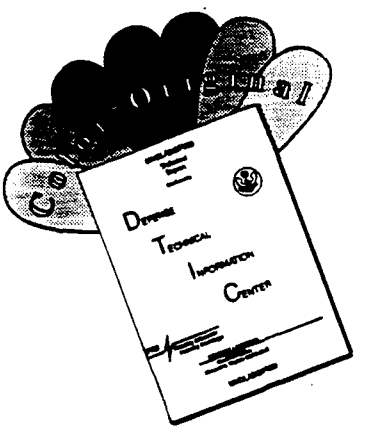
Joint Pub 3-56.1

Command and Control for Joint Air Operations

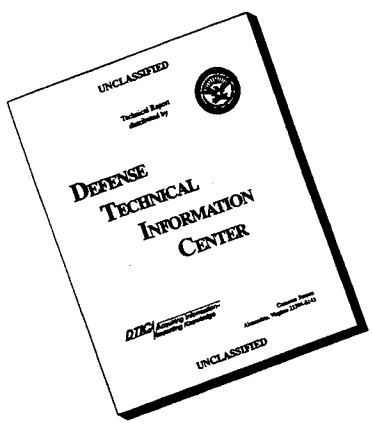
14 November 1994

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF COLOR PAGES WHICH DO NOT REPRODUCE LEGIBLY ON BLACK AND WHITE MICROFICHE.

DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

PREFACE

1. Scope

This publication provides fundamental principles and doctrine for the command and control of joint air operations throughout the range of military operations.

2. Purpose

This publication has been prepared under the direction of the Chairman of the Joint Chiefs of Staff. It sets forth doctrine and selected joint tactics, techniques, and procedures (JTTP) to govern the joint activities and performance of the Armed Forces of the United States in joint operations as well as the doctrinal basis for US military involvement in multinational and interagency operations. It provides military guidance for the exercise of authority by combatant commanders and other joint force commanders and prescribes doctrine and selected tactics, techniques, and procedures for joint operations and training. It provides military guidance for use by the Armed Forces in preparing their appropriate plans. It is not the intent of this publication to restrict the authority of the joint force commander (JFC) from organizing the force and executing the mission in a manner the JFC deems most appropriate to ensure unity of effort in the accomplishment of the overall mission.

3. Application

a. Doctrine and selected tactics, techniques, and procedures and guidance established in this publication apply to the commanders of combatant commands, subunified commands, joint task forces, and subordinate components of these commands. These principles and guidance also may apply when significant forces of one Service are attached to forces of another Service or when significant forces of one Service support forces of another Service.

b. The guidance in this publication is authoritative; as such, this doctrine (or JTTP) will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise. If conflicts arise between the contents of this publication and the contents of Service publications, this publication will take precedence for the activities of joint forces unless the Chairman of the Joint Chiefs of Staff, normally in coordination with the other members of the Joint Chiefs of Staff, has provided more current and specific guidance. Commanders of forces operating as part of a multinational (alliance or coalition) military command should follow multinational doctrine and guidance ratified by the United States. For doctrine and procedures not ratified by the United States, commanders should evaluate and follow the multinational command's doctrine and procedures, where applicable.

For the Chairman of the Joint Chiefs of Staff:

T. R. PATRICK
Colonel, USA
Secretary, Joint Staff

Intentionally Blank

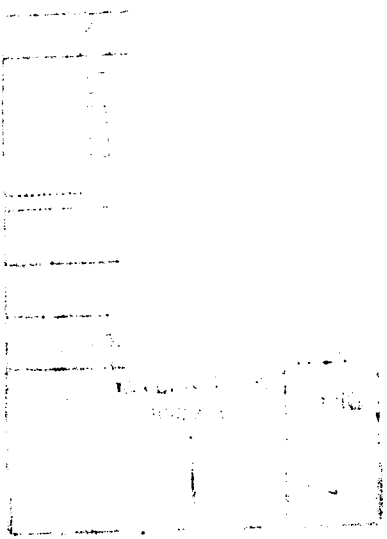


TABLE OF CONTENTS

CHAPTER IV
TARGETING AND TASKING FOR JOINT AIR OPERATIONS

APPENDIX

GLOSSARY

FIGURE

EXECUTIVE SUMMARY
COMMANDER'S OVERVIEW

- **Discusses the Nature of Joint Air Operations**
- **Provides General Considerations for Command and Control of Joint Air Operations**
- **Covers Planning for Joint Air Operations**
- **Discusses Targeting and Tasking for Joint Air Operations**

General Considerations for Joint Air Operations

Fundamental principles and doctrine for the command and control (C2) of joint air operations ensure unity of effort for the benefit of the joint force as a whole.

Operational level relationships, policies, and procedures provide the principles and options for command and control (C2) of joint air operations through the **designation of a joint force air component commander (JFACC) or use of the joint force commander's (JFC) staff** at the unified command level, subordinate unified command level, or joint task force level.

Joint air operations are those air operations performed with air capabilities/forces made available by components in support of the joint force commander's (JFC's) operation or campaign objectives or in support of other components of the joint force.

The JFC integrates the actions of assigned, attached, and supporting forces into unified area of responsibility (AOR)/ joint operations area (JOA)-wide joint air operations. In order to create synergism and avoid duplication of effort, the JFC **synchronizes** the actions of assigned, attached, and supporting capabilities/forces in time, space, and purpose.

The JFC develops a concept of operation and organizes forces based on that concept in order to accomplish the assigned mission.

The organization the JFC develops should be sufficiently flexible to meet the planned phases of the contemplated operations and any development that may necessitate a change in the plan. **Unity of effort is necessary** for effectiveness and efficiency. **Centralized planning** is essential for controlling and coordinating the efforts of all available forces. **Decentralized execution** is essential to generate the tempo of operations required and to cope with the uncertainty, disorder, and fluidity of combat.

The JFC may designate a joint force air component commander (JFACC) or directly plan, direct, and control joint air operations.

The JFC will normally designate a JFACC to exploit the capabilities of joint air operations through a cohesive joint air operations plan and a responsive and integrated control system. When a JFACC is not designated, the JFC may plan, direct, and control joint air operations.

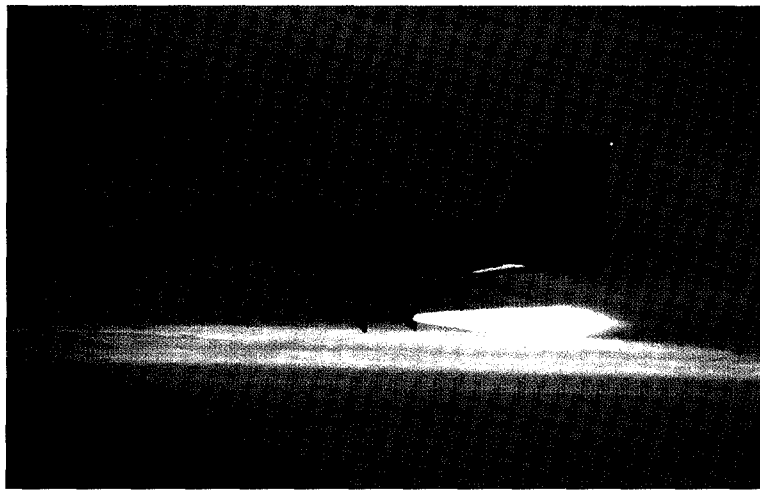
The framework and processes for C2 of joint air operations are consistent, although missions vary widely across the range of military operations from war to military operations other than war (MOOTW).

Unity of effort, centralized planning, and decentralized execution are as important in military operations other than war (MOOTW) as in war. Strategies, objectives, centers of gravity, targets, and adversaries apply in MOOTW as well as in war, but may require an expanded perspective to identify them. By taking this into consideration, the JFC can effectively apply the joint doctrine for C2 of joint air operations in myriad, divergent situations.

Command and Control of Joint Air Operations

The air capabilities/ forces made available for JFACC or JFC staff planning and tasking are determined by the JFC, in consultation with component commanders, and are based on the assigned objectives and the concept of operations.

Component commanders make air capabilities/forces available to the JFC for tasking to support the joint force as a whole. **These capabilities/forces are tasked directly** by the JFC or by the JFACC based on the JFC's air apportionment decision. Only the JFC has the authority to reassign, redirect, or reallocate a component's direct support air capabilities/forces. **Component capabilities/forces not available for joint air tasking must still comply with the airspace control order (ACO) and Special Instructions (SPINS).**



F-15 Firing Air-to-air Missile

The JFC will normally designate a JFACC .

The need for a JFACC is based on the JFC's overall mission, concept of operations, the missions and tasks assigned to subordinate commanders, forces available, duration and nature of joint air operations desired, and the degree of unity of command and control of joint air operations required. **The authority and command relationships of the JFACC are established by the JFC.** These typically include exercising operational control over assigned and attached forces and tactical control over other military capabilities/forces made available for tasking. **The responsibilities of the JFACC** include, but are not limited to planning, coordinating, allocating, and tasking joint air operations based on the JFC's concept of operations and air apportionment decision.

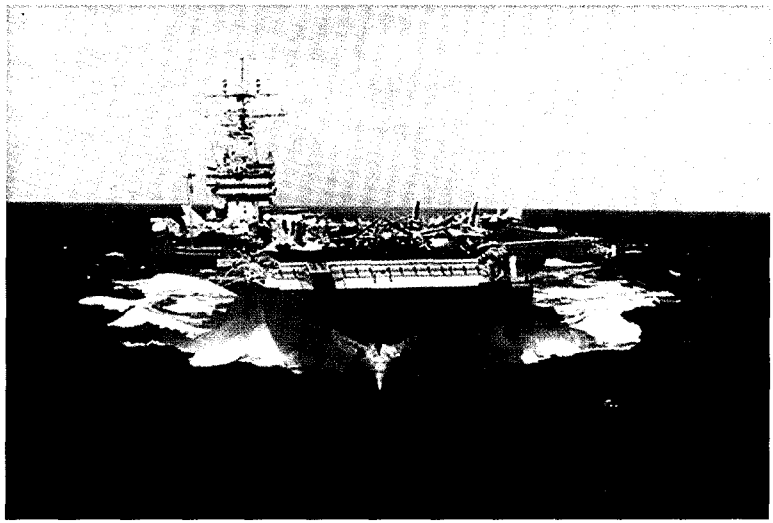
The responsibilities of the JFACC, airspace control authority, and area air defense commander are interrelated and should normally be assigned to one individual.

The functions and responsibilities of the JFACC, airspace control authority (ACA), and area air defense commander (AADC) must be integrated in order to unite joint air operations with joint airspace control and joint air defense operations in support of the JFC's campaign. These functions include developing, coordinating, and publishing airspace control procedures, operating the airspace control system, and integrating the joint force air defense effort.

The degree of control needed in the transitional environment of MOOTW may vary.

Depending on the environment, mission, and location throughout the full range of potential military operations, the degree of control may need to be more rigorous and the rules of engagement may need to be more restrictive. This is especially true in a MOOTW environment that can transition quickly from combat to noncombat and back again and often has constraints on the forces, weapons, tactics employed, and the level of violence. **Consequently, as a minimum, in MOOTW environments prone to such fluctuations, all air missions, including both fixed- and rotary-wing of all components, must appear on the appropriate air tasking order (ATO) and/or flight plan. In addition, all aircraft must monitor a common frequency and operate on designated identification friend or foe (IFF) modes and codes, which must be appropriately checked prior to mission start.** In cases of high density aircraft operations, such as in a properly designated high density airspace control zone or amphibious objective area published on the ACO, aircraft may operate without an ATO mission number. This type of rigorous control is necessary during such MOOTW because the mix of friendly, enemy, and neutral aircraft and mission constraints requires the JFC to strictly control flights in the

AOR/JOA (e.g., peace operations). No matter what methods the JFC chooses, they need to be continually evaluated for effectiveness and efficiency as the environment and mission change.



Carrier Eisenhower *under way.*

The JFACC's operations center will often be designated a joint air operations center.

The JFACC's joint air operations center (JAOC) is structured to operate as a fully integrated facility and staffed to fulfill all of the JFACC's responsibilities. The two organizations or functions which should be common to all JAOCs are **Combat Plans** (future joint air operations) and **Combat Operations** (execution of the daily joint ATO). The role of intelligence is also extremely important and is an integral part of the daily function of Combat Plans and Combat Operations.

The components have ready access to the JFACC and staff through the component liaisons. These liaisons work for their respective component commanders and work with the JFACC and staff.

Senior component liaisons serve as conduits for direct coordination between the JFACC and their respective component commanders. **Coordination elements** provide liaison elements that work within the JAOC, consisting of specialists who provide component planning and tasking expertise and coordination capabilities. They help integrate and coordinate their component's participation in joint air operations and coordinate and deconflict component direct support air operations with joint air operations. **Functional area and mission experts** provide the critical and unique expertise in support, plans, and execution functions, as appropriate for the employment scenario.

Assignment of a JFACC ashore, assignment of a sea-based JFACC, a JFACC transition (including planned

Extensive planning is necessary when there is transition of JFACC responsibilities.

and unplanned transitions), and attendant transition events must be considered. Other considerations required are for continuous, uninterrupted, and unambiguous guidance; appropriate command, control, communications, computers, and intelligence capabilities; specific procedures for coordinating and executing planned and unplanned shifts of the JFACC; adequate communications; current joint ATO; the JFC's objectives; and the familiarity with the area air defense and airspace control plans.

In some situations, designation of a JFACC is not required.

Designation of a JFACC may not be required **when a conflict or situation is of limited duration, scope, and/or complexity.** The JFC would coordinate span of control, unity of effort, staff authority and responsibilities, execution, joint airspace control, joint air defense, supporting operations, the JFC staff organization and manning, and the transition between JFC staff to JFACC.

Planning for Joint Air Operations

Planning for joint air operations begins with understanding the joint force mission.

The JFC's **strategic appreciation** of the political, economic, military, and social forces affecting the AOR/JOA and the articulation of strategic and operational objectives needed to accomplish the mission form the basis for determining components' objectives.

Joint air operations constitute an integral part of the JFC's operation or campaign plan.

The **joint air operations plan** documents the JFACC's plan for integrating and coordinating joint air operations. The joint air operation plan encompasses operations of joint air capabilities/forces. A selected team of planners and weapon systems experts from each component enables consideration and understanding of all component capabilities/forces.

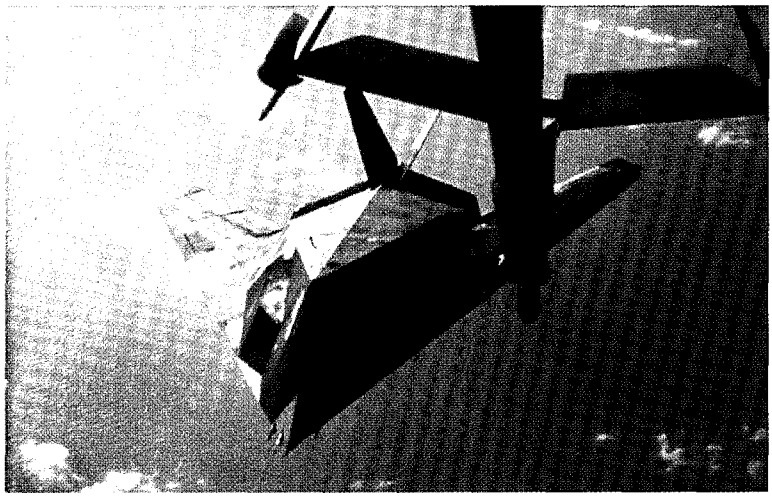
There are five phases in the air operations planning process:

1. Operational Environment Research

Operational Environment Research is primarily the intelligence preparation of the battlespace and gathering in-depth knowledge of the operational environment to gain understanding of the theater of operations, the adversary, and friendly forces.

2. Objective Determination

Objective Determination defines and quantifies objectives that will contribute to the accomplishment of the JFC's operation or campaign objectives.



F-117 refueling.

3. Strategy Identification

Strategy Identification in a clearly defined air strategy statement states how the JFACC plans to exploit air capabilities/forces to support the JFC's objectives.

4. Center(s) of Gravity Identification

Center(s) of Gravity (COG) Identification is the identification of those adversary COGs which should be attacked to satisfy the JFC's strategic, operational, and tactical objectives and friendly COGs that should be defended.

5. Joint Air Operations Plan Development

Joint Air Operations Plan Development details how joint air operations will support the JFC's operation or campaign plan. During this phase, planners integrate the efforts of joint capabilities/forces, prioritize objectives and targets while accounting for current and potential threats, and conduct target development/system analysis. They also phase joint air operations with the JFC's operation or campaign plan, indicating what capabilities/forces will be required to achieve joint air operations objectives. Finally, during this phase, planners will complete a sustainability assessment and delineate the specific procedures for allocating, tasking, and exercising C2 of available air capabilities/forces.

Targeting and Tasking for Joint Air Operations

Targeting is the process of selecting targets and matching the appropriate response to them.

Targeting occurs and is performed at all levels of command. An effective and efficient target development process and air tasking cycle is essential for the JFACC/JFC staff to plan and execute joint air operations.

Targeting is a cyclical process.

The **targeting cycle** begins with objectives and guidance issued by the JFC and includes target development, weaponeering assessment, force application, execution planning/force execution, and combat assessment.

The JFACC/JFC staff develops a joint air operations plan that accomplishes the objectives directed by the JFC.

Synchronization, integration, deconfliction, allocation of air capabilities/forces, and matching appropriate weapons against target vulnerabilities are essential targeting functions of the JFACC. **Components** should provide the JFACC with a description of their **direct support plan** to allow for coordination and deconfliction of targeting efforts between each component and within the JFC staff and agencies.

A joint air tasking cycle is used for the efficient and effective employment of the joint air capabilities/forces.

The **joint air tasking cycle** provides a repetitive process for the planning, coordination, allocation, and tasking of joint air missions/sorties and accommodates changing tactical situations or JFC guidance as well as requests for support from other component commanders. The full joint ATO cycle from JFC guidance to the start of ATO execution is dependent on the JFC's procedures, but each ATO period usually covers a 24-hour period. **The joint ATO matches specific targets compiled by the JFACC/JFC staff with the capabilities/forces made available to the JFACC for the given joint ATO day.**

There are six phases to the joint air tasking order (ATO) cycle:

1. JFC/Component Coordination

Phase 1, JFC/Component Coordination. The JFC consults with his component commanders to assess the results of the warfighting effort. This provides component commanders an opportunity to introduce recommendations, support requirements, and state their ability to support other components. JFC's will normally apportion the air effort by priority or percentage of effort into geographic areas, against mission-type orders, and/or by categories significant for the campaign.

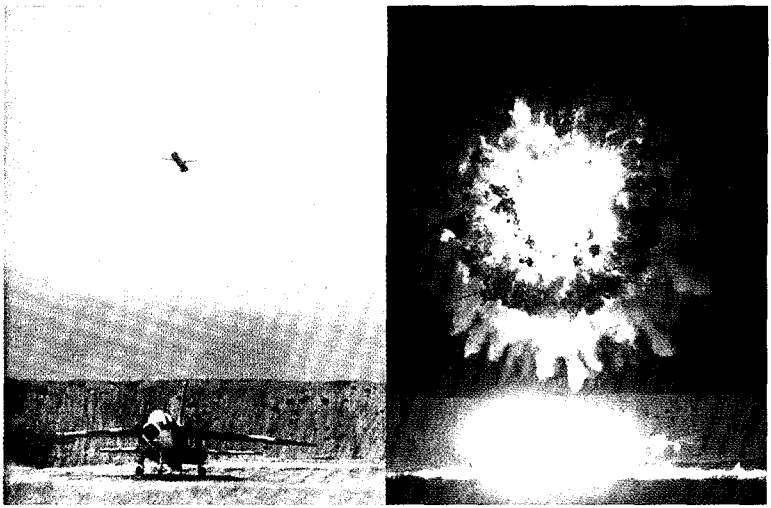
2. Target Development

Phase 2, Target Development. The specific objectives received during phase 1 are used to focus target development. In accordance with JFC's objectives and component targeting requirements, the JFACC/JFC staff will develop the joint air operations plan to employ available joint air capabilities/forces. The end product is a prioritized list of targets--the Joint Integrated Prioritized Target List.

3. Weaponeering/ Allocation

Phase 3, Weaponeering/Allocation. Targeting personnel quantify the expected results of lethal and nonlethal weapons employment against prioritized targets including

recommended aimpoints, target identification and description, and other pertinent information. The final prioritized target nominations are then included into the Master Air Attack Plan (MAAP). The resulting MAAP is the employment plan that forms the foundation of the joint ATO. Following the JFC air apportionment decision, the JFACC/JFC staff translates that decision into total number of sorties by aircraft or weapon type available for each operation/task they support.



A Tomahawk cruise missile destroys a target during tests.

4. Joint ATO Development

Phase 4, Joint ATO Development. After the MAAP is approved by the JFACC (JFC under the JFC staff option), detailed preparations continue by Combat Plans section on the joint ATO, SPINS, and the ACO. The JAOC reviews each air capable component's allocation decision/Air Allocation Request message and may prepare a sortie allotment message back to the components as required.

5. Force Execution

Phase 5, Force Execution. The JFACC/JFC staff directs the execution and/or deconflicts all capabilities/forces made available for a given ATO. The JFC may give the JFACC the authority to redirect joint air operations.

6. Combat Assessment

Phase 6, Combat Assessment. Combat assessment is done at all levels of the joint force and evaluates combat operations effectiveness in achieving command objectives.

The JFACC/JFC staff is responsible for planning and activating all validated joint air communications links that support the JFC's mission and allow accomplishment of the JFC directives.

The successful integration of the joint air effort depends on the **ability to exchange information via reliable secure communications with the JFC, joint force staff, and component commanders.** Planning for all information exchange requirements and procedures must consider emission control requirements and operations security.

CONCLUSION

Successful use of joint air forces to support the JFC's operation or campaign plan requires unity of effort, centralized planning, and decentralized execution. The JFC normally designates a JFACC to provide C2 of these joint air capabilities/forces. The processes and framework used are consistent across the range of military operations.

Blackhawk Helicopter

Intentionally Blank

CHAPTER I
INTRODUCTION

"The lesson from the last war that stands out clearly above all the others is that if you want to go anywhere in modern war, in the air, on the sea, on the land, you must have command of the air."

Fleet Admiral William F. Halsey to Congress after World War II

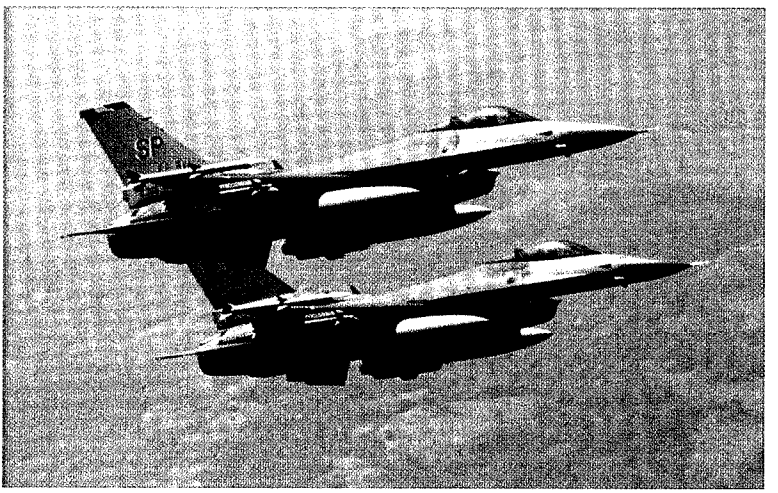
1. Scope

This publication provides **fundamental principles and doctrine** for the command and control (C2) of joint air operations throughout the range of military operations in order to ensure unity of effort for the benefit of the joint force as a whole. This publication addresses **operational relationships, policies, procedures, and options** for C2 of joint air operations through the **designation of a joint force air component commander (JFACC) or use of the joint force commander's (JFC) staff**. Commanders of unified commands, subordinate unified commands, and joint task forces (JTFs) should establish implementation policies and procedures within their commands. Variations to the relationships and procedures contained herein may be necessary to accommodate theater specific needs, but such variations must be the exception rather than the rule.

2. Joint Air Operations

Joint air operations are **those air operations performed with air capabilities/forces made available by components in support of the JFC's operation or campaign objectives, or in support of other components of the joint force.** Joint air operations do not include those air operations that a component conducts in direct support of itself.

a. Assigned, attached, and supporting forces may provide direct support to certain components while also providing the JFC an operational level force capability that can be employed separately as part of a broader operation. The JFC



Flight of F-16 Aircraft

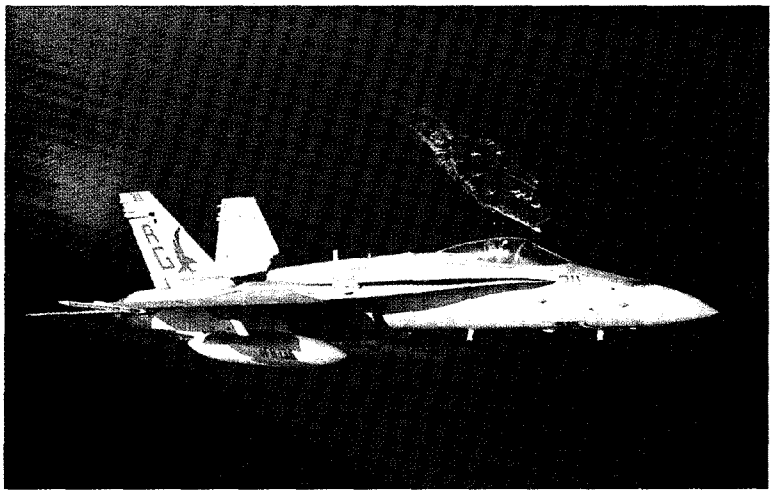
integrates the actions of assigned, attached, and supporting forces into unified area of responsibility (AOR)/joint operations area (JOA)-wide joint air operations.

b. In order to create synergism and avoid duplication of effort, the JFC **synchronizes** the actions of assigned, attached, and supporting capabilities/ forces in time, space, and purpose. The JFC must **exploit the unique characteristics of all capabilities/forces** to achieve assigned objectives as rapidly and as effectively as possible.

3. Organizing Joint Forces

In order to accomplish the assigned mission, the JFC develops a concept of operation and organizes forces based on that concept. The organization should be sufficiently **flexible** to meet the planned phases of the contemplated operations and any development that may necessitate a change in the plan, while preserving the **responsiveness** of individual component capabilities. Sound organization should provide for unity of effort, centralized planning, and decentralized execution. **Unity of effort** is necessary for effectiveness and efficiency. **Centralized planning** is essential for controlling and coordinating the efforts of all available forces. **Decentralized execution** is essential to generate the tempo of operations required and to cope with the uncertainty, disorder, and fluidity of combat. The JFC may elect to centralize selected functions within the joint force, but should strive to avoid reducing the versatility, responsiveness, and initiative of subordinate forces, as in the policy for C2 of USMC TACAIR during sustained operations ashore. Most often, joint forces are organized with a combination of Service and functional component commands, with their authority and responsibilities defined by the JFC. The JFACC is an example of a functional component commander. (See Joint Pubs 0-2, "Unified Action Armed Forces (UNAAF)," and 3-0, "Doctrine for Joint Operations.")

a. **The JFC will normally designate a JFACC** to exploit the capabilities of joint air operations. The JFACC directs this exploitation through a cohesive joint air operations plan (centralized planning) and a responsive and integrated control system (decentralized execution).



F-18 Aircraft

"There has been a tendency to over-emphasize long-range bombardment, and to ignore the versatile application of air power. Our Air Forces were used for any mission considered important, at any given moment. Especially misleading is the distinction made between strategic and tactical air forces. That distinction is not valid in describing the use of air power as a whole, day after day.

For instance, the primary mission of the strategic forces was to destroy the enemy's war industries, to deprive him of means to fight. But these same bombers, and their fighter escorts of the strategic air forces, constituted the heaviest striking power at General Eisenhower's command to sweep the Luftwaffe from the air, to isolate German ground forces from reinforcements and supplies, and to spark the advance of our ground troops by visual and radar cooperation".

Carl "Tooey" Spaatz

b. In cases where a JFACC is not designated, **the JFC may plan, direct, and control joint air operations.** If this option is exercised by the JFC, the JFC's staff will assist to provide direction and coordination of the capabilities/forces assigned to the joint force. Throughout this pub the convention "JFACC/JFC staff" is used to imply that the procedures are the same under either option.

4. Military Operations Other Than War (MOOTW)

Though missions vary widely across the range of military operations from war to MOOTW, the **framework and processes for C2 of joint air operations are consistent.** Unity of effort, centralized planning, and decentralized execution are as important in MOOTW as in war. The doctrine and procedures in this publication talk about such things as strategies, objectives, centers of gravity, targets, and adversaries. In war these are often relatively easy to develop and determine. The JFC must realize that they also apply in MOOTW, but may require an expanded perspective to identify. For example, in war, an objective may be to stop an enemy's armored advance, which could involve dropping bombs. By contrast, in MOOTW, an objective may be to stop a refugee exodus which could involve dropping food and supplies. In war, a center of gravity may be the adversary's industrial capacity, while in MOOTW it may be the need to feed the populace. While a target in war may be a power plant, in MOOTW it may be a drop zone for food and supplies. Finally, in war the adversary may be clear to determine, while in MOOTW it may be less recognizable and include such things as drought. Though the converse of all these examples could also be true (e.g., there may be a need to combat starvation in war), by using a broadened perspective the JFC can effectively apply the joint doctrine for C2 of joint air operations in each situation.

5. Summary

Successful unified action across the range of military operations depends on unity of effort among all assigned, attached, and supporting forces. The JFC should exploit the unique characteristics of forces that maximize the military effect to achieve strategic aims as rapidly as possible, while saving lives, minimizing cost, and achieving victory. The JFC normally designates a JFACC to integrate and exploit the joint airpower capabilities of different nations, Services, and components. However, under the circumstances that are addressed in Chapter II, the JFC may elect to use the

JFC staff option. In either case, joint air operations are planned and conducted to maximize the total combat power and synergy of the aggregate air effort in support of the JFC's operation or campaign plan.

CACTUS AIR FORCE

One of the more historic examples of an effective joint air force evolved, ironically, from the struggle for Midway in 1942, where uncoordinated air strikes from three separate sources proved largely impotent. The joint air component, known as the "Cactus Air Force," formed in August of 1942 and provided air support to the American campaign in the strategic Pacific Solomon Islands. The onslaught of this campaign occurred on Guadalcanal and Tulagi, where amphibious landings were supported by carrier air and augmented by long range bombers based on New Hebrides. However, by D+2, the carriers were withdrawn and the long distance from New Hebrides rendered ineffective the land based bombers. Thus, out of necessity was born the Cactus Air Force. Based on Guadalcanal, the unit brought together a Marine fighter and a dive bomber squadron (both squadrons were carrier launched), five Army Air Force P-400 aircraft (a low altitude export version of the P39 fighter), and a Navy dive bomber squadron from the *USS Enterprise*.

Indeed, transforming this "pick-up" air force into AIRCACTUS, and, in February of 1943, AIRSOLS, a hallmark joint air command, was neither an easy task nor was it achieved all at once. Air operations were challenging and diverse. Missions not only defended the surrounding airspace, but also supported amphibious assaults and attacked enemy naval forces. Bomber strikes were launched against Japanese bases and installations throughout the Solomon Chain. Command and Control of the new joint air force was equally challenging. Brig. Gen. Roy S. Geiger, (the first COMAIRSOLS) frequently changed his C2 to adjust and render support to the "island hopping" campaign. One of these "adjustments" resulted in the forming of two subordinate commands: the Strike command, made up of Marine and Navy attack aircraft to attack enemy shipping; and, the Bomber command, of long range Army Air Force and Navy patrol aircraft to conduct long range bombing and search operations. Likewise, the COMAIRSOLS and his staff were required to maintain flexibility in the Planning discipline. The multi-faceted Solomons air campaign required that they develop plans quickly and that these plans reflected a wide range of air support capabilities. Again, the uniquely diverse Cactus Air Force proved appropriate for the situation. Indeed, their accomplishments represent one of the more notable achievements with regard to inter-service cooperation in military history.

SOURCE: James A. Winnefeld and Dana J. Johnson, "Joint Air Operations", Annapolis, Naval Institute Press, 1993 (Summarized by Winston R. Schmidt)

CHAPTER II
GENERAL CONSIDERATIONS FOR COMMAND AND CONTROL OF JOINT AIR OPERATIONS

"Air power is indivisible. If you split it up into compartments, you merely pull it to pieces and destroy its greatest asset - its flexibility."

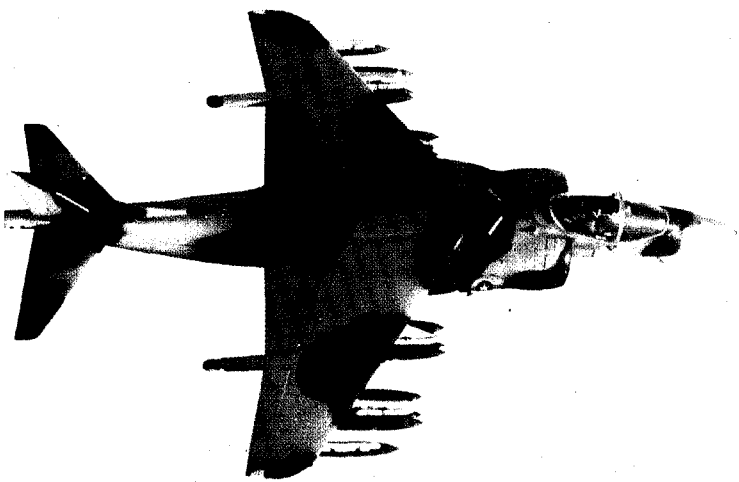
Field Marshal Montgomery

1. Air Effort Available for Joint Air Operations

The air capabilities/forces made available for JFACC or JFC (under the JFC staff option) planning and tasking are determined by the JFC, in consultation with component commanders, and based on the assigned objectives and the concept of operations.

a. Component commanders make capabilities/forces available to the JFC for tasking to support the joint force as a whole based on assigned component missions and JFC guidance. These capabilities/forces are tasked directly by the JFC or by the JFACC based on the JFC's air apportionment decision.

b. **Only the JFC has the authority to reassign, redirect, or reallocate a component's direct support air capabilities/forces.** When a component does not have the organic air capabilities/forces to support their assigned mission, the JFACC or JFC will task available joint air capabilities/forces (through the joint ATO) based on the JFC's air apportionment decision. An understanding of what defines component direct support air capabilities/forces and joint air capabilities/forces is necessary. **Component direct support air capabilities/forces are those air capabilities/forces organic to a component that are used by the component to accomplish its assigned mission.** When appropriate, they appear on the joint ATO for coordination and deconfliction purposes.



AV-8 Aircraft

c. Component capabilities/forces not available for joint air tasking must still comply with the airspace control order (ACO) and special instructions (SPINS).

2. Designation of a JFACC

The JFC will normally designate a JFACC. The JFC will base the decision to designate a JFACC on several factors such as: JFC's overall mission, concept of operations, the missions and tasks assigned to subordinate commanders, forces available, duration and nature of joint air operations desired, and the degree of unity of command and control of joint air operations required. **The JFC will normally assign JFACC responsibilities to the component commander having the preponderance of air assets and the capability to plan, task, and control joint air operations.**

3. JFACC Authority and Command Relationships

The authority and command relationships of the JFACC are established by the JFC. These typically include exercising **operational control (OPCON) over assigned and attached forces and tactical control (TACON) over other military capabilities/forces made available for tasking.** The JFC may also establish supporting and supported relationships between components to facilitate operations. The JFC normally assigns missions and issues mission-type orders to all components. **With receipt of the mission goes the authority to conduct operations in accordance with the JFC's intent and concept of the operation.**

4. JFACC Responsibilities

The responsibilities of the JFACC are assigned by the JFC. These include, but are not limited to: **planning, coordination, allocation, and tasking of joint air operations based on the JFC's concept of operations and air apportionment decision.** Specific JFACC responsibilities normally include (also shown in Figure II-1):

a. **Developing a joint air operations plan** to best support joint force objectives as assigned by the JFC or higher authority.

b. **Recommending to the JFC apportionment of the joint air effort,** after consulting with other component commanders, by percentage and/or by priority that should be devoted to the various air operations and/or geographic areas for a given period of time.

c. **Providing centralized direction** for the allocation and tasking of capabilities/forces made available based on the JFC air apportionment.

d. **Controlling execution of joint air operations as specified by the JFC,** to include making timely adjustments to targeting and tasking of available joint capabilities/forces. **If circumstances require the JFACC to change the planned joint air operations during execution, the JFACC will notify the affected component commanders or JFC, as appropriate.**

e. **Coordinating joint air operations with operations of other component commanders and forces assigned to or supporting the JFC** [e.g., combat search and rescue (CSAR) operations, the joint force special operations component commander (JFSOCC), and if designated, the joint special operations air component commander (JSOACC) for integration, synchronization, and deconfliction with special operations].

f. **Evaluating the results of joint air operations** and forwarding combat assessments to the JFC to support the overall combat assessment effort.

g. **Performing the duties of the airspace control authority (ACA)**, when assigned that responsibility by the JFC.

h. **Performing the duties of the area air defense commander (AADC)**, when assigned that responsibility by the JFC.

i. **Functioning as the supported commander** for:

- Counterair operations.
- Strategic attack operations, when joint air operations constitute the bulk of the capability needed to directly attack enemy strategic centers of gravity.
- Theater airborne reconnaissance and surveillance.
- The JFC's overall air interdiction effort.

  •• Interdiction target priorities within the land or naval force areas of operations (AOs) are designated by the land and naval component commanders.

  •• These priorities are considered along with the JFC's AOR/JOA-wide interdiction priorities and reflected in the air apportionment decision. The JFACC will use these priorities to plan and execute the AOR/JOA-wide interdiction effort.

j. **Functioning as a supporting commander,** as directed by the JFC, for operations such as close air support, air interdiction within the land and naval component AOs, and maritime support.

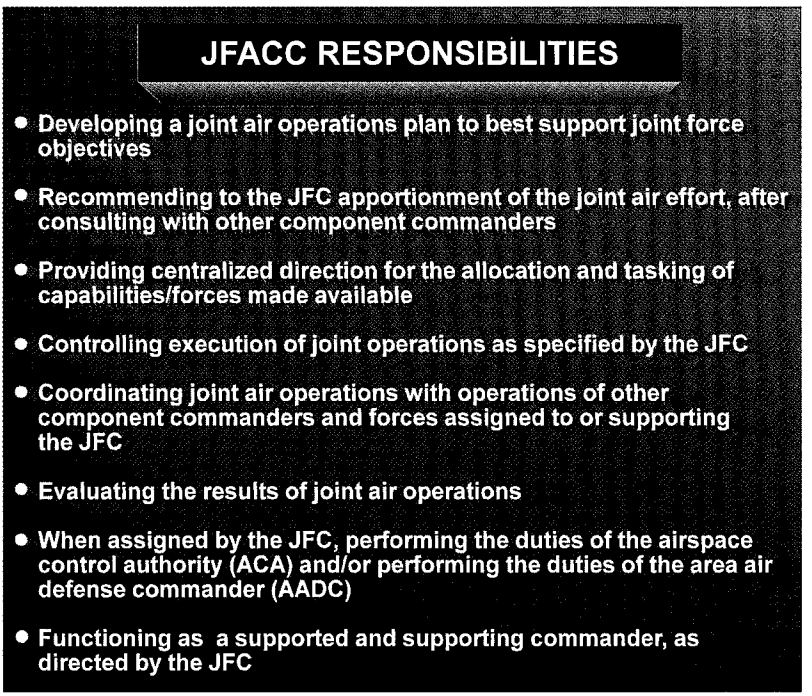


Figure II-1. JFACC Responsibilities

5. Airspace Control Considerations and the JFACC/ACA/AADC Relationship

The responsibilities of the JFACC, ACA, and AADC are interrelated and should normally be assigned to one individual. The functions and responsibilities of the JFACC, ACA, and AADC must be integrated in order to unite joint air operations with joint airspace control and joint air defense operations in support of the JFC's campaign. Designating one component commander as JFACC, AADC, and ACA may simplify coordination required to develop and execute fully integrated joint air operations. If conditions do not permit this assignment, then close coordination between all three positions is essential. Joint Pub 3-52, "Doctrine for Joint Airspace Control in the Combat Zone," provides further guidance on the AADC and ACA.

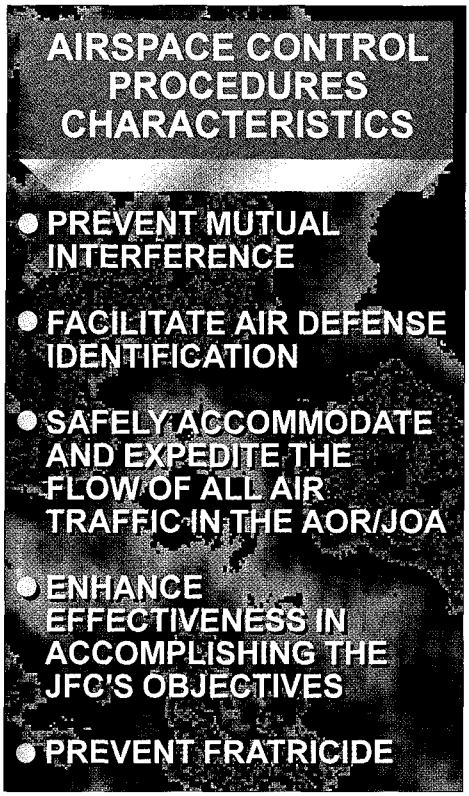


Figure II-2. Airspace Control Procedures Characteristics

a. **If appointed the AADC, the JFACC is responsible for integrating the joint force air defense effort.** Air defense operations must be coordinated with other tactical operations on and over both land and sea.

b. **If appointed the ACA, the JFACC is responsible for developing, coordinating, and publishing airspace control procedures and for operating the airspace control system in the AOR/JOA.** Characteristics of procedures used to deconflict in time and space, coordinate and integrate the activities of all users of airspace (including fixed- and rotary-winged aircraft) are shown in Figure II-2.

All missions are subject to the ACO of the ACA; however, centralized direction by the ACA does not imply OPCON or TACON over any air assets.

c. Methods to accomplish this deconfliction, coordination, and integration vary throughout the range of military operations from war to MOOTW that include both combat and noncombat activities. The methods range from **positive control of all air assets** in an airspace control area to **procedural control of all such assets**, with any effective combination of positive and procedural control between the two extremes. Figure II-3 shows the characteristics of the two methods. It is up to the JFC, through the airspace control plan (ACP), to decide the appropriate method based on the concept of operations.

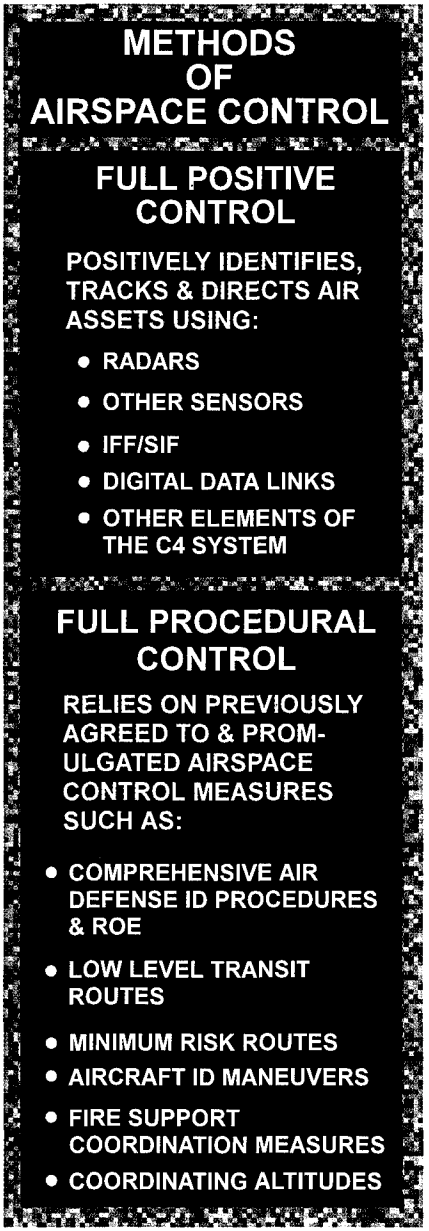


Figure II-3. Methods of Airspace Control

d. **MOOTW in a Transitional Environment.** Depending on the environment, mission, and location throughout the range of military operations, the degree of control may need to be rigorous and the rules of engagement (ROE) may be more restrictive. This is especially true in a MOOTW environment that can transition quickly from combat to noncombat and back again and often has constraints on the forces, weapons, tactics employed, and level of violence. Consequently, as a minimum, **in MOOTW environments prone to such fluctuations, all air missions, including both fixed- and rotary-wing of all components, must appear on the appropriate ATO and/or flight plan. In addition, all aircraft must monitor a common frequency and operate on designated identification, friend or foe (IFF) modes and codes, which must be appropriately checked prior to mission start.** In cases of high density aircraft operations, such as in a properly designated high density airspace control zone (HIDACZ) or amphibious objective area (AOA), published on the ACO, aircraft may operate without an ATO mission number. This type of rigorous control is necessary during such MOOTW because the mix of friendly, enemy, and neutral aircraft and mission constraints require the JFC to strictly control flights in the AOR/JOA (e.g., peace operations). No matter what methods the JFC chooses, they need to be continually evaluated for effectiveness and efficiency as the environment and mission change. For a full discussion of the methods of and responsibilities for joint airspace control throughout the range of military operations, see Joint Pub 3-52 "Doctrine for Joint Airspace Control in the Combat Zone."

6. JFACC Organization

Figure II-4 represents a notional JFACC organization. The JFACC's operations center will often be designated a **joint air operations center (JAOC).**

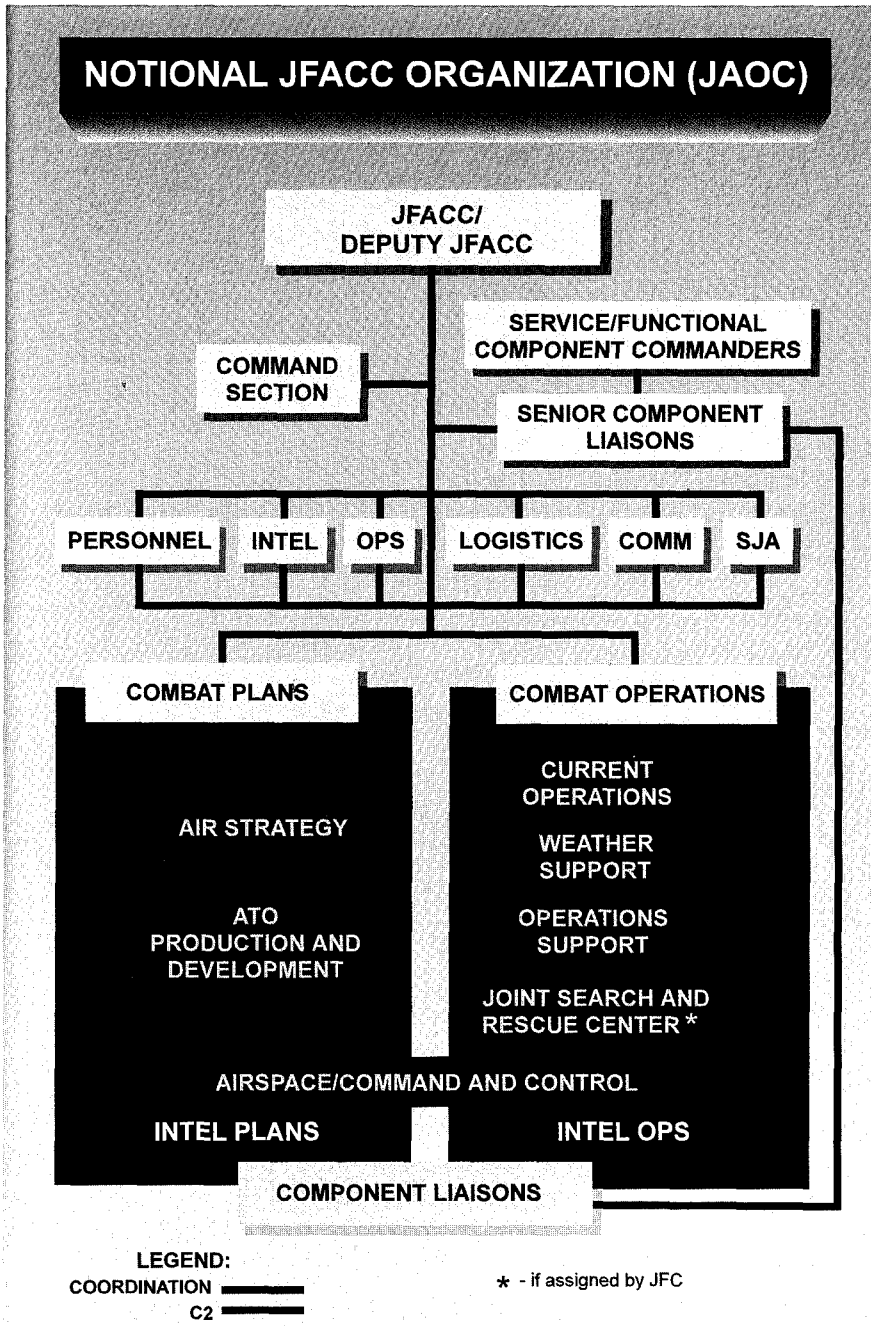


Figure II-4. Notional JFACC Organization

a. The JFACC's JAOC is structured to operate as a fully integrated facility and staffed to fulfill all of the JFACC's responsibilities. JFACC organizations may differ based on the specific AOR/JOA requirements and operations. However, the two organizations or functions that should be **common to all JAOCs are Combat Plans and Combat Operations. Planning "future joint air operations" is the responsibility of Combat Plans,** which includes the responsibility of drafting the joint air operations plan to support the JFC's campaign or objectives and building the daily joint ATO. **Execution of the daily joint ATO is carried out by Combat Operations.** This organization closely follows the action of current joint air operations, shifting missions from their scheduled times or targets and making other adjustments as the situation requires.

b. Each of these JAOC organizations rely on expertise from **other component liaisons** (e.g., battlefield coordination element (BCE), naval and amphibious liaison element (NALE), Air Force liaison element (AFLE), special operations liaison element (SOLE), air mobility element (AME), strategic liaison team (STRATLAT), space liaison officer (SLO), Marine liaison officer (MARLO)) to coordinate requests or requirements and maintain an "up-to-date" picture of the other component operations.

c. Finally, **the role of "intelligence" is extremely important** and is an integral part of the daily function of Combat Plans and Combat Operations. Intelligence personnel monitor and assess adversary capabilities and intentions and provide assistance in target, weapon, and platform selection, conduct battle damage assessment, as well as, provide an up-to-date picture of the adversary, expected adversary operations, and the status and priority of assigned targets to assist in execution day changes.

"Once the command of the air is obtained by one of the contending armies, the war must become a conflict between a seeing host and one that is blind."

H.G. Wells

7. Component Liaison

The components have ready access to the JFACC and staff through the component liaisons. These **liaisons work for their respective component commanders and work with the JFACC and staff.**

a. **Senior Component Liaisons.** Senior component liaisons serve as conduits for direct coordination between the JFACC and their respective component commanders. **Senior liaisons possess the credibility and authority to represent their component commander on time sensitive and critical issues.** They must be equipped and authorized to communicate directly with their respective component commander. The senior liaisons have the responsibility of presenting component perspectives and considerations regarding planning and executing joint air operations.

b. **Coordination Elements.** Each component normally provides liaison elements (BCE, NALE, SOLE, and others as appropriate) that work within the JAOC. These liaison elements consist of experienced warfare specialists who provide component planning and tasking expertise and coordination capabilities. These experts help integrate and coordinate their component's participation in joint air operations (e.g., special operations force (SOF)) and coordinate

and deconflict component direct support air operations with joint air operations. (See Appendix B, "Liaison Elements Within the JAOC".)

8. JFACC Staff

The JFACC's staff should be organized and manned so that **component representation reflects the composition of the joint force**. This representation will provide the JFACC with the expertise needed to effectively employ the capabilities/forces made available. **Functional component staffs require advanced planning for efficient operations**. JFACC staff billets for needed expertise and individuals to fill those billets should be identified. Such individuals should be identified and trained during peacetime and used when JFACC staffs are formed for exercises and actual operations to ensure an effective transition to combat operations. JFACC staffs should include appropriate component representation at all levels.

a. **Functional Area and Mission Experts.** Functional area experts (such as intelligence, logistics, airspace, plans, and communications) provide the critical and unique expertise in support, plans, and execution functions, as appropriate for the employment scenario. Mission experts (air-to-air, air-to-ground, reconnaissance, air refueling, and others as appropriate) provide the technical warfighting expertise required to plan and employ capabilities/forces made available by the components. Functional and mission experts from other components representing weapon systems made available by the JFC for joint air tasking will provide manning throughout the JAOC (i.e., combat operations, combat plans) and at all levels of command.

b. **Preparation.** For each specific operation, the **nucleus of the JFACC staff should be trained in JFACC operations and be representative of the joint force**. Staff augmentation with manning as identified above ensures joint representation throughout the JFACC's staff and JAOC. The JFACC, in coordination with other component commanders, will determine specific manning requirements based on scenario requirements, force list, and personnel availability.

9. JFACC Assignments and Transition

Procedures for joint air operations are designed to exploit the flexibility of air power to achieve joint force objectives while providing support to component operations. Joint air operations scenarios may vary, and each scenario requires extensive planning when transition of JFACC responsibilities is necessary.

a. **Assignment of JFACC Ashore.** In large-scale joint air operations, the assignment of JFACC ashore is normally desirable because of enhanced logistic, communication, and facility capacities on land.

b. **Assignment of Sea-based JFACC.** The JFACC should be sea-based when any one of the following conditions are present:

- maritime forces provide the preponderance of air capability,
- land-based facilities or sufficient infrastructure does not exist,
- a secure land-based area is not available, or

- ground support forces are forced to withdraw.

c. **JFACC Transition**. Effective joint air operations planning must contain provisions to transition JFACC responsibilities between platforms or between components afloat or ashore.

- **Planned Transition**. The JFACC should develop a plan for transition of JFACC duties to another component, if required or considered likely to occur. Planned JFACC transitions are possible as a **function of buildup or scale down of joint force operations**. When transition of JFACC responsibilities is complete, the component passing responsibilities should continue monitoring joint air planning, tasking, and control circuits, and remain ready to reassume JFACC responsibilities until the gaining component has demonstrated operational capability.

- **Unplanned Transition**. During unplanned shifts of JFACC responsibility, as a possible result of battle damage or major command and control equipment failure, a smooth transition is unlikely. Therefore, **the JFC should predesignate alternates** (both inter- and intra-component) and establish preplanned responses/ options to the temporary or permanent loss of JFACC capability. Frequent backup and exchange of data bases is essential to facilitate a rapid resumption of operations should an unplanned transition be required.

- **Transition Events**. The following are events that may cause the JFACC responsibilities to shift:

  •• Coordination requirements related to joint ATO planning and execution exceed the component capability.

  •• Buildup or relocation of forces shifts preponderance of air assets to another component commander and the JFC decides that the other component is in a better position (location, C2 capability, or other considerations) to accomplish the JFACC responsibilities.

  •• Command, control, communications, computers, and intelligence (C4I) capability to support the current JFACC becomes unresponsive or unreliable.

- **Considerations.** Figure II-5 shows considerations to aid in transition planning and decisions.

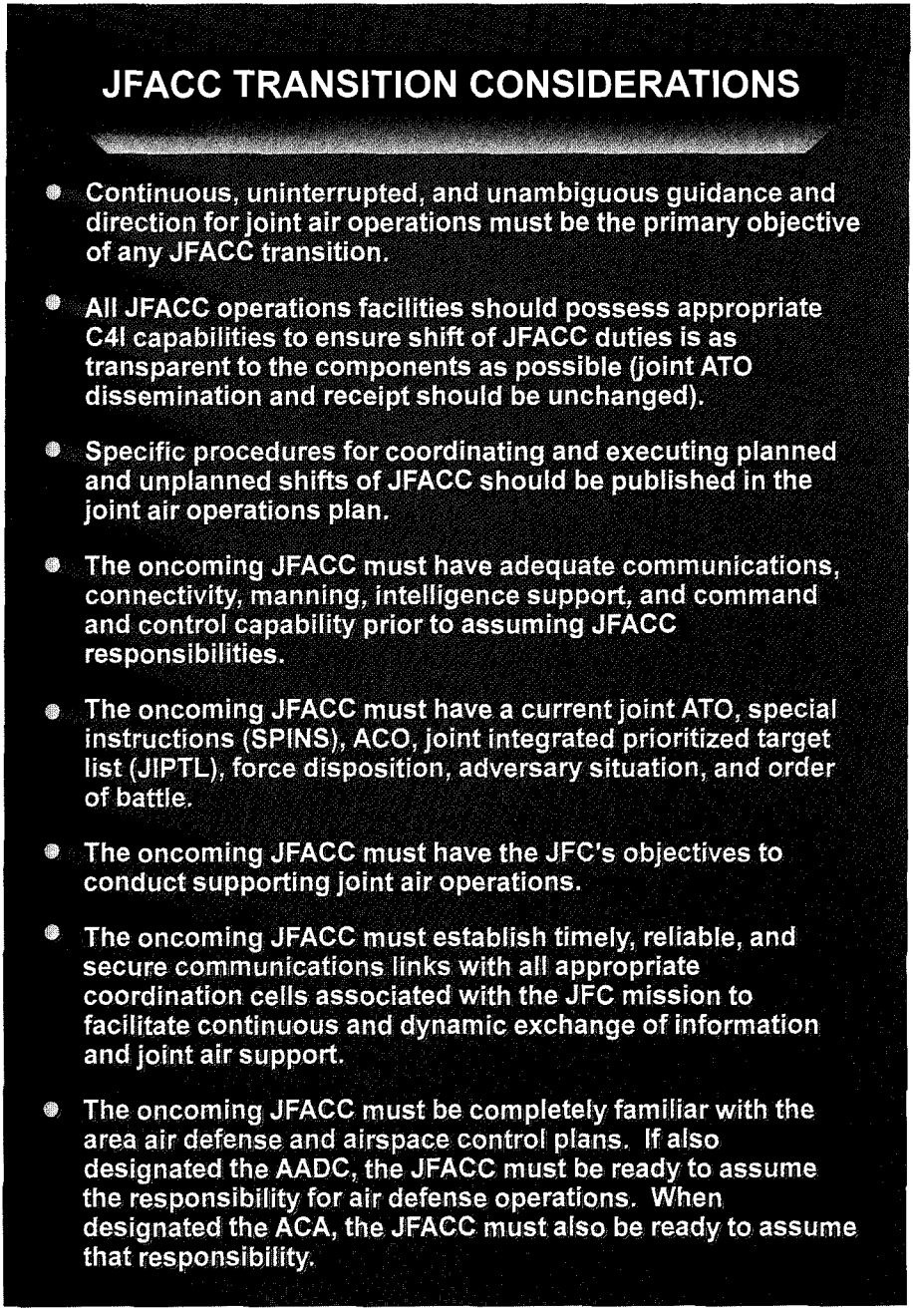


Figure II-5. JFACC Transition Considerations

10. JFC Staff Option in Joint Air Operations

There may be situations where designation of a JFACC is not required. Typically, this would occur **when a conflict or situation is of limited duration, scope, and/or complexity.** Unity of effort, centralized planning, and decentralized execution of air capabilities/forces would still be of primary importance to the JFC. In cases where a JFC does not designate a JFACC, **the JFC may elect to directly task joint force air capabilities/forces.** If this option is exercised by the JFC, the JFC's staff will assist in planning and coordinating air operations for JFC approval. The JFC may elect to centralize selected functions (planning, coordinating, and tasking) within the staff to provide direction, control, and coordination of the capabilities and/or forces assigned to the joint force.

a. The JFC's decision not to designate a JFACC is influenced by **span of control, duration and scope of operations**, and the necessary degree of centralized planning and control.

- Span of control is the JFC's ability to command and control actions. Span of control is based on the number of subordinates, number of activities, and the AOR/JOA. Span of control is related to the duration and scope of joint air operations.

- When joint air operations are the only operations or the duration and scope of air operations are of a very limited nature, the JFC may elect to plan, direct, and control joint air operations. The JFC's staff will assist in coordinating joint air operations.

b. **If a JFACC is not designated, unity of effort in joint air operations requires the JFC to centrally plan and coordinate joint air operations** with other joint force operations.

- The JFC may delegate authority and assign responsibility for various aspects of joint air operations to subordinate commanders.

- Once the JFC issues a mission-type order and provides his intent, subordinate commanders make decisions based on the JFC's concept of operations and the desired end state.

c. **The complexity of joint air operations is the JFC's primary determinant in designating a JFACC.** Many of the functions, considerations, and requirements for integrating joint air operations under the JFACC remain the same; the difference is in the scale of operations. Therefore, much of the information (JFC staff option) is repetitive to the previous discussions in this chapter.

11. JFC Staff Authority and Responsibilities

The JFC staff derives its authority from the JFC, who delegates authority and assigns responsibilities based on the estimate of the situation. JFC staff authority, relationships, and responsibilities must be specified early in the planning process. The JFC may delegate authority and assign responsibility for coordinating joint air operations to a staff division (e.g., J-3 Operations), a specific staff officer in a staff division (e.g., J-3 air officer), or to a special staff. Authority and responsibility for joint air operations does not automatically include joint airspace control and air defense. Though normally assigned to one individual, the JFC may

assign separate authority and responsibilities for joint airspace control and air defense operations.

a. **Planning.** The JFC staff **prepares the joint air operations plan** to support the JFC's objectives. They may also prepare the joint airspace control and joint air defense plans.

b. **Coordination.** The JFC staff **coordinates joint air activities with other operations in the AOR/JOA.** As appropriate, component commanders, supporting commanders, and coordinating agencies furnish liaison elements and augmentees to the JFC staff to coordinate their actions with the joint force as a whole.

c. **Execution.** The JFC staff **monitors and directs the execution of joint air operations** tasked through the joint ATO. This may include redirecting sorties, as directed by the JFC, to accomplish joint force objectives.

d. **Joint Airspace Control.** The JFC staff **may be tasked to coordinate and integrate the use of airspace** in the AOR/JOA. If tasked with joint airspace control, the JFC staff develops the ACP. The ACP is implemented through the ACO. For more information, see paragraph 5 and Joint Pub 3-52, "Doctrine for Joint Airspace Control in the Combat Zone."

e. **Joint Air Defense.** The JFC may task the staff to **coordinate and integrate joint air defense operations** within the AOR/JOA. If tasked with coordinating joint air defense, the JFC staff recommends joint air defense priorities and develops the joint air defense plan.

f. **Supporting Operations.** Joint air operations **may require support** (e.g., suppression of enemy air defenses, ground based air defense) **from resources other than aircraft.** The JFC may direct components to support joint air operations with assets, capabilities, or forces, in addition to the air capabilities/forces provided.

12. JFC Staff Organization and Manning

The JFC staff should be organized and manned so that **component representation reflects the composition of the joint force.** The JFC staff operates out of the joint operations center (JOC). Under the JFC staff option, the **JOC also functions as the JAOC.** From the JAOC, the JFC staff plans, monitors, and directs the execution of joint air operations for the JFC. JFC staff manning should include expertise necessary to plan and execute joint air operations. These staff billets and personnel should be identified and trained to be effective in combat operations. See Joint Pub 0-2, "Unified Action Armed Forces," Joint Pub 3-0, "Doctrine for Joint Operations," and Joint Pub 5-00.2, "Joint Task Force Planning and Guidance Procedures," for more information on joint staffs.

13. Transition Between JFC Staff and JFACC

The JFC may assign C2 of joint air operations to a JFACC when the duration and scope of joint air operations exceed the JFC's span of control. Additionally, the JFC may transfer designated mission experts and functional area augmentees from the JFC staff to the JFACC's JAOC to assist in the transition and coordination of joint air operations. Conversely, a transition from JFACC to JFC staff may also be directed when the JFC determines that joint air operations are no longer of the size and scope to warrant a JFACC.

CHAPTER III
PLANNING FOR JOINT AIR OPERATIONS

"It is improbable that any terrorization of the civil population which could be achieved by air attack would compel the Government of a great nation to surrender. In our own case, we have seen the combative spirit of the people roused, and not quelled, by the German air raids. Therefore, our air offensive should consistently be directed at striking the bases and communications upon whose structure the fighting power of his armies and fleets of the sea and air depends."

Winston Churchill (1917)

1. Concept of Joint Air Operations Development

Planning for joint air operations begins with **understanding the joint force mission**. The JFC's **strategic appreciation** of the political, economic, military, and social forces affecting the AOR/JOA and articulation of the strategic and operational objectives needed to accomplish the mission form the basis for determining components' objectives. The JFACC/JFC staff uses the mission, the JFC strategic appreciation and objectives, and the components' objectives to devise an **air estimate of the situation**. This estimate follows a systematic series of steps to formulate a **course of action** (COA). When the JFACC's course of action is approved by the JFC, it becomes the basic concept of the joint air operations--stating "what" will be done. The "how" part is stated in the joint air operations plan and supporting plans. The JFACC's daily guidance ensures that joint air operations effectively support the joint force objectives while retaining enough flexibility to adjust to the dynamics of the range of military operations. Figure III-1 describes the concept of how joint air operations are developed.

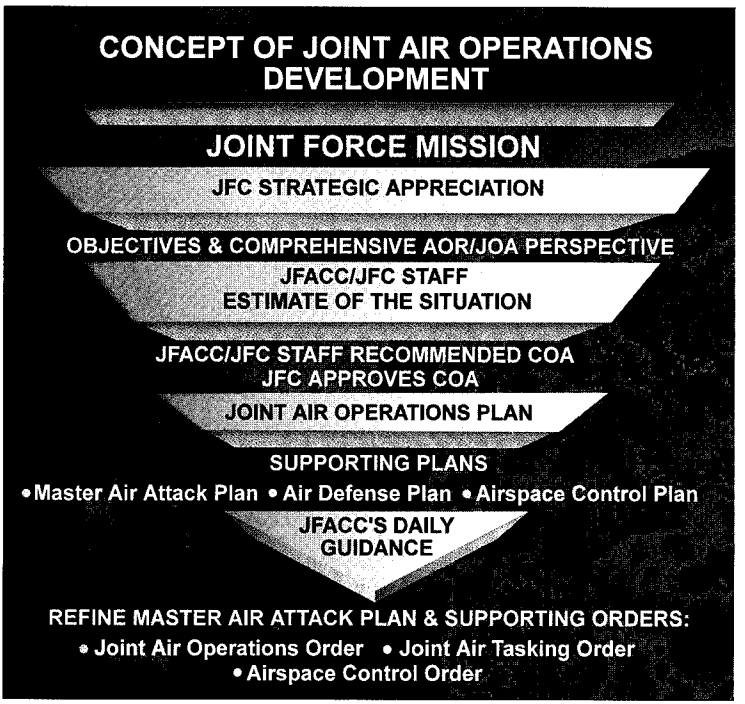


Figure III-1. Concept of Joint Air Operations Development

2. Joint Air Operations Plan

Joint air operations constitute **an integral part of the JFC's operation or campaign plan**. The JFACC is normally assigned responsibility for joint air operations planning and develops a joint air operations plan for employing that portion of the air effort made available to the JFACC to accomplish the objectives assigned by the JFC. **The joint air operation plan documents the JFACC's plan for integrating and coordinating joint air operations**. The joint air operation plan encompasses operations of capabilities/ forces from joint force components. The staff assigned to develop the plan should include representation from all components providing capabilities/ forces. A carefully selected staff of planners and weapon systems experts from each component enables consideration and understanding of all component capabilities/forces. Potential expertise requirements may include but are not limited to:

- Reconnaissance/surveillance experts
- Combat search and rescue specialists
- Special operations experts
- Electronic warfare specialists
- Weapons system specialists
- Targeteers/mission planners
- Doctrine/strategy experts
- Politico-military affairs specialists
- Intelligence analysts
- Deception planners
- Logistics/munitions experts
- Air mobility (airlift and air refueling) planners
- Theater meteorological and oceanographic (METOC) specialists
- Modeling/operations researchers
- Public affairs experts
- Judge advocate general personnel
- Administrative support experts
- Space support teams
- Communications-computer systems specialists
- Aeromedical evacuation/medical personnel
- Liaison officers from supporting and supported commands, other joint force components, and allied forces.

3. Joint Air Operations Planning Process

Normally, there are **five phases in the joint air operations planning process**, and each phase produces a desired product. While presented in a sequential order, the phases are not all required to be completed in order. Work on the various phases may be concurrent or sequential. However, at some point, phases must be integrated and the products of each phase must be checked and verified for coherence. Figure III-2 illustrates the five phases.

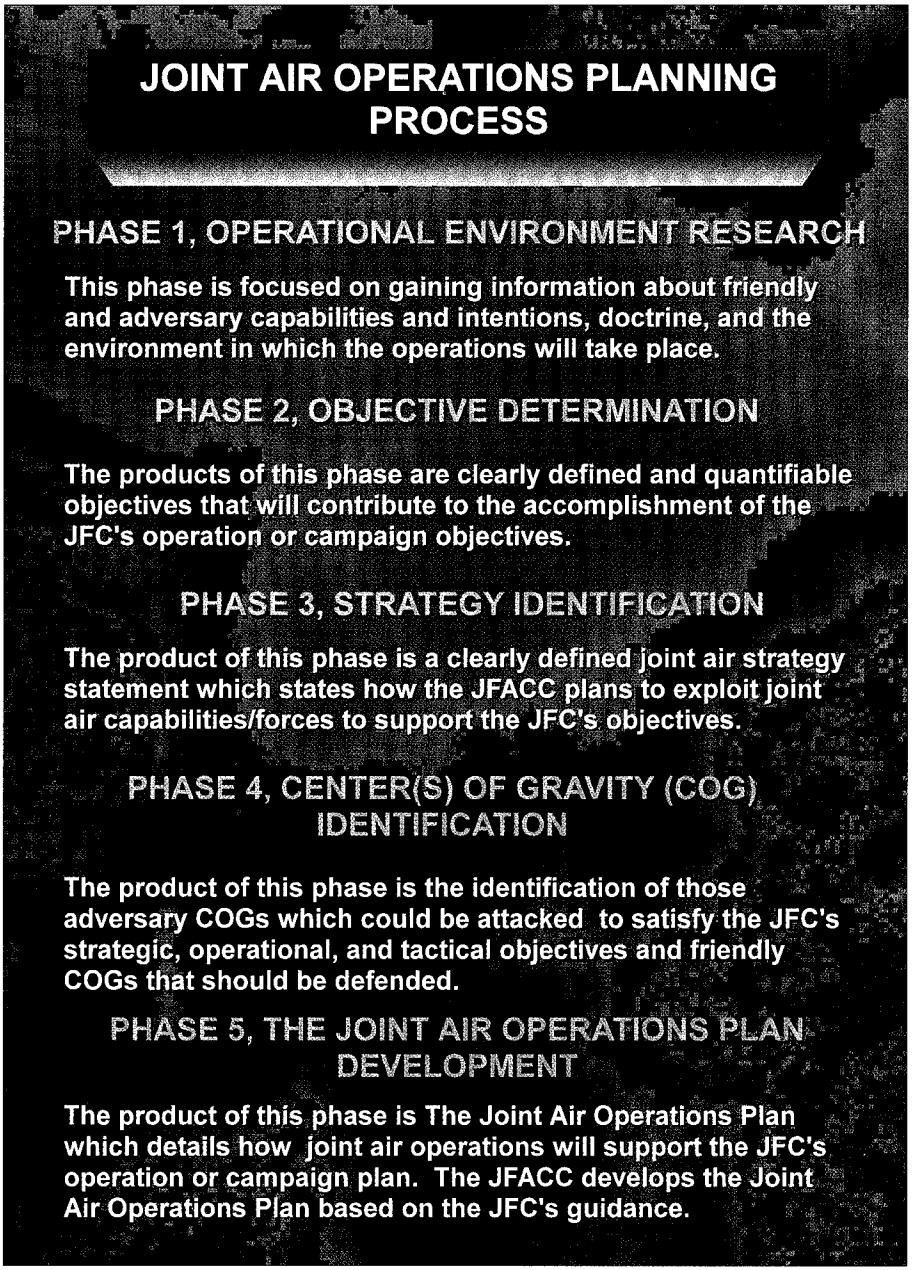


Figure III-2. Joint Air Operations Planning Process

a. **Phase 1: Operational Environment Research.** The product of this phase is primarily the **intelligence preparation of the battlespace and gathering an in-depth knowledge of the operational environment.** This phase is focused on gaining information about friendly and adversary capabilities and intentions, doctrine, and the environment in which the operations will take place. The goal of this phase is to gain an understanding of the theater of operations, the adversary, and friendly forces available to accomplish the JFC's objectives.

- **Available forces, command relationships** (US and multinational), **ROE, applicable treaties and agreements, base-use rights, and overflight rights** are examples of information in this phase. Treaties and agreements should be on file. Individual country rights and obligations can be identified through the chain of command from the Department of State and the appropriate US Embassy.

- **Appropriate logistic information** concerning what is available in theater, and what can be provided through existing ports, depots, war reserve materiel (WRM), or other logistic pipelines.

- **Intelligence data is gathered and analyzed.** Data may include (as an example) indications and warning, current intelligence, general military intelligence, target intelligence, and scientific and technical intelligence. (See Joint Pub 2-0, "Joint Doctrine for Intelligence Support to Operations.")

- For both friendly and adversary forces, the full range of operational intelligence concerning forces, capabilities, sustainment, disposition, as well as relative combat strengths, analyses of alternatives, target systems analysis, and probable courses of action are examined.

b. **Phase 2: Objective Determination.** The products of this phase are **clearly defined and quantifiable objectives** that will contribute to the accomplishment of the JFC's operation or campaign objectives.

- Source of planning objectives is usually documented in the JFC's initial planning guidance, and the operation or campaign plan.

- Joint air objectives are derived from the JFC's and components' objectives.

- Airpower, in conjunction with the exploitation of space-based systems can impact all three levels of war (strategic, operational, and tactical) and can perform independent, integrated, and supporting operations sequentially or simultaneously.

- Joint air objectives and supporting objectives must be identified by listing those objectives at each level (strategic, operational, and tactical). The objectives of each level must support the objectives of the higher level to ensure unity of effort.

c. **Phase 3: Strategy Identification.** The product of this phase is a **clearly defined joint air strategy statement.** The operation or campaign plan communicates the JFC's strategy. The joint air strategy states **how the JFACC plans to exploit joint air capabilities/ forces to support the JFC's objectives.**

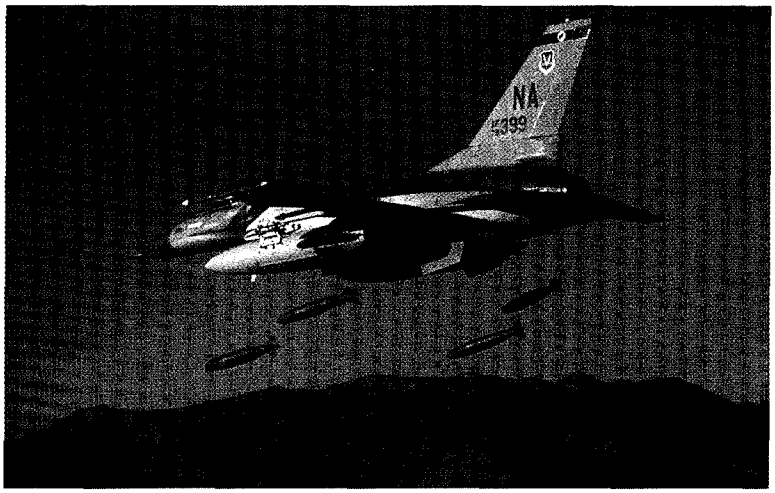
The joint air operations plan is how the JFACC communicates, promulgates, and articulates this strategy.

> *"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**

d. **Phase 4: Center(s) of Gravity (COG) Identification.** The product of this phase is the **identification of those COGs that could be defeated to satisfy the JFC's strategic, operational, and tactical objectives and those friendly** (including multinational partners) **COGs to defend**. Clausewitz describes a COG as "the hub of all power and movement, on which everything depends." Joint doctrine defines COGs as "those characteristics, capabilities, or localities from which a military force, nation, or alliance derives its freedom of action, physical strength, or will to fight." COG describes the central feature(s) of power that if defeated may have the most decisive result. Airpower may have the ability to attack centers of gravity throughout the AOR/JOA to engage sets of targets associated with each and engage these targets simultaneously rather than sequentially. It is important to remember that **the type of COG and method of attack may vary widely throughout the range of military operations**. For example, in a MOOTW environment, the COG could be starvation. In this case, the "target" may be a drop zone that is "engaged" by air dropping pallets of food and supplies to help "attack" the starvation COG. The objectives and strategy must be clearly understood, and the operational environment carefully analyzed, to help the JFC identify COGs. **The greatest barrier in selection of a COG lies in not considering all possibilities of the adversary's power and friendly forces.** A thorough understanding of the AOR/JOA and the adversary facilitates identification of the correct COG.

- COGs may be **attacked both directly or indirectly**. The method of attack (direct or indirect) chosen by the commander is based on sound military judgment, the nature of the adversary, and objectives. Attacks may be restricted by political considerations, military risk, laws of armed conflict (LOAC), and ROE. **Direct attack is defined as physically attacking a COG itself. Indirect attack is defined as causing the downfall of the COG by attacking its supporting elements.** The indirect approach is characterized by attacking targets that expose a new COG vulnerability. This involves, for example, forcing reliance on a single line of communication (LOC) or source of supply and then, after reliance is at its maximum, destroying this element of the COG. Examples of pertinent questions to consider when deciding how to attack an identified COG include: Will disruption of activity at this target satisfy a military objective? Is air the most appropriate and efficient way to strike this target? Are the expected results commensurate with the military risk? What will be the impact on US public opinion? World opinion? Consistent with LOAC and ROE, can we minimize collateral damage? Do the risks and levels of anticipated collateral damage exceed the military advantage to be gained?

- **A COG may be represented by a single target, a target system, or multiple, interrelated target**



F-16 Attacking a Ground Target

systems. In order to expose COGs to attack, it may be required to first identify and attack decisive points and/or progressively defeat enemy measures used to protect their COGs. Actions to extend offensive efforts throughout the theater, including deep penetrations of enemy territory, can increase the vulnerability of enemy centers of gravity.

- The centers of gravity should be carefully selected for attack. **When attacking COGs, they should be attacked as a target system**. Air and spacepower are unique in that they can focus on a COG ranging from leadership all the way to enemy combat forces. If petroleum, oils, and lubricants (POL) is the element of the COG being considered, it can be attacked from its point of origin to the distribution system. For economy of force, there may be a critical node in a target set which should be attacked first. Additional targets within that set could be attacked to stress the whole system. Target systems should be attacked with sufficient force needed to meet the JFC's military objectives, consistent with the LOAC and associated restraints and limitations.

- **The same process for identifying COGs should be applied to friendly forces from the enemy's perspective.** After the JFC defines friendly COGs and deployment and employment plans, the air defense section of the joint air operations plan can be developed. Friendly centers of gravity should normally be defended in-depth.

e. **Phase 5: The Joint Air Operations Plan Development.** The product of this phase is the **joint air operations plan that details how joint air operations will support the JFC's operation or campaign plan**. Based on the JFC's guidance, the JFACC develops the joint air operations plan. The joint air operations plan developed during this process should:

- **Integrate the efforts of joint air capabilities/forces** in achieving JFC objectives.

- **Identify objectives and targets by priority order**, describing in what

order they should be attacked or dealt with, the desired results, and the weight of effort required to achieve the desired results in support of the JFC's objectives. (Targets prioritized by significance do not necessarily indicate order to be attacked.)

- **Account for current and potential adversary offensive and defensive threats.**

- **Conduct target development/ system analysis** to identify those specific targets that should be reattacked to achieve the objectives.

- **Indicate the phasing of joint air operations** in relation to the JFC's operation or campaign plan phasing and in relation to each other.

  •• **The first phase objective will normally be to attain and maintain air superiority in the time and place necessary for the joint force to conduct operations.** This is accomplished by destroying, neutralizing, or reducing the enemy air and missile threat to an acceptable level. If the enemy presents any air offensive threat, a self-defense capability is needed upon entering the theater of operations. The air defense system, to include all defensive measures designed to destroy attacking enemy aircraft or missiles or to reduce the effectiveness of such attacks should be defined in the air defense section of the joint air operations plan.

"Battle experience proved that control of the air, the prerequisite to the conduct of ground operations in any given area, was gained most economically by the employment of air forces operating under a single commander."

General Eisenhower

•• The joint air operations plan **supports, as well as is supported by, the operations conducted by other components** in support of the JFC's mission objectives. Competing requirements for joint air operations including strategic attack, air interdiction, and close air support will be resolved by the JFC, normally by the air apportionment decision.

- Indicate **what capabilities/forces will be required to achieve joint air operations objectives.**

  •• Once the total force posture is known, **force availability, deployment timing, beddown availability, and sustainment requirements can be matched with logistic and planning requirements.**

  •• With this information, the JFC and components can **analyze the joint forces' ability to support the mission assigned to the JFACC,** while ensuring air capable components retain sufficient organic capabilities/forces to accomplish their missions. Shortfalls require the JFC to reprioritize or restructure the missions/plans or seek additional resources.

- Include a **comprehensive sustainability assessment** for the joint air operations plan.

  •• Normally, sustainment requirements for joint air operations are fulfilled by Service components. However, common, joint, or cross-servicing agreements, or directives by the combatant commander may significantly alter responsibilities for key aspects of logistic support.

  •• The joint air operations plan must clearly delineate any changes to logistic support practices effected by such agreements or directives. (See Joint Pub 4-0, "Doctrine for Logistic Support of Joint Operations," for an in-depth explanation of pertinent logistic considerations.)

- Include procedures for allocating, tasking, and exercising command and control of joint air capabilities/forces made available.

CHAPTER IV
TARGETING AND TASKING FOR JOINT AIR OPERATIONS

"The outstanding military lesson of this campaign was the continuous calculated application of air power, inherent in the potentialities of the Air Force, employed in the most intimate tactical and logistical union with ground troops."

General Douglas MacArthur describing the Buna Campaign

1. Targeting

Targeting is the process of selecting targets and matching the appropriate response to them. It takes into account strategic and operational requirements and capabilities and the threat to friendly forces imposed by the adversary. Targeting occurs at all levels of command within a joint force and is performed at all levels by forces capable of attacking targets with both lethal and nonlethal disruptive and destructive means. **Targeting is complicated by the requirement to deconflict duplicative targeting by different forces or different echelons within the same force and to synchronize the attack of those targets with other components of the joint force.** An effective and efficient target development process and air tasking cycle are essential for the JFACC/JFC staff to plan and execute joint air operations. This joint targeting process should integrate capabilities and efforts of national, unified, joint force, and component commands, all of which possess varying capabilities and different requirements. The process is the same in war and MOOTW.

2. Targeting Process

Targeting is a cyclical process (Figure IV-1), which begins with guidance and priorities issued by the JFC and continues with identification of requirements by components; the prioritization of these requirements; the acquisition of targets or target sets; the attack of targets by components; component and JFC assessment of the attacks; and continuing guidance from the JFC on future attacks.

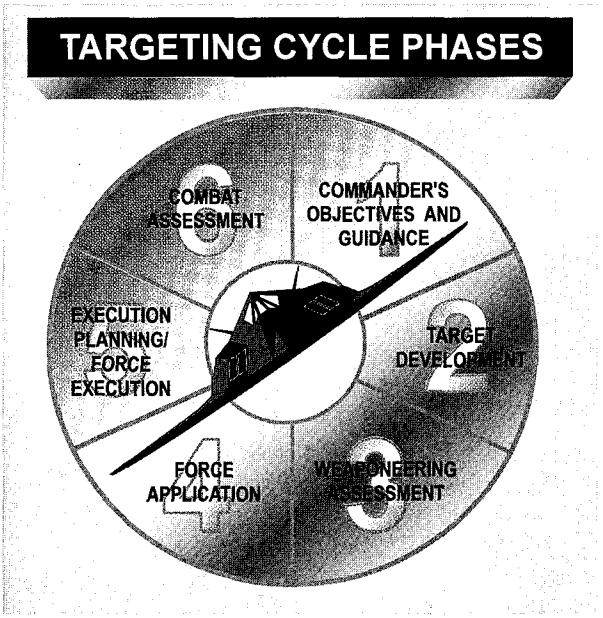


Figure IV-1. Targeting Cycle Phases

a. **The targeting cycle begins with objectives and guidance, proceeds through execution, and ends with combat assessment.** Targeting

matches objectives and guidance with inputs from intelligence and operations personnel to select specific targets and identify the forces necessary to achieve the desired objectives against those targets. More information on targeting can be found in Joint Pub 2-01.1, "Joint Tactics, Techniques, and Procedures for Intelligence Support to Targeting."

b. **Targeting mechanisms should exist at multiple levels.** The National Command Authorities (NCA) or headquarters senior to JFCs may provide guidance, priorities, and targeting support to JFCs. Joint force components identify requirements, nominate targets that are outside their AOs or exceed the capabilities of organic and supporting assets (based on the JFC's air apportionment decision), and conduct execution planning. After the JFC makes the targeting and air apportionment decisions, components plan and execute assigned missions.

c. The JFC may establish and task an organization within the JFC staff to accomplish these broad targeting oversight functions or may delegate the responsibility to a subordinate commander (e.g., JFACC). **Typically, the JFC organizes a Joint Targeting Coordination Board (JTCB).** If the JFC so designates, a JTCB may be an integrating center to accomplish the broad targeting oversight functions, or a JFC-level review mechanism. In either case, it needs to be a joint activity comprised of representatives from the staff, all components, and if required, their subordinate units.

- **The JFC defines the role of the JTCB.** Typically, the JTCB reviews targeting information, develops targeting guidance and priorities, and may prepare and refine joint target lists. The JTCB must also maintain a complete list of restricted targets and areas where special operations forces are operating to avoid endangering current or future operations.

- **The JTCB may assist the JFC in developing or revising the targeting guidance and/or priorities. The JTCB maintains a macro-level view of the AOR/JOA** and ensures targeting nominations are consistent with the JFC's campaign plan.

d. The JFC will normally **delegate the authority to conduct execution planning, coordination, and deconfliction associated with joint air targeting to the JFACC/JFC staff and will ensure that this process is a joint effort.** The JFACC/JFC staff must possess a sufficient C2 infrastructure, adequate facilities, and ready availability of joint planning expertise. A targeting mechanism, tasked with detailed planning, weaponeering, and execution, is also required at the component level to facilitate the process.

3. Targeting Responsibilities

The JFACC/JFC staff develops a joint air operations plan that accomplishes the objectives directed by the JFC. **Synchronization, integration, deconfliction, allocation of air capabilities/forces, and matching appropriate weapons against target vulnerabilities are essential targeting functions for the JFACC.** Other components targeting requirements to support their assigned missions are provided to the JFC and JFACC via the target information report (TGTINFOREP). Therefore, **targets scheduled for deliberate attack by component direct support air**

capabilities/forces should be included in the joint ATO, when appropriate, for deconfliction and coordination. All component commanders within the joint force should have a basic understanding of each component's mission and general concept of operations/ scheme of maneuver to support the JFC's campaign. Therefore, components should provide the JFACC a description of their direct support plan through the liaison elements within the JAOC. This basic understanding will allow for coordination and deconfliction of targeting efforts between each component and within the JFC staff and agencies. Figure IV-2 details the JFACC/JFC staff targeting responsibilities.

JFACC/JFC STAFF TARGETING RESPONSIBILITIES

- Plan, coordinate, allocate, task, and direct the joint air effort in accordance with JFC guidance and joint force objectives.
- Develop a joint air operations plan derived from the JFC's broader operation or campaign objectives and guidance regarding the roles, missions, tasks, and responsibilities of joint air capabilities/forces.
- After consulting with other component commanders, recommend apportionment of the joint air effort by percentage and/or by priority that should be devoted to various mission categories and/or to geographic areas.
- Translate air apportionment into allocation and develop targeting guidance into the joint ATO (which may include specific aim points).
- Direct and ensure deconfliction of joint air operations.
- Synchronize joint air operations.
- Coordinate with the appropriate component's agencies/elements for synchronization and deconfliction with land and naval operations.
- Coordinate with the appropriate component's agencies/elements for tasking of the air capabilities/forces made available.
- Coordinate with the JFSOCC's SOLE for integration, synchronization, and deconfliction with special operations.
- Monitor execution and redirect joint air operations as required.
- Direct alert joint air capabilities/forces for prosecution of real-time targets in support of joint forces.
- Compile component target requirements prioritize targets, based on JFC guidance.
- Accomplish combat assessment.

Figure IV-2. JFACC/JFC Staff Targeting Responsibilities

4. The Joint Air Tasking Cycle

A joint air tasking cycle is used to provide for the efficient and effective employment of the joint air capabilities/forces made available. The cycle (Figure IV-3) provides a repetitive process for the planning, coordination, allocation, and tasking of joint air missions/sorties, within the guidance of the JFC. **The cycle accommodates changing tactical situations or JFC guidance, as well as requests for support from other component commanders.** The joint air tasking cycle is an analytical, systematic approach that **focuses targeting efforts on supporting operational requirements.** Much of the day-to-day joint air tasking cycle is conducted through an interrelated series of information exchanges (through designated component liaison officers and/or messages), which provide a means of requesting and scheduling joint air missions. **Note: A timely joint ATO is critical--**other joint force components conduct their planning and operations based on a prompt, executable joint ATO, and are dependent on its information.

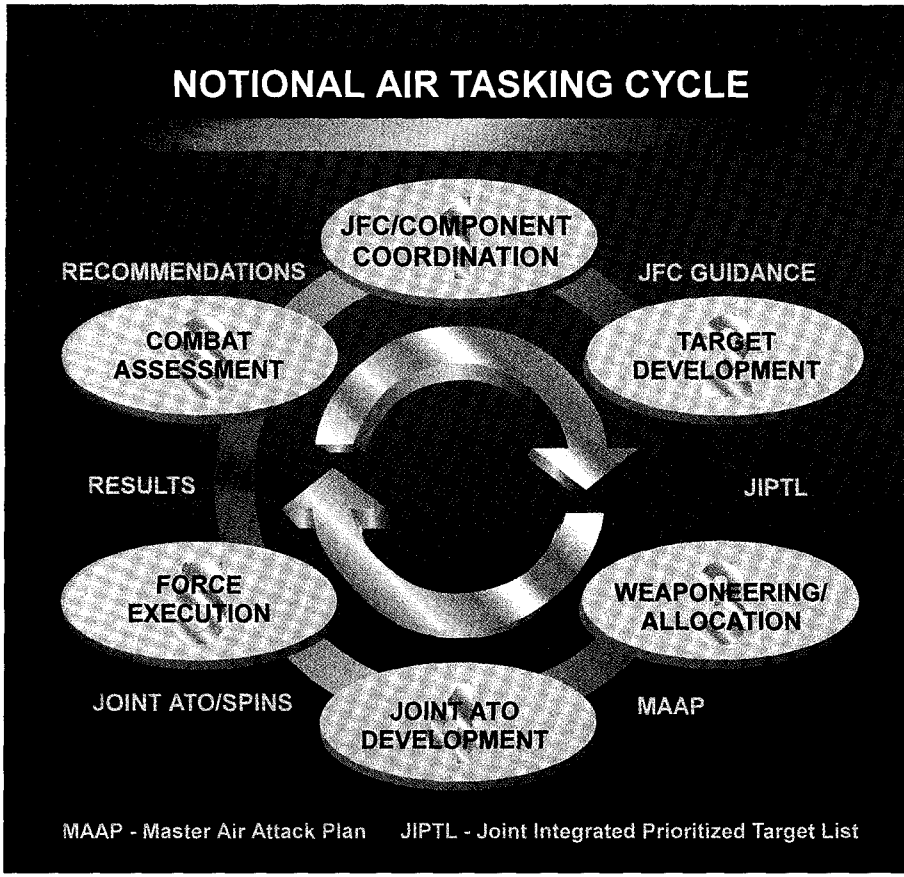


Figure IV-3. Notional Air Tasking Cycle

a. **There are usually three joint ATOs at any time**: (1) the joint ATO in execution (today's plan), (2) the joint ATO in production (tomorrow's plan), and (3) the joint ATO in planning (the following day's plan). **The joint air tasking cycle begins with the JFC's air apportionment process and culminates with the combat assessment of previous missions/sorties.** Figure IV-4 is a notional joint air tasking timeline, which may be modified to fit the particular situation.

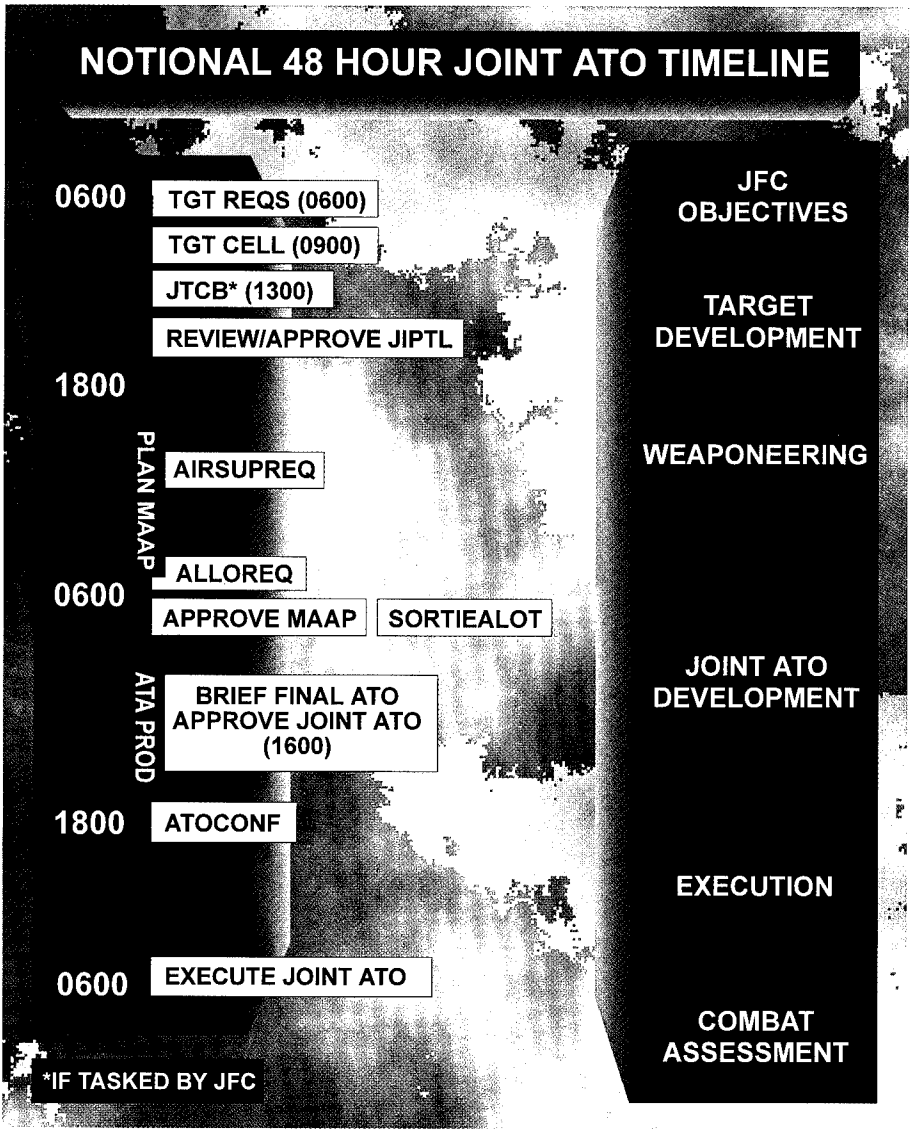


Figure IV-4. Notional 48 Hour Joint ATO Timeline

b. The full joint ATO cycle from JFC guidance to the start of joint ATO execution is dependent on the JFC's procedures. Notionally, this spans a 30-72 hour period. Each actual joint ATO period usually covers a 24-hour period (0600-0600 for illustrative purposes in this document). The precise timeframes for the joint air tasking cycle must be specified in the JFC's operation plans or the JFACC's joint air operations plan.

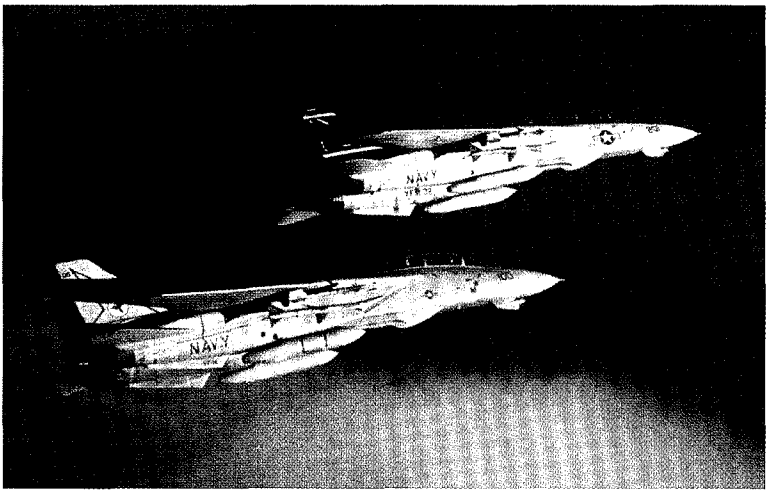
c. **The execution phase of the joint air tasking cycle will notionally consist of 24-hour periods with start and end times as specified by joint air operations plans.** The joint ATO embodies JFC objectives and intent in a joint air tasking directive. The joint ATO matches specific targets compiled by the JFACC/JFC staff with the capabilities/forces made available to the JFACC for the given joint ATO day.

5. Joint ATO Phases

The joint ATO phases depicted (Figure IV-3) **are related to the targeting cycle.** The approach is the same, a systematic process that matches available capabilities/forces with targets to achieve operational objectives. The number of ATO phases may vary based on theater and contingency requirements. **Prior to the JFC and component commander's meeting, the JFACC meets with senior component liaisons and the JFACC staff to develop recommendations on joint air strategy and apportionment for future operations.** (The use of the term "meeting" is notional; other methods of information exchange could also be used.) This meeting may review JFC objectives and guidance; analyze results of joint force operations and consider changes to planned or ongoing joint air operations; review adversary capabilities and courses of action, centers of gravity, decisive points, critical areas, and key targets; develop and recommend updates to the joint target list (JTL); and assess joint air capabilities for future operations to meet JFC objectives. The JFACC provides objectives and guidance to the staff for joint air operations to support the JFC's intent, recommends broad target categories that support the JFC's objectives, reviews joint force air capabilities/forces to achieve assigned tasks, refines requirements for capabilities/forces from other components, and after consulting with the other component commanders or their representatives, formulates an air apportionment recommendation for presentation to the JFC. Examples of air apportionment categories include, but are not limited to, strategic attack, interdiction, counterair, maritime support, and close air support.

a. **Phase 1: JFC/Component Coordination**

- The JFC consults often with his component commanders to assess the results of the warfighting effort and to discuss the strategic direction and future operation plans. This provides component commanders an opportunity to introduce recommendations, support requirements, and state their ability to support other components. The JFC provides broad guidance and objectives and his vision of what constitutes military success. The JFC also defines the intent of the operation or campaign and sets priorities. **The JFC's guidance and objectives will identify targeting priorities, JTL/JIPTL planning guidance, procedures, appropriate maneuver and movement control, joint fire support coordinating measures, ROE, and what defines component direct support sorties. This**



Flight of F-14 Aircraft

guidance will also include the JFC's air apportionment decision.

- **Apportionment (Air).** Air apportionment is the determination and assignment of the total expected effort by percentage and/or priority that should be devoted to the various air operations and/or geographic areas for a given period of time. **Air apportionment allows the JFC to ensure the weight of the joint air effort is consistent with campaign phases and objectives.** Given the many functions that the joint air effort can perform, its AOR/JOA-wide application, and its ability to rapidly shift from one function to another, JFCs pay particular attention to its apportionment. JFCs normally apportion the air effort by priority or percentage of effort into geographic areas, against mission-type orders, and/or by categories significant for the campaign. These categories can include, but are not limited to, strategic attack, interdiction, counter air, maritime support, and close air support. **After consulting with other component commanders, the JFACC/JFC staff makes the air apportionment recommendation to the JFC** (Phase 1, ATO cycle).

b. **Phase 2: Target Development.** The specific objectives received during Phase 1 are used to **focus target development.** Targets are nominated to support the targeting objectives and priorities provided by the JFC. All potential targets are processed through the JAOC (Combat Plans), which will identify, prioritize, and select specific targets that meet the JFC's objectives and guidance. Targets are selected from joint target lists, component requests, intelligence recommendations, electronic warfare inputs, and current intelligence assessments, as the situation dictates. **In accordance with the JFC's objectives and component targeting requirements, the JFACC/JFC staff will develop the joint air operation plans to employ available capabilities/forces. The end product of the target development phase is a prioritized list of targets--the JIPTL** that supports the objectives and conforms to guidance.

- **JTL Development Process. The joint targeting process normally begins before deployment or the onset of hostilities**, during the deliberate planning at the geographic combatant commander level associated with development of an operation plan (OPLAN) or operation plan in concept format (CONPLAN). If a plan is to be executed, the targeting process continues during the development and implementation of the operation or campaign plan and the components' supporting plans. Primary responsibility for the maintenance of the integrated intelligence data base that forms the foundation for most targeting rests with the Defense Intelligence Agency (DIA) and the theater joint intelligence centers (JICs) and subordinate JICs. As the situation evolves across the range of military operations, the responsibility for maintenance of the theater data base may shift to the theater JIC and/or subordinate JIC as appropriate. **The JTL is normally constructed by the unified command with support from components and with inputs from the Joint Staff and other national agencies.** The JTL contains prioritized target categories (command and control, airfields, lines of communications, and others as appropriate), listing specific targets. It also contains a sufficient level of detail to assist complete target identification, location, and assessment. Upon direction of the JFC, the JTL is updated daily or as required via TGTINFOREP messages from components. **Maintenance of the JTL may be conducted by the JFC's staff or as directed by the JFC (e.g., JTCB).** During execution, the JTL continues to serve as an updated reference. Consideration of any requirements imposed by LOAC and ROE is also essential in targeting development.

- The culmination of the joint air target development process occurs when specific targets are approved and included in the joint ATO and assigned to C/F made available for joint air operations.

c. **Phase 3: Weaponeering/ Allocation**

- During the weaponeering/allocation phase, **targeting personnel quantify the expected results of lethal and nonlethal weapons employment against prioritized targets.** The JIPTL, the prioritized listing of potential targets, constructed during the target development phase, provides the basis for weaponeering assessment activities. All approved targets are weaponeered on target worksheets, which detail recommended aimpoints, recommended number/type aircraft and weapons, fuzing, target identification and description, target attack objectives, target area threats, and probability of destruction. **The final prioritized targets are then included into the MAAP. The resulting MAAP is the plan of employment that forms the foundation of the joint ATO.** The MAAP is a key element of the concept of joint air operations. The development of the MAAP includes the review of JFC and JFACC guidance; component direct air support plans and support requests from components; updates to target requests; availability of capabilities/ forces; target selection from the JIPTL; and aircraft allocation.

- **Allocation (Air).** Following the JFC air apportionment decision, **the JFACC/JFC staff translates that decision into total number of sorties by aircraft or weapon type available for each operation/task they support.** On the basis of the JFC's air apportionment decision, internal requirements, and air support request (AIRSUPREQ) messages, each air capable component prepares an allocation request (ALLOREQ) message for transmission to the JFACC/JFC staff (normally not less than 24 hours prior to the air tasking day). ALLOREQ messages report:

  •• the number of joint air sorties to be flown during the air tasking day by assigned mission and type aircraft,

  •• excess sorties not required by the air capable component and available for taskings by the JFACC/JFC staff, and:

  •• request for additional air support beyond the capability of the air capable component.

d. **Phase 4: Joint ATO Development**

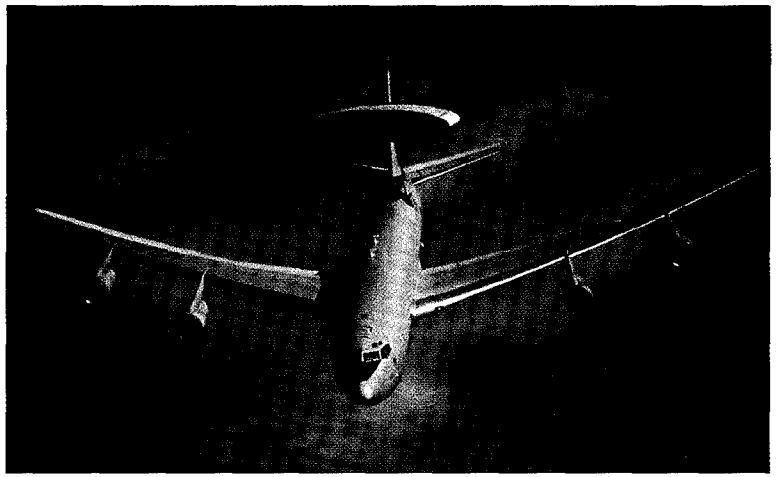
- After the MAAP is approved by the JFACC (JFC under the JFC staff option), **detailed preparations continue by Combat Plans section on the joint ATO, SPINS, and the ACO** (provided by the ACA). JFC and JFACC guidance, target worksheets, the MAAP, and component requirements are used to finalize the ATO/SPINS/ACO. Components may submit critical changes to target requests and asset availability during this final phase of joint ATO development. **The ACA and AADC instructions must be provided in sufficient detail to allow components to plan and execute all missions tasked in the joint ATO.** These directions must enable combat operations without undue restrictions, balancing combat effectiveness with the safe, orderly, and expeditious use of airspace. ACA instructions must provide for quick coordination of task assignment or reassignment. The AADC must direct aircraft identification and engagement procedures and ROE that are appropriate to the nature of the threat. ACA and AADC instructions should also consider the volume of friendly air traffic, friendly air defense requirements, IFF technology, weather, and enemy capabilities. ACA and AADC instructions are contained in monthly, weekly, and daily SPINS, and also in the ACO that is updated as frequently as required. The joint ATO, ACO, and SPINS provide operational and tactical direction at appropriate levels of detail. The level of detail should be very explicit when forces operate from different bases and multi-component and/or composite missions are tasked. By contrast, less detail is required when missions are tasked to a single component or base. See Joint Pub 3-52, "Doctrine for Joint Airspace Control in the Combat Zone," for further discussion.

- **Allotment. The JAOC reviews each air capable component's allocation decision/ALLOREQ message and may prepare a sortie allotment (SORTIEALOT) message back to the components** as required, in accordance with established operations plans guideline. If SORTIEALOT messages are not used, the JAOC can pass the information normally contained in the SORTIEALOT by

other means (e.g., contingency theater automated planning system (CTAPS), through component liaisons). The SORTIEALOT message confirms (and where necessary modifies) the ALLOREQ and provides general guidance for planning joint air operations. The SORTIEALOT addresses three basic requirements:

•• Revisions to mission data for component air support requests, such as a changed mission priority or time on target. This is usually the result of coordination between the component and the JAOC staff.

e. **Phase 5: Force Execution. The JFACC/JFC staff directs the execution and/or deconflicts all capabilities/forces made available for a given joint ATO.**



E-3A AWACS Aircraft

•• Revisions, if any, to the component's planned allocation of joint air sorties necessitated by unforeseen joint force requirements and within the JFC's air apportionment guidance. Normally, a revision to the components allocation decision requires JFC authority. With the JFC's approval, revisions or redirection of component allocation decisions may be accomplished by SORTIEALOT message.

•• Approval/disapproval of component requests and allotment of other component's excess sorties to fill the approved air support requests, or other requirements for the joint force.

The JFC may give the JFACC the authority to redirect joint air operations. The affected component commander must approve all requests for redirection of direct support air assets. Affected component commanders will be notified by the JFACC upon redirection of joint sorties previously allocated in the joint ATO for support of component operations. **Aircraft or other capabilities/forces not apportioned for tasking, but included in the ATO for coordination purposes, will be redirected only with the approval of the respective component commander or designated senior JAOC liaison officer.** Components execute the joint ATO as tasked and recommend changes to the JAOC as appropriate, given emerging JFC and component requirements.

- **The JAOC must be responsive to required changes during the execution of the joint ATO.** In-flight reports and initial battle damage assessment (BDA) may cause a redirecting of joint air capabilities/ forces before launch or a redirection once airborne.

- During execution, **the JAOC is the central agency for revising the tasking of joint air capabilities/ forces.** It is also charged with coordinating and deconflicting those changes with the appropriate control agencies or components.

- **Due to battlefield dynamics, the JFACC/JFC may be required to make changes to the planned joint air operations during execution.** The JFACC/JFC will notify the affected component commanders, as appropriate.

- **During execution, the JFACC/JFC staff will normally be responsible for retargeting missions apportioned and allocated to support the joint force as a whole, to respond to moving targets or changing priorities.** Ground or airborne command and control platform mission commanders may be delegated the authority from the JFACC (under the same conditions outlined above) to redirect sorties/ missions made available to higher priority targets as necessary. It is essential, however, that the JAOC (Combat Operations Section) be notified of all redirected missions.

f. **Phase 6: Combat Assessment (CA). Combat assessment is done at all levels of the joint force.** The JFC should establish a dynamic system to support CA for all components. Normally, the joint force J-3 will be responsible for coordinating CA, assisted by the joint force J-2. CA evaluates combat operations effectiveness to achieve command objectives. Effective campaign planning and execution require a continuing evaluation of the impact of joint force combat operations on the overall campaign. **The JFACC/JFC staff continuously evaluates the results of joint air operations and provides these to the JFC for consolidation and overall evaluation of the current campaign.** The CA concept of operations should include BDA, munitions effects assessment (MEA), and reattack recommendations. It must take into consideration the capabilities/forces employed, munitions, and attack timing in assessing the specific mission and joint air operations success and effects against the specific targets attacked, target systems, and remaining enemy warfighting capabilities, relative to the objectives and strategy. Future enemy courses of action and remaining enemy combat capabilities should be weighed against established JFC and JFACC targeting priorities to determine future targeting objectives and reattack recommendations. The JFACC/JFC staff assessment should be forwarded to the JFC to determine overall campaign success and recommend changes in courses of action. Although CA marks the end of the targeting process, it also provides the inputs for process re-initiation and subsequent target development, weaponeering/allocation, joint ATO development, force execution, and combat assessment.

6. Command, Control, Communications, Computers, and Intelligence (C4I)

The JFACC/JFC staff is responsible for planning and activating all validated joint air communications links that support the JFC's mission and allow accomplishment of the JFC directives. The ability to exchange information via reliable secure communications with the JFC, joint force staff, and component commanders is key to the successful integration of the joint air effort. Planning must address the following areas:

a. **C4I data exchange requirements** will be promulgated as early as possible to ensure that each component can meet unique interface requirements. Every effort will be made to confirm C4I data information exchange connectivity requirements during deliberate planning.

b. Planning for all information exchange requirements and procedures **must consider emission control requirements and operations security.**

c. **The best mix of computer aided systems must be available for data transmission.** The JAOC and liaison officers depend on secure, reliable communications and data exchange equipment in order to respond to joint force requirements.

- Normally, the CTAPS is used. The ATO generation and dissemination software portion of CTAPS has been designated the joint standard by the Joint Staff J-6. This standardized ATO feature allows the JAOC to be interoperable with other force-level Service C4I systems.

- Information such as ALLOREQs and SORTIEALOT are normally exchanged through US message text formats (USMTF). More specific guidance for USMTF is contained in Joint Pub 3-56.24, "Tactical Command and Control Planning Guidance and Procedures for Joint Operations--Joint Interface Operational Procedure--Message Text Formats," which specifies information exchange procedures for use within a joint force. Specific instructions and formats for preparing the MTFs are contained in the Joint User Handbook for Message Text Formats (JUH-MTF).

APPENDIX A
JOINT AIR OPERATIONS PLAN FORMAT

The joint air operations plan format uses the same format as the JFC campaign plan but from an airpower point of view. Each air operations plan will differ with the AOR/JOA, situation, and capabilities of the joint force. A sample format follows:

Copy No
Issuing Headquarters
Place of Issue
Date/Time Group of Signature

JOINT AIR OPERATIONS PLAN: (Number or Code Name)

References: Maps, charts, and other relevant documents.

COMMAND RELATIONSHIPS. Briefly describe the command organization (composition and relationships) for the JFC's campaign and the air operations envisioned. Detailed information may be included in the command relationships annex. Cover component commanders, AADC, and ACA identities, and others as required.

1. Situation. Briefly describe the situation that the plan addresses (see JFC's estimate). The related CONPLAN or OPLAN should be identified as appropriate.

a. Guidance. Provide a summary of directives, letters of instructions, memorandums, treaties, and strategic plans, including any campaign/operation plans received from higher authority, that apply to the plan.

(1) Relate the strategic direction to the JFC's requirements.

(2) List the strategic objectives and tasks assigned to the command.

(3) Constraints--list actions that are prohibited or required by higher authority (ROE, and others as appropriate).

b. Adversary Forces. Provide a summary of pertinent intelligence data including information on the following:

(1) Composition, location, disposition, movements, and strengths of major adversary forces that can influence action in the AOR/JOA.

(2) Strategic concept (if known), should include adversary's perception of friendly vulnerabilities and adversary's intentions regarding those vulnerabilities.

(3) Major objectives (strategic and operational).

(4) Adversary commander's idiosyncrasies and doctrinal patterns.

(5) Operational and sustainment capabilities.

(6) Vulnerabilities.

(7) Centers of gravity and decisive points.

NOTE: Assumed information should be identified as such. Reference may be made to the intelligence annex for more detailed information.

c. Friendly Forces. State here information on friendly forces not assigned that may directly affect the command.

(1) Intent of higher, adjacent, and supporting US commands (e.g., USTRANSCOM, USSTRATCOM, USSOCOM, USSPACECOM).

(2) Intent of higher, adjacent, and supporting allied or other coalition forces (e.g., NATO, Spain, Italy, Egypt).

d. Assumptions. State here assumptions applicable to the plan as a whole. Include both specified and implied assumptions.

2. Mission. State the joint air task(s) and the purpose(s) and relationship(s) to achieving the JFC's objective(s).

3. Air Operations

a. Strategic or Operational Concept. (Based on the relevant major elements of JFC strategy.) State the broad concept for the deployment, employment, and sustainment of major air capable joint forces including the concepts of deception and psychological operations during the operation or campaign as a whole. (This section is a summary of details found in annexes.)

(1) Joint force air organization.

(2) Joint force air objectives.

(3) Beddown overview.

(4) Operational missions.

(5) Phases of joint air operations in relation to JFC operation or campaign plan.

(6) Timing and duration of phases.

b. Phase I. Provide a phase directive for each phase.

(1) Operational Concept. Include operational objectives, plan of attack, and timing.

(2) General missions and guidance to subordinates and components' supporting and supported requirements. Ensure that missions are complementary.

(3) Capabilities/forces required by role or capability. Should consider land, sea, air, space, special operations, and multinational.

(4) Tasks of subordinate commands and components.

(5) Reserve Forces. Location and composition. State "be prepared" missions. Include guidance on surge sorties if used as reserve capability.

(6) Mobility. Consider transportation, ports, lines of communication, transit and overflight rights, reinforcement, reception and onward movement, and host-nation support arrangements.

(7) Deception.

(8) Psychological Operations. Ensure joint air operations support established psychological operations.

c. Phases II-XX (last). Cite information as stated in subparagraph 3b above for each subsequent phase. Provide a separate phase for each step in the operation at the end of which a major reorganization of forces may be required and another significant action initiated.

d. Coordinating Instructions. If desired, instructions applicable to two or more phases or multiple elements of the command may be placed here.

4. Logistics. Brief, broad statement of the sustainment concept for the joint air operations with information and instructions applicable to the joint air operations by phase. Logistic phases must be consistent with operational phases. This information may be listed separately and referenced here. This paragraph should address:

a. Assumptions (including coalition requirements).

b. Supply aspects.

c. Maintenance and modifications.

d. Medical service.

e. Transportation.

f. Base development.

g. Personnel.

h. Foreign military assistance.

i. Administrative management.

j. Line(s) of communication.

k. Reconstitution of forces.

l. Joint and multinational responsibilities.

m. Sustainment priorities and resources.

n. Inter-Service responsibilities.

o. Host-nation considerations.

5. Command, Control, and Communications

a. Command

(1) Command Relationships. State generally the command relationships for the entire joint air operations or portions thereof. Indicate any transfer of forces contemplated during the joint air operations, indicating the time of the expected transfer. These changes should be consistent with the operational phasing in paragraph 3. Give location of commander, JAOC, and command posts.

(2) Delegation of Authority.

b. Communications

(1) Communications. Plans of communications. (May refer to a standard plan or be contained in an annex.) Include time zone to be used; rendezvous, recognition, and identification instructions; code; liaison instructions; and axis of signal communications as appropriate.

(2) Electronics. Plans of electronic systems. (May refer to standard plan or may be contained in an annex.) Include electronic policy and such other information as may be appropriate.

(3) Combat Camera. Plans for combat camera. (May refer to a standard plan or may be contained in a combat camera annex.) Include digital still photo and motion video imagery transmission to the Pentagon's Joint Combat Camera Center.

(4) Armament Delivery Recording (ADR) (bomb and gun camera imagery). Plan for ADR. (May refer to a standard plan or may be contained in a combat camera annex.) Include imagery transmission to the Pentagon's Combat Camera Center.

(Signed) (Commander)

ANNEXES: As required

DISTRIBUTION:

SECURITY CLASSIFICATION

Intentionally Blank

APPENDIX B
LIAISON ELEMENTS WITHIN THE JAOC

1. Introduction

Effective liaison between forces is essential for coordinated joint air operations. The JFC and component commanders will exchange liaison elements to assist and coordinate planning and execution of joint air operations. Liaison elements provide senior level interface for air, land, sea, space, and special operation forces. These elements consist of experienced warfare specialists who provide component planning and tasking expertise, coordination capabilities, and the ability to deconflict component operations and joint air operations. A brief summary follows of typical liaison elements. Detailed information can be found in respective supporting command and Service documents.

2. Battlefield Coordination Element (BCE)

The Army Component Commander establishes a BCE to act as the interface between the component commander and the JFACC or the Air Force component commander. The BCE is collocated with the JAOC or the Air Force component AOC. The BCE processes land force requests for air support, monitors and interprets the land battle situation for the JAOC, and provides the necessary interface for the exchange of current operational and intelligence data. The BCE expedites the exchange of information through face-to-face coordination with elements of the JAOC and coordinates air defense and airspace control matters. The BCE is organized into sections which are incorporated throughout the JAOC (e.g., plans, intelligence, operations, fusion, air defense artillery and Army airspace command and control, and airlift).

3. Special Operations Liaison Element (SOLE)

The JFSOCC provides a SOLE to the JFACC/JFC staff or appropriate Service component air command and control facility to coordinate and synchronize SOF air and surface operations with joint air operations. A major SOLE responsibility is shared asset coordination/ deconfliction. The SOLE must consider airborne fire support and reconnaissance, command and control platforms, aerial refueling, as well as deconfliction of deep operations. The SOLE chief works directly for the JFSOCC and places liaison officers throughout the JAOC staff. Under the direction of the SOLE chief, these liaison officers provide SOF air and ground operations expertise throughout the JAOC. Because the JFSOCC and the JFACC share a common environment, the deep battlefield, SOF aviation and surface assets must be integrated into joint air operations planning and execution to provide for synergy, integration, coordination, and deconfliction.

a. The JFSOCC's Air Force component is known as the Air Force Special Operations Component (AFSOC). When there are joint special operations aviation assets in theater (which may include Army and Navy special operations aviation assets), the JFSOCC normally designates a JSOACC. The JSOACC normally will be the commander with the preponderance of assets and/or greatest

ability to plan, coordinate, allocate, task, control, and support the assigned joint special operations aviation assets. Special operations air assets are organic to the JFSOCC. Their tasking is derived from the JFSOCC and will be coordinated with the JFACC/JFC staff and entered into the ATO.

b. In addition to specific JFSOCC objectives supporting the JFC's intent, SOF can act as a significant joint force multiplier by contributing to joint air operations. The senior SOF liaison may seek JFSOCC guidance and approval to contribute to joint air operations in four broad areas. First, SOF can act as an economy of force measure, striking targets which allow joint air to strike higher priority targets. Second, SOF may be able to conduct surgical operations beyond the capabilities of joint air capabilities/forces (e.g., against weapons of mass destruction production or storage facilities inaccessible to joint air capabilities/forces due to environmental or dispersal concerns). Third, because of unique training and multiple air/ground combat power delivery capabilities, SOF may combine with joint air operations in a synergistic attack (e.g., terminal guidance operations). Finally, SOF may enhance joint air operations with still other unique personnel and platform capabilities, such as providing a tailored joint special operations task force (JSOTF), under the TACON of the JFACC, to assist in locating deep targets.

4. Space Liaison Officer (SLO)

US Space Command (USSPACECOM) component personnel deploy to assist the JFACC/JFC staff in requesting and using support from space assets. The senior SLO also serves as the Senior Space Liaison to the JAOC, providing direct coordination between the JAOC and USSPACECOM Theater Support Team (TST). Personnel deployed may be from Air Force Forward Space Support to Theater (FSST) Teams and/or the Naval Space Support Team (NSST).

5. Naval and Amphibious Liaison Element (NALE)

The NALE is responsive to the JAOC on matters pertaining to Navy and Marine amphibious operations. The NALE processes Navy force and Marine landing force requests for air support and monitors and interprets the maritime battle situation for the JAOC. The NALE provides the necessary interface for the exchange of current operational and intelligence data between components and the JAOC. The NALE also coordinates maritime requirements for air defense, long-range interdiction, and long-range requirements and monitors Navy and Marine airspace and air traffic control requirements and changes. The NALE provides feedback to the JAOC and components on current and future joint air operations concerning integration of force requirements.

6. Air Mobility Element (AME)

The AME is responsible for the detailed planning and coordinating for all strategic airlift operations in theater. The AME is part of the theater airlift system and should be collocated within the JAOC. Should it become necessary to temporarily assign strategic airlift assets to fulfill the theater airlift mission requirements, then the AME will be the focal point and tasking authority for these missions. JFCs should rely on their JFACC to plan and control theater airlift operations. If a JFACC is not designated, the Air Force Component Commander should plan and control

theater airlift. Normally, the planning and control for theater airlift operations will be conducted by specialized airlift sections embedded within functional staff sections of the JAOC.

7. Strategic Liaison Team (STRATLAT)

The STRATLAT provides a small number of advisors for the JFC and the JFACC skilled in nuclear planning and coordination. The STRATLAT will be provided by United States Strategic Command (USSTRATCOM) upon JFC request and will report to and be collocated with the JFC and/or the appropriate component commander(s). When provided, this team will be subordinate to the JFC. The JFC should rely on this team to assist in the preparation of nuclear request and execution messages and for the unique targeting and effects information for nuclear weapons. The STRATLAT will coordinate with the mission planning facilities of USSTRATCOM to optimize the utilization of nuclear weapons, if authorized by the National Command Authorities for use.

8. Air Force Liaison Element (AFLE)

The AFLE provides an interface between the Commander, Air Force Forces (COMAFFOR) and the JFACC for coordinating and synchronizing Air Force units in support of joint air operations. Normally, the AFLE is composed of personnel and equipment for a General Purpose Numbered Air Force's staff and component organizations. AFLE manning is based on a cadre concept with personnel selected for their battle management expertise and a knowledge of C2 concepts and procedures. Additional personnel augment the cadre who are specialists knowledgeable in the capabilities and tactics of the aircraft, intelligence, or weapons systems being employed. The AFLE can be tailored to perform a variety of missions and management functions to match the contingency or operation.

Intentionally Blank

APPENDIX C
JOINT AIR OPERATIONS CENTER (JAOC) DIVISIONS/ BRANCHES DESCRIPTIONS

1. Introduction

The JAOC (Figure II-4) is the joint air operations command and control center that plans, directs, and executes joint air operations in support of the JFC's operation or campaign plan. Dependent on theater and contingency and whether the mission involves war or MOOTW, the composition, organization, and functions of the JAOC may need to be tailored. However, the basic framework still applies. Though the use of the word "combat" is used in the title of some of the divisions and branches, the activities in supporting joint air operations may span the range of military operations. These activities may just as well involve planning to accomplish noncombat objectives in a MOOTW scenario. A brief description of divisions and branches within the JAOC follows.

2. Combat Plans Division (CPD)

The CPD is responsible for planning "future joint air operations." CPD normally develops the joint air operations strategy, air apportionment recommendation, and produces the joint ATO. In support of the joint ATO development process, CPD coordinates with the combat intelligence division on the adversary's current and future force structure, capabilities, and intentions. CPD may be divided into several branches/cells dependent on the AOR/ JOA requirements.

a. **Air Strategy.** Air Strategy planners develop and plan the strategic direction for joint air operations. Strategy planners work with the JFACC/JFC staff to develop the overarching strategy and guidance for joint air operations which is developed in concert with the JFC's operation or campaign plan. Air strategy involves a continuous planning process that may revise air strategy based on intelligence inputs, combat assessment, and analysis of centers of gravity.

b. **Airspace/Command and Control.** Develops, coordinates, and publishes plans, concepts of operations, and detailed procedures for the combined interoperability and integration of command and control systems. This includes airspace management, area air defense, air support, and communications support. If the JFACC is not appointed as ACA and/or AADC, this branch provides the JFACC/JFC staff input and coordination to whoever has responsibility for those functions.

- **Airspace Management and Air Defense.** Develops, coordinates, and publishes plans, concept of operations, and procedures to synchronize planning requirements of airspace management and area air defense. This includes synchronization of friendly air operations from component operations and air defense procedures for C2 of an integrated air defense system. Development of airspace control measures include such items as air refueling routes, missile engagement zones, minimum risk routes, and others as appropriate, which are developed, coordinated, and published in the ACP. Area air defense planners develop specific

procedures for detection, interrogation, and engagement of airborne threats. Air defense planners work closely with airspace managers to develop safe passage and minimum risk procedures for friendly forces.

- **Air Support.** Air support planners are responsible for C2 procedures to ground combat forces. These procedures are published in the joint ATO SPINS. Responsibilities normally include:

  •• developing concept of operations for joint air support.

  •• developing procedures for requesting, targeting, and controlling of joint air support.

  •• aiding in developing communication plans for air support units.

  •• working with combat airspace managers to ensure land forces airspace control needs are met.

- **Communications Planning.** Communication planners will, in coordination with the joint force J-6:

  •• develop, coordinate, and promulgate the daily air communication plan.

  •• compile, coordinate, and monitor air frequency allocations, call signs, frequency code assignments, nets.

  •• develop procedures for air surveillance and reporting and for aircraft control and flight following.

  •• coordinate with other C2 branches to ensure all communications requirements are identified and met, with special attention on integration and interoperability with other components.

c. **Joint ATO Development/ Production.** This branch is staffed by system and weapons experts who may be tasked or employed in joint air operations and is responsible to produce a timely and executable joint ATO. The branch:

- develops the MAAP and daily joint air tasking for specific weapon systems.
- coordinates weapon package elements with duty officers to deconflict simultaneous missions of other weapon systems types.
- confirms tasking of combat support systems.
- plans, coordinates, and tasks specialized combat support missions (e.g., air refueling, electronic warfare, combat search and rescue).
- is responsible for the technical production and distribution of the joint ATO.
- ensures joint ATO distribution is both complete and timely, using the best transmission medium possible..

3. Combat Operations Division (COD)

The COD is responsible for monitoring and executing "current joint air operations." Actions and decisions that apply to the current ATO period are executed through the COD. COD normally assumes responsibility for the joint ATO as soon as it is released.

a. **Current Operations.** This branch consists of a cadre of joint personnel such as fighter, reconnaissance, surveillance, combat support, tanker, bomber, and airlift experienced in battle management, ROE, and force application/employment. Within current operations, this branch may be further divided into offensive and defensive cells. Offensive and defensive duty officers bring a broad base knowledge of operations of weapons capabilities and limitations that are required to monitor, and if required, adjust joint air operations. Defensive operations normally include specific air defense/ airspace control duties to coordinate all air defense and/or airspace activities. This branch may also be responsible for airspace management activities to ensure flying activities are compatible with mission requirements and coordination with host nations agencies and components. If the JFACC is not the ACA and/or AADC, this branch provides JFACC/JFC staff coordination with whoever has that responsibility.

b. **Weather Support.** The weather support branch provides forecasts tailored for the various requirements; reports significant weather with emphasis on target weather, refueling tracks and recovery bases; and inputs weather data in CTAPS (if required).

c. **Operations Support.** Support operations may include airlift, air refueling, reconnaissance, and medical evacuation missions. Mission experts track the flow of assets and status of missions dedicated to each operation. Rapid coordination may be required to meet time sensitive demands to support ongoing joint air operations.

d. **Joint Search and Rescue Center (JSRC).** The JFC normally designates one of the components' rescue coordination centers to assume the additional responsibility of the JSRC. When the JFACC is designated, the JSRC is normally located within the JAOC to ensure timely integration of rescue operations with the overall joint air effort. The JSRC is staffed by members of all participating components to coordinate joint CSAR. The JSRC is responsible for disseminating the JFC's CSAR concept of operation to all components. The JSRC establishes C4I and reporting procedures for component search and rescue centers, operating centers, coordinates component CSAR plans to resolve actual or projected shortfall in assets and capabilities, and monitors all CSAR incidents and missions. Additional information is contained in Joint Pubs 3-50.2, "Doctrine for Joint Combat Search and Rescue," and 3-50.21, "JTTP for Combat Search and Rescue."

4. Combat Intelligence Division (CID)

The CID is responsible for all intelligence activities in the JAOC. Normally, the CID provides the following cells to work within the Combat Plans and Combat Operations divisions:

a. **Plans Intelligence.** In conjunction with the CPD, Plans Intelligence supports the planning and development of the ATO. Normally collection management, intelligence production, and target intelligence are three functions provided to the CPD by plans intelligence cell. The collection manager is responsible for processing and validating all requests for intelligence information. The collection manager is responsible for levying valid requirements on appropriate collection resources or forwarding them to the higher echelon commander for satisfaction by theater or national level sources. The JAOC will rely on the joint force J-2 and

JIC for operational and theater-level intelligence support. The personnel performing intelligence production evaluate the threat and determine adversary abilities/vulnerabilities through the evaluation and correlation of all source intelligence. They also prepare and disseminate intelligence to joint force agencies and other component headquarters, as applicable. Target intelligence is responsible for target development and analysis, weaponeering, BDA, and the attack/reattack nomination process.

b. **Operations Intelligence.** Operations intelligence supports the execution of the joint ATO, monitors ongoing missions, and responds to the fluid battlefield situation by providing near-real-time intelligence from all sources. The operations intelligence cell is normally collocated within the COD in the JAOC. The operations intelligence cell provides indications, warning, and situation intelligence to designated users throughout the range of military operations. The operations intelligence cell reviews each preplanned joint ATO target prior to the time-on-target to ensure it is still a valid target.

APPENDIX D
REFERENCES

The development of Joint Pub 3-56.1 is based upon the following sources:

1. Joint Pub 0-2, "Unified Action Armed Forces (UNAAF)"

2. Joint Pub 1-01, "Joint Publication System"

3. Joint Pub 1-02, "DOD Dictionary of Military and Associated Terms"

4. Joint Pub 2-0, "Doctrine for Intelligence Support to Joint Operations"

5. Joint Pub 2-01.1, "Joint Tactics, Techniques, and Procedures for Intelligence Support to Targeting (S)" (in development)

6. Joint Pub 3-0, "Doctrine for Joint Operations"

7. Joint Pub 3-01.2, "Joint Doctrine for Theater Counterair Operations"

8. Joint Pub 3-01.5, "Doctrine for Joint Theater Missile Defense"

9. Joint Pub 3-02, "Joint Doctrine for Amphibious Operations"

10. Joint Pub 3-03, "Doctrine for Joint Interdiction Operations" (in development)

11. Joint Pub 3-04, "Doctrine for Joint Maritime Operations (Air)"

12. Joint Pub 3-04.1, "JTTP for Shipboard Helicopter Operations"

13. Joint Pub 3-05, "Doctrine for Joint Special Operations"

14. Joint Pub 3-05.3, "Joint Special Operations Operational Procedures (U)"

15. Joint Pub 3-05.5, "Joint Special Operations Targeting and Mission Planning Procedures (U)"

16. Joint Pub 3-09, "Doctrine for Joint Fire Support" (in development)

17. Joint Pub 3-09.3, "Joint Tactics, Techniques, and Procedures for Close Air Support" (in development)

18. Joint Pub 3-12, "Doctrine for Joint Nuclear Operations"

19. Joint Pub 3-12.1, "Doctrine for Joint Nonstrategic Nuclear Weapons Employment" (in development)

20. Joint Pub 3-13, "Joint Command and Control Warfare (C2W) Operations" (in development)

21. Joint Pub 3-14, "Joint Doctrine, TTP for Space Operations" (in development)

22. Joint Pub 3-50.2, "Doctrine for Joint Combat Search and Rescue"

23. Joint Pub 3-50.21, "JTTP for Combat Search and Rescue" (in development)

24. Joint Pub 3-50.3, "Joint Doctrine for Evasion and Recovery" (in development)

25. Joint Pub 3-51, "Electronic Warfare in Joint Military Operations (U)"

26. Joint Pub 3-52, "Doctrine for Joint Airspace Control in the Combat Zone"

27. Joint Pub 3-54, "Joint Doctrine for Operations Security"

28. Joint Pub 3-55, "Doctrine for Reconnaissance, Surveillance, and Target Acquisition (RSTA) Support for Joint Operations"

29. Joint Pub 3-55.1, "Joint Tactics, Techniques, and Procedures for Unmanned Aerial Vehicles (UAV)"

30. Joint Pub 3-56, "Command and Control Doctrine for Joint Operations" (in development)

31. Joint Pub 3-56.24, "Tactical Command and Control Planning Guidance and Procedures for Joint Operations-Joint Interface Operational Procedures-Msg Text Formats"

32. Joint Pub 4-0, "Doctrine for Logistic Support of Joint Operations"

33. Joint Pub 5-0, "Doctrine for Planning Joint Operations"

34. Joint Pub 5-00.2, "Joint Task Force (JTF) Planning Guidance and Procedures"

APPENDIX E
ADMINISTRATIVE INSTRUCTIONS

1. User Comments

Users in the field are highly encouraged to submit comments on this publication to the Joint Warfighting Center/Doctrine Division, Ingalls Road, BLDG 100, 3rd Floor, Attn: Doc Div, Fort Monroe, VA 23651-5000. These comments should address content (accuracy, usefulness, consistency, and organization) and writing and appearance.

2. Authorship

The lead agent for this publication is the US Air Force. The Joint Staff doctrine sponsor for this publication is the Director for Operational Plans and Interoperability (J-7).

3. Change Recommendations

a. Recommendations for urgent changes to this publication should be submitted:

TO: CSAF WASHINGTON DC//XOXD//
INFO: JOINT STAFF WASHINGTON DC//J7-JDD//

Routine changes should be submitted to the Director for Operational Plans and Interoperability (J-7), JDD, 7000 Joint Staff Pentagon, Washington, D.C. 20318-7000.

b. When a Joint Staff directorate submits a proposal to the Chairman of the Joint Chiefs of Staff that would change source document information reflected in this publication, that directorate will include a proposed change to this publication as an enclosure to its proposal. The Military Services and other organizations are requested to notify the Director, J-7, Joint Staff, when changes to source documents reflected in this publication are initiated.

c. Record of Changes:

CHANGE NUMBER	COPY NUMBER	DATE OF CHANGE	DATE ENTERED	POSTED BY	REMARKS

4. Distribution

a. Additional copies of this publication can be obtained through Service publication centers.

b. Only approved pubs and test pubs are releasable outside the combatant commands, Services, and Joint Staff. Release of any joint publication to foreign governments or foreign nationals must be requested through the local embassy (Defense Attache Office) to DIA Foreign Liaison Branch, C-AS1, Room 1A674, Pentagon, Washington, D.C. 20301-7400.

c. Additional copies should be obtained from the Military Service assigned administrative support responsibility by DOD Directive 5100.3, 1 November 1988, "Support of the Headquarters of Unified, Specified, and Subordinate Joint Commands."

By Military Services:

Army:	US Army AG Publication Center 2800 Eastern Boulevard Baltimore, MD 21220-2898
Air Force:	Air Force Publications Distribution Center 2800 Eastern Boulevard Baltimore, MD 21220-2896
Navy:	CO, Navy Aviation Supply Office Distribution Division (Code 03443) 5801 Tabor Ave Philadelphia, PA 19120-5000
Marine Corps:	Marine Corps Logistics Base Albany, GA 31704-5000
Coast Guard:	Coast Guard Headquarters, COMDT (G-REP) 2100 2nd Street, SW Washington, D.C. 20593-0001

d. Local reproduction is authorized and access to unclassified publications is unrestricted. However, access to and reproduction authorization for classified joint publications must be in accordance with DOD Regulation 5200.1-R.

GLOSSARY

PART I—ABBREVIATIONS AND ACRONYMS

AADC	area air defense commander
ACA	airspace control authority
ACO	airspace control order
ACP	airspace control plan
ADR	armament delivery recording
AFLE	Air Force liaison element
AFSOC	Air Force Special Operations Component
AIRSUPREQ	air support request
ALLOREQ	air allocation request
AME	air mobility element
AO	area of operations
AOA	amphibious objective area
AOC	air operations center
AOR	area of responsibility
ATO	air tasking order
ATOCONF	air tasking order confirmation
BCE	battlefield coordination element
BDA	battle damage assessment
C2	command and control
C2W	command and control warfare
C4	command, control, communications, and computers
C4I	command, control, communications, computers, and intelligence
CA	combat assessment
CID	combat intelligence division
CINC	commander of a combatant command
CJCS	Chairman of the Joint Chiefs of Staff
COA	course of action
COD	combat operations division
COG	center of gravity
COMAFFOR	Commander, Air Force Forces
CONPLAN	operation plan in concept format
CPD	combat plans division
CSAR	combat search and rescue
CTAPS	contingency theater automated planning system
DIA	Defense Intelligence Agency
DOD	Department of Defense
FSST	Forward Space Support to Theater
HIDACZ	high density airspace control zone

IFF	identification, friend or foe
JAOC	joint air operations center
JFACC	joint force air component commander
JFC	joint force commander
JFSOCC	joint force special operations component commander
JIC	joint intelligence center
JIPTL	joint integrated prioritized target list
JOA	joint operations area
JOC	joint operations center
JOPES	Joint Operation Planning and Execution System
JSCP	Joint Strategic Capabilities Plan
JSRC	joint search and rescue center
JSOACC	joint special operations air component commander
JSOTF	joint special operations task force
JTCB	Joint Targeting Coordination Board
JTF	joint task force
JTL	joint target list
JTTP	joint tactics, techniques, and procedures
LOAC	law of armed conflict
LOC	lines of communications
MARLO	Marine liaison officer
MAAP	Master Air Attack Plan
MEA	munitions effects assessment
METOC	meteorological and oceanographic
MOOTW	military operations other than war
NALE	naval and amphibious liaison element
NCA	National Command Authorities
NSST	Naval Space Support Team
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
POL	petroleum, oils, and lubricants
ROE	rules of engagement
RSTA	reconnaissance, surveillance, and target acquisition
SIF	selective identification feature
SJA	staff judge advocate
SLO	space liaison officer
SORTIEALOT	sortie allotment
SPINS	special instructions
SOF	special operations forces

SOLE	special operations liaison element
STRATLAT	strategic liaison team
TACON	tactical control
TGTINFOREP	target information report
TST	Theater Support Team
TTP	tactics, techniques, and procedures
UNAAF	Unified Action Armed Forces
USMC TACAIR	US Marine Corps tactical air
USMTF	United States message text format
USSPACECOM	United States Space Command
USSTRATCOM	United States Strategic Command
WRM	war reserve materiel

air defense. All defensive measures designed to destroy attacking enemy aircraft or missiles in the Earth's envelope of atmosphere, or to nullify or reduce the effectiveness of such attack. (Joint Pub 1-02)

air interdiction. Air operations conducted to destroy, neutralize, or delay the enemy's military potential before it can be brought to bear effectively against friendly forces at such distance from friendly forces that detailed integration of each air mission with the fire and movement of friendly forces is not required. (Joint Pub 1-02)

air operations center. The principal air operations installation from which aircraft and air warning functions of combat air operations are directed, controlled, and executed. It is the senior agency of the Air Force Component Commander from which command and control of air operations are coordinated with other components and Services. Also called AOC. (Approved for inclusion in the next edition of Joint Pub 1-02)

airspace control authority. The commander designated to assume overall responsibility for the operation of the airspace control system in the airspace control area. (Joint Pub 1-02)

airspace control order. An order implementing the airspace control plan that provides the details of the approved requests for airspace control measures. It is published either as part of the air tasking order or as a separate document. Also called ACO. (Joint Pub 1-02.)

airspace control plan. The document approved by the joint force commander that provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility. Also called ACP. (Joint Pub 1-02)

air superiority. That degree of dominance in the air battle of one force over another which permits the conduct of operations by the former and its related land, sea and air forces at a given time and place without prohibitive interference by the opposing force. (Joint Pub 1-02)

air support request. A means to request preplanned and immediate close air support, air interdiction, air reconnaissance, surveillance, escort, helicopter airlift, and other aircraft missions. Also called AIRSUPREQ. (Approved for inclusion in the next edition of Joint Pub 1-02)

air tasking order. A method used to task and disseminate to components, subordinate units, and command and control agencies those projected sorties/capabilities/forces to targets and specific missions. Normally provides specific instructions to include call signs, targets, controlling agencies, etc., as well as general instructions. Also called ATO. (Approved for inclusion in the next edition of Joint Pub 1-02)

air tasking order/confirmation. A message used to task joint force components; to inform the requesting command, and the tasking authority of the action being taken; and/or to provide additional information about the mission. The message is used only for preplanned missions and is transmitted on a daily basis, normally 12 hours prior to the start of the air tasking day or in

accordance with established operation plans for the theater of operations. Also called ATOCONF. (Approved for inclusion in the next edition of Joint Pub 1-02)

allocation. In a general sense, distribution of limited resources among competing requirements for employment. Specific allocations (e.g., air sorties, nuclear weapons, forces, and transportation) are described as allocation of air sorties, nuclear weapons, etc. (Joint Pub 1-02)

allocation (air). The translation of the apportionment into total numbers of sorties by aircraft type available for each operation/task. (Joint Pub 1-02)

allocation request. A message used to provide an estimate of the total air effort, to identify any excess and joint force general support aircraft sorties, and to identify unfilled air requirements. This message is used only for preplanned missions and is transmitted on a daily basis, normally 24 hours prior to the start of the next air tasking day. Also called ALLOREQ. (Approved for inclusion in the next edition of Joint Pub 1-02)

allotment. The temporary change of assignment of tactical air forces between subordinate commands. The authority to allot is vested in the commander having combatant command (command authority). (Joint Pub 1-02)

apportionment (air). The determination and assignment of the total expected effort by percentage and/or by priority that should be devoted to the various air operations and/or geographic areas for a given period of time. Also called air apportionment. (Approved for inclusion in the next edition of Joint Pub 1-02)

area air defense commander. Within a unified command, subordinate unified command, or joint task force, the commander will assign overall responsibility for air defense to a single commander. Normally, this will be the component commander with the preponderance of air defense capability and the command, control, and communications capability to plan and execute integrated air defense operations. Representation from the other components involved will be provided, as appropriate, to the area air defense commander's headquarters. Also called AADC. (Joint Pub 1-02)

campaign plan. A plan for a series of related military operations aimed to achieve strategic and operational objectives within a given time and space. (Joint Pub 1-02)

close air support. Air action by fixed- and rotary-wing aircraft against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fire and movement of those forces. Also called CAS. (Joint Pub 1-02)

close support. That action of the supporting force against targets or objectives which are sufficiently near the supported force as to require detailed integration or coordination of the supporting action with fire, movement, or other actions of the supported force. (Joint Pub 1-02)

interdiction. An action to divert, disrupt, delay, or destroy the enemy's surface military potential before it can be used

effectively against friendly forces. (Joint Pub 1-02)

joint air operations. Air operations performed with air capabilities/forces made available by components in support of the joint force commander's operation or campaign objectives, or in support of other components of the joint force. (Approved for inclusion in the next edition of Joint Pub 1-02)

joint air operations center. A jointly staffed facility established for planning, directing, and executing joint air operations in support of the joint force commander's operation or campaign objectives. Also called JAOC. (Approved for inclusion in the next edition of Joint Pub 1-02)

joint air operations plan. A plan for a connected series of joint air operations to achieve the joint force commander's objectives within a given time and theater of operations. (Approved for inclusion in the next edition of Joint Pub 1-02)

joint force air component commander. The joint force air component commander derives authority from the joint force commander who has the authority to exercise operational control, assign missions, direct coordination among subordinate commanders, redirect and organize forces to ensure unity of effort in the accomplishment of the overall mission. The joint force commander will normally designate a joint force air component commander. The joint force air component commander's responsibilities will be assigned by the joint force commander (normally these would include, but not be limited to, planning, coordination, allocation, and tasking based on the joint force commander's apportionment decision). Using the joint force commander's guidance and authority, and in coordination with other Service component commanders and other assigned or supporting commanders, the joint force air component commander will recommend to the joint force commander apportionment of air sorties to various missions or geographic areas. Also called JFACC. (Joint Pub 1-02)

joint integrated prioritized target list. A prioritized list of targets and associated data approved by a joint force commander, and maintained by a joint task force. Targets and priorities are derived from the recommendations of components in conjunction with their proposed operations supporting the joint force commander's objectives and guidance. Also called JIPTL. (Approved for inclusion in the next edition of Joint Pub 1-02)

joint special operations air component commander. The commander within the joint force special operations command responsible for planning and executing joint special air operations and for coordinating and deconflicting such operations with conventional nonspecial operations air activities. The joint special operations air component commander normally will be the commander with the preponderance of assets and/or greatest ability to plan, coordinate, allocate, task, control, and support the assigned joint special operations aviation assets. The joint special operations air component commander may be directly subordinate to the joint force special operations component commander or to any nonspecial operations component or joint force commander as directed. Also called JSOACC. (Joint Pub 1-02)

joint targeting coordination board. A group formed by the joint force commander to accomplish broad targeting oversight functions that may include but are not limited to coordinating targeting information, providing targeting guidance and priorities, and preparing and/or refining joint target lists. The board is normally comprised of representatives from the joint force staff, all components, and if required, component subordinate units. Also called JTCB. (Joint Pub 1-02)

joint target list. A consolidated list of selected targets considered to have military significance in the joint operations area. (Joint Pub 1-02)

list of targets. A tabulation of confirmed or suspect targets maintained by any echelon for informational and fire support planning purposes. (Joint Pub 1-02)

master air attack plan. A plan that contains key information that forms the foundation of the joint air tasking order. Also called the air employment plan or joint air tasking order shell. Information which may be included: joint force commander guidance, joint force air component commander guidance, support plans, component requests, target update requests, availability of capabilities/forces, target information from target lists, aircraft allocation, etc. Also called MAAP. (Approved for inclusion in the next edition of Joint Pub 1-02)

mission. 1. The task, together with the purpose, that clearly indicates the action to be taken and the reason therefore. 2. In common usage, especially when applied to lower military units, a duty assigned to an individual or unit; a task. 3. The dispatching of one or more aircraft to accomplish one particular task. (Joint Pub 1-02)

request confirmation. A message that informs requesting command and tasking authority of action being taken on air mission requested by air support request. Also known as REQCONF. (This term and its definition are applicable only in the context of this pub and cannot be referenced outside this publication.)

sortie. In air operations, an operational flight by one aircraft. (Joint Pub 1-02)

sortie allotment message. The means by which the joint force commander allots excess sorties to meet requirements of his subordinate commanders which are expressed in their air employment/ allocation plan. Also called SORTIEALOT. (Approved for inclusion in the next edition of Joint Pub 1-02)

strategic mission. A mission directed against one or more of a selected series of enemy targets with the purpose of progressive destruction and disintegration of the enemy's warmaking capacity and his will to make war. Targets include key manufacturing systems, sources of raw material, critical material, stockpiles, power systems, transportation systems, communication facilities, and other such target systems. As opposed to tactical operations, strategic operations are designed to have a long-range, rather than immediate, effect on the enemy and its military forces. (Joint Pub 1-02)

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 and, usually,

local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned. Tactical control may be delegated to, and exercised at any level below the level of combatant command. Also called TACON. (Joint Pub 1-02)

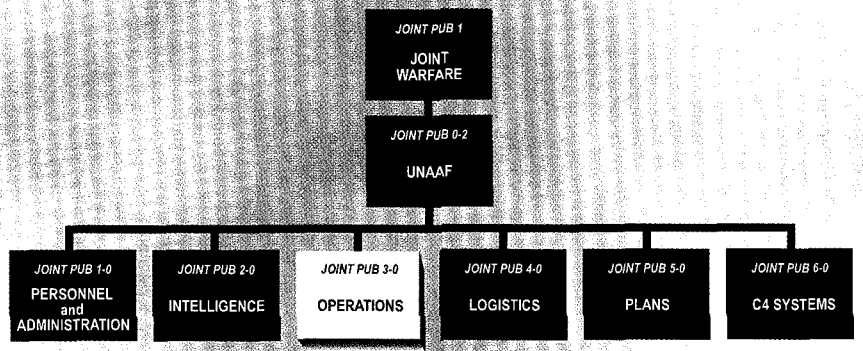
target analysis. An examination of potential targets to determine military importance, priority of attack, and weapons required to obtain a desired level of damage or casualties. (Joint Pub 1-02)

targeting. 1. The process of selecting targets and matching the appropriate response to them, taking account of operational requirements and capabilities. 2. The analysis of enemy situations relative to the commander's mission, objectives, and capabilities at the commander's disposal, to identify and nominate specific vulnerabilities that, if exploited, will accomplish the commander's purpose through delaying, disrupting, disabling, or destroying enemy forces or resources critical to the enemy. (Joint Pub 1-02)

target list. The listing of targets maintained and promulgated by the senior echelon of command; it contains those targets that are to be engaged by supporting arms, as distinguished from a "list of targets" that may be maintained by any echelon as confirmed, suspected, or possible targets for informational and planning purposes. (Joint Pub 1-02)

target system. 1. All the targets situated in a particular geographic area and functionally related. 2. A group of targets which are so related that their destruction will produce some particular effect desired by the attacker. (Joint Pub 1-02)

JOINT DOCTRINE PUBLICATIONS HIERARCHY



All joint doctrine and tactics, techniques, and procedures are organized into a comprehensive hierarchy as shown in the chart above. **Joint Pub 3-56.1** is located in the **Operations** series of joint publications. The diagram below illustrates an overview of the development process: