against us.*

At the other end of the spectrum lies the **tactical level of war**, where individual battles and engagements are fought. While effects may be described as operational or strategic, all actions are defined as occurring at the tactical level. To the Airman, the distinction between this level and higher levels of war is fairly clear-cut; we tend not to fight large-scale battles (as surface forces use the term) but focus at the tactical level on the individual engagement. The tactical level of air and space warfare deals with how these packaged forces are employed, and the specifics of how engagements are conducted and targets attacked. Tactics are concerned with the unique employment of force, thus application defines this level. In short, *the tactical level of war deals with HOW we fight.*

Between the strategic and tactical levels of war lies the **operational level of war.** At this level of war, campaigns and major operations are planned, conducted, sustained, assessed, and adapted to accomplish strategic goals within theaters or areas of operations. These activities imply a broader dimension of time or space than do tactics; they provide the means by which tactical successes are exploited to achieve strategic and operational objectives. Operational effects such as air, space, and information superiority, defeat of enemy surface forces, battlefield isolation, and disruption or destruction of enemy leadership functions are the means with which the operational air commander supports the overall strategy. Operations involve the integration of combat power to achieve strategic ends, thus operational means represent this level. In terms of air and space operational employment and targeting, planning at *the operational level of war determines WHAT we will attack, with WHAT strategy, in WHAT order, and for WHAT duration.*

Strategy, Operational Art, and Tactics

Because the separate levels of war are somewhat abstract and artificial delineations, it may be more practical to think in terms of "things" rather than "levels," yielding strategy, operational art, and tactics.

Strategy

Strategy is the art and science of developing and employing instruments of national power in an integrated and synchronized fashion to achieve theater, national, and/or multinational objectives. Instruments of power include the military instrument, and military strategy is thus the art and science of employing the armed forces of a nation to secure the objectives of national policy by the application of force or the threat of force**.** *Military strategy encompasses the ends, ways, means, and risk involved in securing policy objectives through use of the military instrument of power.*

- **Ends** comprise the reasons an operation is being conducted: the political and military objectives at the national and theater level, which shape the conduct of theater strategy. Objectives are the clearly defined, decisive, and attainable goals towards which every military operation should be directed. They give subordinate commanders a clear picture of the theater commander's intent for operations. All objectives in a conflict must ultimately help bring about a desired end state. An end state is the set of conditions to be achieved to resolve the situation or conflict on satisfactory terms, as defined by appropriate authority (Here, "appropriate authority" may be a joint task force commander, joint force commander, or combatant commander, but typically refers to the Secretary of Defense [SecDef] or the President). In most cases, there will be a preliminary end state—described by a set of military conditions—when military force is no longer the principle means to the strategic aim. The true, broader end state that involves returning to or achieving a state of peace and stability will likely include a variety of diplomatic, economic, informational, and political as well as military conditions. A properly determined end state is key to

ensuring that victory achieved with military force endures. All objectives, including those of the air and space component and those at the tactical level of war, must support achievement of the end state.

- **Ways** are the methods by which objectives are achieved; that is, the effects that must be created to achieve the desired ends. Effects are determined and translated into tactical actions through operational art. Effects and operational art are explored at greater length in subsequent sections. It is important to keep in mind that ways to achieve ends at one level may become ends for levels below. For example, one way of helping achieve objectives in a particular campaign, identified by the JFC, might be "achieve and maintain air dominance." This will probably then become an objective for the air and space component commander. This relationship holds true at all levels of war.

- **Means** are the tools and resources used to execute the strategy to achieve the desired ends. When Airmen think about means, they should think in terms of people, processes, platforms, systems, and capabilities needed to accomplish the mission.

- **Risk** is the amount of uncertainty and vulnerability commanders are willing to accept during an operation or campaign. Risk is inherent in every operation; ways and means are both subject to it. It is a variable that applies to the method or methods commanders select to achieve the ends. Commanders must consider the risk of mission failure and its implications, the risk to personnel and resources, the risks to non-combatants, and other similar factors.

The strategy and supporting plans for any operation can be ultimately linked back to national guidance. The nation's overarching security strategy can be found in the *National Security Strategy of the United States* (NSS). The *National Defense Strategy* and the *National Military Strategy* (NMS) contain the long-term military strategy that supports the NSS. The NMS is expanded into guidance for combatant commanders in the Joint Strategic Capabilities Plan (JSCP). Geographic combatant commanders use capabilities set forth in the JSCP to create overarching strategies for their areas of responsibility (AOR). Strategies for particular regional conflicts or contingencies are often distilled into operations plans (OPLANs) or concept plans (CONPLANs).

When conflict appears imminent or erupts, JFCs translate JSCP and appropriate OPLAN or CONPLAN guidance into strategies containing clearly defined, attainable objectives. They then conduct campaigns and operations accordingly to attain those objectives. Statements of strategy for a particular conflict can be found in the commander's estimate of the situation and in the "mission" and "concept of operations" sections of an operations order (OPORD). Component commanders translate the JFC's guidance into strategies encompassing their component's contribution to the JFC's campaign. In the case of the air and space component, the resulting plan takes the form of a joint air and space operations plan (JAOP). Component commanders and their subordinates use operational art to translate the JFC's and components' overall

strategies into the specific effects and tactical tasks through which engagements and operations achieve their objectives. Further guidance on planning can be found in Chapter 6.

Coercion and Denial as Part of Strategy

All strategy usually involves a compromise between coercion and "brute force" or annihilation methods. Coercion is defined as "persuading an adversary to behave differently than it otherwise would through the threat or use of force." Coercion strategies seek to end a conflict while the adversary retains at least some capability to resist. *Risk* strategy is a form of coercion that relies on our perceived potential to attack those things that an adversary values, while *punishment* strategy seeks to coerce through attacks or operations that have already been conducted. *Denial* is a form of coercion strategy that destroys or neutralizes a portion of the adversary's physical means to resist. Throughout history, denial has been a principal mechanism by which enemies were persuaded to change behavior, with the degree of denial necessary being dictated by the enemy's will to resist. This is still a vital part of warfare, but denial can be expensive in terms of lives, treasure, time, and opportunities, especially if it devolves into attritional, purely force-on-force combat. Human nature also tends to make an adversary unreceptive to coercion; history is full of "failed denial" examples where war continued well beyond the point that one side's military was reduced to such an extent that defeat was the only possibility.

Coercion strategy seeks to either *compel* an adversary to change his current actions, or to *deter* an adversary from starting an action. Deterrence is normally considered easier to accomplish than compulsion, because once an adversary begins an action there is often considerable physical and psychological inertia attached to that action. An adversary can more easily be deterred without it appearing that the adversary suffered a defeat.

Today, air and space power can help facilitate other options through strategies that threaten or deny an adversary's interests while bypassing many of his direct means of resistance. Operation ALLIED FORCE was an example of this. When attacks on Serbian ground forces proved only marginally effective, air and information power was used to place pressure directly on the interests of the Serbian cabal that kept dictator Slobodan Milosevic in power. This pressure indirectly coerced him to withdraw his forces from Kosovo and accede to North Atlantic Treaty Organization (NATO) demands. Effective use of air, space, and information power can often permit conflict resolution closer to the "pure coercion" end of the strategy spectrum, helping yield achievement of objectives and the end state on more favorable terms, in less time, and/or more efficiently than might otherwise be possible.

Cultural Considerations in Strategy

The role played by culture in establishing the terms of conflict is another vital aspect of strategy that has increased in importance since the start of the Global War on Terror. War among Western powers has always been seen as an adjunct to politics

and commerce, and often as a dangerous distraction from them. The rewards of war are physical; psychological reinforcement comes predominantly from war's spoils, not from war itself. In general, this view has led Western powers to try to force resolution as quickly and "cheaply" as practicable (in all but comparatively rare civil and religious wars), to seek decisive engagement with the enemy when possible, and to focus warfare upon defeat of the enemy's fielded military forces. This was true even during Industrial Age conflicts, where the total moral and physical power of the nation state was mobilized for war. This is the cultural legacy that has most heavily influenced the modern use of air and space power.

People in other cultures may view things differently. In a number of non-Western cultures around the globe, the psychological motivation for war is more deeply ingrained in the people's psyche. Some adhere to a warrior ethos, in which the act of waging war provides its own important psychological reinforcements. Some do not separate church, state, and popular culture in the Western manner, but see religion, politics, warfare, and even trade as part of a seamless whole. Thus, all wars they wage take on the single-mindedness and ferocity of religious or civil wars.

US commanders and strategists must consider these factors when devising strategies to deal with adversaries from such cultures. We must seek to understand how the adversary thinks and not "mirror-image"—ascribe our own thinking, motivation, and priorities to him. For example, during the Vietnam War we assumed that North Vietnamese motivations, priorities, and interests were similar to our own; this incorrect assumption significantly hampered the process of devising a winning strategy. We must also carefully plan for stability and other operations that will follow decisive combat, and constantly keep the conflict's end state in mind during combat operations, considering all possible means for creating effects and achieving objectives, not just those conventionally used for destruction of fielded forces.

Operational Art

Operational art takes the ends, ways, means, and risk considerations derived from overall strategy and conceptually links them to operational level effects in campaign plans and similar planning products. For the Air Force, and the air and space component more generally, campaign plans take the form of JAOPs. Commanders, the staff in the air and space operations center (AOC), and operational units take the guidance found in the JAOP and ultimately turn it into action at the tactical level of war. Operational art represents the essential link between the overall strategy for the operation or campaign and the tactical details of its conduct. It encompasses the processes of planning, conducting, sustaining, assessing, and adapting operations and campaigns to meet strategic and operational objectives. Operational art determines what will be accomplished in the battlespace; it is guided by the "why" from the strategic level and implemented by the "how" at the tactical level. In terms of air and space power employed against ground targets, for example, operational art determines how missions and assets will be used to achieve the desired higher-level effects, and involves such areas as assessment and analysis of the enemy, targeting, and force packaging.

Modern communications technology provides a temptation towards increasingly centralized execution of air and space power. Although several recent operations have employed some degrees of centralized execution, such command arrangements will not stand up in a fully stressed, dynamic combat environment, and as such should not become the norm for all air operations. Despite impressive gains in data exploitation and automated decision aids, a single person cannot achieve and maintain detailed situational awareness when fighting a conflict involving many simultaneous engagements taking place throughout a large area. A high level of centralized execution results in a rigid campaign unresponsive to local conditions and lacking in tactical flexibility. For this reason, ***execution should be decentralized within a command and control architecture that exploits the ability of strike package leaders, air battle managers, forward air controllers, and other front-line commanders to make on-scene decisions during complex, rapidly unfolding operations.*** *Nevertheless, in some situations, there may be valid reasons for execution of specific operations at higher levels, most notably when the JFC (or perhaps even higher authorities) may wish to control strategic effects, even at the sacrifice of tactical efficiency.*

—AFDD 1, *Air Force Basic Doctrine*,
17 November 2003

Focusing an entire theater's air and space power in a central planning-execution-assessment process maximizes the overall effect on the enemy, given a finite amount of air and space power assets. The process of developing the JAOP, and executing it through the air and space tasking cycles (the cycles that produce, among other things, air tasking orders [ATOs] and space tasking orders [STOs]), represents the operational art of air and space warfare. Through this process, the air and space component commander (either the commander, Air Force forces [COMAFFOR] or the joint force air and space component commander [JFACC] as appointed by the JFC) and his/her staff integrate all of the available assets into an optimized final product. Through the combination of organization and command and control (C2), the commander is able to monitor execution, assess effects, and adapt operations as necessary. This identifies and exploits unforeseen opportunities, identifies and assesses implications of undesired effects, re-plans and re-synchronizes operations to adapt to changing situations, and determines if the executed operations are achieving their objectives. This oversight function allows air and space power to remain flexible during execution, while keeping the operational and strategic objectives in sight. Centralized control provides strategic focus for air and space power while decentralized execution allows tactical flexibility in employment of air and space forces. *Centralized planning is the first step in achieving effective centralized control*, and provides for the optimum concentration of air and space combat power at the required decisive points. *Centralized control of air and space power—planning, direction, prioritization, synchronization, integration, and deconfliction—retains the theater-wide effectiveness of air and space power across a theater while balancing shifting requirements*. Centralized control empowers the

JFACC to adapt execution to changing needs as the situation warrants. *Decentralized execution permits the flexibility to maximize tactical success by delegating execution authority to responsible and capable lower level commanders to achieve effective span of control and to foster disciplined initiative, situational responsiveness, and tactical flexibility.* Centralized control and decentralized execution support the inherent flexibility and versatility of air and space power, giving commanders the tools to adapt to changing circumstances while remaining focused on campaign objectives.

Tactics

Once the tasking orders are distributed to the wing and squadron level, the process arrives at the tactical level of war. Mission planning cells at these units plan the details for individual missions, which are then executed by individual strike packages, flights, or elements. The execution of these missions is decentralized, as the individual aircrews, forward air controllers, and air battle managers have considerable latitude on the tactics of how they accomplish their assigned missions.

Employing Air and Space Power

Air and space power is usually employed to greatest effect in parallel, asymmetric operations. **Parallel operations** are those that apply pressure at many points across a system in a short period of time in order to cause maximum shock and dislocation effects across that system. **Sequential**, or serial, **operations**, in contrast, are those that apply pressure in sequence, imposing one effect after another, usually over a considerable period of time. Parallel operations limit an enemy's ability to react and adapt and thus place as much stress as possible on the enemy system as a whole. For example, in Operation DESERT STORM, the Iraqi command and control structure was severely degraded through parallel attacks on the electric grid, communications nodes, and command facilities. In the past, target sets were often prioritized and attacked sequentially, and thus it usually took considerable time for effects to be felt. In the meantime, the enemy was often able to adapt to losses or compensate with other resources, thus slowing or even negating the effects of those operations. Today, air and space power enable a truly parallel approach in many instances.

"Asymmetric" refers to any capability that confers an advantage the adversary cannot directly compensate for. Asymmetric operations confer disproportionate advantage on those conducting them by using some capability the adversary cannot use, will not use, or cannot effectively defend against. Conversely, symmetric operations are those in which a capability is countered by the same or similar capability. For example, tank-on-tank battles, such as the battle of Kursk during World War II, are symmetric, as was the Allied battle for air superiority over Germany in that same war. The use of Coalition air power to immobilize and defeat Iraqi armored forces in Operations DESERT STORM and IRAQI FREEDOM were asymmetric, since the Iraqis could not counter this Coalition strength. Similarly, al Qaeda's use of airliners as terror weapons against the US on 11 September 2001 was asymmetric, since there was no direct counter. As a rule, it is more effective and efficient to use asymmetric advantages

when they exist or can be generated. Symmetric conflict is and always has been a necessary part of warfare, but generally entails achieving objectives at higher cost than do asymmetric operations.

Experience has shown that parallel, asymmetric operations are more effective, achieve results faster, and are less costly than symmetric or serial operations. Parallel attack is offensive military action that strikes a wide array of targets in a short period of time in order to cause maximum shock and dislocation effects across an entire enemy system. It is a type of asymmetric operation that uses the speed and range of air and space power, coupled with its pervasive three-dimensional advantage, to strike the enemy where and how it benefits us the most. Symmetric force-on-force warfare is sometimes required, such as the air-to-air combat often associated with achieving air superiority. At the beginning of a conflict, other offensive operations can sometimes be accomplished in parallel with counterair operations. If the enemy strongly challenges our air superiority, we may be forced into serial operations in which all available assets must be dedicated to winning air superiority before any offensive operations other than counterair attack missions are flown.

Air and space superiority allows simultaneous and rapid attack on key nodes and forces, producing effects that overwhelm the enemy's capacity to adapt or recover. As a result, the effects of parallel operations can be achieved quickly and may have decisive impact. In addition to the physical destruction from parallel attack, the shock and surprise of such attacks, coupled with the uncertainty of when or where the next blow will fall, can negatively affect the enemy's morale. This can effectively shut down an enemy's decision cycle and open opportunities for exploitation. Commanders should consider these facts when deciding how best to employ air and space power at the theater level.

Parallel operations should be conducted in conjunction with other elements of a joint force. For example, counterland operations, in conjunction with simultaneous and coordinated attack by surface forces, can overwhelm an enemy's reinforcement and resupply capacity or his ability to command his forces, creating synergistic effects that have an adverse impact throughout the enemy system. In this case, the surface and air and space maneuver elements of the joint force are integrated with each other, rather than one in support of another, to achieve decisive results.

Asymmetric force strategy leverages sophisticated military capabilities to rapidly achieve objectives. Asymmetric warfare pits our strengths against the adversary's weaknesses and maximizes our capabilities while minimizing those of our enemy to achieve rapid, decisive effects.

In some situations, air and space power, whether land- or sea-based, may be the only force immediately available and capable of providing an initial response. This may occur early in a crisis, before significant friendly surface forces can build up in-theater. In such cases, air and space power should best be brought to

bear directly against the enemy system in such a way as to reduce the enemy's ability to achieve immediate war aims.

When employed aggressively, air and space forces can conduct operations aimed directly at accomplishing the JFC's objectives. These types of operations may not rely on concurrent surface operations to be effective, nor are they necessarily directly affected by the geographical disposition of friendly surface forces. Instead, they are planned to achieve dominant and decisive theater-level effects by striking directly at enemy COGs and critical vulnerabilities, which may include fielded forces. Such operations are planned to disrupt the enemy's overall strategy or degrade the enemy's ability and will to fight. These operations are defined not by mission types or weapon systems but by the objectives sought. In some situations decisive operations can be conducted globally, reducing or even negating the requirement for the forward deployment of friendly forces.

CHAPTER TWO
OPERATIONS

- *He will win who knows when to fight and when not to fight.*
- *He will win who knows how to handle both superior and inferior forces.*
- *He will win whose army is animated by the same spirit throughout all the ranks.*
- *He will win who, prepared himself, waits to take the enemy unprepared.*

—Sun Tzu

The overriding objective of any military force is to be prepared to conduct combat operations in support of national political objectives—to conduct the nation's wars. Generally speaking, *war is a struggle between rival political groups, nation states, or other parties to attain competing political or cultural objectives.* War does not have to be officially declared for armed forces to be thrust into wartime conditions or engage in combat operations; in fact, the vast majority of military operations are not conducted under the banner of a declared war or even preplanned combat operations. Once political leaders resort to the use of force, or possibly even the threat of force, they may place their forces "at war," at least from the perspective of those engaged. War is a multidimensional activity that can be categorized in various ways: by intensity (low to high); by duration (short to protracted); by the means employed (conventional, unconventional, nuclear); or by the objectives/resources at stake (limited to general war).

THE EFFECTS-BASED APPROACH TO MILITARY OPERATIONS

Effects-based operations (EBO) are operations that are planned, executed, assessed, and adapted to influence or change systems or capabilities in order to achieve desired outcomes. EBO encompasses planning, execution, and assessment. The key insights are: that effective operations must be part of a coherent plan that logically supports and ties all objectives and the end state together; that the plan to achieve the objectives must guide employment; and that means of measuring success and gaining feedback must be planned for and evaluated throughout execution. EBO is focused upon desired outcomes—objectives and the end state—and all efforts should be directed in a logically consistent manner toward their attainment. In this respect, EBO is an elaboration of the "strategy-to-task" methodology long in use. Because it focuses upon the objectives, EBO is not about platforms, weapons, or methods. That is, EBO is "outcomes-based," not "inputs-based." It does not take available resources and attempt to reason desired outcomes from them. EBO seeks to attain objectives efficiently, but the availability of resources may constrain the options. That is,

commanders must accomplish their assigned missions, but within that constraint, they should be accomplished for as little "cost" (in terms of lives, treasure, time, and/or opportunities) as possible.

EBO concerns effects, which are the physical or behavioral states of a system that results from an action, a set of actions, or another effect. A cause can be an action, a set of actions, or another effect. An action is simply the performance of an activity. Each action that is performed creates a progression of effects, starting with those that are direct and immediate and continuing on to indirect effects that are increasingly complex and removed in time from the original action. Planning for the "full range of outcomes" encompasses the objectives, but extends well beyond them to consider the entire range of outcomes, not just those that are planned, desired, or intended. This also recognizes that modern military capabilities—especially those of air and space power—enable commanders to consider a wide range of effects beyond more "traditional" types like attrition. Effects-based planning starts with the end state and objectives, determines the effects that must be created to achieve them and the means by which achievement is to be measured, then matches resources to specific actions in order to create those effects. This construct of action→effect→objective is fundamental to all more complex and specific effects-based planning methodologies. Effects form the necessary causal linkages between actions and objectives. Understanding the differing types of effects and how they can be imposed is fundamental to thorough effects-based planning (see Chapter 6 for further details).

An effects-based approach recognizes that conflict is a clash of complex, intelligent systems that adapt as they interact—a fact that has sometimes been overlooked in more mechanistic approaches to war. This means that EBO focuses on behavior, not just on physical changes in the system states. An effects-based approach must also consider the behavior of all actors within the operating environment—friendly and neutral behavior, not just that of the adversary. All effects, even attrition of an enemy, are intended to somehow influence behavior. This also means that the "higher-order" consequences of certain actions cannot be predicted reliably and many effects cannot be easily anticipated or quantified. It also reinforces the age-old axioms that "no plan survives first contact with the enemy" and "the enemy always has a vote." The law of unintended consequences is always in effect, so planning and execution must be flexible and adaptive. Focusing on the behavior of complex systems means that EBO carries a significant cost in terms of breadth and depth of information needed about the adversary. It is also most effective if we maintain information and decision-cycle superiority over the adversary.

Finally, EBO is a comprehensive way of looking at conflict. It cuts across all disciplines, dimensions, and echelons of conflict. There is usually more than one way to create a desired effect and determining options is not the unique province of one career specialty, one type of capability, one joint warfighting component, or even one instrument of national power. All options must be weighed in light of the objectives and end state; it may be possible to create a given effect "kinetically" through "bombs on target," but it may be better in terms of the end state to create it non-destructively by

using capabilities like air mobility or information operations. Focusing on a wide, cross-dimensional array of options makes EBO especially relevant to operations other than major campaigns, such as "lower-intensity" conflict and stability operations. In these types of operations, cause and effect are often much harder to trace and destructive effects are often counterproductive. These types of operations also entail much closer integration of diplomatic, informational, and economic instruments of national power with the military and require close military cooperation with non-military agencies, foreign governments, and other entities, and so an effects-based approach is uniquely suited to this increasingly important aspect of conflict.

Properly understanding the relationship between actions, effects, and objectives is important to EBO. Actions produce specific direct effects, those effects produce other indirect effects, and this chain of cause and effect creates a mechanism through which objectives and the end state are achieved. An objective is an ultimate desired outcome of a set of actions and effects in a particular context or situation. Objectives at one level may be seen as effects at another, higher level. They are the effects that all actions, subordinate effects, and operations should contribute to accomplishing. Effects in general comprise all of the results of a set of actions, whether desired or undesired, direct or indirect, ultimate or intermediate, expected or unexpected. For example, a tactical action may consist of dropping a precision-guided weapon on a bridge. The direct effect of that action is that the bombs detonate on target and render the bridge functionally useless. A series of indirect effects ripple outward from that direct effect, including the fact that a key enemy mechanized unit is delayed in closing to combat (a desired tactical indirect effect), the entire enemy ground force effort is thus critically weakened (a desired operational-level indirect effect), and these contribute to the operational-level objective of defeating an enemy ground offensive. At the same time, destruction of the bridge may cripple local trade and other traffic that relied on it, thus increasing local hostility to friendly military efforts (an undesired indirect effect) and may greatly hamper rebuilding and stabilization efforts after major combat operations (an undesired indirect effect that directly relates to the strategic objectives and end state). Since the bridge destruction was anticipatable, as were many of the resultant indirect effects, these should be planned for and ways of measuring their achievement (assessment) should be identified. In the case of the undesired indirect effects, planning to avoid or mitigate these can be almost as important as the initial planning that goes into desired direct and indirect effects.

While new under this name, the effects-based approach encapsulates many of history's best practices, combining them with recent insights from science, capabilities enabled by technology, and lessons from employing effects-based principles in recent operations such as Operation IRAQI FREEDOM. Some effects-based methods have always been part of well-waged war, but they have seldom been approached systematically. Capabilities like precision engagement, rapid mobility, and predictive battlespace awareness (PBA)—the fruits of technological advance coupled with appropriate employment doctrine—have made possible a range of effects that were not possible before. Thus, commanders today have the capability to do such things as coerce changes in enemy behavior with minimum unintended destruction, set

operational tempos that adversaries cannot match, effectively anticipate enemy courses of action, and dominate enemy decision cycles. The section below defines a set of basic principles for an effects-based approach to military operations.

Principles of EBO

Effects-based operations seek to integrate planning, execution, and assessment. They are inextricably bound together because doing one inevitably involves the others as well. Planning encompasses all the means through which strategy and courses of action (COAs) are developed, such as the air and space estimate process. Since it sets the stage for all other actions, planning is where sound effects-based principles may have the greatest impact. Execution encompasses the tasking cycle and the ongoing operational battle rhythm, as well as all the individual unit actions that comprise the execution of air and space operations. Execution that is not effects-based can negate sound planning, such as focusing too narrowly on one or another aspect of the battle rhythm, as, for example, ATO production. Non-effects-based execution can easily devolve into blindly servicing a list of targets, with little or no strategy and little or no anticipation of enemy actions. Assessment encompasses all efforts to evaluate effects and gauge progress toward accomplishment of objectives. Assessment feeds future planning and is used to adapt operations as events unfold. Effects and objectives should always be measurable and planning for them should always include a means of measurement and evaluation.

EBO should focus upon the objectives and the end state. All actions should be crafted so as to produce effects that attain the objectives and minimize unwanted effects that may hinder their attainment. An effects-based approach should logically tie every action taken to objectives at all levels of war and should consider the imperatives imposed by those higher levels, even when planning tactical actions. In this respect, the effects-based approach is an elaboration of the "strategy-to-task" methodology that has guided US military strategy for years.

Effects-based operations are about creating effects, not about platforms, weapons, or methods. An effects-based approach starts with desired outcomes—the end state, objectives, and subordinate desired effects—and then determines the resources needed to achieve them. It does not start with particular capabilities or resources and then decide what can be accomplished with them. It also assigns missions or tasks according to mission-type orders, leaving decisions concerning the most appropriate mix of weapons and platforms to the lowest appropriate levels in the AOC or in the field. While it is not about technology, new platforms, weapons, and/or methods can enable new types of effects. These do not become truly useful to the warfighter, however, until they are joined with appropriate employment doctrine and strategy. The tank by itself did not yield *Blitzkrieg*.

The effects-based approach should consider all possible types of effects. Warfare has traditionally focused on direct effects and more immediate indirect effects like attrition. While these still have a large place in warfare, an effects-based approach

must consider the full array of outcomes discussed above in order to give decision-makers a wider range of options and provide them with a realistic estimation of unintended consequences. Each type of effect can play a valuable role in the right circumstances and thinking through the full range will encourage a flexible and versatile approach to war fighting.

Effects-based operations should seek to achieve objectives most effectively, then to the degree possible, most efficiently. It should always accomplish the mission, but should seek to provide alternatives to attrition and annihilation, which are often among the *least* efficient means of achieving ends in war. Thorough evaluation of the range of possible effects should lead to courses of action that achieve objectives in ways that best support the desired end state (and thus overarching national objectives), but also do so with the least expenditure of lives, treasure, time, opportunities, or other resources. Of course, the chosen effects must first be *effective*. Sometimes this will require a strategy based on attrition or annihilation, but these will be selected only after careful deliberation has determined that they are the best (or only) choices.

Effects-based operations cut across all dimensions, disciplines, and levels of war. Cross-dimensional thinking involves integrating all the other instruments of power—diplomatic, informational, and economic—with the military instrument in order to take a comprehensive approach to attaining the ultimate end state. Cross-dimensional thinking involves considering more than just military tools or techniques to achieve desired effects. Diplomatic, informational, economic, cultural, legal, and humanitarian means may also be available, and an effects-based approach should consider them all. Cross-discipline thinking involves considering that one's own set of tools may not offer all, or the best, options in the given circumstances. Other functional specialties, components, Services, agencies, or nations may have the best "tool for the job" that is best able to impose the desired effect. Cross-discipline thinking also involves realizing that there is probably more than one way to accomplish the effect sought. Thinking across the levels of war breaks down the boundaries between the strategic, operational, and tactical arenas—realizing, for instance, that very small tactical actions can have immense strategic effects in certain circumstances.

Effects-based operations recognize that war is a clash of complex adaptive systems. War is a contest of wills, a collision of living forces that creatively adapt to stimuli in ways scientists today describe in terms of chaos, emergence, and complexity theories. This has certain implications that have not always been fully exploited in the US approach to warfighting:

- *Planning should always try to account for how the enemy will respond to planned actions.* All living systems adapt to changes in their environments and any systematic approach to warfare must account for this. An effects-based approach should include processes to account for likely adversary COAs and responses.

- *Warfare is complex and non-linear.* Things often assumed to be true about the physical world actually are not true, including the ideas of proportionality, additivity, and replicability.

  - Proportionality states small inputs lead to small outputs and large inputs to large outputs. In the real world, however, small inputs often lead to disproportionately large outputs. This insight has been the key to good military practice for millennia: all great commanders have sought ways to have the greatest effect on the enemy for the least expenditure of lives and resources. Conversely, poor and uninformed choices can lead huge inputs to yield operationally insignificant outputs, as was the case throughout World War I, the archetypal case of wasteful attritional warfare.

  - Additivity means that the whole equals the sum of its parts, but this is not true of living systems, which are always greater than the sum of their components, just as the joint force working as an integrated whole is more effective than its components would be if working independently. The behavior of complex systems depends more upon the linkages between components than upon the components themselves. In fact, system-wide behavior often cannot be deduced from analysis of the component parts.

  - Replicability holds that the same inputs always yield the same outputs, but intuition alone shows this to be untrue. Imperceptible changes in initial conditions always make exact replication of results impossible in the real world. Planners and commanders must be aware of these phenomena, use them to their advantage when able, and mitigate their negative effects as much as possible. "No plan survives first contact with the enemy;" even the most brilliantly anticipatory plans will yield surprises in execution.

- *Cause and effect are often not easy to trace.* Military operations are often planned with the assumption that the causal links between action, effect, and objective are demonstrable, direct, and can be traced deductively. Most causal linkages important to warfighters, however, are indirect, intangible, and must often be discerned inductively (through observation in the real world). In many cases, effects will accumulate to achieve an objective or objectives, but progress will not be evident until the objectives are nearly achieved. In other cases, the mechanisms through which accomplishment comes about will not be readily apparent. Planners and commanders must be aware of this, seeking ways to increase predictive awareness and counseling patience with respect to results in many cases.

Effects-based operations focus on behavior, not just physical changes. Traditional approaches to warfare made destruction of the enemy's military forces the leading aim, usually accomplished through attrition—wearing the enemy down until losses exhaust him—or annihilation—his complete overthrow or conquest. These approaches accomplish objectives and can still be valuable parts of strategy, but an

effects-based approach emphasizes that there are alternatives; that the ultimate aim in war is not to overthrow the enemy's power, but to compel him to do our will. Sometimes overthrow is the only means to accomplish this, but most of the time there will be other choices and careful examination of all types of effects will suggest them. Another aspect of this principle is that "the moral is to the physical as three is to one." That is, we can often achieve objectives more effectively and efficiently by maximizing the psychological impact of our operations upon an adversary—and not just on the battlefield, but on enemy leaders and other critical groups as well. We can carefully tailor messages to populations in the operating environment, encouraging cooperation or other desired behavior from them. Finally, affecting the behavior of friendly and neutral actors within the operating environment can often be as important as affecting adversary behavior. When we establish rules of engagement that prohibit striking cultural or religious landmarks during operations, for instance, our intended "target" in doing so is likely to be a friendly and neutral audience more than the adversary.

Effects-based operations recognize that comprehensive knowledge of all actors and the operational environment are important to success, but come at a price. "Comprehensive knowledge" means taking a view of the adversary that goes well beyond just his order of battle and the disposition of his forces. In today's battlespace, gauging changes in the behavior of various actors, anticipating their actions and finding the portions of an adversary's system that are most vulnerable or that he most values requires very robust intelligence collection and analysis capability. It also requires that we learn how the various actors think and how they perceive the conflict. Failure to do so has helped lead to defeat in the past, as it did for the US in Vietnam, when we failed to appreciate the implacability of North Vietnamese leadership. Further, it means taking a "holistic" and systems-based view of the adversary. "Systems-based" means viewing the adversary and other actors as complex, adaptive systems of systems; "holistic" means analyzing those systems as whole entities and learning how these interact with systems around them, rather than just examining component parts of the systems. Intelligence and analysis at the unit and even component level will probably not be sufficient to glean the level of understanding required. This necessitates federation or "reachback" to national-level intelligence agencies and assets that can offer the in-depth analysis required. Finally, obtaining "comprehensive knowledge" usually carries a very high information-flow and analysis cost, requiring well thought out assessment measures and intelligence analysis concepts of operations.

Effects-based operations should always consider the "law of unintended consequences." There will always be unintended effects, both good and bad, and effects that extend beyond objective accomplishment. While predictive awareness can help anticipate many outcomes and help mitigate the impact of unintended negative effects, this can never be a perfect science in a world of complex systems. Planners should think through the most obvious types of damage unintended effects may have (such as political and perception management problems associated with collateral civilian damage) and put consequence management mechanisms in place where possible. Another aspect is that today a virtual flood of data is available to commanders and other decision makers, and it is often hard to pick useful information from the flood.

The volume of information itself becomes a form of friction, precipitating confusion, lengthening decision times, and diminishing predictive awareness. Some of this can be mitigated by comprehensive intelligence and assessment planning before operations begin.

An effects-based approach is a comprehensive way of thinking about operations. It provides an overarching method of employing combat capability that is not directly tied to any specific strategy of war or type of operation. It is more than one particular type of strategy or operating concept, such as parallel attack or the "indirect approach" in ground warfare, although effects-based thinking might suggest such courses of action. It is more than one particular type of "operation" like strategic attack or interdiction. It does not mandate the particular type, but considers all options in the context of all of the objectives. It also applies to more than one type of "operation" in the larger sense of that word: EBO can be used as effectively to help plan, execute, assess, and adapt a major theater war and a humanitarian relief operation. The "best" solution will differ from operation to operation and may change in the midst of a given operation as the enemy adapts to friendly action. Thus, while the effects-based approach does not prescribe a specific strategy, it helps choose the appropriate strategy for the situation and facilitates the unity of effort required to successfully carry out that strategy. It focuses diverse efforts towards common objectives. Conceptually, unified efforts derive from a coherent plan, which links national objectives to all subsequent military actions and includes the means of measuring achievement of those objectives. Finally, *the effects-based approach also considers the full range of military operations, from peace to war and back to peace.* Conflict does not end once combat operations cease and so strategy should not either. In fact, *an effects-based approach can be even more important during the transition from combat to stabilization and reconstruction,* in part because this is an area of US strategy that has been neglected in the past, and because effects and outcomes in these phases are often much more complex and require more careful anticipation than effects during combat operations. Likewise, reconstruction and other post-conflict issues will often influence our decisions on what type of strategy and level of force to employ during a conflict.

The effects-based approach is not new. When Sun Tzu wrote "to subdue the enemy without fighting is the acme of skill…thus what is of supreme importance in war is to attack the enemy's strategy," he was intuitively applying effects-based principles, as was Napoleon when he said, "If I always appear prepared, it is because before entering on an undertaking, I have meditated long and have foreseen what may occur." History's great commanders always approached warfare from an effects-based perspective, even though they did not so name it, when they looked beyond mere destruction of enemy forces to the more general problem of bending the enemy to their will, in the process considering the full range of means through which they could accomplish this. "Effects-based" is simply a catch-all for some of history's best practices coupled with doctrine that enables proper employment of many modern capabilities.

AIR AND SPACE POWER ACROSS THE RANGE OF MILITARY OPERATIONS

Warfare is normally associated with the different domains of air, land, sea, and space. In addition, information is an environment in which some aspects of warfare can also be conducted. The Air Force exploits air, space, and information to achieve the JFC's objectives. In addition, air and space forces accomplish a wide variety of traditional and information-related functions, classically described as intelligence, surveillance, and reconnaissance (ISR). These functions can be conducted independently from land and sea operations or can complement, support, or be supported by, land and sea operations.

From an Airman's perspective, one issue remains preeminent across the range of military operations: **air superiority is the desired state before all other combat operations. Attaining air superiority provides both the freedom to attack and freedom from attack, as well as ensuring freedom to maneuver. Operating without air superiority radically increases risk to surface and air operations.** It is a key factor in gaining the necessary security for follow-on military operations. It can be localized (e.g., protection of high value assets) or theaterwide. It includes both offensive and defensive missions and involves the destruction of enemy aircraft, air defenses, and ballistic and cruise missiles, both in flight and on the ground. Offensive counterair is the preferred method, allowing us to choose the time and place of the attack, thus retaining the initiative. The JFACC, normally also designated the area air defense commander (AADC), is charged with integrating joint offensive and defensive counterair operations to achieve air superiority for the JFC.

Similarly, **space superiority is important in maintaining our unique advantages in precision, situational awareness, and operational reach.** Space superiority ensures the freedom to operate in the space domain while denying the same to an adversary. Like air superiority, space superiority involves offensive and defensive aspects. Offensive operations, using assets from all our military components, deny and disrupt the enemy's access to space and space-derived information through attacks on spacelift and information infrastructure. Direct attack of enemy spacecraft, should such a capability be developed, would also be a counterspace option. Defensive operations secure our own space assets from attack through such methods as hardening, maneuver, and dispersal and include defending vital ground nodes as well as spacecraft in orbit. Counterspace operations are enhanced by space situational awareness, which can cover the spectrum from tracking space debris to following the maneuvers of an enemy antisatellite weapon. The COMAFFOR/JFACC should normally be designated the supported component commander for counterspace operations within a joint force.

Air and space power remains a vital component of successful military operations and the attainment of rapid and low cost victory, even if lower-level contingency operations or deterrence measures fail and a crisis escalates into major operations. It has been and will remain our clear asymmetric advantage over our enemies. War

winning through the application of force has traditionally been the most important of the tasks assigned to the military. However, as more vital national interests (or even national survival) are at stake in smaller contingencies, the US military will become more deeply involved in the various types of contingency or stability operations.

THE RANGE OF MILITARY OPERATIONS

Military operations slide along an imprecise scale of violence and scale of military involvement, from theater-wide major operations and campaigns; to smaller scale contingencies and crisis response operations; to engagement, cooperation, and deterrence operations. No two conflicts are alike; scope, duration, tempo, and political context will vary widely. Some conflicts may even change from one form to another, either escalating or de-escalating. Military leaders must carefully assess the nature of the missions they may be assigned, not only to properly determine the appropriate mix of forces but also to discern implied requirements. Some operations involve open combat between regular forces; in others, combat may be tangential to the main effort. In some operations, the US military's contribution may be entirely noncombatant; simply providing an organizational framework for an interagency force and key elements of infrastructure may be all that's required.

The various discrete military tasks associated with small-scale and security operations are not mutually exclusive; depending on the scenario, there may be some overlap between the tasks. They may also occur within the context of a larger major operation. For example, some tasks, such as nation assistance or combating terrorism, may be required as part of the post-conflict stabilization phase immediately following a major conflict, and may even be initiated before the cessation of major operations. Even though there are many types of operations typically not involving combat, Airmen must understand that violence (and casualties) may occur in virtually any type of operation and, therefore, must be ready and able at all times to defend themselves and their units.

Many of the challenges our armed forces face today are more ambiguous and regionally focused than during the Cold War. These challenges address multiple risks, such as: economic and political transitions, repressive regimes, the spread of weapons of mass destruction, proliferation of cutting-edge military technology, violent extremists, militant nationalism, ethnic and religious conflict, refugee overflows, narcotics trafficking, environmental degradation, population displacement, and terrorism. The military instrument of national power, either unilaterally or in combination with the economic, informational, and diplomatic instruments, may be called upon to meet these challenges. Under such circumstances, early intervention through stability operations may deter war, resolve conflict, relieve suffering, promote peace, or support civil authorities.

Military actions can be applied to complement any combination of the other instruments of national or international power. To leverage effectiveness, it is

particularly important that actions be integrated, mutually reinforcing, and clearly focused on compatible objectives throughout the engaged force, whether US, allied, military, civilian, or nongovernmental organizations (NGOs). The overall goal of any operation, regardless of scale, is to pursue US national policy objectives and to counter potential threats to US national security interests.

> ***Operations smaller than major combat operations are variously known as stability operations, small-scale operations, security operations, deterrence operations, security cooperation activities, transition and reconstruction operations, engagement activities, or simply contingencies.*** *They may or may not involve the use or threat of force. The general military goals during such operations are to support national objectives, deter war, and return to a state of peace. Such operations should, when possible, facilitate long-term change to prevent a return to the previous conditions. In some operations, the prudent use of military force may help keep the day-to-day tensions between nations or groups below the threshold of armed conflict and maintain US influence in foreign lands. Other activities enhance trust, interoperability, and cooperation through regular interaction with friendly military forces.*

Air and space power capabilities are adaptable across the range of military operations. Certain assets may be applied to attain strategic-, operational-, or tactical-level effects against limited objectives as effectively as those mounted against more "traditional" wartime targets. Whether providing rapid, focused global mobility; conducting information operations that shape and influence the situation; isolating operations from air or ground interference; or providing the eyes and ears of a sophisticated command and control system, the flexibility of air and space forces is integral to any operation. Air and space forces can be the supported force (strategic attack; airlift or special operations to provide foreign humanitarian assistance or to conduct a limited raid; counterair to enforce an air exclusion zone; or information operations to determine treaty compliance), an enhancing force (air- and space-based ISR), or a supporting force (close air support, some interdiction, and some suppression of enemy air defenses). The specific tasks involved in any given air and space operation will vary greatly, depending on the detailed context of the larger conflict or contingency, national policies and objectives, forces available to do the job, and a host of other considerations. In a large, complex scenario, US forces may be performing several of these tasks simultaneously, in addition to combat operations.

Engagement, Cooperation, and Deterrence Operations

Engagement, cooperation, and deterrence operations establish, shape, maintain, and refine relations with other nations and domestic civil authorities. The general objective is to protect US interests at home and abroad. They usually occur during periods of normal US military readiness and usually do not involve the immediate use or

threat of force. Prudent use of military forces in peacetime helps keep the day-to-day tensions between nations or groups below the threshold of armed conflict and maintains US influence in foreign lands. Examples of such operations include:

- Arms control operations.
- Consequence management (CM).
- Counterdrug operations.
- Foreign humanitarian assistance (FHA).
- Military-to-military contacts.
- Nation assistance.
- Recovery operations.
- Unilateral and multilateral exercises.

Contingencies and Crisis Response Operations

Contingencies and crisis response operations may be single small-scale, limited-duration operations or a significant part of a major operation of extended duration involving combat. The general objectives are to protect US interests and prevent surprise attack or further conflict. These operations may occur during periods of slightly increased US military readiness (usually focused within a single region), and the use

"Air Presence:"

A Show of Force using Air and Space Power

The term "air presence" has come into use to describe the use of aircraft in a particular manner to emphasize to a local populace that US airpower is on the scene. The effect of air presence can vary from deterring a potential aggressor to boosting support for local host-nation forces, and stems from the implied ability to conduct precision strikes whenever US air and space power is present.

Air presence is a show of force operation, not a new type of mission. It is conducted as part of traditional missions such as close air support, counterair, ISR, etc. The mere presence of aircraft will not have an effect by itself -- there must be some implied capability for weapons employment, detection of illicit activities, or other mission-related outcome for air presence to have value.

Air presence missions can be used in a number of ways, from merely being visible and providing reassurance; to low, noisy passes over potentially hostile crowds for intimidation in support of friendly ground forces; to actual weapons employment— sometimes even on the same mission.

Air presence-related missions must be carefully planned with detailed knowledge about the local population. The potential risks, due to exposure to enemy threats, must be carefully considered when planning for an air presence effect. Overuse of air presence should be avoided, as it may desensitize the local populace and become self-limiting. Overuse may also detract from other, higher-priority use of limited air assets.

or threat of force may be more probable. Many of these operations involve a combination of military forces and capabilities in close cooperation with NGOs. Examples of such operations include:

- Combating terrorism.
- Counter-Chemical, Biological, Radiological, and Nuclear (C-CBRN) operations.
- Enforcement of sanctions and/or maritime intercept operations.
- Enforcing exclusion zones.
- Ensuring freedom of navigation and overflight.
- Noncombatant evacuation operations (NEO).
- Peacekeeping operations.
- Peace enforcement operations.
- Protection of shipping.
- Show of force operations.
- Strikes and raids.
- Support to counterinsurgency.
- Support to insurgency.

Major Operations and Campaigns

Major operations and campaigns are large-scale, sustained combat operations to achieve national objectives or protect national interests; such operations place the US in a wartime state. They are normally conducted against a nation state(s) that possesses significant regional military capability, with global reach in selected capabilities, and the will to employ that capability in opposition to or in a manner threatening to US national security. Such operations typically are characterized by a joint campaign comprised of multiple phases. In such cases, the goal is to achieve national objectives and conclude hostilities on conditions favorable to the US and its multinational partners, generally as quickly and with as few casualties as possible. Establishing these conditions may require follow-on stability operations to restore security, provide services and humanitarian relief, and conduct reconstruction. Operations DESERT STORM, ALLIED FORCE, ENDURING FREEDOM, and IRAQI FREEDOM are examples of campaigns.

Refer to Joint Publication (JP) 3-0, *Doctrine for Joint Operations*, and other appropriate joint publications for more detailed discussion of the various operations.

HOMELAND OPERATIONS

The Air Force's role in homeland operations incorporates all applications of air and space power within the US designed to detect, preempt, respond to, mitigate, and recover from the full spectrum of threats and incidents in the fifty United States and US territories and possessions, whether man-made or natural. This includes homeland defense, defense support of civil authorities, and emergency preparedness. This construct for homeland operations establishes the Air Force's responsibilities in direct support of homeland security. While homeland security operations may arguably be considered a subset within the range of military operations previously described, Air Force doctrine considers these activities important enough to warrant separate discussion.

The DOD performs homeland defense and contributes to emergency preparedness and defense support of civil authorities. The *National Strategy for Homeland Security* provides a federal framework for a concerted national effort to prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, as well as minimize the damage and recover from attacks that do occur. For the Air Force, homeland operations are the means by which its support to homeland defense, defense support of civil authorities, and emergency preparedness is accomplished.

Homeland Security

Homeland security (HS), as defined in the *National Strategy for Homeland Security*, is *a concerted national effort to prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, and minimize the damage and recover from attacks that do occur.* DOD contributes to homeland security through its military missions overseas, homeland defense, and support to civil authorities.

Homeland Defense

DOD defines homeland defense (HD) as *the protection of US territory, sovereignty, domestic population, and critical infrastructure against external threats and aggression.* HD missions include force protection actions, counterintelligence, air and space warning and control, counter-terrorism, critical infrastructure protection, air, space, and missile defense, and information security operations. In all of these missions, DOD either acts as the designated lead federal agency, or with a high level of autonomy within the National Security structure.

We have good doctrine for employing traditional forces in traditional roles. The most familiar Air Force role here is fulfilling North American Aerospace Defense Command's (NORAD) air sovereignty mission through defensive counterair. Future missions may involve the employment of "traditional" capabilities in nontraditional ways against such asymmetric threats as terrorism. In extreme cases, we may be directed by

the President to use deadly force to help control an extraordinary situation such as a terrorist threatening the use of a weapon of mass destruction (WMD).

Emergency Preparedness

The Air Force includes emergency preparedness (EP) within the homeland security operations umbrella. EP are those planning activities undertaken to ensure DOD processes, procedures, and resources are in place to support the President and the SecDef in a designated national security emergency. This includes continuity of operations, continuity of government functions, and the performance of threat assessments.

Defense Support of Civil Authorities

The National Response Plan introduced the term Defense Support of Civil Authorities (DSCA) to denote DOD support provided during and in the aftermath of domestic emergencies—such as terrorist attacks or major disasters—and for designated law enforcement and other activities. This term is roughly analogous to the term military assistance to civil authorities (MACA). DSCA missions include, but are not limited to, preventing or defeating terrorist attacks, crisis management and consequence management due to CBRN incidents; response to natural disasters such as earthquakes, floods, and fires; support to civilian law enforcement agencies; counter-drug operations; border security; and response to civil disturbances or insurrection. In all of these missions, various federal, state, or local civilian agencies are primarily responsible for the management of the particular incident. DOD's involvement is supportive and is normally dependent on a request from the lead agency. DSCA missions may involve operating in complex legal environments, and may be complicated by the differences in duty status between Regular, Guard, and Reserve forces. See AFDD 2-10, *Homeland Operations*.

Disaster relief efforts, such as the response to Hurricane Katrina, are a very visible example of defense support of civil authorities in homeland operations.

Military forces can be used in a multitude of ways to support civil authorities in an emergency. The mix of regular, Guard, and Reserve forces can provide flexibility to local and regional authorities based on differences in duty status. Additionally, the Civil Air Patrol may provide additional capabilities unique to domestic operations. Most of the support we give to civil authorities will be in already familiar roles – conducting airlift of supplies to affected areas or providing medical or engineering assistance to people in

need. Examples of Air Force capabilities that may be requested in a domestic disaster or emergency include (but are not limited to):

- **Air mobility.** Air Mobility Command (AMC) may provide airlift, aeromedical evacuation, and other air mobility capabilities to support local, state, DOD, or other federal agencies.

- **Air traffic control (ATC).** Air Force special tactics combat controllers or air traffic controllers can deploy to remote, abandoned, or inactive airfields and plan, organize, supervise, and establish terminal air traffic control (ATC) operations.

- **Communications.** Deployable Air Force communications systems can provide worldwide, single-channel, secure voice and record communications, and secure on-site communications.

- **Intelligence, surveillance, and reconnaissance.** The Air Force can provide ISR capabilities to monitor designated locations and provide persistent airborne or space-based surveillance. They could, for example, be used to monitor floodwaters, assess hurricane or tornado damage, or assist in tracking terrorist activities. ISR assets could also be used to collect airborne nuclear debris and perform damage assessment following a domestic nuclear event. Note, however, that *national intelligence oversight policies (Executive Order 12333 and others) may limit DOD entities' intelligence roles within the US and similarly restrict the collection and retention of information on US persons.*

- **Investigative support.** The Air Force Office of Special Investigations could provide investigative expertise to support criminal investigations and counterintelligence services.

- **Engineer support.** Air Force civil engineer forces are capable of rapidly responding to worldwide contingency operations. Capabilities include operation and maintenance of facilities, airfields, and infrastructure; air-insertable heavy construction; aircraft rescue and facility fire suppression; construction management of emergency repair activities; and CBRN event detection, mitigation, and response management.

- **Search and rescue.** Air Force assets could provide rapid response capability for search, transportation, insertion, and extraction functions in support of rescue activities or law enforcement.

- **Explosive Ordnance Disposal (EOD).** EOD capability includes the detection, identification, on-site evaluation, rendering safe, recovery, and final disposal of unexploded explosive ordnance.

- **Health Services.** US Air Force Medical Service capabilities, while primarily designed to meet its wartime mission, are easily adaptable for civil disaster

response. Small, incremental packages of tailored medical capability can be rapidly deployed to meet immediate and short-term civilian requirements.

The military's role in domestic emergencies is well defined and, by Constitutional law, is limited in scope and duration. **Military agencies temporarily support and augment, but do not replace local, state (including National Guard forces in state active duty status), and federal civilian agencies that have primary authority and responsibility for domestic disaster assistance.** Air Force contributions in DSCA operations will be in support of a Federal agency designated by the President or as indicated in the National Response Plan (NRP). Further discussion of the Air Force role in this mission area is contained in other Service and joint doctrine publications.

US Air Force organization for homeland operations should be consistent with the organizational model for any other expeditionary operation. See Chapter 4 for further discussion. Also see AFDD 2-10, *Homeland Operations*, for more details about organizational and command considerations in operating a mix of regular, Guard, and Reserve forces in homeland scenarios.

THE POLITICAL DIMENSION OF SMALLER-SCALE CONTINGENCIES

A distinguishing characteristic of contingency or "stability" operations is the degree to which political objectives influence operations and tactics. In addition to the principles of war stated in AFDD 1, the political considerations and the nature of many of these operations require an underpinning of several additional principles: unity of effort, security, restraint, perseverance, and legitimacy.

Unity of Effort

Often the military will not be the sole, or even the lead, agency in contingency operations. Some operations will, by their nature, be predominantly military. In most situations, however, the military will be one agency of many. As is especially common in stability operations, military forces will often find themselves supporting the other instruments of national power. While unity of command is critical within the military forces, most of these operations will demand unity of effort among a wide range of agencies to ensure that they coordinate their resources and focus on the same goal.

The participants in contingency-type operations often include a diverse and varied group. Missions of a humanitarian or diplomatic nature will involve a number of civilian agencies from the US and other countries. Some of the US State Department organizations involved may include the Agency for International Development and the US Information Agency. Other executive agencies, such as the Departments of Commerce, Treasury, or Justice, may be represented. Military members need to be familiar with the requirements of these other agencies, as well as with the capabilities they offer.

In many cases, more than just government agencies will be involved, and just as frequently, international organizations may be involved. The United Nations (UN), for

example, oversees a number of relief organizations. Regional organizations, such as NATO, are getting more involved in small contingencies. These organizations offer a means for dealing with problems beyond the scope of local governments. NGOs, such as the International Committee of the Red Cross (ICRC), often take the lead in humanitarian missions. They tend to have operational expertise and a solid regional orientation. Unity of effort becomes critical during interagency operations and can best be achieved through consensus building.

Security

Security takes on a different meaning in stability operations than it does in war. Commanders have an obligation to protect their forces, but the threat and the means for countering it are quite different in stability operations. Forces may be threatened in any operation, even in such things as humanitarian missions. The threat will vary depending on local circumstances, but the commander must be aware that it always exists. Although US forces have a right to self-defense, Airmen must bear in mind the concepts of necessity and proportionality. Necessity means personnel must be in imminent danger before taking any forceful self-defense actions. Proportionality means whatever force is used must be limited in intensity and duration to the force reasonably required to decisively counter the threat.

Restraint

Restraint is the disciplined application of military force appropriate to the situation. Commanders should recognize that in some types of operations, excessive use of force may lead to escalation to a higher intensity conflict; could adversely affect efforts to gain or maintain legitimacy; and may impede the attainment of both short- and long-term goals. Commanders should begin developing a force structure by outlining the necessary air and space power capabilities needed for an operation and then follow up by deploying the appropriate “tailored” force required. In order to maintain effective security while also exercising restraint, commanders should develop very clear and precise rules of engagement (ROE). ROE for contingency operations often will be more restrictive, detailed, and sensitive to political concerns than in sustained combat operations. Moreover, these rules may change frequently during operations. For all operations, and especially contingency operations, Airmen should understand that no more than an appropriate or proportional use of force is justifiable. However, the concept of restraint should not preclude the ability to use armed force, both lethal and nonlethal, when necessary in self-defense.

Perseverance

The patient, resolute, and persistent pursuit of national goals and objectives, for as long as necessary to achieve them, is paramount. Some contingency operations will involve a one-time occurrence or a short-term operation to maintain stability until local authorities can take over. Many missions, however, especially peace operations and nation-building, will require a long-term commitment. The US must be prepared to stay

involved in a region for a protracted time in order to achieve its strategic goals. Most problems cannot be solved overnight; if a situation has been building for a long time, it may take the same amount of time or longer to resolve it. With this in mind, objectives should be established for the conditions under which forces may leave, rather than simply by a timetable for departure.

Legitimacy

In order to reduce the threat to American forces and to enable them to work toward their objective, the US must be viewed as a legitimate actor in the mission, working towards international interests rather than just its own. While legitimacy is principally generated by US political leadership, legitimacy in the eyes of the host nation could be affected more by the actions of the military. One key means of promoting legitimacy for certain types of contingency operations is through robust and effective military public affairs operations. Commanders should work closely with the host-nation government (if, in fact, there is one) at all levels to help preserve and foster the sense of legitimacy.

THREATS TO OPERATIONS

Threats to Air Force interests occur across the range of military operations. A threat can be small in execution but have a large-scale outcome. These threats can undermine mission capability as severely as sabotage or engagement with regular enemy forces. Commanders should consider the effects intended to be produced by the threat, not just the nature of the threat itself.

Small-scale operations conducted by agents, insiders, saboteurs, sympathizers, partisans, extremists, and agent-supervised or independently initiated terrorist activities may present a grave danger to Air Force interests and may occur anywhere within the range of military operations. These operations may derive their personnel resources from nation-states or non-state actors, such as the al-Qaeda terrorist organizations. Often asymmetric in nature, these threats may be unorganized or well orchestrated and may take the form of insider threats, demonstrations, riots, random sniper incidents, physical assaults, kidnappings, aircraft hijackings, or bombings.

Intelligence gathering and the sabotage of air or ground operations conducted by special operations, guerrilla, and unconventional forces or small tactical units are threats that enter the realm of state-to-state combat operations. This type of threat is often asymmetric in nature. Major attacks by large tactical forces that may use air, space, land, or maritime operations are at the large-scale end of state-to-state conflicts. Attacks may also come from aircraft and theater missiles/artillery armed with conventional weapons and WMD. The Air Force uses its air and space warfare functions to counter and engage these threats. Engagement of these forces takes it out of the realm of force protection into combat operations.

TERMINATION, TRANSITION, AND REDEPLOYMENT

Planning for termination, transition, and redeployment from operations is just as critical as the planning to engage in the operation in the first place; this is especially true of stability operations. Air Force commanders should focus on creating the proper air and space power effects to help meet the operational commander's military objectives. Once the JFC's objectives are met and the proper conditions for terminating the operation exist, commanders should be prepared to plan and execute their disengagement strategy. The commander's strategy should be well coordinated with other agencies and organizations involved in the operation, and will likely include the State Department, other coalition forces, the host nation, NGOs, and/or international organizations. In some cases, Air Force forces will disengage when appropriate effects have been created and the commander's objectives are met. In some cases, Air Force forces will disengage from smaller contingencies and redeploy to larger conflicts.

Conflict Termination

Conflict termination is a vital aspect of tying military actions to strategic objectives, establishing an end state that provides a "better state of peace," and ensuring long term US national objectives are met. Cessation of hostilities will usually follow one of three patterns. The first is the victor imposing its will on the vanquished by force or other means. The unconditional surrender of the Axis powers ending World War II is one example. Another method may be through a mutual, negotiated settlement between the parties involved, such as the negotiations between US and North Vietnamese representatives that ended US military involvement in the war in Vietnam. Finally, a settlement may be imposed or brought about by a third power. NATO's intervention in the Bosnian civil war resulted in the Dayton Accords, which ended the conflict. The end of conflict is rarely predictable or even final.

The combatant commander's strategy should ultimately result in the military portion of the desired end state. Termination planning should establish the conditions and detail the actions needed to attain the chosen national security goals and objectives. Also, the way a conflict is conducted may have a great effect on the actual end state achieved. For example, unnecessarily aggressive operations may foster ill feelings from the populace, may aggravate refugee problems, or may collaterally damage or destroy so much infrastructure that recovery is more difficult.

Termination planning should begin as early in the conflict as possible, preferably prior to the beginning of a conflict. Termination planning is extremely difficult as the conflict can evolve in many directions, forcing a revision of the original termination plan and, in some cases, a change in definition of the end state. The greatest difficulty at the operational level is translating national goals into quantifiable military objectives that create the conditions needed to achieve the desired end state.

Regardless of how termination comes about, operational concerns should be addressed early in the termination effort to avoid resumption of combat. Provision for

the security of remaining forces, responsibilities toward the civilian population, prisoner of war accounting, and repatriation are all issues that should be addressed during the termination phase. Providing for the security of former adversaries and other basic human needs will significantly enhance peaceful resolution of the conflict, as will restoring elements of vital public infrastructure that may have been damaged or destroyed as a result of combat operations. Establishing rules of engagement and targeting criteria, intelligence and other information operations, media, funding, force structure, medical care, and coordination with nonmilitary organizations are key considerations for friendly forces to better understand their role. These considerations may lead to expanded or increasingly constrained postures to preclude the resurgence of hostilities, enhance public support, and ensure the security of military operations. The influence of nonmilitary instruments of national power will increase as termination approaches and is achieved. Consideration of the requirements for the other instruments of national power will significantly support achieving desired objectives.

Whether conflict termination is imposed by decisive military victory or through a negotiated settlement, air and space forces may play a critical role in any post-hostility transition. Air and space forces offer national leaders a potent force to support political and economic instruments of national power during post-hostilities. COMAFFORs must therefore clearly and explicitly define the capabilities of their respective forces to meet the objectives of conflict termination.

Transition to Follow-On Operations

Transition occurs when control of the ongoing mission is transferred to another organization or when a change of mission is brought about by changing circumstances or objectives. As with planning for conflict termination, planning for transition should extend throughout the planning process and into operations and redeployment. Joint task force (JTF) operations may be transferred to another military force, a regional organization, an international agency such as the UN, or civilian organizations. The process of transferring control of an operation to another military force or organization is situation-dependent; often, high-level interagency approval is required with long lead times. After a conflict, regeneration of force capabilities will be a primary consideration in the transition plan. Key transition decisions may involve the following considerations:

- Requirements for a residual force or response capability.
- Follow-on occupation, nation-building, or humanitarian missions.
- Protection of the force.
- Alliance and/or coalition force considerations.
- Availability of intertheater and intratheater air mobility assets.
- Applicable host nation environmental standards.

Mission analysis should provide the initial information to commence transition planning. An end state, time frame for operations, guidance from higher authority, and political policy can be determined through the analysis process, which should provide the impetus for commencing transition planning.

When operations transition from one form to another, the nature of the forces assigned and attached to the JTF and the air and space expeditionary task force (AETF) may change to match new missions. Accordingly, it may be necessary to re-examine joint force and Service organizations and command relationships as the Services bring different sets of competencies to bear.

Redeployment

Redeployment activities are directed at the transfer of individuals, units, and/or materiel and can begin at any point during joint force operations. For this reason, redeployment planning should occur early in the joint operation planning process so planned redeployment operations reflect exit or transition strategy concerns developed during mission analysis. Redeployment is not merely reversing the deployment process. Redeployments are planned and executed as discrete, mission-based operations within the overall context of the joint force mission. Redeployment may include movement of individuals, units, and/or materiel deployed in one area to another, to another location within the same area, to the zone of interior for the purpose of further employment, or to continental US (CONUS) and/or outside CONUS (OCONUS) home and/or demobilization stations for reintegration and/or out-processing.

The redeployment of forces out of an area of conflict also requires careful planning. Forces and capabilities should be withdrawn in a coherent manner that smoothly phases down operations and returns personnel and equipment to their home bases. For example, planners should retain adequate C2 and force protection assets in-theater to cover personnel and materiel during the redeployment. In some cases (such as in humanitarian or peacekeeping operations), forces or capabilities may not be immediately withdrawn until an indigenous capability is established. In other cases, forces may be swinging from one area of conflict directly into another. In this case, the smooth flow of forces and support must be carefully planned to ensure the smooth buildup of combat capability into the new theater. Proper planning for these types of actions is as important as the initial planning.

Force protection is as important during redeployment as during any other stage of the joint operation. The time between redeployment preparation and operational employment at the new destination or return to the home and/or demobilization station is potentially a period of great vulnerability for the redeploying unit. During this transition period, the redeploying unit may not be able to fully sustain or defend itself because some or all of its elements are configured for movement and may not have full mission capability.

CHAPTER THREE
COMMANDING US AIR FORCE FORCES

The qualifications of the combat commander determine to a larger extent than any other single element the effectiveness of a unit in combat.

—General Henry H. “Hap” Arnold

This chapter examines the Service and joint aspects of commanding air and space power at the operational level. It also addresses another important aspect of Service command: the role of lower echelon installation commanders. Recent operations, notably Operations ENDURING FREEDOM and IRAQI FREEDOM, highlighted the nuances in on-base command arrangements and support requirements that result from mixed forces deploying forward, often to bare bases.

Air Force expeditionary organization and preferred command arrangements are designed to address unity of command, a key principle of war. Clear lines of authority, with clearly identified commanders at appropriate echelons exercising appropriate control, are essential to achieving unity of effort, reducing confusion, and maintaining priorities. Because of the joint nature of air and space power, attention was placed on commanding joint air operations through a JFACC; less well understood was the role of the COMAFFOR. However, during numerous deployments in the last decade, the Air Force has learned a great deal about the nuances of commanding Service operations afield. As a result, the Air Force no longer looks at the COMAFFOR’s job, as some Air Force officers mistakenly did, as simply a “lesser included case” nested within the JFACC’s tasks.

THE COMMANDER, AIR FORCE FORCES

The commander of a US Air Force Service component at any joint level (unified combatant command, subunified combatant command, or JTF), is by joint and US Air Force definition called a "COMAFFOR." At the unified combatant command level, the combatant commander’s Air Force Service component is specified in the SecDef’s “Forces for Unified Commands” memorandum. When a JTF is formed within a theater, the JTF commander normally reports directly to that theater's unified combatant commander; both joint and Air Force doctrine include JTF commanders under the umbrella of "joint force commanders." If Air Force forces are attached to a JTF (thereby forming a JTF-level Service component), they should be presented as an AETF, and the AETF commander is designated the COMAFFOR for that JTF since he/she now presents a US Air Force Service component to a joint force commander.

Thus, depending on the scenario, the position of COMAFFOR may exist simultaneously at different levels within a given theater as long as each COMAFFOR is separately assigned or attached to and under the operational control of a different JFC. In the case where Air Force forces are operating in support of a JTF but are not attached to it, they do not constitute a separate JTF-level Service component under a separate COMAFFOR. In this instance, there remains a single COMAFFOR at the theater level.

The COMAFFOR provides unity of command. To a JFC, a COMAFFOR provides a single face for all Air Force issues. Within the AETF, the COMAFFOR is the single commander who conveys commander's intent and is responsible for operating and supporting all Air Force forces assigned or attached to that joint force. Thus, the COMAFFOR commands forces through two separate chains of responsibilities, the operational and the administrative. The operational chain runs through joint channels from the JFC and is expressed in terms such as operational control (OPCON), tactical control (TACON), and support. The administrative chain runs through Service channels only, from the AETF, up through the appropriate major command (MAJCOM), to the Air Force Chief of Staff (CSAF) and Secretary of the Air Force (SECAF); this authority is expressed as administrative control (ADCON).

Operational Responsibilities of the COMAFFOR

When Air Force forces are assigned or attached to a JFC, the JFC normally receives OPCON of these forces. This authority is best exercised through subordinate JFCs and Service component commanders and thus is normally delegated accordingly. If not delegated OPCON, or if the stated command authorities are not clear, the COMAFFOR should request delegation of OPCON. When the COMAFFOR is delegated OPCON of the Air Force component forces, and no JFACC has been designated, the COMAFFOR has the following operational and tactical responsibilities: (Note: if a JFACC is designated, many of these responsibilities belong to that functional component commander role)

- Prepare air and space plans to support the JFC's estimate.
- Develop and recommend COAs to the JFC.
- Develop an air and space strategy and operations plan that states how the COMAFFOR plans to exploit Air Force air and space capabilities to support the JFC's objectives.
- Establish (or implement, when passed down by the JFC) theater ROEs for all assigned and attached forces. For those Service or functional components that operate organic air assets, it should be clearly defined when the air component ROEs also apply to their operations (this would normally be recommended).
- Make air apportionment recommendations to the JFC.

- Task, plan, coordinate, and allocate the daily air and space effort.

- Normally serve as the supported commander for counterair operations, strategic attack, the JFC's overall air interdiction effort, most counterspace operations, theater airborne reconnaissance and surveillance, and other operations as directed by the JFC. As the supported commander, the COMAFFOR has the authority to designate the target priority, effects, and timing of these operations and attack targets within the entire joint operating area (JOA).

- Function as a supporting commander, as directed by the JFC, for operations such as close air support (CAS), air interdiction within other components' areas of operations (AOs), and maritime support.

- Act as airspace control authority (ACA), area air defense commander (AADC), and space coordinating authority (SCA), if so designated.

- Coordinate personnel recovery operations, including combat search and rescue (CSAR).

- Direct intratheater air mobility operations and coordinate them with intertheater air mobility operations.

- Conduct joint training, including the training, as directed, of components of other Services in joint operations for which the COMAFFOR has or may be assigned primary responsibility, or for which the US Air Force component's facilities and capabilities are suitable.

Service Responsibilities of the COMAFFOR

Commanders of US Air Force components have responsibilities and authorities that derive from their roles in fulfilling the Service's ADCON function. Through the JFC's command authority, the JFC normally will conduct operations through the COMAFFOR by delegating OPCON of the Air Force component forces to the COMAFFOR. Through the Service's ADCON authority, the COMAFFOR will have complete ADCON of all assigned Air Force component forces and specified ADCON of all attached Air Force component forces. The specified ADCON responsibilities listed below apply to all attached forces, regardless of MAJCOM or US Air Force component (regular, Guard, or Reserve). The COMAFFOR also has some ADCON responsibilities for Air Force elements and personnel assigned to other joint force components (such as liaisons). The Air National Guard (ANG) and Air Force Reserve Command (AFRC) retain all other ADCON responsibilities, such as Reserve Component activation, inactivation, partial mobilization, and length of tour. Additionally, intertheater forces, such as intertheater airlift and forces transiting another COMAFFOR's area of interest, will be subject to the ADCON authority of the respective COMAFFOR while transiting that COMAFFOR's area for administrative reporting and for TACON for force protection requirements derived from the combatant commander.

As the Service component commander to a JFC, the COMAFFOR has the following responsibilities:

- Make recommendations to the JFC on the proper employment of the forces in the Air Force component.
- Accomplish assigned tasks for operational missions.
- Organize, train, equip, and sustain assigned and attached Air Force forces for in-theater missions.
  - Prescribe the chain of command within the AETF.
  - Maintain reachback to the Air Force component rear and supporting Air Force units. Delineate responsibilities between forward and rear staff elements.
  - Provide training in Service-unique doctrine, tactical methods, and techniques.
  - Provide for logistics and mission support functions normal to the command.
- Inform the JFC (and the combatant commander, if affected) of planning for changes in logistics support that would significantly affect operational capability or sustainability sufficiently early in the planning process for the JFC to evaluate the proposals prior to final decision or implementation.
- Provide lateral liaisons with Army, Navy, Marines, special operations forces (SOF), and coalition partners.
- Maintain internal administration and discipline, including application of the Uniform Code of Military Justice (UCMJ).
- Establish force protection and other local defense requirements.
- Provide Service intelligence matters and oversight of intelligence activities to ensure compliance with laws, executive orders, policies, and directives.

If the COMAFFOR is also the standing MAJCOM commander to a combatant commander (as, for example, the commander US Air Forces in Europe [USAFE] to the commander US European Command [CDRUSEUCOM]), the MAJCOM commander has the following additional responsibilities:

- Develop program and budget requests that comply with combatant commander guidance on war-fighting requirements and priorities.

- ✪ Inform the combatant commander (and any intermediate JFCs) of program and budget decisions that may affect joint operation planning.

The COMAFFOR is responsible for overseeing the morale, welfare, safety, and security of assigned and attached forces. Subordinate commanders will issue orders and direct actions in support of those responsibilities and will ensure these orders and directives are consistent with the policies and directives of the COMAFFOR exercising ADCON of those forces. The responsibilities of parent MAJCOMs and lead commands are to organize, train, equip, and provide forces; the responsibility of the COMAFFOR is to ensure specialized training is conducted based on mission needs. The COMAFFOR and properly designated subordinate commanders will exercise disciplinary authority in accordance with the UCMJ and relevant Air Force instructions (AFIs). These commanders will advise parent MAJCOMs of any disciplinary action taken against deployed personnel. Because of the overlapping and interconnecting areas of ADCON that are divided among the various commanders, it is essential that the appropriate written orders clearly state which elements of ADCON authority and responsibility are executed by which commander.

THE JOINT FORCE AIR AND SPACE COMPONENT COMMANDER

If air and space assets from more than one Service are present within a joint force, the JFC normally will designate a JFACC to exploit the full capabilities of joint air and space operations. **The JFACC should be the Service component commander with the preponderance of air and space capabilities and the ability to plan, task, and control joint air and space operations.** If working with allies in a coalition or alliance operation, the JFACC may be designated as the combined force air and space component commander (CFACC). The JFACC recommends the proper employment of air and space forces from multiple components. The JFACC also plans, coordinates, allocates, tasks, executes, and assesses air and space operations to accomplish assigned operational missions. Because of the theaterwide scope of air and space operations, the JFACC will typically maintain the same JOA/theaterwide perspective as the JFC. The JFACC, as with any component commander, should not also be dual-hatted as the JFC.

> *"The JFC will normally assign JFACC responsibilities to the component commander having the preponderance of air assets and the capability to effectively plan, task, and control joint air operations."*
>
> —JP 3-30, *Command and Control for Joint Air Operations*
>
> *Because of its organic ability to command and control air and space power through the AOC,* ***the Air Force prefers—and in fact, plans and trains—to employ through a COMAFFOR who is then prepared to assume responsibilities as a JFACC if so designated.***

Functional component commanders normally exercise TACON of forces made available to them by the JFC. Thus, a COMAFFOR exercises OPCON of Air Force forces and, acting as a JFACC, normally exercises TACON of any Navy, Army, Marine, and coalition air and space assets made available for tasking (i.e., those forces not retained for their own Service's organic operations).

The JFACC must be prepared to assume the following responsibilities, as assigned by the JFC:

- Organize a JFACC staff manned with personnel from each component to reflect the composition of air and space capabilities and forces controlled by the JFACC.
- Develop a JAOP to support the JFC's objectives.
- Plan, coordinate, allocate, and task the joint air and space capabilities and forces made available to the JFACC by direction of the JFC.
- Develop daily anticipatory guidance for construction of the air operations directive (AOD).
- Recommend apportionment of the joint air effort to the JFC after consultation with the other component commanders.
- Control execution of current joint air and space operations to include:
  - Counterair, to include theater missile defense.
  - Strategic attack.
  - Counterland.
  - Countersea.
  - Counterspace.
  - Intratheater air mobility.
  - Information operations.
- Coordinate:
  - Personnel recovery operations, including CSAR, for assigned and attached forces.
  - Intertheater air mobility support.

- ✪ ✪ SOF operations with the joint force special operations component commander (JFSOCC) or the commander, joint special operations task force (JSOTF).

- ✪ Perform assessment of joint air and space operations at the operational (component) and tactical levels.

- ✪ Serve as ACA, AADC, and SCA, if so designated.

- ✪ Serve as the supported commander for counterair operations, strategic attack, the JFC's overall air interdiction effort, and theater airborne reconnaissance and surveillance. As the supported commander, the JFACC has the authority to designate the target priority, effects, and timing of these operations and attack targets across the entire JOA (to include targets within land and maritime AOs).

- ✪ Serve as the supporting commander, as directed by the JFC, for operations such as CAS, air interdiction within the land and naval component AOs, and maritime support.

If the JFACC is appointed from another Service (for example, in those instances where the COMAFFOR does not possess the preponderance of air and space assets and the ability to command and control them), the COMAFFOR will pass TACON of assigned and attached forces to the JFACC as directed by the JFC. In such cases, the COMAFFOR will maintain an effective command and control structure to perform Service-specific functions. In addition, the COMAFFOR should coordinate with the JFACC through an air component coordination element (ACCE).

Control of Other Services' Aviation and Space Capabilities

By definition, the JFACC controls air and space assets of other Services, in whole or in part, depending on the situation. However, the JFACC only controls those capabilities "made available for tasking" as directed by the JFC. The other Services have developed their air and space arms with differing doctrinal and operating constructs in mind, and may retain control of some or all of their assets to perform their organic scheme of maneuver. These tactical mission priorities (primarily support of surface forces) may constrain their availability to conduct the broader scope of air and space operations at the strategic and operational levels of war. Similar concerns also apply to the aviation arms of our allies. The JFACC must consider these differing philosophies when developing the air and space portion of a joint campaign.

- ✪ **Army aviation and space assets** normally are retained for employment as organic forces within its combined arms paradigm. However, some Army helicopters could be employed in CAS, interdiction, or other missions, in which case they may come under the purview of the JFACC when the JFACC has been tasked to plan and execute the theater interdiction effort. The same can hold true for other systems (such as the Army Tactical Missile System) when

employed for interdiction or offensive counterair, depending on tasking and target location. As a minimum, Army aviation elements should comply with the airspace control order (ACO) to deconflict airspace and friendly air defense planning. Placing Army aviation and space assets on the ATO/ACO will reduce the risk of fratricide and provide better overall integration with other air and space operations.

- **Naval aviation and space assets** include carrier-based aircraft, land-based naval aircraft, cruise missiles, and a small number of satellites. They provide a diverse array of power projection capabilities. Such assets, beyond those retained as needed for fleet defense and related naval missions, are usually available for tasking via the air tasking process. Additionally, Navy AEGIS capabilities may be integrated into the overall theater missile defense effort.

- **Marine aviation assets**. The primary mission of Marine aviation is support of the Marine air-ground task force (MAGTF) ground element. Sorties in excess of organic MAGTF direct support requirements should be provided to the JFC for ATO tasking through the JFACC.

- **SOF aviation assets.** The JFC may assign control of SOF aviation forces to either a Service or a functional component commander. When SOF air assets are employed as part of joint SOF operations, the JFC may assign control of those forces to the JFSOCC, who may in turn designate a joint special operations air component commander (JSOACC) responsible for planning and executing joint special air operations. However, if SOF aviation assets are assigned primarily in support of the theater air operation, then the JFC should attach control of those assets to the COMAFFOR as part of the AETF. Whether operating autonomously or in conjunction with conventional forces, special operations must be integrated into, and closely coordinated with, other air activities supporting the theater campaign. In order to coordinate and deconflict operations in their common operating environment, the deep battlespace, the JFSOCC and the JFACC exchange liaison teams. The JFSOCC provides the AOC a special operations liaison element (SOLE) to coordinate, deconflict, and integrate SOF operations, strategy, and plans with conventional air, and the JFSOCC in turn receives an ACCE from the JFACC.

Regardless of whether the JFACC exercises TACON of other Services' forces, the JFACC, in the normally expected multi-hatted roles of ACA, AADC, and SCA, normally requires inclusion of such forces on the ATO and ACO. This provides situational awareness of all friendly aviation in the area of responsibility (AOR)/JOA, prevents fratricide, and deconflicts airspace.

CHAPTER FOUR
ORGANIZING US AIR FORCE FORCES

It turned out to be another scrambled outfit…with so many lines of responsibility, control, and coordination that it resembled a can of worms. I made a note to tell Walker to take charge, tear up the chart, and have no one issue orders around there except himself. After he got things operating simply, quickly, and efficiently he could draw up a new chart if he wanted to.

—Lieutenant General George Kenney,
Australia, 1942

Organization is critically important to effective and efficient operations. Service and joint force organization and command relationships—literally, who owns what, and who can do what with whom, and when—easily create the most friction within any operation. Therefore, it is absolutely imperative that Airmen understand the fundamentals of Air Force and joint organization and command relationships.

With fewer forces forward, the US relies much more heavily on projecting forces from the CONUS. Also, the "major theater war" scenario has given way to more numerous, ad hoc deployments for unanticipated missions. As a result, the US Air Force became "expeditionary." Forces no longer necessarily deploy according to a fixed script. There may not be a mature command structure to fall in on, much less "warm" bases ready for operations. Indeed, the entire joint force may have to be assembled on the fly with a mix of in-theater and deploying forces, as a crisis unfolds.

During the latter half of the 1990s, the Air Force fine-tuned its expeditionary organization—the AETF. In many operations, culminating recently in Operation IRAQI FREEDOM, the concept was successfully employed. Also, in addition to Service organization, we have also learned much about how to integrate a joint force efficiently and effectively. When intelligently applied, the AETF model can assist or alleviate some of the heavy thinking during the early stages of a contingency.

THE AIR AND SPACE EXPEDITIONARY TASK FORCE

The AETF is the organizational structure for US Air Force forces afield. Regardless of the size of the US Air Force element, it will be organized along the lines of an AETF. The AETF presents a JFC with a task-organized, integrated package with the appropriate balance of force, sustainment, control, and force protection. The AETF presents a scalable, tailorable organization with three elements: a single commander, embodied in the COMAFFOR; appropriate command and control mechanisms; and tailored and fully supported forces.

The AETF will be tailored to the mission; this includes not only forces, but also the ability to command and control those forces for the missions assigned. The AETF should draw first from in-theater resources, if available. If augmentation is needed, or if in-theater forces are not available, the AETF will draw as needed from the air and space expeditionary force (AEF) currently on rotation. These forces, whether in-theater or deployed from out of theater, should be fully supported with the requisite maintenance, logistical support, health services, and administrative elements. These forces will form up within the AETF as expeditionary wings, groups, squadrons, flights, detachments, or elements, as necessary to provide reasonable spans of control and command elements at appropriate levels and to provide unit identity.

Regional Organization and Control

In response to a military situation, a combatant commander will normally organize a JTF. If the entire theater is engaged, the combatant commander may be the JFC. If the situation is less than theater-wide, the combatant commander may establish a subordinate JTF commanded by a subordinate JFC. In either case, the combatant commander will first look to assigned, in-theater forces. If augmentation is required, the JFC will request additional forces through the SecDef. Upon SecDef approval, additional forces will transfer into the theater and will be attached to the gaining combatant commander, and the degree of control gained over those forces (i.e., OPCON or TACON) will be specified in the deployment orders. The gaining combatant commander then normally delegates OPCON of these forces downward to the JTF commander who should, in turn, delegate OPCON to his Service component commanders within the gaining JTF. **All US Air Force forces assigned or attached to a joint task force, or established as a single-Service task force, should be organized and presented as an AETF.**

- Within a joint force, the JFC may organize forces in a mix of Service and functional components. All joint forces contain Service components, because administrative and logistics support for joint forces are provided through Service components. Therefore, by definition, every joint force containing assigned or attached Air Force forces will have a COMAFFOR.

- The COMAFFOR normally exercises OPCON over Air Force forces within the AETF. The JFC normally establishes functional component commands when forces from two or more military Services must operate in the same dimension or domain or there is a need to accomplish a distinct aspect of the assigned mission. Functional component commanders, such as the JFACC, are thus optional. If functional component commands are established, the Service component commander with the preponderance of forces to be tasked, and with the requisite ability to provide command and control, normally will be designated as that functional component commander. Functional component commanders normally exercise TACON of forces made available for tasking. Thus, for air and space forces, the COMAFFOR may be dual-hatted as the JFACC. The US Air Force prefers—and in fact, plans and trains— to employ

through a COMAFFOR who is then prepared to assume responsibilities as a JFACC if so designated.

Air Force Component Command Structure

As a result of studies culminating in 2006, the Air Force re-engineered its top-end command and control structures in support of each combatant commander. This effort, initially known as the warfighting headquarters initiative, settled on a two-pronged approach. First, the Service is establishing a headquarters organization to serve the combatant commander at the strategic level. This headquarters activity will include a small staff (e.g. protocol, public affairs, strategic-level theater security cooperation, legal, etc).

Second, the Service is also establishing an operationally-oriented organization, the component numbered air force (NAF), within each combatant command. This organization includes a headquarters element designed to support the Air Force component commander at the operational and tactical level. It will include an AOC weapons system and AFFOR staff, each appropriately tailored to support their combatant commander. These two organizations, while distinct, are part of any US Air Force component command structure and may be merged into one organization when feasible or necessary. The net result is an established, known structure, properly equipped and manned with trained personnel, to enable the Air Force Service component commander to better carry out the total COMAFFOR and JFACC responsibilities for the combatant commander.

The basics of doctrine remain unchanged: The component commander is the COMAFFOR and as such exercises both operational authorities (e.g., OPCON and TACON) when delegated by the JFC and administrative control (ADCON) of all assigned and attached US Air Force forces and should also be prepared to assume responsibilities as the JFACC.

In the event of multiple JTFs in an AOR, the Air Force component commander may attach air component coordination elements (ACCEs) to the respective JTFs or sister component headquarters to ensure each JTF or component commander receives proper air and space support. In this case, there would only be one COMAFFOR/JFACC per theater.

The implementation of this command structure will be more explicitly defined and implemented in accordance with Air Force policy directives and instructions.

Functional Organization and Control

Not all air and space forces employed in an operation will be attached forward to a geographic combatant commander. Several aspects of air and space

power are capable of serving more than one geographic combatant commander at a time. Such forces, such as intertheater air mobility, space, and special operations forces, are organized under functional combatant commanders to facilitate cross-AOR optimization of those functional forces. When such forces are deployed in a geographic combatant commander's AOR, they will often remain under the OPCON of their respective functional combatant commander and operate in support of the regional geographic combatant commander. Within a theater, this support relationship is performed through specially designated representatives attached to regional AETFs, such as the Director of Air Mobility Forces (DIRMOBFOR-Air) for air mobility forces and the Director of Space Forces (DIRSPACEFOR) for space forces. In some circumstances, after coordination with the owning commander and upon SecDef approval, control of such functional forces may be transferred to a geographic commander with specification of OPCON or TACON.

There will usually be a tension between regionally-organized forces and functionally-organized forces. The former seek effectiveness at the point of their operation, while the latter seek efficiency across several regions. At critical times, the requirement for effectiveness may trump efficiency, and additional functional forces may be transferred to the regional command and organized accordingly (see related discussion later in this chapter). These situations require careful and continuing dialogue between competing senior commanders and their common superior commander.

AETF ORGANIZATION

The AETF is the Air Force's primary warfighting organization and the means by which we present forces to a JFC. When established, AETFs will form up under the designated Air Force component headquarters. AETFs can be sized and tailored to meet the specific requirements of the mission. The basic building block of an AETF is the squadron; however, a squadron normally does not have sufficient resources to operate independently. Thus, the smallest AETF is normally an air expeditionary group; larger AETFs may be composed of several expeditionary wings. Within an AETF, the COMAFFOR organizes forces as necessary into wings, groups, squadrons, flights, detachments, or elements to provide reasonable internal spans of control, command elements at appropriate levels, and to retain unit identity.

Depending on the size of the AETF, the rank of the COMAFFOR may run from general to lieutenant colonel. **The COMAFFOR should normally not be dual-hatted as commander of one of the subordinate operating units. This allows the COMAFFOR to focus on component responsibilities as the overall AETF commander while subordinate commanders lead their units.**

Numbered Expeditionary Air Force (NEAF)

NEAF is the generic title for an AETF made up of multiple expeditionary wings and is the largest sized AETF. NEAFs will normally carry an appropriate numerical designation based on NAFs historically associated with the region or command.

Subordinate expeditionary units will retain their own numerical designations. Use of the NEAF designation is also intended to provide appropriate unit awards and honors credit for the units and staffs within the NEAF. The NEAF commander will normally be the COMAFFOR.

The Air and Space Expeditionary Task Force

The Air Force component in a joint force will organize as an air and space expeditionary task force (AETF). The AETF is a scalable, tailorable organization with three components: a single commander, embodied in the COMAFFOR; appropriate command and control mechanisms; and tailored and fully supported forces. The elements of an AETF may be deployed forward in to a theater, or some may be available elsewhere in a theater or even in the CONUS, available via reachback.

The AETF may be a fully combat capable, numbered Air Force-sized composite force fighting a major operation with a substantial in-theater presence, as in Operation IRAQI FREEDOM.

It may be a few squadron elements of combat aircraft with associated support, as part of a standing operation, as in Operations NORTHERN and SOUTHERN WATCH.

It may be an air mobility operation delivering food and medical supplies in a relief operation, as in Operation UNIFIED ASSISTANCE, the 2005 tsunami relief effort in southern Asia.

An AETF's desired effect might not directly involve air and space power. After supporting the initial insertion of forces into Haiti in 1994, the Air Force's main element in Operation UPHOLD DEMOCRACY was a medical unit.

Air Expeditionary Wing (AEW)

AEW is the generic title for a deployed wing or a wing slice within an AETF. An AEW normally is composed of the wing command element and subordinate groups and squadrons. AEWs will normally carry the numerical designation of the wing providing the command element. Subordinate expeditionary groups and support squadrons will carry the numerical designation of the parent AEW. Subordinate mission squadrons and direct combat support units will retain their numeric designation in an expeditionary

status. Use of the AEW designation is also intended to provide appropriate unit awards and honors credit for the parent unit. An AEW may be composed of units from different wings, but where possible, the AEW is formed from units of a single wing. The AEW commander normally reports to the COMAFFOR.

Air Expeditionary Group (AEG)

AEG is the generic title for a deployed group assigned to an AEW or a deployed independent group assigned to an AETF. Unlike traditional "home station" groups, which are functionally organized (i.e., operations group, maintenance group, etc.), expeditionary groups that are deployed independent of a wing structure will contain elements of all the functions to conduct semi-autonomous operations. An AEG is composed of a slice of the wing command element and some squadrons. Since Air Force groups are organized without significant staff support, a wing slice is needed to provide the command and control for echelons smaller than the normal wing. An AEG assigned to an AEW will carry the numeric designation of the AEW. An independent AEG will normally carry the numerical designation of the unit providing the command element and/or the largest portion of the expeditionary organization. Deployed assigned or attached squadrons will retain their numerical designation and acquire the "expeditionary" designation. Use of the AEG designation is also intended to provide appropriate unit awards and honors credit for the parent unit. An AEG may be composed of units from different wings, but where possible, the AEG is formed from units of a single wing. If deployed as an independent group, the AEG commander will normally report to the COMAFFOR. If deployed as a group subordinate to an expeditionary wing, the AEG commander reports to the AEW commander. The AEG is normally the smallest independently deployable AETF.

Air Expeditionary Squadron (AES)

AES is the generic title for a deployed squadron within an AETF. Squadrons are configured to deploy and employ in support of crisis action requirements. However, an individual squadron is not designed to conduct independent operations; it normally requires support from other units to obtain the synergy needed for sustainable, effective operations. As such, an individual squadron or squadron element should not be presented by itself without provision for appropriate support and command elements. If a single operational squadron or squadron element is all that is needed to provide the desired operational effect (for example, an element of C-130s performing humanitarian operations), it should deploy with provision for commensurate support and command and control (C2) elements. The structure of this AETF would appear similar to an AEG. In some operations, not all support and C2 elements need to deploy forward with the operational squadron. Some may be positioned "over the horizon," constituting capabilities provided through reachback. A single squadron or squadron element may deploy without full support elements if it is planned to augment a deployed AEW or AEG, and would thus obtain necessary support from the larger units. Under certain circumstances when less than squadron size detachments are involved, it may not be appropriate to attach them as a full AETF complete with COMAFFOR and C2 structure. In those cases, the more appropriate and effective mechanism may be to task the Air

Force as a supporting unit under the OPCON of the COMAFFOR at the next higher echelon.

Expeditionary Elements below Squadron Level

In addition to expeditionary wings, groups, and squadrons, the Air Force may deploy elements below the squadron level for specific, limited functions. These include individuals and specialty teams such as explosive ordnance disposal (EOD) teams, military working dog teams, security forces, liaison teams, etc. They may deploy as part of an AETF or independently of other Air Force units, in remote locations, and may operate directly with other Services. For ADCON purposes, these elements should normally be attached to the commander of a recognizable Air Force entity in the region, either a deployed AETF or the Air Force Service component to the engaged combatant commander. Examples of such deployed elements might be a psychological operations team augmenting a Joint Psychological Operations Task Force (JPOTF), an EOD team augmenting a predominately surface force, or an Air Force element supplementing Army convoy operations. Air Force personnel assigned to a joint staff may also fall in this category.

In many circumstances, elements below squadron level and even individual persons may deploy to provide a specific capability. In such cases, formal establishment and designation of an AETF may not be warranted. However, the Air Force contingent should still be organized as

Historically, when Airmen talked about augmentation, discussion was generally limited to augmenting the AOC or a joint staff. Recent experience has provided new examples of augmentation between Services, either to round out manpower or provide specific skills at a low echelon. Examples include Airmen supplementing Army convoy operations in Iraq and Army Guardsmen backfilling deployed Air Force security forces at Air Force installations in the CONUS.

When Airmen are tasked to augment another Service, the AETF model should be applied as a template to help focus discussion of organization and command arrangements. The operational (OPCON/TACON) and administrative (ADCON) chains of command should be carefully specified, and an Air Force element, with an Airman in charge, should be identified to fulfill ADCON responsibilities.

a single entity (perhaps named simply as “Air Force element”) and led by the senior Airman in the contingent. In any case, the AETF model should still be used as a template to answer some basic questions:

- What is the operational branch of the chain of command? Who is in charge of the operational mission, and to whom does the Air Force contingent report?
- What is the Service administrative branch of the chain of command? Who is in charge of the Air Force contingent, and to whom does that senior Airman look for Service support (which Air Force installation or unit)?
- What command and control mechanism does the contingent need? A small planning cell? A slice of a squadron or wing operations center? Or just a cell phone or radio link back to the home station?
- What formal orders are required to attach the contingent or personnel to another agency? Deployment orders, G-series orders or simple TDY orders?
- What additional Service and joint training may be required to enable the deploying Airmen to properly accomplish the mission?

Furthermore, for such small deployments, the senior Airman should be identified. Because designation as a COMAFFOR may not be appropriate, the senior Airman should instead be designated as, for example, commander, Air Force element; team chief; or officer or noncommissioned officer in charge. This formally identifies the senior Air Force member as leader of the deployed element.

Provisional Units

In some instances, expeditionary forces will not form around active numbered units. This may occur, for example, when there are insufficient active numbered units in the AEF rotation to satisfy a very large operation or a single major force provider cannot be identified. In such cases, provisional units may be created using predesignated inactive units. A unit under a single provisional unit designation should also be considered to provide continuity of operations for extended contingency operations in which units are frequently rotated in and out (e.g., Operations NORTHERN and SOUTHERN WATCH and IRAQI FREEDOM). Upon completion of the operation for which the unit was formed, the unit designation and history will be inactivated. Provisional wings, groups, and squadrons are normally generically designated simply as AEWs, AEGs, and AESs.

Designation of Expeditionary Units

An AETF will be assigned a name based on a numerical designation determined by heritage considerations and the name of the operation under which it is tasked. The name will include the heritage-based number (normally derived from a regional NAF)

followed by the name of the operation. For example, an AETF for Operation DENY FLIGHT was designated "16 AETF—DENY FLIGHT."

Wings, groups, and squadrons are designated "expeditionary" from the time they are attached until no longer attached to an AETF. Within the task force, numbered units simply add "expeditionary" to the normal designation of the unit. For example, the 123d Fighter Wing becomes the 123d Expeditionary Fighter Wing; the 456th Mission Support Group becomes the 456th Expeditionary Mission Support Group, and the 789th Air Refueling Squadron becomes the 789th Expeditionary Air Refueling Squadron. For planning purposes, wings, groups, and squadrons may be generically designated simply as AEWs, AEGs, and AESs.

Units operating from their normally assigned, in-place location, such as permanently assigned units in Korea under US Pacific Command (USPACOM), or North America-based ANG units participating in homeland air defense within Operation NOBLE EAGLE, need not adopt expeditionary nomenclature since they are not truly expeditionary. The overall operation, however, should still be modeled as an AETF to delineate clear chains of operational and administrative authority.

Other deployed wings, groups, and squadrons that are not assigned or attached to the AETF, but provide significant support (such as airlift and tanker units in the intertheater air bridge or space and special operations units in direct support), may be designated "expeditionary" at the discretion of their owning MAJCOM or Service component commander. Normally, these "expeditionary" forces provide their support through their functional chains of command.

THE SENIOR/HOST AIR FORCE INSTALLATION COMMANDER

An installation commander, regardless of Service, always exercises some authority over and responsibility for forces on his/her base for protection of assigned forces and assets, lodging, dining, and administrative reporting, regardless of the command relations of those forces. These are inherent in his/her responsibilities as an installation commander.

Ultimately, the Air Force Service component commander within a region is responsible for fulfilling ADCON responsibilities and common logistics support for all Air Force forces within his/her region, regardless of organization of assignment of those forces. These ADCON responsibilities are exercised through commanders at subordinate echelons. The ADCON chain is clear for non-deployed forces at home station during peacetime. However, the ADCON chain during expeditionary operations requires some fundamental guidance, especially during those fluid times when forces are initially building up in remote deployed locations.

The senior Air Force commander on any base where Air Force forces are present has responsibilities for care and provisioning of the Air Force forces on that installation, regardless of organization. For example, a conceivable mix of host and tenant Air Force organizations at a single base could include:

- A small permanent party at the group or detachment level.
- A wing or group sized AETF conducting sustained operations from that base.
- Air Force Special Operations Command (AFSOC) assets operating in-theater but not attached to the host AETF.
- Air mobility forces bedded down in-theater, supporting an air bridge under the OPCON of US Transportation Command (USTRANSCOM) (through Air Mobility Command [AMC]).
- Transient forces using the base for a staging base for further deployment.

Other scenarios may have forces belonging to other Service components operating from an Air Force-owned base, such as Army special operations forces or Marine aviation units. Although the provision of logistics support is inherently a Service-specific responsibility, the senior Air Force commander, as the host base commander, has responsibility for providing protection and other base operating support as directed by the governing operations order or interService agreements. In scenarios where another Service is the host, clear lines of authority over critical issues, especially airfield operations, must be clearly delineated, preferably in writing.

An Emerging Concept: The Senior Airfield Authority

The senior airfield authority (SAA) is an emerging concept for resolving C2 issues and mitigating concerns about airfield authority on those airbases with mixed forces, especially in airbase opening scenarios. Designated by the JFC, the SAA on each base should normally be selected from the Service with the preponderance of airfield operations capabilities and assets to support operation of the airbase. During rapidly unfolding airbase opening scenarios, the designated SAA may not be immediately available. In such scenarios, current Air Force proposals recommend that the commander of the contingency response group opening the base act as SAA until arrival of the JFC-designated SAA.

G-series orders should detail which commanders are responsible for providing specific elements of specified ADCON to deployed units and what authority that commander may use to carry out these responsibilities (see appendices C and D for examples). The orders are not required to spell out all support and sustainment responsibilities. For a notional example, the orders might specify that lodging, dining, and force protection will be provided by the 36 AEW from Air Forces Pacific (AFPAC) and Pacific Air Forces (PACAF). The minimum ADCON responsibilities and authorities to go forward should be responsibility for UCMJ, protection of assigned forces and assets, lodging, dining, and force reporting. These responsibilities apply under a wide variety of basing situations:

- Whether the base is owned and operated by the Air Force, by another US Service, or by the host nation.

- Whether or not the senior Air Force officer on a given installation is the host installation commander.

- Whether or not the Air Force forces present on the installation are assigned or attached to the senior Air Force officer's same expeditionary unit or even to the same AETF.

- Whether or not the Air Force forces present are Regular, Guard, or Reserve, and regardless of whether or not the Guard forces are federalized.

For example, when Air Force aircraft are operating from a dual-use base where the installation commander is neither Air Force nor an Airman, clear lines of authority over airfield operations must be established.

To properly fulfill ADCON responsibilities on an installation, a senior Air Force line officer (preferably a commander of a designated echelon; that is, an "A-coded" commander) should be clearly identified. If such a senior officer is not clearly identified, either by position (as, for example, by his/her standing as the designated host installation commander) or otherwise in writing, the senior Air Force line commander present on an installation should assume responsibility for ADCON issues for all Air Force forces on that installation. The following guidelines are offered for further clarification:

- Preferably, the designated senior officer should also be the commander of a clearly identifiable echelon, such as an AEW or AEG, and not lower than squadron level (AES).

- When operational and support forces are present on the same base, the senior officer should normally be appointed or designated from the operational forces by the COMAFFOR.

- When two or more equally-sized units are present on the same installation, and a single host installation commander has not yet been formally designated, the senior-ranked line officer should assume ADCON responsibilities for all Air Force forces on that installation until such time as either the COMAFFOR or JFC formally designates a host installation commander or host Service.

- This senior officer is responsible for coordinating all required aspects of support with the host nation, any supporting Service, and the owning MAJCOM or combatant command as required.

- Specified elements of ADCON should always be written in the G-series orders and clearly identify the support to be provided to a subordinate expeditionary or host unit.

- A commander's UCMJ authority only extends to regular, Reserve, and federalized Guard forces.

- If support is provided to deployed units on a lengthy, recurring basis, Air Force MAJCOMs should specify ADCON relationships between MAJCOMs in standing command-to-command agreements.

See Appendix A for some sample base-level ADCON scenarios.

Refer to AFI 38-101, *Air Force Organization*, specifically Chapter 5, *Organizing Provisional Units*, for more specific policy guidance.

AETF COMMAND AND CONTROL MECHANISMS

The COMAFFOR requires command activities as tools to assist in exercising OPCON, TACON, and ADCON. The COMAFFOR uses one of several types of AOC to exercise control of air and space operations, and a Service component staff (commonly called the AFFOR staff) to exercise support operations and administrative control.

The character of the operations center may vary, depending on the nature of the forces. For control of regional operations, it may be one of the large, fixed Falconer AOCs. For air mobility operations, the operations center may be the Tanker Airlift Control Center (TACC) at Scott AFB, while space operations would leverage the Air Force Space AOC at Vandenberg AFB. These centers normally will work together in a mutually supporting command arrangement, with one of them designated as the supported center. While these operations centers are organic to Air Force operations, with proper augmentation from the other Services and coalition partners they may evolve into a joint or combined center, depending on the type of

The AOC is the senior element within the theater air control system (TACS). *The TACS includes the AOC plus subordinate ground and airborne elements, and is directly involved in the command and control of most air missions. Collectively, the TACS has the capability to plan, direct, coordinate, and control all air and space forces assigned, attached, or made available for tasking; monitor the actions of both friendly and enemy forces; plan, direct, coordinate, and control air defense and airspace control; and coordinate for required space support.*

While this publication focuses on the AOC it is important to remember ***that the entire TACS is necessary for the COMAFFOR's effective command of air and space power.***

operation and nature of the forces within the air and space component. See Chapter 7 for a summary of AOC types, organization, and processes.

An AETF also needs a command entity responsible for the deployment and sustainment of Air Force forces. The AFFOR staff is the mechanism through which the COMAFFOR exercises his/her Service responsibilities. These sustainment activities are sometimes referred to as "beds, beans, and bullets." The AFFOR staff is also responsible for the long-range planning and theater engagement operations that falls outside the AOC's current operational focus. See Chapter 8 for a summary of AFFOR staff organization and processes.

The core capabilities of the AOC and AFFOR staff should be well established, but they should be tailored in size and function according to the theater and the operation. Not all operations require a "full-up" AOC with over 1,000 people or a large AFFOR staff. Smaller operations, such as some humanitarian operations, can in fact make do with a small control center that does little more than scheduling and reporting. Also, not all elements of the operations center or AFFOR staff need be forward; some may operate "over the horizon," using reachback to reduce the forward footprint. The goal is to maximize reachback and minimize forward presence in "harm's way" as much as possible.

DISTRIBUTED / SPLIT OPERATIONS

Several aspects of modern operations almost always require distributed C2. For example, a JFACC should normally send ACCEs to other key headquarters in a joint force, while the AOC remains further back in a theater. Also (although not entirely desirable) the JFACC may not be co-located with the JFC, resulting in a form of distributed operation. Thus, regardless of Service and joint force laydown, the JFACC should always be conscious of the need to actively communicate with and command all elements associated with the C2 network, and communicate with other commanders in the joint force.

Reachback provides ongoing combat support to the operation from the rear while a distributed operation indicates actual involvement in operational planning and/or operational decision-making. In some scenarios, the COMAFFOR may elect to leave some elements at their home station and use reachback to obtain their support. This may be the case for some planning and analysis elements, resulting, for example, in a "split" AOC or AFFOR staff. When elements or functions of the AETF are placed in geographically separated locations, the COMAFFOR should maintain the same degree of control as if they were forward deployed. Supported/supporting relationships must be clearly specified to ensure the COMAFFOR has the degree of control required.

The decision to establish split or distributed operations invokes several tradeoffs:

- The fewer the number of personnel/forces deployed forward, the less support is required to be pushed across great distances; however, face-to-face interaction

between forward and rear decision makers may be limited, and decision making timelines may stretch.

- Fewer personnel/forces forward reduce security requirements; however, their expertise is no longer immediately at hand for ad hoc problem solving. An "out of sight, out of mind" attitude may also become a challenge.

- Split/distributed operations require more bandwidth for communications. These links then become vulnerabilities. However, a distributed operation may arguably be more survivable and less prone to single-point failure.

Refer to AFDD 2-8, *Command and Control*, for further discussion of split and distributed operations.

COMMAND RELATIONSHIP MODELS FOR US AIR FORCE FORCES

When employing military forces, a combatant commander first turns to those forces already assigned. Assigned forces are delineated in the SecDef's "Forces for Unified Commands" memorandum, and the combatant commander exercises combatant command (COCOM) and OPCON over them. When the situation requires additional forces, the combatant commander makes the appropriate request through JCS channels. Upon SecDef approval, additional forces may then be deployed. Since the additional forces are normally assigned to a different combatant commander, the deployment order should clearly delineate the degree of command authority to be exercised by the gaining commander. Gained forces are then usually attached to the appropriate in-place Service component commander.

The deployment order is the primary instrument for transferring forces and establishing supported and supporting relationships between combatant commanders. Forces may also be transferred by an execute order which executes an approved OPLAN. Other orders created during the planning process, such as warning, alert, planning, and fragmentary orders, may also specify or shape command relationships, but they do not transfer forces. The SecDef, as the only authority for transferring forces between combatant commanders, normally signs deployment orders. This deployment order should specify to whom the deployed forces are assigned or attached and the command relationship (OPCON or TACON) to be exercised by the gaining commander. Air Force component commanders may shape command and support relationships by working through their chains of command to shape the details of orders being drafted by the Joint Chiefs of Staff (JCS). While the JFC ultimately has the authority to determine the delegation of command among subordinates, Air Force commanders should make consistent recommendations and present forces in a consistent manner to the JFC.

For Air Force forces, there are four general models for command relationship: forces deployed and executing operations within the theater to which they are attached; forces executing missions inside the theater of operations but based outside the theater

(i.e., across AORs); functional forces with global missions; and transient forces. Considerations for these relationships should include the ability of gaining commands to receive the forces and to command and control them appropriately; the characteristics and support requirements of the forces involved; and the operating locations of the forces. These four models illustrate the most probable combinations in assigning responsibility for operational control and administrative control; however, many nuances are possible, and commanders must exercise sound professional judgment when setting up command relationships. (Note: In the following examples, "supported combatant commander/JFC" specifically means the in-theater commander who is tasked with executing the operation for which the forces under discussion may be assigned or attached.)

In-Theater Forces

In general, when Air Force forces deploy into a theater to conduct operations, OPCON of those forces should normally go forward to the combatant commander assigned the mission. To the maximum extent possible, specified elements of ADCON should also go forward to the regional COMAFFOR to whom the forces are attached. ADCON authorities and responsibilities can run concurrently between the gaining COMAFFOR and the parent organizations of the deployed forces and should be clearly specified. For assigned forces, the regional COMAFFOR already exercises OPCON and ADCON.

Out-of-Theater Forces

There are two general cases in which Air Force forces may execute missions inside a theater of operations while based outside the theater. These cases involve CONUS-based forces and forward-based forces operating from outside the AOR. In either case, operational control of forces should transfer forward to the commander executing the mission, and ADCON will depend on where the forces are based.

CONUS-Based Forces

CONUS-based forces that launch from the CONUS, conduct operations in another theater, and recover in CONUS should transfer OPCON to the supported combatant commander/JFC upon sortie generation. ADCON should remain with the original MAJCOM. An example would be a bomber launching from CONUS, striking a target overseas under the command of a regional force, and returning to CONUS. Another example would be bombers placed on alert in CONUS in support of commander, US Strategic Command (CDRUSSTRATCOM) tasking. For both of these examples, OPCON should transfer to the supported combatant commander/JFC who is executing the mission; this is the preferred arrangement. However, if the tasked combatant commander/JFC is only granted TACON of these forces, OPCON in this case remains with the commander, US Joint Forces Command (CDRUSJFCOM) and ADCON remains with the commander, Air Combat Command (ACC).

OCONUS Forces outside the AOR

For OCONUS units stationed outside the theater of operations tasked to conduct sustained operations in that theater, OPCON should normally transfer forward to the supported combatant commander/JFC, and ADCON is best held by the COMAFFOR for the geographic region in which they bed down. An example of this situation would be bombers stationed at Diego Garcia (in the USPACOM AOR) but conducting operations under the command of US Central Command. The commander, US Central Command (CDRUSCENTCOM) would exercise OPCON of the bombers most likely through his COMAFFOR, the commander, Air Forces Central (AFCENT). The PACAF commander would exercise ADCON through the Air Force Service component for the Pacific region, AFPAC.

Functional Forces

Functional forces (such as air mobility and space forces) satisfy mission requirements across multiple AORs and are thus best centrally controlled. For such forces, the functional combatant commander will normally retain OPCON of assigned forces and execute as a supporting commander to the supported geographic combatant commander.

In those cases where functional forces bed down in a geographic commander's AOR, the Air Force host base commander (or senior Air Force officer present on the installation, if the Air Force is a tenant) will exercise a minimum degree of ADCON, usually only for force protection, UCMJ, dining and lodging, and some limited force reporting. (See Chapter 3 for more discussion on the ADCON responsibilities of host installation commanders). The extent and nature of the elements of ADCON that will be exercised by the geographic commander should be specified in deployment orders and/or command-to-command agreements.

Transient Forces

Geographic or local commanders do not normally exercise OPCON of transient forces (i.e., forces merely transiting an AOR or JOA and not part of an AETF, and not participating in combatant commander-sponsored joint exercises). However, such forces are subject to local force protection, UCMJ, lodging and dining, and administrative reporting requirements. Per Joint Pub 0–2, *Unified Action Armed Forces (*UNAAF), **"Transient forces** within the assigned AOR of a combatant commander **are subject to the area commander's orders in some instances,** e.g., for coordination for emergency defense or allocation of local facilities. However, transient forces **are not part of the area commander's command,** and the area commander is **not in their normal chain of command."** [Emphasis in original]

Forces in Exercises

Forces participating in joint exercises under the orders of a combatant commander or other SecDef directed training should normally be under the OPCON of

the sponsoring combatant commander. Forces participating in such joint training should normally be attached to the combatant commander with specification of OPCON via SecDef approved deployment orders.

Unless otherwise specified by the SecDef, and with the exception of the US Northern Command (USNORTHCOM) AOR, a geographic combatant commander has TACON for exercise purposes whenever forces not assigned to that combatant commander undertake exercises in that combatant commander's AOR. TACON begins when the forces enter the AOR and is terminated upon completion of the exercise, after departing the AOR. In this context, TACON provides directive authority over exercising forces for purposes relating to that exercise only; it does not authorize operational employment of those forces. This blanket specification of TACON for exercise purposes does not apply to USTRANSCOM assets within any AOR or to forces deployed for exercises in USNORTHCOM AOR. OPCON and TACON for USTRANSCOM forces or forces exercising in USNORTHCOM AOR remain as established by the SecDef.

TRANSFER OF FUNCTIONAL FORCES TO A GEOGRAPHIC COMMAND

In some situations, a geographic commander may request additional functional forces beyond those apportioned or allocated during deliberate or crisis action planning. The decision to transfer functional forces, with specification of OPCON, to a geographic combatant commander should be balanced against competing needs across multiple AORs. The requirement for effectiveness within a region may trump the global efficiency sought by functional combatant commanders. Therefore, after coordination with the owning functional commander and upon SecDef approval, functional forces may be transferred to the geographic command and organized accordingly.

The decision to attach additional functional forces has two parts. First, the decision should consider whether:

- The geographic combatant commander will use the forces at or near 100% of their capability with no residual capability for other global missions.
- The forces will be used regularly and frequently over a period of time, not just for a single mission employment.
- The geographic commander has the ability to effectively command and control the forces.

If the answer to all three questions above is "yes," then the functional forces should be attached to the geographic combatant command. If any of the above questions are answered "no," then the functional forces should remain under the OPCON of the functional combatant commander's COMAFFOR and be tasked in support.

If the decision is to attach forces, the second question is whether the forces will be attached with specification of OPCON or TACON.

- **Specification of OPCON:** OPCON is the more complete—and preferred—choice of control. It includes "the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. OPCON includes authoritative direction over all aspects of military operations and joint training." It "normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions; it does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training" (JP 1-02).

- **Specification of TACON:** TACON is the more limited choice of control. It is "limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned." It "provides sufficient authority for controlling and directing the application of force or tactical use of combat support assets within the assigned mission or task" (JP 1-02). JP 0-2, *UNAAF*, states "when transfer of forces to a joint force will be temporary, the forces will be attached to the gaining commands and JFCs will normally exercise OPCON over the attached forces." While it is possible for the SecDef to attach forces across combatant command lines with the specification of only TACON and not OPCON, such action would deviate from the joint doctrine and policy established in the UNAAF and would result in a more confused chain of command with OPCON and TACON split between two different combatant commanders.

Regardless of which form of control is transferred, regional COMAFFORs have inherent responsibilities for such issues as local force protection, lodging, and dining. Thus, if a regional COMAFFOR holds OPCON of forces outside the AOR, he or she is not responsible for such issues – that is the responsibility of the COMAFFOR in the region in which they are bedded down. In a parallel fashion, if such out-of-region forces divert into bases in his/her region (for example, for emergencies), that COMAFFOR is now responsible for basic support and protection.

As an example, a combatant commander requests tankers in support of a regional operation. If the tankers are totally committed to that operation and are unavailable to perform any other missions, OPCON of these tankers may be transferred to the supported combatant commander/JFC. If, on the other hand, the tankers are only partially employed in that operation, and thus are available for other missions (such as support to the intertheater air bridge), CDRUSTRANSCOM should retain OPCON to optimize overall tanker utilization. As another example, missile warning satellites can provide warning to the supported combatant commander/JFC through a direct support

relationship, but CDRUSSTRATCOM retains OPCON to optimize missile warning mission requirements globally.

INTEGRATING REGIONAL AND FUNCTIONAL AIR AND SPACE FORCES

As previously stated, air and space power is usually presented through a mix of regional and functional models, with the latter usually supporting the former. Functional forces usually maintain a separate organization from the supported regional organization, and are integrated in the theater through specially trained liaisons attached to the regional COMAFFOR. The most likely functional capabilities to be provided in such a supporting relationship are air mobility operations, space operations, and special operations.

Integrating Air Mobility Operations

Because air mobility forces serve several regions concurrently, their employment must be balanced between regional and intertheater requirements and priorities. At the same time, the air mobility systems performing intratheater and intertheater missions within a given region must operate in close coordination to provide responsive and integrated aerial movement to the supported combatant commander.

Carefully constructed command relationships can allow an interlocking arrangement to manage intratheater and intertheater air mobility operations. Normally, intratheater air mobility forces will be attached to the JFC, with OPCON as appropriate delegated to the COMAFFOR. Intertheater air mobility forces normally remain under the control of USTRANSCOM, delegated downward within AMC to Eighteenth Air Force (18 AF) as appropriate (refer to the command relationship discussion for functional forces earlier in this chapter). Within a regional operation, the DIRMOBFOR-Air, with the air mobility division (AMD) in the AOC, provides the pivotal link between the intertheater and intratheater air mobility operations.

The Director of Air Mobility Forces

Within an AETF, the DIRMOBFOR-Air is the JFACC's designated coordinating authority for air mobility operations. The DIRMOBFOR-Air, normally a senior Air Force air mobility officer familiar with the AOR, coordinates on behalf of the JFACC with the AMD in the AOC. The DIRMOBFOR-Air may be sourced by the theater Air Force component commander or nominated by the AMC commander. To ensure close coordination with the overall theater effort, the DIRMOBFOR-Air is normally assigned to the JFACC's special staff. In those instances when no JFACC is designated, or the JFACC is from another Service, the DIRMOBFOR-Air should normally report to the COMAFFOR. The DIRMOBFOR-Air's specific authorities and responsibilities include:

- ✪ Coordinate the integration of intertheater air mobility support provided by USTRANSCOM-assigned air mobility forces.

- ✪ Coordinate the tasking of USTRANSCOM air mobility forces (air and ground) assigned or attached to the JFC.
- ✪ Coordinate the tasking of intratheater air mobility forces (air and ground) attached to the theater or JTF.
- ✪ Coordinate with the AOC director to ensure all air mobility operations attached to and supporting the JFC are fully integrated with the air tasking cycle and deconflicted with all other air operations.
- ✪ Coordinate with 18 AF, through the AMD and the TACC, all intertheater air mobility missions to ensure the most effective use of these resources in accomplishing the JFC, theater, and USTRANSCOM missions.

Integrating Space Operations

Space presents another form of military operations that, much like air mobility, usually are best presented functionally to a regional commander through a supporting relationship if they are not attached. Space command and control brings another level of complexity because many space assets that support military interests come from a variety of organizations, some outside of DOD. These capabilities often have nontraditional chains of command. In some cases, authority may be split between organizations due to shared interagency responsibilities. Much like air mobility through the DIRMOBFOR-Air, space capabilities within a regional operation are normally focused within a JTF by the designation of a single authority for space operations.

Space Coordinating Authority

Within a regional operation, the JFC should designate SCA to facilitate unity of effort with DOD-wide space operations and non-DOD space capabilities. **Although JFCs may retain authority at the JTF level, they should normally designate as SCA the component commander who provides the preponderance of military space capabilities, the requisite ability to command and control them, and the resident space expertise.** In most cases, the JFACC provides these capabilities through the Air Force's organic space C2 infrastructure. Responsibilities of SCA include:

- ✪ Determine, deconflict, and prioritize military space requirements for the JTF.
- ✪ Recommend appropriate command relationships for space to the JFC.
- ✪ Help facilitate space target nomination.
- ✪ Maintain space situational awareness.
- ✪ Request space inputs from JTF staff and components during planning.

- ✪ Ensure optimum interoperability of space assets with coalition forces.
- ✪ Recommend JTF military space requirement priorities to JFC.

The Director of Space Forces

Within an AETF, the DIRSPACEFOR serves as the senior space advisor to the JFACC. The DIRSPACEFOR, an Air Force space officer, coordinates, integrates, and staffs activities to tailor space support to the JFACC. In addition, when the JFACC is designated as SCA, the DIRSPACEFOR will work the day-to-day SCA activities on behalf of the JFACC. If the COMAFFOR is neither SCA nor the JFACC, the COMAFFOR should establish a space liaison to the JFACC through an ACCE. The DIRSPACEFOR is part of the JFACC's special staff. Whether a permanent member of the theater MAJCOM staff or provided to the theater by Air Force Space Command (AFSPC), the DIRSPACEFOR should be pre-identified to allow that officer time to become familiar with that theater's space requirements. The DIRSPACEFOR's specific responsibilities include:

- ✪ Provide senior space perspective for strategy and daily guidance development, target selection, force enhancement to terrestrial operations, and special technical operations (STO) activities relating to space operations.
- ✪ Facilitate AFSPC, USSTRATCOM, and national support to the JFC.
- ✪ Provide assistance to the JFACC in determining and achieving military space requirements.
- ✪ Assist regional AOC staff in developing and staffing space related operational requirements and policy matters.
- ✪ Recommend appropriate command relationships for space to the JFACC.

Integrating Special Operations

Special operations forces normally operate through separate theater special operations components. When SOF operate in concert with "conventional" JTFs, they usually take the form of a separate JSOTF within the JTF, commanded by a JFSOCC. While SOF normally pursue SOF-unique objectives, they may also be tasked to operate in support of conventional objectives or require conventional support of their objectives:

- ✪ SOF may act as an economy of force measure, striking conventional targets that allow joint air assets to strike more appropriate targets.
- ✪ SOF may be able to conduct surgical operations beyond the capabilities of joint air and space forces. For example, they may strike against WMD production or storage facilities inaccessible to joint air due to environmental or dispersal concerns.

- ✪ Because of unique training and multiple air/ground combat power delivery capabilities, SOF may combine with joint air and space operations in a synergistic attack (e.g., terminal guidance operations).

- ✪ SOF may enhance joint air and space operations with specialized personnel and platform capabilities to assist in locating deep targets.

Whether operating under control of the JFSOCC or in support of the JFACC, SOF aviation missions are integrated into other air activities supporting the theater campaign. Integration is crucial because the JFACC and the JFSOCC normally share common operational areas, and their assets routinely operate in the deep battlespace. SOF aviation and surface assets are integrated closely in all joint air operations, from planning through execution. To ensure this, the JFSOCC provides the JFACC a SOLE to coordinate, deconflict, and integrate SOF operations, strategy, and plans with other air operations. In return, the JFACC provides an ACCE to the JFSOCC.

The Special Operations Liaison Element

Whether operating autonomously or in conjunction with conventional forces, SOF aviation and surface assets must be closely integrated into all joint air operations—from planning through execution—to provide coordination and deconfliction, prevent fratricide, and exploit synergistic effects. Integration is crucial since air assets and SOF are the only forces that normally operate deep in enemy territory.

The JFSOCC provides the SOLE to the JFACC. The SOLE works for the JFSOCC in the AOC and serves as his liaison staff. The SOLE integrates all SOF air and surface operations with joint air operations via the air tasking process. Specific functions include ATO and ACO generation; real time mission support within the AOC; operations and intelligence support for targeting; combat airspace control for prevention of fratricide; coordination with special plans functions; and coordination with the joint personnel recovery center (JPRC). The SOLE also assists in the deconfliction of joint special operations areas (JSOAs) and unconventional warfare operating areas with the JFACC.

HOMELAND ORGANIZATIONAL CONSIDERATIONS

For most homeland contingency scenarios, Air Force forces should be presented as an AETF under the OPCON of a COMAFFOR, *just as in any other theater.* For homeland operations, Air Forces Northern (AFNORTH), at Tyndall AFB, FL, normally fulfills the role of the Air Force component to USNORTHCOM, the supported combatant command. The Commander, AFNORTH is also the JFACC within the NORAD chain for the CONUS NORAD region. The command relationships between a JFC and a COMAFFOR in a homeland context should be as previously described for any other region—although legal and interagency considerations may have significant impact, *the CONUS is not a special case regarding C2 or organization of air and space forces.* As noted previously, single-Service task forces may also be established in homeland operations.

In some DSCA operations, a JFC may elect to allocate combat support forces to subordinate functional task force commanders (TFCs) with a specification of OPCON to the TFC. For example, a JFC in a major disaster relief operation might organize his/her forces into separate engineering, transportation, and medical task forces. This organizational scheme—a legacy construct which sidesteps the role of Service components and Service component commanders—divides Air Force assets among other component commanders and fractures Service unity of command. Thus, this is not the most operationally effective scheme for achieving unity of command and unity of effort under a single Airman. Ideally, the JFC allows the COMAFFOR to retain OPCON of all assigned and attached Air Force forces. The COMAFFOR then provides direct support to the various functional TFCs with the COMAFFOR as a supporting commander.

In disaster relief operations, particularly in consequence management of a manmade or natural disaster, the Air Force contribution will likely include a Total Force mix of regular, Guard, and Reserve capabilities. A normal tiered response to a large event results in local, state, and then Federal resources (at the request of the governor) working in direct support to a lead federal agency. This poses unity of effort challenges for any COMAFFOR**.** *Regular officers cannot command "non-federalized" ANG forces, and a "non-federalized" ANG commander cannot command regular forces. Unity of effort for regular and ANG units are synchronized through the use of "Coordinating Authority" given the commander assigned responsibility for Air Force assets.* As described in the UNAAF, Coordinating Authority may be granted and modified through a memorandum of agreement to provide unity of command and unity of effort for operations involving Guard, Reserve, and regular component forces engaged in interagency activities. Coordinating Authority is the authority to "require consultation between the agencies involved." Coordinating Authority is a consultation relationship, not an authority through which command may be exercised.

A similar situation may occur in a DSCA scenario when a mix of medical and line Air Force forces are presented to a JTF commander. Because medical officers cannot command line forces, a senior line officer may have to be designated to serve as COMAFFOR.

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CHAPTER FIVE
THE AIR AND SPACE COMPONENT WITHIN THE JOINT FORCE

The greatest lesson of this war has been the extent to which air, land, and sea operations can and must be coordinated by joint planning and unified command. The attainment of better coordination and balance than now exists between services is an essential of national security.

—General Henry H. "Hap" Arnold

Modern warfare requires flexibility in execution to adapt to a wide variety of scenarios; this drives a need to assemble the right mix of forces from the appropriate Services to tailor the operation. This need to assemble the right forces drives a corresponding need for proper organization, command and control mechanisms, and appropriate command relationships. Current Service and joint doctrine provide much useful guidance on organization; however, assembling a joint organization demands careful, conscious thought. This chapter draws from doctrine and experience to provide the basics of setting up and commanding a joint air and space component within a joint force.

JOINT FORCE ORGANIZATIONAL BASICS

When a crisis requires a military response, the geographic combatant commander will usually form a tailored JTF. If Air Force forces are required, they will stand up as an AETF within the JTF. The AETF will normally form up beneath the Air Force component headquarters. The AETF commander, as the COMAFFOR, will provide the single Air Force face to the JTF commander. Other Services may also provide forces, and normally stand up as separate Army, Navy, and Marine forces, each with their respective commander (commander, Army forces [COMARFOR]; commander, Navy forces [COMNAVFOR]; and commander, Marine forces [COMMARFOR]). This JTF organization, along purely Service lines, is the most basic joint force organization (See Figure 5.1). Each separate Service component commander normally exercises OPCON over assigned and attached forces, as delegated from the JFC.

Employing forces through Service components, however, does not allow for the true integration of key functional activities – especially air and space power. Further, Army, Navy, and Marine forces are usually assigned individual AOs, which are subsets of the JFC's JOA, which presents a less-than-total view of the theater. By comparison, an air and space component commander has the same operational level, JOA-wide perspective as the JFC.

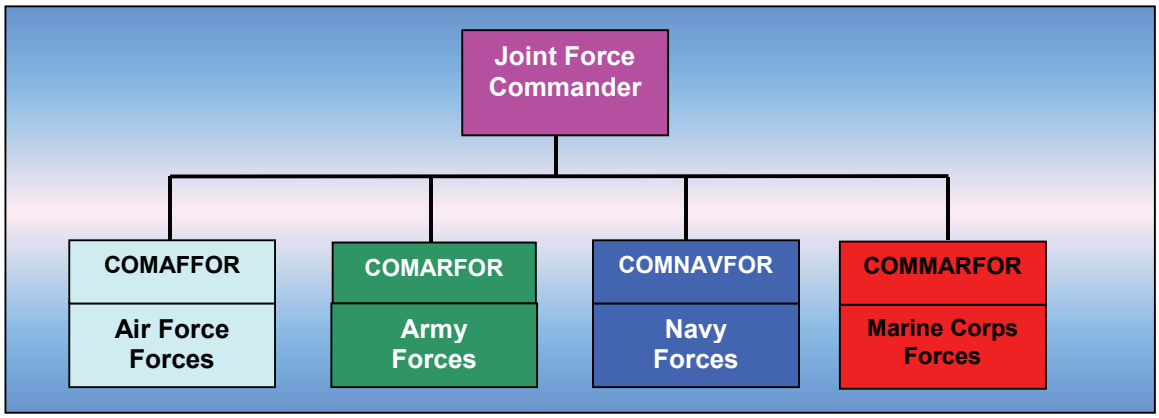

Figure 5.1. Joint Task Force organization along purely Service lines. This is the most basic joint force organization

Because all four Services have forces that operate in the air domain, and two of them have land forces, the designation of functional commanders allows greater synergy by integrating similar activities across Service boundaries. Functional component commanders can also focus their planning and execution above the tactical level at the operational level of war. However, the designation of joint force air and space, land, maritime, and special operations component commanders (JFACC, JFLCC, JFMCC, and JFSOCC respectively) is at the discretion of the JFC. This functional component model has the added benefit in that, of all possible models, it most easily transitions to one that supports combined (coalition) employment, and the functional component commanders become combined component commanders (CFACC, CFLCC, CFMCC, and CFSOCC).

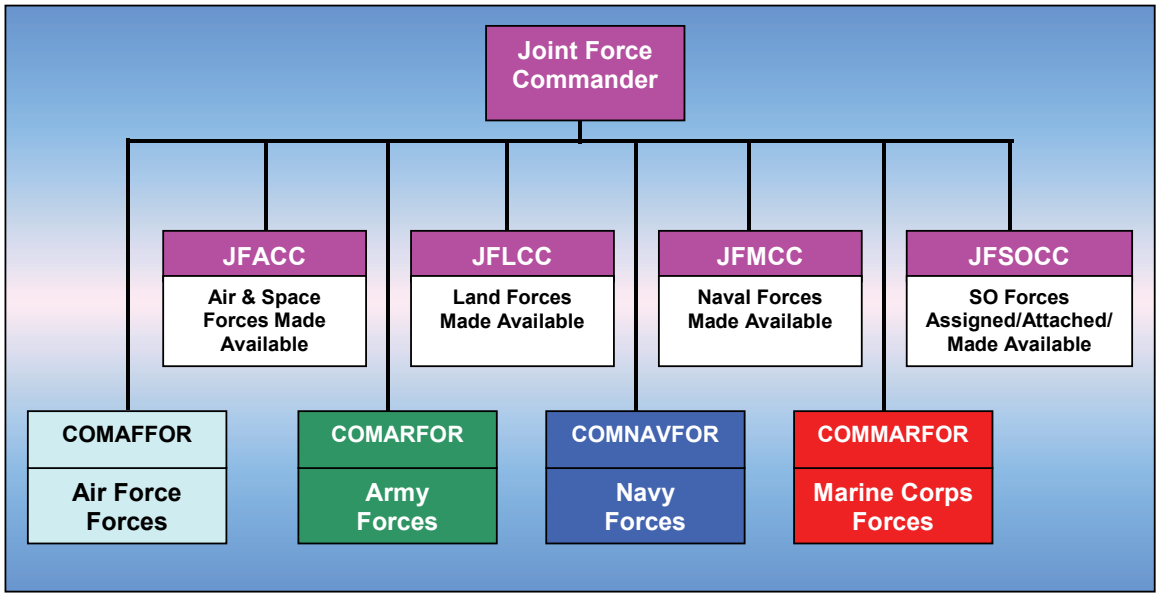

Figure 5.2. Joint Task Force organization with functional and Service component commanders. This represents the Air Force's preferred joint force organization

In all cases, the JFC is ultimately responsible for delineating the command relations to support his or her organization and empowering subordinate commanders appropriately. Normally, a JFC receives OPCON of assigned or attached forces and delegates that control (OPCON) to the appropriate Service component commanders. Delegation of OPCON allows Service component commanders the necessary authority to fully organize and employ their forces:

> "Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. **Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders**." (JP 1-02). (Emphasis added)

In some cases, a combatant commander may elect to form a JTF around a Service or functional component, depending on the nature of the mission and that component's ability to provide command and control. Thus, a COMAFFOR/JFACC or COMARFOR/JFLCC might also be designated as the JFC. In such cases, that commander's staff should be augmented sufficiently to provide a representative mix of expertise for the mission and forces assigned. Under these circumstances a lower-level headquarters and command structure will be required to avoid dual-hatting a commander and staff at different echelons of command.

THEATER AIR AND SPACE COMMAND MECHANISM

The theater air control system (TACS) is the mechanism for commanding and controlling theater air and space power. It consists of airborne and ground elements to conduct tailored C2 of air and space operations throughout the spectrum of conflict, including air defense, airspace control, and coordination of space mission support not resident within theater. The structure of the TACS should reflect sensor coverage, component liaison elements, and the communications required to provide adequate support. As an organic Air Force weapon system, the TACS remains under OPCON of the COMAFFOR. In multinational commands, the name and function of certain TACS elements may differ, but multinational air components have similar capabilities.

Air and Space Operations Center

The AOC is the senior C2 element of the TACS and includes personnel and equipment of the necessary disciplines to ensure the effective conduct of air and space

operations (e.g., communications, operations, intelligence, etc.). As the operations command center of the JFACC, it provides the capability to plan, task, execute, monitor, and assess the activities of assigned or attached forces. When the JFACC is designated as the AADC, ACA, and SCA, these functions are also performed through the AOC. The AOC monitors execution of air operations and directs changes as the situation dictates. As the focal point of the TACS, the AOC should have secure and redundant communications with operations, logistics, weather, and intelligence centers, higher and lateral headquarters, as well as subordinate units to preclude degradation in its ability to control air forces. See Chapter 7 for a more detailed description of the AOC.

Liaisons within the TACS

Joint components and headquarters staffs normally exchange liaisons and coordinating elements with each other in order to better integrate planning, execution, and assessment. Specifically, the JFACC normally provides an ACCE laterally to sister components as needed, and to the JFC. In return, the JFACC normally receives a battlefield coordination detachment (BCD) from the Army as an adjunct to the AOC, as well as liaisons from the other components (e.g., a SOLE from the JFSOCC; a MARLO from the Marines; and a NALE from the Naval component) (Chapter 7 discusses these liaisons in greater detail). Specifics such as relative location of headquarters and type of planned military operations will dictate the size of such liaison elements. These liaison elements should have adequate communications with their respective component commands to support informed decisions regarding the use and sustainability of their force's assets. The JFACC also employs the DIRMOBFOR-Air and DIRSPACEFOR to integrate air mobility and space respectively. See Chapter 7 for an expanded discussion of these elements.

Airborne TACS Elements

Airborne TACS elements provide a highly responsive, flexible, and survivable system to support the execution and coordination of theater air and space operations. They may be employed autonomously during the early stages of theater contingencies and conflicts or in concert with multinational and joint Service C2 systems. Airborne TACS elements can rapidly react to changing situations by adjusting sensor and communications coverage to support ATO execution. Airborne elements rely on onboard systems as well as direct connectivity with off-board intelligence collectors (such as RC-135 RIVET JOINT) to accurately assess the combat arena and adjust force execution. Airborne elements of the TACS include the E-3 Airborne Warning and Control System (AWACS), the Joint Surveillance, Target Attack Radar System (Joint STARS), and forward air controllers (airborne) (FAC-As).

Ground TACS Elements

Ground-based TACS elements provide similar capabilities as airborne elements but with reduced range, flexibility, and mobility. They are an important interface

between the TACS, ground-based air defense activities, and Army ground maneuver and fires units. Ground TACS responsibilities are often delegated to the control and reporting center (CRC) and air support operations center (ASOC). Ground TACS elements include: the CRC; CRC remote radars; ASOCs; tactical air control parties; and expeditionary operations centers (EOCs). *Even though some of these elements are co-located with Army forces to better provide close support, these elements remain under the command of the JFACC, not the Army element with which they are co-located.* See AFDD 2-1, *Air Warfare*, for more detailed discussion on these TACS elements.

INTEGRATING COMPONENT OPERATIONS: THE AIR COMPONENT COORDINATION ELEMENT

The JFACC may establish one or more ACCEs with other component commanders' headquarters to better integrate air and space operations with their operations, and with the JTF headquarters to better integrate air and space operations within the overall joint force. *When established, these elements act as the JFACC's primary representatives to the respective commanders and facilitate interaction among the respective staffs.* The ACCE facilitates integration by exchanging current intelligence, operational data, and support requirements, and by coordinating the integration of JFACC requirements for airspace coordinating measures, joint fire support coordinating measures, close air support, air mobility, and space requirements. As such, the ACCE is a liaison element, not a C2 node; thus, the ACCE normally has no authority to direct or employ forces. The make-up of the ACCE is dependent on the scope of the operation and the size of the staff they will liaise with. If the ACCE will perform liaison duties for both the COMAFFOR and JFACC staff, the ACCE should be tailored with the expertise necessary to perform effectively. Element expertise may include plans, operations, intelligence, airspace management, logistics, space, and air mobility, as needed. The ACCE also communicates the component commander's decisions and interests to the JFACC. However, the ACCE should not replace, replicate, or circumvent normal request mechanisms already in place in the component/JTF staffs, nor supplant normal planning performed by the AOC and AFFOR staff. The ACCE director is the JFACC's personal and official representative, and as such should have sufficient rank to effectively work with the component or JTF commander to which he or she is attached. Finally, to maintain proper perspective and focus, the ACCE director should not normally be dual-hatted as the commander of a tactical unit.

Normally, the ACCE should:

- Ensure the JFACC is aware of each commander's priorities and plans.
- Ensure the JFACC staff coordinates within their surface component/JTF headquarters counterparts to work issues.
- Ensure appropriate commanders are aware of the JFACC's capabilities and limitations (constraints, restraints, and restrictions).

- ✪ Ensure appropriate commanders are aware of the JFACC's plan to support the surface commander's scheme of maneuver and the JFC's intent and objectives.

- ✪ Facilitate JFACC staff processes with the surface/JTF commanders. Provide oversight of other JFACC liaisons to component/JTF headquarters staffs, if directed.

- ✪ Ensure information flows properly between the AOC/AFFOR staff and sister components and JFC.

JOINT LIAISONS IN THE AOC

Depending on the nature of the operation, the JFACC may have a number of liaison teams within the AOC to facilitate planning and execution among the other components in the joint force.

Component Liaisons. Component liaisons work for their respective component commanders and with the JFACC and staff. Each component normally provides liaison elements that work within the AOC. These liaison elements consist of experienced specialists who provide component planning and tasking expertise and coordination capabilities. They help integrate, coordinate, and deconflict their component's participation in joint air and space operations. The air and space component may require other liaison augmentation to support AOC functions such as Coast Guard, Defense Intelligence Agency, National Security Agency, Central Intelligence Agency, Air Intelligence Agency, National Reconnaissance Office, and Federal Aviation Administration in various operational and support areas.

Battlefield Coordination Detachment. The BCD supports integration of air and space operations with ground maneuver. BCD personnel are integrated into AOC divisions to support planning, operations, air defense, intelligence, airlift/logistics, airspace control, and communications. In particular, the BCD coordinates ground force priorities, requests, and items of interest. One of the BCD's most important functions is to coordinate boundary line and fire support coordination line changes and timing. The BCD brings ground order of battle (both friendly and enemy) situational awareness and expertise into the AOC and will normally brief the ground situation/intelligence update. The BCD may also provide current ground situation inputs to AOC teams for incorporation into daily briefings and intelligence summaries.

Naval and Amphibious Liaison Element. The NALE personnel from the maritime components support the AOC in integrating naval air, naval fires, and amphibious operations into theater air operations and monitor and interpret the maritime battle situation for the AOC.

Marine Liaison Officer. MARLOs are representatives of the COMMARFOR and his associated aviation combat element commander. The MARLOs will support the JFACC in integrating MAGTF fires, maneuver, and Marine air into the theater campaign

and supporting JAOP. This team will be well versed in the MAGTF commander's guidance, intentions, schemes of maneuver, and direct support aviation plan.

Special Operations Liaison Element. US Special Operations Command (USSOCOM) provides a SOLE to the JFACC to coordinate and integrate all SOF activities in the entire battlespace. The SOLE is comprised of representatives from SOF aviation, intelligence, airspace, logistics, Air Force special tactics teams, Army special forces, and Navy Sea-Air Land teams (SEAL). SOLE personnel work within the various AOC functional areas to ensure that all SOF targets, SOF teams, and SOF air taskings/missions are deconflicted, properly integrated, and coordinated during all planning and execution phases. The prevention of fratricide is a critical product of the SOLE's efforts.

Coalition/Allied Liaison Officers. LNOs representing coalition/allied surface forces may improve AOC situational awareness regarding the disposition of friendly forces, especially when those forces do not have a mature TACS. They are also essential for unity of effort for coalition air defense operations and airspace deconfliction. When teamed with linguists, they can help overcome language barriers with remote allied/coalition forces. In force projection scenarios into an immature theater, AOC directors must anticipate the need for LNOs and actively seek them out via the JFC staff, in-country military group (MILGROUP), staff country team, or direct contact with coalition forces, if necessary.

During World War II, General MacArthur and his senior Airman, Lt Gen Kenney, had a close working relationship. As a result, General Kenney enjoyed a high level of trust to employ air power as best fit his commander's objectives.

AIR AND SPACE COMPONENT RELATIONSHIPS WITHIN A JOINT FORCE

The JFC normally assigns broad missions to the component commanders; with each mission comes a specification of supported commander for that mission. As an example, the JFC may designate the JFACC as the supported commander for strategic attack, air interdiction, and theater airborne ISR (among other missions). As such, the JFACC is responsible to the JFC for planning, coordinating, and executing these missions, and other component commanders support the JFACC. When outlining supported/supporting relationships, the JFC usually does not specify the degree and timing that support should be; the subordinate commanders normally work that out.

For some missions or functions, specification of support alone may be insufficient in order for a functional component commander to fully integrate and employ forces made available. In such

instances, the JFC may grant a subordinate commander TACON of specific elements of another component's resources (this, in fact, is the usual command authority exercised by functional component commanders over forces made available to them). This provides that commander with a more finite degree of control. The commander responsible for a mission should be given the requisite authority to carry out that mission.

The JFACC should establish a close working relationship with the JFC to ensure the best representation of air and space power's potential. When possible, the JFACC should co-locate with, or at least be positioned close to, the JFC, so they may benefit from frequent personal interaction. This fosters the personal trust between senior commanders essential to joint operations. It also helps keep a greater air and space power presence in the joint force headquarters, especially during planning, as well as keeping the JTF headquarters staff from trying to plan and run air component operations in the perceived absence of the JTF's senior Airman. To facilitate this, in some situations the JFACC may even elect to co-locate with the JFC at the expense of residing in the AOC.

JOINT STAFFS

Joint Staff Composition

Effective joint operations require real integration of significant multi-Service capabilities. *The composition of a truly joint staff should reflect the composition of the subordinate joint forces* to ensure that those responsible for employing joint forces have a thorough knowledge of the capabilities and limitations of assigned or attached forces. The presence of liaisons on a single-Service staff does not transform that Service staff into a joint staff. The joint staff should be composed of appropriate members in key positions of responsibility from each Service or functional component having significant forces assigned to the command.

The same general guidelines for joint staffs apply to coalition operations. Key staff positions ought to be a representative mix of US and allied officers. As with a joint staff, the key concepts are shared responsibilities and trust. And as with a joint staff, liaisons alone don't make a Service staff into a coalition staff.

Commanders and Staff

"Commanders command, staffs support." Within a joint force, only those with the title of "commander"—i.e., the JFC, the Service component commanders, and the functional component commanders—may exercise any degree of operational control over forces. **Only commanders have the legal and moral authority to place personnel in harm's way. Under no circumstance should staff agencies, including those of the JFC's staff, attempt to command forces.** Special cells formed within a joint staff to oversee or advise the JFC on special interest activities should not exercise direct control over component forces. In accordance with joint

policy as stated in the UNAAF, it is permissible for joint staff agencies to issue orders and directives *in the name of the commander* of the higher command *to the commander* of the immediate subordinate command. Staff agencies should neither attempt to nor be permitted to directly command or control elements of the subordinate forces.

JFACC Staff

When the COMAFFOR is designated the JFACC, the JFACC may need to establish a small joint or combined staff to deal with coalition issues beyond the purview of the AFFOR staff. Additionally, some AFFOR staff personnel may be present in the AOC to provide the JFACC with access to Air Force component information; normally, such AFFOR staff personnel will not be dual-hatted within the AOC. Augmentation within each AOC directorate from relevant Service components and coalition partners ensures adequate joint representation on the JFACC staff. At the discretion of the JFACC, officers from other Services and coalition partners may fill key deputy and principal staff JFACC positions. Finally, for very large and complex operations, as might be encountered with large coalition operations, a COMAFFOR dual-hatted as a JFACC may delegate some aspects of COMAFFOR functions to a subordinate deputy COMAFFOR to ensure that they receive the proper attention.

Principles of Organization

- *A commander and staff can only focus on one level of war at a time.*
- *If it's important enough to commit American combat forces, it's important enough to provide them full-time commanders.*
- *If you need to establish ad-hoc committees to integrate your components' operations, your organizational structure is probably flawed.*
- *If someone outside your command is doing your planning, make them part of our command structure.*
- *Good people can compensate for a bad organization—up to a point.*

MULTI-HATTING COMMANDERS / SPAN OF COMMAND

Caution should be applied when multi-hatting commanders. Too many "hats" may distract a commander from focusing on the right level of war at the right time, or may simply overwhelm the commander with detail. Of equal importance is the fact that a commander's staff can usually operate effectively only at one level of war at a time. **If a commander must wear several hats, it is preferable that the associated responsibilities lie at the same level of war.** While it is normally inappropriate for either a Service or a functional component commander to also serve as the JFC, it is entirely appropriate for a JFACC to also serve as the AADC, ACA, and SCA, since all four functions lie at the operational level and all four functions are supported through the same command node (the AOC). To alleviate the overload, a multi-hatted commander

may delegate some functions (but not the ultimate responsibility) to appropriate deputies.

More challenging are those instances when a commander's hats vertically span several levels of war, as in the case when the JFC (normally acting at the theater-strategic level) is also acting as a functional component commander (operational level), and also as the commander of one of the operating (tactical) units. In such cases, the commander may be inadvertently drawn to the tactical level of detail at the expense of the operational-level fight. Also, dual- or multi-hatting a functional or Service component commander as the JFC raises a special caution in itself, as it

> "…may place this commander in an unwieldy position, foster a parochial single-Service or component view of overall joint operations and component contributions, and create potential conflicts of interest." (JP 5-00.2, *Joint Task Force Headquarters*)

Within a joint force, the air component commander (either COMAFFOR or JFACC) is co-equal to the land and maritime component commanders and subordinate to the JFC. When a JFC is dual-hatted as one of the subordinate component commanders, this co-equal status is compromised and may result in loss of operational effectiveness for the overall joint force. If the JFC is dual-hatted as the JFLCC (as was done, for example, in Operation DESERT STORM), then the JFACC must be able to deal with that dual-hatted individual as a co-equal when wearing his JFLCC hat while still recognizing his superior authority with his JFC hat.

Thus, although this option is available to combatant commanders when designing subordinate JTFs, caution is needed when vertically multi-hatting commanders, as it tends to create "part-time commanders."

SUPPORT TO MULTIPLE JTFs

As previously discussed, a combatant commander normally establishes a subordinate JTF to conduct operations; forces are normally attached as needed, with specification of OPCON to the subordinate JFC. Again as previously discussed, when the Air Force is tasked to provide forces, an AETF is established within the JTF, with a COMAFFOR and appropriate command and control mechanisms. However, if a combatant commander establishes multiple JTFs within the AOR, there may be insufficient Air Force assets and C2 capabilities to provide each JTF with its own, discrete Air Force component. In these circumstances, the most effective and efficient application of air and space power may dictate air and space assets be retained at the theater level as a supporting command and apportioned to support the multiple JTF commanders according to the combatant commander's theater-wide priorities. In this situation, the Air Force component commander will normally recommend to the combatant commander that air and space assets be controlled at the theater level, under the command of the theater Service component commander or JFACC (as

appropriate) and apportioned to support subordinate JTFs as needed. The theater level JFACC may then deploy ACCE teams to the subordinate JTF headquarters and other component headquarters as needed to ensure they receive the appropriate level of air support. The ACCE will provide on-hand air and space expertise to the subordinate JTF commanders and the direct link back to the "theater COMAFFOR/JFACC" and the AOC.

The three-part test described in Chapter 4 for transferring functional forces to a geographic combatant commander may similarly apply in these situations. As stated previously, the combatant commander may decide that the need for effectiveness at the JTF level may trump efficiency across the AOR. These situations require careful and continuing dialogue between competing joint and component commanders and their common superior commander.

SINGLE-SERVICE TASK FORCES

Normally, a military response requires elements from two or more Services to provide an adequate spectrum of capabilities. On occasion, the response may only require the capabilities found in one Service. In other instances, as may be encountered during disaster relief operations in the CONUS, the combatant commander may decide that operations are sufficiently limited in scope as to not warrant the creation of a full JTF with its attendant joint staff and its additional manpower and logistical footprint. In these instances, single-Service task forces may be formed. If so tasked by a combatant commander, the Air Force will form an AETF; control over that AETF will be through the Service component commander. The COMAFFOR should exercise OPCON over the AETF.

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CHAPTER SIX
PLANNING FOR OPERATIONS

If I always appear prepared, it is because before entering an undertaking, I have meditated long and have foreseen what may occur. It is not genius which reveals to me suddenly and secretly what I should do in circumstances unexpected by others; it is thought and preparation.

—Napoleon Bonaparte

War has always been a complex undertaking; modern war especially so. To ensure an orderly transition from peace to conflict, and to ensure orderly deployment and employment of American forces, theater and functional combatant commanders use an extensive and thorough planning process. The resulting plans, backed with identified forces and deployment schedules and implemented through a series of universally understood orders, provide the mechanism for bringing together the resources, equipment, and personnel needed when wielding the military instrument of national power.

JOINT OPERATION PLANNING

Planning is conducted at every echelon of command and across the range of military operations. Joint military planning encompasses four broad types: joint strategic planning, security cooperation planning, force planning, and joint operation planning. Only the last is of concern in this publication; details concerning the others can be found in JP 5-0, *Doctrine for Joint Operation Planning*. Joint operation planning employs an integrated process for orderly and coordinated problem solving and decision-making. In its peacetime application, the process is highly structured to support the thorough and fully coordinated development of deliberate plans. In crisis, the process is shortened as needed to support the dynamic requirements of changing events. In wartime, the process adapts to accommodate greater decentralization of joint operation planning activities. Joint operation planning is conducted through one of the three following processes: contingency planning; crisis action planning (CAP); and campaign planning.

Two key steps or phases are common to all three types of joint operation planning, as well as to much operational-level component and Service planning that takes place in support of it. These are:

- **Situation Monitoring**, in which the situation or contingency requiring planning is recognized, reported, and assessed for implications to current strategy and existing operations plans. Situation monitoring consists of situation

development, in which the triggering contingency is initially identified and reported, and situation assessment, in which relevant intelligence is gathered, analyzed and fed as appropriate to planners and commanders. Situation monitoring continues throughout the planning process and keeps it adapting to changing situations as needed.

- **Planning,** which includes all of the activity that the joint planning and execution community (JPEC) must accomplish to prepare for the anticipated operation. This includes mobilization, deployment, employment, and sustainment of forces leading up to, but not including, the actual movement of those forces. As required, planners also address post-conflict stabilization, redeployment, reconstitution, and demobilization, as many of these considerations require preparation before operations begin. As part of all subordinate processes, the planning stage consists of mission analysis, resulting in a mission statement; COA development and selection, which includes staff and commanders' estimates; and detailed plan development, which includes development of the commanders' concept of operations (CONOPS) and development of subordinate plans.

There are very few separate Air Force procedures for deliberate and crisis action planning beyond some internal Air Force MAJCOM-level procedures. The purpose of the following discussion is to illustrate the linkage between the products of planning and how they affect Air Force leaders and forces in the field. Specifics concerning the products of the deliberate and crisis action planning processes can be found in the Joint Operation Planning and Execution System (JOPES) manuals (Chairman of the Joint Chiefs of Staff [CJCS] Manual 3122 series).

CONTINGENCY PLANNING

Contingency planning is conducted principally in peacetime to develop joint operation plans for contingencies identified in strategic planning documents. During contingency planning, the SecDef, combatant commanders, and/or JFCs determine the level of detail required for contingency planning and provide in-process review of planning processes. It prepares for possible contingencies based on the best available information and using forces and resources apportioned in strategic planning documents. It relies heavily on assumptions about political and military circumstances that will exist when the plan is implemented. Plan production generally takes from 12 to 24 months and involves the entire JPEC.

In the contingency planning process, the CJCS issues guidance through the JSCP and the supported combatant commander issues a warning or planning order to initiate planning and establish his intent. The supported commander then develops and decides upon a COA and CONOPS, encapsulating that decision in a commander's estimate. The entire JPEC then initiates detailed planning, eventually producing an OPLAN, CONPLAN, or functional plan (FUNCPLAN). OPLANs and some CONPLANs are reviewed by the CJCS and approved by the SecDef. Herein lies a key value of this process: OPLANs and some CONPLANs contain lists of apportioned forces and their

time-phased deployment schedules. These forces and detailed deployment schedules may provide the basis for plans needed in crisis action planning.

CRISIS ACTION PLANNING

Crisis action procedures are used in time-sensitive situations to plan for military action. Here, the situation is dynamic, and time for planning may be limited to a matter of days or even hours. An adequate and appropriate military response in a crisis demands flexible procedures keyed to the time available, rapid and effective communications, and use of previous planning and detailed databases and region analyses whenever possible.

With the decision of the President or SecDef to develop military options, the CJCS issues the warning order (WARNORD), which defines the objectives, anticipated mission or tasks, pertinent constraints, command relationships, and, if applicable, tentative combat forces available to the commander for planning and strategic lift allocations. Further guidance relating to the crisis, such as changes to existing ROE, antiterrorism/force protection considerations, or any specific directions from the President or SecDef, will also be provided as necessary.

The President and SecDef will task a geographic or functional combatant commander who becomes the supported combatant commander. Depending on the operation, the supported combatant commander may establish a JTF to accomplish the mission. Air Force interaction with a JTF may take several forms, depending on whether they are internal or external to the JTF.

There is a tendency in our planning to confuse the unfamiliar with the improbable. The contingency we have not seriously considered looks strange; what looks strange is thought improbable; what is improbable need not be considered seriously.

—Thomas C. Schelling, in the Preface to Roberta Wohlstetter's "*Pearl Harbor: Warning and Decision*"

- Within a JTF, Air Force elements will normally be presented to the supported combatant commander as a task-oriented, tailored AETF under the command of a COMAFFOR.
- External to a JTF, Air Force elements will provide support but normally remain under the control of their parent Unified and Service commands.

The command relationships and the precise degree of control (what the gaining commander will exercise and the losing commander will relinquish) will be specified in deployment orders (DEPORD) or other appropriate JOPES products that subsume deployment instructions. Generally, forces should be assigned to, attached to, or in direct support of a JTF.

Upon receipt of the WARNORD, or sooner, the combatant commander convenes the battle staff or crisis action team, and starts structuring a JTF. The combatant commander's subordinate Service and functional component commanders usually augment the combatant commander's staff to develop COAs as recommended military responses to the developing crisis. Air Force planners from the designated Air Force component may be tasked at this time to augment the combatant commander's planning team. The Air Force component commander should ensure qualified planners and liaisons are tasked to augment the combatant commander's staff while the Air Force component and JFACC staffs retain the right manning balance. The COMAFFOR's task at this time is to advise the combatant commander or JFC on the best employment of air and space power in developing COAs.

Upon receipt and review of the combatant commander's COAs, the President and SecDef select one. Prior to COA selection, the combatant commander may receive a CJCS planning order (PLANORD) to compress execution planning. A PLANORD does not replace formal SecDef approval of a COA. The planning order should identify forces and resources for planning; define the objectives, subordinate effects, tasks, operational limitations (restraints and constraints); contain any further relevant Joint Staff planning guidance; and give a deadline for submitting an OPORD.

Once the President and SecDef select a course of action, the CJCS publishes an alert order (ALERTORD). This communicates the SecDef decision to develop a detailed military response to the crisis. The contents are similar in format to the planning order, except the operation description clearly states the message is an ALERTORD and execution planning (but not execution) for the selected COA has been authorized. The contents of an ALERTORD may vary, and sections may be deleted if the information has already been published.

Execution planning is the detailed planning necessary to execute the selected COA. The actual forces, sustainment, and strategic transportation resources are identified, and the concept of operations is described in an OPORD that coordinates the execution of military action. *Based on the JFC's guidance and intent, the component commanders begin their respective detailed planning. This means providing inputs to the joint air and space estimate process (JAEP) used to develop the Service or functional component OPORD and the JAOP.*

Once a SecDef decision is made to commence the operation, the CJCS transmits an execute order (EXORD) directing the combatant commander to carry out the military action. The issuance of an EXORD is time-sensitive. The format may vary;

however, information previously provided in the warning, planning, or alert orders will not be repeated. Upon receiving this order, the JTF elements execute their assigned missions.

The broad outline of all information provided by the sum of all the orders should provide the following total picture:

- **Authority** —a statement indicating authority for issuing the order.
- **Situation**—a description of the latest politico-military situation that has generated a need for a response by US military forces.
- **Mission**—a refined statement of objectives, tasks, and purpose.
- **Execution**—course of action, a list of the major combat forces approved for the operation, coordinating instructions, C-day and D-day, expected duration, ROE, psychological operations guidance, deployability status, operations security (OPSEC), deception guidance, etc.
- **Administration and Logistics**—allocation of intertheater lift, load planning, logistics factors, public affairs guidance, etc.
- **Command and Signal**— command relationships, communications, and signal guidance.

CAMPAIGN PLANNING

Campaign plans allow theater commanders to set operational tempo, direct the conduct of battles, link tasks and effects to objectives, develop operational concepts, and coordinate logistics to achieve victory. Campaign planning is a primary means by which supported JFCs arrange unified action and guide their subordinate and supporting commanders' planning. *Campaign planning binds major military operations together at the operational level.* The campaign plan drives when to fight, what to accomplish, and how operations are conducted and concluded. They embody that commander's strategic vision for the arrangement of related operations necessary to attain theater strategic objectives. It is critical for joint success that all perspectives and possible options are considered when developing a campaign plan. To enhance joint integration and consideration of a fuller range of options, planning expertise from the various components should assist the joint planning staff; or portions of the plan may even be delegated to the appropriate component for development. Even non-combat stability operations are often driven by campaign plans (e.g., Operation PROVIDE COMFORT that provided humanitarian supplies to the Kurds in northern Iraq).

Complete understanding of a system from a military perspective requires that one knows what is critical, what is vulnerable, and how the two are related. Critical expresses the essence of what a system requires in order to act or perform as intended. Vulnerable expresses where a system can be easily attacked or otherwise influenced.

Knowing how the two relate can be the key to influencing the system's behavior in desired ways. A useful way of analyzing this problem is the concept of the center of gravity. A COG is a characteristic, capability, or source of power from which a system or entity derives its freedom of action, physical strength, and/or will to fight. COGs as entities or systems have critical capabilities that enable them to act as such. These capabilities have certain critical requirements—conditions, resources, or means—that enable the critical capabilities. Some of these requirements are vulnerable to attack or influence; these are the system's critical vulnerabilities. Affecting critical vulnerabilities in appropriate ways should decisively affect the associated COGs and yield decisive changes in the enemy system state or behavior.

There are generally few COGs and, at the higher levels of war; they may be less tangible in nature than at lower levels. For example, at the strategic level, a COG might be a key alliance or national will; at the operational or tactical levels, a COG might be a key military force. A number of popular models exist to help analyze COGs; these are outside the scope of this publication. However, properly analyzing COGs should help establish clarity of purpose, focus friendly efforts, and yield results disproportionate to the effort expended. Therefore, COG analysis is a valuable effects-based tool (seeking to be "most effective then most efficient"). Planners should analyze both friendly and enemy COGs in order to best realize Sun Tzu's dictum, "know the enemy and know yourself and in a hundred battles you will not be defeated."

Planning operations requires precise communication of a commander's intent and a shared, clear understanding of the appropriate operational concepts at each level of command. Once the JFC has formulated the overall strategy to accomplish the national objectives, the theater commander imparts it to his component commanders. They then devise a game plan for supporting the JFC's strategy by developing COAs and schemes of maneuver for the assets under their command, and integrating these with the efforts of other components or elements of the joint or combined force. It is from this point onward that strategic concepts are translated into operational missions. The JFC's appreciation of the strategic situation and statement of the strategic and operational objectives form the basis for determining the component objectives. The capabilities of air and space power must be included in strategic planning at the highest level. If the JFC focuses solely on the classic "post buildup counterattack" as the decisive phase of combat, the JFC may miss an opportunity to drive the enemy out of the fight early on.

Campaign planning today can be significantly enhanced by solid application of effects-based principles. Effective application, however, requires understanding the nature of effects and how they interrelate. This understanding must inform all planning for employment and assessment.

SERVICE COMPONENT PLANNING

Once a COA is selected, the JFC then develops an OPORD that describes the COA and tasks supporting commanders to implement the approved COA effectively.

The primary purpose of the OPORD is to provide guidance and direction to subordinate units. The Service component command develops Service aspects of the COA, determines force and resource requirements, and builds time phased force deployment data (TPFDDs) to implement the deployment aspects of the COA. The Service component command also works within Service channels to identify combat support forces, critical materiel, sustaining supplies, filler and replacement personnel, and Reserve Component asset availability.

As the JFC develops the OPORD prior to execution, subordinate Service and functional components are also tasked to develop supporting plans and/or OPORDs. These products should then be cross-walked by the JFC staff to ensure integration. Simultaneously and in coordination, the COMAFFOR's staff, usually led by the A-5, will develop an Air Force component supporting plan or OPORD to capture that information pertinent to Air Force forces deploying to and employing within the particular AO.

The Service component supporting plan or OPORD should follow JOPES formats, and be comprehensive enough to cover all combat support aspects of how the Air Force will fight. The Service OPORD may overlap the JFACC's JAOP—the sole employment plan for air and space component forces—in some respects, but this may be necessary to give appropriate guidance to the COMAFFOR's AFFOR staff where their duties differ from those of the JFACC's AOC staff. Although deliberate planning may provide many rich samples of theater planning, often the OPORD or supporting plan developed must now reflect the reality of the situation (now that many of the deliberate planning assumptions are no longer assumed).

This OPORD should include a basic plan plus appropriate annexes and appendices. Ownership of the annexes and appendices is divided amongst the AFFOR staff, and, once developed and approved, should be made available to all Air Force units within the AETF. See Appendix G for a sample of a notional OPORD.

EFFECTS-BASED CONSIDERATIONS FOR PLANNING

"Effect" refers to the physical or behavioral state of a system that results from an action, a set of actions, or another effect. *Effects are parts of a causal chain that consists of objectives, effects, actions, and the causal linkages that conceptually join them to each other. Actions produce specific direct effects, those effects produce other indirect effects, and this chain of cause and effect creates a mechanism through which objectives and ultimately the end state are achieved.* An effects-based approach to military operations means taking action against enemy systems so as to create specific effects that contribute directly to desired military and political outcomes. From a planning perspective, however, *operations are built "from the top down," starting with the desired end state at the highest level, determining subordinate objectives needed to bring it about, then deriving the effects and causal linkages needed to accomplish the objectives, and finally determining the tactical actions and resources necessary to create those effects.*

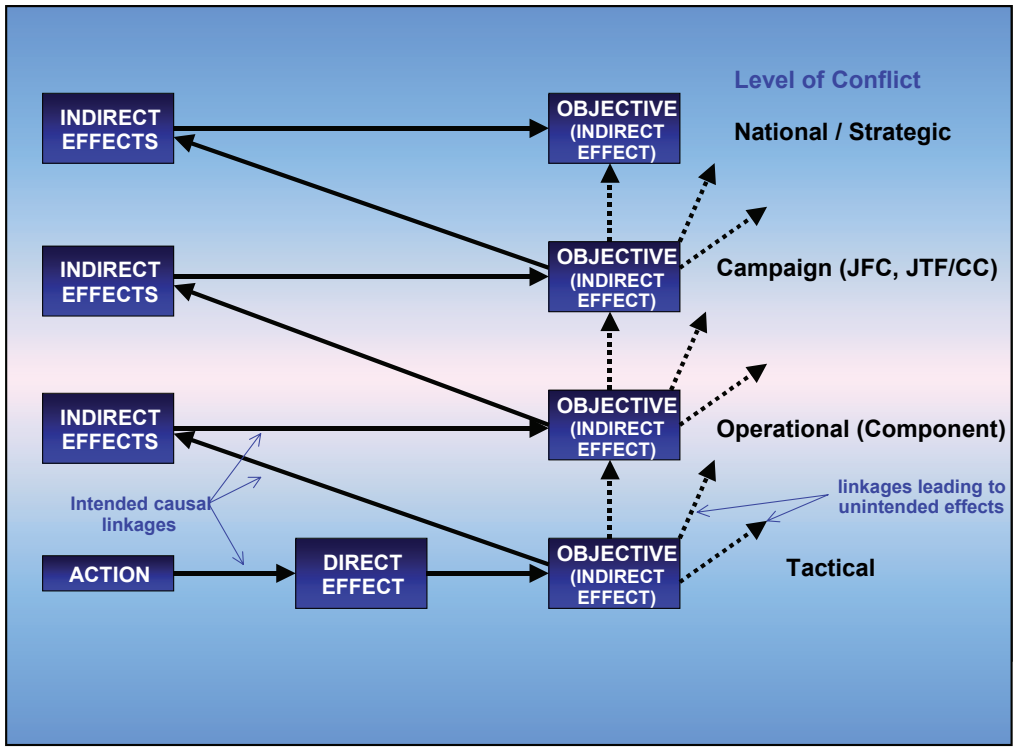

Figure 6.1 Hierarchy of Effects and Objectives

An action, the lowest link in the causal chain, is simply performance of an activity. Effects are the entire set of consequences the actions precipitate, which link the actions to objectives, but which may also extend well past objective accomplishment. Objectives are the ultimate intended (desired) effects in a particular context or situation. Objectives at one level may be seen as effects at another, higher level. Effects, however, comprise *all* of the results of a set of actions, whether desired or undesired, ultimate or intermediate, expected or unexpected.

Perspective is important here. What may seem an action to the operational-level warfighter may seem like an objective to warfighters at tactical units. Conversely, what may be an objective for the air and space component commander may seem an action to the President of the United States. See Figure 6.1. For example, "gain and maintain air superiority to X degree in and over area Y for Z period" may be an objective for the JFACC, but will likely be one of the *effects* the JFC gives the JFACC to deliver in support of the notional objective "defeat enemy A's offensive into region B." In turn, the JFACC's objective may seem like an action to the President, who has given the JFC the desired effect of "defeating A's offensive" in order to accomplish his national strategic objective of "restoring stability and maintaining political order in global region M." The perspective that matters for the purposes of Air Force doctrine is that of the operational-level warfighter: the COMAFFOR/ JFACC and the personnel in the AOC, the Air Force's organic operational-level weapon system. From this perspective, actions are individual sorties, missions, or tactical tasks. Objectives are the air and space component's tactical and operational-level objectives. Effects are the consequences of tactical tasks, which link them to the objectives. From this perspective, a bomb dropped on a

particular target is an *action* and the efforts designed to get the bomb there are the accompanying tactical *task*. The effects range from direct (the bomb detonates on target and causes the intended damage) through indirect at varying levels (the damage may disable an enemy air defense operations network, for instance, which helps gain air superiority), to objectives ("gain and maintain air superiority to X degree in and over region Y for Z period"). This is the perspective that will be used throughout this publication and elsewhere in Air Force doctrine.

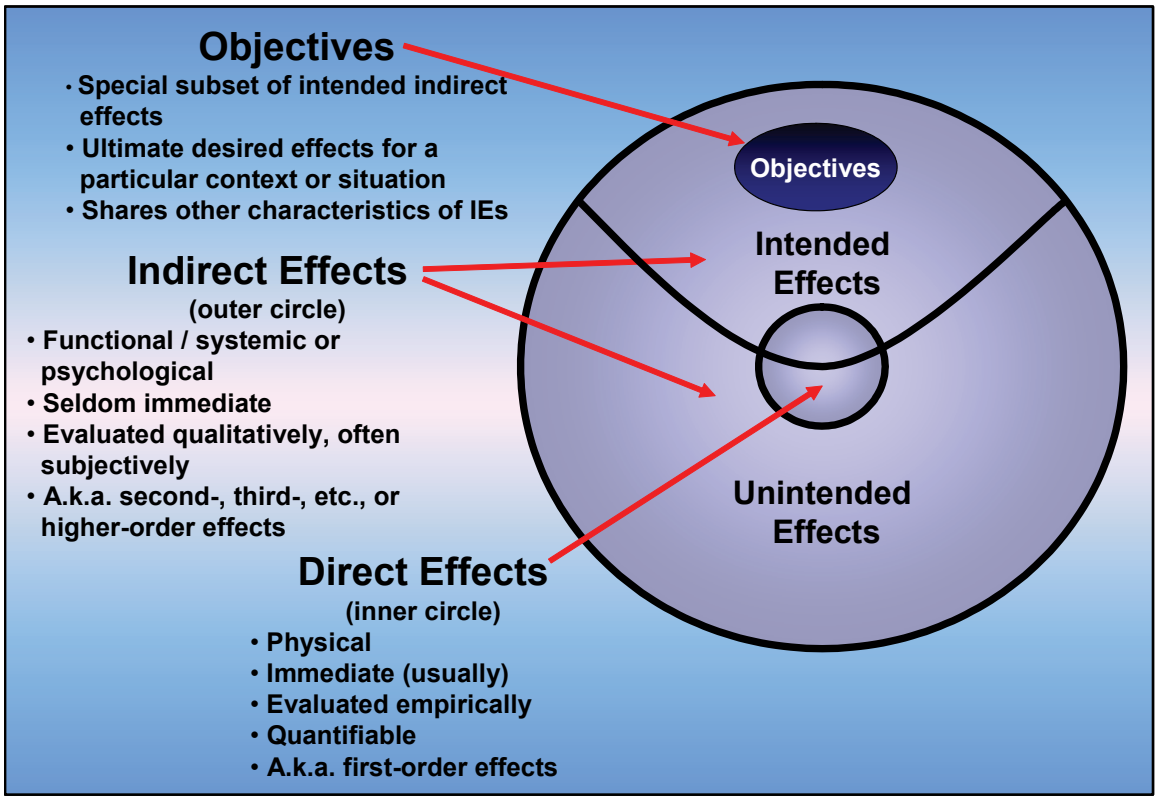

Figure 6.2 Basic Types of Effects

Actions

Actions are taken in order to achieve desired effects. In general, there are two broad categories of actions that are relevant at the tactical and operational levels: kinetic and non-kinetic. Kinetic actions are those taken through physical, material means like bombs, bullets, rockets, and other munitions. Non-kinetic actions are logical, electromagnetic, or behavioral, such as a computer network attack on an enemy system or a psychological operation aimed at enemy troops. While non-kinetic actions have a physical component, the effects they impose are mainly indirect—functional, systemic, psychological, or behavioral.

Types of Effects

There are four broad categories of effects, which often overlap. These categories are: *direct, indirect, intended*, and *unintended*. Within these categories, especially within the realm of indirect effects, there are many subcategories.

Understanding some of these special types of effects is vital to an effects-based approach to war. The relationship among these four types of effects and the objectives, a special subset of intended indirect effects, is shown in Figure 6.2.

Direct Effects

Direct effects are the results of action with no intervening effect or mechanism between act and outcome. They are also known as "first-order effects." In most cases they are physical, immediate, and easy to recognize. They can usually be assessed empirically and can often be quantified in a meaningful way.

Indirect Effects

Direct effects trigger additional outcomes—intermediate effects or mechanisms that produce a

Direct and Indirect Effects

A practical example of direct and indirect effects might involve a bomb hitting an enemy battlefield command vehicle.

The destruction of the vehicle and its crew by the bomb is the ***direct effect*** *of the tactical action or task.*

A part of the direct effect in this case was the loss of the command vehicle's C2 equipment, leading to the indirect effect of degrading the unit's ability to function cohesively. The vehicle might also have represented a portion of the unit's physical combat capability, which may also be degraded by the vehicle's loss. Loss of so precise a target may help condition enemy troops to abandon their vehicles and heavy equipment for fear of being killed in them, further degrading combat capability. Neutralization or degradation of the unit may be a tactical level objective. Loss of the vehicle and its crew may also degrade the unit's ability to communicate and function as part of a larger unit, so the combat capability and cohesion of larger echelons may be affected. If the vehicle contained a commander, this unit's ability to function will probably be further degraded, although if the commander was ineffective and his replacement talented, this may represent a net gain in enemy effectiveness. If a senior commander were killed in the vehicle, this may have operational-level consequences, rippling down to all the enemy's tactical units and greatly facilitating accomplishment of friendly operational objectives like defeat of the enemy army. If the senior commander were also an enemy national leader, this tactical action may have profound strategic consequences, rippling through all enemy systems, affecting all instruments of the enemy's power, and greatly hastening achievement of friendly strategic objectives and the end state. All of these outcomes are ***indirect effects****.*

final outcome or result. These are indirect effects, also known as "higher-order effects," or sometimes distinguished by the order in which they occur relative to the initial action, as in "second-order," "third-order," and so on. Indirect effects can be physical, functional, systemic, or psychological. They may also occur in a cumulative or cascading manner and can be imposed in parallel or sequentially. They are seldom immediate, are usually displaced from the direct effects in time and/or space, and are often hard to quantify or measure empirically. They are often assessed or evaluated in qualitative terms. Generally, the less direct the effect—the further removed it is in the causal chain or in time from the initial action—the harder it is to predict before the fact and measure after. Historically, it has proven extremely difficult to predict beyond third-order effects with any degree of certainty.

Objectives are the ultimate desired effects in a particular context or situation—*what* one desires to accomplish in a given set of circumstances. All military operations should be directed toward achieving them. They are a special subset of indirect intended effects, and so are presented here under the general heading of "indirect effects," but planners and targeteers should not lose sight of the fact that "effects" in most planning and targeting contexts refers to outcomes *subordinate to* and *supporting achievement of* the objectives. Objectives are always planned for and predicted. They are also always indirect effects and share the characteristics of other indirect effects. Even if a tactical-level "objective" is expressed in terms of direct physical damage ("destroy the enemy command vehicle," say, or "attrit enemy armor by fifty percent"), the effect being sought is really indirect (degradation of enemy command function and cohesion in the first case; degradation of enemy combat power and ability to act in the second). Outcomes expressed in such terms may be effects, but they are not objectives. *Objectives should be clearly defined, decisive, attainable, and measurable.* Objectives exist at all levels, from national-strategic down to tactical, and all levels must be logically tied to each other and to the end state.

The **end state** defines what the President, SecDef, JFC, and other leaders want the situation to be when operations conclude. This usually includes a discrete set of military outcomes as well as a larger set encompassing all instruments of national power. Joint doctrine speaks of the end state as defining achievement of the commanders' objectives, but in reality the end state is a special subset of the objectives, those that comprise what the post-conflict environment should look like.

During planning, objectives must be created *before* subordinate effects and actions are identified. Starting planning with actions or the resources available to carry them out leads to "input-based" planning, which focuses on *how* to attack and answers the question, "given my resources, what targets *can* I attack?" It provides no guidance on *why* targets should be struck, or on how operations support overarching campaign or national objectives. An input-based approach is the antithesis of an effects-based approach, which is focused upon outcomes. Effects-based planning starts with objectives and works down to effects and actions. Further, to be truly effects-based, *plans must logically tie objectives at all levels together and must integrate objectives, effects, and actions into a logical, coherent whole.* Objectives start at the national level

and extend down to the tactical level, at which actions are carried out. An effects-based plan should be able to explicitly trace the reasons for every tactical action through the hierarchy of tactical effects and objectives, operational-level effects and objectives, to national and strategic ends. Actions and effects that do not support the entire structure of objectives have no place in an effects-based plan.

Other Types of Indirect Effects: Physical, Psychological, and Behavioral. Physical effects are the results of actions or effects that physically alter an object or system. Most physical effects are direct, but some may be indirect. Often, unintended or undesirable physical effects, like "collateral damage" can be major concerns in a campaign.

Psychological effects are the results of actions or effects that influence the emotions, motives, and reasoning of individuals, groups, organizations, and governments. These result in changes in the outward behavior of the individual, group, organization, or government known as behavioral effects. While it is seldom possible to measure psychological effects directly, their behavioral results can be measured. Nonetheless, the intermediate psychological states leading to behaviors can be important to understanding causal mechanisms during planning. In most cases, friendly targeting actions are intended to produce—and accomplishment of objectives requires—some change in enemy behavior. Unless the enemy is destroyed outright, all such changes entail a change in the enemy's emotions, motivations, and/or reasoning. Thus, *there is a psychological component to almost every set of effects and this component is often among the most important in terms of achieving objectives*, especially at the operational and strategic levels. Victory at the operational level has historically involved defeat of enemy forces, and this inevitably involves a psychological component. There are very few instances in history where an enemy, however thoroughly defeated, was completely denied means of resistance. Ultimately, collapse entailed a choice or series of choices framed by emotion, motivation, and reason. The same is true of the resistance of an enemy nation or system as a whole at the strategic level. Here, the psychological component is even stronger. Good strategy requires realizing this and tailoring effects so as to produce the maximum psychological impact upon the enemy, such as those achieved in the Balkans conflicts.

Functional and Systemic Effects. Functional effects are the direct or indirect effects of an action on the ability of a target or target system to function properly. Analysis and assessment of functional effects answer the questions, "in what ways and to what extent has the system the target is part of been affected by action taken against it?" Targets are usually elements of larger systems, even if they are systems themselves. Effects that relate to how well the targeted system functions as part of larger systems of which it is a part are systemic effects. Analysis and assessment here answer the question, "in what ways and to what extent has the system the target is part of been affected by action taken against it?"

Functional and systemic effects are important to warfighters because they are often key indicators of the overall success of a particular action. There will always be

functional and systemic indirect effects imposed by actions against systems, but learning the *degree* of degradation is often a goal of the assessment process and answers can be used as guideposts toward objective accomplishment. This is formally established in the assessment process—functional assessment (formerly known as Phase II battle damage assessment [BDA]) is an element of tactical assessment and target system assessment (formerly Phase III BDA) is an element of the components' operational assessment.

In general, both functional and systemic effects are assessed at the component level, although system assessment may take place at a higher level or require participation of the federated assessment process. It is sometimes difficult to distinguish between functional and systemic effects if the targets themselves are complex systems. Perspective matters a great deal. Even at the operational level within the AOC, the distinctions involved may become blurred. A key to distinguishing between them is to think of functional effects in terms of impact on individual nodes within a system that operates at the operational level and systemic effects in terms of the impact on the operational-level system as a whole.

Examples of Functional and Systemic Effects

In the case of the combat C2 vehicle used in the previous examples, its inability to function as designed after attack is a ***functional effect****. The effect of the vehicle's and commander's loss on the combat capability of the larger unit to which it belonged is a* ***systemic effect****.*

Good examples of the distinction between these when the targets themselves are complex entities can be found within electrical and integrated air defense systems (IADS). In the case of an electrical system, individual substations or power plants might be the individual nodes, even though they are complex systems themselves. Effects on such individual facilities are functional effects in most contexts. Systemic effects would be those on electrical power production or availability across an entire region or nation. In the case of an IADS, functional effects might be those upon individual sector operations centers (SOC), radar sites, or missile batteries and systemic effects would be those pertaining to the operation of the IADS as a whole or across a large region.

Cumulative and Cascading Effects. Indirect effects can be achieved in a cumulative or cascading manner. Those effects that result from the aggregation of many direct and indirect effects are said to be cumulative. These effects typically flow from lower to higher levels of employment and occur at the higher levels, but they can occur at the same level as a contributing lower-order effect.

Some indirect effects ripple through the adversary system, usually affecting other systems. These are called cascading effects. Typically, they flow from higher to lower levels of employment and are the result of affecting nodes that are critical to many related systems or sub-systems.

As a practical matter, some of the most desirable effects have both cumulative and cascading aspects to them. The point at which a military unit "fails" and ceases to be a coherent fighting force is a common example. The collapse itself may be engendered by an accumulation of losses (although the precise point at which this will occur is often difficult to predict) and represents a cumulative effect. The unit's collapse, however, may engender significant changes that ripple through constituent elements, subordinate units, and other connected or related systems. These are cascading changes.

Cascading effects are generally preferable to cumulative, if it is possible to create them. Cascading effects may accomplish desired ends more effectively, since removal of critical nodes may ensure more thorough collapse or more complete neutralization than might a cumulative, attritional approach. They may also achieve ends more efficiently, requiring fewer resources to achieve equivalent effects, thus freeing them for other uses. Some systems do not lend themselves to this type of approach and it may not always be possible to identify key nodes or target them, but targeting efforts should strive to do so whenever possible.

Examples of Cumulative and Cascading Effects

In the C2 vehicle example, the lessening of the enemy unit's combat power through loss of the vehicle would be part of the ***cumulative effects*** *of attack upon the unit, as would the unit's eventual collapse through attrition of many of its vehicles and personnel. The effects of the loss of the combat commander in the vehicle on subordinate and associated units would be a* ***cascading effect****.*

In the case of an IADS, air superiority may be achieved through the accumulation of effects against the IADS' components and achieving it may cascade into many other desirable effects as it frees air and space resources to perform other missions and give other components of the joint force freedom of action.

An electrical network, as an integrated complex system, demonstrates a different aspect of cascading effects. Bombing many generator halls, substations, and power distribution junctions can cumulatively lead to the desired effect of widespread system failure. However, so can targeting a few critical nodes within the network, then allowing internal system stress to cause successive cascading system-wide failure. Nature has inadvertently caused such effects with US power grids several times and Coalition forces were able to achieve them early in Operation DESERT STORM by attacking a few key Iraqi power plants and distribution nodes.

Sequential and Parallel Effects. Sequential, or serial, effects are the results of actions or effects that are imposed one after another. Parallel effects are the results of actions or effects that are imposed at the same time or near-simultaneously. In general, *it is often better to*

impose effects in parallel rather than sequentially. Parallel effects have greater potential for causing system-wide failures by placing stress on the enemy system in a manner that overwhelms its capacity to adapt. This is common sense—everyone is better at handling problems coming one after another from a single source than from many different sources or directions simultaneously. Some of the advantages parallel attack confers are purely physical, but many are psychological. Simultaneous stress from many sources is a major cause of psychological strain or breakdown and an effects-based approach seeks changes in enemy behavior more than it seeks simple destruction of enemy capability. Thus, as a rule, effects-based targeting should attempt to place the enemy under maximum psychological stress at all times through parallel efforts. Even if one is seeking predominantly physical effects, the psychological strain will act in synergy with the physical to have more impact than the physical effects could on their own. Another advantage of parallel operations is that they take less time to achieve desired effects and objectives. If shortage of time is an overriding concern in a campaign, planners and targeteers should recommend a parallel approach.

Examples of Sequential and Parallel Effects

*In the case of an IADS, an example of **sequential effects** might be a counterair operation that first takes down early warning radars, then SOCs, then airfields and enemy aircraft, and finally now-autonomous enemy missile sites. **Parallel effects** might be the same operation conducted against all these nodes simultaneously in order to place greater stress on the system and complicate the enemy's adaptation requirements.*

Parallel effects come at a cost, however: they are almost always harder to impose, require more of all resources except time, are more complex, and must be planned more thoroughly, especially in terms of integration and synchronization with other operations. Further, there may be reasons effects cannot or should not be imposed in parallel. In some cases, there may not be sufficient resources or capabilities to impose them in this manner. This was the case in the Combined Bomber Offensive during World War II. There simply were not enough bombers to attack German systems in parallel until very late in the war, when parallel attack on the transportation and fuel industries became possible (and paid off). In other cases, a sequential approach is necessary because events must happen in a certain order to ensure success. Almost always, some degree of air dominance is usually required prior to commencing major land or maritime operations. For example, in the opening minutes of DESERT STORM, Army and Air Force helicopters targeted certain key early warning nodes in order to facilitate penetration of Baghdad's air defenses with stealth aircraft. This one sequential strike helped guarantee the success of the parallel efforts that followed. In some conflicts commanders may decide to "pull punches" and not engage in parallel attacks—that is, to deliberately hold to a sequential approach in order to coerce a particular political solution from an adversary against whom a "no holds barred" attack is not warranted. In other cases, political considerations may so restrain operations as to make a parallel approach infeasible or unacceptable. This is really more an issue of

strategy than targeting *per se*, but may help explain the larger political-military context behind some targeting decisions—why a parallel approach is not being used when it seems possible to do so.

Intended and Unintended Effects

Every action produces a set of outcomes. Some of those outcomes are intended, others are not. Intended effects are outcomes, events, or consequences. They are the desired, planned for, and predicted outcomes of an action or set of actions. They can be direct or indirect. They should always represent a net gain in terms of accomplishing objectives or the conflict's end state; in fact, objectives are a special subset of intended effects, as noted above. Unintended effects are outcomes of an action that are not part of the original intent. These effects may be undesired or present opportunities for exploitation. Almost all actions produce some unintended effects. They can be direct or indirect, but are usually the latter. If unplanned, they can also be desirable or undesirable from the friendly point of view, leading to outcomes that help or hinder achievement of friendly objectives. In the combat example presented earlier, most of the indirect effects presented were intended, or, if unintended, at least had a positive impact upon friendly efforts. The case of the enemy commander being replaced by a more capable officer in the example above is an illustration of a negative unintended effect. Unwanted civilian injuries or unwanted collateral damage to civilian property are examples of those unintended effects that are planned for, or for which risk is accepted, but are undesirable. Collateral civilian damage, of course, has become a major concern for commanders in the last several conflicts.

There is another aspect of unintended effects that is easy to overlook in planning. Even successful operations carry a cost in terms of lost opportunities. For example, destroying certain C2 or communications nodes in order to degrade enemy cohesion can remove valuable sources of friendly intelligence on enemy action or intent. Likewise, destroying transportation nodes like bridges in order to impede enemy movement may interfere with the future friendly ground scheme of maneuver. *Effective planning must account for these "opportunity costs."* An effects-based approach should suggest alternatives to outright destruction that can create desired effects without removing future opportunities for exploitation. For instance, in strategic attacks against enemy electrical power, carried out to cripple conflict-sustaining resources and disrupt national leadership functions, planners can use non-destructive weapons to bring down power for a given period of time, or can destroy only a few critical nodes, in order to avoid wholesale destruction of power infrastructure that would impede post-campaign stabilization efforts. In other cases, good planning can suggest opportunities for exploitation. In Operation DESERT STORM, planners deliberately took down bridges in Iraq that carried fiber-optic trunks in order to force Iraqi leadership to resort to more exploitable, radio-based communications. This is an aspect of planning that is beyond the scope of the targeting discipline by itself. It requires the integrated efforts of the entire AOC team.

The key to good planning in general and good targeting in particular is to refine PBA so as to anticipate and plan for as many unintended effects and enemy counter-

actions as possible, thus increasing the circle of intended or predicted effects and decreasing the circle of the unintended. Planners should attempt to manage unintended effects by thinking through the range of possible outcomes and developing means to mitigate those that are undesirable. It will often be difficult to predict and accurately assess the risk of undesirable unintended effects, but the fact that success may be illusive does not absolve planners of the responsibility to try.

Assessment Measures

Success can be made less elusive by making informed choices concerning its measurement. Within an effects-based construct, it is impossible to think about actions and their effects without considering how accomplishment of the effects should be measured. Assessment is the process through which they are measured and the specific measures themselves are determined during planning. Assessment requires specific measures to gauge results achieved in the overall mission and performance of assigned tasks. These measures can be broken into three broad categories:

- **Measures of performance** (MOPs): Objective or quantitative measures assigned to the actions and against which the action's accomplishment, in operations or mission terms, is assessed.

- **Measures of effectiveness** (MOEs): Independent qualitative or quantitative measures assigned to an intended effect (direct or indirect) against which the effect's achievement is assessed.

- **Success Indicators** (SIs): The conditions indicating attainment of objectives.

MOPs answer questions like, "were the weapons released as intended on the planned target?" At the direct effect level, MOEs answer such questions as, "was the intended direct effect of the mission (e.g., target destruction, degradation (to a defined point), or delay (for a given time) created?" At the indirect level, they may answer things like, "has the enemy IADS been degraded sufficiently to allow unimpeded air operations above 15,000 feet?" It can be seen that there can be a significant qualitative and even subjective component to this evaluation, depending upon how terms are defined. An operational level SI might answer, "Has air dominance been achieved to the necessary degree?" and might entail several independent measures that show this has been accomplished. An SI might answer such questions as, "how are we progressing toward achieving the required degree of air dominance?"

As one progresses from the tactical, more direct, level into the realm of indirect effects and objectives, measures become less empirical and quantifiable. There may be "gray areas" within lower-level indirect effects where it is difficult to distinguish between MOPs and MOEs/ SIs, but in all cases, accomplishment of tactical tasks/actions are measured by MOPs and accomplishment of effects and objectives are measured by MOEs and SIs. Planners must also identify the essential elements of

information (EEI) needed to support the MOEs and develop strategies or CONOPS for obtaining them.

Time and Effects

Finally, there is a temporal aspect of effects that must be understood to fully employ effects-based warfare. Time is a matter that should be considered throughout planning, employment, and assessment. The effects-based approach offers a few key insights. First, the enemy is a thinking organism and so psychological stress is ultimately at least as important as physical stress in inducing desired changes in behavior. *Planners should thus time attacks to apply the greatest amount of psychological and physical stress possible, allowing both forms of stress to complement each other. There are two major means of doing this: surprise and simultaneity.* Surprise, of course, means timing attacks when the enemy least expects them. This is a precept so old that it is enshrined as a principle of war. Simultaneity means giving the enemy as many different challenges to deal with at the same time as possible, thus maximizing stress. Simultaneity is at the heart of parallel effects, discussed above. When possible, surprise and simultaneity should be combined for maximum impact.

Secondly, *decision cycle speed can be a key determinant of success.* Thinking entities work through the problems of ***observing*** phenomena, ***orienting*** mentally toward them, ***deciding*** upon a course of action regarding them, and then ***acting*** upon it at different speeds. These four steps describe Colonel John Boyd's famous "OODA loop," also known as the decision cycle. Generally, the faster one can work through the cycle, the better chance one has of anticipating or preempting a rival's actions. Thus, speed in the decision cycle confers advantage. Gaining a "speed advantage" in decision cycles means anticipating as much enemy action as possible during planning (before operations begin), thinking through the consequences of those potential actions, having a well-thought out game plan for intelligence collection and assessment during operations, choosing appropriate assessment measures, keeping the process that tasks assets flexible and responsive, and using all available means to enhance situational awareness throughout the battlespace.

Third, *some effects require time to progress through an enemy system and to become apparent through assessment.* This is especially true of more difficult strategy and targeting challenges like coercion, but it can also apply to "simpler" problems like enemy unit or system collapse. While effects are working their way through a system or are accumulating toward a collapse or similar system state change, there may be few outward signs that the change is coming that are visible to observers. Even the best assessment measures may not suffice to show evidence of impending change. Many systems in nature change this way—accumulating inputs gradually over time until suddenly (often with little prior warning) they fail or otherwise change. Military units close to breaking often exhibit this sort of change, as do other complex systems such as electrical grids, economic networks, or even whole nations (the collapse of the Soviet Union is widely reckoned to have been such a change). Commanders, planners, and targeteers must be aware that this often happens and be prepared to counsel patience

in some cases. Even though assessment appears to indicate no significant changes in the enemy's situation, the chosen course of action may be working. The proof, however, may not be forthcoming until the desired change is underway. Effective PBA can reduce some of the uncertainty that accompanies predicting change.

Lastly, planners must consider how long a delay between action and ultimate effect they are willing to accept and weigh this against the intended scope of the effects they seek to impose. This can be a very important consideration. For instance, striking enemy supplies stored near the line of battle will have a more immediate effect than will striking supplies stored in rear-area warehouses, but striking the latter may have more widespread impact. Striking enemy factories will further delay impact, but will have the most widespread effects. Planners and targeteers must choose different sets of targets if effects are to be felt quickly than if they are to have the greatest ultimate impact. *Attempts to have an immediate impact may delay the achievement of longer-range goals.* Such trade-offs must be considered in establishing timing criteria.

THE AIR AND SPACE ESTIMATE PROCESS

The method by which the Air Force and air and space components plan at the operational level of war is called the air and space estimate process. This process creates the JAOP. It helps enforce an effects-based approach to planning by explicitly requiring delineation of objectives, requiring planners to consider likely enemy courses of action and appropriate responses to them, and by integrating assessment into planning through selection of appropriate measures for chosen actions, effects and objectives. It also directly parallels the higher levels of joint operation planning and can be conducted in conjunction or in parallel with them.

Air and space planners focus on creating effects within the theater of operations or JOA to achieve JFC objectives. The scope and perspective of air and space operations present air and space component planners a dilemma between effective operational-level planning and an overindulgence in tactical guidance. Commanders throughout the air and space estimate process must be diligent in addressing the appropriate scope and perspective required for effective planning. Unlike other planning efforts within a joint force, there is no formal subordinate-level planning below the component level for air and space operations. The majority of support planning below the component level is in tactical execution, not operational implementation. Thus, the scope of air and space planning spans from strategic to tactical levels.

In addition to building the plan for the deployment, beddown, sustainment, and employment of air and space forces, planning should include considerations for conflict termination, stabilization, and redeployment of forces. Conflict termination is an area that planners have often overlooked. While planning for the transition from peace to conflict, lodgment and the actual employment of military forces are vitally important aspects of campaign planning; the transition from conflict back to peace is at least equally important. Incomplete or careless planning for conflict termination can result in the waste of valuable national resources or even a return to hostilities. The list of

considerations for conflict termination is long and unique to each situation, but "planning for the peace" is absolutely necessary. Typical conflict termination considerations include such actions as providing an interim security force, restoring government functions in both enemy and friendly areas, enforcing restrictions and sanctions, providing force protection, restoring some elements of civil infrastructure, and providing food and shelter for the indigenous population.

Similarly, the redeployment of forces out of an area of conflict also requires careful planning. Forces and capabilities should be withdrawn in a coherent manner that smoothly phases down operations and returns personnel and equipment to their home bases. For example, planners should retain adequate C2 and force protection assets in-theater to cover personnel and materiel during the redeployment. In some cases (such as in humanitarian or peacekeeping operations), forces or capabilities may not be immediately withdrawn until an indigenous capability is established. In other cases, forces may be swinging from one area of conflict directly into another. In this case, the smooth flow of forces and support must be carefully planned to ensure the smooth buildup of combat capability into the new theater. Proper planning for these types of actions is as important as the initial planning.

The air and space estimate process culminates in an articulation of the JFACC's selected COA and air and space strategy (often in the air and space estimate of the situation [see sample at Appendix F]*) which, with the JFC's approval, is expanded and articulated in the JAOP.* The estimate process and resulting JAOP development can take place during contingency, crisis action, and campaign planning. There are six stages of the air and space estimate process: mission analysis, situation and COA development, COA analysis, COA comparison, COA selection, and JAOP development.

Mission Analysis

Mission analysis entails analyzing the JFC's guidance, the situation, the resources, and the risks involved in the conflict. This initial analysis provides the background required to write the JFACC's mission statement. A mission statement includes the "who, what, when, where, and why" of an operation. For example, the mission statement must clearly identify who will accomplish the mission; what is supposed to be accomplished, such as objectives and essential tasks; where the action is likely to take place; when it will begin; and why the operation is being conducted. The "why" identifies the purpose of an operation, including the desired end state, and is often the most important part of the mission statement. Intelligence preparation of the battlespace (IPB) is also begun during mission analysis.

This phase culminates in a mission statement and the JFACC's intent for the air and space component. The commander's intent statement should focus the staff throughout the entire planning process. It should also address acceptable risk for the commander. The end state defines the commander's criteria for mission success. By articulating the air and space component's purpose, the JFACC provides his/her

overarching vision of how the conditions at the end state support the joint campaign and follow-on operations.

Situation and COA Development

This phase involves four distinct tasks. The first two are expanding and refining the initial IPB completed in Phase I and COG analysis. Expanded IPB is essential to developing and analyzing both enemy and friendly COGs. This is especially critical for air and space planning given the perspective and scope of air and space operations. Identification and analysis of COGs are a parallel effort between the JFC and the various components. Enemy COGs, as the sources of strength, power, and resistance, are significant entities and should therefore be relatively apparent once an analysis has been accomplished.

The third task is the development of friendly courses of action. Air and space planners develop alternative COAs by varying the ends, ways, means, and risks. The operational objectives normally fill the "what" guidance for COA development; the supporting tactical objectives, effects, and tasks help define the "how" for planners. Once planners define the objectives and supporting effects, they further refine potential air and space COAs based on the priority, sequence, phasing, weight of effort, matched resources, and assessment criteria. The value of this last is hard to overemphasize; choosing objectives and effects should always be accompanied by choosing suitable ways to measure their achievement. The result of COA development is a minimum of two valid COAs or a single valid COA with significant branches or sequels. This is the most comprehensive and labor intensive task in this phase. Once completed, the final step is a risk analysis on the courses of action the staff has developed.

COA Analysis and Refinement

During COA analysis and refinement, each COA is wargamed against the enemy's most likely and most dangerous COAs. Wargaming is a valuable step in the estimate process designed to stimulate ideas and provide insights that might not otherwise be discovered. Although actual wargaming usually involves tactical level considerations, the challenge in the air and space estimate process is to wargame strategic and operational level courses of action. COA analysis concludes when planners have refined each plan in detail and identified the advantages and disadvantages of each COA.

COA Comparison

COAs are compared against a pre-determined criterion to provide an analytical method to identify the best employment options for the air and space component. This is often followed by analytical comparison via a decision matrix that identifies and weights the criteria for comparison. Each COA is then based upon the established criteria and an overall score for each COA is obtained. A recommended COA is then

determined based upon the results of the decision matrix and the list of advantages/disadvantages obtained from this stage of analysis. COA comparison provides an analytical method to identify the best plan for the air component.

COA Selection

COA selection begins with a staff recommendation and ends with a JFACC approved COA and guidance. Once the COA is identified and adjusted (if required), the estimate products contribute directly to JAOP preparation.

JAOP Development

The JAOP details how joint air and space forces will support the JFC's campaign plan. JAOP development is a balance between articulating theater air and space strategy, providing effective supporting estimates, and applicability in detail. The JAOP details how the theater air and space effort will contribute to the JFC's overall campaign plan. At a minimum, the JAOP should:

- Establish the air and space strategy, course(s) of action, and commander's intent in terms flexible yet detailed enough to be useful in guiding day-to-day campaign activities.
- Identify objectives and effects, with subordinate effects, a range of courses of action to achieve the effects, and measures of effectiveness delineated in sufficient detail to validate the overall campaign strategy.
- Address how air and space operations from all Services, components, and nations involved will be integrated and harmonized across the battlespace.
- Address how the overall air and space scheme(s) of maneuver will be integrated with the other components' schemes of maneuver.
- Provide broad effects-based guidelines on target selection, prosecution, prioritization, and level of effort to guide targeting efforts during the campaign.
- Publish constraints, restraints, ROE, law of armed conflict considerations, combat identification measures, and other concerns that could impinge upon execution of air and space efforts.
- Clearly and thoroughly establish C2 relationships for air and space capabilities and the responsibilities of the JFACC.
- Establish broad control measures needed to manage theater airspace.
- Establish an overall theater collection plan and concept of operations for theater airborne ISR and analysis to achieve campaign assessment efforts.

- ✪ Identify campaign phasing and logical branches (potential alternate developments) and sequels (follow-on outcomes).

- ✪ Identify beddown requirements and considerations.

- ✪ Identify ongoing support requirements and concepts of operations, to cover such areas as logistics, communications, force protection, etc. Attach supporting estimates as needed.

- ✪ Include considerations for conflict termination, stabilization, and redeployment of forces, to include such things as concepts of operations for feeding indigenous populations and similar humanitarian requirements.

- ✪ Establish responsibilities for managing/requesting aircraft diplomatic overflight clearance requests through US Embassies with foreign nations transited during deployment and employment of air forces.

Once the JAOP is approved, it becomes the overarching guidance for theater air and space operations. Within the daily AOC process, the strategy division references the JAOP when developing the JFACC's daily guidance which is disseminated in the AOD. This begins the translation of the overall plan into a daily execution order, normally expressed by the ATO and STO.

For more detailed discussion on the JAOP, refer to AFDD 2-1, *Air Warfare*, and Air Force Operational Tactics, Techniques, and Procedures (AFOTTP) 2-3.2, *Air and Space Operations Center*.

ASSESSMENT

Assessment of success is an inextricable part of planning and employment in an effects-based approach. Effects and objectives must always be measurable and planning for them should always include means of measurement and evaluation. As a guide to planning, therefore, assessment warrants further consideration.

Assessment encompasses all efforts to evaluate effects and gauge progress toward accomplishment of effects and objectives. It also helps evaluate requirements for future action. It seeks to answer two questions: "How is the conflict going?" and "what needs to be done next?" Contrary to many common depictions and descriptions, assessment is not really a separate stage of planning or tasking processes. Rather, it is interleaved throughout planning and execution and is integral to them, since it works together with planning to determine future courses of action and is conducted in large part during execution.

The comprehensive, effects-based view of assessment ties evaluation of progress at the tactical level to all other levels of conflict, including the national strategic

level. The proper focus of assessment conducted by and for the air and space component should be on the operational level of war. Effective assessment, however, must support commanders' objectives at all levels, support commanders' decision cycles in real time, and provide a basis for predictive analysis. Thus, the "complete picture" of assessment must address the entire spectrum of conflict at all levels, focus upon effects and objectives, permit component validation of assessment efforts, standardize federation with intelligence entities outside the theater of conflict, utilize all intelligence specialties effectively, and integrate analysis efforts with those of other components and federated partners. This leads to the four-tiered approach to assessment set forth below and depicted in Figure 6.3.

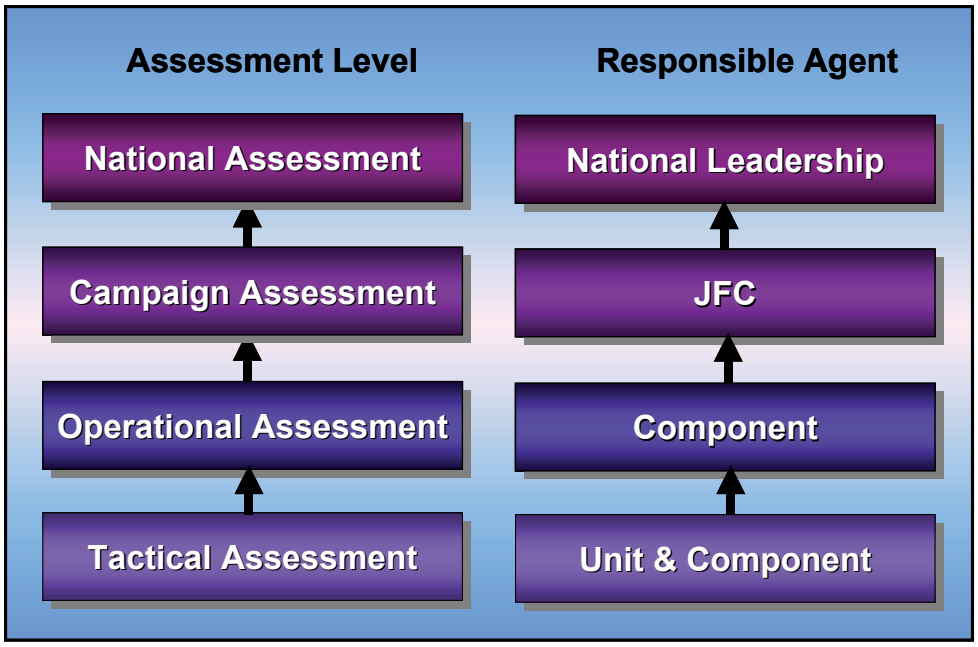

Figure 6.3 Levels of Assessment

- **Tactical Assessment**: The overall determination of the effectiveness of tactical operations. Measures associated with tactical assessment are usually empirical, quantifiable means of defining whether tactical actions and their effects were accomplished. It is performed by units in the field and by the joint force's functional or Service components.

- **Operational Assessment**: The components' evaluation of the achievement of their objectives, through assessment of effects, operational execution, environmental influences, and attainment of the objectives' success indicators, in order to develop strategy recommendations. It also includes any required analysis of causal linkages. Operational assessment builds upon tactical assessment and is the first echelon of truly effects-based assessment. Means of evaluating effect accomplishment are called MOE and those measuring achievement of objectives are called SI. Operational assessment is accomplished at the functional (or Service) component level.

- **Campaign Assessment**: The JFC's broad qualitative and analytical effects-based determination of the overall effectiveness of military operations and recommendations for future action. Campaign assessment is essentially operational assessment accomplished at a higher level. It integrates components' operational assessments into an evaluation of progress toward the JFC's objectives and the overall end state. The focus is broader than operational assessment, since campaign assessment must consider all components' efforts, the efforts of multinational partners, and all the other instruments of US national power as well.

- **National Assessment:** Broad review of the effectiveness of the national security strategy and whether national leadership's objectives for a particular crisis or contingency or situation are being met. Campaign assessment and combatant commander assessments from around the world feed national assessment. National assessment also considers assessments and analysis from agencies and departments outside the DOD, from foreign governments, and from the President's immediate advisors.

At all levels of assessment, the chosen measures, whether MOPs, MOEs, or success indicators, must be meaningful, reliable, and observable. Meaningful means the measure must be tied, explicitly and logically, to objectives at all levels. Reliable means it must accurately express the intended effect. If quantitative measures are used, they must be relevant. Observable means that existing intelligence collection methods can measure it.

Further detail and guidance concerning assessment can be found in AFDD 2-1.9, *Targeting*.

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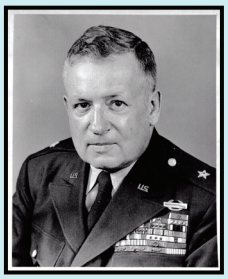
CHAPTER SEVEN
AIR AND SPACE OPERATIONS CENTERS

The staff is simply the servant of the general force; it exists but to further the welfare of the fighting establishment. Those within it are remiss if they fail to keep this rule uppermost.

—Brig Gen S. L. A. Marshall, US Army



To plan, execute, and assess air and space power, the Air Force has developed a series of tailored air and space operations centers that can be networked to provide the full range of air and space power to a joint force. *Because air and space forces are not monolithic in execution and force presentation—some are organized regionally, others functionally—the nature of AOCs has been tailored to better plan and execute this mix.* This chapter briefly describes the three key variants: the regional Falconer AOC; the tanker airlift control center (TACC) for air mobility; and the Air Force Space AOC for space forces.

REGIONAL OPERATIONS: THE FALCONER AOC

The AOC weapon system (AN/USQ-163) is also known as the "Falconer." It is the operations command center of the JFACC and provides the capability to plan, task, execute, monitor, and assess the activities of assigned or attached forces. The Falconer AOC is the senior C2 element of the TACS and includes personnel and equipment from many necessary disciplines to ensure the effective conduct of air and space operations (e.g., communications, operations, intelligence, etc).

The AOC provides operational-level C2 of air and space forces as the focal point for planning, executing, and assessing air and space operations. Although the Air Force provides the core manpower capability for the AOC, other Service component commands contributing air and space forces, as well as any coalition partners, may provide personnel in accordance with the magnitude of their force contribution. The AOC can perform a wide range of functions that can be tailored and scaled to a specific or changing mission and to the associated task force the COMAFFOR presents to the JFC. Thus, for smaller scale operations, the Air Force would not necessarily provide all of the elements described in the following sections if the situation does not warrant them.

The primary functions of the AOC are to:

- Develop air and space operations strategy and planning documents that integrate air, space, and information operations to meet JFACC objectives and guidance.
- Task and execute day-to-day air and space operations; provide rapid reaction, positive control, and coordinate and deconflict weapons employment as well as integrate the total air and space effort.
- Receive, assemble, analyze, filter, and disseminate all-source intelligence and weather information to support air and space operations planning, execution, and assessment.
- Integrate space capabilities and coordinate space activities for the JFACC.
- Issue space control procedures and coordinate space control activities for SCA when the JFACC is designated as SCA.
- Provide overall direction of air defense, including theater missile defense (TMD), for the AADC when the JFACC is designated the AADC.
- Plan, task, and execute the theater air- and space-borne ISR mission.
- Conduct component-level assessment to determine mission and overall air and space operations effectiveness as required by the JFC to support the theater assessment effort.
- Produce and disseminate ATOs and ATO changes.
- Plan and task air mobility operations according to the theater priorities.

AOC Organization

The baseline AOC organization includes an AOC commander, five divisions (strategy, combat plans, combat operations, ISR, and air mobility), and multiple support/specialty teams. Each integrates numerous disciplines in a cross-functional team approach to planning and execution. Liaisons from other Service and functional components may also be present to represent the full range of joint air and space capabilities. The following provides a summary of the major elements of an AOC.

The AOC Commander is charged with effectively managing air and space operations and establishing the AOC battle rhythm. The AOC commander develops and directs processes to plan, coordinate, allocate, task, execute, and assess air and space operations in the AOR/JOA based on JFC and JFACC guidance. The AOC commander commands the AOC weapons system (but not AETF forces) and should be prepared to command a C/JAOC when the COMAFFOR is designated as the C/JFACC.

The Strategy Division concentrates on long-range planning of air, space, and information operations to achieve theater objectives by developing, refining, disseminating, and assessing progress toward achieving the JFACC air and space strategy. The strategy division is normally task organized into three functionally oriented core teams: the strategy plans team, the strategy guidance team, and the operational assessment team. Key products include the JAOP, the AOD, and other JFACC guidance.

The Combat Plans Division applies operational art to develop detailed execution plans for air and space operations. The combat plans division is normally task organized into four functionally oriented core teams: the targeting effects team (TET); the master air attack plan (MAAP) team; the ATO production team; and the C2 planning team. The division's key products are an area air defense plan (AADP), airspace control plan, and a daily ATO, ACO, special instructions (SPINS), and joint integrated prioritized target list (JIPTL).

The Combat Operations Division monitors and executes current operations. The combat operations division is also the focal point for monitoring the execution of joint and combined operations, such as time sensitive targeting (TST), TMD, joint suppression of enemy air defense (JSEAD) supported by theater forces, and joint air attack team (JAAT). The combat operations division is normally task-organized into three functionally oriented core teams, offensive operations, defensive operations, and ISR support. The division's main product is daily ATO/ACO changes.

The **ISR Division**, in conjunction with the strategy, combat plans, combat operations, and air mobility divisions, plans and executes airborne ISR operations and provides combat ISR support to air and space planning, execution, and assessment activities. The ISR division has four core teams: the analysis, correlation and fusion team; the targets/combat assessment team; the ISR operations team; and the processing, exploitation, and dissemination (PED) management team. Major products include: the reconnaissance, surveillance, and target acquisition (RSTA) annex to the ATO (or the ISR collection plan); updated IPB; air component target nomination list; and intelligence summaries.

The **Air Mobility Division** plans, coordinates, tasks, and executes the theater air mobility mission. Unlike the other AOC divisions that work solely for the AOC commander, the AMD coordinates with the DIRMOBFOR-Air but must remain responsive to the tempo and timing of the AOC commander's operation. The DIRMOBFOR-Air is responsible for integrating the total air mobility effort for the JFACC and, in this capacity, coordinates with the AMD on behalf of the JFACC to execute the air mobility mission. The AMD coordinates with the JTF's joint movement center (JMC), the theater air mobility operations control center (AMOCC) (if established), the theater deployment distribution operations center (DDOC) (if established), and the TACC. The AMD is comprised of four core teams: the airlift control team (ALCT); the air refueling control team (ARCT); the air mobility control team (AMCT); and the aeromedical evacuation control team (AECT). Major products include airlift apportionment plans and air refueling inputs to the MAAP, ATO, ACO, and SPINS.

Further detail concerning the structure, functions, processes, and personnel within the AOC can be found in AFOTTP 2-3.2, *The Air and Space Operations Center*, and in the Air Force Instruction (AFI) 13-1AOC series of publications.

The Air Tasking Cycle

A key product of the air tasking cycle is the development of an AOD for a particular day's activities based on the operational guidance provided by the JFC and the JFACC. The AOD should be considered the air and space component's operational-level guidance for the day it covers. It is essentially a daily extract and adaptation of the JAOP.

The air tasking cycle provides for the continuous collection, correlation, prioritization, and assessment of a variety of relevant inputs, in accordance with the JFC's and the JFACC's intentions, ultimately resulting in production of an ATO. The cycle provides a repetitive process for planning, coordination, allocation, execution, and assessment of air missions as well as many space and information efforts. The cycle also accommodates changing tactical situations, the JFC's revised priorities and objectives, and requests for support from other Service and functional component commanders as they perform analogous planning functions/cycles for their respective operations. The JFACC recommends apportionment to the JFC and then allocates resources based on the JFC's apportionment decision. The ATO, when combined with the ACO and SPINS, provides operational and tactical direction for air operations throughout the range of military operations, as well as establishing the timing, priority, and desired effects from supporting forces. The ATO, ACO, and SPINS are detailed documents specifying numbers of sorties, refueling tracks and times, targets, times over target, ordnance, coordinating and controlling agencies, communications frequencies and procedures, airspace deconfliction measures, and other vital information. Each cycle's products normally cover a 24-hour period. Once battle rhythm is ongoing, there are typically five sets of these products at any given time: one undergoing assessment (yesterday's plan); one in execution (today's plan); one in production (tomorrow's plan); one in final planning, to include considerations like detailed targeting and deconfliction (the following day's plan); and one in strategy for AOD development (three days out).

In many situations, the JFACC issues mission type orders to assigned and attached air units. Mission type orders state the objectives to be accomplished but leave the detailed mission planning to the tasked units. This enables subordinate echelons to exploit fleeting opportunities. Mission type orders can help the JFACC reduce "micro-management" when developing and transmitting an ATO. The JFACC passes along required planning information to units via SPINS and the ACO and normally includes his/her commander's intent as part of the ATO. Tactical unit commanders and flight leaders determine the tactics employed to accomplish the missions at the unit level. The ATO is subsequently implemented and assessed by the TACS. Further information on the tasking cycle can be found in AFDD 2-1.9, *Targeting*.

AIR MOBILITY OPERATIONS: THE TANKER AIRLIFT CONTROL CENTER

The TACC at Scott AFB, IL, is the AOC serving the Air Force component to USTRANSCOM. As the single point of contact for its customers, the TACC plans and executes all USTRANSCOM tanker, airlift, and support missions. The TACC performs detailed pre-mission planning and provides that information to the air mobility units, the airlift and tanker crews, and operating locations for mission execution. During execution, the 18 AF commander exercises OPCON over Air Force crews and aircraft on USTRANSCOM missions. Within a regional JTF, the DIRMOBFOR-Air provides the links between the regional air component's air mobility operations and the TACC's intertheater air mobility operations.

TACC Organization

The TACC consists of seven directorates led by a director of operations. (For a more detailed description, see AFOTTP 2-3.5, *Global Mobility Air and Space Operations Center*, when published).

- **Director of Operations.** The director of operations provides immediate oversight and decision making in the day-to-day activities of the TACC, and serves as the command's representative to the Joint Staff, Air Force Operations Center, National Military Command Center, USTRANSCOM, DOD, and other agencies.

- **Mobility Management.** Tasks units to support strategic/theater airlift and tanker requirements. Coordinates with AFRC and ANG on their availability to support worldwide mobility taskings. Manages the joint airborne/air transportability training and air refueling allocation process.

- **Command and Control.** Assumes mission control 24 hours prior to mission origination and is the direct link between the aircrew and TACC during mission execution. Performs logistics planning during execution and coordinates resolution of maintenance problems. Additionally, provides integrated flight management, intelligence updates and threat warning, computer flight plans, and obtains diplomatic aircraft clearances.

- **Current Operations.** Plans and monitors organic/commercial airlift and air refueling missions to meet the customer requirements for movement of passengers, cargo, support for classified programs, nuclear airlift, fighter and bomber deployment and employment, air refueling, distinguished visitor airlift, homeland defense, and support to USSTRATCOM's nuclear mission. The directorate acts as the focal point for tanker/airlift special access required programs and is the single source validator for all DOD air refueling missions.

- **Global Readiness.** Focal point for all CJCS TPFDD-based exercises and contingencies. Responsible for the development of CONOPS, aircrew brochures, airlift airflows, and coordinating AMC-provided ground support and contingency response group element packages. Also maintains management oversight of the air mobility tasking (AMT) message, AMC's single integrated tasking process for all AMC mobility taskings.

- **Global Channel Operations.** Directs regularly scheduled worldwide airlift operations ("channel missions") for passenger and cargo movement and aeromedical evacuation in the Defense Transportation System. Develops route structures, schedules airlift and aeromedical evacuation missions, and provides oversight on channel system performance. Works with AMC aerial ports, patient movement requirement centers and en route locations to meet sustainment movement requirements.

- **Operations Management.** Develops synergy across all directorates in cross-functional issues both internal and external to the TACC. Provides support for the daily operations summary briefing, executive decision-making briefings, and official TACC orientations. Develops and implements best business practices providing data and analytical support. Provides real-time assessments of air mobility assets including cargo and passengers on AMC missions. Tracks and analyzes force packages associated with contingencies and exercises. Conducts TACC orientation and training to meet qualification and certification requirements.

Air Mobility Tasking Message

The AMT message is the primary tasking instrument that ties together all the planning and deployment information AMC units need to rapidly deploy and effectively execute their global reach mission. The AMT cycle translates global and theater requirements into a coherent, executable plan for Air Force air mobility forces, providing for the effective and efficient employment of mobility assets. The AMT is published on the worldwide web as unclassified with classified supplements, if required. The AMT tasks all AMC mission support requirements for AMC-assigned and scheduled missions, airfield surveys, Joint Readiness Training Center schedules, AMC-provided theater augmentation support requirements identified in theater plans, theater and Service exercises, TPFDD, aviation packages, manning assistance, and all AEF taskings. In some cases, the AMT may be the only document an air mobility unit receives that puts together what the unit is tasked to support, where they are going, when they must be there, how they will get there, how long they will be gone, what equipment they need to take, and for whom they are working. This information is fed into the Global Transportation Network, which tracks all aspects of movement of personnel and cargo, and is accessible to all Service customers.

SPACE OPERATIONS: THE AIR FORCE SPACE AOC

The Air Force Space AOC is located at Vandenberg AFB, CA. It includes the personnel, facilities, and equipment necessary to plan, execute, and assess Air Force space operations and integrate space power into global military operations as directed by CDRUSSTRATCOM. The Air Force Space AOC is an in-place analog of the theater AOC that accomplishes parallel planning and operational functions for USSTRATCOM. The Air Force Space AOC has a number of systems, including a tailored set of Falconer AOC equipment. As part of the Air Force component under USSTRATCOM, the Air Force Space AOC works directly with regional COMAFFORs to plan and integrate air and space operations. Much as a regional AOC normally functions as a C/JAOC, the Air Force Space AOC normally may task Army and Navy space assets when such are made available. Thus, the Air Force Space AOC is often referred to as the joint space operations center (JSpOC).

Air Force Space AOC Organization

The Air Force Space AOC is composed of four divisions: strategy, combat plans, combat operations, and ISR. (For more information, see AFOTTP 2-3.4, *Space Air and Space Operations Center*.)

- **Strategy Division.** Develops the commander's intent, priority, and guidance. Develops the space operations directive (SOD), which guides the development of the STO. Develops space COAs. Leads CAP and space estimate processes. Recommends tactical objectives and tasks for employment of space capabilities.

- **Combat Plans Division.** Produces, coordinates staff review and approval, and disseminates an operationally sound STO, which is the tool used to task and execute day-to-day US joint space operations and represents the daily implementation of the SOD. The STO is normally produced weekly; it can be produced daily if required by the operational tempo. Derived from CDRUSSTRATCOM mission-type orders, the STO provides guidance for all global US space assets, deconfliction for theater joint space operations, and SPINS for the period it covers. Every space operation during that period should be on the STO.

- **Combat Operations Division.** Executes the current STO. Produces STO changes as necessary in response to operational dynamics (e.g., satellite anomalies, periods of interest, missile launches).

- **ISR Division.** Provides near-real time analysis in support of generation and execution of the STO. Provides intelligence to perform offensive and defensive counterspace missions. Performs indications and warning of potential enemy attacks against US space forces. Provides analysis of foreign space and strategic system trends and developments. ISR division personnel

are usually matrixed into the other divisions to aid in strategy and plans development, operational execution, and assessment.

The Space Tasking Cycle

The space tasking cycle translates global and theater requirements into a coherent, executable plan for US joint global and theater space forces, providing for the effective and efficient employment of space assets. The space tasking cycle is integrated with the air tasking cycle to provide daily tactical tasking for US joint global space forces, much as the ATO provides operational tasking for theater air assets. Due to the global nature of many space assets, the space tasking cycle coordinates and deconflicts multiple-theater space requirements and global space effects with theater operations.

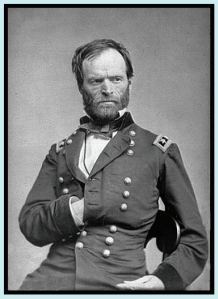
The primary product of the space tasking cycle is the STO. It provides operators a common frame of reference for space effects, incorporating all US joint space operations. While similar to the ATO, in outlining missions, timing, and tasking, the STO is unique due to the global nature of many space missions. Much as the ATO orchestrates an integrated theater air, space, and information operations effort, the STO optimizes global US joint space operations by balancing high-demand low-density space assets against global and theater requirements. Derived from CDRUSSTRATCOM's orders and the supported JFC's requirements, the STO provides mission tasking to individual space units for the period it covers. Examples of STO mission taskings include: optimizing the global positioning system (GPS) for theater precision air strikes, focusing Defense Support Program missile warning in a particular area to alert troops to missile attacks, and in the future, providing detailed mission data to integrate counterspace operations into the theater campaign.

The Air Force Space AOC produces and executes a single STO because it has space situation awareness, validated intelligence, and weapon system knowledge to ensure integration and synchronization of global and theater space effects. The space tasking cycle is synchronized with the air tasking cycle to optimize space support to the theater, although the publication time of the STO is not necessarily similar to that of the ATO. The theater AOC and Air Force Space AOC run similar and parallel processes, such as the TET and MAAP.

CHAPTER EIGHT
THE AFFOR STAFF

A bulky staff implies a division of responsibility, slowness of action, and indecision, whereas a small staff implies activity and concentration of purpose.

—General William Tecumseh Sherman



Most AETFs provide for an AFFOR staff function to support the COMAFFOR. The AFFOR staff is the vehicle through which the COMAFFOR fulfills his/her operational and administrative responsibilities for assigned and attached forces, and is responsible for the long-range planning that occurs outside the air tasking cycle (e.g., deliberate planning). The AFFOR staff consists of functionally-oriented directorates, a command section, a personal staff, and any required liaisons. The AFFOR staff may issue traditional mission type orders on behalf of the COMAFFOR to direct subordinate units to execute actions outside of the scope of the ATO. Two examples of such orders include setting a baseline force protection condition or directing the move of a unit to another operating base. The AFFOR staff should develop a habitual working relationship with the AOC to help fulfill the COMAFFOR's full range of responsibilities and to integrate overall Service component staff efforts with the AOC battle rhythm.

ROLES AND USES OF THE AFFOR STAFF

An AFFOR staff should be ready to fill one or more roles: that of a theater-wide Air Force Service component, an Air Force warfighting component within a JTF, or the core or "plug" within a JTF headquarters. If not carefully structured, an AFFOR staff may be dual- or triple-hatted with deleterious consequences as the staff struggles to focus at the right level at the right time.

The Service staff's most basic task is to support the Air Force Service component to its respective unified combatant commander in the performance of theater-wide organize, train, and equip responsibilities. The next level of activity is supporting the Air Force component within a subunified command or a JTF. These two activities demand different levels of engagement (theater-strategic versus operational) and thus different focus. Ideally, these activities would be accomplished by two separate and distinct staffs; such a breakout of responsibilities is more easily accomplished in those regional Service commands which include both a MAJCOM activity and an Air Force component headquarters activity, such as in USAFE and PACAF. In these cases, the MAJCOM A-staff can focus on the theater-wide support to the combatant commander while the Service component headquarters AFFOR staff supports the COMAFFOR's role as commander of the JTF's air and space component and Service component.

The structure and division of labor within an AFFOR staff that is dual-tasked as both a Service component to a unified combatant commander and a Service component headquarters AFFOR staff supporting a JTF (as, for example, is currently found within the Air Force component in USCENTCOM) may find itself split between the broad theater-level Service responsibilities and the JTF-level operational responsibilities. This would likely require two groups within the AFFOR staff, one to focus on theater component staff activities and the other on operational warfighting issues. In accordance with Service and joint doctrinal admonitions against dual-hatting a commander vertically across different levels of war, it would similarly be a mistake to dual-hat a single AFFOR staff for both of these functions, as one function will invariably suffer due to the inability to properly focus at the correct level of war at the right time; differences in battle rhythms within the joint force; differing levels of connection within interagency processes; and other similar challenges.

An AFFOR staff may have a third potential role in addition to operational staff and Service staff: forming the core for a JTF headquarters (HQ) staff, as in scenarios when the COMAFFOR is dual-hatted as the JFC. In such a scenario, the AFFOR staff, either in whole or in part, would be augmented by joint and coalition staff as required. Another option for staffing a JTF HQ might be to pull a "plug" from the AFFOR staff as an add-on to another Service's staff to form the core of the JTF staff. In either of these cases, the AFFOR staff would require augmentation from outside the theater to backfill the manning requirements. As with the previously-described division of labor between a theater-wide Service component and operational warfighting component, the same caveats apply: those AFFOR staff individuals functioning as a JTF HQ should be separate from the other AFFOR staff activities.

The following discussion of AFFOR staff duties is not intended to be all-inclusive. The differing mission requirements of any given operation may dictate different task emphasis and staff arrangements. Very large or complex operations, for example, may require all staff directorates. In some cases, senior component liaison elements may not be needed; in other cases, some of the required support may be obtained through reachback. For very small or limited operations, a full AFFOR staff may not be required. As a rule of thumb, the size and span of the AFFOR staff should normally be held to the smallest number of divisions necessary to handle the demands of the operation. For example, for a very small, forward deployed operation, the AFFOR staff may consist of only A-1 through A-6; for support of major, theater-wide operations all nine directorates (A-1 through A-9) may be present. Other operations may employ an AFFOR staff split into forward and rear elements, using reachback to maintain unity of effort. In each case, based upon regional requirements, the COMAFFOR will determine the size, shape, and location of the AFFOR staff and AOC to best support the operation. See Figure 8.1. Further information can be found in AFOTTP 2-3.3, *Air Force Forces* (when published).

COMMAND SECTION

The command section is normally composed of the commander (COMAFFOR), vice commander, chief of staff (COS), command chief master sergeant, executive

assistant, and appropriate administrative support personnel. Within the command section, the COS coordinates and directs the daily activities of the AFFOR staff; approves actions, orders, and plans, as authorized by the COMAFFOR; and ensures COMAFFOR decisions and concepts are implemented by directing and assigning staff responsibilities. The COS formulates staff policies, reviews staff actions for adequacy and proper coordination, and ensures required liaison is established with supporting agencies and commands, host nations, the JFC, and other components.

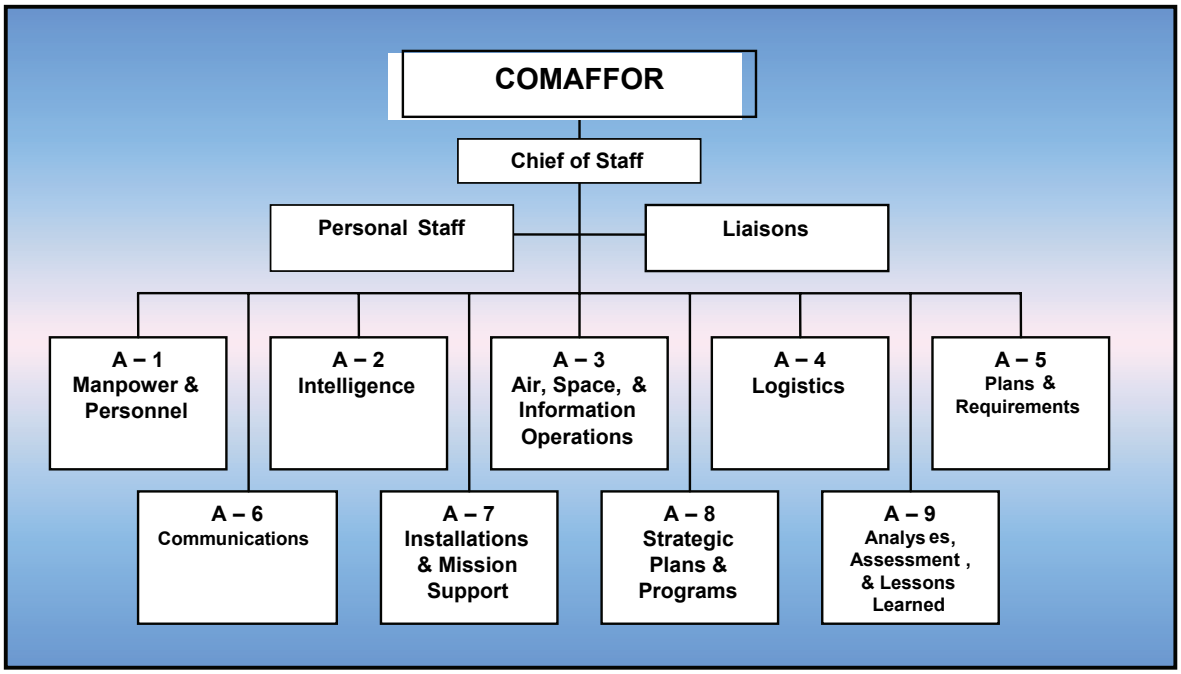


Figure 8.1. Notional AFFOR Staff Organization

PERSONAL STAFF

The COMAFFOR has several staff activities that normally function outside the A-staff directorates. These activities fulfill specific responsibilities usually related to providing close, personal advice or services to the commander, or assist the commander and the component staff with technical, administrative, or tactical matters. These activities may include the commander's legal advisor; public affairs advisor; inspector general; protocol advisor; historian; chaplain; counterintelligence and special investigations; financial management; force protection; air mobility operations (DIRMOBFOR-Air); space operations (DIRSPACEFOR); medical; and safety. Based on the needs of the operation and the requirements of the AFFOR staff, some of these activities may be located within the A-staff directorates.

Senior Component Liaisons

The senior liaison officer (LNO) from each component represents his or her respective commander to the COMAFFOR/JFACC. Subordinate LNOs from each component may perform duties throughout the staff as required, providing weapon

system expertise. LNOs must be knowledgeable of the capabilities and limitations of their units and Service.

AFFOR STAFF DIRECTORATES

Manpower and Personnel (A–1)

The director of manpower and personnel is the principal staff assistant to the COMAFFOR on manpower and personnel management. The A–1 is responsible for executing personnel policies, developing procedures as necessary, and supervising the administrative requirements for personnel. Because component commanders normally receive personnel support from their Service headquarters, the A–1 role is primarily an Air Force component function. Key responsibilities of the A–1 may include:

- Ensure that subordinate Air Force units are kept informed of personnel actions that affect them.
- Monitor Air Force unit strengths and accountability by means of daily personnel status reports.
- Advise the commander and staff on matters concerning unit replacement plans and status of all components.
- Provide control and standardization of personnel procedures.
- Maintain records to support recommendations for unit and DOD awards and decorations.
- Oversee the administration of augmentees and preparation of evaluation, efficiency, and fitness reports.
- Assist the COMAFFOR in determining the need for, and structure of, organizations.
- Assist the COMAFFOR in determining and documenting manpower requirements.
- Assist the COMAFFOR in identifying available manpower resources.
- Operate and maintain contingency manpower and resource management systems.

Intelligence (A–2)

The director of intelligence is the principal staff assistant to the COMAFFOR for providing intelligence on enemy locations, activities, and capabilities, and probable enemy COAs. The A–2 provides intelligence support to forces within the assigned area

of operations. The A–2 does not normally direct ISR collection assets when an ISR Division is resident in the AOC; this is normally the province of the ISR division director. Key responsibilities of the A–2 may include:

- Serve as the principal advisor to the A–3 and COMAFFOR on ISR architecture and support requirements.
- Manage intelligence requirements; prioritize based on mission needs (if not performed by the AOC ISR division).
- Validate subordinate unit requests for assistance (e.g. manning, systems, etc).
- Coordinate intelligence support from national, DOD, Service, and joint intelligence elements and coalition intelligence sources (if not performed by the AOC ISR division).
- Coordinate intelligence and information collection and analysis to support the COMAFFOR and the JFC as directed (if not performed by the AOC ISR division).
- Provide liaison officers to JFC and lateral components' intelligence staffs as directed.
- Prescribe security and releasability requirements for intelligence information.

Air, Space, and Information Operations (A–3)

The director of air, space, and information operations serves as the principal staff assistant to the COMAFFOR in the direction and control of all assigned and attached Air Force forces. When OPCON of Air Force units is formally transferred to the COMAFFOR, the A-3 ensures they are capable of performing tasked missions. This includes monitoring unit deployments and beddown locations, combat readiness, mission rehearsals, force protection, and training activities. Key responsibilities of the A–3 may include:

- Organize the operational aspects of the headquarters staff.
  - Recommend AETF organization. Normally, responsible for defining and leading implementation of the C2 operational architecture (forward-deployed and reachback locations, deployed wing and group operations centers, etc.).
  - Establish and manage daily staff battle rhythm, to include daily briefings and meetings.
  - Monitor deployed unit operational situation reports.

- ✪ ✪ Oversee training and standardization/evaluation of AETF operational units.
- ✪ ✪ Coordinate AEF unit availability and sourcing with the AEF Center and/or appropriate MAJCOM staff.
- ✪ ✪ Establish guidance for and monitoring of OPSEC.

✪ Coordinate operational issues with the JFC and component staffs. Typical issues would include:

- ✪ ✪ Establish liaison with appropriate supporting commands and agencies.
- ✪ ✪ Provide information on the number and location of all friendly air and space assets.
- ✪ ✪ Coordinate joint and coalition training with other components.
- ✪ ✪ Establish force protection requirements, including civil defense.
- ✪ ✪ Recommend commander's critical information requirements.
- ✪ ✪ Identify essential elements of information with A–2.

✪ Advise the COMAFFOR on management of air, space, and information resources for which the COMAFFOR has OPCON/TACON or has established supported/supporting relationships.

✪ Assist A-5 in the preparation of plans and orders relating to current operations.

Logistics (A–4)

The Director of Logistics is the principal staff assistant to the COMAFFOR for JOA-wide implementation of combat support capabilities and processes. This encompasses the coordination and supervision of force beddown, transportation, supply, maintenance, logistics plans and programs, and related combat support activities. In general, the A–4 formulates and implements policies and guidance to ensure effective support to all Air Force forces. Most of the challenges confronting this division will be Air Force component-unique. Key responsibilities of the A–4 may include:

✪ Coordinate the overall combat support functions and requirements of the COMAFFOR and maintain liaison with combat support functions of other components and the JTF J–4.

✪ Advise the commander concerning combat support matters that affect the accomplishment of COMAFFOR missions.

- Establish and operate a logistics readiness center.
- Identify, coordinate, and track combat support requirements to ensure deployed forces are sustained from the onset of operations, including CONUS resupply and reachback, procurement of supplies and services from local sources within deployment locations, time definite delivery movements, theater distribution with JTF J–4 and other Services, and timely retrograde of personnel and reparable materiel.
- Formulate COMAFFOR combat support policies.
- Provide combat support expertise to the strategy division in the AOC when necessary.
- Coordinate beddown of Air Force forces.
- Coordinate common item supply support that is a COMAFFOR responsibility.
- Track the ammunition and fuel support capability of all COMAFFOR forces.
- Identify and track transportation movement requirements.
- Arrange for and coordinate COMAFFOR host-nation support requirements with the JTF J–4.
- Coordinate agreements for inter-Service supply and support with components and JTF J–4.
- Exercise staff supervision or cognizance over applicable aircraft maintenance, recovery, and salvage operations.
- Track and coordinate theater aerial ports and theater distribution processes affecting Air Force operations.
- Plan for and establish forward operation bases, as directed, to sustain effective operations.

Plans and Requirements (A–5)

The director of plans and requirements serves as the principal staff assistant to the COMAFFOR for all consolidated planning functions. In coordination with the A–4, the A–5 conducts comprehensive force-level movement and execution planning throughout the campaign. This involves preparation and subsequent refinement of the force flow, beddown, and redeployment in the TPFDD. The A–5 may perform long-range theater engagement (deliberate planning) that falls outside of the AOC's current operational focus. Close coordination must occur between A–5 and the strategy division to ensure planning efforts are complementary. The A–5 normally publishes the

Air Force component OPORD to support the JFC's campaign. Key responsibilities of the A–5 may include:

- Facilitate component OPORD development.
- Perform collaborative planning with the JTF and the coalition and Service staffs.
- Establish effective relations with host nation personnel and US embassy.
- Monitor the effects of current operations on follow-on (post-hostility) operations.
- Monitor events outside the JOA for impacts on present mission.
- Initiate and oversee AFFOR support of JTF crisis action planning activities.
- Integrate Air Force execution planning efforts with JTF HQ, the JFACC's staff (if applicable), coalition, and Service staffs throughout the campaign.
    - Determine support requirements for additional forces or capabilities.
    - When necessary, prepare air allocation request and air support request messages.

Communications (A–6)

The director of communications is the principal staff assistant to the COMAFFOR for communications-electronics and automated information systems. This includes establishing the theater communications and automated systems architecture to support operational and command requirements. Key responsibilities of the A–6 may include:

- Coordinate the overall communications and information functions of the COMAFFOR and maintain liaison with communications and information functions of the other components, the JTF J–6, joint communications control center, joint communications support element, and Defense Information Systems Agency area communications operations center as required.
- Formulate COMAFFOR communications and information policies.
- Ensure frequency allocations and assignments meet technical parameters under host-nation agreements, coordinate these actions with the A–3 and JTF J–6, deconflict frequencies, and provide communications-electronics operating instructions for assigned forces.
- Oversee the construction and maintenance of AOC communications and automated systems architectures.

- Assign call signs in accordance with Service and joint communications security directives.
- Plan, coordinate, and monitor communications security procedures and assets.
- Coordinate information protection requirements and procedures with the AOC information operations (IO) team.
- Advise the AOC on development of communications architecture inputs to the JAOP.
- Coordinate plans with JTF J–6.
- Establish a systems control (SYSCON) to monitor, troubleshoot, and report all communications assets, mission systems, and the connectivity supporting Air Force forces. Establish a theater communications reporting chain that ensures all critical activation and outage information is centralized at the SYSCON and reported to higher headquarters as needed.
- Ensure communications and information interface requirements are satisfied.
- Plan, engineer, direct, monitor, and maintain required communications and information connectivity to subordinate Air Force units (to include reachback units) and other components.
- Oversee all Air Force postal, multimedia, information management, client workgroup administration, communications-computer operations and maintenance, and airfield systems support.

Installations and Mission Support (A–7)

The director of installations and mission support is the COMAFFOR's primary advisor for installations, mission support, force protection, security, civil engineering, explosive ordnance disposal, fire fighting, C-CBRN response, mortuary affairs, food and exchange services, contracting, and security forces, and all cross-functional expeditionary combat support. Additionally, the A–7 works in coordination with the A–4 on formulation of beddown plans and coordination and supervision of force beddown. Key responsibilities of the A–7 may include:

- Coordinate the overall installation support functions and requirements of the COMAFFOR and maintain liaison with support functions of other components and the JTF.
- Advise the COMAFFOR concerning civil engineering and mission support matters that affect the accomplishment of COMAFFOR missions.
- Establish and operate an emergency operations center.

- ✪ Formulate COMAFFOR civil engineering and installation mission support policies.
- ✪ Coordinate all COMAFFOR firefighting, EOD, and C-CBRN readiness requirements.
- ✪ Coordinate all COMAFFOR food service, mortuary affairs, lodging, and field exchange requirements.
- ✪ Coordinate morale, welfare, and recreation activities.
- ✪ Assist the COMAFFOR in administering Air Force non-appropriated funds.
- ✪ Identify contractor personnel employed in the AOR to support Air Force forces, and monitor contractor support activities to ensure continuity of operations.
- ✪ In coordination with A–4, coordinate beddown of all Air Force component forces, and of all JFACC forces when the COMAFFOR is designated JFACC.
- ✪ Serve as the interface for other service regional wartime construction management support, contracting support, and real estate activities for lease/use of host nation facilities and basing.

Strategic Plans and Programs (A–8)

The director of strategic plans and programs provides the COMAFFOR comprehensive advice on all aspects of strategic planning. Key responsibilities of the A–8 may include:

- ✪ Act as the Service component liaison with the JTF or unified command J–8 on joint issues and with the MAJCOM A–8 for Air Force-specific capabilities.
- ✪ Conduct program assessment and provide coordinated resource inputs to the supporting MAJCOM's program objective memorandum (POM) process.

Analyses, Assessments, and Lessons Learned (A–9)

The director of analyses, assessments, and lessons learned collects, documents, reports, and disseminates critical information necessary to analyze, assess, and document the air and space aspects of campaigns and contingencies, and to document lessons observed. (Note: A–9 functions do not include campaign operational assessment, a task performed within the AOC). This information provides the primary source documents for both contemporary and future Air Force planning and analysis. Moreover, they serve as an official permanent record of component mission accomplishment. Key responsibilities of the A–9 may include:

- ✪ Maintain liaison with JTF operational analysis functions and serve as the focal point for reachback efforts to other Air Force analytic organizations.
- ✪ Assess the success of operations and make recommendations to the COMAFFOR.
- ✪ Assist the A–3 in exercise design, development, rehearsal and analysis; conducts red teaming and COA analysis.
- ✪ Provide analytical support to deliberate and crisis action planners.
- ✪ Support the OAT in the AOC strategy division team and for projects outside the OAT scope.
- ✪ Distribute lessons observed and learned to inform and guide planning and execution.
- ✪ Facilitate after action reviews and develop remediation plans.
- ✪ Evaluate, collect, organize, safeguard, and preserve historically significant documents, including orders, plans, reports, and senior staff interviews, and prepares contingency reports on all Air Force component activities.

At the Very Heart of Warfare lies Doctrine. . .

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APPENDIX A
HOST INSTALLATION ADCON SCENARIOS

The following scenarios illustrate some of the basing combinations that may be encountered on forward-deployed installations.

Scenario 1: An AFSOC detachment deploys to a base in USCENTCOM's AOR. An expeditionary Air Force element (e.g., an AEW) is already in-place and operating from that base with the AEW commander executing ADCON over Air Force forces deployed to that base.

- As the base commander and the senior Air Force officer on the installation, the AEW commander has inherent responsibilities for force protection, lodging, dining, reporting, some reasonable logistics support, and some limited aspects of UCMJ.

- G-series orders should specify elements of ADCON for the deployed AFSOC units . If this type deployment occurs frequently or lasts for a lengthy period of time, AFSOC and AFCENT should draft a command-to-command agreement specifying the items of ADCON that each command will be responsible for. In addition, USSOCOM and USCENTCOM should also consider a command-to-command agreement covering inter-Service arrangements.

Scenario 2: An AFSOC detachment deploys to an Army-owned airbase in USEUCOM's AOR that is also hosting a deployed expeditionary Air Force element (e.g., an AEG).

- The Army commander, as the installation commander, has inherent responsibilities for force protection, lodging, and dining, based on a support relationship.

- The AEG commander, as the senior Air Force officer on the installation, has inherent responsibilities to support the AFSOC detachment for ADCON and other Air Force-unique support, and to intercede with the installation commander on behalf of the AFSOC detachment if their needs are not met. The AEG commander is also responsible for obtaining, through Air Force channels, necessary Service-unique support on behalf of the AFSOC detachment that cannot otherwise be obtained through AFSOC channels.

- G-series orders should specify elements of ADCON for the deployed AFSOC units. If this type deployment occurs frequently or lasts for a lengthy period of time, AFSOC and USAFE should draft a command-to-command agreement specifying the items of ADCON, including UCMJ, that each command will be responsible for. In addition, USSOCOM and USEUCOM should also consider a command-to-command agreement covering inter-Service arrangements.

Scenario 3: An AMC (USTRANSCOM-owned) tanker AEG deploys to Moron AB, Spain (USEUCOM AOR) to support airbridge operations. They are OPCON to AMC through the TACC. The host unit at Moron is the 496th Air Base Squadron (ABS), a USAFE tenant unit on this Spanish-owned base.

- Normally the senior Air Force officer on the installation has inherent responsibilities for UCMJ, force protection, lodging, dining, reporting, and some reasonable logistics support. In this case, the tenant traces ADCON through the theater. Since the theater has a squadron commander present, that individual retains responsibility for force protection, lodging, dining, reporting, and logistics support.

- UCMJ authority over the AMC troops should be a coordinated effort between the AEG commander (AEG/CC), the 496 ABS/CC, and the home unit/CC and specified authorities should be published in applicable documents such as an OPORD series document, or existing command-to-command agreement.

- The AEG should route their requests for theater support for lodging, food, and equipment through the 496 ABS, who will retain their role as the interface with Spanish authorities and USAFE/USEUCOM.

- Specified ADCON that AMC requires from USAFE beyond the above items should be specified in G-series orders for the AMC forces. If this type deployment occurs frequently or lasts for a lengthy period of time, AMC and USAFE should draft a command-to-command agreement specifying the items of ADCON that each MAJCOM will be responsible for.

(NOTE: The following scenarios do not imply that air reserve component [ARC] individuals have a higher incidence of discipline problems when deployed. They are only to highlight key points commanders must keep in mind when commanding a mix of personnel within the Total Force.)

Scenario 4: Two ARC individuals, deployed to Diego Garcia, are involved in a minor incident in violation of base safety protocols and the Status of Forces Agreement (Diego Garcia is British-owned; the US Navy hosts the base; the base is in the USPACOM AOR). One is a Reservist serving a voluntary tour as part of the administrative section of the bomber AEW deployed there; the other is a mobilized ANG person working aerial port for the AMC AEG also deployed there. Both are in volunteer status and the ANG member is federalized.

- Authority and responsibility for the Reservist are split between the commander, Air Force Reserve Command (AFRC/CC) and the local Commanders (bomber AEW and base). To ensure good order, discipline in this case should be coordinated between the individual's "home" commander, AFRC HQ, and the local commanders. An issue here is the mandatory return date specified in the individual's orders. Holding an individual "over" to process discipline may not

be optimal and may actually inhibit effective processing of a replacement by using resources to hold a member who may be outprocessed while not on orders.

- Like the Reservist, the Guardsman's discipline should be coordinated with several organizations: the providing unit commander; the National Guard command center (a Title 10, US Code [U.S.C.], organization); the local unit commander (AEG/CC); the local USAF/CC; and a base representative. Because the Guardsman is federalized, the UCMJ does apply.

Scenario 5: Guardsmen are deployed from home station performing disaster relief within the US or its territories and still in "state" status (i.e., Title 32, U.S.C.). One is caught after curfew in a specifically prohibited activity.

- In accordance with federal law under Titles 10 and 32, Guard members may not legally perform duty outside the US or its territories in Title 32 status. Additionally, Guardsmen may perform certain missions (for example, homeland defense or wild fire support where interstate issues may arise) in either Federal status, state active duty status under an interstate agreement, or under Title 32.

- The Guardsman is subject to local civilian jurisdiction and may be subject to the member's state code of military justice. Because of "state" or Title 32 status, the member's ADCON chain is through the local commander and the member's state. The Governor, the State Adjutant General, and the providing unit commander should be involved. Complicating this issue is differing state-to-state agreements. A coordinated approach will ensure good order optimizing the on-scene commander's effectiveness and the ability of the ANG to continue efficient support.

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APPENDIX B
RESERVE COMPONENT IMPLEMENTATION

The Air Force, under the Total Force construct, has a substantial part of its forces in Air Force Reserve Command and the Air National Guard. The SecDef may make these forces available during the planning process. While they may seamlessly operate alongside the regular Air Force, they are subject to different levels of activation and different degrees of operational and administrative control. These types of control are discussed in more detail in the main text. The degrees of control and when they are gained by a COMAFFOR are discussed below. Furthermore, difference in length of tour availability may pose continuity challenges for a COMAFFOR, and planners should carefully consider such issues for any category of mobilization.

- **Mobilization.** The process whereby a nation makes the transition from a normal state of peacetime preparedness to a warfighting posture. It involves the assembly, organization, and application of the nation's resources for national defense and it encompasses all activities necessary to prepare systematically and selectively for war.

- **Volunteerism.** The process by which the SECAF places on active duty those ARC members who have volunteered for activation. The ARC structure retains ADCON except for forces attached to the COMAFFOR; the COMAFFOR has specified ADCON over assigned and attached forces. OPCON transfers in accordance with SecDef orders. Volunteerism is usually used as a bridge to expand regular component force capabilities while awaiting legal authority for Presidential Reserve Callup authority. Volunteerism is used to partially offset high regular component operational tempos in the overseas theaters and in CONUS.

- **Presidential Reserve Callup (PRC).** The President may call up to 200,000 Reserve members for up to 270 days to meet the requirements of an operational mission. The President must notify Congress of the action and his reasons for declaring PRC. The ARC structure retains ADCON, except for forces attached to the COMAFFOR; the COMAFFOR has specified ADCON over assigned and attached forces. OPCON transfers in accordance with SecDef orders.

- **Partial Mobilization.** In time of national emergency declared by the President or when otherwise authorized by law, up to one million reserve members may be involuntarily activated for not more than 24 consecutive months. The ARC structure retains ADCON, except for forces assigned and attached to the COMAFFOR; the COMAFFOR has specified ADCON over attached forces. OPCON transfers in accordance with SecDef orders.

- **Full Mobilization.** This requires passage by Congress of a public law or joint resolution declaring war or national emergency. Provides authority to mobilize

all reserve units and individuals in the existing force structure and the material resources to support the expanded structure, for the duration of the emergency plus six months. ADCON transfers to the gaining COMAFFOR, and OPCON transfers in accordance with SecDef orders. At this time, the Air Reserve Personnel Center forwards the master personnel record of each mobilized ARC member to the Air Force Personnel Center and the field records group to the gaining military personnel flight.

Under the Total Force construct, the Air Force uses a variety of associate units for training, leveraging resources, and providing familiarization between the regular and reserve components. Associate units share the weapon systems of an equipped unit and perform the same mission. The associate models include:

- **Classic Associate:** A regular Air Force unit retains principal responsibility for a weapon system that it shares with one or more ARC units. Administrative control will remain with the respective components.

- **Active Associate:** An ARC unit has principle responsibility for a weapon system which it shares with one or more regular units. Reserve and regular units retain separate organizational structures and chains of command.

- **ARC Associate:** Two or more ARC units integrate with one retaining principal responsibility for the weapon system. Each unit retains separate organizational structures and chains of command.

- **Integrated Associate:** Members of two or more components belong to one unit, where the host component command structure remains and the staff is integrated at the operations level. Administrative control and support are provided by the respective components via detachments. Each component is subject to the same operational chain of command but relies upon separate administrative chains of command.

APPENDIX C
SAMPLE G-SERIES ORDER ESTABLISHING AN EXPEDITIONARY UNIT

G-series orders are published to activate, inactivate, redesignate, assign, and reassign units and detachments subordinate to a MAJCOM, field operating agency (FOA), or direct reporting unit (DRU); and to attach one unit to another. A MAJCOM, FOA, or DRU manpower and organization function may authenticate and publish G-series orders. **Refer to AFI 38-101, *Air Force Organization*, for more detailed guidance.** In addition, AFI 33-328, *Administrative Orders*, provides general guidelines about orders preparation.

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR MOBILITY COMMAND
SCOTT AIR FORCE BASE, ILLINOIS 62225-5307

SPECIAL ORDER
GXXX-XX DATE

1. ( ) The HQ XXth Air Expeditionary Group (AEG), a provisional unit, is activated at Any Island, British Indian Ocean Territory (BIOT) effective (dd/mm/yr) and assigned to the XXth Air and Space Expeditionary Task Force (XX AETF)-[Operation Name] for the following specified ADCON elements: making recommendations to the COMAFFOR on the proper employment of subordinate units; accomplishing assigned tasks; organizing, training, equipping and sustaining assigned and attached forces; reachback to the US Air Force rear and supporting US Air Force units; force protection; morale, welfare and discipline; and personnel management. Additionally AMC, the parent MAJCOM, will issue AF Forms 35, Appointment of Commander Orders, and share UCMJ authority. USTRANSCOM will exercise operational control through the 18 AF Tanker Airlift Control Center.

2. ( ) The following provisional units are designated and activated at Any Island, BIOT, effective (dd/mm/yr) and assigned as indicated for the purposes of administrative support and exercise of UCMJ authority.

Unit	Assignment
YY Expeditionary Air Refueling Squadron (EARS)	XX AEG
ZZ Expeditionary Airlift Squadron (EAS)	XX AEG

3. ( ) Upon inactivation the provisional units will permanently retain any honors gained while active as provisional units.

4. ( ) Authority: AFI 38-101

FOR THE COMMANDER

DISTRIBUTION:
HQ USAF/DPMO
AFHRA/RS
All referenced units
Other units and staff agencies as needed

Classified by:
Dated:
Declassify on:

APPENDIX D
SAMPLE G-SERIES ORDER ESTABLISHING A PROVISIONAL UNIT

G-series orders are published to activate, inactivate, redesignate, assign, and reassign units and detachments subordinate to a MAJCOM, field operating agency (FOA), or direct reporting unit (DRU); and to attach one unit to another. A MAJCOM, FOA, or DRU manpower and organization function may authenticate and publish G-series orders. **Refer to AFI 38-101, *Air Force Organization*, for more detailed guidance.** In addition, AFI 33-328, *Administrative Orders*, provides general guidelines about orders preparation.

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR COMBAT COMMAND
LANGLEY AIR FORCE BASE, VIRGINIA 23665-2778

SPECIAL ORDER
GXXX-XX DATE

1. ( ) Effective the date of this order, HQ 345th Air Expeditionary Wing (AEW), a provisional unit, is activated at Location, Country, and assigned to the XXth Air and Space Expeditionary Task Force. (XX AETF – [Operation Name]) for the purposes of specified ADCON to include: making recommendations to the COMAFFOR on the proper employment of subordinate units; accomplishing assigned tasks; organizing, training, equipping and sustaining assigned and attached forces; reachback to the US Air Force rear and supporting US Air Force units; force protection; morale, welfare and discipline; and personnel management.

2. ( ) Effective the date of this order, the following units are activated at Location, Country, and assigned as indicated for the purposes of command and control and administrative support:

UNIT	ASSIGNMENT
HQ 345th Expeditionary Operations Group (EOG)	345 AEW
345th Expeditionary Operations Support Squadron	345 EOG
1st Expeditionary Fighter Squadron	345 EOG
2d Expeditionary Fighter Squadron	345 EOG
HQ 345th Expeditionary Maintenance Group (EMG)	345 AEW
345th Expeditionary Maintenance Operations Squadron	345 EMG
345th Expeditionary Aircraft Maintenance Squadron	345 EMG
345th Expeditionary Munitions Maintenance Squadron	345 EMG
745th Expeditionary Munitions Maintenance Squadron	345 EMG

HQ 345th Expeditionary Mission Support Group (EMSG)	345 AEW
345th Expeditionary Civil Engineer Squadron	345 EMSG
345th Expeditionary Communications Squadron	345 EMSG
345th Expeditionary Mission Support Squadron	345 EMSG
345th Expeditionary Services Squadron	345 EMSG
345th Expeditionary Logistics Readiness Squadron	345 EMSG
345th Expeditionary Security Forces Squadron	345 EMSG
345th Expeditionary Medical Operations Squadron	345 AEW

3. ( ) Upon Inactivation, the provisional units will permanently retain any honors gained while active as provisional units.

4. ( ) Authority: AFI 38-101, DAF XXXs

FOR THE COMMANDER

DISTRIBUTION:
HQ USAF/DPMO
AFHRA/RS
All units mentioned in order
Others as needed

Classified by:
Dated:
Declassify on:

APPENDIX E
THE MISSION STATEMENT
AND COMMANDER'S INTENT STATEMENT

The culmination of the mission analysis stage of the joint air estimate process is a mission statement and a statement of the commander's intent, both approved by the COMAFFOR/JFACC.

Mission Statement. The mission statement should be a clear and concise statement of the operation's objective and purpose. It should include the operation's specified, implied, and essential tasks. The mission statement forms the basis for further planning and should be included in planning guidance, the planning directive, the air and space estimate of the situation (and other staff estimates, as required), any CONOPS, the completed JAOP, and, as warranted, in tasking cycle AODs. The following is a **notional** example of a mission statement:

> "When directed, the CFACC will conduct joint air, space, and information operations to deter aggression and protect deployment of the joint force."
>
> "Should deterrence fail, the CFACC, on order, will gain and maintain air and space superiority to enable coalition operations within the operational area. Concurrently, the CFACC will support the CFLCC in order to prevent enemy seizure of vital areas (to be specified)."
>
> "On order, the CFACC, supported by the CFLCC and CFMCC, will render enemy fielded forces combat ineffective and prepare the battlespace for a joint ground counteroffensive. Concurrently, the CFACC will support the CFMCC in maintaining maritime superiority. The CFACC, on order, will support CFLCC and CFSOCC ground offensive operations, degrade the ability of enemy national leadership to rule the country as directed, and destroy enemy weapons of mass destruction in order to restore territorial integrity, end the enemy military threat to the region, support maintenance of a legitimate friendly government, and restore regional stability."

Commander's Intent Statement. The statement of the JFACC's intent should be a clear, concise expression of the purpose of the operation, its broad method of accomplishment, and the intended end state. It may also include the commander's assessment of the enemy commander's intent and assessment of where and how much risk is acceptable during the operation. The statement of intent should be included in planning guidance and directives (as required), the air and space estimate of the situation (and other staff estimates, as required), any CONOPS, the completed JAOP, and, as warranted, in tasking cycle AODs. The following is a **notional** example of an intent statement:

"**End-state.** At the end of this operation: Enemy military forces will be capable of limited defensive operations, will have ceased offensive action, and will have complied with coalition war termination conditions; the surviving adversary state will retain no weapons of mass destruction capability; the CFACC will have passed air traffic control to local authorities; allied territorial integrity will be restored; and CFACC operations will have transitioned to support of a legitimate and stable friendly government."

"**Purpose.** The purpose of the combined air and space operations I command will initially be to deter adversary aggression. Should deterrence fail, I will gain and maintain air, space, and information superiority; render enemy fielded forces ineffective with combined airpower; degrade enemy leadership and offensive military capability as directed; and support combined ground and special operations in order to restore territorial integrity and ensure the survival or restoration of a legitimate government in a stable region."

APPENDIX F
THE AIR AND SPACE ESTIMATE OF THE SITUATION

The COMAFFOR/JFACC's estimate of the situation is often produced as the culmination of the COA development and selection stages of the JAEP. It can be submitted in response to or to support creation of a JFC's estimate of the situation. It should also be used to assist in creation of the JAOP and daily AODs (as required). It reflects the air and space component commander's analysis of the various COAs that may be used to accomplish the assigned mission(s) and contains his or her recommendation as to the best COA. The estimate may contain as much supporting detail as needed to assist further plan development, but if the air and space estimate is submitted to the JFC or combatant commander for a COA decision, it will generally be submitted in greatly abbreviated format, providing only the information essential to the JFC for arriving at a decision. The following is a **notional** example of an air and space estimate in paragraph format. Use of the format is desirable, but not mandatory and may be abbreviated or elaborated where appropriate. (It is often published in message format, for which see CJCSM 3122.01, *JOPES Volume 1,Planning Policies and Procedures*).

1. **Mission**. State the assigned or deduced mission and its purpose

   a. JFC's mission statement (from the JFC's estimate), or other overarching guidance if the latter is unavailable.

   b. COMAFFOR/JFACC's mission statement. Include additional language indicating how overarching guidance will be supported, as required.

2. **Situation and Courses of Action**.

   a. Commanders' Intent

      1) JFC's commander's intent statement, if available (or other overarching guidance stipulating the end state, as required).

      2) COMAFFOR/JFACC's commander's intent statement (see Appendix E).

   b. Objectives and Effects. Explicitly state air and space component objectives, assigned and implied, and the subordinate effects required to support their achievement. Include as much detail as required to ensure that each objective is clear, decisive, attainable, and measurable.

   c. Considerations affecting possible courses of action. Include only a brief summary, if applicable, of the major factors pertaining to the characteristics of

the operating environment and the relative capabilities of the antagonists that have a significant impact on the alternative COAs.

d. Adversary capability. Highlight, if applicable, the adversary capabilities and psychological vulnerabilities that can seriously affect the accomplishment of the mission, giving information that would be useful in evaluating the various COAs.

e. Force protection requirements. Describe potential threats to friendly forces, including such things as the threat of terrorist action prior to, during, and after the mission that can significantly affect accomplishment of the mission.

f. Own courses of action. List COAs that offer suitable, feasible, and acceptable means of accomplishment the mission. If specific COAs were prescribed in the WARNING ORDER, they must be included. For each COA, the following specific information should be addressed:

1) Combat forces required. List capabilities needed, and, if applicable, specific units or platforms. For each, list the following, if known:
   a) Force provider.
   b) Destination.
   c) Required delivery date(s).
   d) Coordinated deployment estimate.
   e) Employment estimate.
   f) Strategic lift requirements, if appropriate.

2) ISR forces required. List capabilities needed, and, if applicable, specific units or platforms.
   a) List additional information as in 1), above, if known.

3) Support forces required. List capabilities needed, and, if applicable, specific units or platforms.
   a) List additional information as in 1), above, if known.

3. **Analysis of Opposing Courses of Action**. Highlight adversary capabilities and intent (where known) that may have significant impact on friendly COAs.

4. **Comparison of Own Courses of Action**. For submission to the JFC, include only the final statement of conclusions and provide a brief rationale for the favored COA. Discuss the relative advantages and disadvantages of the alternative COAs if this **will assist the JFC in arriving at a decision.**

5. Recommended Course of Action. State the COMAFFOR/JFACC's recommended COA.

APPENDIX G
NOTIONAL AIR COMPONENT OPERATIONS ORDER

1. Situation

A. General / Guidance (Summarize theater environment and overall JFC intent for use of air and space power)
B. Area of concern (AOR boundary, area of interest, etc.)
C. Deterrent options (Not normally used)
D. Enemy forces (Overview of the hostile threat, COGs)
E. Friendly forces (Overview of friendly capabilities, COGs)
F. Assumptions (List, as required)
G. Legal considerations (List, as required)

2. Mission

A. COMAFFOR mission statement

3. Execution

A. Concept of Operations
   (1) COMAFFOR's intent, objectives, and employment concepts
   (2) Phase directive for each phase of the operation
B. Tasks
   (1) General missions/guidance to subordinate AETF units
   (2) Expected support from Air Force higher headquarters (e.g., parent MAJCOM, AEF Center, Air Force Operations Center, etc.)
   (3) Component's supporting and supported requirements
C. Coordinating instructions
   (1) Exchange of LNOs
   (2) Explain operational terms not defined in current joint publications

4. Administration and Logistics

A. Concept of support (Broad, summary level guidance on provision of agile combat support to AETF units)
B. Logistics (Overview level guidance, Reference to Annex D)
C. Personnel (Overview level guidance, Reference to Annex E)
D. Public Affairs (Overview level guidance, Reference to Annex F)
E. Civil Affairs (Overview level guidance, Reference to Annex G)
F. Meteorological and Oceanographic (Overview level guidance, Reference to Annex H)
G. Geospatial Information (Overview level guidance, Reference to Annex M)
H. Medical services (Overview level guidance, Reference to Annex Q)

5. Command and Control

A. Command
   (1) Command relationships (Annex J)
   (2) Memoranda of understanding

(3) Designation and location of all AETF unit command headquarters
(4) Continuity of operations

B. Command, Control, Communications, and Computers (General overview of C4 systems and procedures required to support AETF operations)

Annexes: (Note: All annexes listed below will be accounted for; if not used, list as "not used")

A. Task Organization
B. Intelligence
C. Operations
D. Logistics
E. Personnel
F. Public Affairs
G. Civil Affairs
H. Meteorological and Oceanographic
I. (Not used)
J. Command Relationships
K. Communications and Information
L. Environmental
M. Geospatial information and services
N. Space
O. (Not used)
P. Host-nation support
Q. Health services
R. (Not used)
S. Special Technical Operations
T. (Not used)
U. (Not used)
V. Interagency coordination
W. (Not used)
X. Execution checklist
Y. (Not used)
Z. Distribution

SUGGESTED READINGS

Air Force Publications

AFDD 1, *Air Force Basic Doctrine*
AFDD 2-1, *Air Warfare*
AFDD 2-2, *Space Operations*
AFDD 2-4, *Combat Support*
AFDD 2-5, *Information Operations*
AFDD 2-6, *Air Mobility Operations*
AFDD 2-7, *Special Operations*
AFDD 2-8, *Command and Control*
AFDD 2-9, *Intelligence, Surveillance, and Reconnaissance*
AFDD 2-10, *Homeland Operations*

All Air Force doctrine documents are available on the Air Force Doctrine Center web page at: https://www.doctrine.af.mil/

AFOTTP 2-1.1, *Air and Space Strategy and Operational Art*
AFOTTP 2-3.2, *Air and Space Operations Center*

AFI 13–1 AOC, volume 3, *Operational Procedures—Air and Space Operations Center*
AFI 38-101, *Air Force Organization*

Joint Publications

JP 0-2, *Unified Action Armed Forces* (UNAAF)
JP 3-0, *Joint Operations*
JP 3-14, *Joint Doctrine for Space Operations*
JP 3-30, *Command and Control for Joint Air Operations*
JP 3-26, *Homeland Security*
JP 3-52, *Doctrine for Joint Airspace Control in the Combat Zone*
JP 5-00.2, *Joint Task Force Headquarters*

Other Publications

Boyne, Walter J., *Clash of Wings: Airpower in WWII* (Simon & Schuster) 1994.

Cohen, Elliot A., *Supreme Command: Soldiers, Statesmen, and Leadership in Wartime* (The Free Press) 2002.

Cowley, Robert, editor, *No End Save Victory* (G. P. Putnam's) 2001.

Gordon, Michael R. and Bernard E. Trainor, *The Generals' War: The Inside Story of the Conflict in the Gulf* (Little, Brown and Company) 1995.

Gray, Colin S., *Why Strategy is Difficult*, Joint Force Quarterly, Summer 1999.

Griffith, Thomas E., *MacArthur's Airman: General George C. Kenney and the War in the Southwest Pacific* (University Press of Kansas) 1998.

Hammond, Grant T., *The Mind of War: John Boyd and American Security* (Smithsonian Institution Press) 2001.

Hanson, Victor David, *Carnage and Culture: Landmark Battles in the Rise of Western Power* (Doubleday) 2001.

Kenney, George C., *General Kenney Reports: A Personal history of the Pacific War* (Air Force History Office) reprinted 1997.

Mann, Edward, *Thinking Effects: Effects-Based Methodology for Joint Operations* (Air University Press) 2002.

Michel, Marshall L., *The Eleven Days of Christmas: America's Last Vietnam Battle* (Encounter Books) 2002.

Murray, Williamson, and Allen R. Millet, *A War to be Won: Fighting the Second World War* (The Belknap Press of Harvard University) 2000.

Weinberg, Gerhard L., *A World at Arms* (Cambridge University Press) 1994.

CSAF Reading List

The CSAF's professional reading list, with links to book reviews, is available on the US Air Force web site at: http://www.af.mil/library/csafreading/index.asp. The list is subject to revision. Readers are encouraged to check the US Air Force web site (http://www.af.mil) for the most current information.

GLOSSARY

Abbreviations and Acronyms

AADC	area air defense commander
AADP	area air defense plan
ABS	air base squadron
ACA	airspace control authority
ACC	Air Combat Command
ACCE	air component coordination element
ACO	airspace control order
ADCON	administrative control
AECT	aeromedical evacuation control team
AEF	air and space expeditionary force
AEG	air expeditionary group
AES	air expeditionary squadron
AETF	air and space expeditionary task force
AEW	air expeditionary wing
AFCENT	Air Forces Central
AFDD	Air Force doctrine document
AFI	Air Force instruction
AFNORTH	Air Forces Northern
AFOTTP	Air Force operational tactics, techniques, and procedures
AFPAC	Air Forces Pacific
AFRC	Air Force Reserve Command
AFSOC	Air Force Special Operations Command
AFSPC	Air Force Space Command
ALCT	airlift control team
ALERTORD	alert order
AMC	Air Mobility Command
AMCT	air mobility control team
AMD	air mobility division
AMOCC	air mobility operations control center
AMT	air mobility tasking
ANG	Air National Guard
AO	area of operations
AOC	air and space operations center
AOD	air operations directive
AOR	area of responsibility
ARC	air reserve component
ARCT	air refueling control team
ASOC	air support operations center
ATC	air traffic control
ATO	air tasking order
AWACS	airborne warning and control system

BCD	battlefield coordination detachment
BDA	battle damage assessment
BIOT	British Indian Ocean Territory
C2	command and control
CAOC	combined air and space operations center (USAF)
CAP	crisis action planning
CAS	close air support
CBRN	chemical, biological, radiological, and nuclear
C-CBRN	counter chemical, biological, radiological, and nuclear,
CC	commander
CDRUSCENTCOM	Commander, United States Central Command
CDRUSEUCOM	Commander, United States European Command
CDRUSJFCOM	Commander, United States Joint Forces Command
CDRUSPACOM	Commander, United States Pacific Command
CDRUSSTRATCOM	Commander, United States Strategic Command
CDRUSTRANSCOM	Commander, United States Transportation Command
CFACC	combined force air component commander (JP 1-02); combined force air and space component commander (USAF)
CJCS	Chairman, Joint Chiefs of Staff
CM	consequence management
COA	course of action
COG	center of gravity
COMAFFOR	commander, Air Force forces
COMARFOR	commander, Army forces
COMMARFOR	commander, Marine Corps forces
COMNAVFOR	commander, Navy forces
CONOPS	concept of operations
CONPLAN	concept plan; operation plan in concept format
CONUS	continental United States
COS	chief of staff
CSAF	Chief of Staff, United States Air Force
CSAR	combat search and rescue
DDOC	deployment distribution operations center
DEPORD	deployment order
DHS	Department of Homeland Security
DIRMOBFOR-Air	director of air mobility forces
DIRSPACEFOR	director of space forces
DOD	Department of Defense
DRU	Direct Reporting Unit
DSCA	Defense Support of Civil Authorities

EBAO	effects-based approach to operations
EBO	effects-based operations
EEI	essential elements of information
EOC	expeditionary operations center
EOD	explosive ordnance disposal
EP	emergency preparedness
EXORD	execution order
FHA	foreign humanitarian assistance
FOA	field operating agency
FUNCPLAN	functional plan
GPS	global positioning system
HD	homeland defense
HN	host nation
HQ	headquarters
HS	homeland security
IADS	integrated air defense system
ICRC	International Committee of the Red Cross
IO	information operations
IPB	intelligence preparation of the battlespace
ISR	intelligence, surveillance, and reconnaissance
JAEP	joint air and space estimate process
JAOC	joint air and space operations center (USAF)
JAOP	joint air and space operations plan (USAF)
JCS	Joint Chiefs of Staff
JFACC	joint force air and space component commander (USAF)
JFC	joint force commander
JFLCC	joint force land component commander
JFMCC	joint force maritime component commander
JFSOCC	joint force special operations component commander
JIPTL	joint integrated prioritized target list
JMC	joint movement center
JOA	joint operations area
JOPES	Joint Operations Planning and Execution System
JP	Joint Publication
JPEC	joint planning and execution committee
JPOTF	joint psychological operations task force
JPRC	joint personnel recovery center
JSCP	joint strategic capabilities plan
JSEAD	joint suppression of enemy air defense
JSOA	joint special operations area

JSOACC	joint special operations air component commander
JSOTF	joint special operations task force
JSpOC	joint space operations center
JSTARS	Joint Surveillance Target Attack Radar System
JTF	joint task force
LNO	liaison officer
MAAP	master air attack plan
MACA	military assistance to civil authorities
MAGTF	Marine Air Ground Task Force
MAJCOM	major command
MARLO	Marine liaison officer
MOE	measure of effectiveness
MOP	measure of performance
NAF	numbered Air Force
NALE	naval and amphibious liaison element
NATO	North Atlantic Treaty Organization
NEAF	numbered expeditionary air force
NEO	noncombatant evacuation operation
NGO	nongovernmental organization
NMS	National Military Strategy
NORAD	North American Aerospace Defense Command
NRP	National Response Plan
NSS	National Security Strategy
OCONUS	outside the continental United States
OODA	observe, orient, decide, act
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
OPSEC	operations security
PACAF	Pacific Air Forces
PBA	predictive battlespace awareness
PED	processing, exploitation, and dissemination
PLANORD	planning order
POM	program objective memorandum
ROE	rules of engagement
RSTA	reconnaissance, surveillance, and target acquisition
SAA	Senior Airfield Authority
SCA	space coordinating authority
SEAL	sea-air-land team

SECAF	Secretary of the Air Force
SecDef	Secretary of Defense
SI	success indicator
SOC	Special Operations Command; sector operations center
SOD	space operations directive
SOF	special operations forces
SOFA	status of forces agreement
SOLE	special operations liaison element
SPINS	special instructions
STO	space tasking order; special technical operations
SYSCON	systems control
TACC	Tanker Airlift Control Center
TACON	tactical control
TACS	theater air control system
TET	targeting effects team
TF	task force, Total Force
TFC	task force commander
TMD	theater missile defense
TPFDD	time phased force deployment data
TST	time sensitive targeting
UCMJ	Uniform Code of Military Justice
UN	United Nations
UNAAF	Unified Action Armed Forces
US	United States
USAFE	United States Air Forces in Europe
U.S.C.	United States Code
USCENTAF	United States Central Command Air Forces
USCENTCOM	United States Central Command
USEUCOM	United States European Command
USNORTHCOM	United States Northern Command
USPACOM	United States Pacific Command
USSOCOM	United States Special Operations Command
USSTRATCOM	United States Strategic Command
USTRANSCOM	United States Transportation Command
WARNORD	warning order
WMD	weapons of mass destruction

Definitions

action. The performance of an activity. An act or actions are taken in order to create a desired effect. Actions may be kinetic (physical, material) or non-kinetic (logical, behavioral). Actions are invariably tactical, usually producing tactical-level direct effects. (AFDD 2)

administrative control. Direction or exercise of authority over subordinate or other organizations in respect to administration and support, including organization of Service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations. Also called **ADCON.** (JP 1-02)

adversary. A party with whom one has a conflict, peaceful or otherwise. (AFDD 2)

Airman. Any US Air Force member (officer or enlisted, regular, Reserve, or Guard, along with Department of the Air Force civilians) who supports and defends the US Constitution and serves our country. US Air Force Airmen are those people who formally belong to the US Air Force and employ or support some aspect of the US Air Force's air and space power capabilities. An Airman is any person who understands and appreciates the full range of air and space power capabilities and can employ or support some aspect of air and space power capabilities. (AFDD 1-1)

air and space expeditionary force. An organizational structure to provide forces and support rotationally, and thus on a relatively more predictable basis. They are composed of force packages of capabilities that provide rapid and responsive air and space power. Also called **AEF.** (AFDD 1)

air and space expeditionary task force. The organizational manifestation of US Air Force forces afield. The AETF provides a joint force commander with a task-organized, integrated package with the appropriate balance of force, sustainment, control, and force protection. Also called **AETF.** (AFDD 1)

air and space power. The synergistic application of air, space, and information systems to project global strategic military power. (AFDD 1)

air component coordination element A component level liaison that serves as the direct representative of the commander, Air Force forces (COMAFFOR)/joint force air and space component commander (JFACC) to interface with other components or joint task force commanders and their respective staffs. This element facilitates the integration of air and space power by exchanging current intelligence, operational data, support requirements and coordinating the integration of COMAFFOR/JFACC requirements for airspace coordinating

measures, joint fire support coordinating measures, and close air support. Element expertise includes plans, operations, intelligence, airspace management, and air mobility. Also called **ACCE.** (AFDD 2)

assign. 1. To place units or personnel in an organization where such placement is relatively permanent, and/or where such organization controls and administers the units or personnel for the primary function, or greater portion of the functions, of the unit or personnel. 2. To detail individuals to specific duties or functions where such duties or functions are primary and/or relatively permanent. (JP 1-02)

asymmetric. Any capability that confers an advantage an adversary cannot directly compensate for. (AFDD 2)

asymmetric operations. Operations that confer disproportionate advantage on those conducting them by using capabilities the adversary cannot use, will not use, or cannot effectively defend against. (AFDD 2)

attach. 1. The placement of units or personnel in an organization where such placement is relatively temporary. 2. The detailing of individuals to specific functions where such functions are secondary or relatively temporary, e.g., attached for quarters and rations; attached for flying duty. (JP 1-02)

behavioral effect. An effect on the behavior of individuals, groups, systems, organizations, and governments. (AFDD 2)

campaign assessment. The JFC's broad qualitative and analytical effects-based determination of the overall campaign progress, effectiveness of operations, and recommendations for future action. (AFDD 2)

cascading effect. One or more of a series of successive indirect effects that propagate through a system or systems. Typically, cascading effects flow throughout the levels of conflict and are the results of interdependencies and links among multiple connected systems. (AFDD 2)

causal linkage. An explanation of why an action or effect will cause or contribute to a given effect. (AFDD 2)

centers of gravity. Those characteristics, capabilities, or sources of power from which a military force derives its freedom of action, physical strength, or will to fight. Also called **COGs.** (JP 3-0)

coercion. Persuading an adversary to behave differently than it otherwise would through the threat or use of force. (AFDD 2)

combatant command. A unified or specified command with a broad continuing mission under a single commander established and so designated by the

President, through the Secretary of Defense and with the advice and assistance of the Chairman of the Joint Chiefs of Staff. Combatant commands typically have geographic or functional responsibilities. (JP 1-02)

combatant command (command authority). Nontransferable command authority established by title 10 ("Armed Forces"), United States Code, section 164, exercised only by commanders of unified or specified combatant commands unless otherwise directed by the President or the Secretary of Defense. Combatant command (command authority) cannot be delegated and is the authority of a combatant commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. Combatant command (command authority) should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Combatant command (command authority) provides full authority to organize and employ commands and forces as the combatant commander considers necessary to accomplish assigned missions. Operational control is inherent in combatant command (command authority). Also called **COCOM.** (JP 1-02)

command and control. The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission. Also called **C2.** (JP 1-02)

commander, Air Force Forces: The senior US Air Force officer designated as commander of the US Air Force component assigned to a joint force commander (JFC) at the unified, subunified, and joint task force level. In this position, the COMAFFOR presents the single US Air Force voice to the JFC. Also called **COMAFFOR.** (AFDDs 1, 2)

coordinating authority. A commander or individual assigned responsibility for coordinating specific functions or activities involving forces of two or more Military Departments, two or more joint force components, or two or more forces of the same Service. The commander or individual has the authority to require consultation between the agencies involved, but does not have the authority to compel agreement. In the event that essential agreement cannot be obtained, the matter shall be referred to the appointing authority. Coordinating authority consultation relationship, not an authority through which command may be

exercised. Coordinating authority is more applicable to planning and similar activities than to operations. (JP 0-2)

coordination. The necessary action to ensure adequate exchange of information to integrate, synchronize, and deconflict operations between separate organizations. Coordination is not necessarily a process of gaining approval but is most often used for mutual exchange of information. Normally used between functions of a supporting staff. Direct liaison authorized (DIRLAUTH) is used to coordinate with an organization outside of the immediate staff or organization. (AFDD 1)

cumulative effect. An effect resulting from the aggregation of multiple, contributory direct or indirect effects. (AFDD 2)

crisis management. Measure to resolve a hostile situation and investigate and prepare a criminal case for prosecution under federal law. Crisis management will include a response to an incident involving a weapon of mass destruction, special improvised explosive device, or a hostage crisis that is beyond the capability of the lead federal agency. Also called **CM.** (JP 1-02)

denial. A form of coercion strategy that destroys or neutralizes a portion of the adversary's physical means to resist. (AFDD 2)

direct effect. First-order result of an action with no intervening effect between action and outcome. Usually immediate, physical, and readily recognizable (e.g., weapons employment results). (AFDD 2)

effect. 1. The physical or behavioral state of a system that results from an action, a set of actions, or another effect. 2. The result, outcome, or consequence of an action. 3. A change to a condition, behavior, or degree of freedom. (JP 1-02)

effects-based approach to operations. Operations that are planned, executed, assessed, and adapted to influence or change systems or capabilities to achieve desired outcomes. Also called **EBAO**. (Note: Sometimes colloquially but incurrectly referred to as “effects-based operations,” or EBO) (AFDD 2)

end state. The set of conditions that needs to be achieved to resolve a situation or conflict on satisfactory terms, as defined by appropriate authority. (AFDD 2)

enemy. An adversary who opposes one’s will through use of force. (AFDD 2)

force protection. Actions taken to prevent or mitigate hostile actions against Department of Defense personnel (to include family members), resources, facilities, and critical information. These actions conserve the force’s fighting potential so it can be applied at the decisive time and place and incorporate the

coordinated and synchronized offensive and defensive measures to enable the effective employment of the joint force while degrading opportunities for the enemy. Force protection does not include actions to defeat the enemy or protect against accidents, weather, or disease. Also called **FP**. (JP 1-02) Because terminology is always evolving, the US Air Force believes a more precise definition is: [*An integrated application of offensive and defensive actions that deter, detect, preempt, mitigate, or negate threats against US Air Force air and space operations and assets, based on an acceptable level of risk*.] (AFDD 2-4.1) {Italicized definition in brackets applies only to the US Air Force and is offered for clarity.}

functional effect. An effect on the ability of a system to function properly. (AFDD 2)

homeland defense. The protection of U.S. territory, sovereignty, domestic population, and critical infrastructure against external threats and aggression. Also called **HD**. (AFDD 2-10)

homeland security. A concerted national effort to prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, and minimize the damage and recover from attacks that do occur. Also called **HS**. (AFDD 2-10)

indirect effect. A second, third, or nth-order effect created through an intermediate effect or causal linkage following a causal action. It may be physical, psychological, functional, or systemic in nature. It may be created in a cumulative, cascading, sequential, or parallel manner. An indirect effect is often delayed and typically is more difficult to recognize and assess than a direct effect. (AFDD 2)

intended effect. A proactively sought effect. (AFDD 2)

joint force air component commander. The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of assigned, attached, and/or made available for tasking air forces; planning and coordinating air operations; or accomplishing such operational missions as may be assigned. The joint force air component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. Also called **JFACC.** See also joint force commander. (JP 1-02) [The **joint force air and space component commander** (JFACC) uses the joint air and space operations center to command and control the integrated air and space effort to meet the joint force commander's objectives. This title emphasizes the US Air Force position that air power and space power together create effects that cannot be achieved through air or space power alone.] [AFDD 2] {Words in brackets apply only to the US Air Force and are offered for clarity.}

joint force commander. A general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called **JFC.** (JP 1-02)

joint force land component commander. The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of assigned, attached, and/or made available for tasking land forces; planning and coordinating land operations; or accomplishing such operational missions as may be assigned. The joint force land component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. Also called **JFLCC.** (JP 1-02)

joint force maritime component commander. The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of assigned, attached, and/or made available for tasking maritime forces and assets; planning and coordinating maritime operations; or accomplishing such operational missions as may be assigned. The joint force maritime component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. Also called **JFMCC.** (JP 1-02)

joint publication. A publication containing joint doctrine and/or joint tactics, techniques, and procedures that involves the employment of forces prepared under the cognizance of Joint Staff directorates and applicable to the Military Departments, combatant commands, and other authorized agencies. It is approved by the Chairman of the Joint Chiefs of Staff, in coordination with the combatant commands and Services. Also called **JP**. (JP 1-02)

joint task force. A joint force that is constituted and so designated by the Secretary of Defense, a combatant commander, a subunified commander, or an existing joint force commander. Also called **JTF.** (JP 1-02)

link. A behavioral, physical, or functional relationship between nodes in a system. (AFDD 2)

measure of effect. An independent qualitative or quantitative empirical measure assigned to an intended effect (direct or indirect), against which the effect's achievement is assessed. (AFDD 2)

measure of performance. A quantitative empirical measure of achieved actions against associated planned/required actions and against which a task's or other action's accomplishment is assessed. (AFDD 2)

military assistance to civil authorities. The broad mission of civil support consisting of the three mission subsets of military support to civil authorities, military support to civilian law enforcement agencies, and military assistance for civil disturbances. Also called **MACA**. (JP 1-02)

national assessment. A broad, overarching review of the effectiveness of national security strategy and whether national leadership's objectives for a particular campaign or operation are being met. (AFDD 2)

node. A tangible entity that is a physical, functional, or behavioral element of a system. (AFDD 2)

objective. 1. The clearly defined, decisive, and attainable goals towards which every military operation should be directed. 2. The specific target of the action taken (for example, a definite terrain feature, the seizure or holding of which is essential to the commander's plan, or, an enemy force or capability without regard to terrain features). See also **target.** (JP 1-02) (*Note: the US Air Force does not support use of "objective" in the sense of its second joint definition*.)

OODA loop. The process of observing phenomena, orienting mentally toward them, deciding upon a course of action concerning them, and acting on that decision. Also known as the decision cycle. (AFDD 2)

operational assessment. Joint force components' evaluation of the achievement of their objectives, both tactical and operational, through assessment of effects, operational execution, environmental influences, and attainment of the objectives' success indicators, in order to develop strategy recommendations. It also includes any required analysis of causal linkages. (AFDD 2)

operational control. Command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority) and may be delegated within the command. When forces are transferred between combatant commands, the command relationship the gaining commander will exercise (and the losing commander will relinquish) over these forces must be specified by the Secretary of Defense. Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders.

Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions; it does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. Also called **OPCON.** (JP 1-02)

operational level of war. The level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or areas of operations. Activities at this level link tactics and strategy by establishing operational objectives needed to accomplish the strategic objectives, sequencing events to achieve the operational objectives, initiating actions, and applying resources to bring about and sustain these events. These activities imply a broader dimension of time or space than do tactics; they ensure the logistic and administrative support of tactical forces, and provide the means by which tactical successes are exploited to achieve strategic objectives. See also strategic level of war; tactical level of war. (JP 1-02)

parallel attack. Offensive military action that strikes a wide array of targets in a short period of time in order to cause maximum shock and dislocation effects across an entire enemy system. (AFDD 2)

parallel effect. The result of actions or effects that are imposed at the same time or near-simultaneously. (AFDD 2)

parallel operations. Operations that apply pressure at many points across a system in a short period of time in order to cause maximum shock and dislocation effects across that system. (AFDD 2)

physical effect. An effect that physically alters an object or system. (AFDD 2)

psychological effect. An effect on the emotions, motives, and reasoning of individuals, groups, organizations, and governments. They are commonly intermediate steps toward behavioral effects. (AFDD 2)

sequential effects. Effects that are imposed one after another. Also known as serial effects. (AFDD 2)

sequential operations. Operations that apply pressure in sequence, imposing one effect after another, usually over a considerable period of time. Also known as serial operations. (AFDD 2)

strategic level of war. The level of war at which a nation, often as a member of a group of nations, determines national or multinational (alliance or coalition) security objectives and guidance, and develops and uses national resources to accomplish these objectives. Activities at this level establish national and multinational military objectives; sequence initiatives; define limits and assess

risks for the use of military and other instruments of national power; develop global plans or theater war plans to achieve these objectives; and provide military forces and other capabilities in accordance with strategic plans. (JP 1-02)

strategy. The art and science of developing and employing instruments of national power in a synchronized and integrated fashion to achieve theater, national, and/or multinational objectives. (JP 1-02)

support. 1. The action of a force that aids, protects, complements, or sustains another force in accordance with a directive requiring such action. 2. A unit that helps another unit in battle. 3. An element of a command that assists, protects, or supplies other forces in combat. (JP 1-02)

supported commander. 1. The commander having primary responsibility for all aspects of a task assigned by the Joint Strategic Capabilities Plan or other joint operation planning authority. In the context of joint operation planning, this term refers to the commander who prepares operation plans or operation orders in response to requirements of the Chairman of the Joint Chiefs of Staff. 2. In the context of a support command relationship, the commander who receives assistance from another commander's force or capabilities, and who is responsible for ensuring that the supporting commander understands the assistance required. (JP 1-02)

supporting commander. 1. A commander who provides augmentation forces or other support to a supported commander or who develops a supporting plan. Includes the designated combatant commands and Defense agencies as appropriate. 2. In the context of a support command relationship, the commander who aids, protects, complements, or sustains another commander's force, and who is responsible for providing the assistance required by the supported commander. (JP 1-02)

symmetric operations. Operations in which a capability is countered by the same or similar capability. (AFDD 2)

systemic effect. An effect on the entire operation of a system or systems. (AFDD 2)

tactical assessment. The overall determination of the effectiveness of tactical operations. (AFDD 2)

tactical control. Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant

command. When forces are transferred between combatant commands, the command relationship the gaining commander will exercise (and the losing commander will relinquish) over these forces must be specified by the Secretary of Defense. Tactical control provides sufficient authority for controlling and directing the application of force or tactical use of combat support assets within the assigned mission or task. Also called **TACON.** (JP 1-02)

tactical level of war. The level of war at which battles and engagements are planned and executed to accomplish military objectives assigned to tactical units or task forces. Activities at this level focus on the ordered arrangement and maneuver of combat elements in relation to each other and to the enemy to achieve combat objectives. (JP 1-02)

task force. 1. A temporary grouping of units, under one commander, formed for the purpose of carrying out a specific operation or mission. 2. A semi-permanent organization of units, under one commander, formed for the purpose of carrying out a continuing specific task. (JP 1-02)

Total Force. The US Air Force organizations, units, and individuals that provide the capabilities to support the Department of Defense in implementing the national security strategy. Total Force includes regular Air Force, Air National Guard of the United States, and Air Force Reserve military personnel, US Air Force military retired members, US Air Force civilian personnel (including foreign national direct- and indirect-hire, as well as nonappropriated fund employees), contractor staff, and host-nation support personnel. (AFDD 2)

unintended effect. An outcome of an action (whether positive or negative) that is not part of the commander's original intent. (AFDD 2)